LIFE & HEALTH: An evidence review and synthesis for the Equality and Human Rights Commission's Triennial Review 2010

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Chapter 1: Introduction & Overview

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The NHS provides a comprehensive service, available to all irrespective of gender, race, disability, age, sexual orientation, religion or belief. It has a duty to each and every individual that it serves and must respect their human rights. At the same time, it has a wider social duty to promote equality through the services it provides and to pay particular attention to groups or sections of society where improvements in health and life expectancy are not keeping pace with the rest of the population.

NHS Constitution for England (Department of Health 2010) (pg3)

1.1 Context

This report forms part of the first triennial review of equality undertaken by the Equality and Human Rights Commission; its aim is to provide a comprehensive picture of the state of equalities and human rights within the domains of Life Expectancy and Health.

1.2 Method

Chapter three provides more detail on method. However, the aim throughout the report is to provide the best available evidence across the seven statutory equality strands on a set of indicators provided by the Equality and Human Rights Commission in its Equality Measurement Framework (EMF) (Alkire, Bastagli and Burchardt 2009). There is one chapter per strand plus one on class. The class chapter provides a necessary backdrop of information against which to assess inequality across the other strands. In addition to the core indicators of the EMF, each chapter includes information relating to other dimensions of LIFE and HEALTH that are felt to be important in terms of inequalities or human rights, as well as a discussion of the factors that contribute to the observed patterns of inequality across the strands.

1.3 Report structure

Chapter two of the report is a précis. This opens with some overall key messages of the report; it then sets out the key message sections from each of the chapters that follow. Chapter three is concerned with method. It considers the place of HEALTH and LIFE in assessing inequality and the judgement of inequality as unfair using the capabilities approach adopted by the Equality and Human Rights Commission. Chapter three also provides detail on the practicalities of the report. The eight chapters after this set out the data on inequality for the seven strands plus class. Each chapter is headed by a set of key messages; these are also set out in the précis.

Chapter 4: Class
Chapter 5: Age
Chapter 6: Disability
Chapter 7: Race and ethnicity
Chapter 8: Sex and gender
Chapter 9: Religion and belief
Chapter 10: Sexuality (LGB)
Chapter 11: Gender identity (Trans)

1.4 Acknowledgements

A number of people helped in reviewing and commenting on chapters; we thank them for their valuable inputs. These were: Class - Ben Anderson; Age - Tony Warnes; Disability - Gordon Grant; Ethnicity - Punita Chowbey; Gender - Sarah Payne; Religion - Sheikh Aziz; Sexuality - LGB and Trans - Julie Fish.

1.5 References

ALKIRE, S., BASTAGLI, F. and BURCHARDT, T. et al (2009). *Developing the equality measurement framework: Selecting the indicators.* Manchester, Equality and Human Rights Commission. Research Report 31.

Department of Health (2010). *The NHS constitution: The NHS belongs to us all.* London, Department of Health.

Chapter 2: Précis

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Overall key messages

What are the inequalities? How persistent and how worrying are they?

- Life-span, healthy life-span and health are strongly associated with social class;
- Social class is not the whole story of health and life inequality for several reasons:
    - The way in which social class differences are manifest varies across the other inequality strands; for example, an older ethnic minority person who is seeking asylum is at much increased risk of life and health inequality;
    - Some inequality is not related to class but rather cuts across socioeconomic groups. For example, a decision to give disabled or older people lower health-treatment priority is unequal for disabled and older people of all social classes;
- Health and life indicators in Scotland show poor outcomes; to some extent this correlates with social class and the extent of a Scottish-penalty in addition to this is not clear; this requires more investigation;
- The headline indicators chosen by the Equalities and Human Rights Commission for the triennial review are not useful across some of the inequality strands; for example:
    - Disabled people will by definition have a longstanding disability;
    - Life-expectancy at birth is meaningless for the sexuality strands;
    - Subjective measures of wellbeing cannot be used by those without mental capacity, who might constitute large numbers in the older people and disability strands;
- There are some very persistent inequalities (e.g. high suicide rates among young men; differential receipt of mental health services by Black African and Black Caribbean men; very heavy burden of ill-health among Pakistani and Bangladeshi men and women), and in some cases these appear to be growing.
- There is evidence across the equality strands that the failure of NHS services to recognise and meet diverse needs undermines health outcomes and contributes to poor satisfaction with services.

- There has been limited attention to issues of human rights within the health arena in the UK, though this may be changing (e.g. pilot PCT projects). Recasting some of the inequalities observed as human rights infringements might add weight to the argument for urgent action.

Are there any emerging trends?

- There are some worrying, emerging trends that relate to (i) changing demographics –ageing and increasing migration and diversity; (ii) shifts in societal attitudes, behaviours and structures – cohort effects; and (iii) new data and new questions being asked of data – so that previously hidden or ignored issues are becoming more prominent.

What are the causes?

- There has been a welcome policy focus on health inequalities for the last 10-15 years in the UK but this has suffered from: (i) a slippage towards individual life-style factors and away from structural socioeconomic and socio-political inequality, and (ii) a lack of attention to the needs of particular equality strand groups.
- There have been no explicit targets that relate to inequalities between equality strand groups (e.g. relating to health outcomes for minority ethnic groups) and this has meant that other priorities have often taken precedence.
- There are examples of good practice in terms of policy and strategy documents that deal in detail with the needs of particular groups in relation to particular health outcomes but the issues are not mainstreamed, so that attention remains patchy.
- There is evidence across several of the strands that direct discrimination and the fear of discrimination in everyday life contributes to poor health.
- There is also evidence that the failure of services to adequately recognise and respond to diversity contributes to poorer healthcare experiences and poorer health outcomes. In some cases health services mirror the processes of exclusion and discrimination that operate in wider society and thereby contribute directly to poorer health.

- The individual and collective identities ascribed to, and appropriated by, people across the equality strands do shape behaviours, knowledge and attitudes that can impact upon health. For instance, the chapters that follow highlight some striking differences in life-style factors, such as smoking, across equality groups. Nevertheless, it is the structural processes of social and economic marginalisation that by-and-large are more important determinants of health and life inequalities.

How might change be measured?

- The landscape of data sources is rapidly changing; for some areas, such as class, there are well-established longitudinal data sets; for others, such as sexuality, the data sets are less established and might not exist for the next triennial review;
- Data quality and quantity varies importantly across the strands, but even where the quality and quantity is better – say for age and sex – there is a lack of routine analysis and interpretation at local level so that the commissioning of services is often not done in a way that is responsive to diverse needs and disadvantaged groups.
- Monitoring over time should include attention to life and health outcomes as compared to other countries, not just comparisons between groups within the UK.
- More generally, the research evidence base on health needs to be more inclusive and greater attention to the axes of difference and inequality that are the focus of this report. Exclusion from the evidence base is shown to contribute to poorer health outcomes as policy and practice can not currently be based on a firm understanding of diverse needs and experiences.

Method

The capabilities approach to justice claims that inequalities become matters of justice and human rights where they prevent or inhibit someone developing the capacities necessary to live a good life. The Equality and Human Rights Commission has provided a list of ten capacities or domains which are essential to a good life; health and life (or life-span) are two of these. Life-span is essential to a good life because human life that ends prematurely is qualitatively less than if it had run a full course. A reasonable degree of mental and physical health is essential because without it a good life is elusive and sometimes impossible to achieve.

Where people do not achieve the ten capacities or where they do not do so as well as others in society, their lives are diminished. For this reason, we should be concerned about non-achievement of and inequalities in achievement of these capacities. For example, if one group of people has much shorter life-span than another, this should concern us.

The inequalities we find in relation to health and life can be put into a number of categories on the basis of their relationship to fairness or justice:

1. Those generally thought to be natural or inevitable, such as the shortened lifespan of people with some inherited disorders, such as Down's Syndrome;

2. Those that are disputed as being natural versus socially created; for example, whether being a wheelchair is a disability because of a natural phenomenon, such as spinal injury, or because of social decisions that make the environment hard to navigate for wheelchair users;

3. Those generally thought to be socially created, such as shortened lifespan related to social class.

The view taken in this report is that all three inequalities should be viewed *prima facie* as matters of concern. This is probably obvious in the third case but less so in the second and perhaps not at all obvious in the first. However, few inequalities can be simply written off as natural and inevitable. For example, if people with Down's

Syndrome have higher rates of death due to cardiovascular disorders, this should be a stimulus to ensure there is good provision for that group and research into treatment. We should look for reductions in the inequality with the main population as signs of improvement in the situation.

For some individuals or groups there might be inequalities about which nothing can be done. An individual in persistent vegetative state can achieve little by way of important human capacities. But these cases are rare and tragic. We should view all inequalities in important human capacities as matters of concern and calls for action as our starting point.

People are often blamed for poor health and life outcomes on the basis that they have made bad lifestyle choices, such as smoking; in most cases this explanation misses the deeper causes of people's behaviour; for example, working class single mothers are not genetically programmed to smoke more than company directors (and at one time would not have done) so we should look for the causes of this difference rather than being content with the smoking behaviour as an explanation.

Socio-economic status is strongly linked with inequality in life and health. Links to inequality in life and health exist in relation to the seven protected inequality strands that are the focus of the Equality and Human Rights Commission and of this report. Socio-economic status should not be used to 'explain away' inequality in life and health in other strands, such as ethnicity by saying, for example, that the relative ill-health of an ethnic group is due solely to their relative poverty. Again, we should be looking for the deeper causes, such as why an ethnic group is unduly socially deprived and what are the mechanisms by which this leads to worse health and life outcomes.

Class

What are the inequalities? How persistent and how worrying are they?

Class is well established as an indicator of inequality in both Health and Life indicators. In general, lower social class is related to lower life expectancy and poor health outcomes. The most recent Government report that outlines this is the Marmot Review. Similar patterns of inequality exist in England, Scotland and Wales.

LIFE

Life expectancy for all classes and both sexes has improved since 1972 in England, Scotland and Wales. Throughout this period, however, the gap in life expectancy has increased. Whilst men and women in England and Wales in social class I had improvements in life expectancy at birth of 8.1 and 6.1 years respectively, the equivalent figures for social class V are 6.2 and 3.9 years. There are variations within this, for example, men in social class IIIn (non-manual) fared very well. The general picture is one of improving life expectancy for all but an increasing gap between the richest and the poorest. In the most recent period of change measured on the longitudinal study (from 1997-2001 to 2002-05) the increase in life expectancy was only 0.1 years for social class V; for social class I it was 2.5 years. In Scotland, data is available only on the basis of region. They show a pattern of mortality being clearly linked to an area's deprivation level.

Inequality along social class lines is found for cardiovascular disease mortality. In the period 1997-99, a man from social class V was 1.86 times more likely to die of the disease than a man from social class I. Women in general were less likely to die of cardiovascular disease but women in social class V were 2.27 times more likely to do so than women in social class I.

For cerebrovascular disease, however, there is no statistically significant link in mortality rates by class although the data in men show a trend towards a social gradient. More recent data from England suggest that the gap in mortality rate due to circulatory disorders in general, a large part of which is made up of cardiovascular and cerebrovascular disorders, is declining.

Cancer mortality overall is only slightly related to class overall but there are some patterns of inequality. Lung cancer mortality in men and women, and cervical cancer mortality in women are both higher in lower social classes.

The risk of suicide is strongly related to gender; men are more likely to commit suicide. However, there is also correlation with deprivation. The suicide rate in the most deprived areas of Scotland, Wales and England is significantly higher for both sexes.

Data on the accident mortality rate for England and Wales have not been disaggregated by deprivation or class. There are other proxy indicators but these do not suggest a particularly strong relationship between the rate and deprivation. There is more information available from Scotland. This shows a clear and statistically significant relationship between deprivation and accident mortality. Those in the most deprived areas of Scotland have an accident mortality rate approximately double that of the least deprived.

HEALTH

Outcome

Self-reporting of poor current physical health is correlated to deprivation or to class in England, Wales and Scotland. In Scotland, the odds of those in the lowest quintile of deprivation (by area) self-reporting poor current health was 8 times higher for men and 2.5 times higher for women. There is also a relationship between class or deprivation and healthy life expectancy. In England in the period 1994-9 the difference in healthy life expectancy between the highest and lowest deciles of deprivation was around 16 years for both men and women. The Office for National Statistics is currently collecting this data on an experimental basis at a local level so more up-to-date figures should be available soon. In 2007-8, healthy life expectancy for men in Scotland was 57.5 years in the most deprived areas and 68.0 years in Scotland overall. The equivalent figures for women are 61.9 years and 70.5 years.

The proportion of people who report: poor current health; longstanding health problem or disability (England and Wales) and longstanding illness (Scotland) [LLTI] is strongly associated with socioeconomic status. Figures for Great Britain overall show that LLTI is associated with social class; those in routine or manual backgrounds and those who are long-term unemployed are more likely to have an LLTI.

Poor mental health is associated strongly with socioeconomic status; manual workers are slightly more likely to have mental illness than non-manual; those with lowest income are much more likely to have mental illness than those with the highest income. The route of causation here is unclear; living on a low income may increase the likelihood of developing mental illness, but mental illness may also reduce the likelihood of being able to progress to and work in high-earning posts. However, it remains a serious inequality whether it is the result of those with mental illness becoming poor or those in poverty becoming mentally ill.

Process

The data available suggest there is no class-based inequality shown in the perception of treatment with dignity.

No class-based inequality is shown in the limited (Wales only) data on A&E attendance - this finding is at odds with the finding on accident mortality.

No class-based data are available on support for nutritional needs in hospital.

Autonomy

Low social class is directly related to several but not all markers of unhealthy lifestyle: cigarette smoking, exercise and diet but not overweight and obesity.

Smoking: there are clear social gradients in smoking prevalence in England, Wales and Scotland. In England, the percentages of men and women in the highest quintile earners reporting ‘current’ smoking status are 15% and 13%; in the lowest quintile, the respective figures are 40% and 32%. The data relating to area deprivation and smoking are slightly less clear in England but the pattern is clear in Scotland and Wales. For example, in Wales, 15% of managerial and professional households report a smoker against 40% in the long-term unemployed and those who've never worked. In Scotland smoking patterns vary by NS-SEC. Levels are highest in men and women in semi-routine and routine households and lowest among those in managerial and professional households. For example, amongst men, 36% of the former are current smokers against 17% of the latter; the equivalent figures for women are 38% versus 16%. Similar patterns are seen in relation to household income quintile and Scottish Index of Multiple Deprivation; for example, smoking levels in the most deprived areas are more than double those in the least deprived for both men and women.

Alcohol: In England, there is a slight social gradient in those drinking more than 4 units and more than 8 units on the heaviest drinking day in the past week. The gradient is in inverse relation to household income quintile; those in the highest income quintile have more heavy drinkers than those in the lowest.

In women this pattern is lost entirely. In terms of the number of days on which people drank alcohol in the last week, men in the highest quintile drank more regularly than those in the lowest (3.2 days versus 1.7 days). Those in the lowest quintile were far more likely to have a week without drink (46%) than those in the highest (15%). In women, a similar gradient is present; the richest drink more than twice as often as the poorest. The gradient is less steep then in men, however.

In Wales, drinking above guideline levels is highest in the managerial and professional classes; binge drinking is highest in the same class and in routine and manual classes. There is no clear gradient in relation to binge drinking however; drinking above guidelines is most common in the least deprived areas and least common in the most deprived areas. Binge drinking is fairly level through all areas.

In Scotland, among women, levels of weekly consumption are associated with socioeconomic classification, household income and area deprivation. Levels of consumption are highest amongst the managerial and professional, highest income and least deprived group. Among men, there was no clear association apart from that men in the most deprived areas are more likely to drink above 50 units a week.

In terms of daily drink levels in Scotland, there is no clear relationship between those drinking above recommended limits or binge drinking (over double the daily recommended limit) by SN-SEC in men or women. However, in terms of household income, for men, daily consumption is directly related to household income such that the poorest drink least. The pattern for binge drinking is similar. Mean units drunk were also highest among those with higher incomes (6.8 units in the highest income group compared to 5.5 units in the lowest). A similar pattern is seen in women, with the highest income quintile more likely to drink above 3 units than the lowest; however, binge drinking (above 6 units) has no such pattern. Area deprivation was significantly associated with daily drinking patterns for women (the most deprived least likely to drink above 3 units) but not for men.

Exercise: In England and Wales there is little or no association between physical fitness and measures of class, or between self-perceived levels of activity and class.

In Scotland there are differences in the proportion meeting activity recommendations by NS-SEC for both men and women. The pattern is not one of a straightforward gradient, however. The relationship by household income is clear and linear. 50% of men and 40% of women in the highest income quintile households met the recommendations compared to 35% and 28% in the lowest. Men and women in the most deprived quintile of areas of Scotland were least likely to have met the activity recommendations. For men, though, the pattern is not linear as those in the third quintile were most likely to have met them. For women, the gradient can be seen between across all deprivation quintiles.

Diet: In England, for both men and women there is a social gradient in terms of the mean number of portions of fruit and vegetables eaten daily aggregated by equivalised household income. For men the figures are 4.1 portions for the highest quintile and 3.0 for the lowest; for women, the equivalent figures are 4.2 and 3.4. The differences are statistically significant.

For Wales, there is a social gradient in relation to consumption of fruit and vegetables; managerial and professional classes are more likely to meet the guidelines than routine and manual workers (40% versus 32%). Also, those in the most deprived areas are least likely to eat five portions or more of fruit and vegetables daily (30%); those in the second least deprived quintile of areas are the most likely to eat the recommended amount (40%) with those in the least deprived areas closely behind (39%).

In Scotland, a clear gradient in the proportion of the population eating five or more portions of fruit and vegetables a day is shown by all the measures of class in Scotland: NS-SEC, household income and deprivation of area. The relationship is one of the poorest being least likely to eat five or more portions. The inverse relationship exists for likelihood of eating no fruit and vegetables. The relationship exists for both sexes. For example, 25% of men in the least deprived quintile consumed the five portions or more; 9% of men in the least deprived quintile. The corresponding figures for women are 31% and 16%.

BMI and obesity: In England, income quintile is significantly related to the odds of being in the most-at-risk categories (obese or seriously underweight). However, the pattern works in opposite directions in men and women. Women in the lower income quintiles are more likely to be in the at-risk categories than women in the highest income quintile; men in the lower income quintiles are significantly less likely to be in the at-risk categories compared with men in the highest income quintile. However, men in the fourth lowest income quintile were the most likely to be obese. The same pattern can be seen in relation to waist measurement. In men, the fourth lowest quintile (i.e. second poorest) have the highest percentage with raised waist circumference; the fifth lowest quintile (i.e. poorest) have the lowest. In women, the social gradient between the richest, who have the lowest chance of raised waist circumference, and the poorest, who have the highest, is straight.

The Welsh Health Survey disaggregates obesity figures by class and by sex but not by both together. As such, it is not possible to see whether a pattern similar to that in England exists. The Welsh data show that adults in routine manual work are more likely to be obese than those in professional and managerial work. There is also a clear social gradient in relation to obesity and index of multiple deprivation. Those in the most deprived areas of Wales are far more likely to be obese (27%) than those in the least deprived areas (16%).

In Scotland, there is little relationship between class and obesity. For men only, household NS-SEC is associated with being overweight or obese. Those living in small employer and own account household and those in semi-routine or routine households are more likely to be overweight than those in managerial and professional household. The pattern is statistically significant but not that striking. For women, being overweight or obese was associated with SIMD quintile. Women living in the most deprived quintiles had a significantly increased risk of being overweight or obese. The social gradient is steeper in relation to obesity and morbid obesity. 36.9% of women in the most deprived quintile were obese or morbidly obese; the equivalent figure for the least deprived quintile is 21.9%.

Are there any emerging trends?

The general trend is of improvement in life expectancy and health; the social gradient however remains the same or is slightly increasing.

What are the causes?

The main information available in this document relates to lifestyle. The clearest differences here are in levels of smoking and consumption of fruit and vegetables: poorer people smoke more and eat less fruit and vegetables. The differences follow a social gradient. There is a slight inverse gradient in relation to drinking. These differences might be sufficient to explain the inequalities in smoking-related disease, such as lung cancer and cerebrovascular disease. Lifestyle choice is a less plausible candidate to explain suicide and mental health problems. Neither do the data explain the difference in lifestyle choice.

Social inequality itself has been hypothesized as a cause of ill-health physically and mentally by, for example, Wilkinson (Wilkinson and Pickett 2009).

How might change be measured?

Most of the indicators identified by the Equality and Human Rights Commission are useful; arguable exceptions are 3.6 Non-natural death in institutions and 3.2 Nutritional needs in hospital.

Additional useful indicators are: Healthy life expectancy; access to healthcare (e.g. key preventive services).

Data quality and quantity

Most of the key indicators of Life and Health can be disaggregated and are meaningful by socio-economic status, or class. Death certificates include occupation of the deceased, making it possible to disaggregate some of the Life indicators. The Census used the NS-SEC measure of class; as such, many of the Health indicators can be disaggregated by class although the pattern is variable. Geographical area is often used as a proxy for individual/household class in analyses of health inequalities.

The measure of class used in official statistics changed in 2001. This creates some problems in interpretation of longitudinal data collected before and after that date. As a result, the Census Longitudinal Study continues to use the previous measure (RGSC) as this aids historical comparison.

Age

What are the inequalities? How persistent and how worrying are they?

Of particular note are:

- High rate of accident mortality
- High rates of mortality and morbidity
- High rates of LLTI
- A climbing rate of suicide in men in the oldest age groups
- A lower than average rate of healthy life in the UK compared with EU15 countries
- Discriminatory processes in allocation of resources
- Low rates of exercise and activity alongside high rates of obesity

Data quality and quantity

Most relevant datasets can be disaggregated by age. Some, however, exclude people aged 65 or more years, and many do not specify age groups within the older population, in which case profiling those in advanced old age (*e.g.* 80+ years) is impossible.

What are the inequalities? How persistent and how worrying are they?

We note, particularly, the following:

- High rate of accident mortality (alongside normal rate of A&E attendance)
- High rates of mortality and morbidity, including depression and other affective disorders
- High rates of LLTI
- A climbing rate of suicide in men in the oldest age groups
- A lower than average rate of healthy life in the UK compared with EU15 countries
- Discriminatory processes in allocation of resources
- Low rates of exercise and activity alongside high rates of obesity

One difficulty in identifying inequalities that are unfair or call for action is that some inequality might be expected as people age, such as a higher rate of disability or illness. But natural difference can be compounded by human action and decisions. Therefore, as explained in Chapter three, we should err on the side of social rather than natural explanations of inequality. For example, the presence of a high rate of cerebrovascular disease in the oldest group can be viewed as a spur to research and action rather than an inevitable fact of life. One helpful tool here is data comparison with other nations, particularly those that are economically similar. In this chapter we have primarily used established European Union countries to compare with the UK. These are the fifteen countries that were members of the EU in 2004; we have given them the abbreviation EU15.

Outcome

Mortality rates both in general and for most specific causes rise as people age. Those over the age of 85 seem highly vulnerable to deaths due to accident. This looks to be persistent, worrying and perhaps avoidable, at least to some extent. Direct comparison with EU countries was not possible. However, related figures suggest that the UK might not be particularly bad in this respect. Those over 85 also suffer high rates of deaths due to heart disease, cerebrovascular disease and cancer. Add respiratory disorders and diabetes?

The rate of suicide starts to climb amongst men in the oldest age groups. This is a gender inequality more than an age one - but it is persistent and worrying. The figures for the UK are not particularly high overall compared with the EU15 group.

Older people tend to suffer worse physical health than the general population. The UK has comparable life expectancy to the EU15 group. However, the UK fares poorly in terms of disability-adjusted life years; in other words, our older people are more likely to be disabled. The UK fares slightly worse than average in terms of healthy life years. The figures on healthy life years should be read cautiously as there are trans-national differences in methods of collection and definitions. As such, the DALY measure might be more meaningful.

As people age they are more likely to report a limiting life-long illness or disability (LLTI) and to report poor current health. The proportion of those with an LLTI ranges from 37-47% of the population in those aged 65-74 years. In all cases, levels increase with increasing age such that 68% of women over 75-years-old in Wales report an LLTI.

Pain is an issue discussed in the wider literature. In one review of evidence the authors admonish the attitude that we should accept pain as part of ageing. Such attitudes to pain and ill-health in general lead us to accept inequality that harms older people and is almost certainly avoidable.

Age is not strongly associated with poor mental health overall. However, depression and dementia are problems for older people. Around 25% of people aged over 65 years have significant depressive symptoms on one scale developed for use in the elderly; the equivalent figure in the population under 65 is around 10%. Dementia occurs in around 5% of those over 65 but increases with age to around 20% of those over 80.

Process

In surveys, older people do not score lower for being treated with dignity when using health services. One problem with these surveys is that those without mental capacity to take part are excluded; yet this group might be one that is more vulnerable to undignified treatment. One example is restraint, which is discussed in some academic research although precise data on its use are lacking.

At the population level, the positive relationship between socio-economic status (or material wellbeing) and average remaining life expectancy at, say, 50 or 60 years, is manifested in strong area differences, *e.g.* health status is relatively poor in South Yorkshire, NE England, S Wales and the inner areas of the largest cities, and relatively good in non-metropolitan SE England. The relationship also means that health inequalities among older people have two dimensions, one related to age, and the other related to SES. The highest prevalence of multiple, chronic disorders and related disabilities is among the oldest age groups, but there is a high prevalence of these conditions among those aged in their fifties and sixties in lowest SES groups. ‘Premature’ mortality and morbidity is concentrated among younger old people.

There are a broad set of concerns around age-based inequality in medical treatment. Discrimination against older people results from cost-effectiveness decisions which tend to show that the older you are the less effective a treatment is for you. This is not the result of explicit ageist attitudes but might be said to be institutionally ageist.

Despite the high mortality rate due to accidents in older people, this is not reflected in a higher rate of attendance at A&E.

There is some survey evidence showing that people are concerned that the nutritional needs of older people in hospital and residential institutions are not met. Evidence only supports this claim in part. Older people are often malnourished when entering hospital and fail to improve during their stay. However, there is little evidence that older people become more malnourished in hospital. More data are currently being collected on this issue and so the picture will become clearer.

Older people are more likely to be obese and less likely to exercise sufficiently. Not sure about obesity – mix of ageing and cohort effects. Today's older people almost certainly less obese as young adults than today's young adults.

Sub-groups of older people face double-jeopardy in terms of inequality; for example, older refugees and asylum seekers are ill-placed to cope with the difficulties coping with such matters as negotiating the benefits system. Labour migrants without full contributions to National Insurance or pensions schemes are materially disadvantaged in old age.

Are there any emerging trends?

The population in the UK is ageing. Therefore the health-care needs of older people, and particularly the fastest growing, oldest age groups, will become more pressing. It is estimated by the charity Age Concern, using data from several sources, that there will be over 6 million people with LLTI by 2030. There is some discussion here with at least three different hypotheses stated about the effects of an ageing population (Hyde, Higgs and Newman 2009). One is the compression of morbidity; this is the idea that populations age because they are healthier; as such, people live longer but with a shorter spell of morbidity at the end of life. A second is the failure-of-success model; which states that technical progress lengthens life but not quality of life. The third model is of dynamic equilibrium. This states that as people age they suffer more chronic health problems but adapt to them such that these are not disabling. There are insufficient data to choose between these at present.

Data on longitudinal trends in disability is still limited in the UK, particularly in comparison with the USA, where one broad finding is that whereas the age-specific prevalence of limitations in the Activities in Daily Living (ADLs) has changed little over the last two decades, the prevalence of Instrumental ADLs has been declining. A recent longitudinal study of people aged 75+ years registered with 10 general practices in Gloucestershire found that ‘the prevalence of disability affecting activities of daily living (had) reduced’ (Donald, Foy and Jagger 2010).

How might change be measured?

The outcome measures used in the *Equality Measurement Framework* are useful and relevant in the main. They need careful interpretation in order to pick out inevitable from avoidable inequality. Additional outcome measures for older people might include specific focus on arthritis, falls, sensory impairment and incontinence. Healthy life expectancy would also be a useful addition. Comparison with EU15 countries is helpful in trying to assess whether inequality that is thought to be inevitable or natural is, in part, also the result of social decisions.

Some life and health indicators for those without capacity, for example, those with dementia are problematic. Such people are generally unable to state whether or not they are treated with dignity. More work is needed here to develop other indicators that do not require self-assessment.

Disability

What are the inequalities? How persistent and how worrying are they?

Of particular note are:

- Learning disability is positively associated with early mortality
- Learning disability is positively associated with mortality due to cardiovascular causes but not with mortality due to cancer
- The suicide rate of those with mental health disorders is high - it has been estimated that around 20% of such suicides are preventable
- There is non-quantitative data suggesting that death from non-natural causes might be an inequality and human rights issue by disability
- Disability is associated with mental health problems although interpretation of this finding is difficult
- There are no data on the meeting of nutritional needs of disabled people in hospitals and other institutions; there is one report from Mencap where this issue is raised in the context of the death of a patient
- There are few clear patterns of difference in relation to lifestyle factors except that those with disability exercise less and are more likely to be overweight or obese

LIFE

Death certificates do not include information about disability. As such, data are largely absent. There is indication from other research of inequality in some areas. The SMR of 277% for all-cause mortality of those with learning disability is striking and some specific-cause SMRs are very high. What these figures do not show is the extent of undue, unexpected or unfair mortality.

Some other data particularly that which relates to process indicators, suggest inequity. The phenomenon of diagnostic overshadowing has been noted, as have communication issues. In the wake of advocacy, changes have already been made to improve provision for people with disability and learning disability. If these were to result in a reduction in the SMR that might indicate that some of the original inequality was iniquity. Until the data are collected it is not possible to draw any such conclusions. However, process indicators and some academic research suggest that it is worth collecting the mortality data by different types of disability and causes of death. This would enable charting of SMR change over time and with that, improvements or worsening in equity.

Suicide rate data by disability suggest that mental disorder and some physical disorders (such as MS) are associated with increased risk. Again the extent to which this is avoidable is hard to judge but without all the necessary information it seems best to proceed as though the rates could be reduced and then try to do so. This adds further force to the suggestion that mortality data by disability would be worth collecting.

Much of the literature relating to disability and suicide concerns the ethics of assisted suicide. This literature sits uneasily alongside that which proposes measures to reduce suicide rates. Any move to legalise assisted death would need to be judged in part on its implications for equality and rights for the disabled.

Data relating to accidental death associated with disability seem to be absent. The addition of disability to death certificates would close this gap. The information is of interest; if disabled people suffered high rates of accident-related death this might suggest that the environment should be adjusted to reduce this.

Deaths from non-natural causes in institutions have become an issue of concern following the investigation into six deaths of individuals with learning disability, described above. This is clearly an area worth monitoring although again, at present, the lack of disability information on deaths certificates makes this difficult or impossible.

HEALTH

Around 30% of the population in England, Wales and Scotland have an LLTI. Having a LLTI is strongly associated with self-report of poor current health. It is also very strongly associated with poor mental health; this finding is hard to interpret, however, as poor mental health can itself be a trigger for LLTI.

Data from England and Wales show no association with LLTI and feeling you are treated with respect by hospital services. There are no data from Scotland. One limitation of this data is that it does not cover those without capacity to say whether they felt treated with respect; as such some, such as those with severe learning difficulty, are excluded.

Support for nutritional needs in hospital is clearly important for those with disability. The majority of the literature on this topic, however, concerns the elderly. This is because the initial concern was that elderly people's needs are neglected. As such, there seem to be no data on the topic aggregated by disability. This is worth rectifying. One of the deaths reported by MenCap in *Death by Indifference* is of Martin Ryan, who was said to have starved to death at Kingston hospital.

People with LLTI in England are neither more nor less likely to smoke than the rest of the population. In Wales, they are slightly less likely to smoke. In Scotland, men with a disability are slightly more likely to smoke.

People with LLTI in England and Scotland are less likely to drink alcohol above the Government recommended limit. In Wales, they are more likely to do so.

People with LLTI in England, Wales and Scotland are less likely to meet Government guidelines for exercise.

In England, Wales and Scotland there is no noticeable association between LLTI and eating fruit and vegetables.

There is however a clear link between LLTI and obesity. In England, having an LLTI is positively associated with not having a healthy weight; 72% with an LLTI do not have a healthy weight, against 61% without an LLTI. In the main, the problem is one of overweight rather than underweight. In Wales, having an LLTI is positively associated with being overweight or obese (65.9% versus 55.4%); this difference is true of both sexes although it is particularly marked in women (63.3% versus 49.8%). In Scotland, an LLTI is positively associated with a non-normal weight (75.9% versus 67.8%). The major problem is being overweight or obese rather than underweight.

The inequality is greater for women rather than men although this seems to be because Scottish men *without* an LLTI have a higher proportion of non-normal weight than Scottish women without LLTI.

Data quality and quantity

There are no systematic national data sets on Life and Health outcomes, such as premature death from cancer or heart disease, disaggregated by disability and subsets of disability. Some figures can be disaggregated from, for example, the Welsh Health Survey.

Disability is a broad and disparate category - this makes interpretation of data difficult.

Death certificates include no disability information - there is no national-level picture of inequalities by disability in life indicators.

Race & Ethnicity

What are the inequalities? How persistent and how worrying are they?

Some minority ethnic groups experience significantly higher levels of ill-health and premature death than the White majority. However, ethnic patterns of mortality and morbidity are complex and minority ethnic groups do not experience worse outcomes across the board when compared to the White British group.

Among the main enumerated ethnic groups, Pakistani and Bangladeshi people stand out as having the worst health profile (and probably the lowest life expectancies), though most minority ethnic groups have worse general self-reported health than the White British majority. These inequalities are persistent and do not appear to be improving across generations for most groups. It should be remembered, however, that some of the ethnic categories currently in use are broad. These categories conceal important heterogeneity and potentially hide even more disadvantaged 'groups' from view.

There is evidence that other groups about whom very little research has to-date been conducted - notably Gypsies and Travellers, asylum seekers and refugees - have particularly low levels of health and wellbeing.

We summarise the evidence against the main EMF indicators below:

LIFE:

Direct estimates of life expectancy by ethnic group cannot be computed since ethnic group is not recorded on death registration certificates in Great Britain.

Country of birth analyses carried out for deaths occurring around the time of the 2001 Census produced all-cause Standardized Mortality Ratios (SMRs) for people aged 20 years and over that, when compared to the population of England & Wales as a whole, were statistically significantly *higher* for: men and women born in Ireland, Scotland, East Africa or West Africa; men born in Bangladesh; and women born in India or Pakistan. Standardized Mortality Ratios were statistically significantly *lower* for men and women born in China or Hong Kong, for men born in India and for women born in Eastern Europe.

Recent *indirect* estimates of life expectancy based on a method that uses self-reports of limiting long-term illness (LLTI) and its empirical link to later mortality, suggest that life expectancy is highest among Chinese men and women (estimates of 78.1 years and 82.1 years respectively), and lowest among Pakistani men (77.3 years) and among Bangladeshi women (72.7 years).

Infant Mortality varies between ethnic groups. Black Caribbean and Pakistani babies are more than twice as likely to die in their first year as White British or Bangladeshi babies.

There are no direct estimates of cause-specific death rates by ethnicity for the countries of Great Britain. Estimates produced by other means are imprecise and should be treated with caution.

Analyses of cause-specific deaths by country of birth around the time of the 2001 census produced SMRs for people aged 20 years plus compared to the general England & Wales population for ischaemic heart disease (IHD) that were *high* among men and women born in Ireland, East Africa, Bangladesh, Pakistan or India, men born in Eastern Europe or the Middle East and women born in Scotland. Low SMRs for IHD were observed among men born in West Africa or the West Indies and both men and women born in China or Hong Kong. In young adults (20–44 years of age), very high mortality from IHD was seen for men born in Eastern Europe and in Pakistan.

This country of birth analysis also found that cerebrovascular disease mortality was higher than the general England & Wales population among men born in all the countries analysed apart from the Middle East. SMRs were also significantly higher than the England & Wales population among women born in Ireland, Scotland, West Africa, Bangladesh, India, Pakistan and the West Indies. Particularly high SMRs for cerebrovascular disease were seen for men and women born in Bangladesh and for men born in West Africa.

Morbidity data collected in the HSE 2004 showed that reported cardiovascular (including all CVD that had been diagnosed by a doctor) was most prevalent among Irish men (14.5%) and among women in the general population (13.0%). Black African men and Chinese women were significantly *less* likely than the general population to have any CVD condition. The prevalence of any CVD condition increased markedly with age in all ethnic groups. However, when the analysis is broken down by age-group, Pakistani men and women in the 55+ age-group have the highest levels of CVD.

There are widespread claims that the rate of decline in mortality from ischaemic heart diseases has been slower in recent years among South Asians than in the rest of the UK population. Though this may be true, it can not be confirmed with certainty from the available data.

The perception that Black African and Black Caribbean populations have particularly high levels of stroke mortality do not appear to be well substantiated by the available national-level statistics.

Death rates from cancer by ethnicity are not currently available. Analyses by country of birth for deaths occurring around the time of the 2001 census suggest statistically significantly *higher* mortality from all cancers combined, lung and colorectal cancer among people born in Scotland and Ireland, *lower* mortality for all cancers combined, breast and prostate cancer among people born in Bangladesh (except for lung cancer in men), India, Pakistan and China/Hong Kong. Lower lung cancer mortality was found among people born in West Africa and the West Indies, while higher breast cancer mortality was seen among women born in West Africa (SMR 132) and higher prostate cancer mortality among men born in West Africa (SMR 271) and the West Indies (SMR 198).

Cancer incidence data by ethnicity are far from perfect and suggest a complex and changing picture. Areas of concern include: higher incidence of prostate cancer in Black males and higher incidence of cervical cancer in Black and South Asian women over 65 years. There are no consistent patterns in terms of survival rates from different cancers across the different ethnic groups.

The Confidential Enquiry into Maternal and Child Health CEMACH (Lewis 2007) reported that Black African, Black Caribbean and Middle Eastern women were significantly more likely to experience a direct or indirect maternal death than White women. Black African women (including asylum seekers and newly arrived refugees) had a mortality rate six times higher than White women and experienced major problems in accessing maternal healthcare.

Data on suicide and accidental death by ethnicity are limited. Older analyses by country of birth, using data relating to 1991-3, suggested increased risk of both suicide and accidental death among both men and women born in Scotland or Ireland compared to the general England & Wales population, but not among other migrant groups. However, a recent analysis of suicides occurring within 12 months of contact with mental health services in England & Wales (which employed broad, clinician-assigned, ethnic groups) suggests elevated risks of suicide among some minority ethnic groups. These include young Black Caribbean and Black African men aged 13-24 years, as well as women aged 25-39 years of South Asian, Black African and Black Caribbean ethnicity when compared to the White group.

HEALTH:

For the measures of general self-reported poor health and limiting long-term illness, the Pakistani and Bangladeshi groups stand out as having the worst health. Census data for England & Wales and also for Scotland show high proportions of these groups reporting poor health and LLTI, while Chinese males and females report low levels. At older ages, Indian men and particularly women, also report high levels of poor health. The White Irish population in England also faces significant health disadvantage when compared to the White British.

Patterns of mental wellbeing by ethnicity are complex and there are ongoing debates as to how easily psychiatric morbidity can be assessed across cultural and linguistic groups. In the HSE 2004 Pakistani men and women and Bangladeshi men were more likely to have a high GHQ12 score than the general population. Findings from EMPIRIC suggest very few ethnic differences in the prevalence of common mental disorders once age is adjusted for, with only Bangladeshi women standing out as having a lower risk than White women.

Asylum seekers and refugees may face particular mental health issues because of past experiences of torture and abuse as well as the extreme stress associated with their dislocation. Gypsies and Travellers also appear to face high levels of emotional and psychological distress associated with a lack of control over their lives, forced relocation and societal discrimination.

Some particular health issues are of concern among some migrant and minority ethnic groups, including diabetes, some infectious diseases (including TB and HIV), haemoglobinopathies, and female genital mutilation.

Process

The broader tension between two wings of policy - immigration control (and the associated concerns with community cohesion and preservation of British identity) on the one hand and race equality on the other - is evident within the health arena. This comes most sharply into focus when examining the healthcare experiences and outcomes of asylum seekers, refugees and new migrant communities; though it is also a common thread underlying the poor provision and persistent inequalities of established minority ethnic populations.

There is a large body of evidence that documents the poorer experiences and lower level of satisfaction with NHS health services experienced by minority ethnic groups as compared to the White British majority. The latest figures from the Care Quality Commission confirm that people of South Asian and Chinese origin report less positive experiences than the White British majority across a range of care settings, but that differences are particularly noticeable in primary care. In 2008/9, compared to White British people, people of Asian/Asian British ethnicity had an odds of reporting that they were always treated with dignity and respect by their GP of 0.5, while for Chinese people it was just 0.3.

Other evidence suggests that Gypsies and Travellers have extremely poor experiences of primary care and may face significant obstacles to registering with a GP. There are also particular access issues facing asylum seekers and refugees.

The disproportionately high levels of detention of Black Caribbean and Black African men in secure psychiatric institutions as well as their increased likelihood of receiving coercive intervention and compulsory detainment represent enduring and worrying inequalities.

Poor communication is a commonly cited problem and there are widespread inadequacies in interpretation and translation facilities. Furthermore, communication barriers are not merely an issue for those who cannot speak English. Poor listening, dismissiveness, rushed consultations and disrespectful attitudes are factors that have been found to undermine patient-provider communication for many minority ethnic people even if they can speak English.

Concerns about coercive and disrespectful care are particularly evident within mental health and maternity services.

Despite numerous broad policy directives and strategy documents that signal the importance of understanding and tackling ethnic inequalities in health, there is a lack of detailed and systematic attention to the needs of minority ethnic populations in action plans and service specific policy documents, such as National Service Frameworks, though there are some areas of good practice.

There is a widespread lack of collection and application of local ethnic monitoring data in the commissioning and evaluation of services. Many Primary Care Trusts do not have accurate figures on the make-up of their populations by ethnicity.

Effective diagnosis and treatment may be undermined when minority ethnic people do not present with the 'typical' symptoms that have been identified on the basis of research and clinical experience with the majority White British population. For instance, compared with White British people, South Asians are more likely to experience 'atypical' symptoms during myocardial infarction which may delay diagnosis or optimal intervention. They are also less likely to be prescribed lipid-lowering medications and are more likely to withdraw from cardiac rehabilitation programmes.

Health-related life-style factors vary greatly across ethnic groups and there are no clear patterns whereby minority ethnic groups are exposed to increased health risk across a range of behaviours. Issues that are of particular cause for concern include: high levels of smoking among Bangladeshi men (HSE 2004 found 40% of Bangladeshi men were smokers compared with 24% of men in the general population); frequent and heavy drinking among White Irish men and women; and high levels of obesity and raised waist circumference among Pakistani and Black Caribbean women. Levels of physical activity among men and women are lower among all the minority ethnic groups, except the White Irish, when compared to the general population. In contrast, minority ethnic people (except the White Irish), particularly men, are more likely than the general population to report eating the recommended amounts of fruit and vegetables.

Autonomy

Lack of access to information and lack of familiarity with the system appears to make it more difficult for people from some minority ethnic backgrounds to exercise choice in terms of their healthcare and this is particularly true for new migrants and those with poor English language skills.

Culturally incompetent services and practitioners can restrict the ability of people from minority ethnic backgrounds to engage with services in the ways that they would prefer. For instance, factors such as a lack of facilities for family members to be involved, inappropriate dietary provision, and a lack of privacy, particularly for women, can result in poor patient experiences and withdrawal from services/treatments.

A lack of choice and control over their lives and the pervasive experience of discrimination are prominent issues for Gypsies and Travellers, as well as asylum seekers, that impact negatively on their health and well-being.

Cross over themes and vulnerable groups

There are complex patterns of ethnic inequalities in LIFE and HEALTH by other axes of inequality, particularly sex/gender, age and socioeconomic status. We discuss these in more detail below.

A number of human rights concerns have been identified by Aspinall and Watters (2010) in relation to the health of asylum seekers and refugees including difficulties accessing GP treatment and consequent increased reliance on A and E services.

Gypsies and Travellers also stand out as another 'group' that is particularly vulnerable across outcome, process and autonomy aspects of the LIFE and HEALTH capabilities.

Finally, some groups of minority ethnic women, particularly those who do not speak English, are recently arrived in Great Britain, who have poor social networks and/or who are elderly emerge as particularly vulnerable to poor health outcomes and poor healthcare experiences.

Are there any emerging trends?

New migrant communities have different health needs from established minority communities, and there are signs that their health and life outcomes may be poor.

Increasing ethnic, linguistic and cultural diversity demands new responses from health services. At the same time, an increasing proportion of people are claiming a 'mixed' ethnic identity.

Some of the factors that seemed to protect/enhance health for first generation migrants appear to be diminished in second and third generation migrants e.g. dietary habits. Some health advantages in first generation migrants are not well explained, but the picture among second generation migrants is worsening e.g. there is a rising incidence of some cancers.

What are the causes?

Ethnic inequalities in health are complex and have multiple contributing factors, many of which remain poorly understood.

Genetic/biological factors appear to contribute in part to some of the excess risks of ill-health faced by some minority ethnic groups. However, socially constructed ethnic groups are poor markers for genetic traits and evidence suggests that social, economic and health system related factors are far more important factors in explaining the large differences observed in health outcomes between groups.

Holding a particular ethnic identity may imply certain sets of beliefs and behaviours that have implications for health and healthcare outcomes and experiences. Therefore, though there is great diversity within groups as well as change over time in cultural practices, at an aggregate level culturally informed beliefs, attitudes, preferences and associated behaviours may account for some of the observed inequalities. The most obvious area where these factors may be important relates to healthy life-styles; though it should be noted that minority ethnic groups do better than the White British majority on some key life-style related risks including alcohol consumption and smoking among women.

Socioeconomic deprivation plays a significant part in the excess poor health faced by some minority groups - notably Bangladeshi and Pakistani Muslims. There is also evidence that access to state welfare benefits intended to offset the financial implications of poor health is poorer among minority ethnic groups than the majority White British. However, this is only part of the story and socioeconomic disadvantage does not explain the complex patterns of health observed across all ethnic groups, or the areas where minority groups fare better than the White British majority.

There is growing evidence that racism plays a role in the poorer health of minority ethnic populations both via direct personal experience of racist victimisation or discrimination and fear of or expectation that racism may be encountered. The pervasive experience of racism in day-to-day life may also increase the likelihood of negative experiences and low satisfaction with health services.

There is also evidence that the experience of statutory services, including but not limited to health services, can exacerbate the poor mental and physical health of minority ethnic people by being unresponsive, inappropriate and stressful.

There is growing evidence of differentially poor access to key primary and secondary preventive and curative health services among minority ethnic groups that could help to reduce inequalities in the major causes of morbidity and mortality - e.g. uptake of cancer screening; access to smoking cessation services etc.

Data quality and quantity

There has been a significant increase in the availability of health-related information disaggregated by ethnic group and in the volume of research that addresses the health outcomes and needs of minority ethnic groups in the UK over the past 10-15 years. However, most of this information relates to England and there is a limited picture of the health profiles of minority ethnic populations in Wales and Scotland.

Routine health data sources still frequently fail to collect ethnicity data that is sufficiently complete and consistent to sustain robust analyses, a situation that the Association of Public Health Observatories (APHO) has recently described as 'unacceptable' (Association of Public Health Observatories 2007).

In addition, national surveys often employ sampling schemes that produce samples of insufficient size to sustain detailed analyses by ethnic group. Often groups are collapsed into large, heterogeneous categories that are unhelpful in understanding patterns or causes of health inequality. While the Health Survey for England (HSE) in 1999 and 2004 employed 'ethnic minority boost samples', the national surveys in Wales and Scotland have not adopted this approach at any time so that sample sizes are too small for meaningful analyses by ethnicity.

Though there are clear advantages to the use of standardized, statutory ethnic categories, these are often not particularly helpful in terms of identifying groups of individuals with common health experiences and outcomes. For instance, the 'Black African' and the 'Other White' categories are particularly broad and unhelpful.

A number of national surveys have recently added important information to our understanding of ethnic health inequalities including the Ethnic Minority Psychiatric Illness Rates in the Community (EMPIRIC) survey in 2000 and the HSE in 1999 and 2004. There have also been important new developments in terms of record linkage such as that using the NHS Numbers for Babies (N4BB) that has allowed estimates of infant mortality by ethnicity for the first time, as well as innovative techniques for indirectly estimating levels of morbidity and mortality by ethnicity.

Though patterns of ethnic inequalities in health are now well-documented for the largest minority groups in England, there is a lack of evidence regarding (i) the multifaceted causal processes that contribute to poorer experiences of health services and poorer outcomes for some groups, and particularly (ii) how best to intervene to address poor health. Though there have been some important initiatives to address health disadvantage among minority ethnic groups, by-and-large these have been small-scale, local projects that have not been rigorously evaluated or scaled-up. In the absence of such detailed knowledge there is a danger that policy and practice responses can serve to further stereotype, stigmatise and marginalise minority groups. In addition, the research literature is heavily dominated by studies of the health needs and experiences of South Asian groups, with less evidence relating to other large minority groups, particularly Africans and Chinese.

Within the broad migrant and minority ethnic population, there are some groups about which there is very limited information including: new White migrant communities, asylum seekers and refugees, Gypsies and Travellers and people of 'mixed' ethnicity.

How might change be better measured?

Improved ethnic monitoring at primary care level is essential. The Quality and Outcomes Framework dataset could potentially be used to provide individual-level data rather than simply aggregated practice-level data that do not enable analyses by patient characteristics.

Specialist efforts are needed to gather robust data for 'hidden' minority populations including: Gypsies and Travellers (including those who are housed), new migrant communities, asylum seekers and refugees.

As with religion, there is a need for the collection of data that can enable a better understanding of process and autonomy – causal pathways cannot be inferred from descriptive analyses of inequalities between groups since ethnicity can be a proxy for multifarious factors that may impact upon health. It is likely that multi-disciplinary and cross-national comparative research will be helpful here.

More research is needed that focuses on identifying effectiveness, and cost effectiveness, of interventions aimed at reducing ethnic health inequalities.

The inclusion of indicators of access to healthcare services might usefully supplement the Equality Measurement Framework (EMF) (while acknowledging the complexities of establishing inequities in access). In particular, access to GP services and preventive measures (including screening) should be monitored. In addition, access to interpretation and translated information should be monitored since this is a major factor undermining quality of care and equitable outcomes for some minority ethnic people.

Sex & Gender

What are the inequalities? How persistent and how worrying are they?

Though men and women share many health risks, there are some marked differences between men and women in their patterns of morbidity and mortality. These differentials are influenced by a complex of factors relating to both the biological and social aspects of men's and women's lives, as well as the interactions between these realms. We use the term 'sex' to refer to the genetic and biological factors that shape men's and women's health. We use the term 'gender' to refer to the socio-cultural construction of male and female identities; that is the roles, responsibilities and entitlements that are typically assigned to men and women because of their sex, as well as the expected norms of behaviour, internalised sense of self and any other aspects of 'being a man' or 'being a woman' that may shape health and well-being. In practice, these influences closely interact to pattern health outcomes and experiences. In the sections that follow, for convenience, we use the term 'sex' when describing simple differences in quantitative indicators between groups of individuals categorised as either 'males' or 'females', 'men or 'women', while recognising that an understanding of the reasons for any observed differences requires an exploration of gender.

Outcome

LIFE:

Male life expectancy is less than female life expectancy at all ages. Latest figures for the UK as a whole show that males born in 2006-8 can expect to live 77.4 years and females 81.6 years at current mortality rates. The comparable figures for England are males 77.7 and females 81.9 years, for Wales, males 76.9 and females 81.2 years and for Scotland, males 75.0 and females 79.9 years.

Life expectancy at birth has been steadily rising for males and females over the past 25-30 years and though female advantage persists, the gap between males and females has declined over time.

Life expectancy at older ages has also been rising for both men and women in recent years and the sex/gender gap has declined. However, women who reach age 80 can still expect to live longer than their male counterparts in England, Wales and Scotland.

Though life expectancy has been improving for both men and women across the whole life-span in Scotland over the past 20-30 years, people resident in Scotland continue to die earlier than in any other Western European country. The gender gap in life expectancy at birth is also larger in Scotland than in England or Wales.

The leading cause of death - ischaemic (or coronary) heart disease - is the same for men and for women across all three countries, though age-patterns of onset differ and men's mortality rates are higher overall. Cerebrovascular disease (stroke) is the second biggest killer for men in England and for women in all three countries, and the third biggest killer for men in Wales and Scotland.

There have been significant declines in death rates among men and women from cardiovascular diseases (CVDs) over time, but improvements seem to have been relatively greater for men so that the sex/gender gap has declined over time. Very high death rates from strokes among women at older ages are a particular cause for concern.

High levels of cardiovascular disease mortality in comparison with England & Wales and other European countries are cause for concern for both men and women in Scotland.

Cancer is a major cause of death for both sexes in England, Wales and Scotland, though overall cancer death rates are higher among men than women at most ages. Cancer death rates in Scotland are particularly high.

For both men and women lung cancer is the leading cancer cause of death in all three countries. However, whereas male lung cancer death rates fell steadily between 1991 and 2008 in England & Wales, there was no such improvement among women. In Scotland, while the male lung cancer rate has been falling since

1980, it has been rising among women. The second leading cancer mortality is breast for women and prostate for men.

For the majority of cancers, women have a small survival advantage over men (as measured by the percentage who are alive five years after diagnosis).

There are stark and persistent differences in suicide rates between the sexes with men experiencing higher rates at all ages. For the UK as a whole, the 2008 suicide rate was around 5 per 100,000 population for women and 17.1 per 100,000 population for men. The high suicide rates among young men in Britain, particularly in Scotland, are a persistent concern, though recent evidence does suggest some decline.

Though deaths from accidents have declined over time, men continue to suffer much higher accidental death rates than women at all adult ages except in the oldest age-group.

Men are much more likely than women to die as the result of assault, particularly at younger ages.

While the level of maternal mortality is not an issue of concern in the general population, maternal mortality among minority ethnic and migrant women is worryingly high. Recent data indicate that, compared to White women, women from minority ethnic groups are, on average, three times more likely to die from a cause directly or indirectly related to pregnancy. Black African women had a mortality rate seven times higher than White women. Asylum seekers and newly arrived refugees are identified as at particularly high risk.

HEALTH:

In general, a higher proportion of women tend to report 'not good health' than men, though the sex differences are small and statistically insignificant. In the 2008 health surveys, the following proportions of adults aged 16+ reported their health to be other than 'good': England 23.7% of men and 24.7% of women; Wales 20.9% of men and 23.2% of women; and Scotland 24.6% of men and 25.4% of women.

Among both men and women, a large proportion of the working age population of the three countries of Great Britain report having a long-term limiting illness or disability that limits daily activity but the figure does not differ greatly between men and women until older ages. Nevertheless, women's level of reported LLI was statistically significantly higher than men's in 2008 in the Health Survey for England (HSE) in which 20.7% of men and 25.4% of women aged 16+ reported having at least one limiting longstanding illness or disability, in the Scottish Health Survey (SHS) in which 23.3% of men and 27.9% of women reported LLI and in the Welsh Health Survey 2008, in which 26% of men and 29% of women reported LLI.

Looking across the three countries of interest to the EHRC, in all cases females had higher Healthy Life Expectancy at birth than males, though the gaps between males and females are smaller than for life expectancy. This indicates that a portion of the additional years lived by women are spent in 'poor health'.

The General Health Questionnaire (GHQ12) is used to measure mental wellbeing and to identify common mental disorders. Women are more likely to have a high GHQ12 score than men, indicating a higher proportion with poor mental wellbeing. In the HSE 2008, 10.6% of all men had GHQ12 score of 4+ compared to 14.9% of women, and in Scotland these figures were 12.4% of men and 17.1% of women. In Wales an alternative measure of mental ill-health also suggested female disadvantage.

Studies in the general population suggest that the overall prevalence of mental illness does not vary significantly between women and men. For specific disorders, however, clear gender differences are found. Anxiety, depression and eating disorders are more common in women, substance misuse and anti-social personality disorders are more common in men.

For men, there are particular concerns around the under-diagnosis and therefore lack of treatment for mental health problems which are believed to account, at least in part, for the much higher risk to men of: becoming homeless, being imprisoned, becoming drug dependent and being involved in violence.

For women, there are particular concerns around the high levels of domestic and sexual violence and its links to poor mental and physical health.

There are complex patterns of sex/gender inequalities in LIFE and HEALTH by other axes of inequality, particularly ethnicity and socioeconomic status.

Process

Men tend to access GP services less often than women. They also appear to ignore symptoms of ill-health and delay healthcare seeking more often than women. Men may be more likely than women to self-medicate in harmful ways, e.g. through use of alcohol and drugs when experiencing mental distress.

There is evidence across a range of health services that patterns of access, uptake and treatment diverge between women and men. The patterns are, however, complex, so that both men and women appear to be disadvantaged in some arenas of healthcare.

Women are more likely than men to receive treatment for minor mental health conditions. However, more than twice as many male as female psychiatric inpatients are detained and treated compulsorily.

Indicators of perception of treatment with dignity and respect within healthcare do not appear to vary by sex. However, there is evidence that maternity services frequently fail to provide satisfactory services to women, and particularly to women from minority ethnic backgrounds.

Indicators of healthy life-style show complex patterns across sex and age, with neither men nor women being uniformly disadvantaged.

Among adults, men continue to be more likely to smoke than women, though differences are far smaller than in the past. However, among teenagers and the youngest adults, females are as likely as, or more likely than, males to smoke in England, Scotland and in Wales.

There has been a downward trend in the proportion of men and women who report themselves to be current smokers, though this has been steeper in men than in women. In the 2008 General Lifestyle Survey of Great Britain, 88% of men and 89% of women said that they did not currently smoke - a statistically insignificant difference between the sexes.

The proportion of people who are of normal/healthy weight (neither overweight nor obese, and not underweight) has declined over the last 10-15 years across Britain, and is consistently lower among men than women. In 2008, 37% of Welsh men and 44% of Welsh women were of normal/healthy weight. In England these figures were 32% of men and 41% of women, and in Scotland just 30% of men and 36% of women were of 'normal/healthy' weight (all statistically significant differences).

Over time since the mid 1990s, the proportion of both men and women who are of 'normal/healthy' weight has declined steadily, though the gap between the sexes has remained roughly stable. This decline is explained by the rising proportion of men and women who are obese (BMI 30+).

Physical activity levels tend to be lower in women than in men across the three countries at all ages. However, levels of physical activity fall well below current guidelines for the majority of both men and women at almost all ages. Recent data for England suggest that physical activity is particularly worryingly low in teenage girls compared to their male counterparts.

Indicators of healthy eating tend to be better among women than men. The SHS 2008 found that overall 20% of men over 16 years and 24% of women reported eating five or more portions of fruit or vegetables a day and in the HSE 2008, 25% of men and 29% of women reported eating 5 or more portions a day (both statistically significant differences between men and women). In the WHS 2008, the figures were higher, at 35% of men and 37% of women, and the difference of borderline significance.

Patterns of alcohol consumption vary greatly by age, but males tend both to consume more alcohol, and to drink alcohol more frequently, than females. In England, the HSE 2008 found that overall 59% of men aged 16 years and over and 68% of women reported that they did *not* drink above government guidelines on any day in the week prior to interview. In the WHS 2008, these figures were 48% of men and 62% of women, and in the SHS 2008, 56% of men and 64% of women (all statistically significant differences). While trends over time suggest a rise in 'sensible' drinking for both men and women, the increase has been smaller for women than men. Quantitative indicators of problematic alcohol use suggest an increase over the past 10 years in Scotland, particularly among women and younger people.

Autonomy
Gendered identities and expectations of male and female behaviour place significant constraints on both men and women realising their full potential for good health and longevity.

Women may experience particular constraints on their autonomy within intimate and family relationships that expose them to health risks and may prevent them from accessing health-promoting resources. There is some evidence that these aspects of limited autonomy may be more common for women from some minority ethnic backgrounds, including Gypsies and Travellers and asylum seekers, and for women living in extreme financial hardship.

Vulnerable sub-groups across outcome, process and autonomy:
Sub-groups which are particularly vulnerable include:

Minority ethnic women, particularly those who are asylum seekers and refugees or new migrants who can not speak English and have limited social support.

The detained population (which is predominantly male). In prison, mental health is a risk factor for suicide.

The homeless, who are again predominantly male and About which very little is known in terms of health.

Are there any emerging trends?

There are several emerging issues and concerns. Some of these reflect changes in societal attitudes and expectations, so that long-standing issues are now receiving heightened attention and new data are throwing light on important inequalities. In other cases, there appear to be real changes in morbidity and mortality patterns that deserve attention, as well as new issues emerging because of changing demographics - ageing population, increasing ethno-cultural diversity and new migration. There is:

Increased attention to poor male mental health and its links to suicide (as well as men's health more generally).

Renewed concern regarding women's vulnerability to abuse within intimate relationships, particularly for teenagers and young women, and its health consequences.

Worrying patterns of alcohol use and smoking among female teenagers and young women (though positive indications in recent years that these are on the decline). Increased attention to dementia which disproportionately affects women.

Concerns regarding the unmet maternal health needs of migrant and minority women, particularly asylum seekers.

What are the causes?

Women's poorer access to material resources undermines their mental and physical health.

Patchy attention to gendered influences on health within health policy and strategic documents means that many areas of service provision continue to operate in a 'gender blind' fashion and fail to adapt to the differential needs of men and women. A more mainstreamed approach has been advocated to ensure that gender sensitivity becomes part-and-parcel of health policy, commissioning and service delivery.

The social constructions of gender influence provider-patient interactions and result in differential diagnosis, treatment and care in many areas of healthcare. In relation to the major killers, these processes tend to disadvantage women since CVD and lung cancer are still commonly perceived to be 'male' diseases. Men, however, appear to lose out in other areas.

Exclusion from the evidence base further exacerbates the above processes since women are less likely to 'fit' the standard diagnostic and therapeutic guidelines that have been developed on the basis of research that is disproportionately focused on men.

The socio-cultural constructions of masculinities and femininities undermine both men's and women's health in important ways. For men, male roles and expectations tend to: encourage risk taking; discourage disclosure of ill-health; and result in weaker social support. For women, female roles and expectations tend to mean: weaker access to resources; heavy workloads combining caring and income-generating responsibilities; lower status and respect.

Data quality and quantity

All of the key indicators of LIFE and HEALTH can be disaggregated, and are meaningful, by sex, allowing a comprehensive picture of sex/gender inequalities across a range of measures in this domain.

Despite the routine inclusion of sex in health-related data sources, information is not always presented in published sources for men and women separately, particularly at regional and local levels.

Where information is presented by sex, age-standardization is not always routinely employed to enable comparisons, for instance over time.

Our understanding of the ways in which gender - the sociocultural construction of masculinities and femininities - impacts upon health risks and responses is limited.

As such, we are not able to describe the process and autonomy aspects of this capability in sufficient detail confidently to inform policy and practice.

In particular, there is evidence of important and complex sex/gender differences in access to healthcare services at primary and secondary level. It may be useful to supplement the EMF with regular monitoring of some key indicators of appropriate health service access and uptake

Gender inter-relates importantly with other equality strands. Gender inequalities in LIFE and HEALTH indicators can usually be examined by age and socioeconomic class. However, since information is less complete across race/ethnicity, religion/belief, disability and sexual orientation, the ways in which gender inequalities in health are patterned by these other dimensions can only be partially described.

An understanding of the extent to which the LIFE and HEALTH capabilities are adequately achieved for men and women requires not just comparisons between the sexes but also comparisons (i) within sub-groups of each sex, (ii) comparisons within and between the sexes across the countries and regions of Great Britain, and (iii) within each sex across other comparable countries.

How might change be better measured?

A wide range of data is collected and can be disaggregated by sex. However, greater consistency in presentation of data in routinely published tables would aid comparisons across countries within the UK as well as over time. Consistent methods for age-standardization should be used and these should be explicitly reported.

There is now a need to measure improvements in process and autonomy, as well as outcomes. More information on the gender sensitivity of policies and services, and their impact on outcomes, would be helpful.

Improvements in the reporting of local and regional level data by sex would help to flag up areas of good/poor outcomes as well as ensure that the commissioning and delivery of services was based on a detailed understanding of local gendered needs.

The EMF might usefully be supplemented by some measures of access and uptake of key healthcare services/interventions.

Religion & Belief

What are the inequalities? How persistent and how worrying are they?

LIFE

- Data are not currently available for any of the Life indicators by religion/belief for England, Scotland or Wales.

HEALTH

Outcome

- 2001 Census data for all people for Great Britain as a whole reveal large differences in self-reported health between religious groups. Among males, the age-standardized percentage of people reporting not good health was highest among Muslims (12.8%) and those reporting 'Any other religion' (12.2%) and lowest among Jewish males (6.5%). Among females, the highest percentage was again among Muslims (16.1%) with the percentage among Sikhs (13.8%) and 'Any other religion' (13.7%) also being high, and lowest again among the Jewish group (6.9%).
- 2001 Census data for Great Britain also show that the prevalence of limiting long-term illness and disability varies between religious groups. Age-standardized rates of LLTI for all people for Great Britain as a whole were highest among Muslims for both males (21.4%) and females (24.3%), though males and females reporting 'Any other religion' and also Sikh females, had high rates. Jewish males (12.6%) and females (12.8%) were the least likely to report an LLTI when age standardized rates were compared. Levels of poor health and LLTI among Muslims appear to be particularly high in comparison to other religious groups in the middle age-range (30-74 years).
- Health Survey for England (HSE) 2004 data for people aged 16+ years show broadly similar differentials, with Muslim and Sikh men and women standing out as having the highest prevalence of not good health and LLTI.

- Available evidence does not suggest significant and systematic differences in indicators of common mental disorder, such as GHQ12, between religious groups.

Process

- Though studies that have focused in detail on religion are limited, there is evidence from a number of service settings that NHS services in England, Wales and Scotland frequently struggle to deliver religiously sensitive care.

- National level data on treatment with respect are limited, but there is some evidence that people of minority religion, and particularly Muslims, are less likely to report that they feel they are treated with respect in healthcare than are Christians. A number of rigorous qualitative studies support this picture, with common themes including: feelings of exclusion, dismissiveness and lack of engagement with professionals.

- Some particular religiously based health needs are not currently, routinely accommodated by the NHS, such as male infant circumcision and the desire to avoid porcine or alcohol derived drugs.

- There are some significant religious differences in indicators of healthy life-style, however, patterns vary within religious groups along ethnic lines as well as by sex. Key patterns include: very low prevalence of alcohol consumption among Muslims; low prevalence of smoking among Sikhs; low levels of physical activity among all religious groups but particularly low levels among most minority religious groups; high levels of obesity/overweight among all religious groups but particularly high levels among several minority religious groups especially among women.

Autonomy

- Patient choice and preferences that are shaped by religious beliefs and practices are not always well accommodated e.g. preference for same-sex providers.

- Spiritual care may often be lacking in NHS settings for followers of minority religions. This may be a particular issue in relation to end-of-life care and bereavement.

Vulnerable groups:
Older Muslim and Sikh women, particularly those with poor English language skills, appear to suffer heavy burdens of ill-health, disability and also caring responsibilities. These women are also often in a weak position to negotiate religiously-appropriate support from statutory services.

Are there any emerging trends?

- The concerning rise in Islamophobia in recent years has been expressed within the health sector as in other arenas. The negative health consequences of victimisation suggest this trend may exacerbate the health disadvantage facing Muslim groups.

- Since the exploration of health experiences and outcomes by religion is in its infancy in the UK, it is difficult to identify trends or changes over time. However, the increasing interest in religion as a factor shaping health and life chances is bringing new issues to the fore.

What are the causes?

- Though religious and ethnic identities are closely inter-related, religion may nevertheless have distinct implications for health experiences and outcomes. Religion also demands particular responses from policies and services that are intended to protect and promote life and health. There is evidence to suggest that increasing numbers of ‘minority’ individuals identify strongly with religious affiliations, particularly among UK-born minority ethnic populations.

- The following factors all appear to shape health outcomes by religion, though we know little about how important each of these is in relation to explaining inequalities in health: socioeconomic status and deprivation; discrimination at societal level; unresponsive and inappropriate health service provision; religiously informed patterns of behaviour and life-style choices; and networks of association and support that shape access to information and resources (as well as norms and expectations of behaviour). The interplay of discrimination and low social status, operating both within the healthcare sector and in wider society, seems to account for much of the excess health burden experienced by Pakistani and Bangladeshi Muslims. However, the processes linking these structural processes to health outcomes need further explication.

- It seems likely that some of the issues that have attracted significant attention, such as the failure of GPs routinely to offer non-porcine derivative drugs, may be important breaches of patient choice (and possibly infringement of human rights). However, these are unlikely to account for the large inequalities in health status observed between religious groups.

- Some aspects of routine healthcare may seriously undermine the health status of some religious minorities - such as the failure to routinely offer Muslim patients with diabetes adequate advice and support to enable them to manage their disease and safely fast during Ramadan.

- There is also evidence that discriminatory behaviour of some health providers may result in poor quality care and poor health outcomes for some patients and that religious identities and perceptions of religious difference (often inter-related with ethnic 'otherness') underlies such discrimination in some contexts. Available evidence largely relates to the experiences of Muslims.

Data quality and quantity

- Until recently there has been little exploration of health and life indicators by religion or belief in England, Scotland or Wales. However, there is increasing interest among health researchers in this aspect of identity and its potential role in shaping health outcomes and inequalities.

- Information on religion is not collected at death registration, nor is it routinely collected in health service statistics in primary or secondary care.

- The inclusion of a voluntary question on religion in the 2001 Censuses of England, Wales and Scotland has provided a general picture of the health status of Britain's religious groups.

- In terms of national surveys, the Fourth National Survey of Ethnic Minorities 1993-4 yielded some useful data on health status by religion, but these data are now rather old. The Health Survey for England in 1999 and 2004 included ethnic minority boost samples (unlike other years). Though the focus of these surveys was ethnicity, they did collect information on religion and do allow some exploration of health across the largest religious groups.

- Clinical studies and local level data rarely collect and report health outcomes by religion or belief.

- A number of special studies have explored religion and belief in relation to health experiences and outcomes, but these have predominantly focused on a limited number of issues where faith has been assumed to play an important role – such as end-of-life care, organ donation and prenatal counselling.

- Though data are limited across the board, more attention has been given to the largest religions and particularly the religious needs of South Asian Muslims, than to other religious groups. There has been little exploration of other aspects of belief or variations in the meaning of religion in people's lives.

- To-date there has been little exploration of the important interplay between ethnic and religious identities in present-day UK in relation to health. Even where information is collected on both ethnicity and religion, datasets often do not yield sufficient numbers to allow breakdown into religio-ethnic groups which may be the most meaningful in terms of describing and understanding health outcomes.

How might inequalities and change over time be better measured?

- There is a need for the establishment of standard codes and procedures for recording religion in routine health datasets.

- There is a need for precision and justification in the use of religious categories and labels. For instance, the term 'British Muslim' is sometimes used to refer to studies that have focused exclusively on Pakistanis, the findings from which may not be relevant across the whole, diverse range of Muslim experience in the country.

- As with ethnicity, there is a need for the collection of data that can enable a better understanding of process and autonomy – causal pathways cannot be inferred from descriptive analyses of inequalities between groups since religion can be a proxy for multifarious factors that may impact upon health. More detailed surveys and qualitative studies are needed that can generate information about religion that takes account of its multi-dimensional nature and diverse links to health.

- There is a need for data generating approaches that allow the exploration of the interplay between ethnic and religious identities. There is a need to be able to disaggregate indicators by ethnicity, religion and also religio-ethnic group in order to be able to identify trends and to understand the interplay of these two dimensions of diversity and inequality. A focus on either one in isolation is likely to produce a partial picture and risk the conflation of distinct influences on health and life. Many studies of minority ethnic health, particularly those focused on South Asian populations, include some attention to religion but there is often a tendency to conflate ethnic and religious identities. There has not to-date been any detailed exploration of how these factors inter-relate to shape health experiences and outcomes.

- Efforts to monitor and understand health patterns by religion must extend beyond the Muslim population, or the largest religious groups, to include smaller minority religious groups and other aspects of belief.

Sexuality LGB

What are the inequalities? How persistent and how worrying are they?
Of particular note are:

Lack of national-level data

High levels of HIV infection amongst men who have sex with men

Possible higher levels of mental health problems, suicide and self-harm in the LGB population

Indications of poorer experience of health care services amongst those who are openly LGB

LIFE
There are no data on life expectancy collected by sexuality. There are differences in lifestyle that might have effects in either direction but the data are not available to show whether this is so.

There are no data relating to cardiovascular mortality and few relating to cancer mortality. There is, for example, a small amount of research suggesting that gay men have a higher risk of prostate and anal cancer. Lesbian women are thought to be at low risk of cervical cancer although the risk is present, particularly as many lesbian women have heterosexual intercourse at times in their lives. As such, it is wrong to deny them access to cervical smears.

Some UK and international research suggests that the suicide rate and risk is higher in the LGB population and that within this there are particularly high risk groups, such as young gay men and disabled gay men. The quality of evidence here is weak, however; more data are required.

HEALTH

The Citizenship Survey 2007 collected some data by sexuality. These showed no difference between heterosexual and gays/lesbians in self-report of good health. Bisexual people and those self-classified as other were more likely to report not good health. There seem to be no differences in any of these categories in relation to proportion reporting LLTI (limiting long-term illness or disability). However, mental health surveys suggest a higher prevalence of mental health problems in the LGB population than in the heterosexual population. As with the suicide statistics, sub-groups within the LGB population, such as bisexual people, report worse mental health. Eating disorders seem to disproportionately affect gay men. HIV and AIDS disproportionately affects gay men.

There are insufficient data to whether LGB people are more likely than heterosexuals to report they were not always treated with dignity when using health services; there are some indications that this is so but the numbers fall short of statistical significance. However, numerous surveys suggest that LGB people do have problems in using the health service: reluctance to disclose sexuality and negative effects from disclosing sexuality.

In terms of lifestyle, the national datasets do not collect this information by sexuality. However, survey research findings conflict; they point roughly in the direction of a higher smoking rate for gay men but not lesbians. There is some indication from survey data that there is a higher rate of alcohol and recreational drug use.

Comparative data on living with HIV suggest that of those living with HIV in the UK, 43% were MSM, 31% heterosexual women, 21% heterosexual men and 4% injecting drug users. As such, MSM are disproportionately overrepresented; 5.4% of MSM aged 15-44 is infected with HIV as opposed to around 1% of heterosexual males.

Are there any emerging trends?

Year on year increases in the diagnoses of HIV and other sexually transmitted infections in gay men is an ongoing health concern.

Mental ill health and suicide risk is also an area of considerable concern in this group.

In relation to other areas of health, data sources are largely confined to one off surveys and qualitative studies and as such provide little meaningful indication of health trends over time. However, life style choices such as smoking and alcohol and provision of services that are insufficiently sensitive to the specific needs of this population both have the potential to impact adversely on health.

What are the causes?

In many studies, homophobia is stated as a possible cause of some health problems. Perhaps the clearest example of this is mental health problems.

The existence of a club scene in which activities such as smoking, drinking, drug use and unsafe sex sometimes prevail can undermine health and life outcomes.

HIV infection in gay men is linked to chronic ill-health.

How might change be measured?

- LGB health research should not focus only on sexual health.
- Routine monitoring of sexuality in health care will enable the collection of baseline figures and the monitoring of trends in wider areas of health process and outcomes.

Data quality and quantity

Most official data sets currently provide no information on Life or Health indicators for LGB people. This is set to change in the next Census, which will endeavour to capture some data. There are data from other sources although they only provide a small part of the picture. HIV, sex and sexually-transmitted diseases are prominent as issues covered in research.

Sexuality (trans)

Of particular note are:

- Lack of data
- Small-scale research evidence of higher levels of poor mental health in this population
- Problems in getting access to gender reassignment treatment
- Some evidence of lack of respect by health care professionals when dealing with trans-gender individuals

LIFE

There are no data on life expectancy or cardiovascular disease mortality. Neither are there data on cancer mortality, although there is some American data on cancer screening.

HEALTH

Outcome

Localised and small-scale survey data provide some evidence suggesting that trans people experience less good health compared to non-trans. There is no consistent evidence on whether trans status has any effect on the chance of having a longstanding health problem or disability.

Localised and small-scale survey data suggest that levels of poor mental health are higher in the trans population. One study indicates significantly higher levels of the following disorders over the past five years as compared to the non trans population; insomnia, fears and phobias (and panic attacks).

Process

Lack of respect towards transsexuals from health-care professionals is a major theme in qualitative literature. There is also some small-scale survey research to back this up. 1 in 7 trans people who responded to a satisfaction survey said they had been treated adversely by health-care professionals because of their trans status. Many concerns centred on the gender to which people are assigned by the health carers.

For trans individuals, gender reassignment treatment is important. Some of the complaints about health care processes relate to attitudes to and availability of this treatment. For example, in one survey, 1 in 5 trans people did not find their GP helpful in dealing with this issue.

Autonomy

There is little data relating to healthy lifestyle. In one survey, trans individuals appeared to be more likely not to consume alcohol than non-trans LGB. There was also some evidence that a lack of trans-friendly spaces limited physical activity. There are specific issues relating to some cancer screening. From a satisfaction survey, 33% of respondents reported that their GP had ensured they were on appropriate screening programmes; it seems that Female to Male individuals are rarely included in breast screening and that Male-to-Female individual are similarly not offered prostate cancer. However, data are limited on this as they are also on the question of the effects of hormonal treatments on risk of, for example, breast cancer.

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Chapter 3: Methodology and method

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Contents

3.1 Key messages

The capabilities approach to justice claims that inequalities become matters of justice and human rights where they prevent or inhibit someone developing the capacities necessary to live a good life. The Equality and Human Rights Commission has provided a list of ten capacities or domains which are essential to a good life; health and life (or life-span) are two of these. Life-span is essential to a good life because human life that ends prematurely is qualitatively less than if it had run a full course. A reasonable degree of mental and physical health is essential because without it a good life is elusive and sometimes impossible to achieve.

Where people do not achieve the ten capacities or where they do not do so as well as others in society, their lives are diminished. For this reason, we should be concerned about non-achievement of and inequalities in achievement of these capacities. For example, if one group of people has much shorter life-span than another, this should concern us.

The inequalities we find in relation to health and life can be put into a number of categories on the basis of their relationship to fairness or justice:

1. Those generally thought to be natural or inevitable, such as the shortened lifespan of people with some inherited disorders, such as Down's Syndrome;

2. Those that are disputed as being natural versus socially created; for example, whether being a wheelchair user is a disability because of a natural phenomenon, such as spinal injury, or because of social decisions that make the environment hard to navigate by wheelchair;

3. Those generally thought to be socially created, such as shortened lifespan related to social class.

The view taken in this report is that all three inequalities should be viewed *prima facie* as matters of concern. This is probably obvious in the third case but less so in the second and perhaps not at all obvious in the first. However, few inequalities can be simply written off as natural and inevitable. For example, if people with Down's syndrome have higher rates of death due to cardiovascular disorders, this should be a stimulus to ensure there is good provision for that group and research into treatment. We should look for reductions in the inequality with the main population as signs of improvement in the situation.

For some individuals or groups there might be inequalities about which nothing can be done. An individual in persistent vegetative state can achieve little by way of important human capacities. But these cases are rare and tragic. As a starting point, we should view all inequalities in important human capacities as matters of concern and calls for action.

People are often blamed for poor health and life outcomes on the basis that they have made bad lifestyle choices, such as smoking; in most cases this explanation misses the deeper causes of people's behaviour; for example, working class single mothers are not genetically programmed to smoke more than company directors (and at one time would not have done) so we should look for the causes of this difference rather than being content with the smoking behaviour as an explanation.

Socio-economic status is strongly linked with inequality in life and health. Links to inequality in life and health exist in relation to the seven protected inequality strands that are the focus of the Equality and Human Rights Commission and of this report. Socio-economic status should not be used to 'explain away' inequality in life and health in other strands, such as ethnicity by saying, for example, that the relative ill-health of an ethnic group is due solely to their relative poverty. Again, we should be looking for the deeper causes, such as why an ethnic group is unduly socially deprived and what are the mechanisms by which this leads to worse health and life outcomes.

3.2 Methodology and method

This chapter sets out the methodology and method of this report. By methodology we mean the underlying beliefs and assumptions on which the report rests. In the main these are those of the Equality and Human Rights Commission's *Equality Measurement*

Framework; this *Framework* is, in turn, founded on an approach to fairness, justice and equality that is called the Capability approach (Alkire, Bastagli & Burchardt 2009). Thus the first section of this chapter sets out the Capability approach and the place of life-span and health, which are the focus of this report, in that approach. This section will be of use primarily to those who wish to engage with the discussion and commentary of the report. Those whose primary concern is the bare facts of inequality alone could bypass it.

The second section of the chapter sets out our method. By method we mean the techniques we used to gather the data for this report. This section will probably be of most interest to those who wish to check the origin of the data or who wish to update it for, for example, the next triennial review.

3.3 Methodology: Health and life in the capabilities approach to human rights

Our report concerns inequality across the seven protected strands in the two domains of life and health. The two domains are part of a set of ten set out by the Equality and Human Rights Commission in its *Equality Measurement Framework*. The *Framework* itself is a product of consultation with people and groups across Great Britain but is based in the Capabilities approach to justice developed by Sen and Nussbaum, amongst others (Nussbaum 2006, Nussbaum 2003, Sen 2005). In this section we describe how the domains of life and health sit within the capabilities approach and how capabilities relate to human rights. This will provide the basis for our discussion of inequality within each of the strands in that we will be able to highlight those inequalities that seem to be of greatest concern from a human-rights perspective. We also explain our decision in this report to devote a chapter to life and health inequality in a further strand, that of socio-economic status or class. The section is built around a series of questions, beginning with the question of when we should judge a health or life inequality to be unfair.

Is inequality in health and life due to nature, choice or unfairness?

Inequalities in life-expectancy and health are often put down to nature or to individual choices, that people die younger or are less healthy when they inherit certain genetic tendencies or when they make bad life choices. Were this the case it would seem wrong to speak of these inequalities as unfair, or as violations of human rights. Looking across the seven inequality strands of age, sex, sexuality, trans-gender, ethnicity, religion and disability, there seem to be examples of inequalities that might be explained as a function of nature or choice: prostate cancer kills men not women; lung cancer kills smokers; sickle-cell disease affects black people; old people are more likely to get cancer; people with Down's syndrome are more susceptible to heart disease; and so on. So when should we say an inequality is unjust rather than due to nature or choice? Let us begin by considering ill health due to poor life choices.

In a review of evidence on people's conceptions of the reasons for health inequalities, Blaxter (Blaxter 1997) found that men and women in manual and non-manual work thought individual behaviour is a factor in such inequalities, but that they also blamed poverty (to a much lesser extent) and stress (to a greater extent than poverty but less than behaviour). However, Blaxter also found fatalism with regards to life and health, particularly from manual workers; fatalism in this context is the view that ill-health and mortality is largely a matter of luck and there is little you can do about it. In explaining this, people pointed to factors in the environment that were out of an individual's control, such as dangerous or stressful work. In a study of unmarried mothers, Graham (Graham 1994) found that young mothers smoked believing they had to in order to alleviate short-term stress and possible mental illness, despite knowing that smoking had long-term health costs.

A decision to smoke can be viewed as up to the individual and its consequences that person's fault. But if this were the case we should expect a roughly even spread of smoking across strands and across class. In fact, decisions to smoke are unevenly spread. This could be because of a prevalence of addictive or risk-taking personalities in some groups and areas; but more plausible is that factors in people's life and environment make a pro-smoking choice more likely for some than others. If these factors are to do with social benefits and burdens then we have entered the realm of injustice. In other words, if some groups smoke more because, for example, it is a means of coping with the stresses of unemployment or poverty, then the illnesses of smoking should be viewed as a result of unemployment or poverty as well as individual choice. Hence, for example, the inequalities between rich and poor in relation to lifestyle choices such as smoking and exercise can be viewed as the result of collective injustice rather than simply the accumulation of a lot of poor choices by the poor and good choices by the rich. An underlying assumption of our report is that the link between choice and injustice is plausible. We turn now from inequalities (wrongly) explained as due simply to choice, to inequalities (wrongly) explained as due simply to nature.

In the literature on disability there is extensive discussion of a distinction between those who view disability as natural and those who view it as socially created. Those who view it as natural would tend to say that, for example, an illness that results in someone being wheelchair-bound is due to nature; it is no-one's fault and is not a matter of justice. We might choose to help the wheelchair-bound by improving access to buildings but this is a matter of charity, not justice. Those who view disability as socially created would say that the illness resulting in being wheelchair-bound is natural but that the creation of an environment in which wheelchair mobility is restricted is not. The difficulties in living experienced by the disabled are due to decisions made about structuring the social environment. Hence, the relative immobility of wheelchair users is an inequality that is unjust rather than natural.

On the other hand, it seems unlikely that all inequalities are the result of injustice. For example, the short lifespan of a child with Tay-Sachs syndrome would occur in any society no matter how fair. Others inequalities might be a product of combinations of nature, lifestyle and unfairness. The high mortality rate of young women with eating disorders could be viewed in this way. It follows that before we set out the inequalities in health and life in this report, we need some mechanism with which to discuss them and to help us sort out inequity from (mere) difference.

The capability approach

This report is based around the *Equality Measurement Framework* designed by the Equality and Human Rights Commission. This Framework is based on the Capabilities approach to justice and human rights developed initially by Sen and Nussbaum (Nussbaum 2006, Nussbaum 2003, Sen 2005). Sen first developed the Capabilities approach as an economic tool by which a nation's wellbeing and quality of life could be assessed. Sen was interested in famine. Famine can be thought to be the product of shortage in a society; people starve when there is insufficient food. If this were so, the way to overcome it would be to increase a nation's gross national product (GNP) so that it either produces enough food or can buy it. However, Sen's examination of actual famines showed that they were rarely due to shortage; food was available but those who starved were not entitled to it. It follows that GNP is a bad indicator of wellbeing in that nation; GNP could increase in a country experiencing famine but without a change in entitlement the famine would remain.

Sen suggested, therefore, that judging a nation's quality of life required looking at what its citizens could do and be within the overall restriction of a nation's GNP. One vital element is, of course, the ability to be sufficiently well fed. But there are many others. Slaves could be well fed but could not be said to have a good quality of life; political and personal freedom would be another element in a good quality of life. Judging quality of life thus requires examining a range of such elements. Furthermore these are not fungible; you cannot substitute one for another. For example, you could not make up for a slave's shortage of freedom by giving him more food.

From this criticism of a GNP-based approach to quality of life and this analysis of famine, a theory of justice has emerged. It has long been held that fairness or justice has some kind of link to equality; people should be treated equally in some way. But this is problematic. For example, giving everyone an equal number of vouchers to use on health care would be treating them equally but would seem to be unfair because some need lots and others don't need any. So the key question for Sen in relation to justice is: equality of what? In what way should people who are clearly different in many ways be viewed and treated as equal? This question is perhaps the starting point for all accounts of justice.

There have been many attempted answers to the question. For some it is equality of respect for property rights, for others, equality of respect for property and welfare rights, and for others, equality of certain outcomes, such as wealth. Sen suggests that the important equality is of the capacity to be and to do across a range of characteristic and worthwhile human functions and activities.

The notion of a capacity to be and to do might seem Gnostic or mystical, but it is not. If asked what people need to live well, to flourish, most of us would be able to come up with a list. The lists would vary but there are likely to be common elements, or at least elements people would agree to once they were suggested. Living a normal life-span, being healthy, being secure from violence and fear, are obvious candidates. Less obvious but plausible are notions of being able to pursue your goals in life, being sufficiently educated and being able to participate in civic and political affairs. It is these that are behind the idea of a capacity to be and to do. A society has a high quality of life to the extent that its citizens (all of them) are able: a) to be - healthy, alive for a normal life-span, secure from violence and fear, and so on, and b) to do - to pursue goals, read and learn, participate in civil life, and so on. Furthermore, and crucial to the account of justice, a society is just or fair to the extent that all its citizens have these capacities. Thus, if one group of people is living much longer than another then this is a cause for concern from the point of view of justice.

We said above that the capacities are of 'worthwhile' capacities and functions; this is an important restriction. Humans have the capacity to do many things that are either trivial or wrong. For example, we might not be too concerned as a matter of justice if some people exercise the capacity to drive Lamborghinis whilst others don't; although we would be concerned if some people's capacity to drive such cars inhibits the more important capacities of others. And we would certainly not want to extend to all the capacity to hurt others for fun.

Deciding what capacities are worthwhile is for Sen and Nussbaum a social process that will develop and change over time. Sen does not provide a list but Nussbaum suggests ten, on the basis of thought and of discussion with others. These are:

- Life - including not dying prematurely
- Bodily health - including nourishment and shelter
- Bodily integrity- including free movement, security against assault, opportunities for sexual satisfaction
- Senses, imagination and thought - being able to use your mind in a characteristically human way following, for example, adequate education
- Emotions - not having emotional development blighted by fear and anxiety

- Practical reason - being able to reflect on life and develop a conception of a worthwhile life for yourself
- Affiliation - to live with others with respect and without discrimination
- Other species - to live with concern for animals and the natural environment
- Play - being able to laugh, play and recreate
- Political and material control of the environment.

Where citizens are unable to meet these capacities to some threshold point a) they cannot truly flourish and b) there is a concern of injustice.

What is the link between capabilities and rights?

How, though, does this connect to rights? Rights are generally explained in terms of entitlements and duties: someone has a right to x if she is entitled to x and if others have a duty to ensure she can x. For example, if I have a right to free speech I am entitled to speak my mind and others have a duty not to prevent me doing so; I have a right to free health care if I am entitled to it and others have a duty to provide it. The free-speech right is an example of a negative right, a right to non-interference; the health-care right is an example of a positive right, a right to a service of some kind. Can we really say that someone is entitled to a full life span and others have a duty to provide it? If so, is it a negative or positive right?

In Nussbaum's capabilities approach, rights and capabilities are closely allied. The ten core capabilities must be realised for a human being to flourish. If we have any moral duties to each other at all then helping others to realise their capabilities to be and to do is at the core of these. The capabilities of others are the foundation of their rights and our duties (as well as our rights and their duties). Taking life-span as a core capability and, therefore, a human right, our duties will lie in both the negative sense (of not taking action that shortens life) and the positive sense (of taking action to remove threats and dangers).

The precise nature of the duties borne in terms of the right to life will vary depending upon the duty holder: the government will have a duty not to kill its citizens and to ensure that neither do others; the employer will have a duty to protect employees; the health care system will have a duty to protect the populace.

The early death of an individual does not necessarily imply the violation of the right to life; getting an inherited cancer that kills is bad luck. However, if the cancer is due to the known presence and acceptance of carcinogens in a workplace by, for example, the relevant Government department, then that should be seen as a human rights issue.

This takes us to the link between inequality and human rights in terms of life expectancy. Avoidable inequality in life expectancy looks unjust; if it is caused by failures on the part of those who had duties to protect the people affected then we can say it is certainly unjust and a violation of rights.

Thus, in the chapters that follow, when we look at inequalities in life expectancy we shall also be looking for evidence of failures to respect the human right to life in this sense; that is, as the right to have the full life you would be capable of in a just society.

As with life expectancy, at first it seems strange to talk of health as a human right rather than, for example, health care. How can people be entitled to health given that it is not in anyone's power to guarantee it? The answer runs along the same lines as that given in relation to life expectancy. People have the right to the best health they are capable of; or, perhaps more precisely, they have the right to the opportunity to achieve the best health they would be capable of in a just society.

There remains a question here of how much resource society has to provide in order for people to meet their capabilities. For example, it might be possible to keep someone alive but only at great expense; is it really a violation of rights to fail to provide this? According to Alexander, Nussbaum and Sen do not address this question adequately (Alexander 2008). He suggests that Dworkin (Dworkin 1992), who is not a capability theorist, provides a useful tool. We should imagine ourselves deciding how to allocate health resources behind a veil of ignorance which denies us self-knowledge of our health and disability status. The allocation decisions we reach behind this veil will be fair. This veil-of-ignorance device is well known in philosophy; Rawls developed it in his account of justice (Rawls 1999). It's a powerful theoretical tool but in practice hard to create a situation akin to a veil behind which we place real decision-makers. Thus, in this report we leave aside the question of resource allocation. We describe which inequalities are, to us, of concern but do not make a judgement as to whether resources should be allocated to alleviate the problem.

How does the Capabilities approach relate to the Equalities Measurement Framework and to this report?

The *Equality Measurement Framework* has been developed by the Equality and Human Rights Commission as the main tool with which it will assess equality and human rights in Great Britain. It is based on the Capabilities approach and sets out ten central domains in which equality should be examined in judging the fairness of a society. These are similar but not identical to those of Nussbaum. The ten are: life; health; physical security; legal security; education and learning; standard of living; productive and valued activities; individual, family and social life; identity, expression and self-respect; and participation, influence and voice. Thus, for example, if women are not given equal access to education and learning this looks like an injustice, a violation of a human right. An important methodological difference between Nussbaum's list and that of the Framework is that the latter is the product of consultation across a broad range of people and official bodies whereas the former is a product of reflection and theory. However, it is arguable that the lists largely contain the same competencies labelled differently, with the exception of Nussbaum's "other species" competency.

The Equality and Human Rights Commission's triennial review will examine the state of inequality across these ten domains (or competencies) for seven inequality strands protected in law. The focus of our report here is the first two domains, life and health. The domain of life is primarily to do with life-span or life expectancy. Let us introduce these domains in a little more detail.

> *Life expectancy*
>
> Individuals who die prematurely have generally been denied an opportunity to live a flourishing life; humans need to live a full-length life in order to live a good life. Of course, many who have died young have been highly influential and productive. However, their early death has generally contributed nothing positive; their lives

would have been better, their capabilities more realised, had they lived longer. It might be argued that early death is occasionally positive as when people die courageously in some way. But again, although the expression of courage enables us to look back and say this was a good life, it would have been better had early death not resulted from their courageous act. Some people will choose a life of risk and danger as part of their flourishing. Even so, it will be better if the risks do not eventuate, if the risk-taker survives in tact. It is difficult to imagine a real-life analogue of the story of Achilles, who was given a choice of a short, glorious life over a long mundane one, and who chose the former. It seems then reasonable to say that life-expectancy, being alive, is a capability that must be realised for someone to live as well as possible, to be and to do what she can. The British politician Frank Dobson once said:

> There are huge inequalities in our society**.** Poor people are ill more often and die sooner. And that's the greatest inequality of them all - the inequality between the living and the dead (Warden 1998)

All of us will die eventually; but some are far better placed to live long lives than others. In our chapter on class we show that this is a strong indicator for life expectancy. If this is avoidable inequality in life-span then it is unjust.

Health

Human beings need a reasonable degree of mental and physical health in order to flourish. The precise degree will vary between individuals; the physical health required by someone whose life is oriented towards physical activity might be greater than that of someone whose life is primarily intellectual. Further, individuals can adapt to negative changes in physical and mental health and still flourish. Nonetheless, for all of us, good health makes it easier to live well; and at some point, poor health makes it impossible to do so. Patterns of inequality suggest that some people and groups are denied this right. Again using the example of class, if society were organised differently then those currently at the bottom end of the health gradient could have better health; that they do not looks to be injustice and a denial of the right to health.

The *Equality Measurement Framework* gives a number of indicators within each domain which should be examined when assessing the state of inequality in Great Britain. For example, the indicators relating to Life include life expectancy at birth, ages 20, 65 and 80; those relating to Health include percentage who report poor current health status. There are three types of indicator: those to do with outcome, process and autonomy. Outcome indicators are measurements inequality in important outcomes such as life expectancy. Process indicators relate to important processes in civil and social life such as whether you are treated with respect in health care. Autonomy indicators relate to your ability to control your life, for example, whether you are well informed in making lifestyle choices. In our discussion of the indicators within each inequality strand we make use of this three-way distinction.

Not all indicators are meaningful by inequality strand. For example, the Health indicator of percentage reporting a longstanding illness or disability is of little use in assessing the disability strand as the indicator is also the main definer of disability; we should expect 100% of disabled people to affirm this indicator. Other indicators require careful interpretation. The discussion above on the relationship between nature, lifestyle and unfairness in causing inequality shows why. As an example, a higher than average cancer mortality in the disabled might be purely a product of nature, related to the disability itself, or it might also be the result of inadequate screening for those with disability. Our discussion in each chapter draws attention to these subtleties; we try to separate the clearest unfairness from those where further reflection is needed.

Class and its relationship with the seven protected strands

In this report we also examine the state of inequality in relation to socio-economic status, or class. There are two reasons for this. The first is that class is a major axis of inequality in relation to health and life; this has been noted in a large body of research and is the focus of Government-sponsored work, including the recent Marmot Review (Marmot Review 2010). The second is that because of its importance class can hinder recognition of inequality across the other strands. For example, someone might suggest that once you adjust findings for class-effect, inequalities due to ethnicity disappear; and that, therefore, the inequality is all about class rather than ethnicity (see chapter on ethnicity and religion in this chapter). There are at least two problems with this.

The first is that some inequality within the ten domains cannot be simply put down to class; it would remain even if an adjustment for class were made. An example is the difference in life expectancy between men and women. The second is that if an inequality due to, for example, ethnicity, disappears when adjustment is made for class it does not follow that ethnicity is unimportant in understanding the inequality. There is clearly some sort of relationship between class and ethnicity such that one ethnic group is overrepresented in, for example, the lower classes of the National Statistics Socio-economic Classification (NS-SEC). Whilst we may not and cannot say in detail in this report what that relationship is we should not ignore the ethnic element; the picture of inequality should not be assumed to be simple and class-based.

The chapter on class precedes the chapters on the seven other inequality strands. In the commentary on the seven inequality strands we discuss the relationship between the inequalities noted by strand and those noted by class. This relationship is striking in the case of ethnicity, far less so (perhaps partly due to lack of evidence) for other such as Lesbian, Gay and Bisexual people.

To summarise: in this report we identify inequality in the domains of life and health across the seven protected inequality strands. We precede that investigation with a chapter identifying the inequality in life and health related to socio-economic status. In our commentary on inequality identified we attempt to show which is or might be a human rights concern from the perspective of the capabilities approach. We also try to show the connections between inequality related to class and that which occurs in the other seven strands. We do not, however, suggest which inequality should be tackled as a matter of rights; doing so requires an economic judgement that is beyond the scope of this report, namely, whether society should devote resources to the inequality and, if so, how much. We move, next, to a description of the method used to gather the data for this report.

3.4 Data sources

As noted above, the information presented in this report is largely guided by the core set of indicators identified in the EMF (Alkire, Bastagli & Burchardt 2009). Issues of data availability and comparability have been discussed quite extensively elsewhere (Alkire, Bastagli & Burchardt 2009, Walby, Armstrong & Humphreys 2008) and we therefore highlight just the key issues to be borne in mind when reading the current report. In addition to the core indicator set, we have supplemented the description of inequalities in places with additional indicators, either because data are lacking for the core EMF indicator, or because we feel that additional measures are warranted, for instance where there are concerns that the chosen indicator does not operate well across the sub-groups of interest.

Some quantitative data sources are drawn on extensively across the chapters and we briefly described these below. In addition, each chapter draws on supplementary data sources that are particularly relevant to the strand in question, these are described in the individual chapters. The report also draws on smaller scale research, local and regional studies and grey literature as appropriate where the availability of national level data is limited. Again, these are described in more detail in the individual chapters.

Core data sources used across several chapters:

LIFE:

The Office for National Statistics and the General Register Office for Scotland (GROS) produce regular information on life expectancy, mortality rates and cause-specific mortality. There are some variations between these in the way that information is presented - for instance in the grouping of cause of death ICD-10 codes and the use of age-standardization - which can make direct comparisons of published figures difficult. Furthermore, not all data are routinely presented for England and Wales separately, meaning that patterns for Wales are largely obscured in the larger England & Wales combined data that are presented. As discussed in the individual chapters, life indicators are not available for several of the strands.

HEALTH: morbidity and healthy life-styles

National-level health-focused population-based surveys have been fielded in England, Scotland and Wales over several years, though the series is longer established in England than in the other two countries. These surveys - the Health Survey for England (HSE), the Welsh Health Survey (WHS) and the Scottish Health Survey (SHeS) provide detailed information on health status and health-related life-style factors with information being collected both via face-to-face interview and a nurse visit. *The Health Survey for England* is an annual survey that began in 1991. All surveys have covered the adult population aged 16 and over living in private households in England. Children have been included in every year since 1995. *The Welsh Health Survey* took place in 1995 and 1998 with a sample of 30,000 adults in Wales, and from 2003 has been run with a yearly sample of 15,000 adults. *The Scottish Health Survey* is a national sample survey of around 8,000 adults and 3,000 children carried out in 1995, 1998, 2003 and 2008. Routine analyses published from the data collected through these surveys vary considerably so that a wider range of information is readily availability for England than for the other two countries. The three surveys do not always employ standard analysis and presentation procedures making comparisons across the countries difficult in some cases. Nevertheless, the data sets are deposited with the UK Data Archive allowing further secondary analysis. Selected analyses of the 2008 data from these surveys have been performed for this report. A further source of information on health and life-style factors is the General LiFestyle Survey (GLF), formerly known as the General Household Survey (GHS). This is a multi-purpose continuous survey carried out by the ONS collecting information on a range of topics from people living in private households in Great Britain. The survey has run continuously since 1971, except for breaks in 1997/8 (when the survey was reviewed) and 1999/2000 when the survey was re-developed. The GLF is a module of the Integrated Household Survey (IHS). We draw on data from this survey across several of the chapters.

HEALTH: *Health service experiences (perceptions of treatment with dignity)*

There are two main sources of data on people's perceptions of treatment with dignity and respect in health services. In England and in Wales population based surveys have been fielded - the Citizenship Survey and the Living in Wales survey (to be replaced by the National Survey for Wales in future) - that have included relevant questions. These have been analysed by the equalities strands of interest for this report. In addition, the Care Quality Commission (formerly the Health Care Commission, the Mental Health Commission and the Commission for Social Care Inspection) and Better Together, Scotland's Patient Experience Programme regularly undertake surveys of patients and providers to assess experiences and quality of care. Unfortunately, the standard production of results from these surveys is not particularly useful for the purposes of EHRC's equalities monitoring agenda. This is because the focus tends to be on healthcare organisations - GP practices and NHS trusts - rather than on sub-sections of the population. In addition, there is no well-organised system of accessing these data for secondary analyses and there seem to be obstacles to releasing the data, especially when variables such as ethnicity are required. For instance, the recently produced summary of findings from national in-patient surveys over time does not include any analyses disaggregated by sex, age or other patient characteristics (Care Quality Commission 2009).

In several cases, we were unable to identify adequate data to examine the EMF core indicator and these data gaps have largely been documented previously. However, we discuss in the chapters that follow some additional data inadequacies that have been identified during the course of our review that warrant further attention.

3.5 Issues to consider in identifying and assessing inequalities

Identifying the 'groups'

The ease with which meaningful groups of people who share certain characteristics and life experiences can be identified varies across the equality strands. For instance, while the great majority of people can be categorised into either 'male' or 'female' and the boundaries of these groups are relatively stable (even if the implications of such group membership are not), this is not the case for ethnic categories or disability categories. Indeed, as discussed in Chapter 7 on Race and Ethnicity, such categories are socially constructed varying across time and place, are not natural or neutral, and are inevitably crude markers of health-related risk (Salway, Ellison 2010, Salway et al. 2009, Bradby 2003). Furthermore, some of the current statutory categories, in particular Black African and White Other, are extremely crude, covering a diverse range of people with differing languages, cultural norms, countries of origin and so on. Caution is needed in interpreting quantitative data that present differences between such artificially fixed 'groups' and we should be alert to the essentialism and reification that can ensue from these approaches.

Intersectionalities or 'cross-overs'

In addition to the need to recognise the limitations of working with fixed categories for some of the equality strands, it is also important to be alert to the internal heterogeneity of the 'groups' identified and the ways in which individual outcomes and experiences are shaped by multiple identities simultaneously (Molloy, Knight & Woodfield 2003). Throughout the report we try to identify cross-over themes and vulnerable groups, and to alert the reader to the importance of not assuming that patterns of inequality always move in the same direction. For instance, in Chapter 8 on Sex and Gender we show how the socioeconomic inequalities in health indicators are not the same for men and for women. Similarly, in Chapter 7 on Race and Ethnicity we illustrate the differing sex inequalities in several life-style factors across the ethnic groups, as well as highlighting the particular vulnerability experienced by older Pakistani, Bangladeshi and Indian women. More examples are found in the other chapters.

Consistency of measures

It is important to note that comparisons between some of the core indicators presented in the chapters that follow may be affected by variations in the question format and codes that have been employed. For instance, the questions used to assess self-reported health vary between the health surveys as well as in the census. Table 1 and Table 2 summarise the key variables derived from the health surveys. Interested readers should consult the survey documentation and questionnaires for more information. Furthermore, there have been some important changes over time in the way that measures have been calculated - most notably for the alcohol indicator - and this means that it is difficult to assess trends over time.

Table 1: 2008 Health Surveys: measures of self-reported health

	Question wording/ indicator computation	**Response options**	**Notes**
Self rated health			
HSE	How is your health in general? Would you say it was ...READ OUT...	1 very good; 2 good; 3 fair; 4 bad; 5 very bad?	We have taken 3-5 as poor health in our analysis.
SHeS	How is your health in general? Would you say it was ...READ OUT...	1 very good; 2 good; 3 fair; 4 bad; 5 very bad?	
WHS	In general, would you say your health is ... ?	Excellent; Very Good; Good; Fair; Poor	We have taken Fair and Poor as poor health in our analysis.
LLTI			
HSE	Do you have any long-standing illness, disability or infirmity? By long-standing I mean anything that has troubled you over a period of time, or that is likely to affect you over a period of time?	Y/N	Respondents were coded as having an LLI if they responded yes to both of these questions
	Does this illness or disability/do any of these illnesses or disabilities limit your activities in any way?	Y/N	
SHeS	Do you have a long-standing physical or mental condition or disability that has troubled you for at least 12 months, or that is likely to affect you for at least 12 months?	Y/N	Respondents were coded as having an LLI if they responded yes to both of these questions
	Does (name of condition) limit your activities in any way?	Y/N	
WHS	Do you have any long-term illness, health problem or disability which limits your daily activities or the work you can do? (Include problems which are due to old age)	Y/N	
Common mental health problem			
HSE/SHeS	GHQ Score - grouped	0; 1-3; 4+ (4+ indicating probably CMD)	Derived from individual GHQ questions
WHS	SF36 Mental health score (norm-based)	no cut-off	Derived from individual SF-36 mental health questions and normalised

Table 2: 2008 Health Surveys: Health-related life-style factors

	Question wording/indicator computation	**Response options**	**Notes**
Smoking (not currently smoking)			
HSE/ SHeS	Do you smoke cigarettes at all nowadays?	Y/N	
WHS	Which one of these best describes you?	I smoke daily I smoke occasionally but not every day I used to smoke daily but do not smoke at all now I used to smoke occasionally but do not smoke at all now I have never smoked	Used to smoke and never smoked responses combined.
Alcohol consumption (within government guidelines)			
HSE/SHeS /WHS	Maximum daily consumption within guidelines: Number of units consumed on heaviest drinking day in past week: Derived from a battery of questions on types and amount of alcohol consumed	Women up to 3 units or >3 units Men up to 4 units or >4 units	One unit of alcohol is 10ml by volume of pure alcohol. 2006 revised questions including information on glass sizes and types of alcohol. Revised conversion factors.
Fruit and vegetable consumption (5 a day)			
HSE/ SHeS	Grouped portions of fruit & vegetables yesterday (last 24 hours): Derived from a battery of questions on the amount and type of food consumed.	0; 1<2; 2<3; 3<4; 4<5; 5<6; 6<7; 7<8; 8+ (further recoded into Y/N for 5 or more portions)	One portion defined as 80g. Fruit juice, pulses and dried fruit each count only as one portion.
WHS	Eaten 5+ fruit or vegetables the previous day - binary derived variable from a battery of questions	Y/N	Methodology similar to HSE and SHeS . Changes introduced this year to ensure comparability.
Overweight & Obesity			
HSE/SHeS/WHS	BMI : derived from height and weight measures taken in interview.	18.5<25; 25<30; 30<40; 40+	
Exercise (meets government guidelines)			
HSE	Number of days per week any moderate+ activities for 30 mins+: derived from the enhanced physical activity questionnaire, bouts of exercise of 30 minutes or over included and summed.	< 20 or 20+ occasions of moderate or vigorous activity of at least 30 minutes duration in the last four weeks (i.e. at least five occasions per week on average).	Respondents questioned about up to 4 main activities in the past 4 weeks. The summary measure incorporates three basic dimensions (frequency, intensity, duration) of overall physical activity level.
SHeS	Number of days per week any activities 30 mins +, bouts of 10 minutes or more included (sports = moderate if effort): Derived from a number of questions on type, duration and frequency of activity	>1; 1-2; 3-4; 5 or more	Methodology same as HSE but shorter bouts included in summation.
WHS	Activity in past week met government guidelines: derived from questions asking about light/moderate and rigorous exercise or physical activity in the past 7 days. At least 30 mins moderate or vigorous exercise on 5+ days in the past 7 days.	Y/N	Shorter and simpler set of questions that in HSE or SHeS

Validity and meaningfulness of measures across groups

A further issue that warrants some consideration is whether the indicators chosen operate similarly across the groups being compared. Can the differences observed be taken as evidence of real difference in the outcome or experiences of the groups or are they rather an artefact of the way the data collection procedures operate in the different groups? These issues have been particularly highlighted in some areas, for instance the assessment of mental well-being across ethnic and linguistic groups (Sproston, Nazroo 2002). However, more generally it has been argued that men and women assess and report their health differently thereby making comparisons of self-reported health difficult (Doyal, Payne & Cameron 2003) and it is likely that these factors are relevant across all the equality strands to a greater or lesser extent. Qualitative studies can usefully supplement quantitative work to increase our understanding of how health is understood and evaluated by different groups of people. However, there is a need for greater validation of some of the indicators that are routinely used to describe and monitor inequalities in health.

Size of effects, statistical significance and importance

While throughout the report we have tried to indicate where the differences reported between groups are statistically significant, it is also of interest to pay attention to the size of the effects and to reflect on their importance at a population level. In different parts of the report we present differences as well as ratios between groups. As discussed in Chapter 8 on Sex and Gender, these measures can sometimes show quite different patterns and it is important to reflect on their implications. It is also worth considering how many people are affected by a particular inequality. There is also the issue of persistence of the inequality in question and whether other inequalities also cluster together in particular groups, as well as the knock on implications an inequality may have for other aspects of people's lives. What factors make an inequality a cause for concern? What factors suggest that an inequality should be a priority for action? These are challenging issues that must be borne in mind when considering the evidence that has been compiled in the chapters that follow.

Meaningfulness of comparisons

The EMF is premised on drawing comparisons across 'groups' within the equality strands - for example comparing men to women, or comparing people identified as 'Bangladeshi' with those identified as 'White British'. There are a number of areas of caution that are warranted in relation to drawing such comparisons:

- Always taking a particular group as the standard against which the other group(s) are compared can serve to normalise that group, implying that the other groups are abnormal and problematic.
- Comparing to a standard group can also conceal important health issues if there are no apparent differences between the groups. It is important to look at absolute levels as well as relative differences.
- Drawing comparisons may not be meaningful if the issue in question affects the two groups completely differently or if the standard is a poor model against which to compare the other group(s). An example here is where male-female comparisons suggest that Scottish women are advantaged but comparisons with women in other parts of Europe reveal their shockingly worse health profile. A further example is the indicator 'Deaths from non-natural causes for people resident in health or social care establishments' which might be explored for older people as compared to younger people. In practice, there are so many factors that distinguish the circumstances of older people who are resident in such institutions from younger people that any simple comparison of the indicator is meaningless.
- Comparisons between the aggregate groups may conceal important heterogeneity within the groups, for instance by socioeconomic status.

Confounding factors and causal pathways

Simple comparisons of indicators across groups tell us nothing about underlying causal factors or possible routes of intervention (Salway et al. 2009). The groups in use in this report are markers for a whole range of factors that have potential explanatory power. It is important that we avoid slipping from simply *describing* differences into *explaining* them when the necessary data are not in place. This is a particular concern in health inequalities work since there is often a tendency for people to fall back on essentialist genetic/biological or culturalist explanations that tend to blame those who are disadvantaged rather than seeing causes in the wider structural inequalities of our society. Each chapter that follows has made an attempt to discuss the evidence for the possible causal factors that could explain the inequalities presented. In most cases our understanding is very poor and there is clearly an urgent need to do more to understand and seek ways of addressing the Life and Health inequalities evident in Great Britain as well as to systematically expose and monitor them.

3.6 References

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Chapter 4: Socio-economic status or class

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Chapter 4: Socio-economic status or class

4.1 Key messages

What are the inequalities? How persistent and how worrying are they?
Class is well established as an indicator of inequality in both Health and Life indicators. In general, lower social class is related to lower life expectancy and poor health outcomes. The most recent Government report that outlines this is the Marmot Review. Similar patterns of inequality exist in England, Wales and Scotland.

LIFE
Life expectancy for all classes and both sexes has improved since 1972 in England, Wales and Scotland. Throughout this period, however, the gap in life expectancy has increased. Whilst men and women in England & Wales in social class I had improvements in life expectancy at birth of 8.1 and 6.1 years respectively, the equivalent figures for social class V are 6.2 and 3.9 years.[3] There are variations within this, for example, men in social class IIIn (non-manual) fared very well. The general picture is one of improving life expectancy for all but an increasing gap between the richest and the poorest. In the most recent period of change measured on the longitudinal study (from 1997-2001 to 2002-05) the increase in life expectancy was only 0.1 years for social class V; for social class I it was 2.5 years. In Scotland, data is available only on the basis of region. They show a pattern of mortality being clearly linked to an area's deprivation level.

Inequality along social class lines is found for cardiovascular disease mortality. In the period 1997-99, a man from social class V was 1.86 times more likely to die of the disease than a man from social class I. Women in general were less likely to die of cardiovascular disease but women in social class V were 2.27 times more likely to do so than women in social class I.

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[3] These categories are explained in the main text.

For cerebrovascular disease, however, there is no statistically significant link in mortality rates by class although the data in men show a trend towards a social gradient. More recent data from England suggest that the gap in mortality rate due to circulatory disorders in general, a large part of which is made up of cardiovascular and cerebrovascular disorders, is declining.

Cancer mortality overall is only slightly related to class overall but there are some patterns of inequality. Lung cancer mortality in men and women, and cervical cancer mortality in women are both higher in lower social classes.

The risk of suicide is strongly related to gender; men are more likely to commit suicide. However, there is also correlation with deprivation. The suicide rate in the most deprived areas of Scotland, Wales and England is significantly higher for both sexes.

Data on the accident mortality rate for England & Wales have not been disaggregated by deprivation or class. There are other proxy indicators but these do not suggest a particularly strong relationship between the rate and deprivation. There is more information available from Scotland. This shows a clear and statistically significant relationship between deprivation and accident mortality. Those in the most deprived areas of Scotland have an accident mortality rate approximately double that of the least deprived.

HEALTH

Outcome

Self-reporting of poor current physical health is correlated to deprivation or to class in England, Wales and Scotland. In Scotland, the odds of those in the lowest quintile of deprivation (by area) self-reporting poor current health was eight times higher for men and 2.5 times higher for women. There is also a relationship between class or deprivation and healthy life expectancy. In England in the period 1994-9 the difference in healthy life expectancy between the highest and lowest deciles of deprivation was around 16 years for both men and women. The Office for National Statistics is currently collecting this data on an experimental basis at a local level so more up-to-date figures should be available soon. In 2007-8, healthy life expectancy for men in Scotland was 57.5 years in the most deprived areas and 68.0 years in Scotland overall. The equivalent figures for women are 61.9 years and 70.5 years.

The proportion of people who report: poor current health; longstanding health problem or disability (England & Wales) and longstanding illness (Scotland) [LLTI] is strongly associated with socioeconomic status. Figures for Great Britain overall show that LLTI is associated with social class; those in routine or manual backgrounds and those who are long-term unemployed are more likely to have an LLTI.

Poor mental health is associated strongly with socioeconomic status; manual workers are slightly more likely to have mental illness than non-manual; those with lowest income are much more likely to have mental illness than those with the highest income. The route of causation here is unclear; living on a low income may increase the likelihood of developing mental illness, but mental illness may also reduce the likelihood of being able to progress to and work in high-earning posts. However, it remains a serious inequality whether it is the result of those with mental illness becoming poor or those in poverty becoming mentally ill.

Process

The data available suggest there is no class-based inequality shown in the perception of treatment with dignity.

No class-based inequality is shown in the limited (Wales only) data on A&E attendance - this finding is at odds with the finding on accident mortality.

No class-based data are available on support for nutritional needs in hospital.

Autonomy

Low social class is directly related to several but not all markers of unhealthy lifestyle: cigarette smoking, exercise and diet but not overweight and obesity.

Smoking: there are clear social gradients in smoking prevalence in England, Wales and Scotland. In England, the percentages of men and women in the highest quintile earners reporting 'current' smoking status are 15% and 13%; in the lowest quintile, the respective figures are 40% and 32%. The data relating to area deprivation and smoking are slightly less clear in England but the pattern is clear in Scotland and Wales. For example, in Wales, 15% of managerial and professional households report a smoker against 40% in the long-term unemployed and those who've never worked. In Scotland smoking patterns vary by NS-SEC. Levels are highest in men and women in semi-routine and routine households and lowest among those in managerial and professional households. For example, amongst men, 36% of the former are current smokers against 17% of the latter; the equivalent figures for women are 38% versus 16%. Similar patterns are seen in relation to household income quintile and Scottish Index of Multiple Deprivation; for example, smoking levels in the most deprived areas are more than double those in the least deprived for both men and women.

Alcohol: In England, there is a slight social gradient in those drinking more than four units and more than eight units on the heaviest drinking day in the past week. The gradient is in inverse relation to household income quintile; those in the highest income quintile have more heavy drinkers than those in the lowest.

In women this pattern is lost entirely. In terms of the number of days on which people drank alcohol in the last week, men in the highest quintile drank more regularly than those in the lowest (3.2 days versus 1.7 days). Those in the lowest quintile were far more likely to have a week without drink (46%) than those in the highest (15%). In women, a similar gradient is present; the richest drink more than twice as often as the poorest. The gradient is less steep then in men, however.

In Wales, drinking above guideline levels is highest in the managerial and professional classes; binge drinking is highest in the same class and in routine and manual classes. There is no clear gradient in relation to binge drinking however; drinking above guidelines is most common in the least deprived areas and least common in the most deprived areas. Binge drinking is fairly level through all areas.

In Scotland, among women, levels of weekly consumption are associated with socioeconomic classification, household income and area deprivation. Levels of consumption are highest amongst the managerial and professional, highest income and least deprived group. Among men, there was no clear association apart from that men in the most deprived areas are more likely to drink above 50 units a week.

In terms of daily drink levels in Scotland, there is no clear relationship between those drinking above recommended limits or binge drinking (over double the daily recommended limit) by SN-SEC in men or women. However, in terms of household income, for men, daily consumption is directly related to household income such that the poorest drink least. The pattern for binge drinking is similar. Mean units drunk were also highest among those with higher incomes (6.8 units in the highest income group compared to 5.5 units in the lowest). A similar pattern is seen in women, with the highest income quintile more likely to drink above three units than the lowest; however, binge drinking (above six units) has no such pattern. Area deprivation was significantly associated with daily drinking patterns for women (the most deprived least likely to drink above three units) but not for men.

Exercise: In England & Wales there is little or no association between physical fitness and measures of class, or between self-perceived levels of activity and class.

In Scotland there are differences in the proportion meeting activity recommendations by NS-SEC for both men and women. The pattern is not one of a straightforward gradient, however. The relationship by household income is clear and linear. 50% of men and 40% of women in the highest income quintile households met the recommendations compared to 35% and 28% in the lowest. Men and women in the most deprived quintile of areas of Scotland were least likely to have met the activity recommendations. For men, though, the pattern is not linear as those in the third quintile were most likely to have met them. For women, the gradient can be seen between across all deprivation quintiles.

Diet: In England, for both men and women there is a social gradient in terms of the mean number of portions of fruit and vegetables eaten daily aggregated by equivalised household income. For men the figures are 4.1 portions for the highest quintile and 3.0 for the lowest; for women, the equivalent figures are 4.2 and 3.4. The differences are statistically significant.

For Wales, there is a social gradient in relation to consumption of fruit and vegetables; managerial and professional classes are more likely to meet the guidelines than routine and manual workers (40% versus 32%). Also, those in the most deprived areas are least likely to eat five portions or more of fruit and vegetables daily (30%); those in the second least deprived quintile of areas are the most likely to eat the recommended amount (40%) with those in the least deprived areas closely behind (39%).

In Scotland, a clear gradient in the proportion of the population eating five or more portions of fruit and vegetables a day is shown by all the measures of class in Scotland: NS-SEC, household income and deprivation of area. The relationship is one of the poorest being least likely to eat five or more portions. The inverse relationship exists for likelihood of eating no fruit and vegetables. The relationship exists for both sexes. For example, 25% of men in the least deprived quintile consumed the five portions or more; 9% of men in the least deprived quintile. The corresponding figures for women are 31% and 16%.

BMI and obesity: In England, income quintile is significantly related to the odds of being in the most-at-risk categories (obese or seriously underweight). However, the pattern works in opposite directions in men and women.

Women in the lower income quintiles are more likely to be in the at-risk categories than women in the highest income quintile; men in the lower income quintiles are significantly less likely to be in the at-risk categories compared with men in the highest income quintile. However, men in the fourth lowest income quintile were the most likely to be obese. The same pattern can be seen in relation to waist measurement. In men, the fourth lowest quintile (i.e. second poorest) have the highest percentage with raised waist circumference; the fifth lowest quintile (i.e. poorest) have the lowest. In women, the social gradient between the richest, who have the lowest chance of raised waist circumference, and the poorest, who have the highest, is straight.

The Welsh Health Survey disaggregates obesity figures by class and by sex but not by both together. As such, it is not possible to see whether a pattern similar to that in England exists. The Welsh data show that adults in routine manual work are more likely to be obese than those in professional and managerial work. There is also a clear social gradient in relation to obesity and index of multiple deprivation. Those in the most deprived areas of Wales are far more likely to be obese (27%) than those in the least deprived areas (16%).

In Scotland, there is little relationship between class and obesity. For men only, household NS-SEC is associated with being overweight or obese. Those living in small employer and own account household and those in semi-routine or routine households are more likely to be overweight than those in managerial and professional household. The pattern is statistically significant but not that striking. For women, being overweight or obese was associated with SIMD quintile. Women living in the most deprived quintiles had a significantly increased risk of being overweight or obese. The social gradient is steeper in relation to obesity and morbid obesity. 36.9% of women in the most deprived quintile were obese or morbidly obese; the equivalent figure for the least deprived quintile is 21.9%.

Are there any emerging trends?

The general trend is of improvement in life expectancy and health; the social gradient however remains the same or is slightly increasing.

What are the causes?

The main information available in this document relates to lifestyle. The clearest differences here are in levels of smoking and consumption of fruit and vegetables: poorer people smoke more and eat less fruit and vegetables. The differences follow a social gradient. There is a slight inverse gradient in relation to drinking. These differences might be sufficient to explain the inequalities in smoking-related disease, such as lung cancer and cerebrovascular disease. Lifestyle choice is a less plausible candidate to explain suicide and mental health problems. Neither do the data explain the difference in lifestyle choice.

Social inequality itself has been hypothesized as a cause of ill-health physically and mentally by, for example, Wilkinson (Wilkinson and Pickett 2009).

How might change be measured?

Most of the indicators identified by the Equality and Human Rights Commission are useful; arguable exceptions are 3.6 Non-natural death in institutions and 3.2 Nutritional needs in hospital.

Additional useful indicators are: Healthy life expectancy; access to healthcare (e.g. key preventive services).

Data quality and quantity

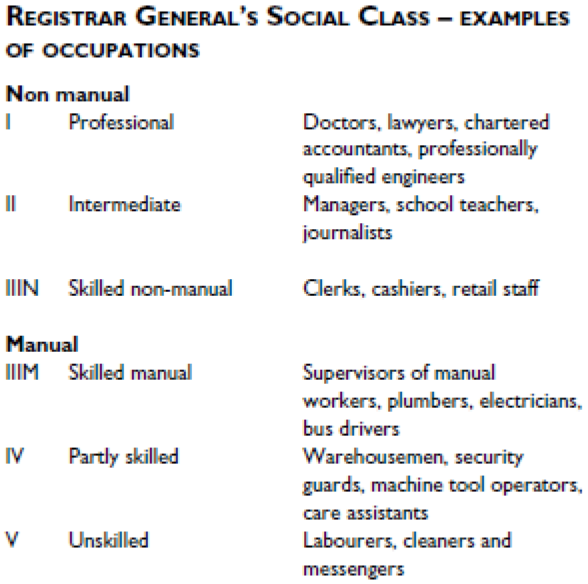
Most of the key indicators of Life and Health can be disaggregated and are meaningful by socio-economic status, or class. Death certificates include occupation of the deceased, making it possible to disaggregate some of the Life indicators. The Census used the NS-SEC measure of class; as such, many of the Health indicators can be disaggregated by class although the pattern is variable. Geographical area is often used as a proxy for individual/household class in analyses of health inequalities.

The measure of class used in official statistics changed in 2001. This creates some problems in interpretation of longitudinal data collected before and after that date. As a result, the Census Longitudinal Study continues to use the previous measure (RGSC) as this aids historical comparison.

4.2 SES Evidence

The evidence is readily available in the main as class has been monitored against health and life indicators for some time. The most important recent review of evidence is the Marmot Review (Marmot Review 2010).

The chief method for measurement of social class has undergone an important change recently. From 1911 to 2001 the method used was the Registrar General's Social Class (RGSC) derived from the individual's current or former occupation. This method grades classes in categories I-V with professional at the top and unskilled at the bottom.



Registrar General's Social Class – examples of occupations

Non manual		
I	Professional	Doctors, lawyers, chartered accountants, professionally qualified engineers
II	Intermediate	Managers, school teachers, journalists
IIIN	Skilled non-manual	Clerks, cashiers, retail staff
Manual		
IIIM	Skilled manual	Supervisors of manual workers, plumbers, electricians, bus drivers
IV	Partly skilled	Warehousemen, security guards, machine tool operators, care assistants
V	Unskilled	Labourers, cleaners and messengers

Source: (White, van Galen and Chow 2003)

This was replaced in 2001 by the National Statistics Socio-economic Classification (NS-SEC) based on a combination of occupation, ownership and control. It can be presented at different levels of aggregation (Walby, Armstrong and Humphreys 2008) p.34:

The eight class version is:

1 Higher managerial and professional occupations

1.1 Large employers and higher managerial occupations

1.2 Higher professional occupations

2 Lower managerial and professional occupations

3 Intermediate occupations
4 Small employers and own account workers
5 Lower supervisory and technical occupations
6 Semi-routine occupations
7 Routine occupations
8 Never worked and long-term unemployed.

An alternative method is the Standard Occupational Classification 2000 (SOC2000) which consists of a list of occupational groups that can be further sub-divided.

At present, the NS-SEC is the approach adopted by Office for National Statistics in relation to health data. However, it uses other schema for other data; for example, the SOC2000 is used for employment data. Furthermore, the Census Longitudinal Study uses the older RGSC in order to ensure continuity of data.

There is at least one other measure commonly used. Poverty is often centred in particular areas of the country. These areas can be identified and outcomes compared with other areas of the country. This gives a measure of inequality in, for example, health outcomes. There is good quality information collected in the three nations on this basis; where relevant, we have included it.

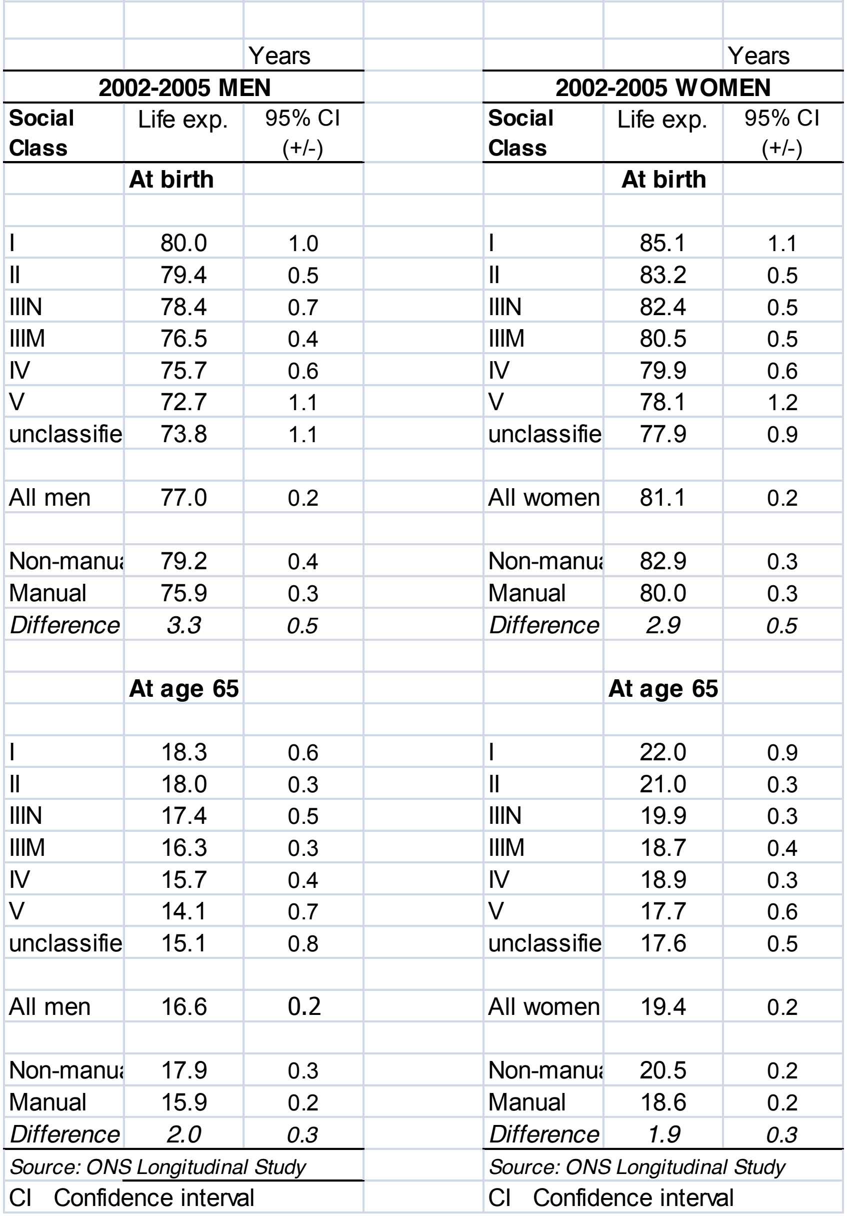
4.3 Life: main indicators - commentary

4.3.1 Period life expectancy at birth, ages 20, 65 and 80

ENGLAND

These data are collected in General Register Office Census Longitudinal Study (for England & Wales).

Table 1 Life Expectancy at birth and at age 65 by social class, men and women, England & Wales 2002-2005

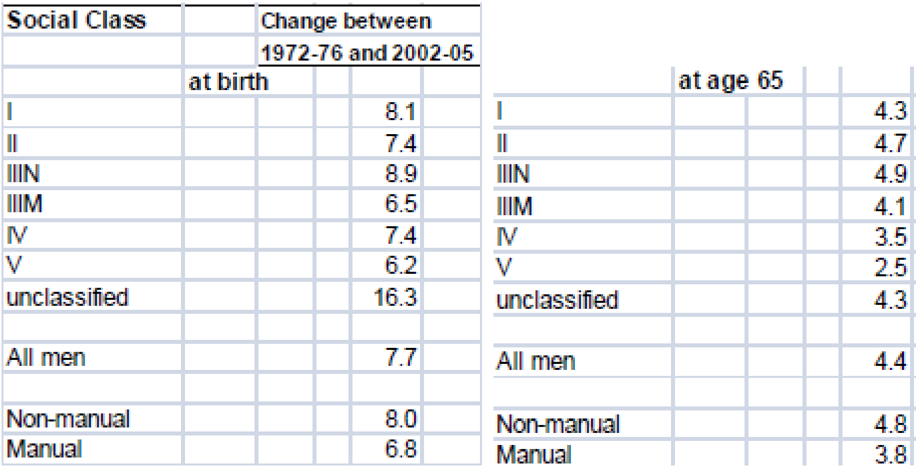


		Years				Years
2002-2005 MEN				**2002-2005 WOMEN**		
Social Class	Life exp.	95% CI (+/-)		**Social Class**	Life exp.	95% CI (+/-)
	At birth				**At birth**	
I	80.0	1.0		I	85.1	1.1
II	79.4	0.5		II	83.2	0.5
IIIN	78.4	0.7		IIIN	82.4	0.5
IIIM	76.5	0.4		IIIM	80.5	0.5
IV	75.7	0.6		IV	79.9	0.6
V	72.7	1.1		V	78.1	1.2
unclassifie	73.8	1.1		unclassifie	77.9	0.9
All men	77.0	0.2		All women	81.1	0.2
Non-manua	79.2	0.4		Non-manua	82.9	0.3
Manual	75.9	0.3		Manual	80.0	0.3
Difference	*3.3*	*0.5*		*Difference*	*2.9*	*0.5*
	At age 65				**At age 65**	
I	18.3	0.6		I	22.0	0.9
II	18.0	0.3		II	21.0	0.3
IIIN	17.4	0.5		IIIN	19.9	0.3
IIIM	16.3	0.3		IIIM	18.7	0.4
IV	15.7	0.4		IV	18.9	0.3
V	14.1	0.7		V	17.7	0.6
unclassifie	15.1	0.8		unclassifie	17.6	0.5
All men	16.6	0.2		All women	19.4	0.2
Non-manua	17.9	0.3		Non-manua	20.5	0.2
Manual	15.9	0.2		Manual	18.6	0.2
Difference	*2.0*	*0.3*		*Difference*	*1.9*	*0.3*
Source: ONS Longitudinal Study				*Source: ONS Longitudinal Study*		
CI Confidence interval				CI Confidence interval		

Source: Office for National Statistics: Longitudinal Survey

The table above indicates that life expectancy at birth and age 65 differs by class for men and women. This difference follows a gradient such that social class I have the highest and social class V (plus the unclassified) have the lowest life expectancy. In the latest period, 2002-5, life expectancy at birth for men was 80 years for social class I and 72.7 years for social class V. The equivalent figures for women are 85.1 and 78.1. At age 65 the life expectancy for the same two social classes for men was 18.3 and 14.1 years and for women, 22 and 17.7. The confidence intervals for these results indicate that the differences by social class are statistically significant.

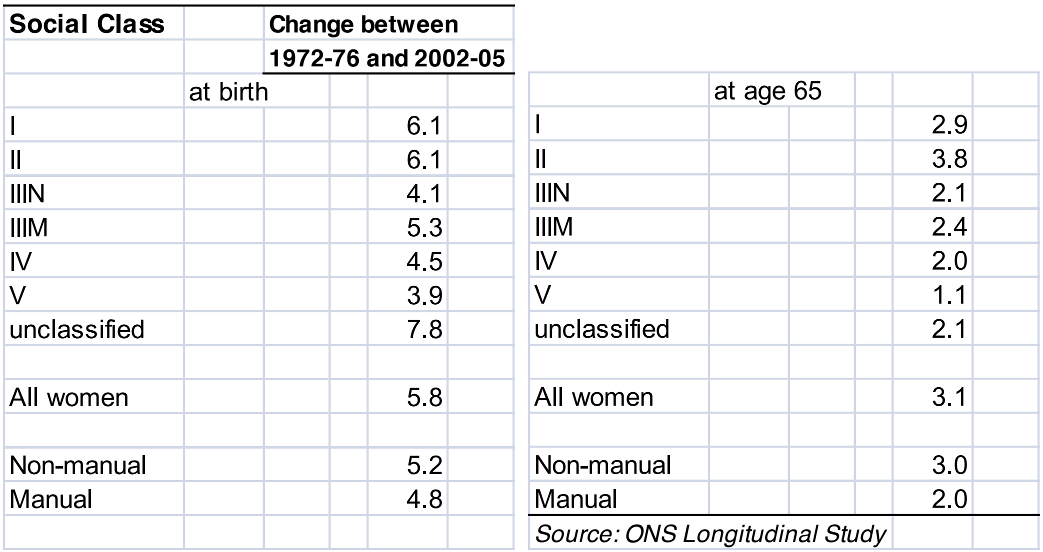
Table 2 Change in life expectancy at birth and at age 65 by social class, men, England & Wales



Social Class	Change between 1972-76 and 2002-05		
	at birth		at age 65
I	8.1	I	4.3
II	7.4	II	4.7
IIIN	8.9	IIIN	4.9
IIIM	6.5	IIIM	4.1
IV	7.4	IV	3.5
V	6.2	V	2.5
unclassified	16.3	unclassified	4.3
All men	7.7	All men	4.4
Non-manual	8.0	Non-manual	4.8
Manual	6.8	Manual	3.8

Source: Office for National Statistics: Longitudinal Survey

Table 3 Change in life expectancy at birth and at age 65 by social class, women, England & Wales



Social Class	**Change between 1972-76 and 2002-05** at birth
I	6.1
II	6.1
IIIN	4.1
IIIM	5.3
IV	4.5
V	3.9
unclassified	7.8
All women	5.8
Non-manual	5.2
Manual	4.8

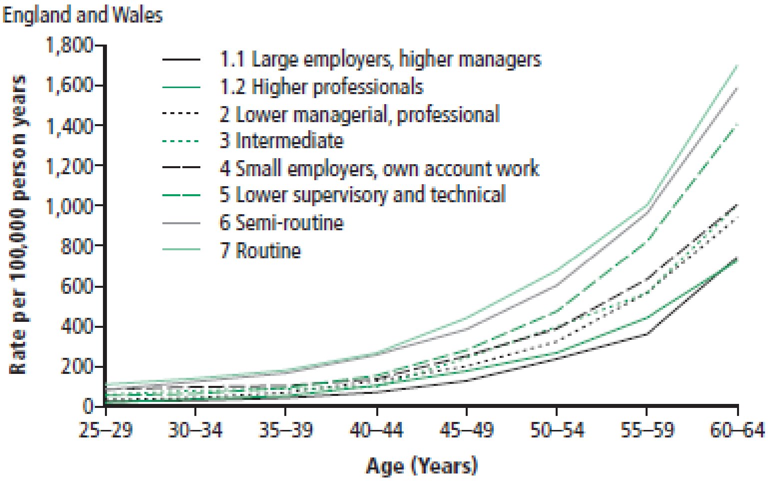
	at age 65
I	2.9
II	3.8
IIIN	2.1
IIIM	2.4
IV	2.0
V	1.1
unclassified	2.1
All women	3.1
Non-manual	3.0
Manual	2.0

Source: ONS Longitudinal Study

Source: Office for National Statistics Longitudinal Study

The tables above show the change in life expectancy at birth and age 65 in the period 1972-6 and 2002-5. Leaving aside the unclassified, the greatest improvement for men has been for social class III non-manual; the least improvement has been for social class V. Again these differences are statistically significant. The improvement in life expectancy at birth between the data collection periods 1972-76 and 2002-05 are, for social class I, 8.1 years; social class IIIN 8.9 years; and social class V 6.2 years. For women, those in social classes I and II have the most benefit, 8.1 years, and those in social class V the least, 3.9 years. For social class V there are indications elsewhere that life expectancy is entering a period of decline in real terms; the evidence shown here certainly makes clear that the gap is widening. In the most recent period of change measured on the longitudinal study (from 1997-2001 to 2002-05) the increase in life expectancy was only 0.1 years; for social class I it was 2.5 years.

Figure 1 Age-specific mortality rate by five year age group and NS-SEC: men aged 25-64, 2001-03: death registrations



Source: White et al (2007) HSQ: 36

White et al (White et al. 2007) take data from four sources: the 2001 Census, the mid-year population estimates for 2001-2003, deaths of men aged 26-64 occurring in 2001-2003, and the Longitudinal Study. They produce the graph above, which illustrates the same trend using the RGSC criteria.

Figure 2 Indicators of poverty and life expectancy by region in England

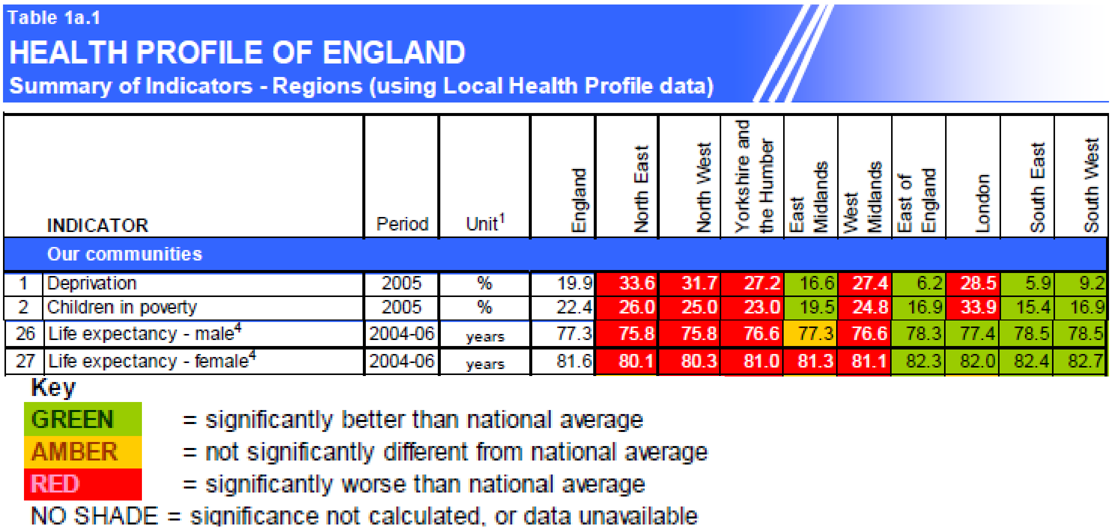


Table 1a.1

HEALTH PROFILE OF ENGLAND

Summary of Indicators - Regions (using Local Health Profile data)

	INDICATOR	Period	Unit[1]	England	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
	Our communities												
1	Deprivation	2005	%	19.9	🟥 33.6	🟥 31.7	🟥 27.2	🟩 16.6	🟥 27.4	🟩 6.2	🟥 28.5	🟩 5.9	🟩 9.2
2	Children in poverty	2005	%	22.4	🟥 26.0	🟥 25.0	🟥 23.0	🟩 19.5	🟥 24.8	🟩 16.9	🟥 33.9	🟩 15.4	🟩 16.9
26	Life expectancy - male[4]	2004-06	years	77.3	🟥 75.8	🟥 75.8	🟥 76.6	🟨 77.3	🟥 76.6	🟩 78.3	🟩 77.4	🟩 78.5	🟩 78.5
27	Life expectancy - female[4]	2004-06	years	81.6	🟥 80.1	🟥 80.3	🟥 81.0	🟥 81.3	🟥 81.1	🟩 82.3	🟩 82.0	🟩 82.4	🟩 82.7

Key

🟩 GREEN = significantly better than national average

🟨 AMBER = not significantly different from national average

🟥 RED = significantly worse than national average

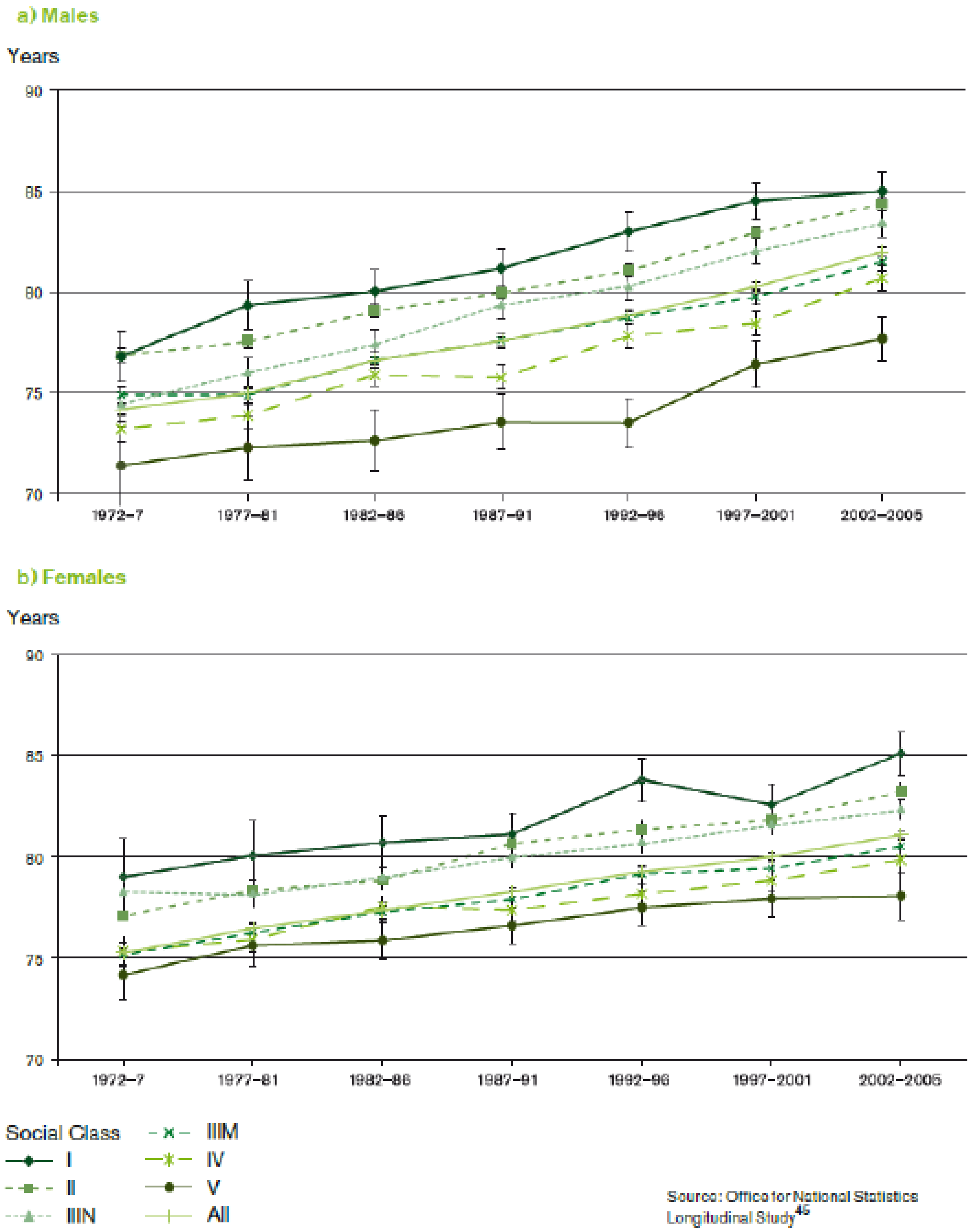
NO SHADE = significance not calculated, or data unavailable

Source: Health Profile of England 2008

Inequality in life expectancy by class can also be illustrated by region. The table above shows that indicators of inequality tend to cluster in regions. For example, the North East has high levels of deprivation and children in poverty alongside low male and female life expectancy.

The relationship between life expectancy and class is one that has been examined extensively. For example, in England, data have been collected that compare life expectancy between England as a whole and that in the so-called Spearhead Group of most deprived quintile of Local Authority areas. These data are published by the Department of Health at http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsStatistics/DH_107609. There are also many reports that set out Office for National Statistics data in new forms.

Figure 3 Life expectancy at birth by social class, a) males and b) females, England & Wales, 1972-2005



Source: Office for National Statistics - Marmot Review

For example, the Marmot Review has the following graph of life expectancy by social class and gender for England & Wales, 1972-2005. Both graphs show a clear upward trend in life expectancy for all classes. The graphs also show that some groups do better than others, social class I and IIIN doing well, social class V relatively badly, with the gap between the highest and lowest social classes widening slightly over the period for both men and women.

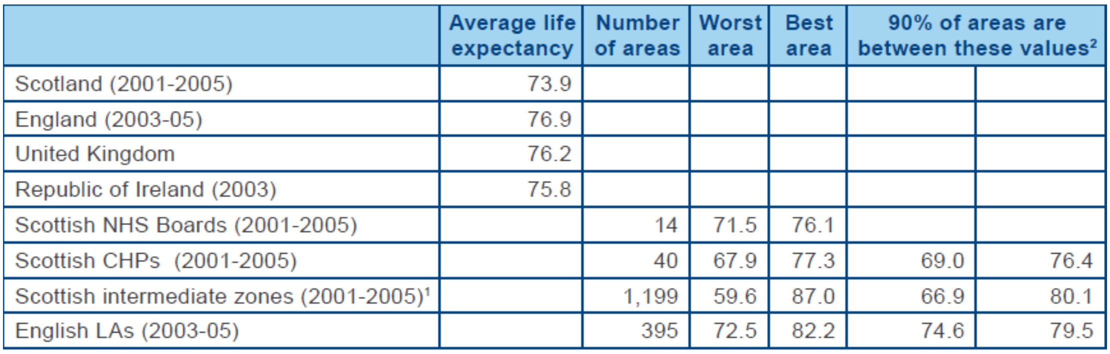
Thomas et al (BMJ forthcoming) looked at changes in area-based inequality in life expectancy over the period since 1921. They found geographical inequality in mortality has increased and continues to do so. Assuming this geographical inequality reflects socio-economic difference, the implication is that class-based inequality in mortality has increased and still does so.

4.3.1 Period life expectancy at birth, ages 20, 65 and 80

SCOTLAND

The *Scotland Overview Report* gives the following figures for male life expectancy in Scotland with comparisons within areas and across nations.

Table 4 Male Life Expectancy at birth by area

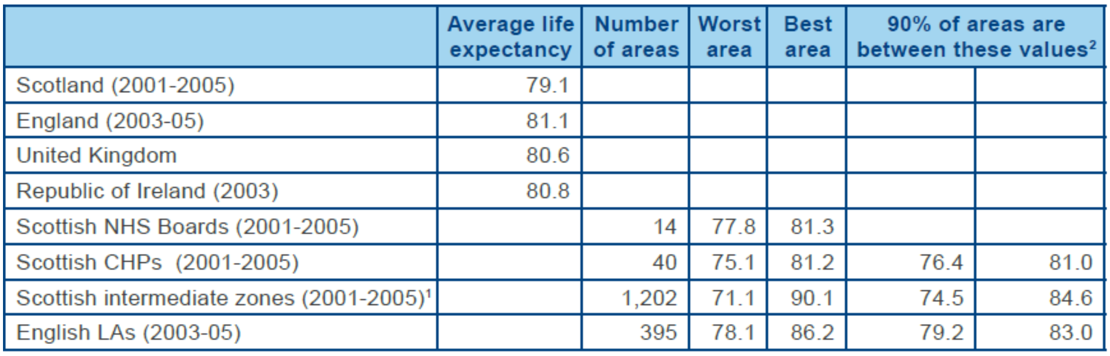


	Average life expectancy	Number of areas	Worst area	Best area	90% of areas are between these values[2]	
Scotland (2001-2005)	73.9					
England (2003-05)	76.9					
United Kingdom	76.2					
Republic of Ireland (2003)	75.8					
Scottish NHS Boards (2001-2005)		14	71.5	76.1		
Scottish CHPs (2001-2005)		40	67.9	77.3	69.0	76.4
Scottish intermediate zones (2001-2005)[1]		1,199	59.6	87.0	66.9	80.1
English LAs (2003-05)		395	72.5	82.2	74.6	79.5

Source: *Scotland Overview Report*

The range is striking, with Scotland comparing badly with other UK countries and Ireland; and within Scotland, various markers of region show large differences in life expectancy, with the worst intermediate zone having a life expectancy of 59.6 against the best having 87.0 years. The intermediate zones are small, containing between 2,500 to 6,000 people; and life expectancy data are not available for all. It is probably more meaningful, therefore, to look at the 90% values where, nonetheless, large differences remain. The equivalent figures for women are as follow:

Table 5 Female Life Expectancy at birth by area



	Average life expectancy	Number of areas	Worst area	Best area	90% of areas are between these values[2]	
Scotland (2001-2005)	79.1					
England (2003-05)	81.1					
United Kingdom	80.6					
Republic of Ireland (2003)	80.8					
Scottish NHS Boards (2001-2005)		14	77.8	81.3		
Scottish CHPs (2001-2005)		40	75.1	81.2	76.4	81.0
Scottish intermediate zones (2001-2005)[1]		1,202	71.1	90.1	74.5	84.6
English LAs (2003-05)		395	78.1	86.2	79.2	83.0

Source: *Scotland Overview Report*

Women's life expectancy in Scotland is higher than that of men. However, Scottish women fare worse than women in the rest of the UK and Ireland. There is a social gradient, as for men, but it is slightly less steep.

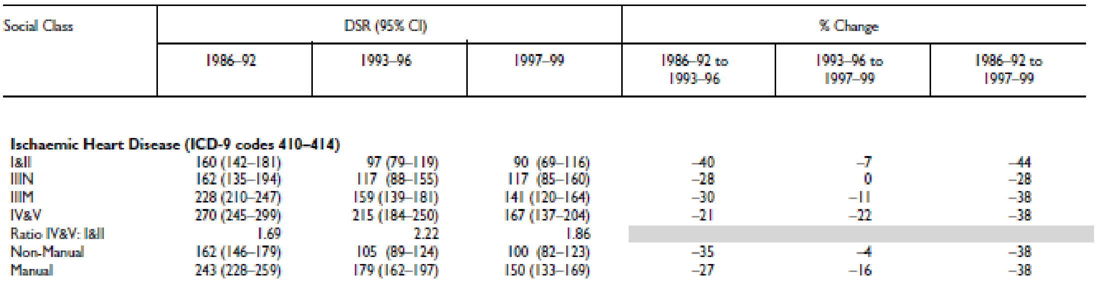
4.3.2 Cardiovascular disease mortality

ENGLAND

These data are not collected in the General Register Office Census Longitudinal Study (for England & Wales). However, White et al (White, van Galen and Chow 2003) have taken data from the study and combined them with information on occupation taken from death certificates. They have then calculated directly age-standardised mortality rates (DSRs) due to various diseases per 100,000 person years at risk, using the WHO European Standard Population as the reference. The DSR allows us to compare the mortality rate between the various classes making allowance for any differences in the age profiles of each grouping. This gives us the following table for ischaemic heart disease:

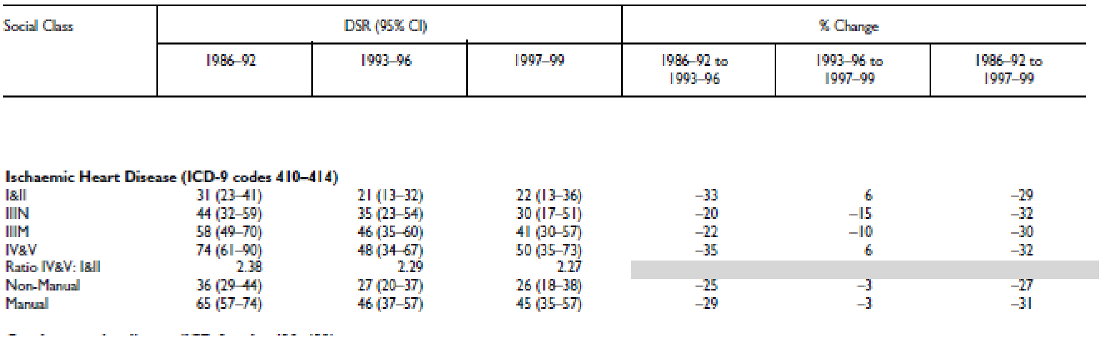
Table 6 Trends in mortality from ischaemic heart disease by social class 1986-1999, males aged 35-64, directly age-standardised death rates (DSR) per 100,000 person years, with 95% confidence intervals (CI)

MALE



Social Class	DSR (95% CI)			% Change		
	1986–92	1993–96	1997–99	1986–92 to 1993–96	1993–96 to 1997–99	1986–92 to 1997–99
Ischaemic Heart Disease (ICD-9 codes 410–414)						
I&II	160 (142–181)	97 (79–119)	90 (69–116)	–40	–7	–44
IIIN	162 (135–194)	117 (88–155)	117 (85–160)	–28	0	–28
IIIM	228 (210–247)	159 (139–181)	141 (120–164)	–30	–11	–38
IV&V	270 (245–299)	215 (184–250)	167 (137–204)	–21	–22	–38
Ratio IV&V: I&II	1.69	2.22	1.86			
Non-Manual	162 (146–179)	105 (89–124)	100 (82–123)	–35	–4	–38
Manual	243 (228–259)	179 (162–197)	150 (133–169)	–27	–16	–38

FEMALE



Social Class	DSR (95% CI)			% Change		
	1986–92	1993–96	1997–99	1986–92 to 1993–96	1993–96 to 1997–99	1986–92 to 1997–99
Ischaemic Heart Disease (ICD-9 codes 410–414)						
I&II	31 (23–41)	21 (13–32)	22 (13–36)	–33	6	–29
IIIN	44 (32–59)	35 (23–54)	30 (17–51)	–20	–15	–32
IIIM	58 (49–70)	46 (35–60)	41 (30–57)	–22	–10	–30
IV&V	74 (61–90)	48 (34–67)	50 (35–73)	–35	6	–32
Ratio IV&V: I&II	2.38	2.29	2.27			
Non-Manual	36 (29–44)	27 (20–37)	26 (18–38)	–25	–3	–27
Manual	65 (57–74)	46 (37–57)	45 (35–57)	–29	–3	–31

Source: White et al 2003 HSQ

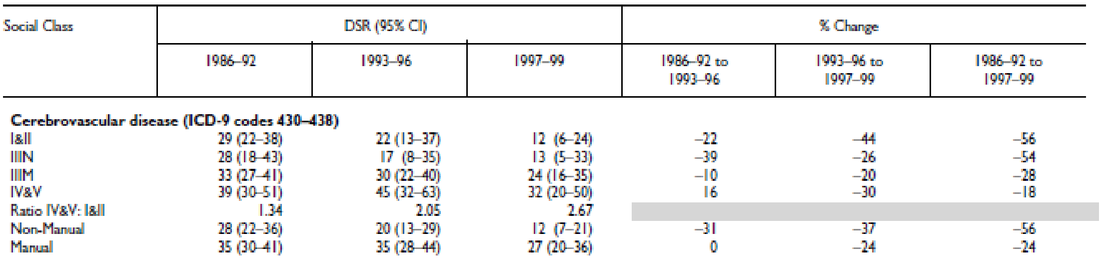
The table shows a) that in this period men had far higher mortality rates from Ischaemic Heart Disease than women and b) that there is a social gradient in mortality rate, with lower social classes having higher rates. In men the DSR in 1997-9 was 90 for social class I and II, and 167 for social class IV and V. The findings are statistically significant. Women in general were less likely to die of cardiovascular disease but women in social class IV and V were 2.27 times more likely to do so than women in social class I and II.

The data presented highlights the fact that despite reductions in the DSR across all class groupings over the period 1986 -1999, that the social gradient has persisted, and for men the gap between social classes I and II and social classes IV and V has widened slightly.

In relation to cerebrovascular disease, White et al (2003) have the following figures:

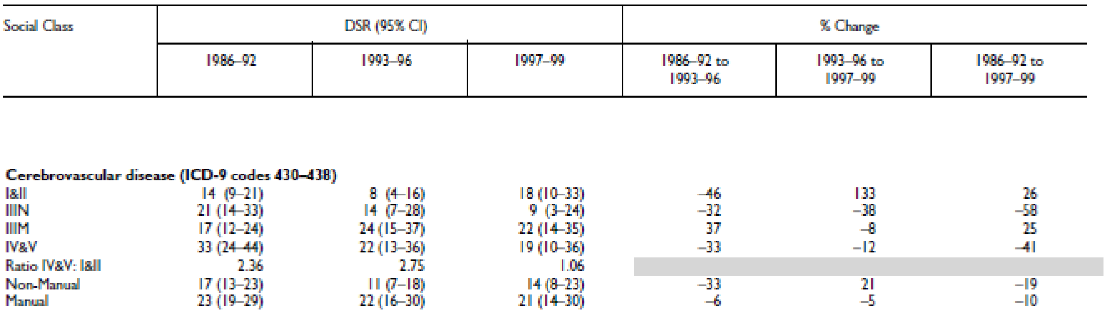
Table 7 Trends in mortality from cerebrovascular disease by social class 1986-1999, males aged 35-64, directly age-standardised death rates (DSR) per 100,000 person years, with 95% confidence intervals (CI).

MALE



Social Class	DSR (95% CI)			% Change		
	1986–92	1993–96	1997–99	1986–92 to 1993–96	1993–96 to 1997–99	1986–92 to 1997–99
Cerebrovascular disease (ICD-9 codes 430–438)						
I&II	29 (22–38)	22 (13–37)	12 (6–24)	–22	–44	–56
IIIN	28 (18–43)	17 (8–35)	13 (5–33)	–39	–26	–54
IIIM	33 (27–41)	30 (22–40)	24 (16–35)	–10	–20	–28
IV&V	39 (30–51)	45 (32–63)	32 (20–50)	16	–30	–18
Ratio IV&V: I&II	1.34	2.05	2.67			
Non-Manual	28 (22–36)	20 (13–29)	12 (7–21)	–31	–37	–56
Manual	35 (30–41)	35 (28–44)	27 (20–36)	0	–24	–24

FEMALE



Social Class	DSR (95% CI)			% Change		
	1986–92	1993–96	1997–99	1986–92 to 1993–96	1993–96 to 1997–99	1986–92 to 1997–99
Cerebrovascular disease (ICD-9 codes 430–438)						
I&II	14 (9–21)	8 (4–16)	18 (10–33)	–46	133	26
IIIN	21 (14–33)	14 (7–28)	9 (3–24)	–32	–38	–58
IIIM	17 (12–24)	24 (15–37)	22 (14–35)	37	–8	25
IV&V	33 (24–44)	22 (13–36)	19 (10–36)	–33	–12	–41
Ratio IV&V: I&II	2.36	2.75	1.06			
Non-Manual	17 (13–23)	11 (7–18)	14 (8–23)	–33	21	–19
Manual	23 (19–29)	22 (16–30)	21 (14–30)	–6	–5	–10

Source: White et al 2003 HSQ

The table shows a slight social gradient in men but not in women; and in both cases, the 95% confidence intervals are such that the findings are not statistically significant.

The Health Profile of England uses more recent data to examine death rates by area.

Table 8 Indicators of poverty and life expectancy (ischaemic heart disease and cerebrovascular disease) by region in England

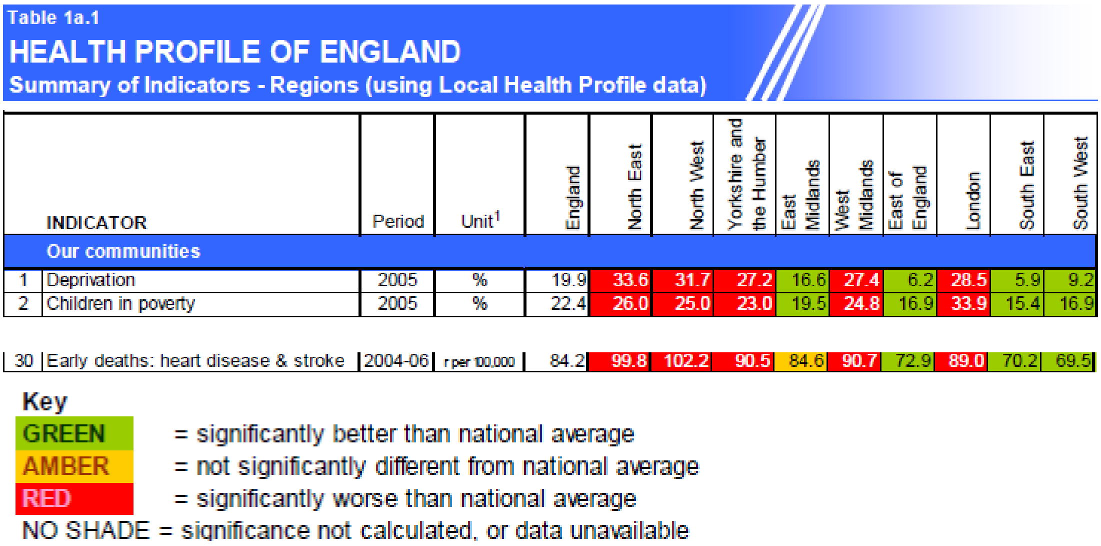


Table 1a.1

HEALTH PROFILE OF ENGLAND

Summary of Indicators - Regions (using Local Health Profile data)

	INDICATOR	Period	Unit[1]	England	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
	Our communities												
1	Deprivation	2005	%	19.9	🟥 33.6	🟥 31.7	🟥 27.2	🟩 16.6	🟥 27.4	🟩 6.2	🟥 28.5	🟩 5.9	🟩 9.2
2	Children in poverty	2005	%	22.4	🟥 26.0	🟥 25.0	🟥 23.0	🟩 19.5	🟥 24.8	🟩 16.9	🟥 33.9	🟩 15.4	🟩 16.9
30	Early deaths: heart disease & stroke	2004-06	r per 100,000	84.2	🟥 99.8	🟥 102.2	🟥 90.5	🟨 84.6	🟥 90.7	🟩 72.9	🟥 89.0	🟩 70.2	🟩 69.5

Key

🟩 GREEN = significantly better than national average

🟨 AMBER = not significantly different from national average

🟥 RED = significantly worse than national average

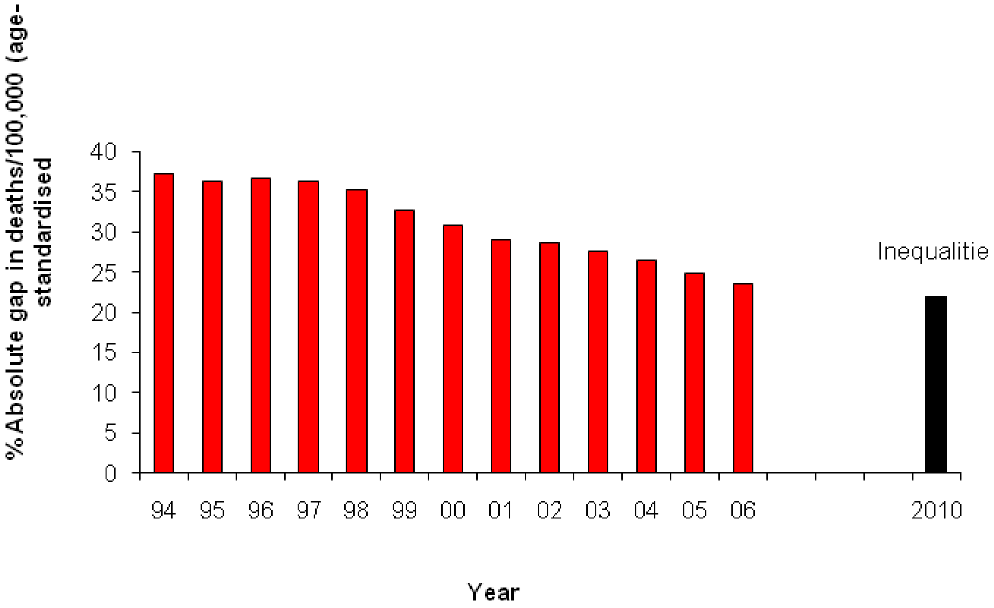
NO SHADE = significance not calculated, or data unavailable

Source: Health Profile of England 2008

The table reproduced above shows that early death rates due to heart disease and stroke are significantly higher in areas with significant levels of deprivation. As the figures for cerebrovascular disease and heart disease are conflated, they do not show whether the pattern noted in White et al's (2003) work is repeated; that is, we cannot tell whether heart disease mortality is related to class whilst cerebrovascular disease is not. However, the data here add evidence to the claim that cardiovascular disease mortality is class biased.

Similar evidence can be obtained from data comparing deaths due to circulatory disease in the most deprived 'Spearhead' areas of England and the non-Spearhead group. This is illustrated in the following graph.

Figure 4 Absolute gap in death rates from ischaemic heart disease, cerebrovascular disease and all other diseases of the circulatory system, between the Spearhead group and the population as a whole, people aged under 75, 1993 to 2007, England, with inequalities target



Source: Office for National Statistics 2009

The graph above shows that there is inequality in the death rate due to all circulatory diseases between the Spearhead group and the population as a whole in England, aged under 75. That gap was 37.2% in 1994 and 23.5% in 2006. As such, it is on a downward trend towards a 22% target set in 2006 to be met by 2010. The 2010 target will be calculated based on a 3 year rolling average from 1st January 2009 to 31st December 2011, meaning that final data on this target will not be published until spring 2012 at the earliest.

4.3.2 Cardiovascular disease mortality

WALES

There are no separate figures for Wales.

4.3.2 Cardiovascular disease mortality

SCOTLAND

Cardiovascular disease mortality for Scotland is available by decile of deprivation using the Scottish Index of Multiple Deprivation (SIMD).

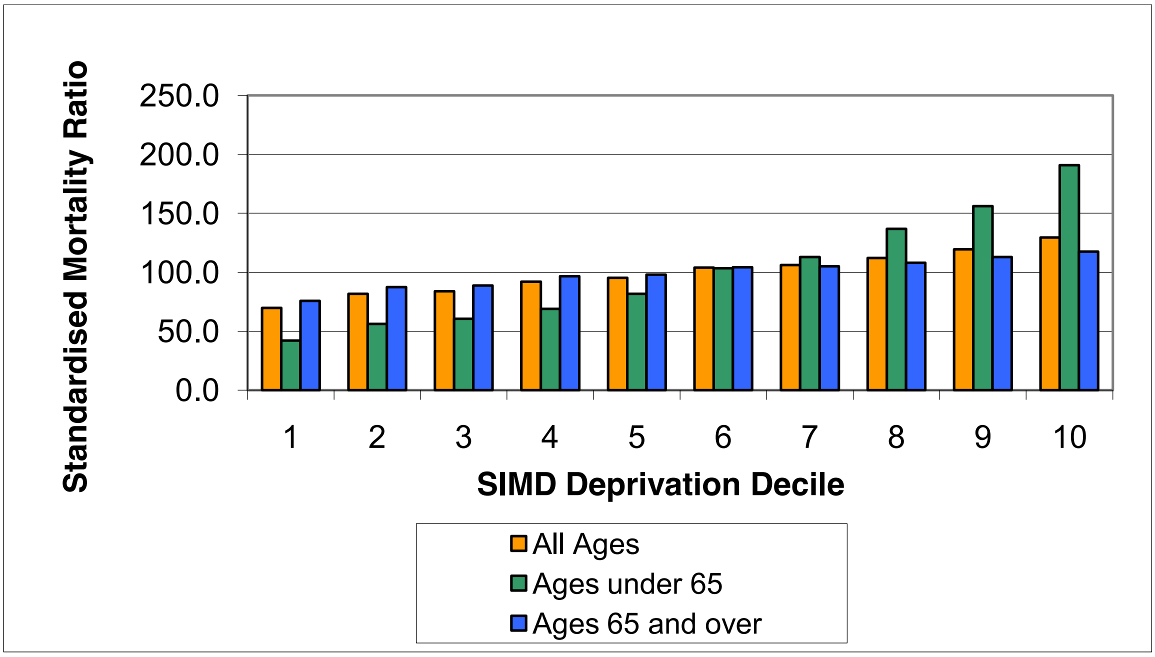
Table 9 Coronary Heart Disease and Deprivation; mortality crude rates and standardised mortality ratios (SMR) by age group and SIMD decile; 2004-2008

		All Ages			**Ages under 65**			**Ages 65 and over**		
SIMD Decile		Total Deaths	Crude Rate per 100,000 Population	SMR	Total Deaths	Crude Rate per 100,000 Population	SMR	Total Deaths	Crude Rate per 100,000 Population	SMR
Least Deprived	**1**	3119	620.0	69.8	331	76.6	42.0	2788	3924.8	75.8
	2	3357	673.0	81.5	436	100.7	56.0	2921	4440.3	87.5
	3	3878	787.0	83.9	477	113.9	60.5	3401	4601.7	88.7
	4	4551	923.1	92.0	559	135.4	68.9	3992	4973.2	96.5
	5	4707	943.1	95.3	666	159.4	81.7	4041	4968.8	98.0
	6	5422	1070.6	104.0	825	196.6	103.3	4597	5290.4	104.2
	7	5566	1093.0	106.2	870	207.0	112.8	4696	5276.1	105.1
	8	5937	1155.2	112.2	1051	248.2	136.7	4886	5395.5	108.0
	9	5907	1141.6	119.5	1193	277.0	156.0	4714	5434.3	112.8
Most Deprived	**10**	5876	1112.4	129.5	1425	317.5	190.9	4451	5607.5	117.4

Source: Registrar General for Scotland, 2008

This information can usefully be represented as a bar-chart, as follows:

Figure 5 Coronary Heart Disease Standardised Mortality Ratios by age group and SIMD decile; 2004-2008



Source: Registrar General for Scotland, 2008

This chart shows a clear gradient by deprivation for coronary heart disease mortality. This gradient is steepest for those aged under 65. The standardised mortality ratio for coronary heart disease for those under 65 in the most deprived decile is 190.0 indicating that they suffer almost double the average rate; in the least deprived decile it is 42.0, well below half the average rate/.

We turn now to cerebrovascular disease mortality and examine whether the death rate is linked to deprivation in a similar way.

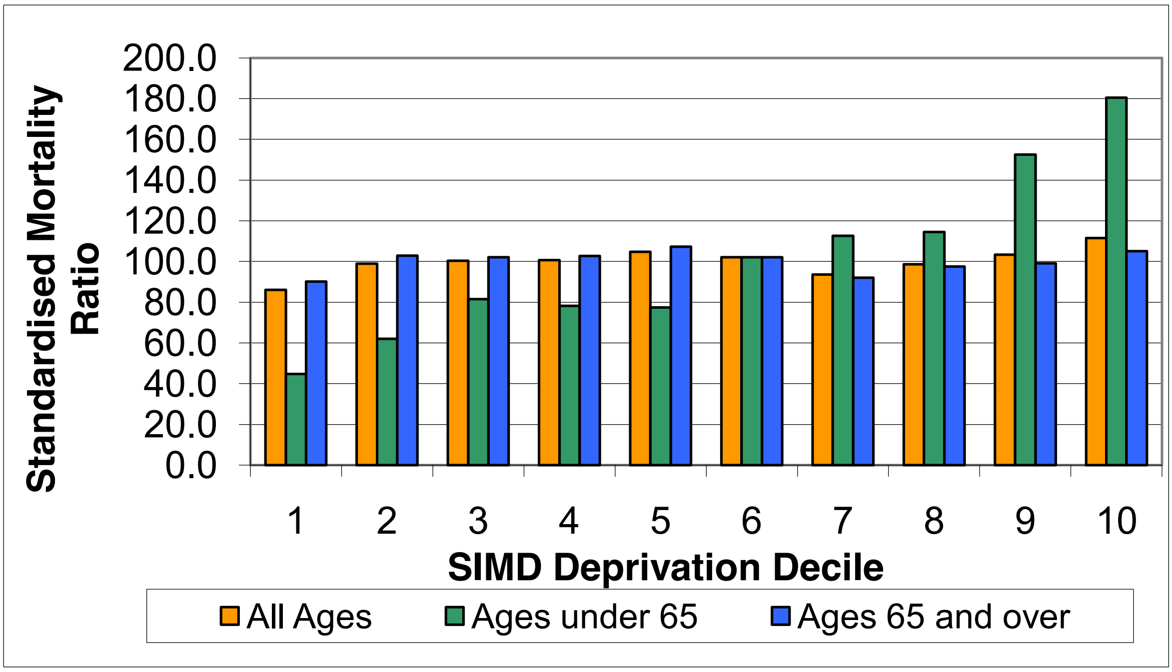
Table 10 Cerebrovascular disease and Deprivation; mortality crude rates and standardised mortality ratios (SMR) by age group and SIMD decile; 2004-2008

		All Ages			**Ages under 65**			**Ages 65 and over**		
SIMD Decile		Total Deaths	Crude Rate per 100,000 Population	SMR	Total Deaths	Crude Rate per 100,000 Population	SMR	Total Deaths	Crude Rate per 100,000 Population	SMR
Least Deprived	**1**	2233	443.9	86.1	104	24.1	44.8	2129	2997.1	90.1
	2	2323	465.7	98.9	142	32.8	62.1	2181	3315.4	102.9
	3	2695	546.9	100.3	188	44.9	81.5	2507	3392.1	102.1
	4	2889	586.0	100.7	185	44.8	78.3	2704	3368.6	102.7
	5	2982	597.5	104.8	184	44.0	77.4	2798	3440.4	107.3
	6	3104	612.9	102.1	239	57.0	102.0	2865	3297.1	102.1
	7	2872	564.0	93.6	256	60.9	112.6	2616	2939.2	92.1
	8	3067	596.8	98.7	260	61.4	114.5	2807	3099.7	97.5
	9	2935	567.2	103.3	344	79.9	152.5	2591	2986.9	99.1
Most Deprived	**10**	2901	549.2	111.5	398	88.7	180.5	2503	3153.3	105.1

Source: Registrar General for Scotland, 2008

This information can be represented as a bar chart, as follows:

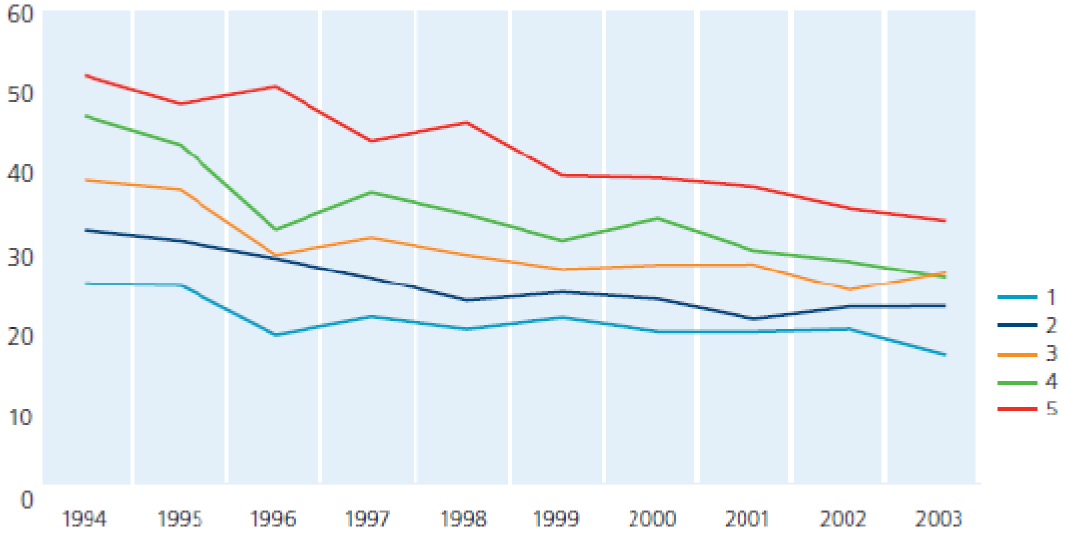
Figure 6 Cerebrovascular Disease Standardised Mortality Ratios by age group and SIMD decile; 2004-2008



Source: Registrar General for Scotland, 2008

The table and graph show that in general there is no strong link between deprivation and cerebrovascular mortality. However, for those under 65, there is a marked increase at the 9th and 10th decile of deprivation showing that these groups suffer greater levels of premature mortality from cerebrovascular disease. The SMR for those in the first decile and aged under 65 is 44.8; for the 9th and 10th decile it is 152.5 and 180.5 respectively.

Figure 7 Cerebrovascular disease for ages under 75 age-standardised (European Standard Population) Mortality rate per 100,000 by deprivation quintile



Source: Coronary Heart Disease and Stroke in Scotland 2004: NHS Scotland

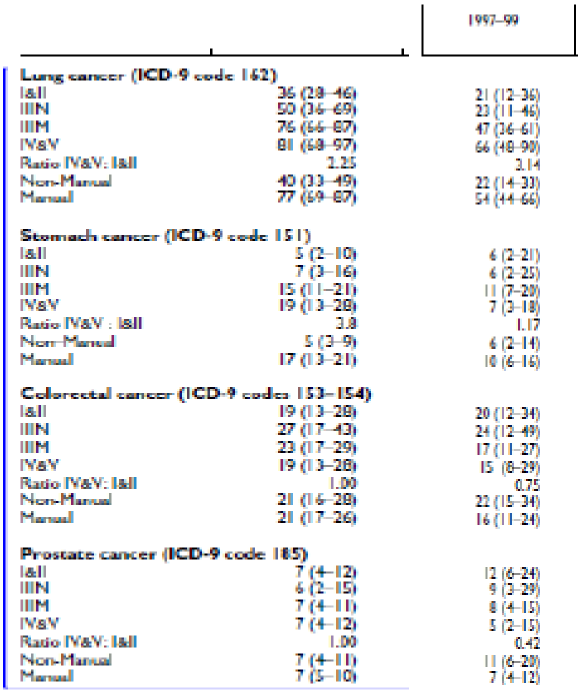
The table above shows that cerebrovascular mortality in the under 75s has declined in Scotland between 1994 and 2004. The gap in under 75 mortality rate by quintile of social deprivation has reduced in absolute terms but it remains the case that those in the most deprived quintile of areas have roughly double the rate of cerebrovascular disease related mortality in the under 75s than those in the least deprived quintile.

4.3.3 Cancer mortality

ENGLAND

As with cardiovascular disease, the data have been collated from two sources by White et al, 2003 (see above).

Table 11 Mortality from cancer by social class 1997-1999, males aged 35-64, directly age-standardised death rates (DSR) per 100,000 person years, with 95% confidence intervals (CI)



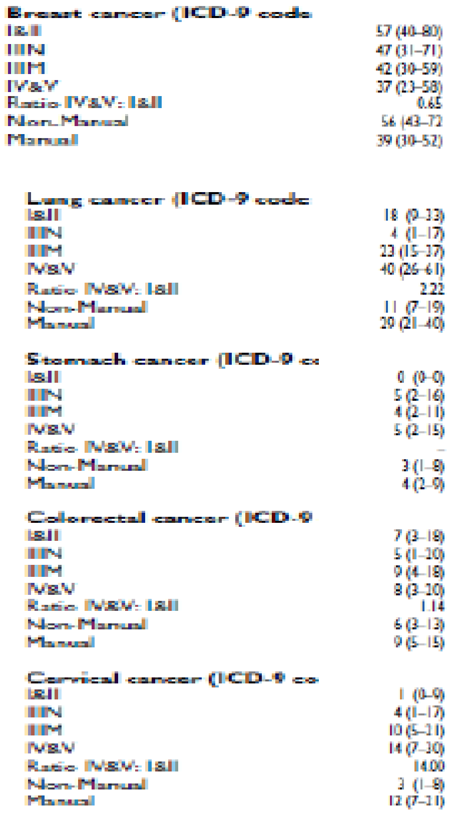
		1997–99
Lung cancer (ICD-9 code 162)		
I&II	36 (28–46)	21 (12–36)
IIIN	50 (36–69)	23 (11–46)
IIIM	76 (66–87)	47 (36–61)
IV&V	81 (68–97)	66 (48–90)
Ratio IV&V: I&II	2.25	3.14
Non-Manual	40 (33–49)	22 (14–33)
Manual	77 (69–87)	54 (44–66)
Stomach cancer (ICD-9 code 151)		
I&II	5 (2–10)	6 (2–21)
IIIN	7 (3–16)	6 (2–25)
IIIM	15 (11–21)	11 (7–20)
IV&V	19 (13–28)	7 (3–18)
Ratio IV&V : I&II	3.8	1.17
Non-Manual	5 (3–9)	6 (2–14)
Manual	17 (13–21)	10 (6–16)
Colorectal cancer (ICD-9 codes 153–154)		
I&II	19 (13–28)	20 (12–34)
IIIN	27 (17–43)	24 (12–49)
IIIM	23 (17–29)	17 (11–27)
IV&V	19 (13–28)	15 (8–29)
Ratio IV&V: I&II	1.00	0.75
Non-Manual	21 (16–28)	22 (15–34)
Manual	21 (17–26)	16 (11–24)
Prostate cancer (ICD-9 code 185)		
I&II	7 (4–12)	12 (6–24)
IIIN	6 (2–15)	9 (3–29)
IIIM	7 (4–11)	8 (4–15)
IV&V	7 (4–12)	5 (2–15)
Ratio IV&V: I&II	1.00	0.42
Non-Manual	7 (4–11)	11 (6–20)
Manual	7 (5–10)	7 (4–12)

Source: White et al 2003.

The table above shows no statistically significant relationship between social class and mortality due to stomach, colorectal and prostate cancer. There is a significant relationship between lung cancer and social class. Someone in social classes IV or V is around three times more likely to die of lung cancer than someone in social classes I or II. There is also a statistically significant difference in the lung cancer mortality rate for non-manual workers (22) and manual workers (54).

White et al do the same analysis for women but in relation to a set of the five most important female cancers. This gives the following figures:

Table 12 Mortality from cancer by social class 1997-1999, females aged 35-64, directly age-standardised death rates (DSR) per 100,000 person years, with 95% confidence intervals (CI)



Breast cancer (ICD-9 code	
I&II	57 (40–80)
IIIN	47 (31–71)
IIIM	42 (30–59)
IV&V	37 (23–58)
Ratio IV&V: I&II	0.65
Non_Manual	56 (43–72
Manual	39 (30–52)
Lung cancer (ICD-9 code	
I&II	18 (9–33)
IIIN	4 (1–17)
IIIM	23 (15–37)
IV&V	40 (26–61)
Ratio IV&V: I&II	2.22
Non-Manual	11 (7–19)
Manual	29 (21–40)
Stomach cancer (ICD-9 co	
I&II	0 (0–0)
IIIN	5 (2–16)
IIIM	4 (2–11)
IV&V	5 (2–15)
Ratio IV&V: I&II	–
Non-Manual	3 (1–8)
Manual	4 (2–9)
Colorectal cancer (ICD-9	
I&II	7 (3–18)
IIIN	5 (1–20)
IIIM	9 (4–18)
IV&V	8 (3–20)
Ratio IV&V: I&II	1.14
Non-Manual	6 (3–13)
Manual	9 (5–15)
Cervical cancer (ICD-9 co	
I&II	1 (0–9)
IIIN	4 (1–17)
IIIM	10 (5–21)
IV&V	14 (7–30)
Ratio IV&V: I&II	14.00
Non-Manual	3 (1–8)
Manual	12 (7–21)

Source: White et al 2003.

All of the selected cancers show a gradient by deprivation, with mortality from Lung, Stomach, Colorectal and Cervical cancers being more common in 35 – 64 year old females from social classes IV and V than from social classes I and II. The pattern is reversed for Breast Cancer. There is significant variation between the highest and lowest social class groups in relation to stomach cancer. For lung cancer social class III N (non-manual routine work) has the lowest mortality rate of all the social classes and one that is statistically significantly lower than social class group IV-V.

Cancer mortality thus seems not to be strongly class biased, although lung cancer in men is. This finding is slightly at odds with figure from the Health Profile of England.

Table 13 Indicators of poverty and life expectancy (heart disease and stroke) by region in England

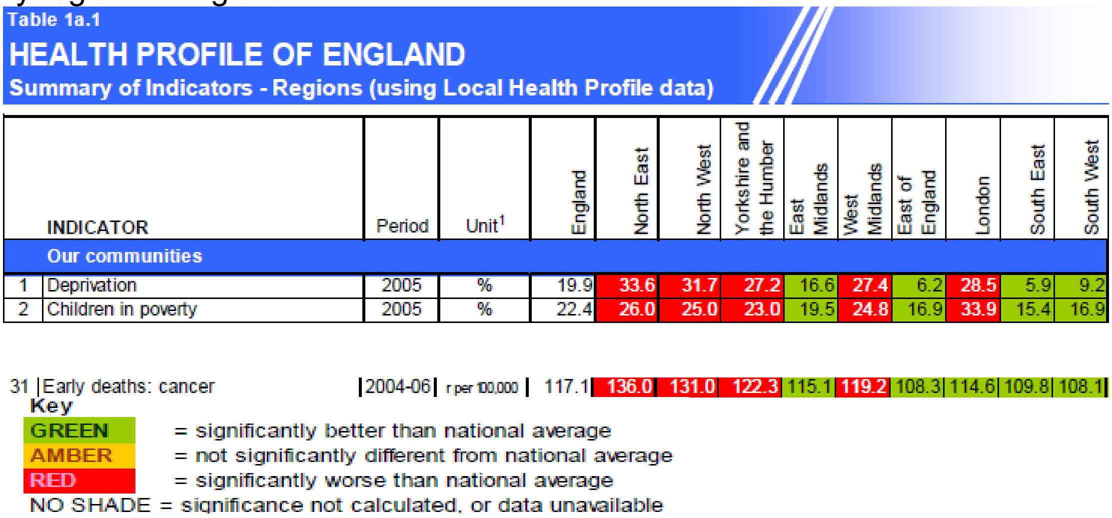


Table 1a.1

HEALTH PROFILE OF ENGLAND

Summary of Indicators - Regions (using Local Health Profile data)

	INDICATOR	Period	Unit[1]	England	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
	Our communities												
1	Deprivation	2005	%	19.9	33.6	31.7	27.2	16.6	27.4	6.2	28.5	5.9	9.2
2	Children in poverty	2005	%	22.4	26.0	25.0	23.0	19.5	24.8	16.9	33.9	15.4	16.9
31	Early deaths: cancer	2004-06	r per 100,000	117.1	136.0	131.0	122.3	115.1	119.2	108.3	114.6	109.8	108.1

Key

GREEN	= significantly better than national average
AMBER	= not significantly different from national average
RED	= significantly worse than national average
NO SHADE	= significance not calculated, or data unavailable

Source: Health Profile of England 2008

This shows that all areas with significantly worse than average levels of premature cancer deaths also score significantly worse than average on indicators of deprivation and child poverty. This highlights the link between deprivation and premature cancer mortality.

4.3.3 Cancer mortality

WALES

There are no separate data for Wales

4.3.3 Cancer mortality

SCOTLAND

Table 14 Cancer mortality under 75 years, both sexes, rate per 100,000, age-standardised to the European population.

		2000	2001	2002	2003	2004	2005	2006	2007	2008
Scotland overall	EASR	149.7	151.9	149.6	144.6	142.5	140.9	137.0	136.5	133.6
Most deprived 15% (SIMD)	EASR	204.7	209.0	205.4	205.9	208.0	195.5	200.0	206.4	200.3
Most deprived 15% (SIMD)	N	1678	1684	1645	1625	1633	1516	1542	1571	1521
Scotland overall	N	8219	8321	8292	8119	8104	8050	7894	7971	7924
% deaths in 15% SIMD MD	%	20.4%	20.2%	19.8%	20.0%	20.2%	18.8%	19.5%	19.7%	19.2%

Source: Registrar General for Scotland, 2008

The table above shows that the most deprived areas of Scotland have mortality rates far higher than the Scottish average.

There is some variation by type of cancer; those most directly associated with smoking tend to be strongly correlated with deprivation. Cervical cancer is correlated with deprivation. Breast and prostate cancer are negatively associated with deprivation. The following tables give the figures:

Table 15 Cancer of trachea, bronchus and lung, Scotland, mortality rates

	Mortality			
SIMD 2006 deprivation quintile	Number of death registrations	EASR	*- Lower 95% CI*	*- Upper 95% CI*
1 (Least deprivec	2,168	31.8	*30.4*	*33.1*
2	2,987	40.6	*39.1*	*42.1*
3	3,817	51.8	*50.1*	*53.5*
4	5,046	70.6	*68.6*	*72.7*
5 (Most deprived	6,085	96.9	*94.3*	*99.4*
		<0.0001		

EASR: age-standardised incidence rate per 100,000 person-years at risk (European standard population)

Source: Registrar General for Scotland, 2008

The above table shows mortality rates by deprivation quintile for the smoking-related cancers of trachea, bronchus and lung. The link to deprivation is striking and strong.

Table 16 Breast cancer - women only, Scotland mortality rates

Females				
	Mortality			
SIMD 2006 deprivation quintile	Number of death registrations	EASR	*- Lower 95% CI*	*- Upper 95% CI*
1 (Least deprived)	978	26.2	*24.5*	*28.0*
2	1,070	26.7	*25.0*	*28.4*
3	1,139	28.3	*26.5*	*30.0*
4	1,155	28.8	*27.0*	*30.6*
5 (Most deprived)	1,069	29.5	*27.6*	*31.4*
Test for trend (Poisson regression)		0.0587		

Source: Registrar General for Scotland, 2008

By contrast, the table above shows no statistically significant correlation between deprivation and breast cancer mortality rate. Breast cancer incidence (not shown here) is negatively correlated with deprivation. The differences in incidence and mortality figures highlight that differences in outcomes for breast cancer sufferers do exist with those from more deprived areas having worse outcomes.

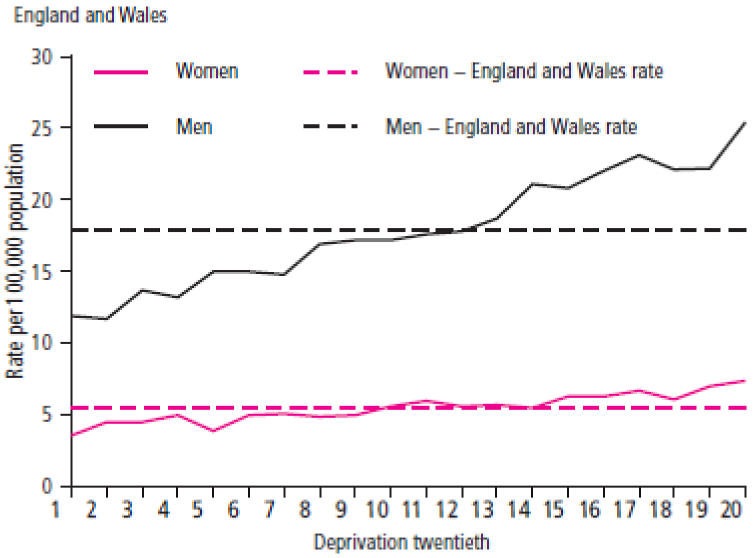
Data are also available on colorectal and prostate cancer, neither of which shows a correlation between death rate and deprivation.

4.3.4 Suicide rates/risk

ENGLAND

The data on suicide are collected by region and nation. For England & Wales these have been set alongside the 2001 Census Standard Table ward of the deceased's usual residence which was then assigned a deprivation score REF Brock et al "Suicide trends and geographical variations in the United Kingdom, 1991-2004".

Table 17 Age-standardised suicide rates by deprivation twentieth and sex, people aged 15 and over, 1993-2003



Source (Brock et al. 2006)

The results show an association between suicide and deprivation, with suicide rates of men and women living in the most deprived areas double those in the least deprived. The figures are given in the table below.

Table 18 Age-standardised suicide rates by deprivation twentieth and sex, people aged 15 and over, England & Wales, 1999-2003

Deprivation twentieth[1]	**Men**	**Women**
	Rate per 100,000 population*	Rate per 100,000 population*
1	11.9	3.6
2	11.7	4.5
3	13.7	4.5
4	13.2	5.0
5	15.0	3.9
6	15.0	5.0
7	14.8	5.1
8	16.9	4.9
9	17.2	5.0
10	17.2	5.6
11	17.6	6.0
12	17.8	5.6
13	18.7	5.7
14	21.1	5.5
15	20.8	6.3
16	22.0	6.3
17	23.1	6.7
18	22.1	6.1
19	22.2	7.0
20	25.4	7.4
England & Wales rate	17.9	5.5

Source (Brock et al. 2006)

The table and graph show that suicide rates in the most deprived areas were double those in the least deprived for men and women. These differences are statistically significant.

4.3.4 Suicide rates/risk

WALES

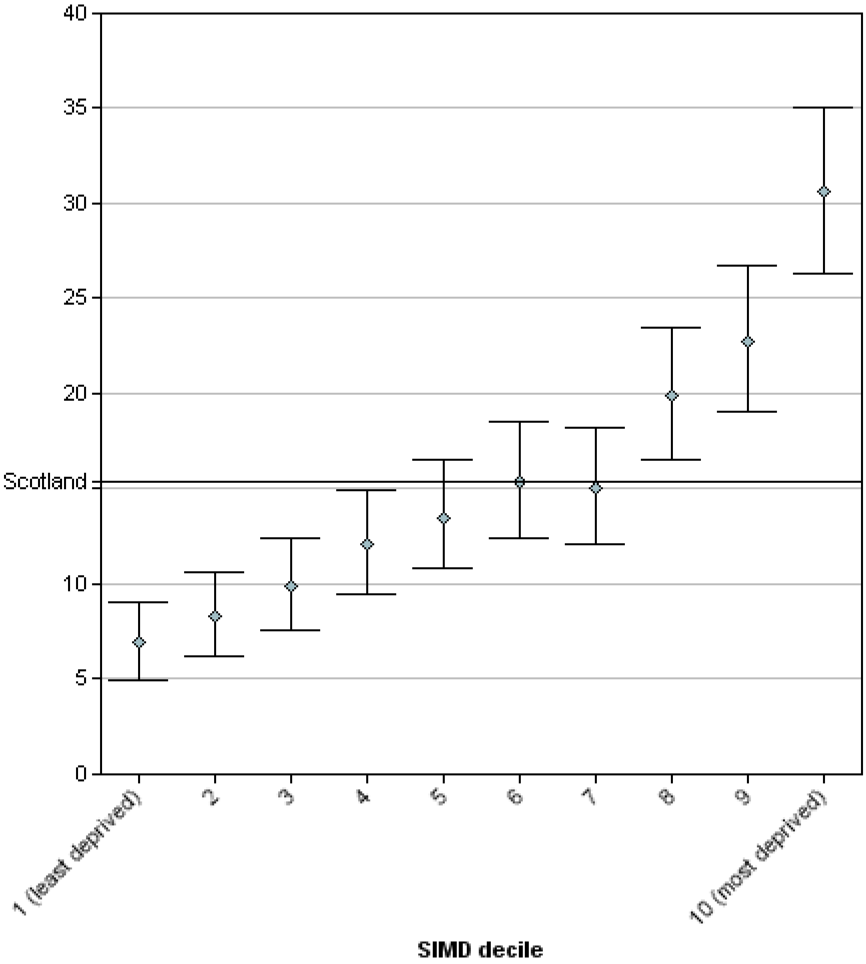
There are no separate data for Wales.

4.3.4 Suicide rates/risk

SCOTLAND

These data are available on the basis of the most deprived areas.

Figure 8 European age-standardised rates per 100,000 population: deaths caused by intentional self harm and events of undetermined intent, by deprivation decile (SIMD), Scotland, 2004-08



Source: General Register Office for Scotland: Data extracted Jan 2010 by Scottish PHO

The graph above shows there is a direct and statistically significant link between an area's deprivation score and the mortality rate due to suicide and self-harm.

Table 19 Deaths caused by intentional self harm and events of undetermined intent by Scottish Index of Multiple Deprivation (SIMD)

	Numbers		Crude rates		European age-standardised rates (EASRs) (95% confidence intervals)	
	1999-03	2004-08	1999-03	2004-08	1999-03	2004-08
Males						
1 (most affluent)	146	135	11.7	10.7	11.5 (9.7-13.5)	10.5 (8.8-12.4)
2	159	180	12.8	14.1	12.4 (10.6-14.5)	13.4 (11.5-15.6)
3	186	207	15.2	16.2	14.9 (12.8-17.3)	15.4 (13.3-17.6)
4	238	239	19.5	18.8	19.4 (17-22.1)	18.2 (15.9-20.7)
5	281	253	22.7	19.9	22.3 (19.7-25)	19.1 (16.8-21.7)
6	296	312	23.9	24.8	23.1 (20.6-25.9)	23.8 (21.3-26.7)
7	355	298	28.7	24.1	28.1 (25.3-31.2)	23.3 (20.7-26.1)
8	398	373	32.2	30.4	31.8 (28.8-35.1)	29.7 (26.8-32.9)
9	454	421	36.7	34.6	37.1 (33.7-40.7)	34.3 (31.1-37.8)
10 (most deprived)	625	550	49.7	45.4	51.2 (47.2-55.4)	46 (42.2-50)
Unknown	*98*	*32*	-	-	-	-
Scotland	***3,236***	***3,000***	***26.6***	***24.3***	***25.8 (24.9-26.7)***	***23.4 (22.6-24.2)***

Source: Registrar General for Scotland, 2008

The table above gives the figures from which the graph is derived. Both show that the difference between the most deprived and least deprived area of Scotland is statistically significant, as is the difference between both the most and least deprived, and Scotland overall.

4.3.5 Accident mortality rate

ENGLAND

We did not find any figures correlating the accident mortality rate with social class or deprivation area. The data are available but the statistical work has not been done. The following data were available, however.

The Health Profile of England 2008 includes figures on road injuries and deaths. The relationship between deprivation and these figures is not straightforward. The East of England has a high rate of road morbidity and mortality but is not a deprived area, the North East of England has the opposite phenomenon. At present we could not find general figures on accident mortality by class for England, Scotland and Wales.

Table 20 Road injury and death rate by local health profile data on deprivation, England

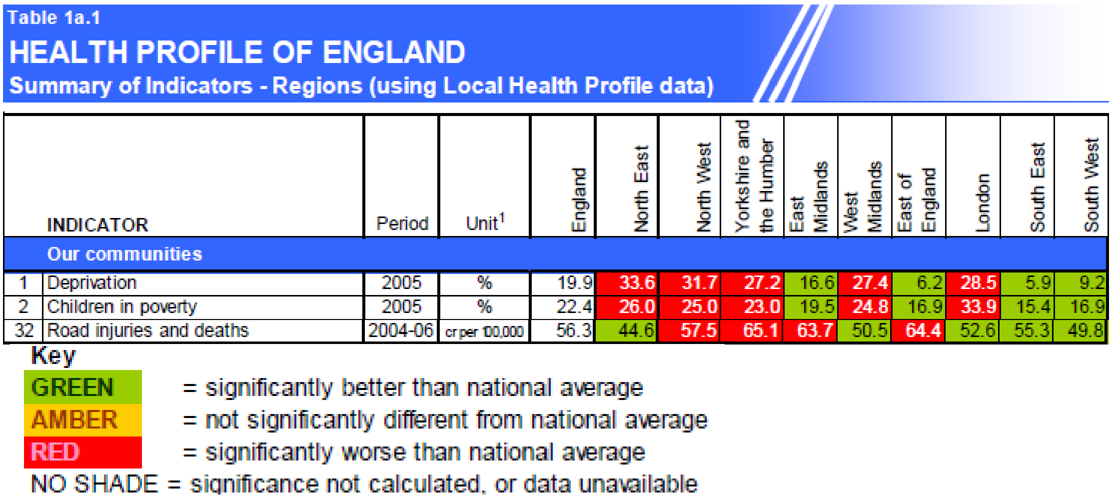


Table 1a.1

HEALTH PROFILE OF ENGLAND

Summary of Indicators - Regions (using Local Health Profile data)

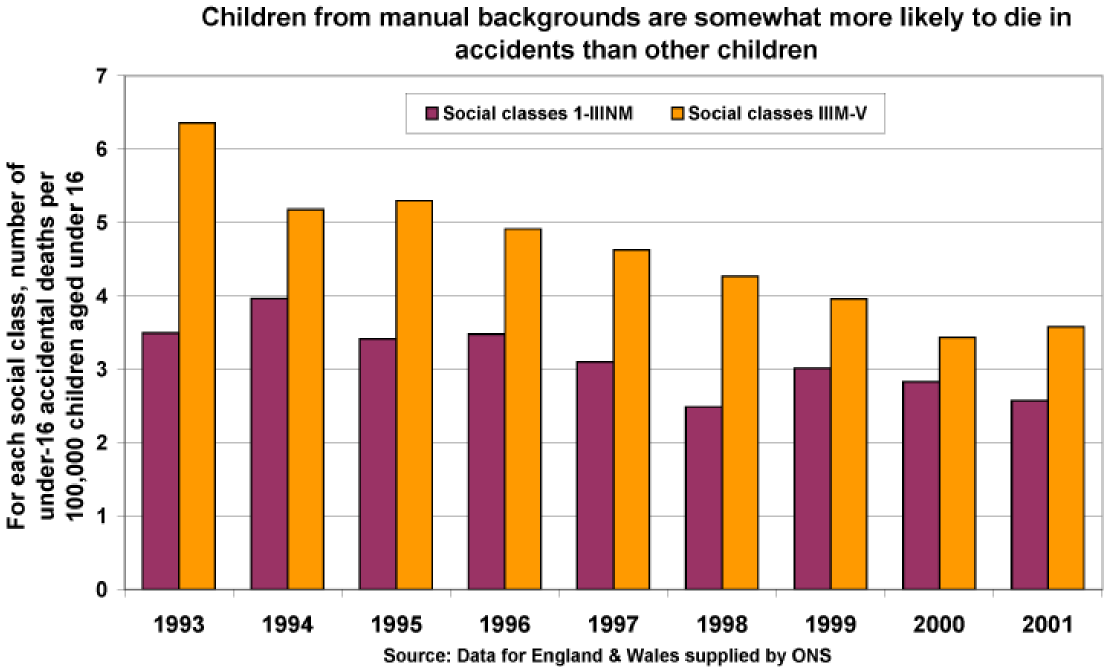
	INDICATOR	Period	Unit[1]	England	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
	Our communities												
1	Deprivation	2005	%	19.9	🟥 33.6	🟥 31.7	🟥 27.2	🟩 16.6	🟥 27.4	🟩 6.2	🟥 28.5	🟩 5.9	🟩 9.2
2	Children in poverty	2005	%	22.4	🟥 26.0	🟥 25.0	🟥 23.0	🟩 19.5	🟥 24.8	🟩 16.9	🟥 33.9	🟩 15.4	🟩 16.9
32	Road injuries and deaths	2004-06	cr per 100,000	56.3	🟩 44.6	🟥 57.5	🟥 65.1	🟥 63.7	🟩 50.5	🟥 64.4	🟩 52.6	🟩 55.3	🟩 49.8

Key

🟩 GREEN = significantly better than national average
🟨 AMBER = not significantly different from national average
🟥 RED = significantly worse than national average
NO SHADE = significance not calculated, or data unavailable

Source: Health Profile of England 2008

The Poverty website (poverty.org.uk) has the following data which was given to them by request from the Office for National Statistics.



Source: poverty.org.uk

The graph above shows a clear and reducing gap in accidents death rates between children from manual and non-manual work backgrounds. No confidence intervals are available, but the trend is consistent over a long period of time.

WALES

These data are not collected in the General Register Office Census Longitudinal Study (for England & Wales).

4.3.5 Accident mortality rate

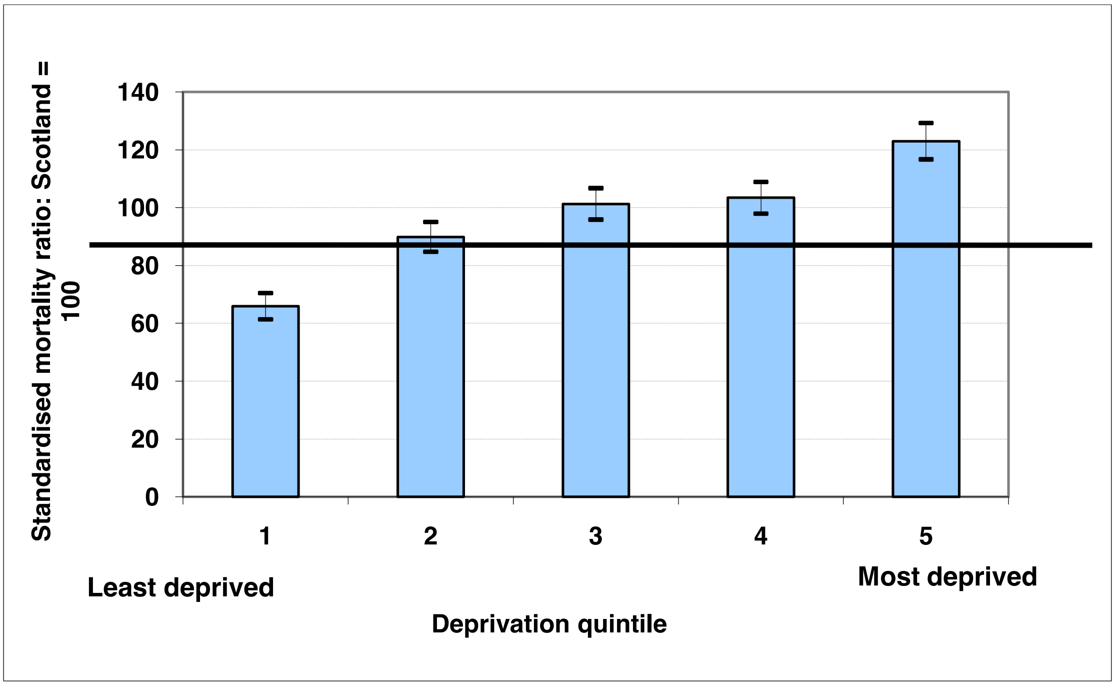
SCOTLAND

Table 21 Deaths as a result of an unintentional injury, adults aged 15 and over by deprivation quintile, number and standardised mortality ratio, year ending 31 December, 2004-08

	Deprivation quintile					
	1	2	3	4	5	**Total**
Number of deaths	813	1,175	1,335	1,361	1,473	**6,157**
Standardised mortality ratio	65.9	89.9	101.3	103.4	123.0	**100.0**
Lower 95% confidence interval	*61.4*	*84.8*	*95.9*	*97.9*	*116.7*	
Upper 95% confidence interval	*70.5*	*95.0*	*106.8*	*108.9*	*129.3*	

Source: Registrar General for Scotland, 2008

Figure 9 Mortality from unintentional injury, adults aged 15 years and over by deprivation quintile, year ending 31 December, 2004-2008



Source: General Register Office for Scotland: Scottish Index of Multiple Deprivation

The graph and table above show a statistically significant inequality in mortality from unintentional injury. This includes road traffic accidents and is the best approximation to an accident mortality rate. Those in the most deprived areas of Scotland have an accident mortality rate approximately double that of those in the least deprived.

4.3.6 Deaths from non-natural causes for people resident in health or social care establishments

These data are not collected by Socio-economic status in the General Register Office for Scotland or the General Register Office Census Longitudinal Study (for England & Wales). We found nothing elsewhere.

4.3 Health: Main indicators

Outcomes

4.3.7 [2.1] Self-report poor current [physical] health

ENGLAND

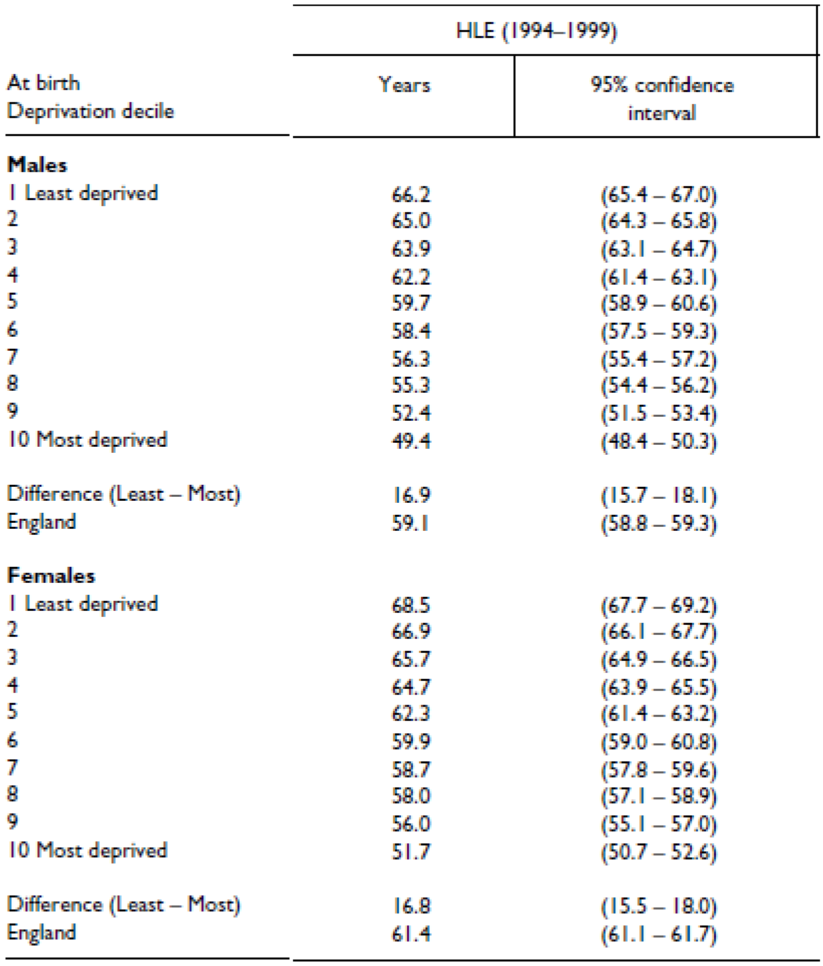
Source: Census Longitudinal Survey

From the Census 2001, those who had never worked or were long-term unemployed had the highest rates of self-reported not good health (18.5%). Amongst those employed, rates of not good health for people in routine occupations were more than double those for people in higher managerial and professional occupations (8.6% and 3.4%).

4.3.7a Healthy life expectancy

The Office for National Statistics is currently collecting experimental statistics on healthy life expectancy by area. These figures have been collected by small electoral wards but the data have not been aggregated to give healthy life expectancy by area of deprivation. However, dissagregation has been performed on earlier statistics by Bajekal REF.

Table 22 Healthy life expectancy (HLE) at birth by deprivation decile and sex, 1994-9, England



	HLE (1994–1999)	
At birth Deprivation decile	Years	95% confidence interval
Males		
1 Least deprived	66.2	(65.4 – 67.0)
2	65.0	(64.3 – 65.8)
3	63.9	(63.1 – 64.7)
4	62.2	(61.4 – 63.1)
5	59.7	(58.9 – 60.6)
6	58.4	(57.5 – 59.3)
7	56.3	(55.4 – 57.2)
8	55.3	(54.4 – 56.2)
9	52.4	(51.5 – 53.4)
10 Most deprived	49.4	(48.4 – 50.3)
Difference (Least – Most)	16.9	(15.7 – 18.1)
England	59.1	(58.8 – 59.3)
Females		
1 Least deprived	68.5	(67.7 – 69.2)
2	66.9	(66.1 – 67.7)
3	65.7	(64.9 – 66.5)
4	64.7	(63.9 – 65.5)
5	62.3	(61.4 – 63.2)
6	59.9	(59.0 – 60.8)
7	58.7	(57.8 – 59.6)
8	58.0	(57.1 – 58.9)
9	56.0	(55.1 – 57.0)
10 Most deprived	51.7	(50.7 – 52.6)
Difference (Least – Most)	16.8	(15.5 – 18.0)
England	61.4	(61.1 – 61.7)

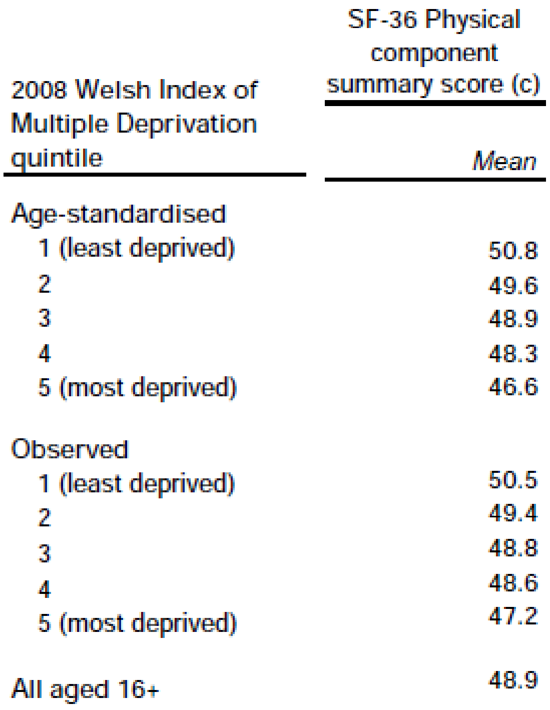
Source: (Bajekal 2005)

The table shows that for both men and women in England, there is a clear social gradient in healthy life expectancy in 1994-9. The difference in healthy life expectancy between the most and least deprived deciles for both men and women is almost 17 years.

4.3.7 [2.1] Self-report poor current [physical] health

WALES

Table 23 SF-36 Physical component summary score, Wales



2008 Welsh Index of Multiple Deprivation quintile	SF-36 Physical component summary score (c)
	Mean
Age-standardised	
1 (least deprived)	50.8
2	49.6
3	48.9
4	48.3
5 (most deprived)	46.6
Observed	
1 (least deprived)	50.5
2	49.4
3	48.8
4	48.6
5 (most deprived)	47.2
All aged 16+	48.9

Source: Welsh Health Survey 2008

4.3.7 [2.1] Self-report poor current [physical] health

SCOTLAND

Table 24 Estimated odds ratio for bad/very bad general health by income and deprivation

Aged 16 and over *2008*

Independent variables	**Men**			**Women**		
	Base (weighted) **3088**	Odds Ratio	95% Confidence interval	Base (weighted) **3377**	Odds Ratio	95% Confidence interval
Equivalised annual household income quintile		(p=<0.001)			(p=0.001)	
1st (highest)	656	1		614	1	
2nd	564	2.04	0.71, 5.83	578	0.85	0.38, 1.89
3rd	593	4.24	1.51, 11.89	596	1.18	0.57, 2.46
4th	426	4.25	1.54, 11.75	546	2.28	1.14, 4.55
5th (lowest)	438	8.03	2.90, 22.21	569	2.50	1.20, 5.19
Not categorised	411	3.42	1.20, 9.76	475	1.53	0.71, 3.28
Scottish Index of Multiple Deprivation quintile		(p=0.002)			(p=0.001)	
5th (least deprived)	551	1		630	1	
4th	757	1.21	0.64, 2.28	746	1.76	1.02, 3.05
3rd	564	1.29	0.66, 2.52	630	1.20	0.66, 2.19
2nd	630	1.34	0.69, 2.62	695	1.98	1.11, 3.56
1st (most deprived)	587	2.51	1.34, 4.68	677	2.79	1.59, 4.89

Source: Scottish Health Survey, 2008

Household income was significantly associated with poor self-assessed health for both men and women. When compared with the highest household income quintile, the odds of reporting poor health were significantly higher among men in the 3rd, 4th and 5th income quintiles, and among women in the 4th and 5th. The odds of those in the lowest income quintile having poor self-assessed health were 8.03 times higher for men and 2.50 times higher for women (Scottish Health Survey).

4.3.7a Healthy Life Expectancy

Table 25 Scottish life expectancy and healthy life expectancy by sex and deprivation

			LE	HLE
MALE	**15% most deprived datazones**	1999-2000	66.7	55.4
		2001-2002	66.8	56.1
		2005-2006	68.3	57.3
		2007-2008	68.1	57.5
	Scotland	**1999-2000**	**73.0**	**65.1**
		2001-2002	**73.4**	**66.0**
		2005-2006	**74.8**	**67.4**
		2007-2008	**75.1**	**68.0**
FEMALE			**LE**	**HLE**
	15% most deprived datazones	1999-2000	74.6	60.8
		2001-2002	75.1	61.4
		2005-2006	75.6	60.4
		2007-2008	75.8	61.9
	Scotland	**1999-2000**	**78.4**	**68.2**
		2001-2002	**78.9**	**69.3**
		2005-2006	**79.7**	**69.7**
		2007-2008	**80.0**	**70.5**

Source: High level summary of statistics, Scottish Government, 2010

The table above shows that both life expectancy and healthy life expectancy are worst within the 15% most deprived areas. This pattern exists across both sexes. In 2007-8, HLE for men in Scotland was 57.5 years in the most deprived areas and 68.0 years in Scotland overall. The equivalent figures for women are 61.9 years and 70.5 years.

4.3.8 [1.1] Longstanding health problem or disability (E W) and longstanding illness (S)

In this report the acronym LLTI is used to stand for longstanding health problem or disability, or longstanding illness.

ENGLAND

The data on LLTI are collected in the Office for National Statistics General Lifestyle Survey. Over 40% of adults aged 45 to 64 report LLTI, the proportions being similar for men and women. However, the proportions are related to class, with those in routine and manual occupational groups more likely to have an LLTI. These figures are for England, Scotland and Wales.

Table 26 Prevalence of reported longstanding illness by sex, age and socio-economic classification of household reference person

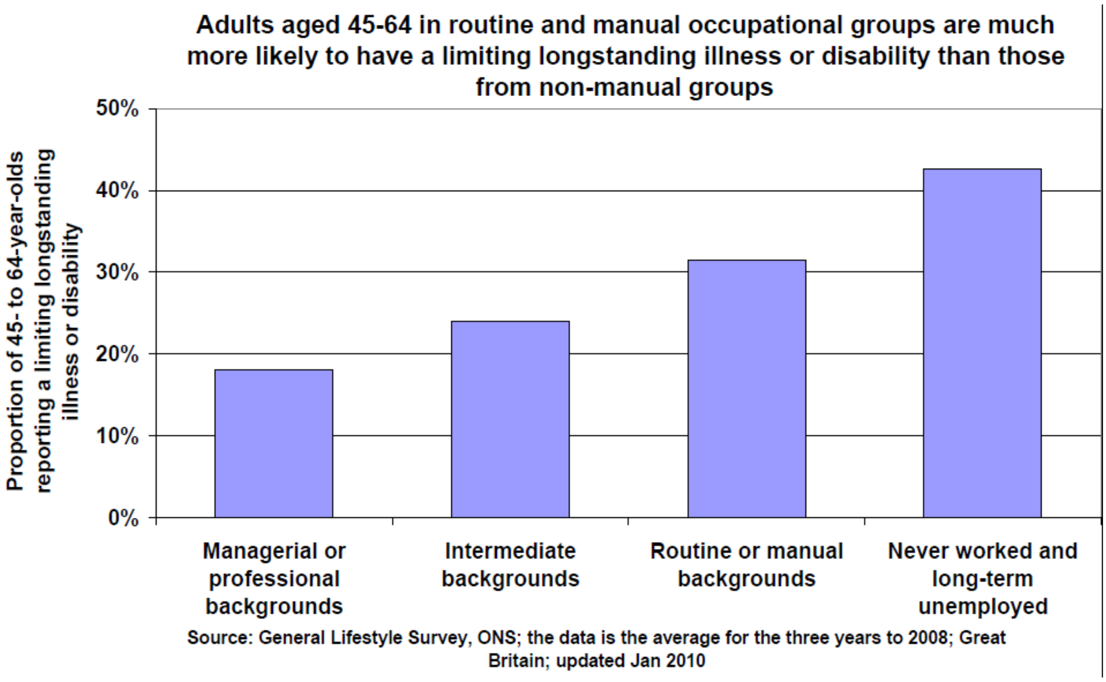
All persons *Great Britain: 2007*[1]

Socio-economic classification of household reference person [2]	Males										Females									
	Age										Age									
	0-15		16-44		45-64		65 and over		Total		0-15		16-44		45-64		65 and over		Total	
	Percentage who reported longstanding illness																			
Large employers and higher managerial	12		17		32		62		25		8		18		27		57		23	
Higher professional	9	14	16	17	38	38	61	59	26	27	11	12	23	20	33	35	59	59	27	27
Lower managerial and professional	18		17		41		58		29		14		19		39		60		29	
Intermediate	15	12	14	17	42	41	66	62	28	30	17	13	25	20	37	39	57	55	35	32
Small employers and own account	10		19		40		60		31		11		15		41		54		28	
Lower supervisory and technical	17		24		48		64		37		16		22		45		58		33	
Semi-routine	14	14	25	24	48	50	64	65	34	37	14	16	24	24	49	49	62	63	37	38
Routine	14		21		55		68		38		17		26		53		69		41	
All persons	15		20		43		62		31		13		22		41		60		32	

Source: Office for National Statistics General Household Survey

The following graph makes the same point using the data aggregated slightly differently.

Figure 10 Limited longstanding illness LLTI by occupational group, adults aged 45-64, Great Britain



Source: The Poverty Site

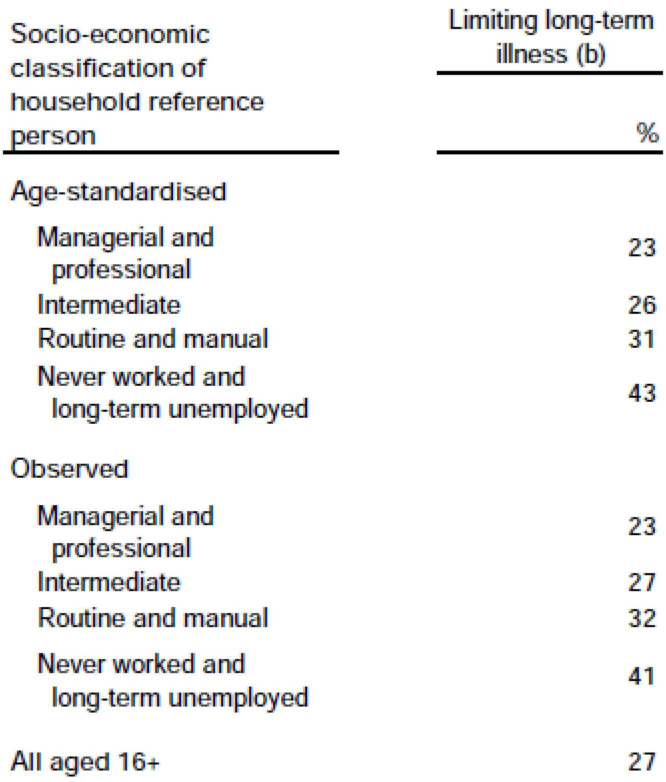
In Great Britain, therefore, LLTI is associated with social class; those in routine or manual backgrounds and those who are long-term unemployed are more likely to have an LLTI.

4.3.8 [1.1] Longstanding health problem or disability (E W) and longstanding illness (S)

WALES

The Welsh Health Survey has the following figures.

Table 27 LLTI by socio-economic classification of household reference person, Wales, 2008

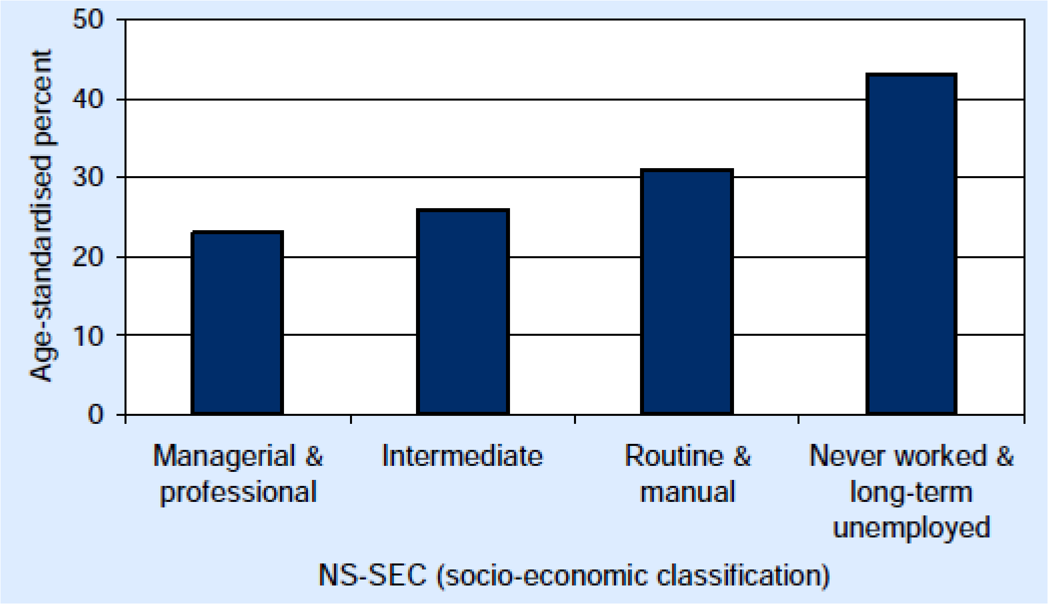


Socio-economic classification of household reference person	Limiting long-term illness (b) %
Age-standardised	
Managerial and professional	23
Intermediate	26
Routine and manual	31
Never worked and long-term unemployed	43
Observed	
Managerial and professional	23
Intermediate	27
Routine and manual	32
Never worked and long-term unemployed	41
All aged 16+	27

Source: Welsh Health Survey, 2008

The same figures can be presented graphically, as follows

Figure 11 Percentage who reported having a LLTI by household NS-SEC



Source: Welsh Health Survey

The data and graph show that the pattern for Great Britain as a whole is replicated in Wales.

4.3.8 [1.1] Longstanding health problem or disability (E W) and longstanding illness (S)

SCOTLAND

These data are available through the Scottish Household Survey, 2005-6.

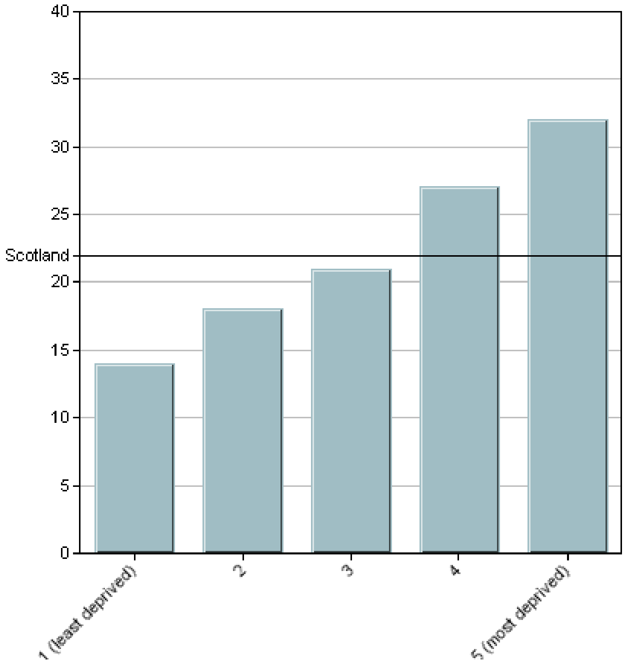
Table 28 Percentage of adults aged 16 and over with a long-standing illness, disability or health problem by Scottish Index of Multiple Deprivation quintile, 2007/08

SIMD quintile	Percentage
1 (least deprived)	14
2	18
3	21
4	27
5 (most deprived)	32

Source: Scottish Household Survey 2005-06

The same data represented graphically:

Figure 12 Percentage of adults aged 16 and over with a long-standing illness, disability or health problem by Scottish Index of Multiple Deprivation quintile, 2007/08



Source: Scottish Household Survey 2005-06

The pattern in Scotland is the same as the rest of Great Britain, with the most deprived having the highest prevalence of LLTI.

4.3.9 [1.2] Poor mental health or wellbeing

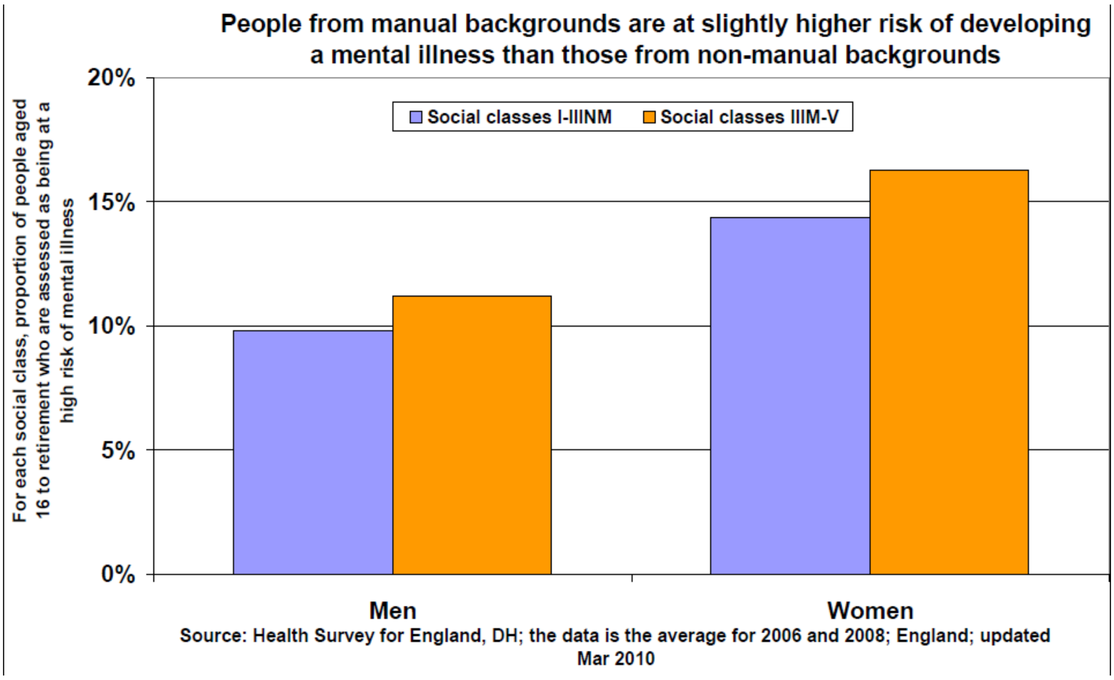
ENGLAND

Table 29 Risk of developing a mental illness by manual, non-manual status

Gender	Social classes I-IIINM	Social classes IIIM-V
Men	10%	11%
Women	14%	16%

Source: Health Survey for England via Poverty Site

Figure 13 Risk of developing a mental illness by manual, non-manual status



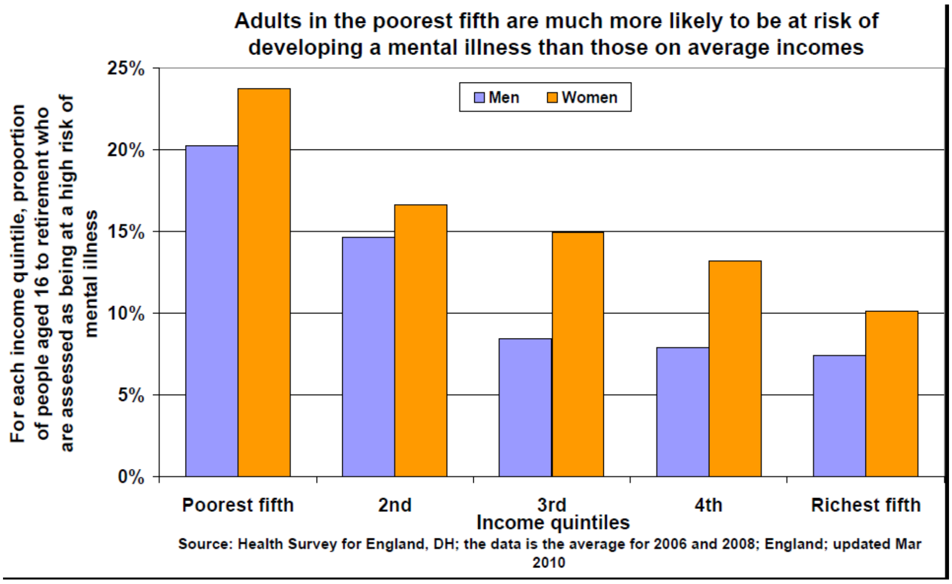
Source: Health survey for England, via Poverty site

Table 30 Risk of developing a mental illness by level of income

Income quintile	Men	Women
Poorest fifth	20%	24%
2nd	15%	17%
3rd	8%	15%
4th	8%	13%
richest fifth	7%	10%

Source: Health survey for England, via Poverty site

Figure 14 Risk of developing a mental illness by level of income



Source: Health survey for England, via Poverty site

Table 31 Incapacity benefit for mental illness by deprivation of region in England

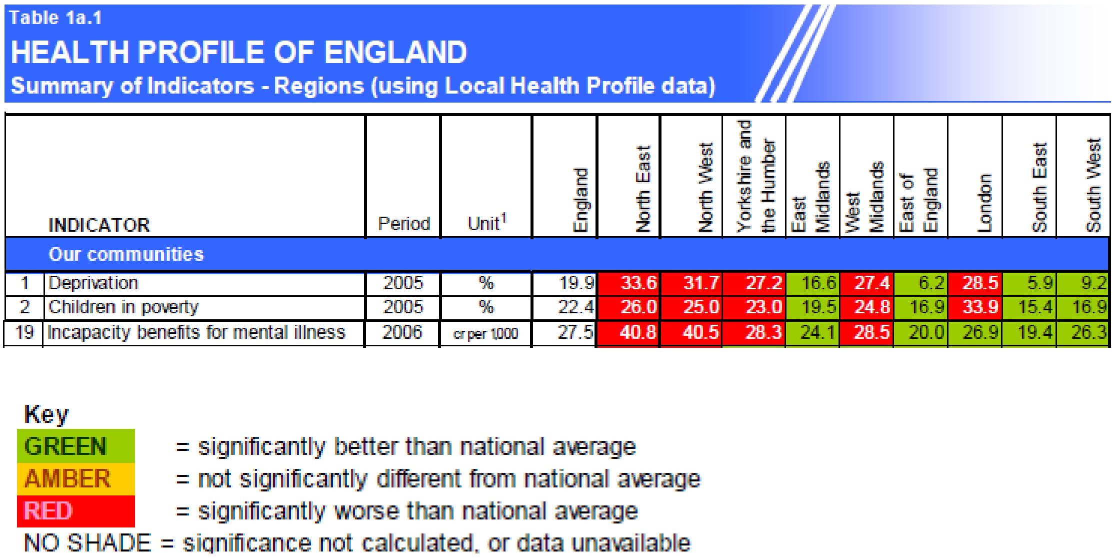


Table 1a.1

HEALTH PROFILE OF ENGLAND

Summary of Indicators - Regions (using Local Health Profile data)

	INDICATOR	Period	Unit[1]	England	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
	Our communities												
1	Deprivation	2005	%	19.9	33.6	31.7	27.2	16.6	27.4	6.2	28.5	5.9	9.2
2	Children in poverty	2005	%	22.4	26.0	25.0	23.0	19.5	24.8	16.9	33.9	15.4	16.9
19	Incapacity benefits for mental illness	2006	cr per 1,000	27.5	40.8	40.5	28.3	24.1	28.5	20.0	26.9	19.4	26.3

Key

GREEN = significantly better than national average

AMBER = not significantly different from national average

RED = significantly worse than national average

NO SHADE = significance not calculated, or data unavailable

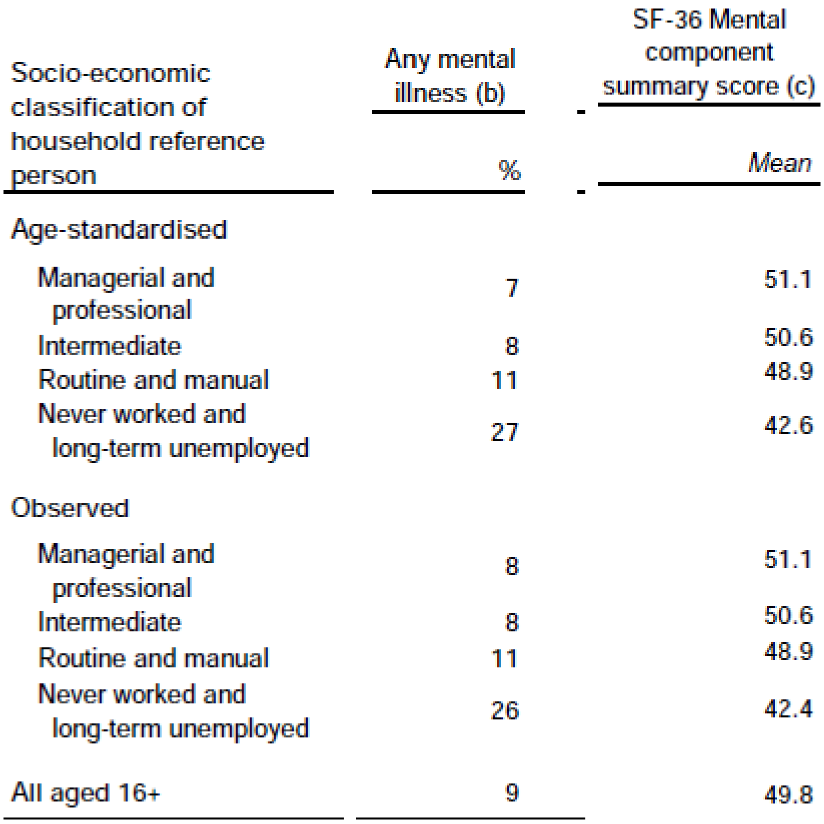
Source: Health Profile of England 2008

The figures and graphs above show a general picture in which poverty and deprivation are associated with mental illness. Adults in the poorest fifth are at more than twice as much risk of developing a mental illness than those on average incomes. People in deprived areas are significantly more likely to claim incapacity benefits for mental illness than those in affluent areas. The route of causation here is unclear; living on a low income may increase the likelihood of developing mental illness, but mental illness may also reduce the likelihood of being able to progress to and work in high-earning posts. However, it remains a serious inequality whether it is the result of those with mental illness becoming poor or those in poverty becoming mentally ill.

4.3.9 [1.2] Poor mental health or wellbeing

WALES

Table 32 Mental illness by socio-economic classification of household reference person, Wales



Socio-economic classification of household reference person	Any mental illness (b)	SF-36 Mental component summary score (c)
	%	*Mean*
Age-standardised		
Managerial and professional	7	51.1
Intermediate	8	50.6
Routine and manual	11	48.9
Never worked and long-term unemployed	27	42.6
Observed		
Managerial and professional	8	51.1
Intermediate	8	50.6
Routine and manual	11	48.9
Never worked and long-term unemployed	26	42.4
All aged 16+	9	49.8

(b) = Adults who reported being treated for depression, anxiety or any other mental illness

(c) = SF36 is a 36 point questionnaire which includes questions about mental health and wellbeing; a higher score is better.

Source Welsh Health Survey

The data in Wales indicate a social gradient; those most at risk of mental illness are those who are unemployed or who have never worked; but those working in routine and manual jobs are about 33% more likely to have a mental illness than managerial and professional workers. There is a similar gradient in relation to mental wellbeing.

4.3.9 [1.2] Poor mental health or wellbeing

SCOTLAND

The data in Scotland show a similar picture to England & Wales. In the Scottish Health Survey, the measurement device used is the Warwick-Edinburgh Mental Wellbeing Scale. This is a score of mental wellbeing rather than mental illness. The minimum score is 14 and the highest is 70. The Scottish mean score is around 50. It is a relatively new tool but has been validated against other tools and assessed as robust in focus groups. The data for Scotland were collected and published in the 2008 Scottish Health Survey. They are set out in the two tables below.

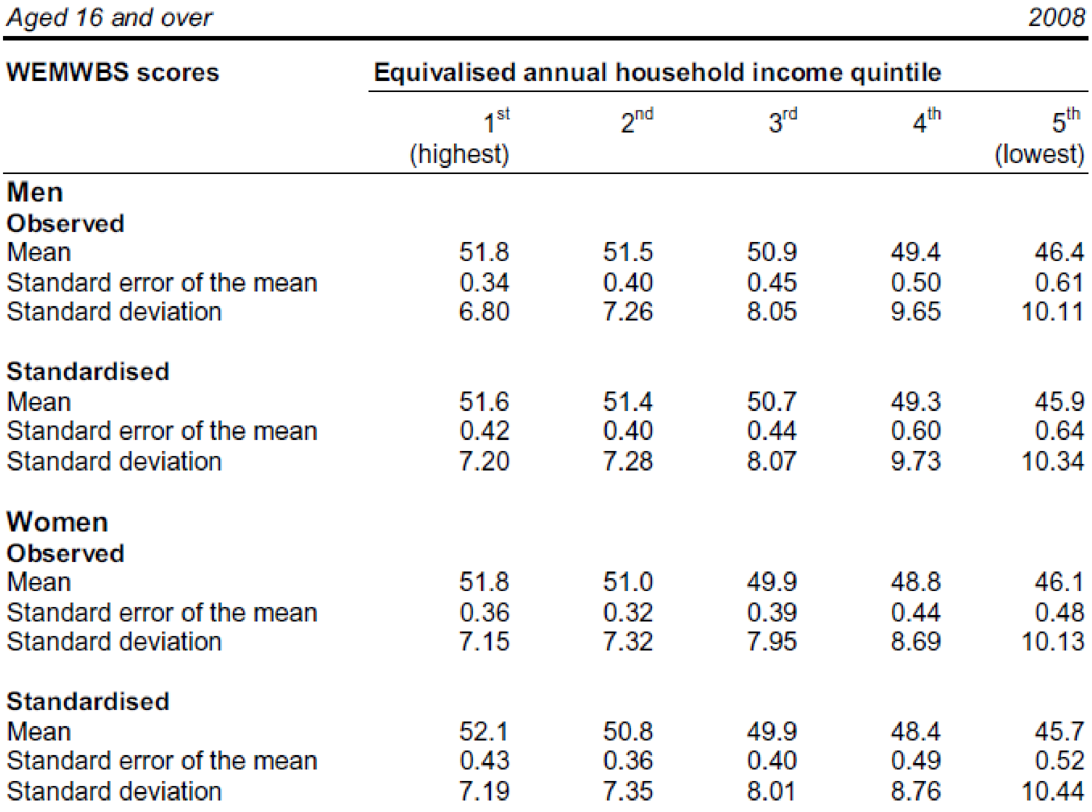
Table 33 WEMWBS mean scores by NS-SEC of household reference person and sex

Aged 16 and over *2008*

WEMWBS scores	**NS-SEC of household reference person**				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine & routine
Men					
Observed					
Mean	51.6	50.1	50.0	50.7	48.4
Standard error of the mean	0.31	0.55	0.68	0.49	0.41
Standard deviation	7.85	7.74	8.48	8.14	9.40
Standardised					
Mean	51.5	50.4	50.1	50.9	48.4
Standard error of the mean	0.30	0.55	0.69	0.50	0.42
Standard deviation	7.88	7.71	8.29	8.01	9.37
Women					
Observed					
Mean	51.1	49.8	50.2	49.5	48.0
Standard error of the mean	0.27	0.48	0.62	0.48	0.31
Standard deviation	7.72	8.27	8.46	7.94	9.24
Standardised					
Mean	51.0	49.7	50.5	49.4	47.9
Standard error of the mean	0.28	0.50	0.60	0.53	0.32
Standard deviation	7.78	8.04	8.46	8.07	9.31

Source: Scottish Health Survey 2008

Table 34 WEMWBS means score by equivalised household quintile and sex



Aged 16 and over *2008*

WEMWBS scores	**Equivalised annual household income quintile**				
	1st (highest)	2nd	3rd	4th	5th (lowest)
Men					
Observed					
Mean	51.8	51.5	50.9	49.4	46.4
Standard error of the mean	0.34	0.40	0.45	0.50	0.61
Standard deviation	6.80	7.26	8.05	9.65	10.11
Standardised					
Mean	51.6	51.4	50.7	49.3	45.9
Standard error of the mean	0.42	0.40	0.44	0.60	0.64
Standard deviation	7.20	7.28	8.07	9.73	10.34
Women					
Observed					
Mean	51.8	51.0	49.9	48.8	46.1
Standard error of the mean	0.36	0.32	0.39	0.44	0.48
Standard deviation	7.15	7.32	7.95	8.69	10.13
Standardised					
Mean	52.1	50.8	49.9	48.4	45.7
Standard error of the mean	0.43	0.36	0.40	0.49	0.52
Standard deviation	7.19	7.35	8.01	8.76	10.44

Scottish Health Survey 2008

The table shows a social gradient in WEMWBS scores, but the figures are not statistically significant.. It is difficult to get the importance of this inequality until the tool has been in use longer.

Table 35 Anxiety and depression (1), Patients in Scotland consulting a GP or Practice Nurse at least once in the year: rates per 1,000 population (2), (3), and 95% confidence intervals for financial year 2007/08; by gender and deprivation quintile

		Anxiety			Depression		
			95% confidence intervals			95% confidence intervals	
Sex	**Quintile**	**Rates per 1000**	**Lower**	**Upper**	**Rates per 1000**	**Lower**	**Upper**
Males	**1- most deprived**	42.6	36.0	49.1	24.8	20.2	29.3
	2	30.2	25.7	34.6	20.6	16.7	24.5
	3	28.2	24.1	32.2	19.1	16.0	22.1
	4	21.6	18.2	25.0	16.9	14.5	19.4
	5 - least deprived	18.2	13.5	23.0	13.1	10.8	15.4
	All categories	29.9	25.4	34.5	20.5	17.6	23.5
Females	**1 - most deprived**	86.8	73.7	99.9	49.9	41.7	58.1
	2	68.2	58.3	78.0	40.2	33.4	47.0
	3	62.0	54.5	69.5	43.7	37.7	49.8
	4	51.7	43.4	60.0	38.2	33.3	43.1
	5 - least deprived	40.5	33.3	47.7	29.1	23.2	35.0
	All categories	63.2	53.7	72.7	41.3	34.6	47.9
Persons	ALL	46.6	39.8	53.5	31.0	26.4	35.6

Source: Information Services Division Practice Team Information

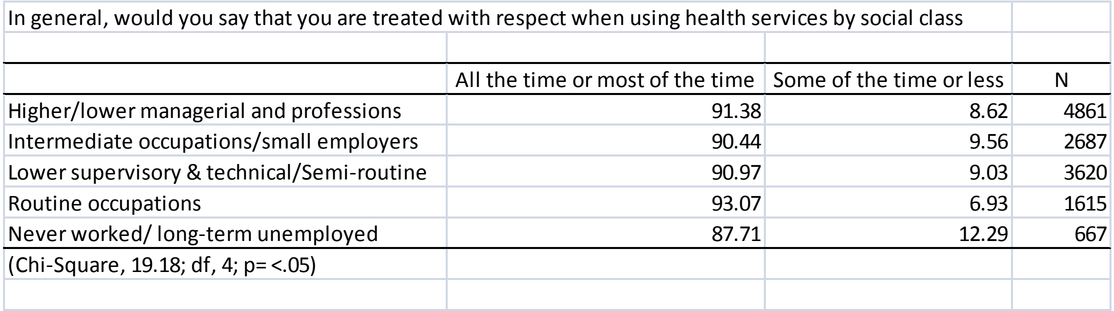
The table above shows the rate of consultations for anxiety and depression on the basis of deprivation quintile. This shows large and statistically significant differences between the most and least deprived in relation to both anxiety and depression for both sexes. The point about causation made above applies here also, but whichever is the case it is an important inequality.

Process

4.3.10 [3.1] Low perception of treatment with dignity

ENGLAND

Table 36 Treatment with respect when using health services by social class, ENGLAND



In general, would you say that you are treated with respect when using health services by social class

	All the time or most of the time	Some of the time or less	N
Higher/lower managerial and professions	91.38	8.62	4861
Intermediate occupations/small employers	90.44	9.56	2687
Lower supervisory & technical/Semi-routine	90.97	9.03	3620
Routine occupations	93.07	6.93	1615
Never worked/ long-term unemployed	87.71	12.29	667
(Chi-Square, 19.18; df, 4; p= <.05)			

Source: Citizenship Survey

The Table above shows that there is no clear social gradient for feeling that you are treated with respect when using health services. However the data do indicate that those who have never worked, or are long term unemployed perceive differences in their treatment from those who are employed.

WALES

The Living in Wales Survey amalgamated three measures into an overall "Satisfaction with Service User Interaction" score: these three are "Treated with dignity and respect"; "Staff were helpful" and "Involved in decisions about treatment. The report states that dissatisfaction is not associated with socio-economic status. The survey no longer exists; it is to be replaced by the National Survey for Wales.

SCOTLAND

Data not yet available on Better Together Survey

4.3.11 [5.1] A&E attendance/accidents

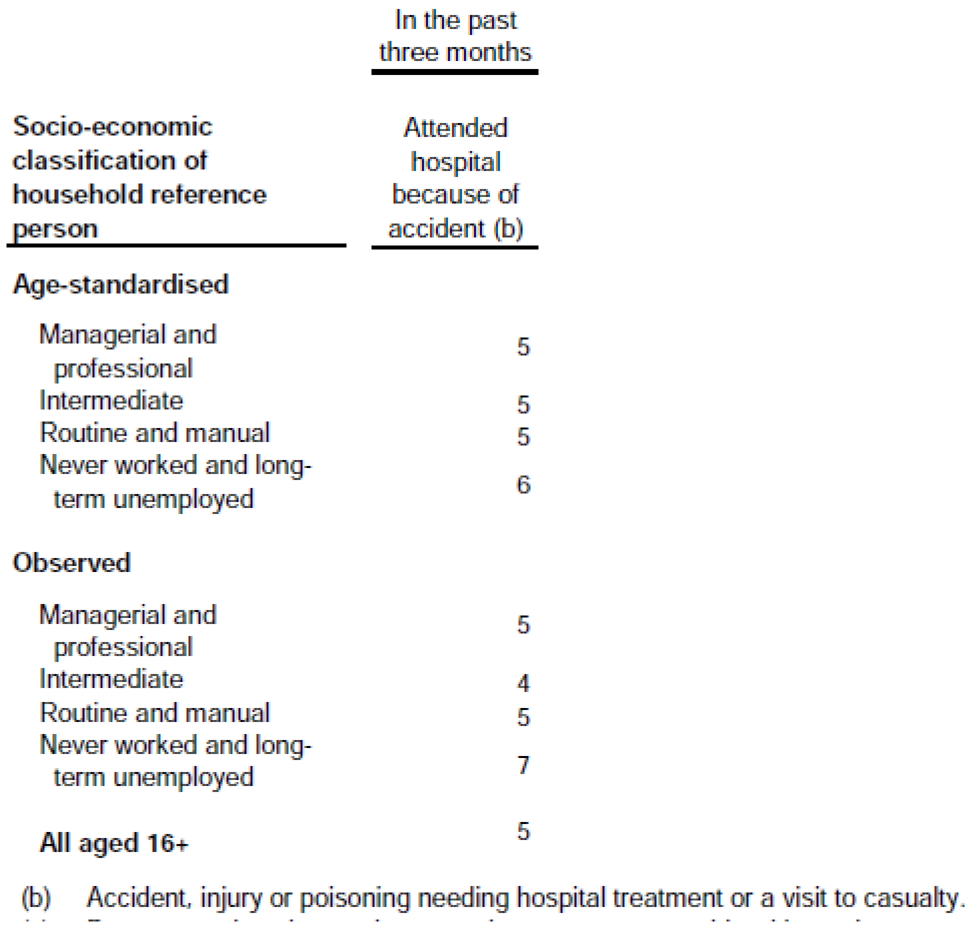
ENGLAND

Data not available disaggregated by class.

4.3.11 [5.1] A&E attendance/accidents

WALES

Table 37 Adults who reported attending hospital in the past three months, by NS-SEC classification of the household reference person



Socio-economic classification of household reference person	In the past three months Attended hospital because of accident (b)
Age-standardised	
Managerial and professional	5
Intermediate	5
Routine and manual	5
Never worked and long-term unemployed	6
Observed	
Managerial and professional	5
Intermediate	4
Routine and manual	5
Never worked and long-term unemployed	7
All aged 16+	5

(b) Accident, injury or poisoning needing hospital treatment or a visit to casualty.

Source: Welsh Health Survey

In the table above, the number surveyed is 13,313. Only small numbers had attended hospital because of an accident in the previous three months. There is no pattern emerging on the basis of class.

4.3.11 [5.1] A&E attendance/accidents

SCOTLAND

Data not available disaggregated by class.

4.3.12 [3.2] Lack of support for individual nutritional needs during hospital stays

No data are available disaggregated by class

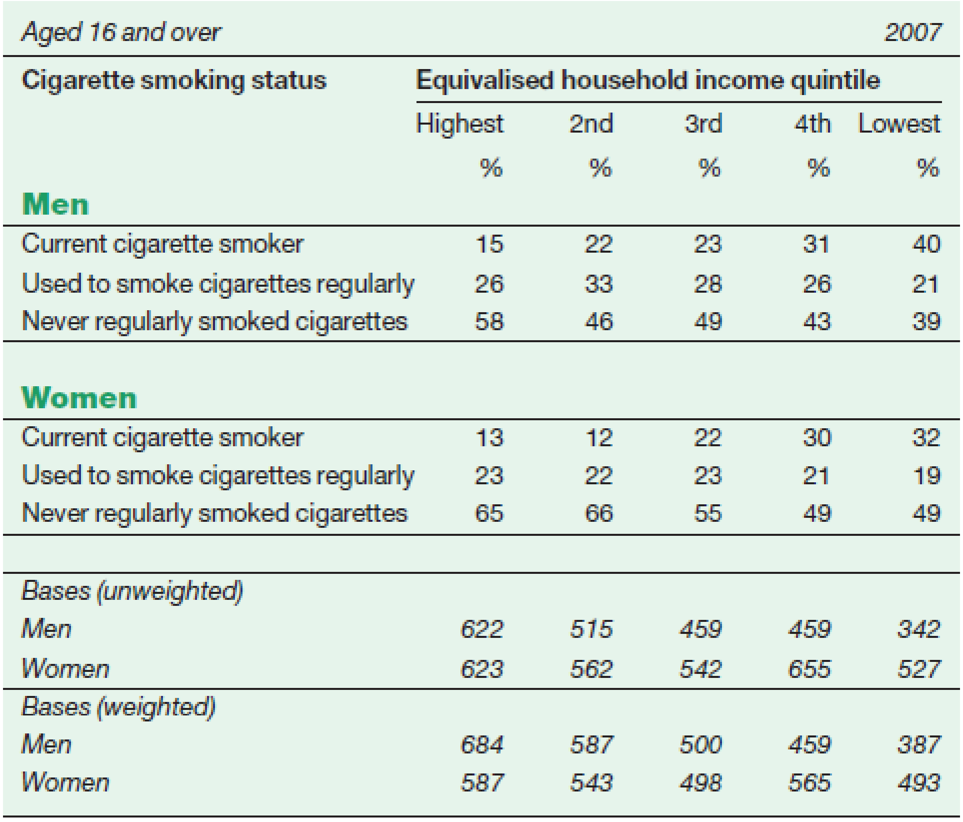
Autonomy

4.3.13 [4.1] Healthy lifestyle

ENGLAND

SMOKING

Table 38 Cigarette smoking status (age-standardised) by equivalised household income and sex, England



Aged 16 and over *2007*

Cigarette smoking status	**Equivalised household income quintile**				
	Highest	2nd	3rd	4th	Lowest
	%	%	%	%	%
Men					
Current cigarette smoker	15	22	23	31	40
Used to smoke cigarettes regularly	26	33	28	26	21
Never regularly smoked cigarettes	58	46	49	43	39
Women					
Current cigarette smoker	13	12	22	30	32
Used to smoke cigarettes regularly	23	22	23	21	19
Never regularly smoked cigarettes	65	66	55	49	49
Bases (unweighted)					
Men	*622*	*515*	*459*	*459*	*342*
Women	*623*	*562*	*542*	*655*	*527*
Bases (weighted)					
Men	*684*	*587*	*500*	*459*	*387*
Women	*587*	*543*	*498*	*565*	*493*

Source: Health Survey for England, 2007

The table above shows a clear social gradient in smoking by household income quintile. Men and women in the highest quintile have current smoking status at 15% and 13%; in the lowest, the respective figures are 40% and 32%.

Table 39 Smoking and smoking in pregnancy by regional indicators of deprivation in England

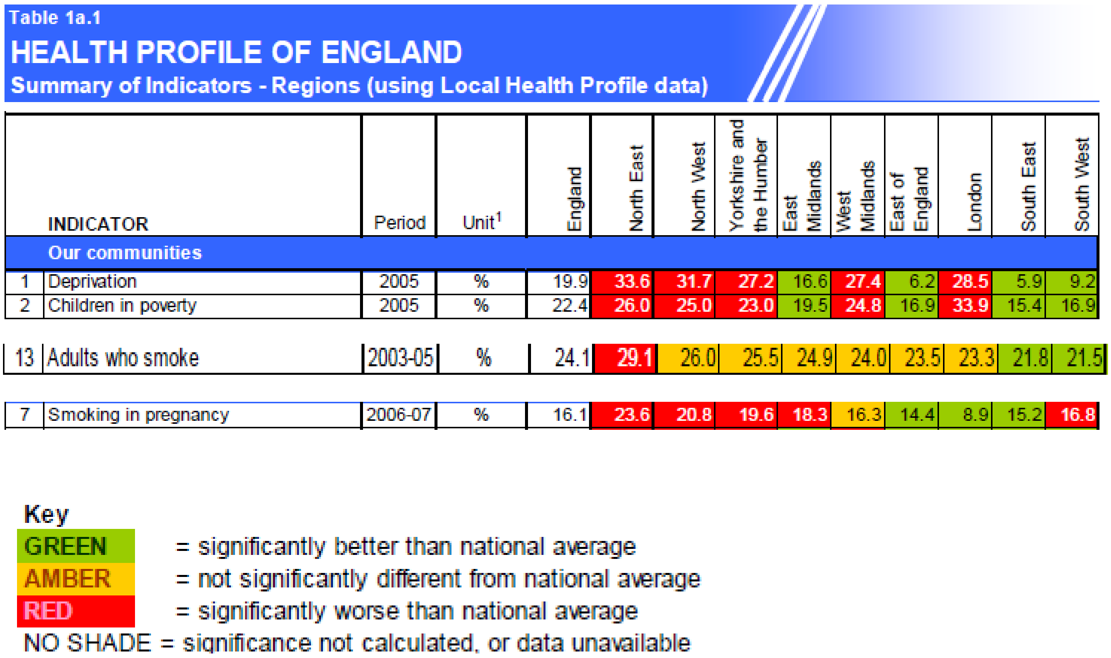


Table 1a.1

HEALTH PROFILE OF ENGLAND

Summary of Indicators - Regions (using Local Health Profile data)

	INDICATOR	Period	Unit^1	England	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
	Our communities												
1	Deprivation	2005	%	19.9	🟥 33.6	🟥 31.7	🟥 27.2	🟩 16.6	🟥 27.4	🟩 6.2	🟥 28.5	🟩 5.9	🟩 9.2
2	Children in poverty	2005	%	22.4	🟥 26.0	🟥 25.0	🟥 23.0	🟩 19.5	🟥 24.8	🟩 16.9	🟥 33.9	🟩 15.4	🟩 16.9
13	Adults who smoke	2003-05	%	24.1	🟥 29.1	🟨 26.0	🟨 25.5	🟨 24.9	🟨 24.0	🟨 23.5	🟨 23.3	🟩 21.8	🟩 21.5
7	Smoking in pregnancy	2006-07	%	16.1	🟥 23.6	🟥 20.8	🟥 19.6	🟥 18.3	🟨 16.3	🟩 14.4	🟩 8.9	🟩 15.2	🟥 16.8

Key

🟩 GREEN = significantly better than national average

🟨 AMBER = not significantly different from national average

🟥 RED = significantly worse than national average

NO SHADE = significance not calculated, or data unavailable

Source: Health Profile of England 2008

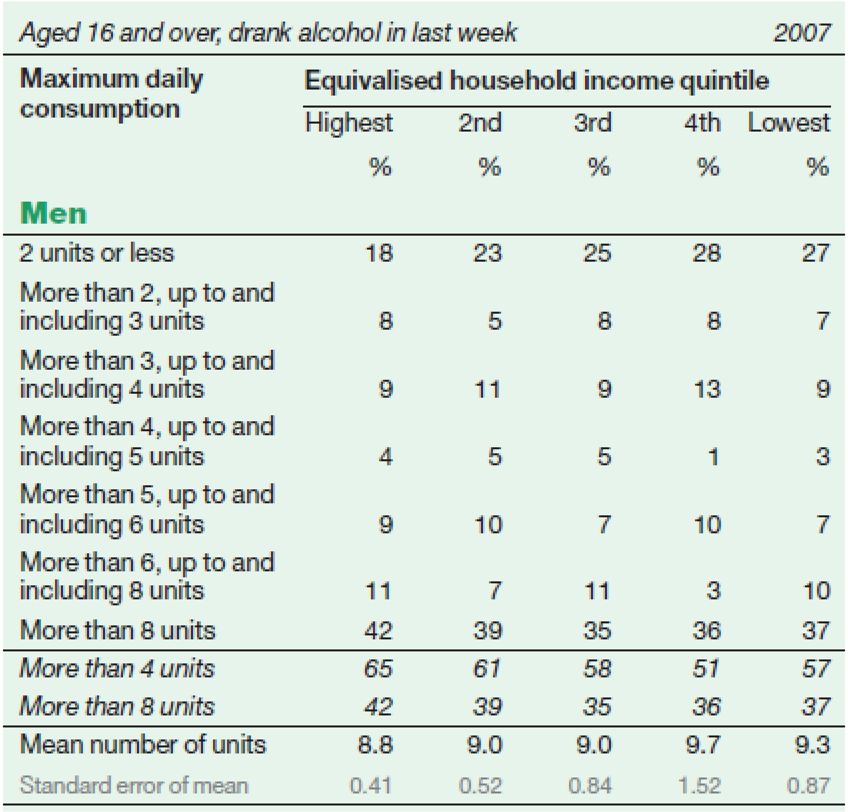
The table above shows some degree of association between poverty and deprivation and adults who smoke. In the most deprived area of England, the North East, smoking prevalence is significantly worse than the national average. But in the other deprived areas, there is no significant difference. The association is stronger for smoking in pregnancy. This is significantly worse than the national average in three out of five of the most deprived areas; it is also worse in the South West, which has lower than average deprivation.

ENGLAND

ALCOHOL

In England, Wales and Scotland the class-related pattern on alcohol is comple4. There are class differences but not always of a straightforward one-class-drinks-more variety. The following set of tables is from the Health Survey for England.

Table 40 Maximum alcohol consumption on any day in the last week (age-standardised), by equivalised household income, men, England



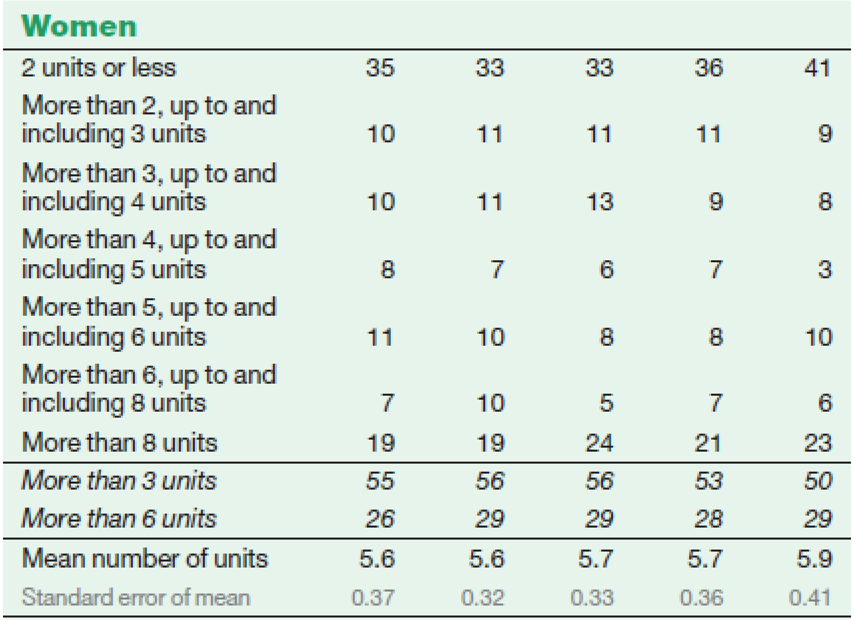
Aged 16 and over, drank alcohol in last week *2007*

Maximum daily consumption	**Equivalised household income quintile**				
	Highest	2nd	3rd	4th	Lowest
	%	%	%	%	%
Men					
2 units or less	18	23	25	28	27
More than 2, up to and including 3 units	8	5	8	8	7
More than 3, up to and including 4 units	9	11	9	13	9
More than 4, up to and including 5 units	4	5	5	1	3
More than 5, up to and including 6 units	9	10	7	10	7
More than 6, up to and including 8 units	11	7	11	3	10
More than 8 units	42	39	35	36	37
More than 4 units	*65*	*61*	*58*	*51*	*57*
More than 8 units	*42*	*39*	*35*	*36*	*37*
Mean number of units	8.8	9.0	9.0	9.7	9.3
Standard error of mean	0.41	0.52	0.84	1.52	0.87

Source: Health Survey for England, 2008

The table above shows that there is a social gradient in men drinking more than 4 units and more than 8 units on the heaviest drinking day in the past week. The gradient is in relation to household income quintile; the highest income quintile has the highest proportion of heavy drinkers.

Table 41 Maximum alcohol consumption on any day in the last week (age-standardised), by equivalised household income, women, England

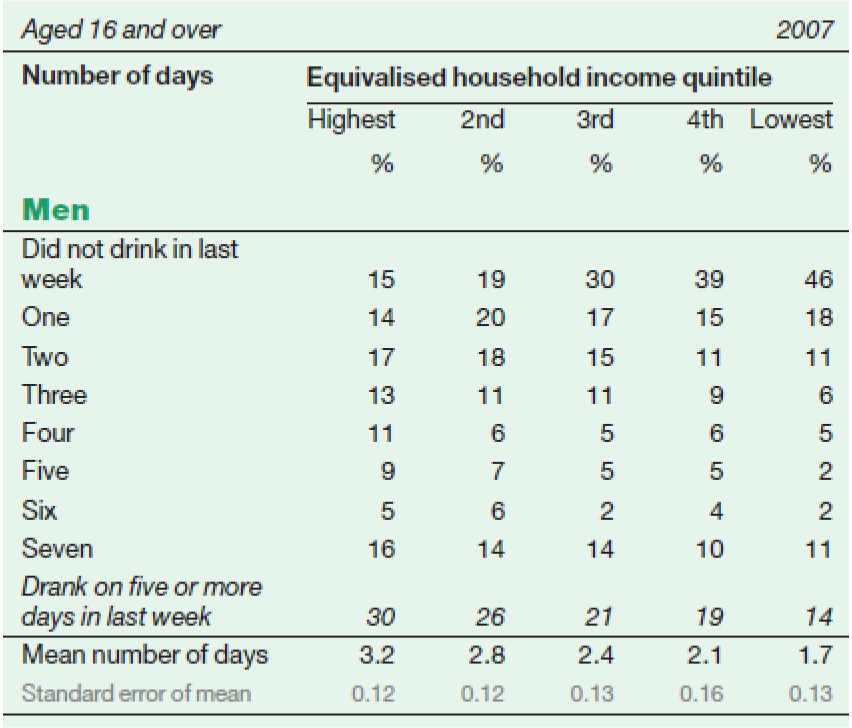


Women					
2 units or less	35	33	33	36	41
More than 2, up to and including 3 units	10	11	11	11	9
More than 3, up to and including 4 units	10	11	13	9	8
More than 4, up to and including 5 units	8	7	6	7	3
More than 5, up to and including 6 units	11	10	8	8	10
More than 6, up to and including 8 units	7	10	5	7	6
More than 8 units	19	19	24	21	23
More than 3 units	*55*	*56*	*56*	*53*	*50*
More than 6 units	*26*	*29*	*29*	*28*	*29*
Mean number of units	5.6	5.6	5.7	5.7	5.9
Standard error of mean	0.37	0.32	0.33	0.36	0.41

Source: Health Survey for England, 2008

For women there is a slight social gradient in those drinking more than 3 units on any day in the last week. Here the 3 highest income quintiles are roughly even, but the lowest income quintiles maintain the lowest prevalence of drinking more than 2 units. There is no observed social gradient in drinking more than 6 units on any day in the past week.

Table 42 Number of days on which drank alcohol in the last week (age-standardised), by equivalised household income, male, England



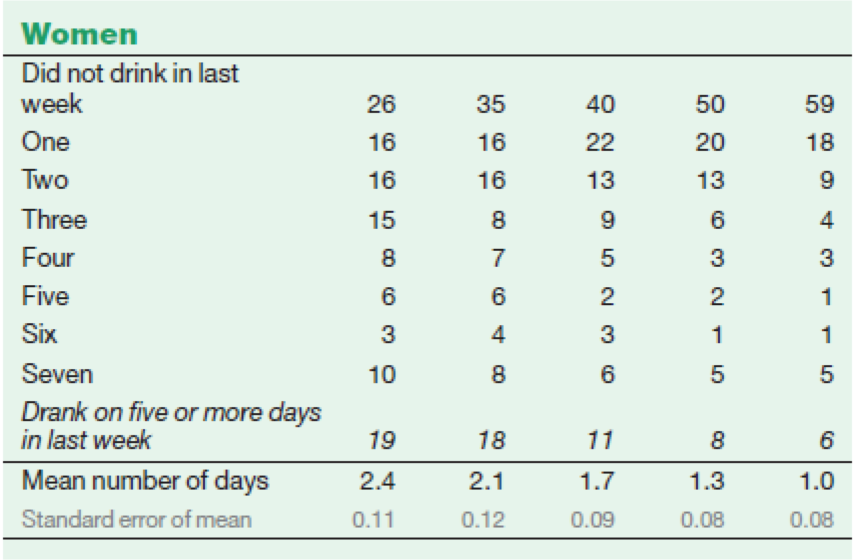
Aged 16 and over *2007*

Number of days	**Equivalised household income quintile**				
	Highest	2nd	3rd	4th	Lowest
	%	%	%	%	%
Men					
Did not drink in last week	15	19	30	39	46
One	14	20	17	15	18
Two	17	18	15	11	11
Three	13	11	11	9	6
Four	11	6	5	6	5
Five	9	7	5	5	2
Six	5	6	2	4	2
Seven	16	14	14	10	11
Drank on five or more days in last week	*30*	*26*	*21*	*19*	*14*
Mean number of days	3.2	2.8	2.4	2.1	1.7
Standard error of mean	0.12	0.12	0.13	0.16	0.13

Source: Health Survey for England, 2008

Again a clear social gradient is observed amongst men for the number of days on which people drank alcohol in the last week. Men in the highest quintile drank more regularly than those in the lowest (3.2 days versus 1.7 days). Those in the lowest quintile were far more likely to have a week without drink (46%) than those in the highest (15%).

Table 43 Number of days on which drank alcohol in the last week (age-standardised), by equivalised household income, female, England



Women					
Did not drink in last week	26	35	40	50	59
One	16	16	22	20	18
Two	16	16	13	13	9
Three	15	8	9	6	4
Four	8	7	5	3	3
Five	6	6	2	2	1
Six	3	4	3	1	1
Seven	10	8	6	5	5
Drank on five or more days in last week	*19*	*18*	*11*	*8*	*6*
Mean number of days	2.4	2.1	1.7	1.3	1.0
Standard error of mean	0.11	0.12	0.09	0.08	0.08

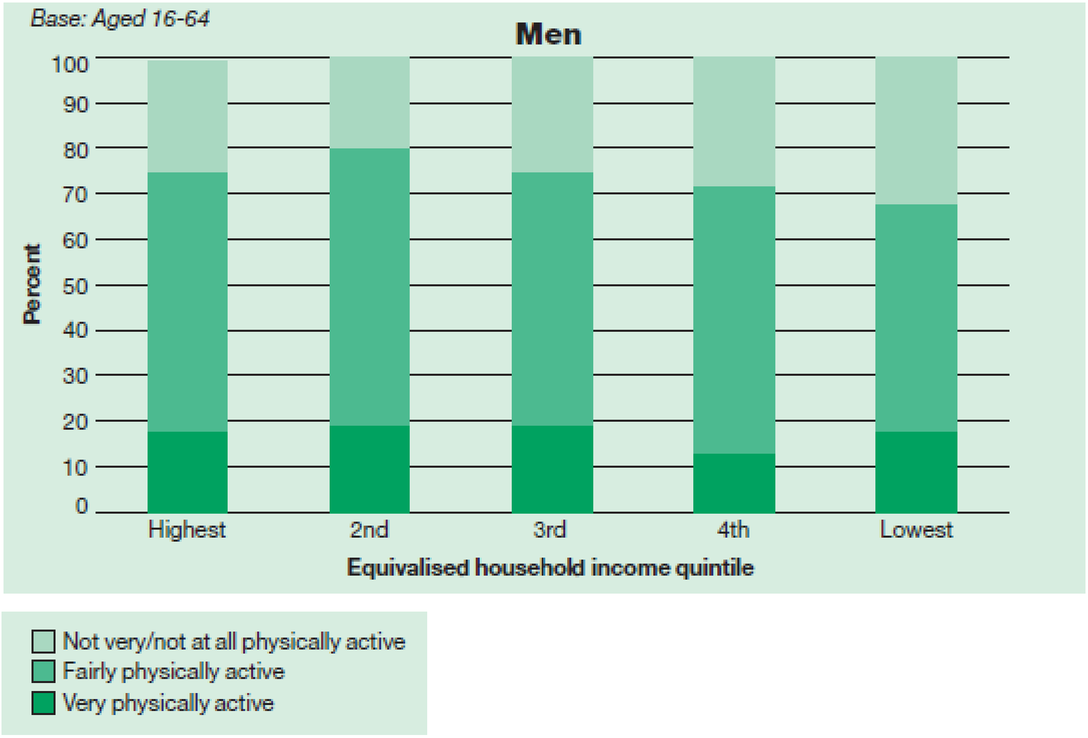
Source: Health Survey for England, 2008

In women, a similar gradient is present; the richest drink more than twice as often as the poorest. The gradient is steeper than for men, however, with the highest income quintile more than 3 times as likely as the lowest to drink on 5 or more days.

ENGLAND

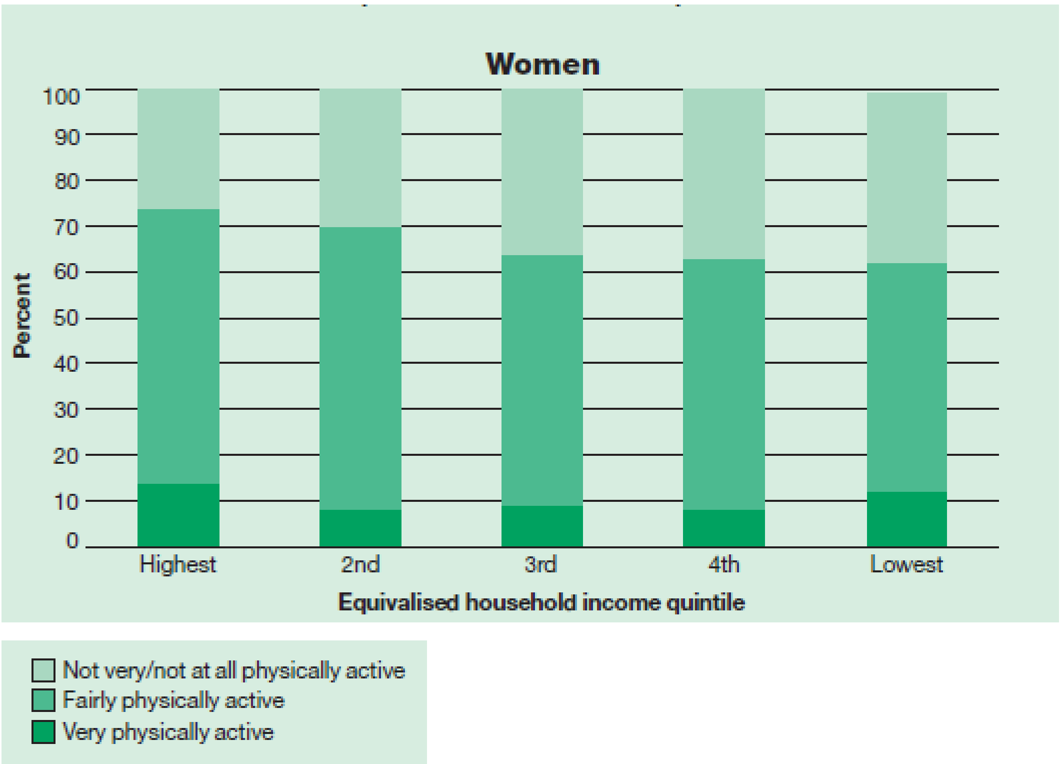
EXERCISE

Figure 15 Perception of own physical activity levels, by equivalised household income, male



Source: Health Survey for England, 2008

Figure 16 Perception of own physical activity levels, by equivalised household income, female

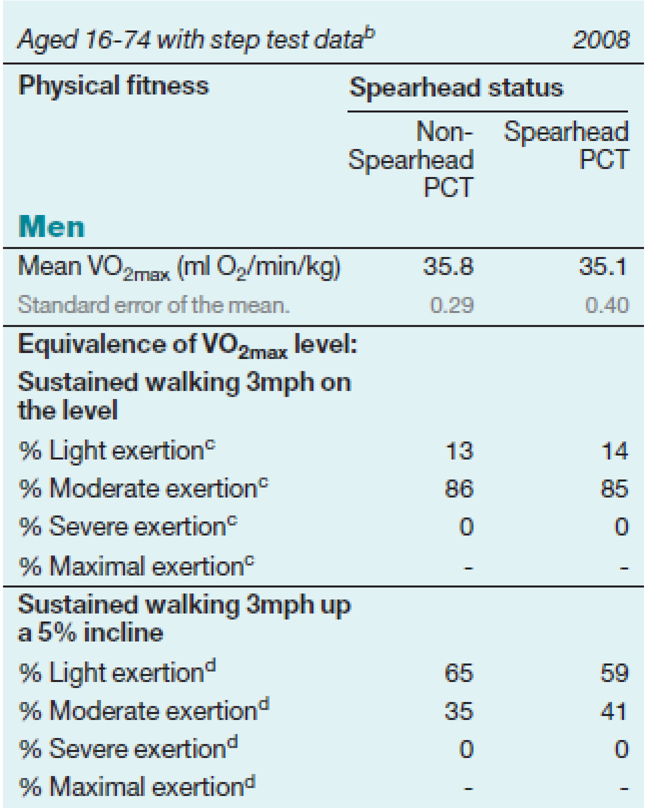


Source: Health Survey for England, 2008

The graphs above show self-perception of activity levels by equivalised household income and gender. For women there is a clear gradient in perceived not very / not at all physically active status with the proportion of women in this category inversely related to income levels. For men a similar picture is seen except men in the highest income quintile are more likely to report this status than their counterparts in the 2nd highest income quintile. No clear gradient can be seen amongst those reporting a perception of being very physically active, but this might tell us more about self-perception than actual levels of activity.

The Health Survey looked at physical fitness levels on samples of around 700 men and women. These data are not disaggregated by class but they have been disaggregated by Spearhead status. Spearhead areas are the most deprived areas of England. They are areas in the bottom fifth nationally for three or more indicators relating to life expectancy at birth, cancer and CVD mortality and the index of multiple deprivation. As such, the following figures give are a useful proxy for physical activity by social class.

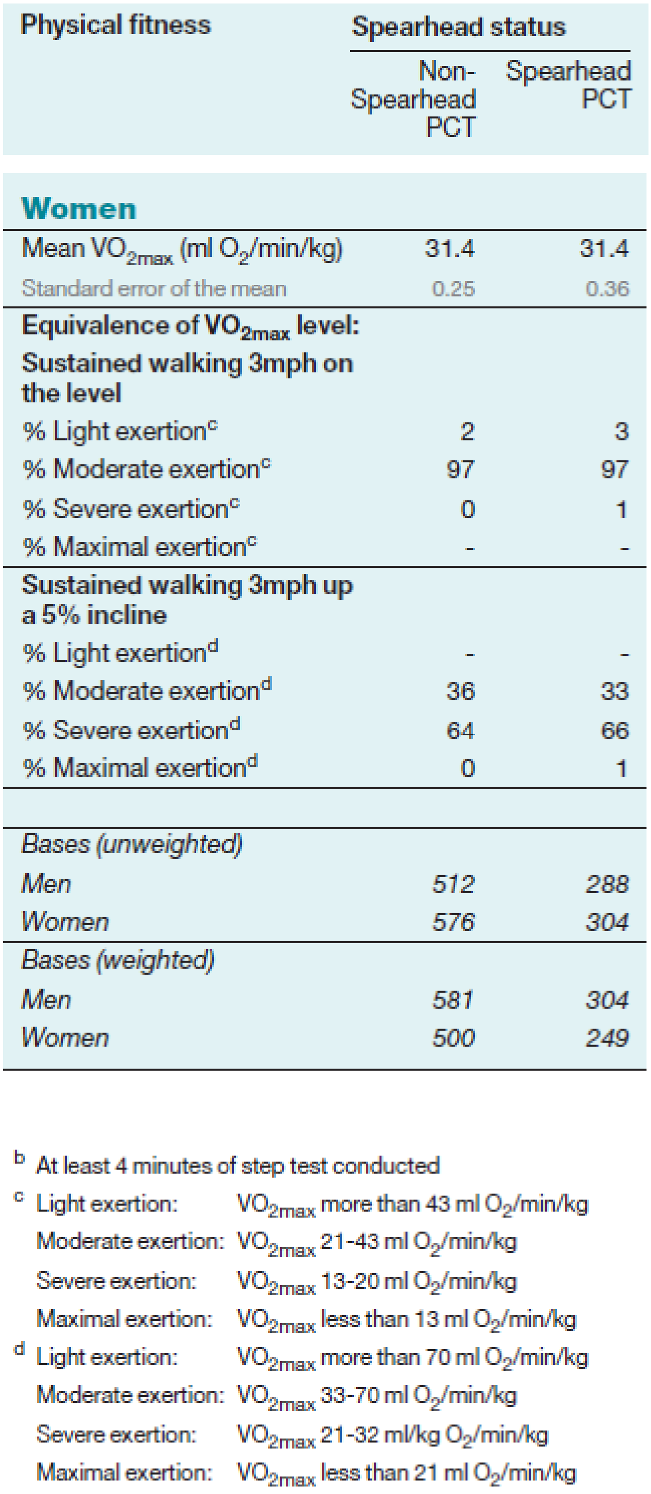
Table 44 Physical fitness levels (age-standardised), by Spearhead status and male, England



Aged 16-74 with step test data[b]		*2008*
Physical fitness	**Spearhead status**	
	Non-Spearhead PCT	Spearhead PCT
Men		
Mean VO_{2max} (ml O_2/min/kg)	35.8	35.1
Standard error of the mean.	0.29	0.40
Equivalence of VO_{2max} level:		
Sustained walking 3mph on the level		
% Light exertion[c]	13	14
% Moderate exertion[c]	86	85
% Severe exertion[c]	0	0
% Maximal exertion[c]	-	-
Sustained walking 3mph up a 5% incline		
% Light exertion[d]	65	59
% Moderate exertion[d]	35	41
% Severe exertion[d]	0	0
% Maximal exertion[d]	-	-

Source: Health Survey for England, 2008

Table 45 Physical fitness levels (age-standardised), by Spearhead status and female, England



Physical fitness	Spearhead status	
	Non-Spearhead PCT	Spearhead PCT
Women		
Mean VO_{2max} (ml O_2/min/kg)	31.4	31.4
Standard error of the mean	0.25	0.36
Equivalence of VO_{2max} level: Sustained walking 3mph on the level		
% Light exertion[c]	2	3
% Moderate exertion[c]	97	97
% Severe exertion[c]	0	1
% Maximal exertion[c]	-	-
Sustained walking 3mph up a 5% incline		
% Light exertion[d]	-	-
% Moderate exertion[d]	36	33
% Severe exertion[d]	64	66
% Maximal exertion[d]	0	1
Bases (unweighted)		
Men	*512*	*288*
Women	*576*	*304*
Bases (weighted)		
Men	*581*	*304*
Women	*500*	*249*

[b] At least 4 minutes of step test conducted

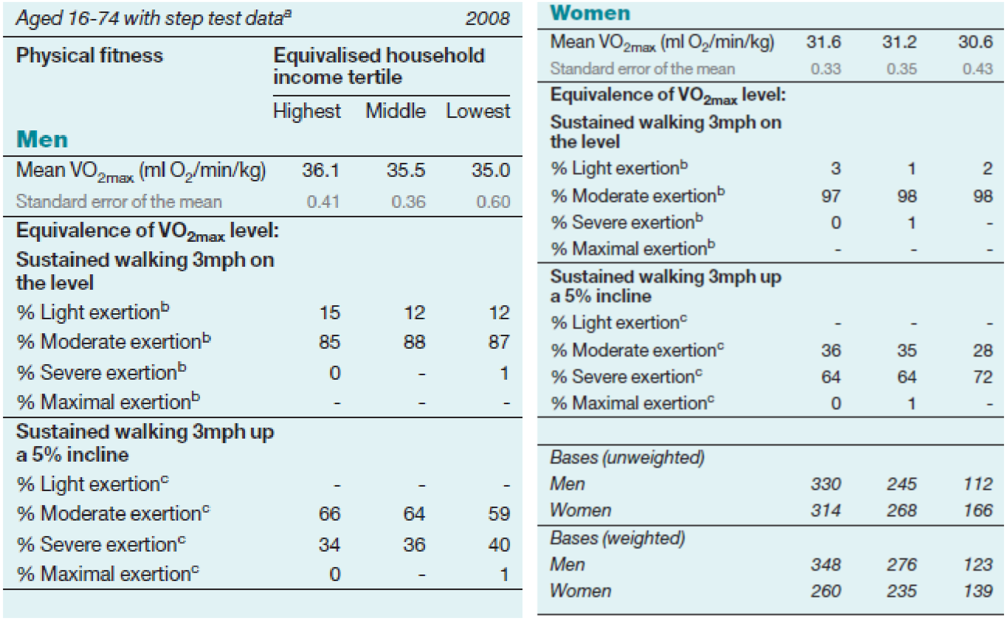
[c] Light exertion: VO_{2max} more than 43 ml O_2/min/kg
Moderate exertion: VO_{2max} 21-43 ml O_2/min/kg
Severe exertion: VO_{2max} 13-20 ml O_2/min/kg
Maximal exertion: VO_{2max} less than 13 ml O_2/min/kg

[d] Light exertion: VO_{2max} more than 70 ml O_2/min/kg
Moderate exertion: VO_{2max} 33-70 ml O_2/min/kg
Severe exertion: VO_{2max} 21-32 ml/kg O_2/min/kg
Maximal exertion: VO_{2max} less than 21 ml O_2/min/kg

Source: Health Survey for England, 2008

The tables show that for both sexes a higher proportion of those from Spearhead status areas found walking at 3mph on a 5% incline to be severe exertion (6% more men and 2% more women), indicating a lower level of fitness.

Table 46 Physical fitness levels (age-standardised), by equivalised household income and sex



Aged 16-74 with step test data[a] *2008*

Physical fitness	Equivalised household income tertile		
	Highest	Middle	Lowest
Men			
Mean VO_{2max} (ml O_2/min/kg)	36.1	35.5	35.0
Standard error of the mean	0.41	0.36	0.60
Equivalence of VO_{2max} level:			
Sustained walking 3mph on the level			
% Light exertion[b]	15	12	12
% Moderate exertion[b]	85	88	87
% Severe exertion[b]	0	-	1
% Maximal exertion[b]	-	-	-
Sustained walking 3mph up a 5% incline			
% Light exertion[c]	-	-	-
% Moderate exertion[c]	66	64	59
% Severe exertion[c]	34	36	40
% Maximal exertion[c]	0	-	1
Women			
Mean VO_{2max} (ml O_2/min/kg)	31.6	31.2	30.6
Standard error of the mean	0.33	0.35	0.43
Equivalence of VO_{2max} level:			
Sustained walking 3mph on the level			
% Light exertion[b]	3	1	2
% Moderate exertion[b]	97	98	98
% Severe exertion[b]	0	1	-
% Maximal exertion[b]	-	-	-
Sustained walking 3mph up a 5% incline			
% Light exertion[c]	-	-	-
% Moderate exertion[c]	36	35	28
% Severe exertion[c]	64	64	72
% Maximal exertion[c]	0	1	-
Bases (unweighted)			
Men	*330*	*245*	*112*
Women	*314*	*268*	*166*
Bases (weighted)			
Men	*348*	*276*	*123*
Women	*260*	*235*	*139*

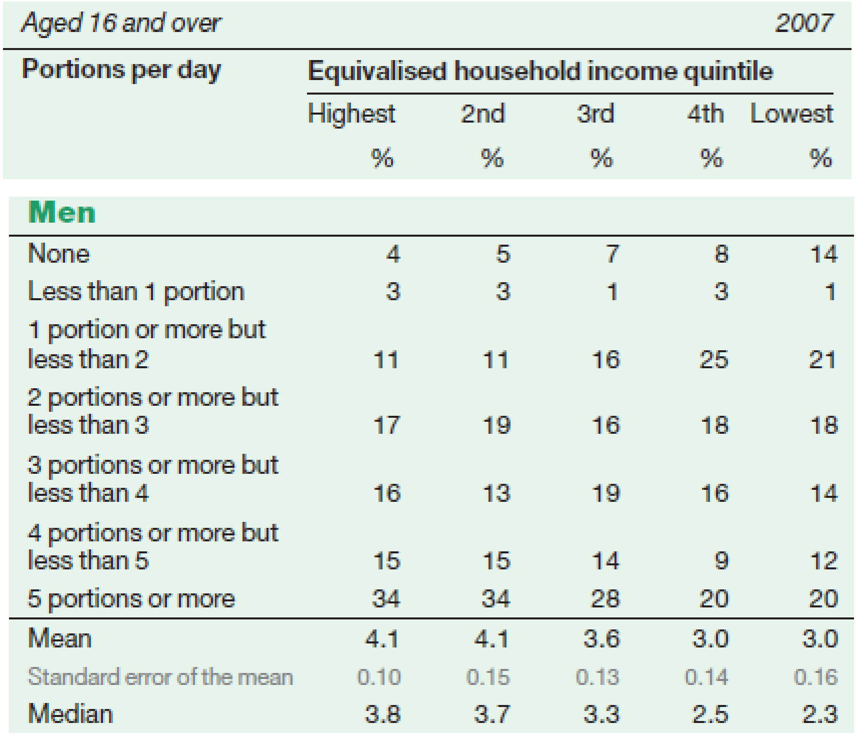
Source: Health Survey for England, 2008

The table above shows the same pattern in terms of household income with a higher percentage of both men and women from the lowest income tertile rating walking at 3mph on a 5% incline as severe exertion. A gradient can be seen across the tertiles for men, whereas for women there is no difference between the highest and middle income tertiles.

ENGLAND

DIET

Table 47 Daily fruit and vegetable consumption (age-standardised), by equivalised household income and men

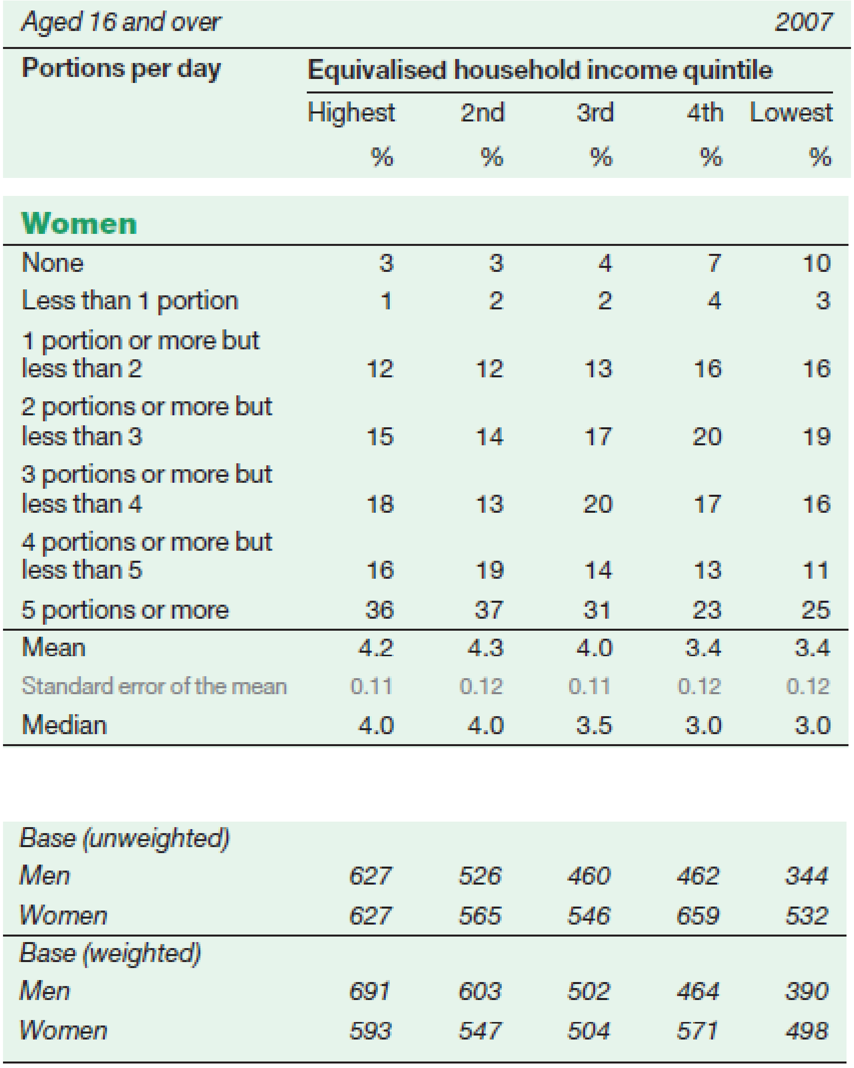


Aged 16 and over *2007*

Portions per day	**Equivalised household income quintile**				
	Highest	2nd	3rd	4th	Lowest
	%	%	%	%	%
Men					
None	4	5	7	8	14
Less than 1 portion	3	3	1	3	1
1 portion or more but less than 2	11	11	16	25	21
2 portions or more but less than 3	17	19	16	18	18
3 portions or more but less than 4	16	13	19	16	14
4 portions or more but less than 5	15	15	14	9	12
5 portions or more	34	34	28	20	20
Mean	4.1	4.1	3.6	3.0	3.0
Standard error of the mean	0.10	0.15	0.13	0.14	0.16
Median	3.8	3.7	3.3	2.5	2.3

Source: Health Survey for England, 2008

Table 48 Daily fruit and vegetable consumption (age-standardised), by equivalised household income and women



Aged 16 and over *2007*

Portions per day	**Equivalised household income quintile**				
	Highest	2nd	3rd	4th	Lowest
	%	%	%	%	%
Women					
None	3	3	4	7	10
Less than 1 portion	1	2	2	4	3
1 portion or more but less than 2	12	12	13	16	16
2 portions or more but less than 3	15	14	17	20	19
3 portions or more but less than 4	18	13	20	17	16
4 portions or more but less than 5	16	19	14	13	11
5 portions or more	36	37	31	23	25
Mean	4.2	4.3	4.0	3.4	3.4
Standard error of the mean	0.11	0.12	0.11	0.12	0.12
Median	4.0	4.0	3.5	3.0	3.0
Base (unweighted)					
Men	*627*	*526*	*460*	*462*	*344*
Women	*627*	*565*	*546*	*659*	*532*
Base (weighted)					
Men	*691*	*603*	*502*	*464*	*390*
Women	*593*	*547*	*504*	*571*	*498*

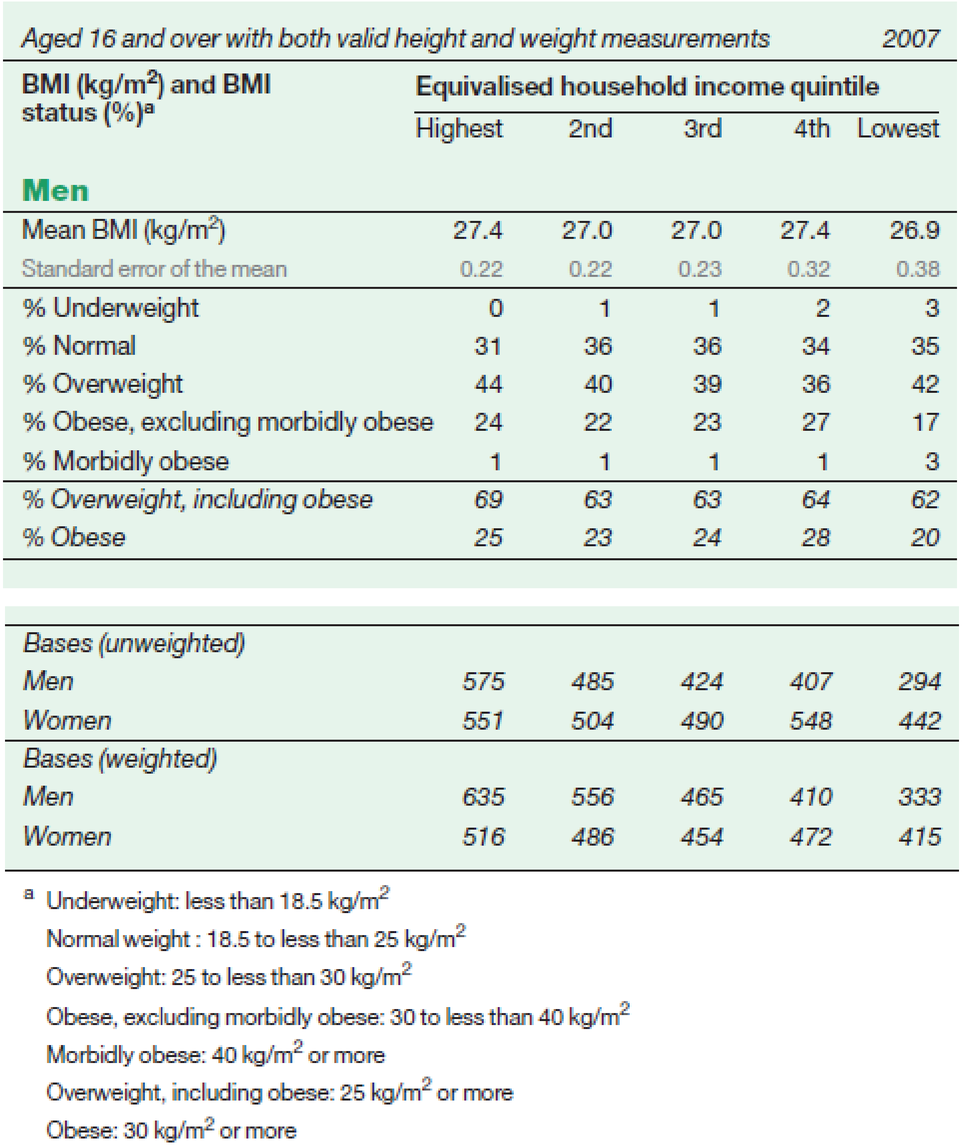
Source: Health Survey for England, 2008

The two tables above show portions of fruit and vegetables eaten daily aggregated by equivalised household income. For both men and women there is a social gradient in terms of the mean number of portions eaten. For men the figures are 4.1 portions for the highest quintile and 3.0 for the lowest; for women, the equivalent figures are 4.2 and 3.4. The differences are statistically significant.

ENGLAND

OBESITY

Table 49 Body Mass Index (BMI), overweight and obesity prevalence (age-standardised), by equivalised household income and male



Aged 16 and over with both valid height and weight measurements *2007*

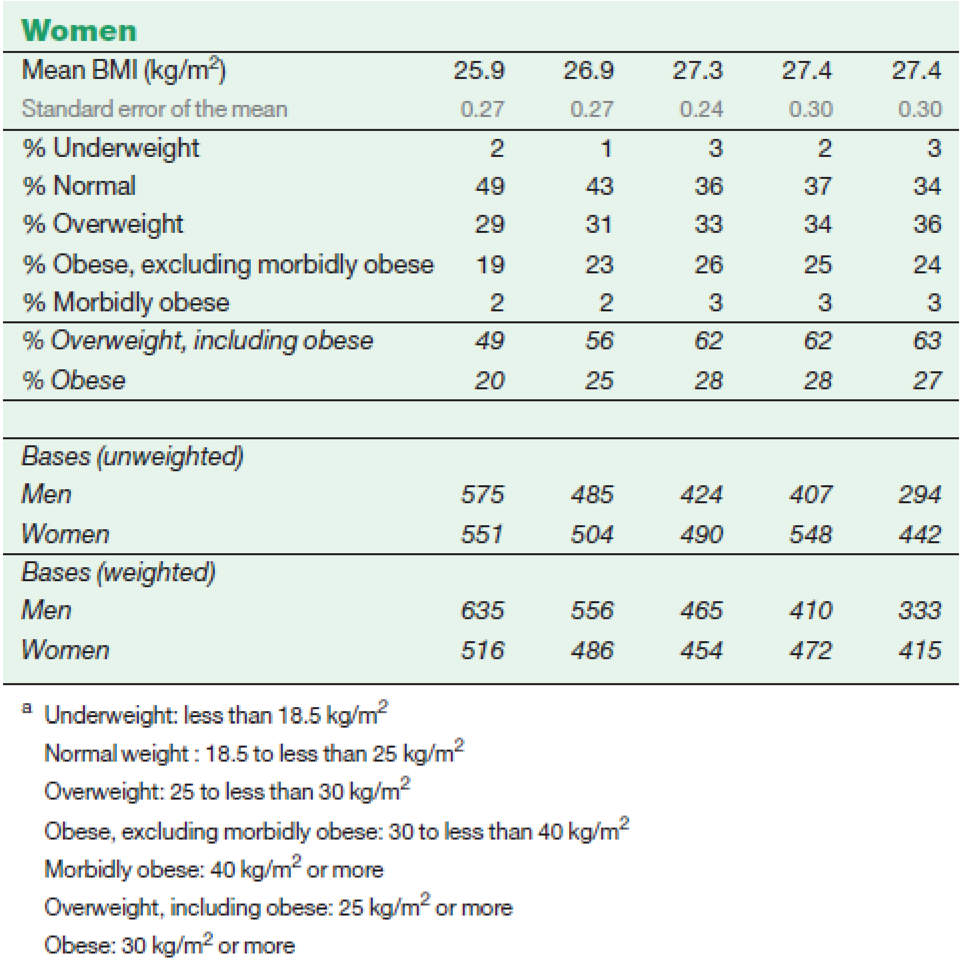
BMI (kg/m^2) and BMI status (%)[a]	**Equivalised household income quintile**				
	Highest	2nd	3rd	4th	Lowest
Men					
Mean BMI (kg/m^2)	27.4	27.0	27.0	27.4	26.9
Standard error of the mean	0.22	0.22	0.23	0.32	0.38
% Underweight	0	1	1	2	3
% Normal	31	36	36	34	35
% Overweight	44	40	39	36	42
% Obese, excluding morbidly obese	24	22	23	27	17
% Morbidly obese	1	1	1	1	3
% Overweight, including obese	*69*	*63*	*63*	*64*	*62*
% Obese	*25*	*23*	*24*	*28*	*20*

Bases (unweighted)					
Men	*575*	*485*	*424*	*407*	*294*
Women	*551*	*504*	*490*	*548*	*442*
Bases (weighted)					
Men	*635*	*556*	*465*	*410*	*333*
Women	*516*	*486*	*454*	*472*	*415*

[a] Underweight: less than 18.5 kg/m^2
Normal weight : 18.5 to less than 25 kg/m^2
Overweight: 25 to less than 30 kg/m^2
Obese, excluding morbidly obese: 30 to less than 40 kg/m^2
Morbidly obese: 40 kg/m^2 or more
Overweight, including obese: 25 kg/m^2 or more
Obese: 30 kg/m^2 or more

Source: Health Survey for England, 2008

Table 50 Body Mass Index (BMI), overweight and obesity prevalence (age-standardised), by equivalised household income and female



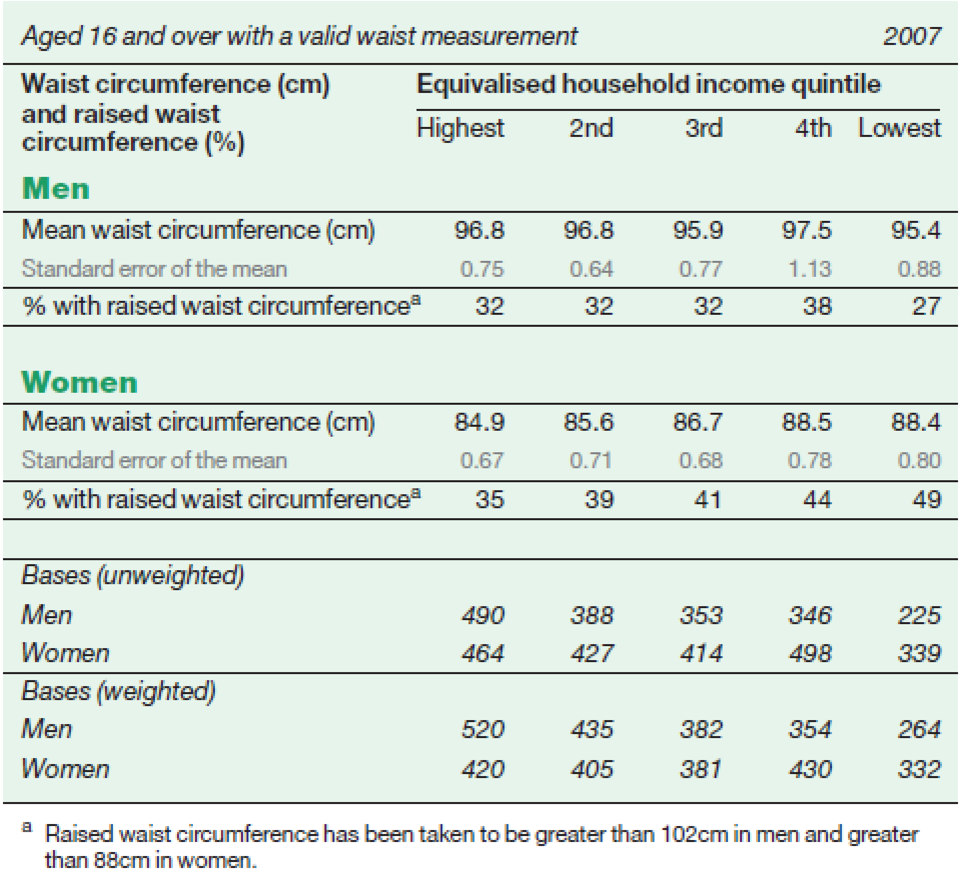
Women					
Mean BMI (kg/m^2)	25.9	26.9	27.3	27.4	27.4
Standard error of the mean	0.27	0.27	0.24	0.30	0.30
% Underweight	2	1	3	2	3
% Normal	49	43	36	37	34
% Overweight	29	31	33	34	36
% Obese, excluding morbidly obese	19	23	26	25	24
% Morbidly obese	2	2	3	3	3
% Overweight, including obese	*49*	*56*	*62*	*62*	*63*
% Obese	*20*	*25*	*28*	*28*	*27*
Bases (unweighted)					
Men	*575*	*485*	*424*	*407*	*294*
Women	*551*	*504*	*490*	*548*	*442*
Bases (weighted)					
Men	*635*	*556*	*465*	*410*	*333*
Women	*516*	*486*	*454*	*472*	*415*

[a] Underweight: less than 18.5 kg/m^2
Normal weight : 18.5 to less than 25 kg/m^2
Overweight: 25 to less than 30 kg/m^2
Obese, excluding morbidly obese: 30 to less than 40 kg/m^2
Morbidly obese: 40 kg/m^2 or more
Overweight, including obese: 25 kg/m^2 or more
Obese: 30 kg/m^2 or more

Source: Health Survey for England, 2008

The two tables above show Body Mass Index (BMI), overweight and obesity prevalence (age-standardised), by equivalised household income and gender. The picture is a curious one. For women a clear social gradient by income quintile is observed witht he prevalence of overweight and obesity combined being inversely related to income. For men there is no clear gradient, but the highest prevalence of overweight and obesity falls in the highest income quintile, the opposite position to females.

Table 51 Waist circumference (age-standardised), by equivalised household income and sex



Aged 16 and over with a valid waist measurement *2007*

Waist circumference (cm) and raised waist circumference (%)	**Equivalised household income quintile**				
	Highest	2nd	3rd	4th	Lowest
Men					
Mean waist circumference (cm)	96.8	96.8	95.9	97.5	95.4
Standard error of the mean	0.75	0.64	0.77	1.13	0.88
% with raised waist circumference[a]	32	32	32	38	27
Women					
Mean waist circumference (cm)	84.9	85.6	86.7	88.5	88.4
Standard error of the mean	0.67	0.71	0.68	0.78	0.80
% with raised waist circumference[a]	35	39	41	44	49
Bases (unweighted)					
Men	*490*	*388*	*353*	*346*	*225*
Women	*464*	*427*	*414*	*498*	*339*
Bases (weighted)					
Men	*520*	*435*	*382*	*354*	*264*
Women	*420*	*405*	*381*	*430*	*332*

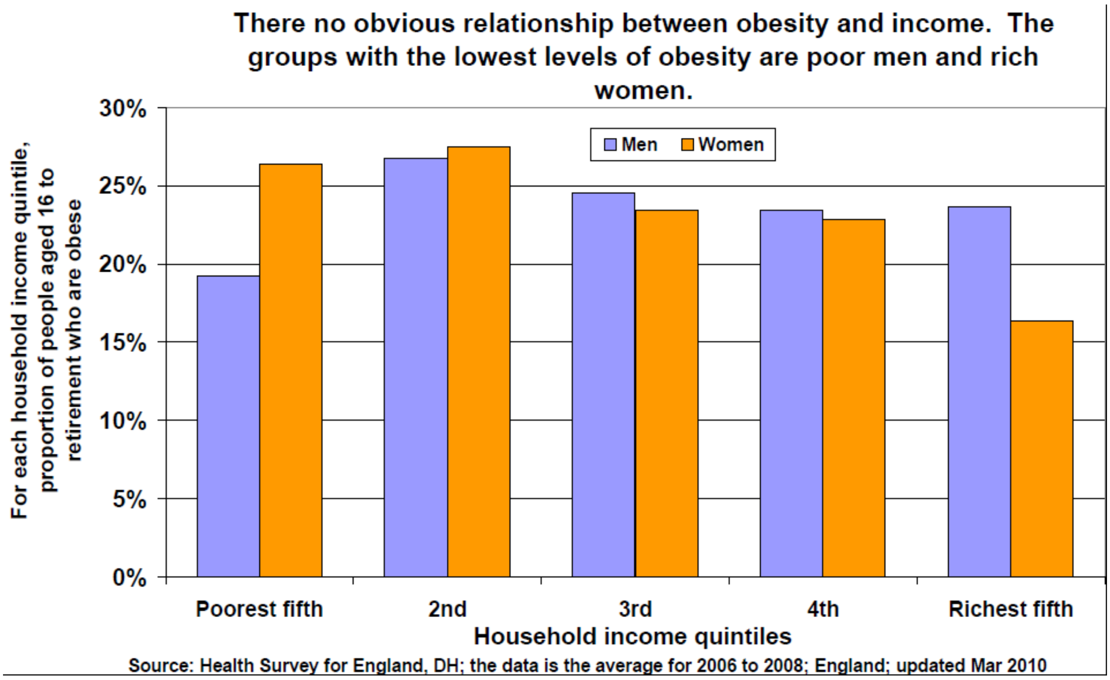
[a] Raised waist circumference has been taken to be greater than 102cm in men and greater than 88cm in women.

Source: Health Survey for England, 2008

In the table above, the same pattern can be seen in relation to waist measurement. In men, the fourth income quintile has the highest percentage with raised waist circumference; the lowest quintile have the lowest. In women, the social gradient between the richest, who have the lowest prevalence of raised waist circumference, and the poorest, who have the highest, is a smooth one.

Overall, the picture is fairly hard to interpret. The conclusion put forward by the Poverty Site is that there is no obvious relationship between obesity and social class. Having said that, there are interesting patterns relating to class. The graph below used at the Poverty Site is helpful in summarising this.

Figure 17 Relationship between obesity and income, England



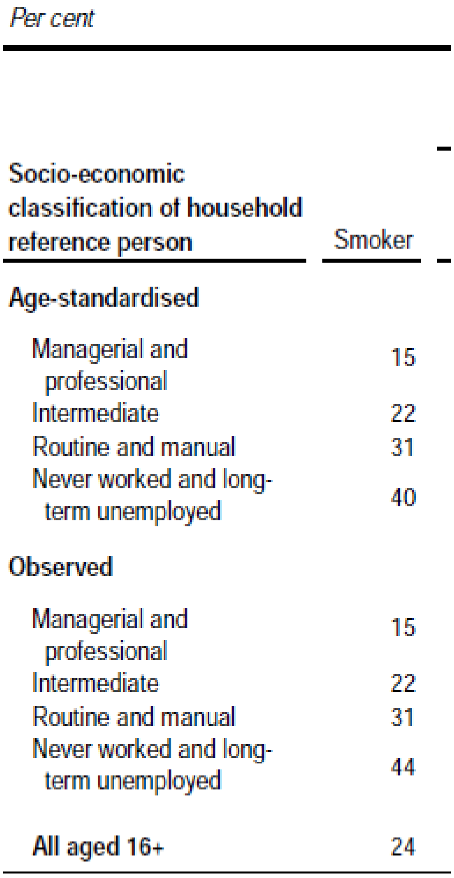
Source: The Poverty Site

4.3.14 [4.1] Healthy lifestyle [Smoking, alcohol and drugs, exercise, diet (fruit and vegetables), obesity, sexual health

WALES

SMOKING

Table 52 Smoker by socio-economic classification of household reference person, Wales



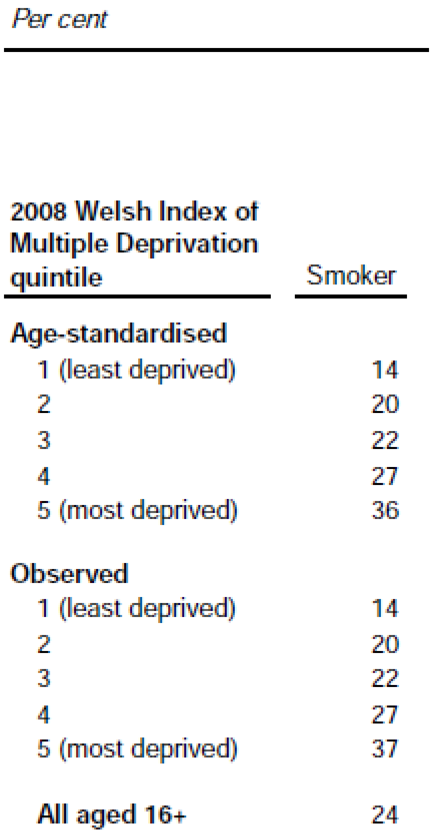
Per cent

Socio-economic classification of household reference person	Smoker
Age-standardised	
Managerial and professional	15
Intermediate	22
Routine and manual	31
Never worked and long-term unemployed	40
Observed	
Managerial and professional	15
Intermediate	22
Routine and manual	31
Never worked and long-term unemployed	44
All aged 16+	24

Source: Welsh Health Survey

The table above shows that in Wales, 15% of managerial and professional households report a smoker against 40% in the long-term unemployed and those who've never worked. A social gradient is observed across the classifications.

Table 53 Smoker by Welsh index of multiple deprivation quintile

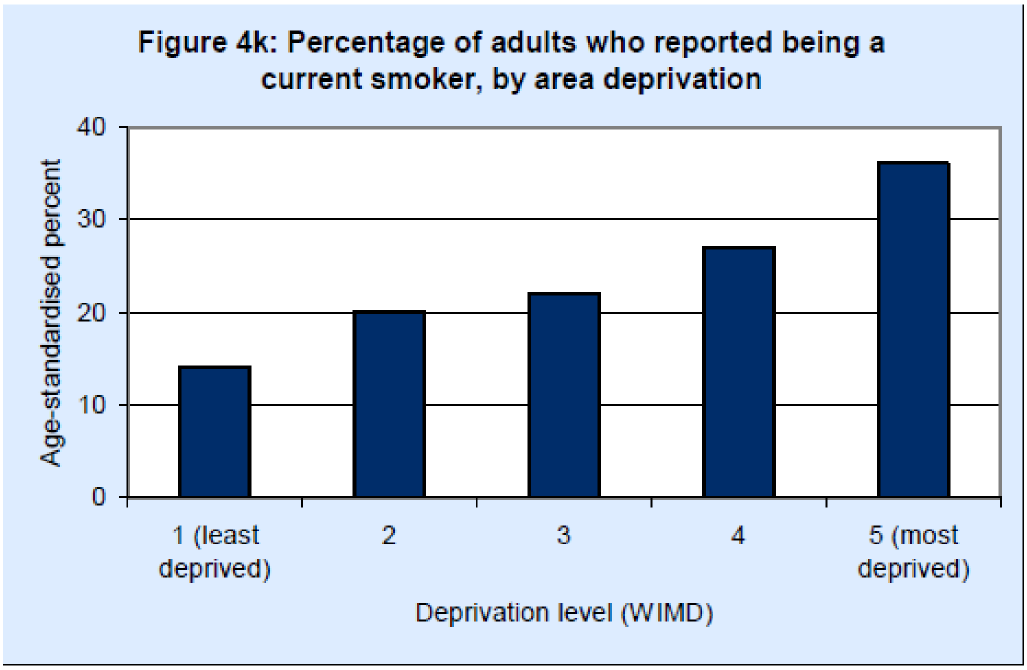


Per cent

2008 Welsh Index of Multiple Deprivation quintile	Smoker
Age-standardised	
1 (least deprived)	14
2	20
3	22
4	27
5 (most deprived)	36
Observed	
1 (least deprived)	14
2	20
3	22
4	27
5 (most deprived)	37
All aged 16+	24

Source: Welsh Health Survey 2008

Figure 18 Smoker by Welsh index of multiple deprivation quintile



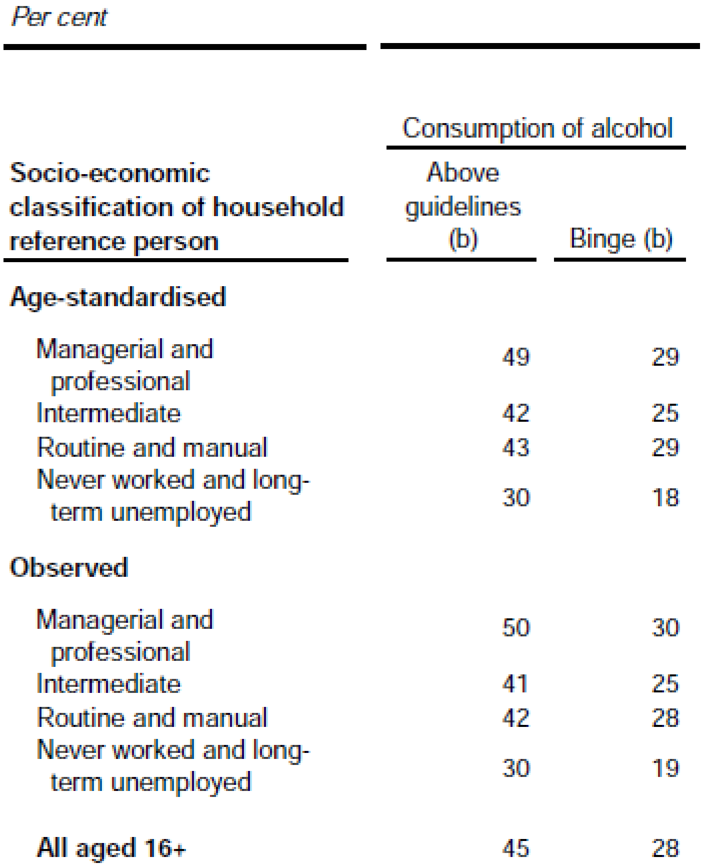
Source: Welsh Health Survey

The table and graph above show the link between an area's deprivation level and smoking in Wales. There is a clear social gradient; 14% smoke in the least deprived quintile; 36% in the most deprived.

WALES

ALCOHOL

Table 54 Consumption of alcohol, including binge drinking by socio-economic classification of household reference person, Wales



Per cent

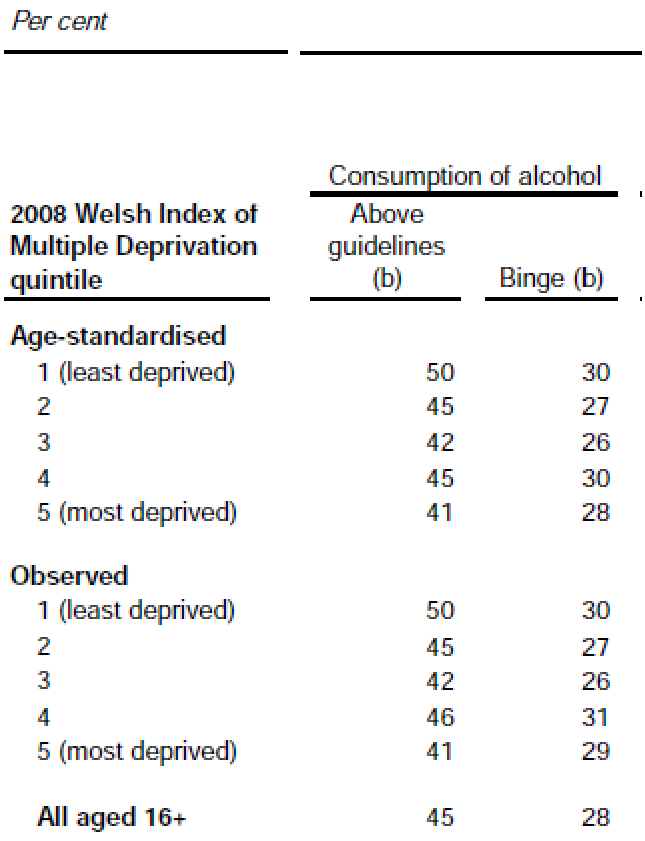
Socio-economic classification of household reference person	Consumption of alcohol: Above guidelines (b)	Consumption of alcohol: Binge (b)
Age-standardised		
Managerial and professional	49	29
Intermediate	42	25
Routine and manual	43	29
Never worked and long-term unemployed	30	18
Observed		
Managerial and professional	50	30
Intermediate	41	25
Routine and manual	42	28
Never worked and long-term unemployed	30	19
All aged 16+	45	28

(b) Above guidelines is defined as drinking more than 4 and up to 8 units for men, more than 3 and up to 6 for women, in one day; binge drinking is defined as more than 8 units in a day for men, more than 6 for women.

Source: Welsh Health Survey 2008

In Wales, drinking above guidelines is heaviest in the managerial and professional classes; binge drinking is highest in the same class and in routine and manual classes. There is no clear gradient in relation to binge drinking however.

Table 55 Consumption of alcohol above guidelines and binge drinking by Welsh index of multiple deprivation quintile



Per cent

2008 Welsh Index of Multiple Deprivation quintile	Consumption of alcohol: Above guidelines (b)	Consumption of alcohol: Binge (b)
Age-standardised		
1 (least deprived)	50	30
2	45	27
3	42	26
4	45	30
5 (most deprived)	41	28
Observed		
1 (least deprived)	50	30
2	45	27
3	42	26
4	46	31
5 (most deprived)	41	29
All aged 16+	45	28

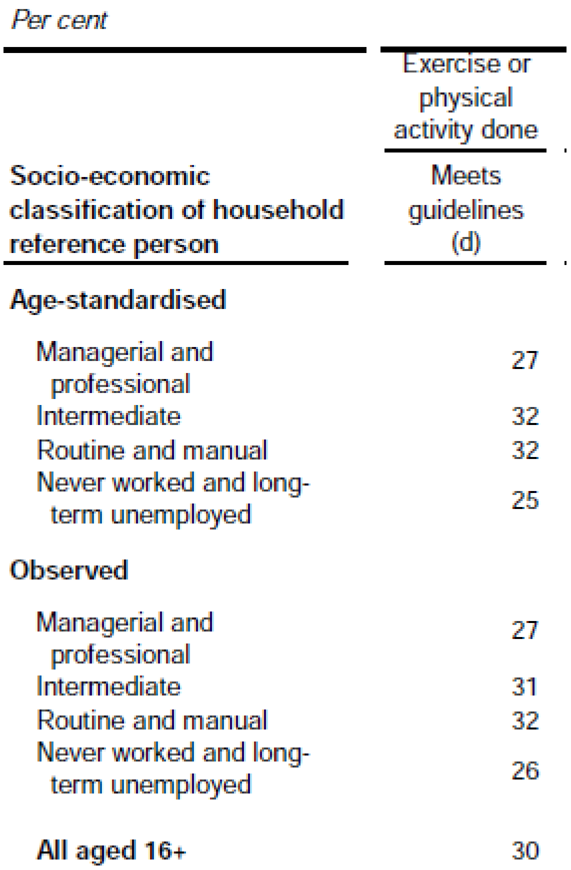
Source: Welsh Health Survey 2008

The table above shows that in Wales, drinking above guidelines is most common in the least deprived areas and least common in the most deprived areas. Binge drinking is fairly level through all areas.

WALES

EXERCISE

Table 56 Exercise and physical activity by socio-economic classification of household reference person, Wales



Per cent

Socio-economic classification of household reference person	Exercise or physical activity done Meets guidelines (d)
Age-standardised	
Managerial and professional	27
Intermediate	32
Routine and manual	32
Never worked and long-term unemployed	25
Observed	
Managerial and professional	27
Intermediate	31
Routine and manual	32
Never worked and long-term unemployed	26
All aged 16+	30

(d) The guidelines on physical activity are that adults do at least 30 minutes of at least moderate intensity physical activity on five or more days a week.

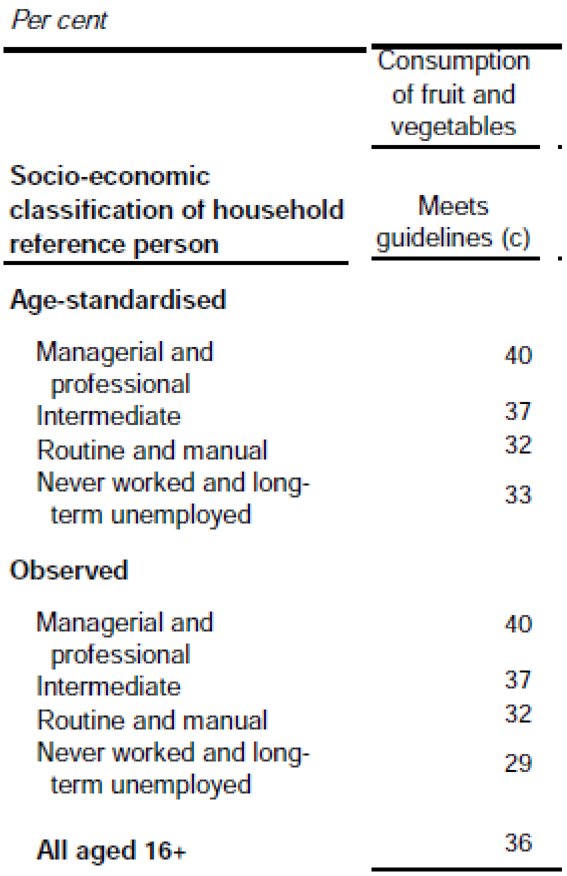
Source: Welsh Health Survey 2008

The table above shows there is no clear relationship between class and likelihood of meeting Government physical activity recommendations.

WALES

DIET

Table 57 Consumption of fruit and vegetables by socio-economic classification of household reference person, Wales



Per cent

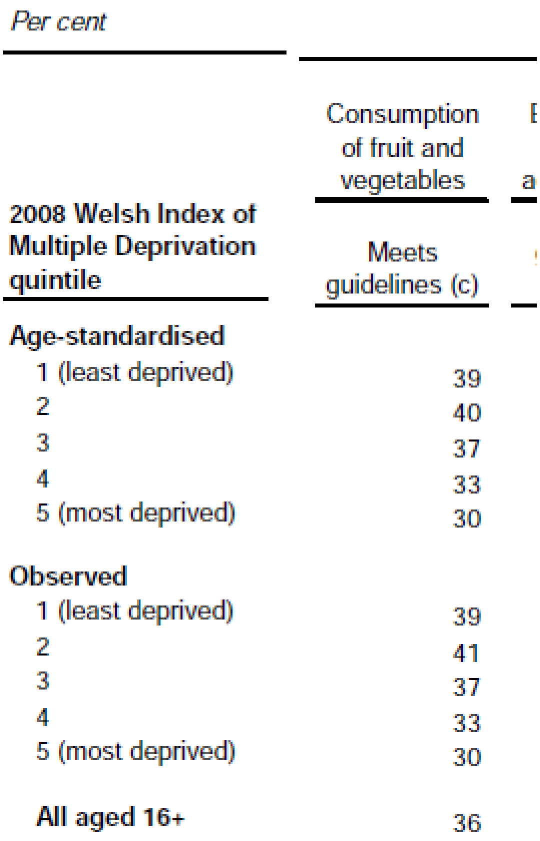
Socio-economic classification of household reference person	Consumption of fruit and vegetables Meets guidelines (c)
Age-standardised	
Managerial and professional	40
Intermediate	37
Routine and manual	32
Never worked and long-term unemployed	33
Observed	
Managerial and professional	40
Intermediate	37
Routine and manual	32
Never worked and long-term unemployed	29
All aged 16+	36

(c) The guidelines state that adults should eat five or more portions of fruit and vegetables daily

Source: Welsh Health Survey 2008

In Wales there is a social gradient in relation to consumption of fruit and vegetables; managerial and professional classes are more likely to meet the guidelines than routine and manual workers (40% versus 32%).

Table 58 Consumption of fruit and vegetables by Welsh index of multiple deprivation quintile, Wales



Per cent

2008 Welsh Index of Multiple Deprivation quintile	Consumption of fruit and vegetables Meets guidelines (c)
Age-standardised	
1 (least deprived)	39
2	40
3	37
4	33
5 (most deprived)	30
Observed	
1 (least deprived)	39
2	41
3	37
4	33
5 (most deprived)	30
All aged 16+	36

Source: Welsh Health Survey 2008

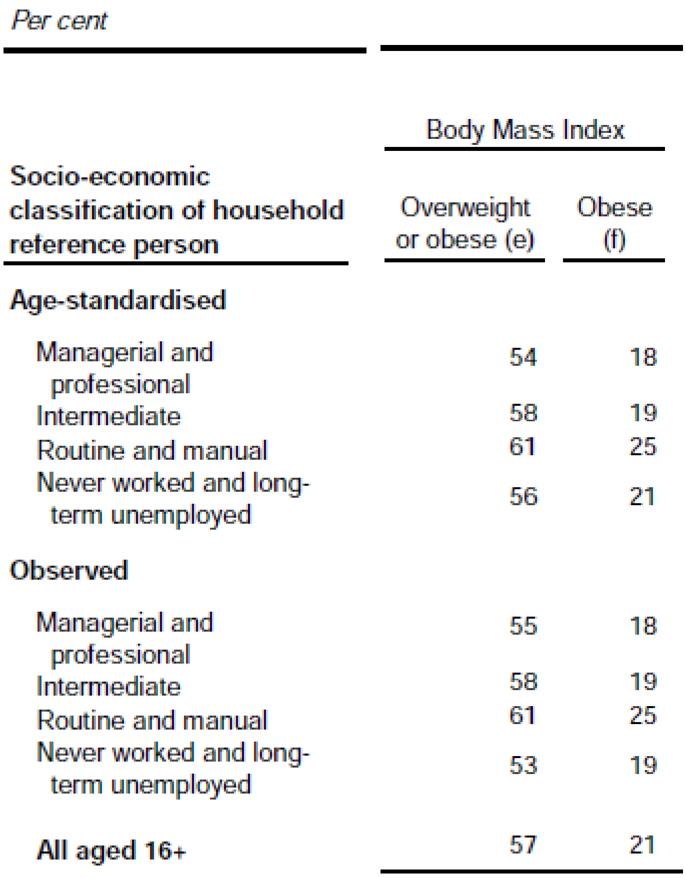
There is also a social gradient in relation to the Welsh index of multiple deprivation. Those in the most deprived areas are least likely to eat five portions or more of fruit and vegetables daily (30%); those in the second least deprived area are the most likely to eat the recommended amount (40%) with those in the least deprived area closely behind (39%)

WALES

OBESITY

The Welsh Health Survey disaggregates obesity figures by class and by sex but not by both together. As such, it is not possible to see whether a pattern similar to that in England exists.

Table 59 Obesity by socio-economic classification of household reference person, Wales



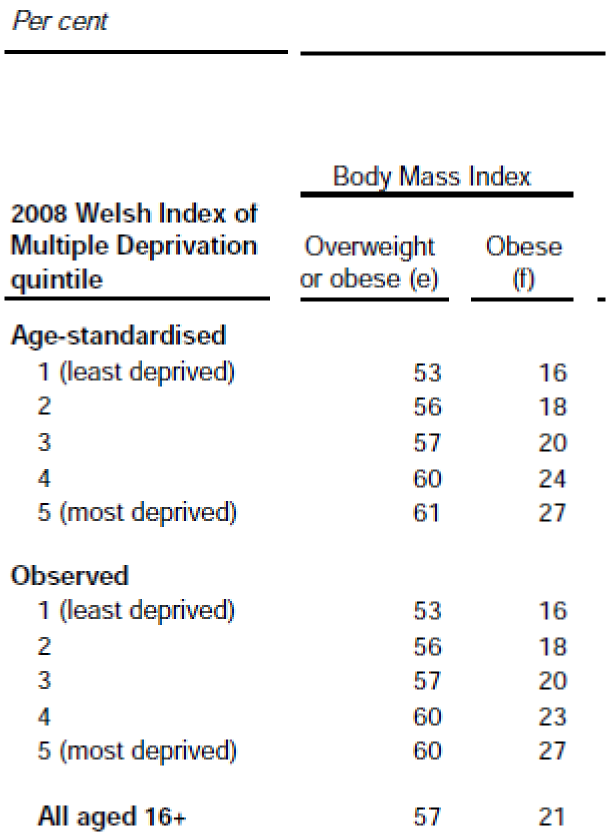
Per cent

Socio-economic classification of household reference person	Body Mass Index Overweight or obese (e)	Body Mass Index Obese (f)
Age-standardised		
Managerial and professional	54	18
Intermediate	58	19
Routine and manual	61	25
Never worked and long-term unemployed	56	21
Observed		
Managerial and professional	55	18
Intermediate	58	19
Routine and manual	61	25
Never worked and long-term unemployed	53	19
All aged 16+	57	21

Source: Welsh Health Survey 2008

The Welsh data show that adults in routine manual work are more likely to be obese than those in professional and managerial work (25% versus 18%).

Table 60 Obesity by Welsh index of multiple deprivation quintile, Wales



Per cent

2008 Welsh Index of Multiple Deprivation quintile	Body Mass Index: Overweight or obese (e)	Body Mass Index: Obese (f)
Age-standardised		
1 (least deprived)	53	16
2	56	18
3	57	20
4	60	24
5 (most deprived)	61	27
Observed		
1 (least deprived)	53	16
2	56	18
3	57	20
4	60	23
5 (most deprived)	60	27
All aged 16+	57	21

Source: Welsh Health Survey 2008

The table above shows that there is also a clear social gradient in relation to obesity and index of multiple deprivation. Those in the most deprived areas of Wales are more likely to be obese (27%) than those in the least deprived areas (16%).

4.3.14 [4.1] Healthy lifestyle [Smoking, alcohol and drugs, exercise, diet (fruit and vegetables), obesity, sexual health

SCOTLAND

SMOKING

Table 61 Self-reported cigarette smoking status (observed and age-standardised), by NS-SEC of household reference person, male, Scotland

Aged 16 and over *2008*

Cigarette smoking status	**NS-SEC of household reference person**				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine & routine
	%	%	%	%	%
Men					
Observed					
Never smoked cigarettes at all	53	43	43	39	39
Used to smoke cigarettes occasionally	5	6	4	2	3
Used to smoke cigarettes regularly	25	23	25	28	23
Current cigarette smoker	17	28	28	31	35
Mean number of cigarettes smoked per smoker per day	12.9	13.8	17.9	17.4	16.6
Standard error of the mean	1.07	1.31	1.46	1.06	0.67
Standardised					
Never smoked cigarettes at all	53	42	45	41	38
Used to smoke cigarettes occasionally	5	5	4	2	3
Used to smoke cigarettes regularly	25	27	22	25	23
Current cigarette smoker	17	26	29	32	36
Mean number of cigarettes smoked per smoker per day	12.8	14.1	17.0	17.2	16.7
Standard error of the mean	1.10	1.36	1.57	1.06	0.67
Bases (weighted):	*1114*	*280*	*269*	*429*	*921*
Bases (unweighted):	*988*	*234*	*284*	*418*	*861*

Source: Scottish Health Survey, 2008

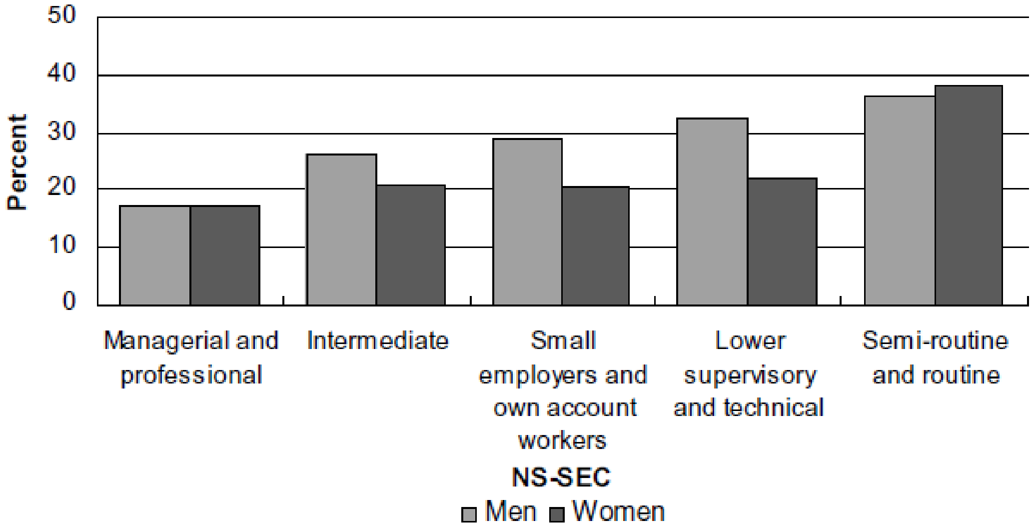
Table 62 Self-reported cigarette smoking status (observed and age-standardised), by NS-SEC of household reference person, female, Scotland

Aged 16 and over *2008*

Cigarette smoking status	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine & routine
	%	%	%	%	%
Women					
Observed					
Never smoked cigarettes at all	56	50	51	48	35
Used to smoke cigarettes occasionally	5	7	5	6	4
Used to smoke cigarettes regularly	21	22	23	23	24
Current cigarette smoker	18	20	21	22	36
Mean number of cigarettes smoked per smoker per day	11.7	13.0	13.7	14.2	14.7
Standard error of the mean	0.54	0.77	1.08	0.89	0.49
Standardised					
Never smoked cigarettes at all	56	50	52	48	35
Used to smoke cigarettes occasionally	5	7	6	7	4
Used to smoke cigarettes regularly	22	22	22	23	23
Current cigarette smoker	17	21	20	22	38
Mean number of cigarettes smoked per smoker per day	11.8	13.4	13.5	14.0	14.8
Standard error of the mean	0.56	0.82	1.04	0.84	0.53
Bases (weighted):	*1211*	*381*	*278*	*327*	*1064*
Bases (unweighted):	*1229*	*390*	*333*	*376*	*1178*

Source: Scottish Health Survey, 2008

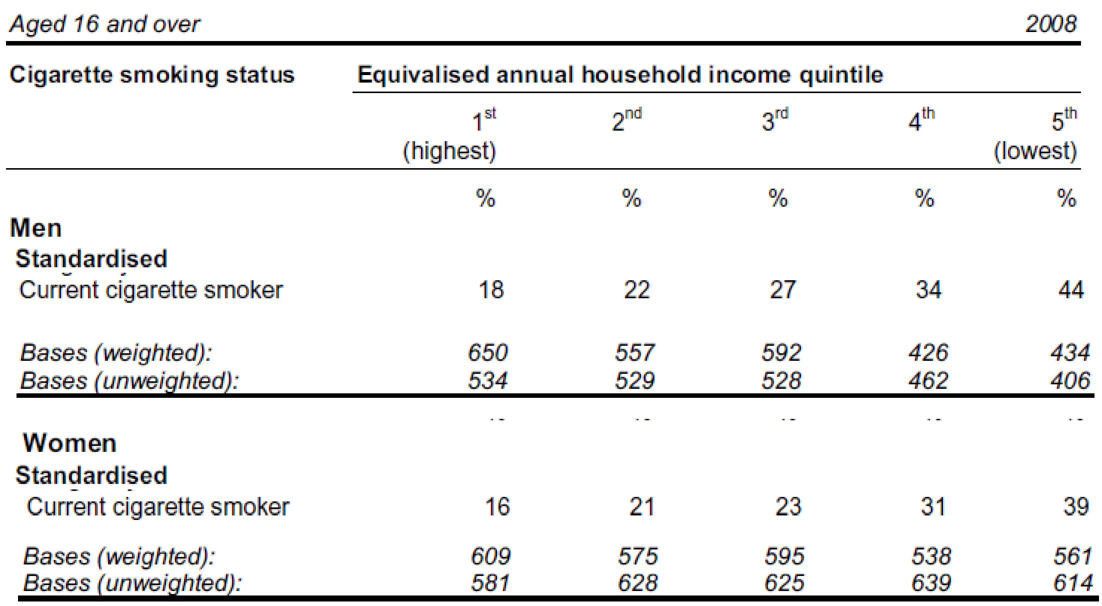
Figure 19 Current cigarette smoking (age-standardised), by NSSEC of household reference person and sex, Scotland



Source: Scottish Health Survey, 2008

The two tables and the graph above show that, in Scotland, smoking patterns exhibit a clear social gradient by NS-SEC. Levels are highest in men and women in semi-routine and routine households and lowest among those in managerial and professional households. For example, amongst men, 36% of the former are current smokers against 17% of the latter; the equivalent figures for women are 38% versus 16%.

Table 63 Current cigarette smoking (age-standardised), by equivalised household income quintile and male, Scotland

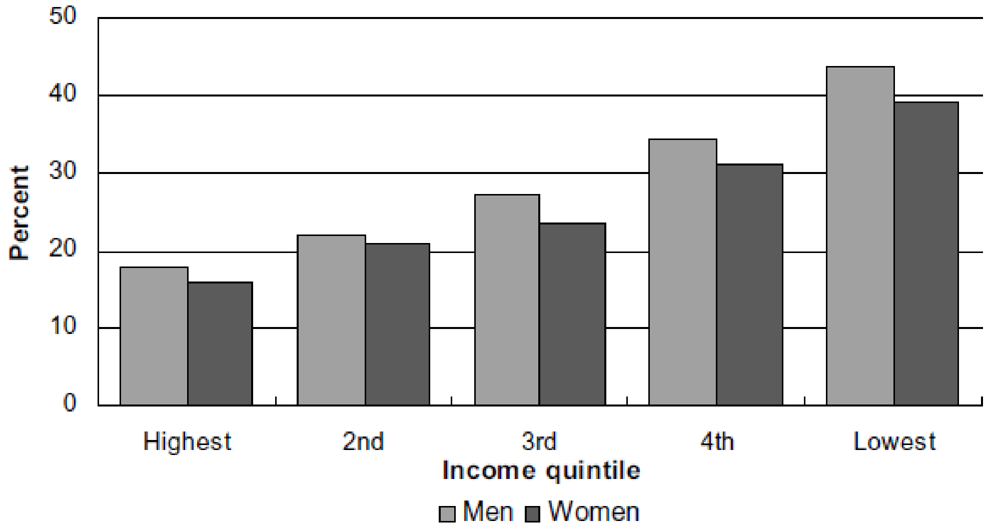


Aged 16 and over *2008*

Cigarette smoking status	**Equivalised annual household income quintile**				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Men					
Standardised					
Current cigarette smoker	18	22	27	34	44
Bases (weighted):	*650*	*557*	*592*	*426*	*434*
Bases (unweighted):	*534*	*529*	*528*	*462*	*406*
Women					
Standardised					
Current cigarette smoker	16	21	23	31	39
Bases (weighted):	*609*	*575*	*595*	*538*	*561*
Bases (unweighted):	*581*	*628*	*625*	*639*	*614*

Source: Scottish Health Survey, 2008

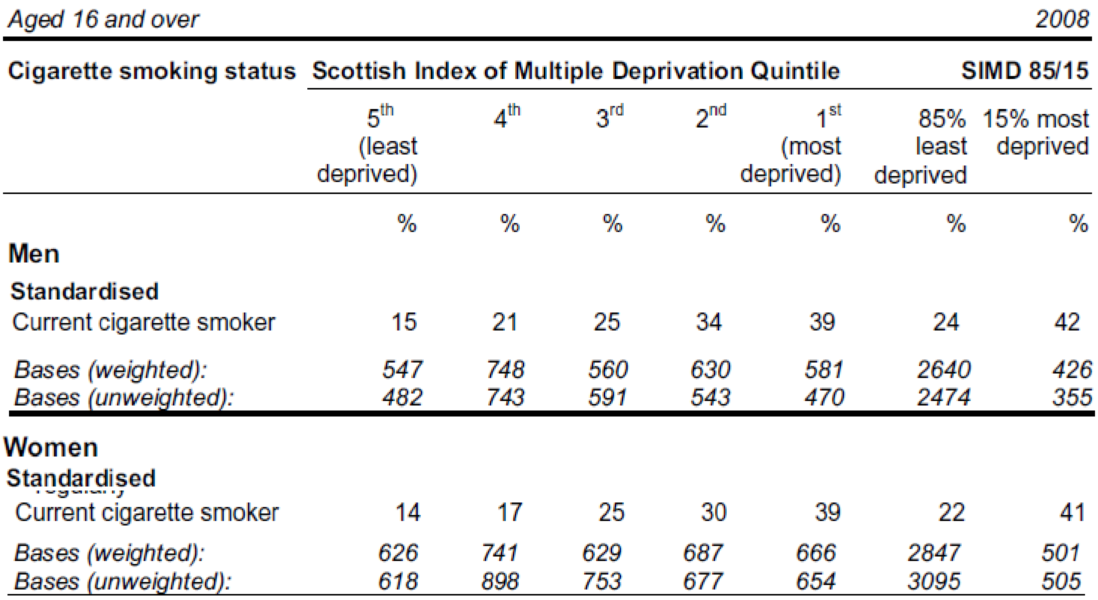
Figure 20 Current cigarette smoking (age-standardised), by equivalised household income quintile and sex, Scotland



Source: Scottish Health Survey, 2008

A similar social gradient is seen in relation to household income quintiles, as we see in the table and graph above, with smoking prevalence inversely related to household income. 18% of men are current smokers in the highest quintile against 44% in the lowest; the equivalent figures for women are 16% and 39%.

Table 64 Current cigarette smoking (age-standardised), by Scottish Index of Multiple Deprivation quintile and sex

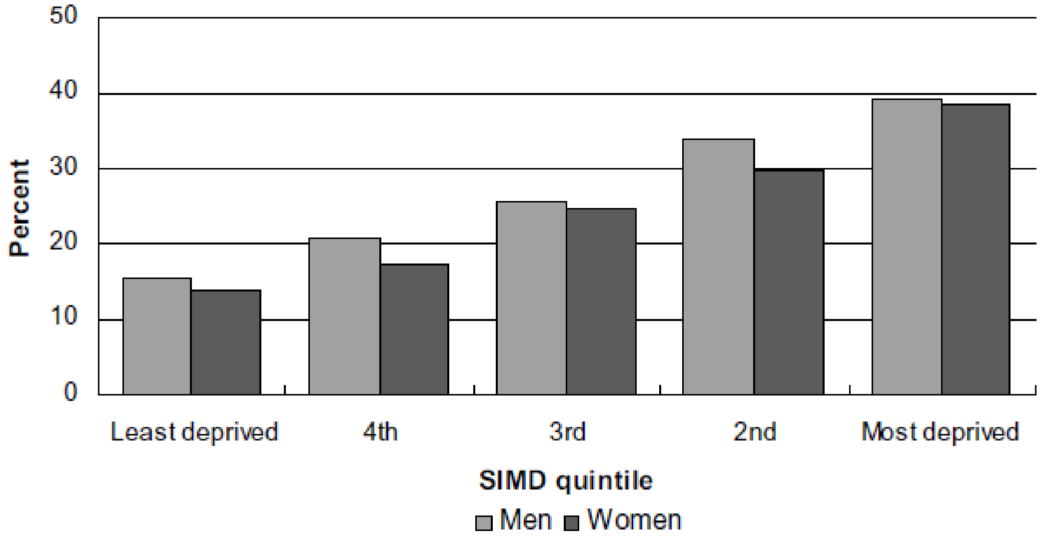


Aged 16 and over *2008*

Cigarette smoking status	Scottish Index of Multiple Deprivation Quintile					SIMD 85/15	
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)	85% least deprived	15% most deprived
	%	%	%	%	%	%	%
Men							
Standardised							
Current cigarette smoker	15	21	25	34	39	24	42
Bases (weighted):	*547*	*748*	*560*	*630*	*581*	*2640*	*426*
Bases (unweighted):	*482*	*743*	*591*	*543*	*470*	*2474*	*355*
Women							
Standardised							
Current cigarette smoker	14	17	25	30	39	22	41
Bases (weighted):	*626*	*741*	*629*	*687*	*666*	*2847*	*501*
Bases (unweighted):	*618*	*898*	*753*	*677*	*654*	*3095*	*505*

Source: Scottish Health Survey, 2008

Figure 21 Current cigarette smoking (age-standardised), by Scottish Index of Multiple Deprivation quintile and sex



Source: Scottish Health Survey, 2008

And as the graph and table above show, the same pattern emerges again by Scottish Index of Multiple Deprivation, with smoking levels in the most deprived areas being more than double those in the least deprived, for both men and women.

SCOTLAND

ALCOHOL

Table 65 Estimated usual weekly alcohol consumption level (age-standardised), by NS-SEC of household reference person and sex, Scotland

Aged 16 and over *2008*

Alcohol units per week	**NS-SEC of household reference person**				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine & routine
	%	%	%	%	%
Men					
Standardised					
% drinking more than 21 units a week	32	28	34	31	28
% drinking more than 50 units a week	5	6	8	8	10
Estimated mean weekly units of alcohol	17.4	17.1	19.4	18.1	18.9
Standard error of mean	0.70	1.67	2.06	1.26	1.34
Women					
Standardised					
% drinking more than 14 units a week	26	20	18	15	17
% drinking more than 35 units a week	4	4	2	5	5
Estimated mean weekly units of alcohol	9.8	8.9	8.2	7.8	8.4
Standard error of mean	0.49	0.83	1.39	0.99	0.73
Bases (weighted):					
Men	*1105*	*274*	*265*	*424*	*895*
Women	*1202*	*376*	*278*	*326*	*1053*
Bases (unweighted):					
Men	*983*	*230*	*281*	*416*	*844*
Women	*1223*	*386*	*333*	*375*	*1169*

Source: Scottish Health Survey, 2008

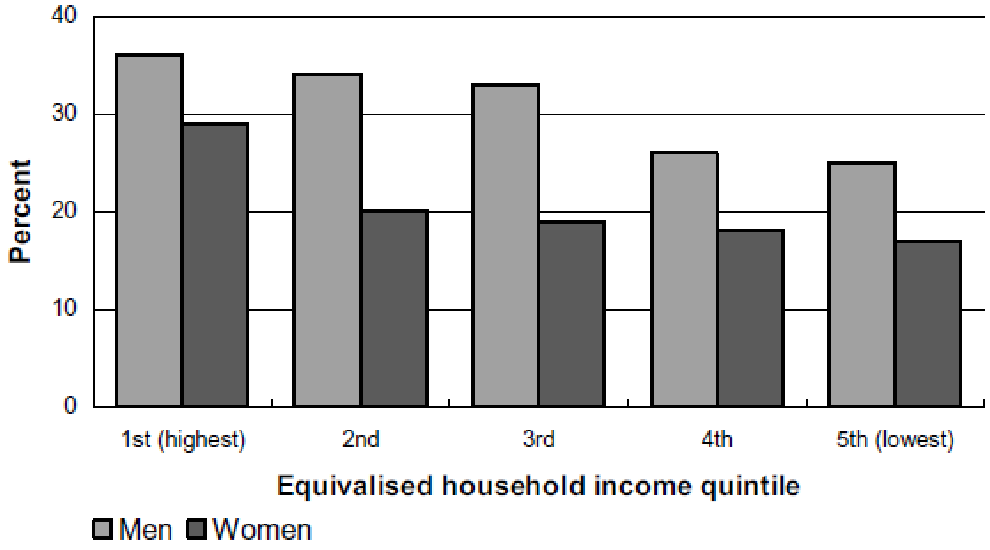
Table 66 Estimated usual weekly alcohol consumption level (age-standardised), by equivalised household income quintile and sex, Scotland

Aged 16 and over *2008*

Alcohol units per week	**Equivalised annual household income quintile**				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Men					
Standardised					
% drinking more than 21 units a week	36	34	33	26	25
% drinking more than 50 units a week	9	6	8	6	10
Estimated mean weekly units of alcohol	19.5	18.4	19.4	17.3	19.7
Standard error of mean	1.02	0.98	1.48	2.10	2.20
Women					
Standardised					
% drinking more than 14 units a week	29	20	19	18	17
% drinking more than 35 units a week	6	3	3	3	8
Estimated mean weekly units of alcohol	11.2	8.0	8.2	7.6	9.8
Standard error of mean	0.86	0.56	0.63	0.65	1.29
Bases (weighted):					
Men	*644*	*547*	*578*	*423*	*425*
Women	*604*	*569*	*592*	*533*	*554*
Bases (unweighted):					
Men	*531*	*524*	*522*	*460*	*396*
Women	*577*	*625*	*622*	*635*	*608*

Source: Scottish Health Survey, 2008

Figure 22 Proportion exceeding government guidelines on weekly alcohol consumption (age-standardised), by equivalised household income quintile and sex, Scotland



Source: Scottish Health Survey, 2008

Table 67 Estimated usual weekly alcohol consumption level (age-standardised), by Scottish Index of Multiple Deprivation and sex, Scotland

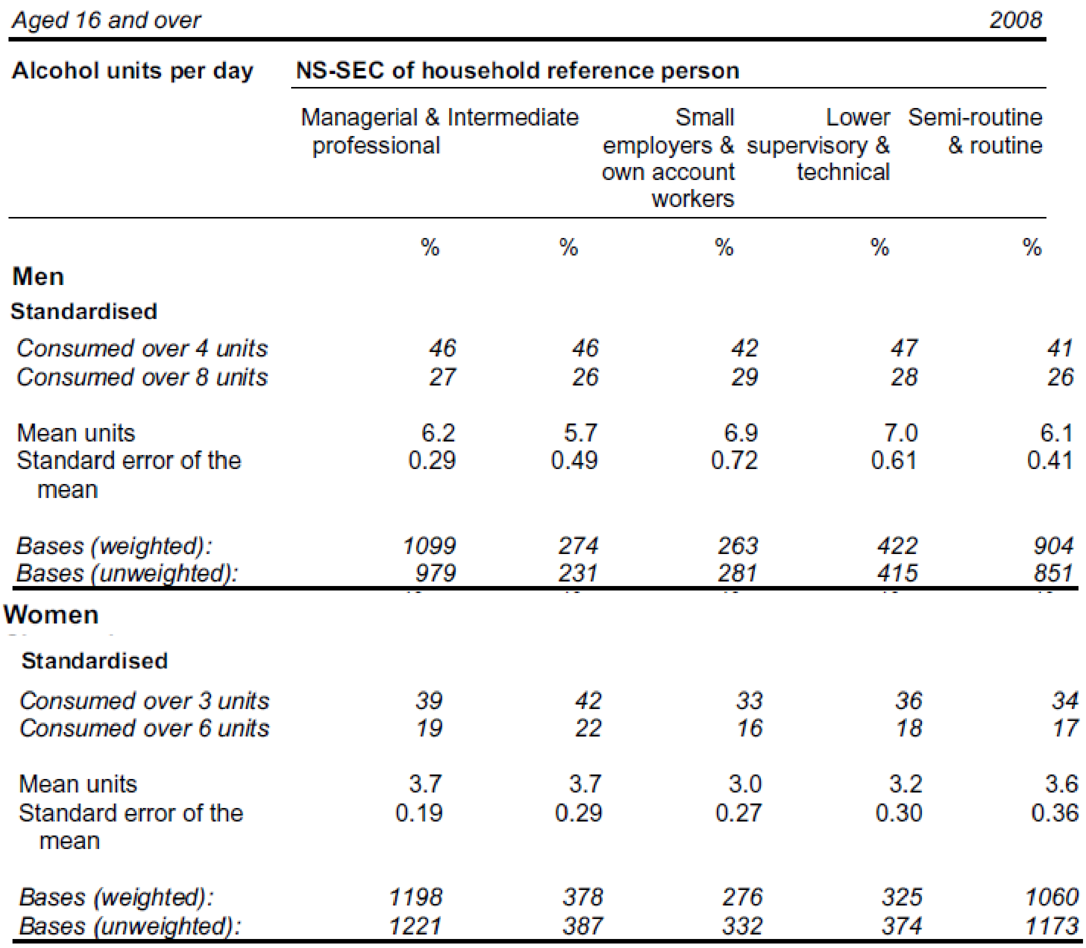
Aged 16 and over *2008*

Alcohol units per week	**Scottish Index of Multiple Deprivation quintile**					**SIMD 85/15**	
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)	85% least deprived	15% most deprived
	%	%	%	%	%	%	%
Men							
Standardised							
% drinking more than 21 units a week	31	31	29	29	31	30	31
% drinking more than 50 units a week	5	7	6	7	10	7	11
Estimated mean weekly units of alcohol	16.6	18.1	17.4	16.8	20.6	17.5	21.2
Standard error of mean	0.99	1.07	1.10	1.06	1.71	0.52	2.18
Women							
Standardised							
% drinking more than 14 units a week	25	21	19	20	16	21	15
% drinking more than 35 units a week	4	4	3	4	5	4	4
Estimated mean weekly units of alcohol	9.3	8.8	8.3	8.4	8.0	8.9	7.7
Standard error of mean	0.59	0.63	0.72	0.95	0.67	0.39	0.79
Bases (weighted):							
Men	*544*	*739*	*545*	*616*	*567*	*2599*	*413*
Women	*617*	*735*	*626*	*682*	*659*	*2824*	*495*
Bases (unweighted):							
Men	*481*	*735*	*584*	*535*	*461*	*2449*	*347*
Women	*613*	*894*	*751*	*673*	*648*	*3079*	*500*

Source: Scottish Health Survey, 2008

The tables and graphs above paint a complex picture of alcohol intake and relation to socioeconomic factors. Among women, levels of weekly consumption are associated with socioeconomic classification, household income and area deprivation. Levels of consumption are highest amongst the managerial and professional, highest income and least deprived group. Among men, there is a clear social gradient in the proportion of men with alcohol consumption above government guidelines by income quintile, with the highest proportion exceeding government guidelines being from the highest income quintile. However, men in the most deprived areas are more likely to drink above 50 units a week.

Table 68 Estimated alcohol consumption level on heaviest drinking day in past week (age-standardised), by NS-SEC of household reference person and sex, Scotland

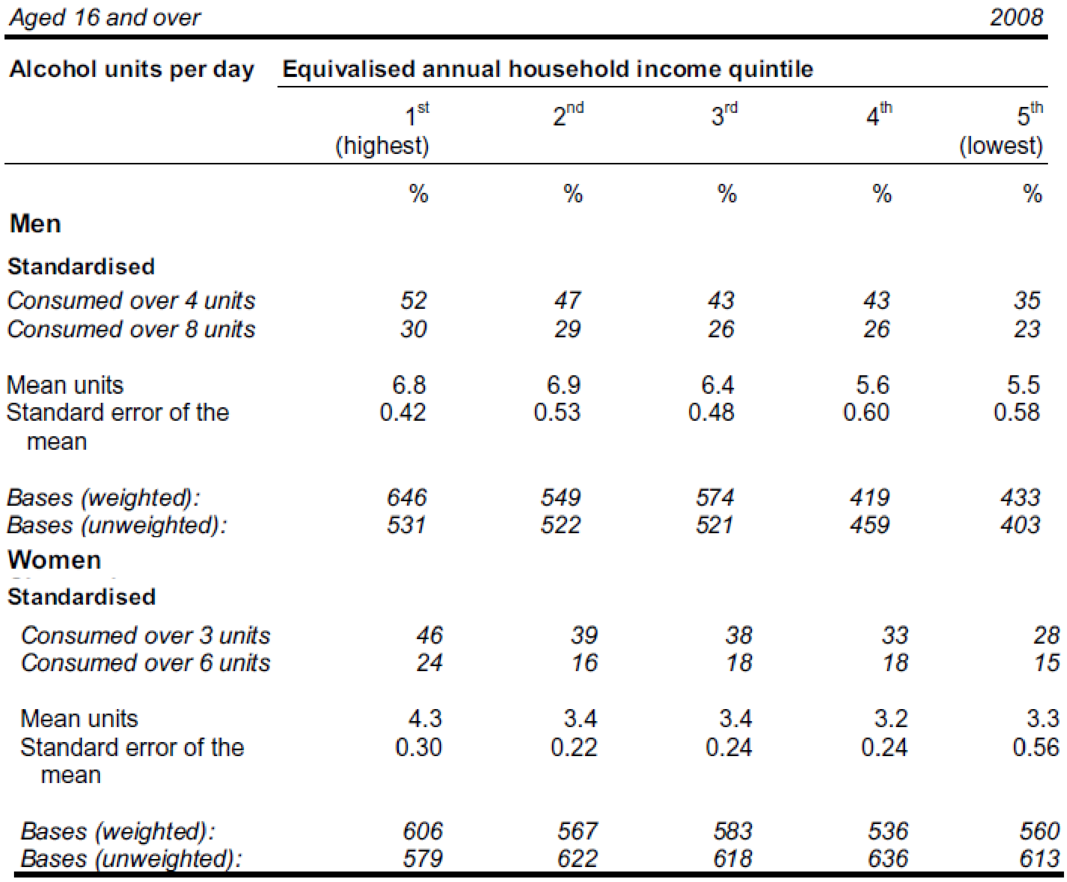


Aged 16 and over — *2008*

Alcohol units per day	**NS-SEC of household reference person**				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine & routine
	%	%	%	%	%
Men					
Standardised					
Consumed over 4 units	*46*	*46*	*42*	*47*	*41*
Consumed over 8 units	*27*	*26*	*29*	*28*	*26*
Mean units	6.2	5.7	6.9	7.0	6.1
Standard error of the mean	0.29	0.49	0.72	0.61	0.41
Bases (weighted):	*1099*	*274*	*263*	*422*	*904*
Bases (unweighted):	*979*	*231*	*281*	*415*	*851*
Women					
Standardised					
Consumed over 3 units	*39*	*42*	*33*	*36*	*34*
Consumed over 6 units	*19*	*22*	*16*	*18*	*17*
Mean units	3.7	3.7	3.0	3.2	3.6
Standard error of the mean	0.19	0.29	0.27	0.30	0.36
Bases (weighted):	*1198*	*378*	*276*	*325*	*1060*
Bases (unweighted):	*1221*	*387*	*332*	*374*	*1173*

Source: Scottish Health Survey, 2008

Table 69 Estimated alcohol consumption level on heaviest drinking day in past week (observed and age-standardised), by equivalised household income quintile and sex, Scotland

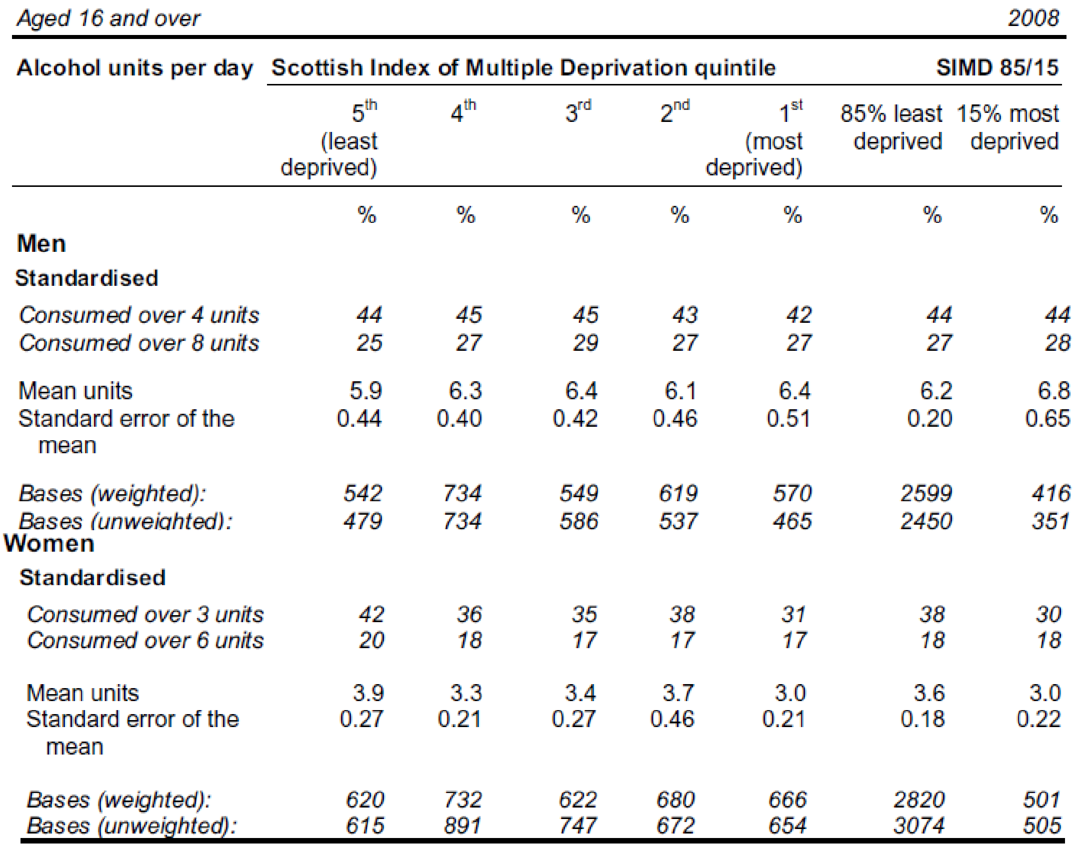


Aged 16 and over *2008*

Alcohol units per day	**Equivalised annual household income quintile**				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Men					
Standardised					
Consumed over 4 units	*52*	*47*	*43*	*43*	*35*
Consumed over 8 units	*30*	*29*	*26*	*26*	*23*
Mean units	6.8	6.9	6.4	5.6	5.5
Standard error of the mean	0.42	0.53	0.48	0.60	0.58
Bases (weighted):	*646*	*549*	*574*	*419*	*433*
Bases (unweighted):	*531*	*522*	*521*	*459*	*403*
Women					
Standardised					
Consumed over 3 units	*46*	*39*	*38*	*33*	*28*
Consumed over 6 units	*24*	*16*	*18*	*18*	*15*
Mean units	4.3	3.4	3.4	3.2	3.3
Standard error of the mean	0.30	0.22	0.24	0.24	0.56
Bases (weighted):	*606*	*567*	*583*	*536*	*560*
Bases (unweighted):	*579*	*622*	*618*	*636*	*613*

Source: Scottish Health Survey, 2008

Table 70 Estimated alcohol consumption on heaviest drinking day in past week (age-standardised), by Scottish Index of Multiple Deprivation and sex, Scotland



Aged 16 and over *2008*

Alcohol units per day	**Scottish Index of Multiple Deprivation quintile**					**SIMD 85/15**	
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)	85% least deprived	15% most deprived
	%	%	%	%	%	%	%
Men							
Standardised							
Consumed over 4 units	*44*	*45*	*45*	*43*	*42*	*44*	*44*
Consumed over 8 units	*25*	*27*	*29*	*27*	*27*	*27*	*28*
Mean units	5.9	6.3	6.4	6.1	6.4	6.2	6.8
Standard error of the mean	0.44	0.40	0.42	0.46	0.51	0.20	0.65
Bases (weighted):	*542*	*734*	*549*	*619*	*570*	*2599*	*416*
Bases (unweighted):	*479*	*734*	*586*	*537*	*465*	*2450*	*351*
Women							
Standardised							
Consumed over 3 units	*42*	*36*	*35*	*38*	*31*	*38*	*30*
Consumed over 6 units	*20*	*18*	*17*	*17*	*17*	*18*	*18*
Mean units	3.9	3.3	3.4	3.7	3.0	3.6	3.0
Standard error of the mean	0.27	0.21	0.27	0.46	0.21	0.18	0.22
Bases (weighted):	*620*	*732*	*622*	*680*	*666*	*2820*	*501*
Bases (unweighted):	*615*	*891*	*747*	*672*	*654*	*3074*	*505*

Source: Scottish Health Survey, 2008

The tables above show that in terms of daily drink levels, there is no clear relationship between those drinking above recommended limits or binge drinking (over double the daily recommended limit) by NS-SEC in men or women. However, in terms of household income, for men, daily consumption is directly related to household income such that the poorest drink least. The pattern for binge drinking is similar. Mean units drunk were also highest among those with higher incomes (6.8 units in the highest income group compared to 5.5 units in the lowest). A similar pattern is seen in women, with the highest income quintile more likely to drink above three units than the lowest; however, binge drinking (above six units) has no such pattern.

Area deprivation was significantly associated with daily drinking patterns for women (the most deprived least likely to drink above three units) but not for men.

SCOTLAND

EXERCISE

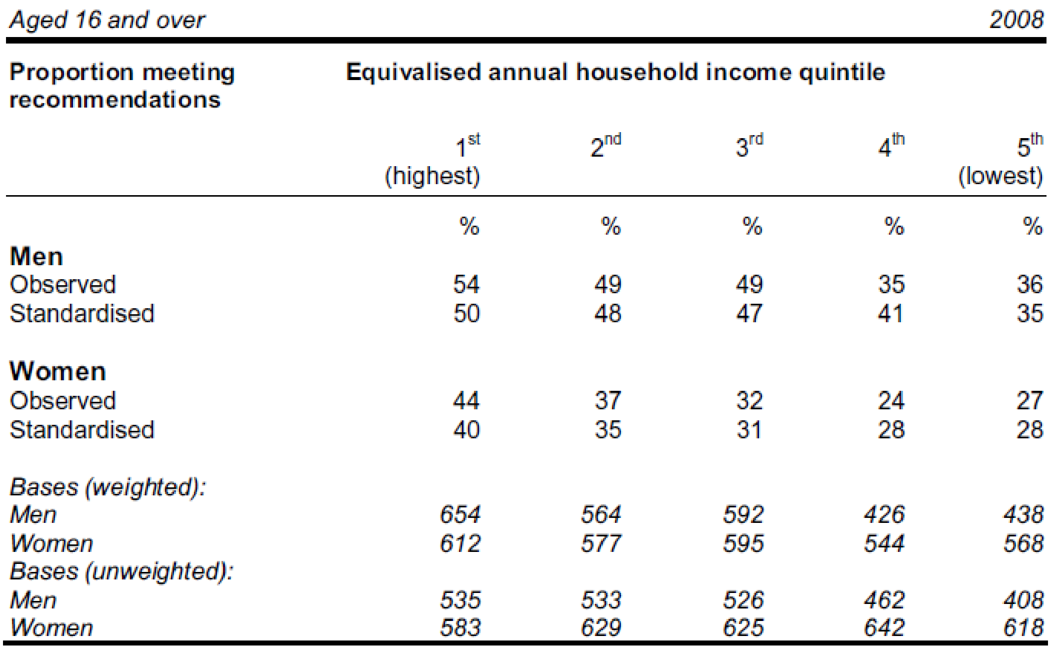
Table 71 Proportion meeting the current physical activity recommendations by NS-SEC of household reference person and sex, Scotland

Aged 16 and over *2008*

Proportion meeting recommendations	**NS-SEC of household reference person**				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine & routine
	%	%	%	%	%
Men					
Observed	47	42	51	47	41
Standardised	45	38	55	49	42
Women					
Observed	38	28	36	28	31
Standardised	36	29	35	28	33
Bases (weighted):					
Men	*1122*	*280*	*269*	*434*	*924*
Women	*1215*	*384*	*280*	*328*	*1073*
Bases (unweighted):					
Men	*993*	*234*	*283*	*420*	*860*
Women	*1229*	*391*	*334*	*377*	*1185*

Source: Scottish Health Survey, 2008

Table 72 Proportion meeting the current physical activity recommendations by equivalised household income quintile and sex, Scotland

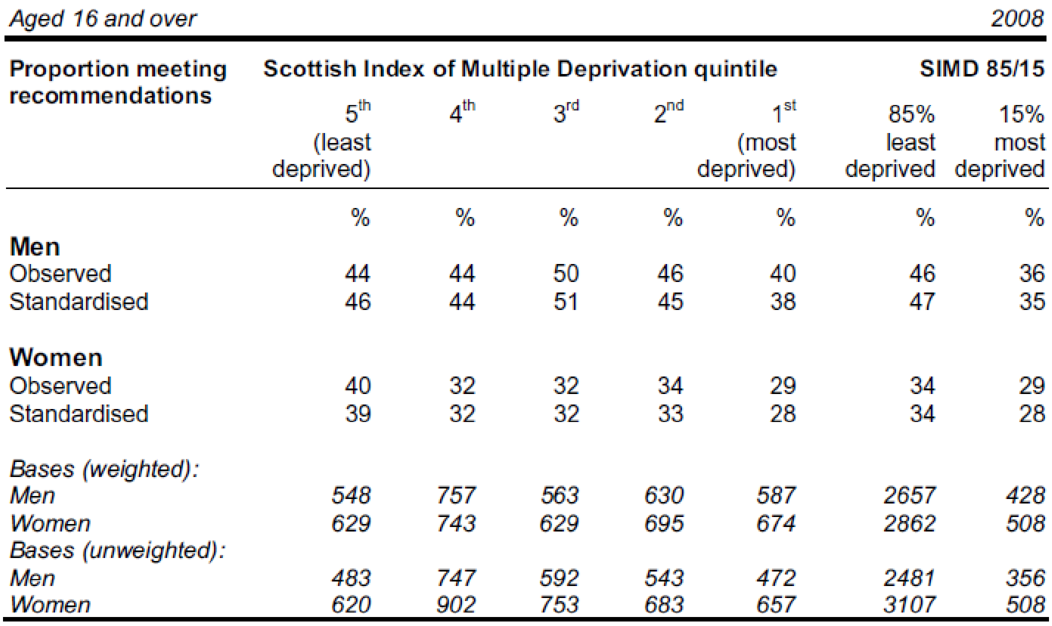


Aged 16 and over *2008*

Proportion meeting recommendations	**Equivalised annual household income quintile**				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Men					
Observed	54	49	49	35	36
Standardised	50	48	47	41	35
Women					
Observed	44	37	32	24	27
Standardised	40	35	31	28	28
Bases (weighted):					
Men	*654*	*564*	*592*	*426*	*438*
Women	*612*	*577*	*595*	*544*	*568*
Bases (unweighted):					
Men	*535*	*533*	*526*	*462*	*408*
Women	*583*	*629*	*625*	*642*	*618*

Source: Scottish Health Survey, 2008

Table 73 Proportion meeting the current physical activity recommendations by Scottish Index of Multiple Deprivation and sex



Aged 16 and over *2008*

Proportion meeting recommendations	**Scottish Index of Multiple Deprivation quintile**					**SIMD 85/15**	
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)	85% least deprived	15% most deprived
	%	%	%	%	%	%	%
Men							
Observed	44	44	50	46	40	46	36
Standardised	46	44	51	45	38	47	35
Women							
Observed	40	32	32	34	29	34	29
Standardised	39	32	32	33	28	34	28
Bases (weighted):							
Men	*548*	*757*	*563*	*630*	*587*	*2657*	*428*
Women	*629*	*743*	*629*	*695*	*674*	*2862*	*508*
Bases (unweighted):							
Men	*483*	*747*	*592*	*543*	*472*	*2481*	*356*
Women	*620*	*902*	*753*	*683*	*657*	*3107*	*508*

Source: Scottish Health Survey, 2008

In Scotland there are differences in the proportion meeting activity recommendations by NS-SEC for both men and women. The pattern is not one of a straightforward gradient, however. The relationship by household income does show a clear social gradient, with Standardised data indicating that 50% of men and 40% of women in the highest income quintile households met the recommendations compared to 35% and 28% in the lowest. When viewed by area level deprivation using SIMD score the data show that men and women in the most deprived quintile of Scottish areas were least likely to have met the activity recommendations. For men though, the pattern is not linear as those in the third quintile were most likely to have met them. For women the relationship is more linear by deprivation.

SCOTLAND

DIET

Table 74 Fruit and vegetable consumption (age-standardised), by NS-SEC of household reference person and sex, Scotland

Aged 16 and over *2008*

Portions per day	**NS-SEC of household reference person**				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine & routine
	%	%	%	%	%
Men					
Standardised					
None	6	9	7	15	15
Less than 5 portions	68	68	73	68	71
5 portions or more	26	23	19	17	14
Mean	3.6	3.1	3.2	2.8	2.6
Standard error of the mean	0.10	0.19	0.18	0.14	0.20
Median	3.0	2.7	3.0	2.4	2.0
Women					
Standardised					
None	4	8	5	7	11
Less than 5 portions	65	69	70	75	72
5 portions or more	31	23	25	17	17
Mean	3.9	3.4	3.5	3.1	2.8
Standard error of the mean	0.09	0.15	0.17	0.14	0.09
Median	3.7	3.0	3.3	2.9	2.3
Bases (weighted):					
Men	*1123*	*280*	*269*	*434*	*925*
Women	*1218*	*386*	*279*	*330*	*1074*
Bases (unweighted):					
Men	*994*	*234*	*284*	*420*	*863*
Women	*1233*	*393*	*334*	*379*	*1187*

Source: Scottish Health Survey, 2008

Table 75 Fruit and vegetable consumption (age-standardised), by equivalised household income quintile and sex, Scotland

Aged 16 and over *2008*

Portions per day	**Equivalised annual household income quintile**				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Men					
Standardised					
None	5	9	14	11	16
Less than 5 portions	67	69	68	73	72
5 portions or more	28	22	18	16	12
Mean	3.8	3.3	2.9	2.7	2.5
Standard error of the mean	0.20	0.15	0.12	0.16	0.15
Median	3.3	3.0	2.5	2.0	2.0
Women					
Standardised					
None	5	5	8	9	12
Less than 5 portions	60	68	67	71	71
5 portions or more	35	26	25	21	18
Mean	4.3	3.6	3.4	3.1	2.8
Standard error of the mean	0.17	0.11	0.11	0.14	0.12
Median	4.0	3.3	3.0	2.7	2.3
Bases (weighted):					
Men	*655*	*564*	*592*	*426*	*438*
Women	*614*	*578*	*596*	*546*	*569*
Bases (unweighted):					
Men	*536*	*533*	*528*	*462*	*408*
Women	*584*	*630*	*626*	*644*	*619*

Source: Scottish Health Survey, 2008

Table 76 Fruit and vegetable consumption (age-standardised), by Scottish Index of Multiple Deprivation and sex

Aged 16 and over *2008*

Portions per day	**Scottish Index of Multiple Deprivation quintile**					**SIMD 85/15**	
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)	85% least deprived	15% most deprived
	%	%	%	%	%	%	%
Men							
Standardised							
None	4	6	8	15	18	9	16
Less than 5 portions	71	66	70	72	72	69	74
5 portions or more	25	28	22	13	9	22	10
Mean	3.5	3.8	3.2	2.6	2.2	3.2	2.3
Standard error of the mean	0.12	0.20	0.13	0.11	0.10	0.08	0.12
Median	3.0	3.3	2.9	2.0	2.0	2.7	2.0
Women							
Standardised							
None	4	4	6	9	13	6	14
Less than 5 portions	65	65	74	71	71	69	71
5 portions or more	31	31	19	20	16	25	16
Mean	4.0	3.8	3.3	3.1	2.7	3.5	2.7
Standard error of the mean	0.13	0.10	0.10	0.11	0.11	0.06	0.12
Median	3.7	3.5	3.0	2.5	2.3	3.0	2.2
Bases (weighted):							
Men	*550*	*757*	*564*	*630*	*587*	*2659*	*428*
Women	*629*	*746*	*629*	*695*	*677*	*2866*	*509*
Bases (unweighted):							
Men	*484*	*747*	*594*	*543*	*472*	*2484*	*356*
Women	*620*	*905*	*753*	*683*	*660*	*3112*	*509*

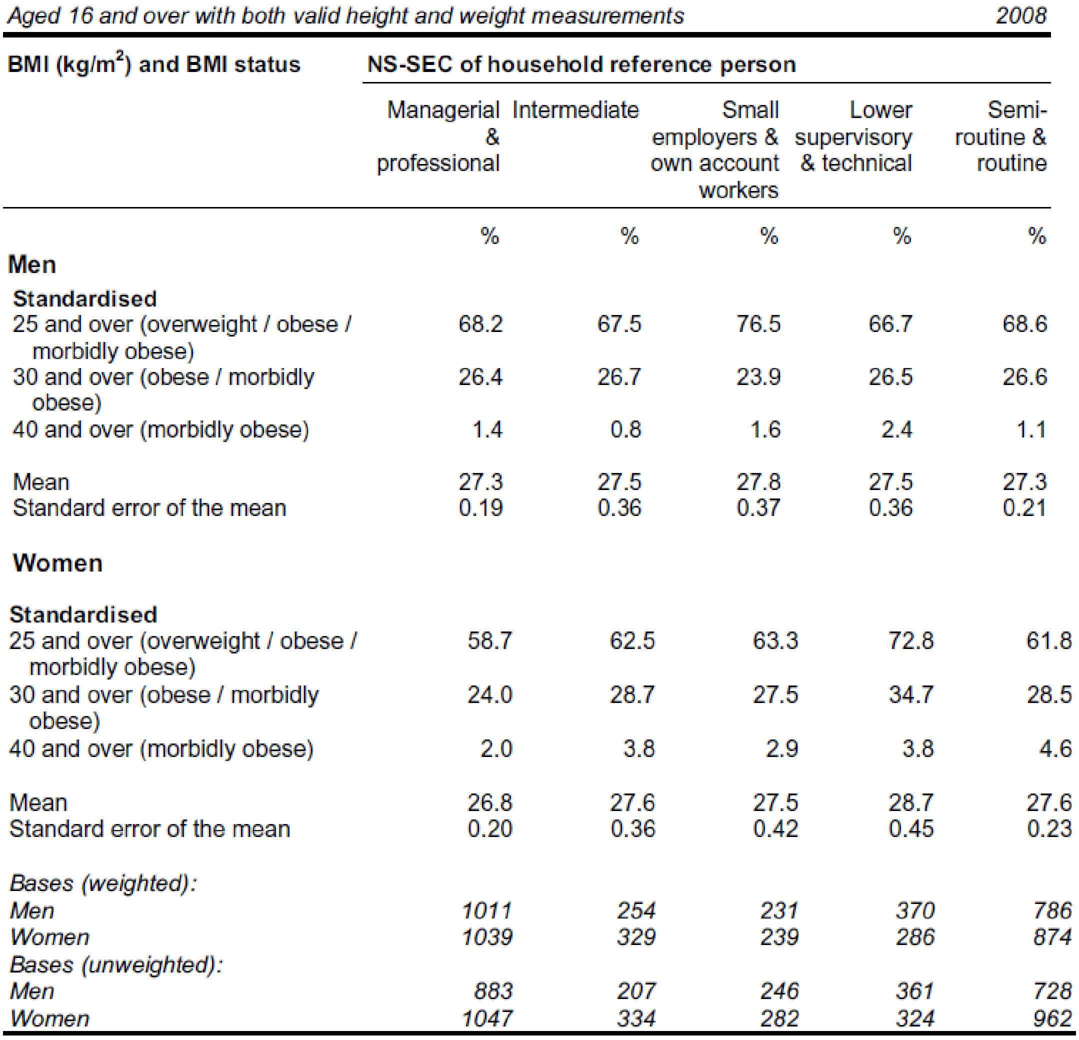
Source: Scottish Health Survey, 2008

The tables above show significant variation in numbers eating more than five portions of fruit and vegetables a day by all the measures of class in Scotland: NS-SEC, household income and deprivation of area. The data shows a clear social gradient with the poorest least likely to eat the recommended five portions. The inverse relationship exists for likelihood of eating no fruit and vegetables. The relationship exists for both sexes. For example, 25% of men in the least deprived quintile consumed the five portions or more; 9% of men in the least deprived quintile. The corresponding figures for women are 31% and 16%.

SCOTLAND

OBESITY

Table 77 Overweight and obesity prevalence and mean BMI (age-standardised), by NS-SEC of household reference person and sex

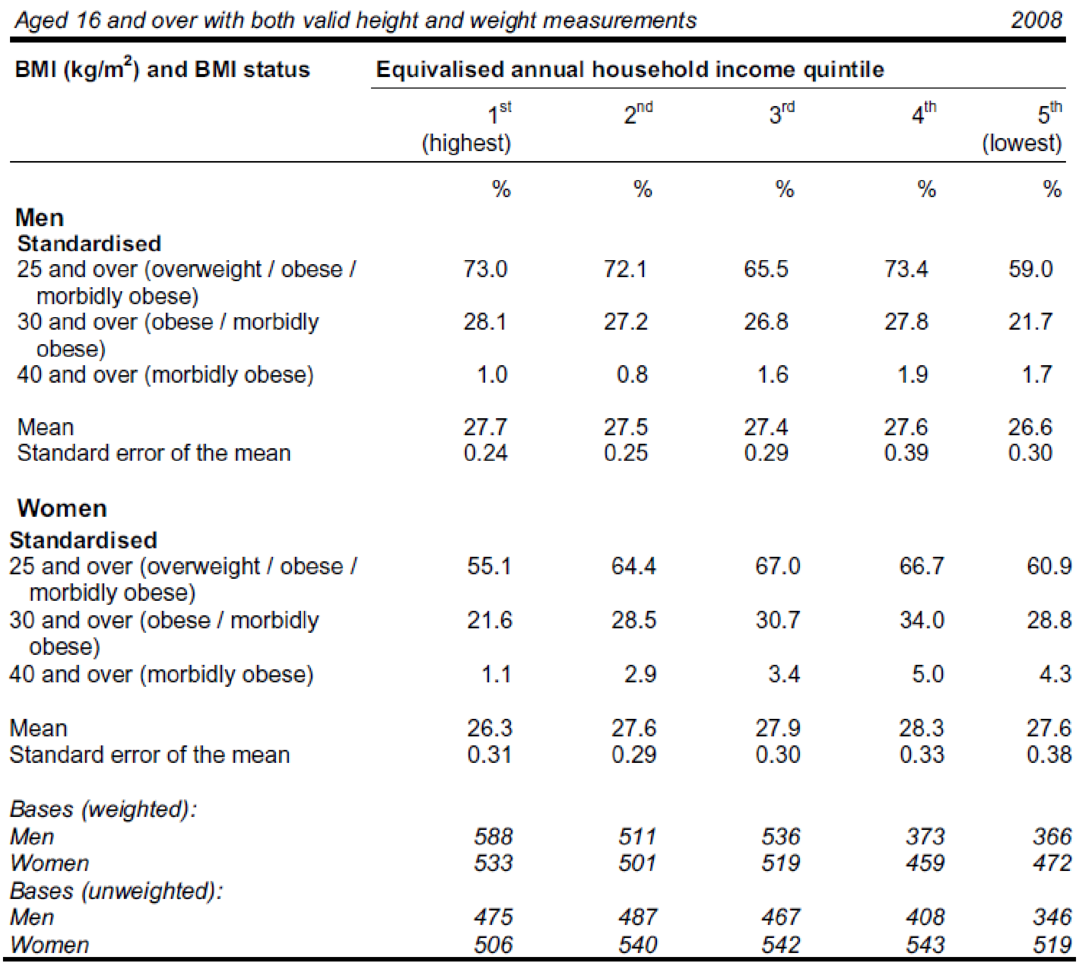


Aged 16 and over with both valid height and weight measurements *2008*

BMI (kg/m^2) and BMI status	**NS-SEC of household reference person**				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine & routine
	%	%	%	%	%
Men					
Standardised					
25 and over (overweight / obese / morbidly obese)	68.2	67.5	76.5	66.7	68.6
30 and over (obese / morbidly obese)	26.4	26.7	23.9	26.5	26.6
40 and over (morbidly obese)	1.4	0.8	1.6	2.4	1.1
Mean	27.3	27.5	27.8	27.5	27.3
Standard error of the mean	0.19	0.36	0.37	0.36	0.21
Women					
Standardised					
25 and over (overweight / obese / morbidly obese)	58.7	62.5	63.3	72.8	61.8
30 and over (obese / morbidly obese)	24.0	28.7	27.5	34.7	28.5
40 and over (morbidly obese)	2.0	3.8	2.9	3.8	4.6
Mean	26.8	27.6	27.5	28.7	27.6
Standard error of the mean	0.20	0.36	0.42	0.45	0.23
Bases (weighted):					
Men	*1011*	*254*	*231*	*370*	*786*
Women	*1039*	*329*	*239*	*286*	*874*
Bases (unweighted):					
Men	*883*	*207*	*246*	*361*	*728*
Women	*1047*	*334*	*282*	*324*	*962*

Source: Scottish Health Survey, 2008

Table 78 Overweight and obesity prevalence and mean BMI (age-standardised), by equivalised household income quintile and sex

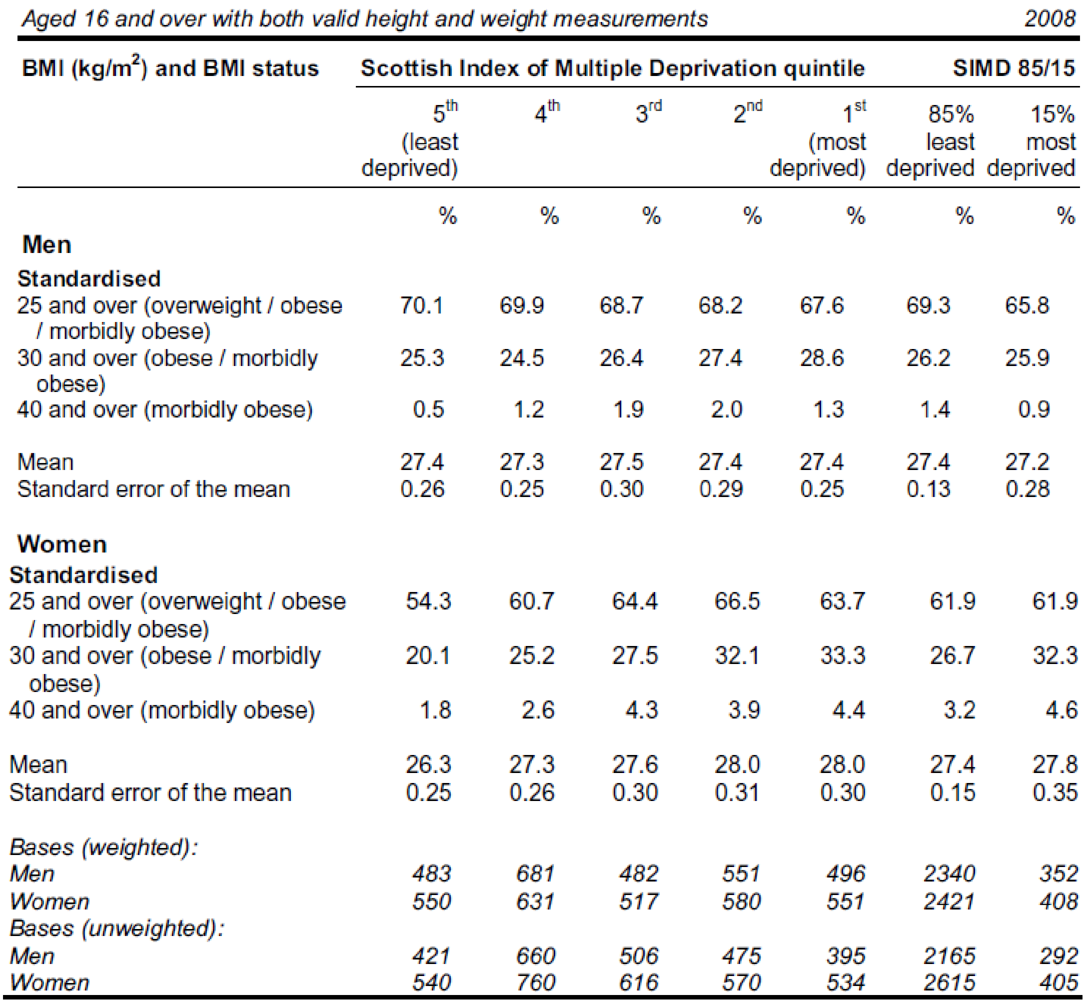


Aged 16 and over with both valid height and weight measurements *2008*

BMI (kg/m^2) and BMI status	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Men					
Standardised					
25 and over (overweight / obese / morbidly obese)	73.0	72.1	65.5	73.4	59.0
30 and over (obese / morbidly obese)	28.1	27.2	26.8	27.8	21.7
40 and over (morbidly obese)	1.0	0.8	1.6	1.9	1.7
Mean	27.7	27.5	27.4	27.6	26.6
Standard error of the mean	0.24	0.25	0.29	0.39	0.30
Women					
Standardised					
25 and over (overweight / obese / morbidly obese)	55.1	64.4	67.0	66.7	60.9
30 and over (obese / morbidly obese)	21.6	28.5	30.7	34.0	28.8
40 and over (morbidly obese)	1.1	2.9	3.4	5.0	4.3
Mean	26.3	27.6	27.9	28.3	27.6
Standard error of the mean	0.31	0.29	0.30	0.33	0.38
Bases (weighted):					
Men	*588*	*511*	*536*	*373*	*366*
Women	*533*	*501*	*519*	*459*	*472*
Bases (unweighted):					
Men	*475*	*487*	*467*	*408*	*346*
Women	*506*	*540*	*542*	*543*	*519*

Source: Scottish Health Survey, 2008

Table 79 Overweight and obesity prevalence and mean BMI (age-standardised), by Scottish Index of Multiple Deprivation and sex



Aged 16 and over with both valid height and weight measurements *2008*

BMI (kg/m^2) and BMI status	**Scottish Index of Multiple Deprivation quintile**					**SIMD 85/15**	
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)	85% least deprived	15% most deprived
	%	%	%	%	%	%	%
Men							
Standardised							
25 and over (overweight / obese / morbidly obese)	70.1	69.9	68.7	68.2	67.6	69.3	65.8
30 and over (obese / morbidly obese)	25.3	24.5	26.4	27.4	28.6	26.2	25.9
40 and over (morbidly obese)	0.5	1.2	1.9	2.0	1.3	1.4	0.9
Mean	27.4	27.3	27.5	27.4	27.4	27.4	27.2
Standard error of the mean	0.26	0.25	0.30	0.29	0.25	0.13	0.28
Women							
Standardised							
25 and over (overweight / obese / morbidly obese)	54.3	60.7	64.4	66.5	63.7	61.9	61.9
30 and over (obese / morbidly obese)	20.1	25.2	27.5	32.1	33.3	26.7	32.3
40 and over (morbidly obese)	1.8	2.6	4.3	3.9	4.4	3.2	4.6
Mean	26.3	27.3	27.6	28.0	28.0	27.4	27.8
Standard error of the mean	0.25	0.26	0.30	0.31	0.30	0.15	0.35
Bases (weighted):							
Men	*483*	*681*	*482*	*551*	*496*	*2340*	*352*
Women	*550*	*631*	*517*	*580*	*551*	*2421*	*408*
Bases (unweighted):							
Men	*421*	*660*	*506*	*475*	*395*	*2165*	*292*
Women	*540*	*760*	*616*	*570*	*534*	*2615*	*405*

Source: Scottish Health Survey, 2008

The tables above show little relationship between NS-SEC class and obesity. For men only, household NS-SEC is associated with being overweight or obese. Those living in small employer and own account household and those in semi-routine or routine households are more likely to be overweight than those in managerial and professional household. The pattern is statistically significant but not that striking. For women, being overweight or obese was associated with equivalised household income and SIMD quintile. The social gradient in 30+ and 40+ BMI by equivalised household income for women shows that the highest income quintile have the lowest rates, and that prevalence rises up to the fourth quintile, before reducing slightly for the fifth quintile. The data for overweight and obesity by SIMD scores shows the same social gradient covering all quintiles. Women living in the most deprived quintiles had significantly increased risk of being overweight or obese. The pattern is stronger in relation to obesity and morbid obesity. 36.9% of women in the most deprived quintile were obese or morbidly obese; the equivalent figure for the least deprived quintile is 21.9%.

4.4 Cross-over themes

Socio-economic class is closely linked to inequalities in several of the strands. In general, these are discussed in the strand-specific chapters. However, the following points are relevant.

Age

The inequalities of age are generally worse for those of lower socio-economic status. The relationship is one-way in that age seems to have no causal relationship with lower socio-economic status; those who start life poor generally end it poor.

Disability

The inequalities of disability are generally worse for those of lower socio-economic status. However, the relationship is two-way. Poor disabled people do worse than those wealthier for some indicators. But disability itself seems to affect economic prospects such that disabled people are more likely to be poor than the able-bodied, as we show in the disability chapter.

Ethnicity [including refugees, asylum seekers, travellers]

The inequalities of ethnicity are generally worse for those of lower socio-economic status. However, the relationship is complex. Some BME groups are overwhelmingly situated within particular socio-economic groups. For example, those of Bangladeshi origin are mainly poor. The result is that the life and health inequalities suffered by Bangladeshi's can sometimes apparently be explained purely in class terms; this occurs when figures are adjusted to take account of socio-economic status. The problem with doing this is that it can give the impression that ethnicity is unimportant in understanding health and life inequalities, that inequality is all about class. This is a false conclusion.

In the first place, there is sometimes an ethnic penalty on top of differences due to class. But more importantly, where a statistical adjustment has to be made for ethnicity it shows that ethnic groups are disproportionately represented within certain classes. The inequalities of class are manifested through ethnicity and vice versa. Tackling inequalities that are linked to class and ethnicity will require different strategies to tackling those linked to class alone or ethnicity alone.

Gender

See the strand-specific chapters

LBG & Trans

See the strand-specific chapters

4.5 Health and life: Discussion

‘We can’t escape the fact that today many of our most severe health problems are caused, in part, by the wrong personal choices. Obesity, binge-drinking, smoking and drug addiction are putting millions of lives at risk and costing our health services billions a year. So getting to grips with them requires an altogether different approach to the one we’ve seen before. We need to promote more responsible behaviour and encourage people to make the right choices about what they eat, drink and do in their leisure time.’ (David Cameron, foreword, A Healthier Nation, *Policy Green Paper No.12, Conservative Party 2010 p. 4-5.)*

Socio-economic status (or class) is not one of the Equalities and Human Rights Commission's inequality strands. However, class-based inequalities in indicators of life and health are well documented and striking.

The inequalities interact with inequalities in the inequality strands in complex ways. Some inequality strands are associated with low socio-economic status, for example, learning disability or some minority ethnic groups. Both are associated with poor life and health outcomes. This leads to difficult issues of interpretation, as our discussion of cross-over themes in the section above shows. One lesson from that discussion is that we should be cautious in explaining inequality that crosses strands (e.g. class and ethnicity) in terms of one or the other even if the inequality disappears when statistical adjustment is made.

This chapter provides the data on life and health inequality in relation to social class. It should be read as the backdrop against which to understand inequality across the protected strands.

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Chapter 5: Age

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5.1 Key messages

What are the inequalities? How persistent and how worrying are they?

We note, particularly, the following:

- High rate of accident mortality (alongside normal rate of A&E attendance)
- High rates of mortality and morbidity
- High rates of LLTI
- A climbing rate of suicide in men in the oldest age groups
- A lower than average rate of healthy life in the UK compared with EU15 countries
- Discriminatory processes in allocation of resources
- Low rates of exercise and activity alongside high rates of obesity

One difficulty in identifying inequalities that are unfair or call for action is that some inequality might be expected as people age, such as a higher rate of disability or illness. But natural difference can be compounded by human action and decisions. Therefore, as explained in Chapter three, we should err on the side of social rather than natural explanations of inequality. For example, the presence of a high rate of cerebrovascular disease in the oldest group can be viewed as a spur to research and action rather than an inevitable fact of life. One helpful tool here is data comparison with other nations, particularly those that are economically similar. In this chapter we have primarily used established European Union countries to compare with the UK. These are the fifteen countries that were members of the EU in 2004; we have given them the abbreviation EU15.

Outcome

Mortality rates both in general and for most specific causes rise as people age. Those over the age of 85 seem highly vulnerable to deaths due to accident. This looks to be persistent, worrying and perhaps avoidable, at least to some extent. Direct comparison with EU countries was not possible. However, related figures suggest that the UK might not be particularly bad in this respect. Those over 85 also suffer high rates of deaths due to heart disease, cerebrovascular disease and cancer.

The rate of suicide starts to climb amongst men in the oldest age groups. This is a gender inequality more than an age one - but it is persistent and worrying. The figures for the UK are not particularly high overall compared with the EU15 group.

Older people tend to suffer worse physical health than the general population. The UK has comparable life expectancy to the EU15 group. However, the UK fares poorly in terms of Disability-adjusted life years; in other words, our older people are more likely to be disabled. The UK fares slightly worse than average in terms of healthy life years. The figures on healthy life years should be read cautiously as there are trans-national differences in method of collection. As such, the DALY measure might be more meaningful.

As people age they are more likely to report a limiting life-long illness or disability (LLTI) and to report poor current health. The proportion of those with an LLTI ranges from 37-47% of the population in those aged 65-74 years. In all cases, levels increase with increasing age such that 68% of women over 75-years-old in Wales report an LLTI.

Pain is an issue discussed in the wider literature. In one review of evidence the authors admonish the attitude that we should accept pain as part of ageing. Such attitudes to pain and ill-health in general lead us to accept inequality that harms older people and is almost certainly avoidable.

Age is not strongly associated with poor mental health overall. However, depression and dementia are problems for the elderly. Around 25% of people over 65 have significant depressive symptoms on one scale developed for use in the elderly; the equivalent figure in the population under 65 is around 10%. Dementia occurs in around 5% of those over 65 but increases with age to around 20% of those over 80.

Process

In surveys, older people do not score lower for being treated with dignity when using health services. One problem with these surveys is that those without mental capacity to take part are excluded; yet this group might be one that is more vulnerable to undignified treatment. One example is restraint, which is discussed in some academic research although precise data on its use are lacking.

There are a broad set of concerns around age-based inequality in medical treatment. Discrimination against the elderly results from cost-effectiveness decisions which tend to show that the older you are the less effective a treatment is for you. This is not the result of explicit ageist attitudes but might be said to be institutionally ageist.

Despite the high mortality rate due to accidents in older people, this is not reflected in a higher rate of attendance at A&E.

There is some survey evidence showing that people are concerned that the nutritional needs of older people in hospital are not met. Evidence only supports this claim in part. Older people are often malnourished when entering hospital and fail to improve during their stay. However, there is little evidence that older people become more malnourished in hospital. More data are currently being collected on this issue and so the picture will become clearer.

Older people are more likely to be obese and less likely to exercise sufficiently.

Sub-groups within the elderly face double-jeopardy in terms of inequality; for example, older refugees and asylum seekers are ill-placed to cope with the difficulties coping with such matters as negotiating the benefits system.

Are there any emerging trends?

The population in the UK is ageing. Therefore the health needs of this group will become more pressing. It is estimated by the charity Age Concern, using data from several sources, that there will be over 6 million people with LLTI by 2030. There is some discussion here with at least three different hypotheses stated about the effects of an ageing population (Hyde, Higgs and Newman 2009). One is compression morbidity; this is the idea that populations age because they are healthier; as such, people live longer but with a shorter spell of morbidity at the end of life. A second is the failure-of-success model; which states that technical progress lengthens life but not quality of life. The third model is of dynamic equilibrium. This states that as people age they suffer more chronic health problems but adapt to them such that these are not disabling. There are insufficient data to choose between these at present.

How might change be measured?

The outcome measures used in the *Equality Measurement Framework* are useful and relevant in the main. They need careful interpretation in order to pick out inevitable from avoidable inequality. Additional outcome measures for older people might include specific focus on arthritis, falls, sensory impairment and incontinence. Healthy life expectancy would also be a useful addition. Comparison with EU15 countries is helpful in trying to assess whether inequality that is thought to be inevitable or natural is, in part, also the result of social decisions.

Some life and health indicators for those without capacity, for example, those with dementia are problematic. Such people are generally unable to state whether or not they are treated with dignity. More work is needed here to develop other indicators that do not require self-assessment.

Data quality and quantity

Most relevant datasets can be disaggregated by age. However, there is some lack of data within the 65+ age group, particularly in relation to the oldest, 80+ group.

5.2 Age Evidence

The main datasets relating to life and health collect data disaggregated by age. As such, there is no shortage of evidence in relation to the key indicators. The issue lies rather in interpretation.

The difficulty in selecting Life indicators for older people lies in finding those that are informative in terms of inequality. Natural causes will cause higher mortality in this group. However, these indicators can be informative as they allow comparisons within the older population, for example, between ethnic groups. Furthermore, as we argued in chapter three, on methodology, where there is scope it is probably better to err on the side of a social rather than a natural explanation of inequality. Take, for example, the high accident mortality rate of the 85+ group requires particular consideration. This could be seen as natural and inevitable; but a fatal accident is a function of the environment as well as of the person. We have seen the suggestion that disability is a social product; people differ in their abilities but some are disabled in an environment that is not designed for them. Where the unmet needs of older people for, say, handrails or gritted pavements in the winter result in accidents we might view these at least in part the result of policy decisions.

Selecting health indicators of inequality is problematic in the same way as selecting life indicators. As we get older we naturally face increasing morbidity. As such, the self-reporting of current health seems uninformative as a marker of inequality between older people and others; it is, though, useful as a marker between groups within the older population. The same point applies to some extent in relation to longstanding health problems, illnesses and disability. Both indicators could be worsened through inequality. For example, if the health service discriminates against older people, the current health of older people could decline and this would be reflected in self-reports of health status. But the best way to uncover this discrimination might be through examination of health service processes. If these seem to discriminate against older people, then we could anticipate that a positive change in them would result in improvements to current health self-reports. In other words, the removal of discrimination would improve self-report of health in older people.

To get a notion of how well older people in the UK are faring it is useful to do some comparison with other countries in the EU. In this chapter we have drawn on data from the European Health for All (HfA) database where it is possible and informative. We have chosen the main groups to compare as male and female, UK and EU members before 2004 (EU15). The reason for choosing the latter group is that these are the more prosperous EU countries that we might expect the UK to be equivalent to.

Judging whether mental health and wellbeing is a good indicator of inequality is also difficult. Some mental health problems are certainly a function of ageing, for example, dementia. On the other hand, it is not clear whether depression is age-related or, for example, a function of contingently age-related factors such as loneliness. Given that mental health and wellbeing are central to human capabilities, to living a good life, they should feature in the assessment. But judgement of the extent to which age-based differences are inequalities should be cautious and nuanced. As we say above in Chapter three, where there is doubt as to whether an inequality is natural or not we should err on the side of saying it is not and seeking ways to remedy it.

Perception of treatment with dignity is a good indicator of inequality; there is no acceptable reason for this to be lower for older people. But it is limited insofar as it is subjective. Those older people who are unable to state a view, for example, the severely demented, will not be covered by the indicator; and yet this is the group most in danger of insults to dignity, such as undue restraint. For this reason, we suggest that additional indicators of dignity are sought. One such indicator might be a measure of use of restraint in care-homes, hospitals and private homes.

A&E attendance and accidents as markers of inequality have similar problems to the accident mortality rate. Age might inevitably increase our vulnerability to accidents; on the other hand, changes in the environment might reduce or increase this vulnerability.

Support for nutritional needs during hospital stays is a good marker for inequality. Its value lies partly in that nutrition is central to good human functioning and partly in its objectivity; we can say whether or not nutritional needs are met for people who lack capacity. This makes it a valuable addition to the treatment-with-dignity marker. Its usefulness is limited by its applying to hospital stays; but perhaps this is something that could be extended.

Healthy lifestyle may be a reasonable indicator in some respects; lifestyle can affect the health and wellbeing of older people for good or ill. However when we use lifestyle indicators as a comparator between older and younger people, we need to consider what they are telling us. One difficulty here is the extent to which changes in lifestyle seem less worthwhile for some older people. For example, an 80-year-old smoker might rightly be disinclined to stop now. Another is that differences between age groups may simply reflect healthy lifestyle choices prior to the onset of old age. For example, the proportion of non smokers will increase with increasing age because smoking increases the chances of dying at younger ages.

5.3 Life: main indicators

5.3.1 Period life expectancy at birth, ages 20, 65 and 80

Life expectancy at birth and age 20 is irrelevant to this strand.
The number of further years someone reaching age 65 in 2006–08 could expect to live – life expectancy at age 65 - is higher for women than for men. Based on 2006–08 mortality rates for the UK as a whole, a man aged 65 could expect to live a further 17.4 years, and a woman aged 65 another 20.0 years. As with life expectancy at other ages, life expectancy at age 65 is also higher for England than for the other countries of the UK, and the female advantage can be seen across all three countries. However, in recent decades the increase in life expectancy among older adults in the UK has been dramatic and the gap between men and women has declined. For example, Office for National Statistics data show that life expectancy for men aged 65 increased by over 4 years between 1981 and 2007.

Table 1 Life expectancy at age 65, 2006-08

Years

	Males	Females	Difference
UK	17.4	20.0	2.6
England	17.5	20.2	2.7
Wales	17.1	19.8	2.7
Scotland	16.2	18.8	2.6

Source: ONS,
[http://www.statistics.gov.uk/cci/nugget.asp?ID=168]

Source: Office for National Statistics

The trend towards greater life expectancy in recent years also extends to the oldest adults. Among individuals aged 80 in 2006-08, men could expect to live a further 7.8 years and women a further 9.2 years, compared to 5.8 and 7.5 expected additional years in 1980-02. Though women continue to have an advantage, the gap is, unsurprisingly, smaller.

Table 2 Life expectancy at age 80, 2006-8

Years

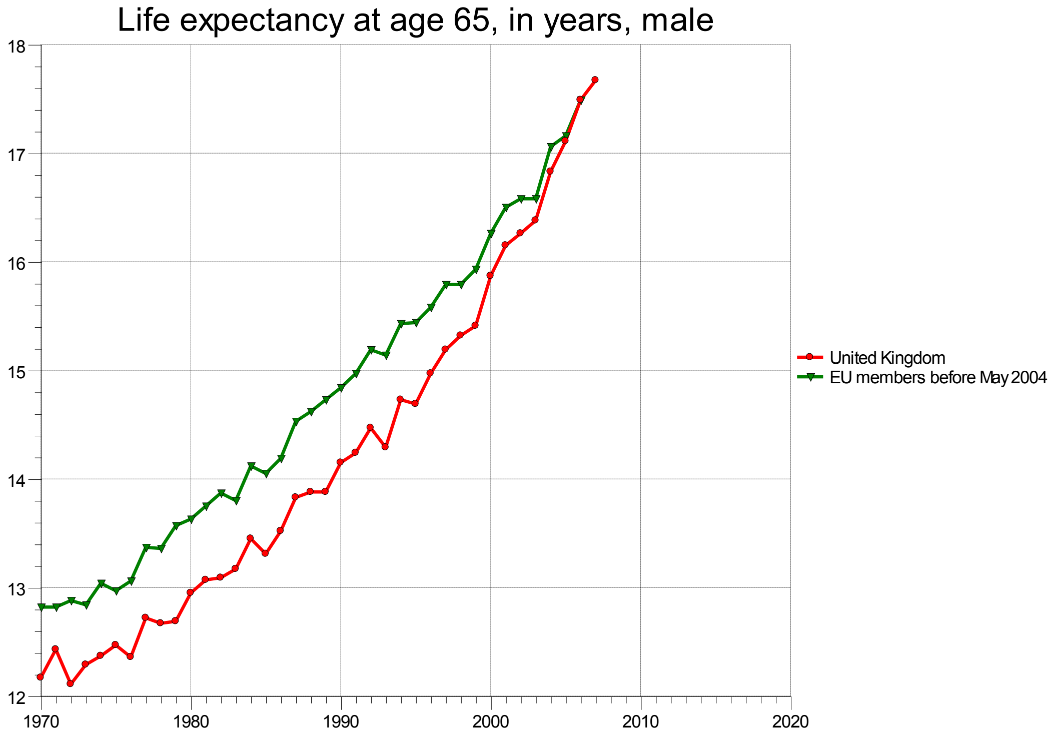
	Males	Females	Difference
UK	7.8	9.2	1.4
England	7.9	9.2	1.3
Wales	7.7	9.1	1.4
Scotland*	7.3	8.6	1.3

*Figures for Scotland in the table above refer to 3-year period 2005-7.

Source: Office for National Statistics: http://www.statistics.gov.uk/STATBASE/ssdataset.asp?vlnk=9551

To give an idea of how older people in the UK are faring it is worthwhile comparing life expectancy at age 65 in the UK with that of the established EU members (i.e. the more prosperous ones).

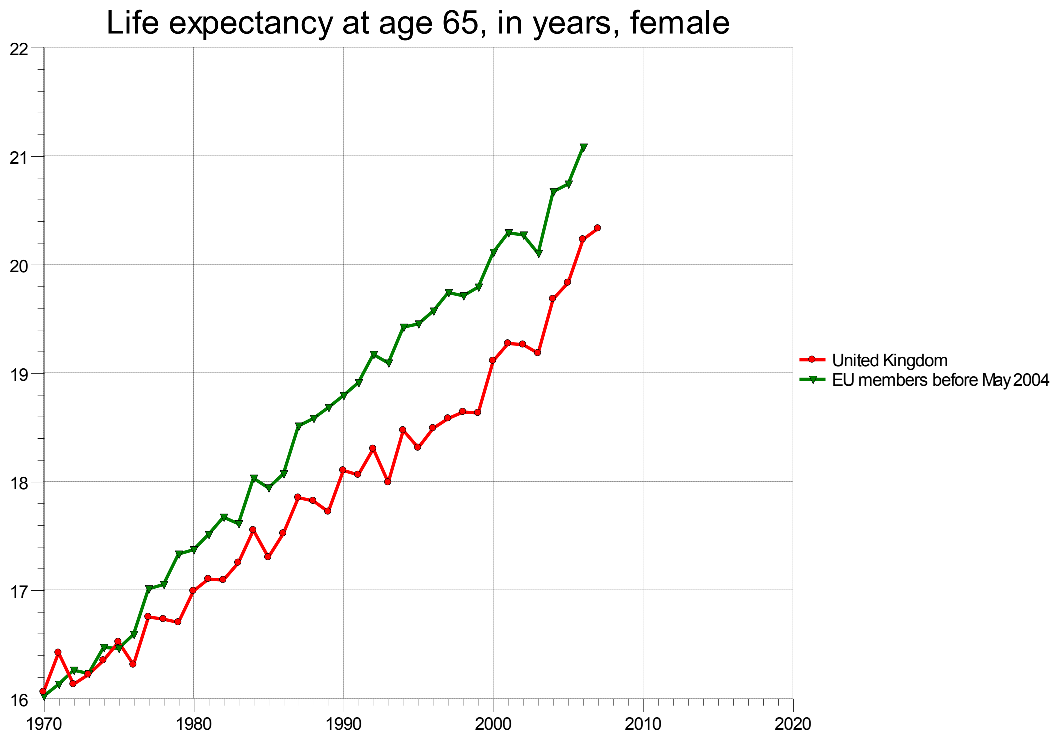
Figure 1 Life expectancy at age 65 in years, male, UK and EU15 members



Source: European Health for All (HfA) database, 2009

The graph show life expectancy has increased steadily for both groups since 1970 and that the United Kingdom has caught up with EU members. Life expectancy for established EU members and the UK at age 65 for males is around 17 years.

Figure 2 Life expectancy at age 65 in years, female, UK and EU15 members

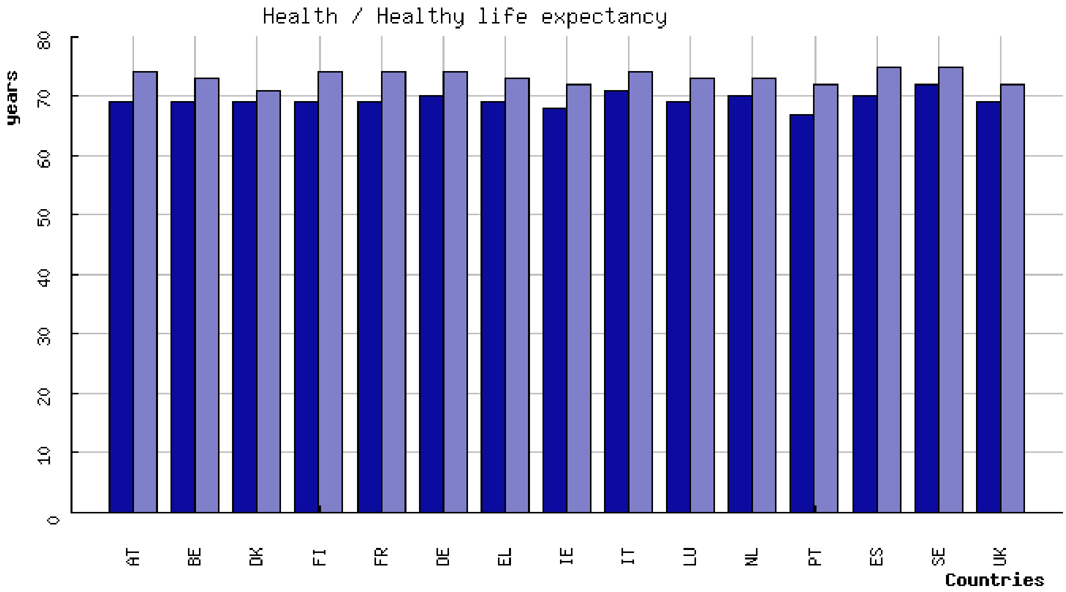


Source: European Health for All (HfA) database, 2009

The picture for women is slightly different. Whilst both sets of women have improved life expectancy since 1970, a gap has opened up; women in the UK have a slightly shorter life expectancy than women in established EU countries.

Another useful comparison is with healthy life expectancy between the UK and EU15 countries.

Figure 3 Healthy Life Expectancy by gender across the EU15 countries (2002)

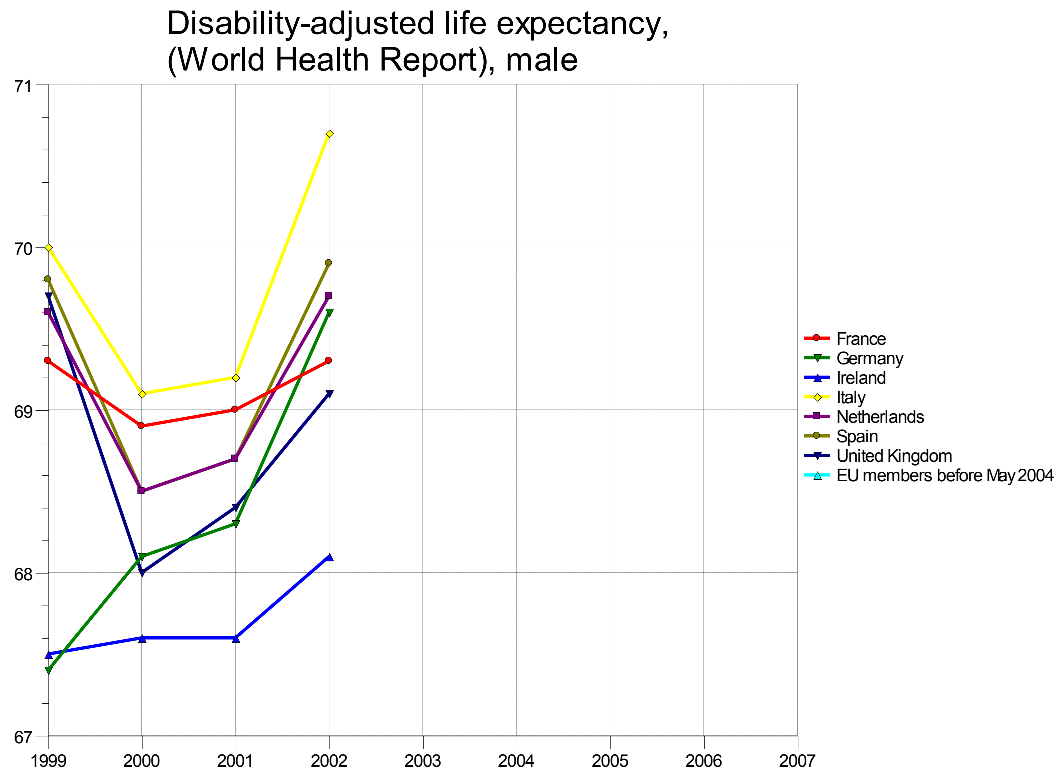


Countries	2002
	m w
AT	69 74
BE	69 73
DK	69 71
FI	69 74
FR	69 74
DE	70 74
EL	69 73
IE	68 72
IT	71 74
LU	69 73
NL	70 73
PT	67 72
ES	70 75
SE	72 75
UK	69 72

Source: World Health Organisation, via http://www.eurofound.europa.eu/index.htm

The graph and table above show healthy life expectancy across the EU15 countries; the UK fares slightly worse than average in comparison here. However, these figures need to be read with some caution as methods of data collection are inconsistent across nations.

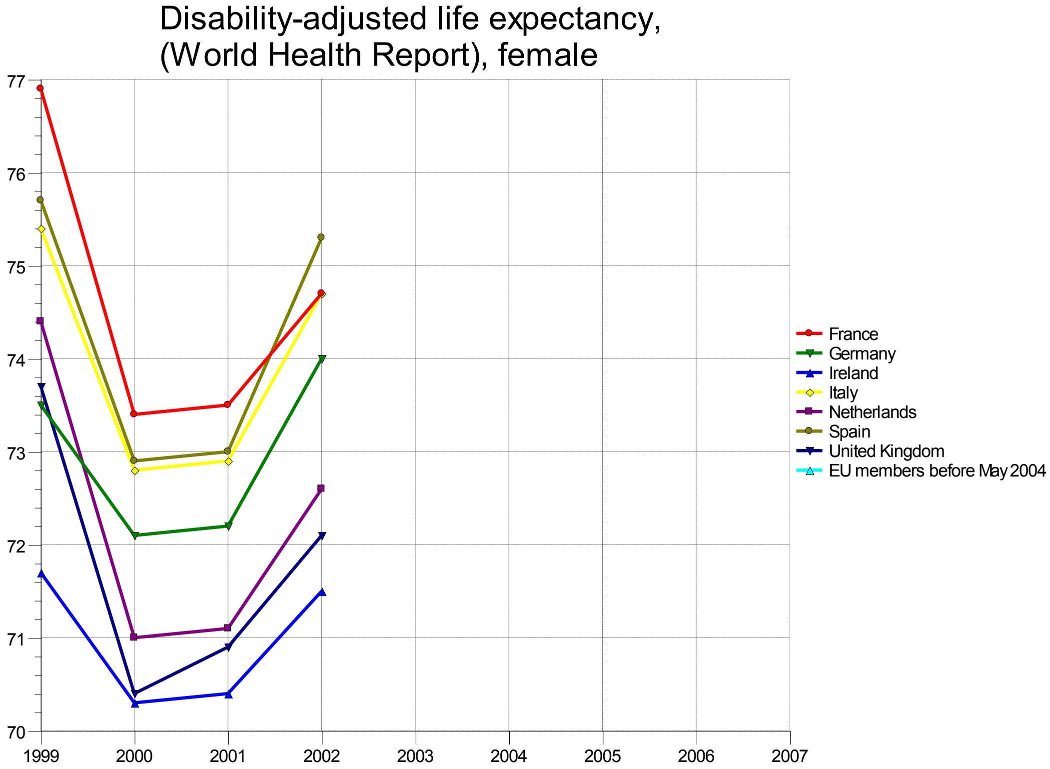
Figure 4 Disability-adjusted life expectancy in various EU countries, male



Source: European Health for All (HfA) database, 2009

Reading the graph from the top down, disability-adjusted life expectancy for men in selected European countries in 2002 was: Italy (70.7 DALY-years), Spain (69.9), Netherlands (69.7), Germany (69.6), France (69.3), United Kingdom (69.1), and Ireland (68.1). The DALY is not the same as healthy life expectancy but is related; it is the number of years someone would expect to live free of disability. The graph shows that the UK does not fare particularly well in this respect.

Figure 5 Disability-adjusted life expectancy in various EU countries, female



Source: European Health for All (HfA) database, 2009

For women, the order is different, running Spain (75.3), France and Italy (74.7), Germany (74), Netherlands (72.6), United Kingdom (72.1), and Ireland (71.5). Women in general have more DALYs than men but, again, the UK does not fare particularly well.

5.3.1a Cause specific mortality

All-ages mortality for those over 65 years for E, W and S is presented below.

Table 3 Cause-specific death rates by age-group and sex, 2008 (deaths per million population, England and Wales)

	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
Cancers								
men	44	84	246	970	3,508	9,062	18,772	30,390
women	28	106	370	1,111	2,957	6,245	11,693	17,321
Circulatory disease								
men	26	89	318	1,021	2,570	7,075	22,180	60,345
women	16	42	126	360	980	3,587	15,515	56,112
Heart disease								
men	18	59	246	813	2,036	5,159	14,663	38,711
women	9	23	71	210	641	2,347	9,096	32,193
Cerebrovascular diseases)								
men	*6*	18	46	134	336	1,168	5,290	17,140
women	*4*	13	40	109	243	849	4,933	20,035
Diabetes Mellitus								
men	*3*	10	15	30	76	239	742	1,846
women	*2*	5	8	25	36	157	533	1,593
Accidents)								
men	213	224	217	210	197	267	817	2,994
women	60	52	63	80	87	157	707	3,103
Assault and injury/poisoning undetermined intent								
men	39	31	29	19	14	*8*	*4*	*5*
women	10	13	9	8	*4*	*6*	*10*	*9*
Suicide and event undetermined)								
men	97	171	222	189	152	109	125	172
women	25	51	52	66	50	42	48	39
Vascular and unspecified dementia								
men	-	-	-	*1*	17	153	1,330	6,707
women	-	-	-	*1*	13	145	1,592	10,592

Source: Office for National Statistics 2008

Scotland

Table 4 Cause-specific death rates by age-group and sex, 2008 (deaths per million population, Scotland)

Males	**All ages**	**0-14**	**15-34**	**35-44**	**45-54**	**55-64**	**65-74**	**75+**
All cancers	7,729	9	39	111	433	1,319	2,370	3,448
Trachea, bronchus and lung	2,114	-	1	11	98	400	726	878
Bowel	839	-	1	16	50	139	262	371
Breast	7	-	-	1	-	1	2	3
Lymphoid, haematopoietic etc	539	3	15	8	28	75	167	243
Urinary tract	525	-	1	6	22	74	149	273
Oesophagus	520	-	-	11	44	115	172	178
Prostate	792	-	-	-	8	62	189	533
Pancreas	319	-	-	5	23	64	99	128
Stomach	300	-	-	5	16	49	80	150
Other cancers (e.g. bladder, liver)	1,774	6	21	48	144	340	524	691
Ischaemic heart disease	4,852	-	13	85	313	739	1,225	2,477
Respiratory system diseases	3,276	7	13	18	70	255	664	2,249
Cereberovascular disease	2,051	1	9	30	82	153	392	1,384
Mental + behavioural disorders	1,335	-	188	158	98	86	112	693
Diseases of the digestive system	1,531	-	22	106	258	324	323	498
Diseases of the nervous system	717	10	35	25	49	78	155	365
Diseases of the genitourinary system	511	-	-	4	6	27	83	391
Accidents	696	16	148	67	89	81	76	219
Endocrine, nutritional and metabolic diseases	498	7	20	16	34	68	122	231
Certain infectious and parasitic diseases	380	4	7	13	31	34	57	234

Females	**All ages**	**0-14**	**15-34**	**35-44**	**45-54**	**55-64**	**65-74**	**75+**
All cancers	7,540	10	40	156	444	1,072	1,921	3,897
Trachea, bronchus and lung	1,966	-	3	11	99	306	625	922
Bowel	746	-	2	13	35	98	188	410
Breast	1,043	-	4	60	113	178	215	473
Lymphoid, haematopoietic etc	463	1	5	10	11	46	112	278
Urinary tract	350	-	-	4	12	34	88	212
Oesophagus	311	-	-	2	17	34	69	189
Pancreas	323	-	-	5	18	44	82	174
Stomach	211	-	-	4	11	16	49	131
Other cancers (e.g. bladder, liver, ovary)	2,127	9	26	47	128	316	493	1108
Ischaemic heart disease	3,989	-	1	30	86	232	609	3,031
Respiratory system diseases	4,167	6	12	23	57	246	565	3,258
Cereberovascular disease	3,316	2	6	19	49	122	313	2,805
Mental + behavioural disorders	2,027	-	50	40	36	37	77	1,787
Diseases of the digestive system	1,588	2	18	72	145	216	250	885
Diseases of the nervous system	896	11	27	19	37	69	141	592
Diseases of the genitourinary system	768	-	3	5	7	21	88	644
Accidents	565	7	31	13	33	33	39	409
Endocrine, nutritional and metabolic diseases	493	5	8	10	36	44	90	300
Certain infectious and parasitic diseases	556	3	9	16	11	18	90	409

[1] The causes are listed in descending order of their total numbers of deaths.

Source: Office for National Statistics 2008

In the 65 -74 year old, cancer is the major cause of death for men and women in England, Wales and Scotland. With increasing age, the death rate as a result of cardiovascular disease (CVD) increases such that it is the major cause of death in those aged 75+ in all three countries of interest. Death rates as a consequence of dementia increase rapidly with increasing age.

5.3.2 Cardiovascular disease mortality

The relevant figures for circulatory, cardiovascular and cerebrovascular disease by age-group and sex in those aged over 65 (deaths per million, England and Wales) are shown in the tables below.

Table 5 Deaths due to circulatory disease, heart disease and cerebrovascular disease in men and women, England and Wales 2008

	65-74	75-84	85+
Circulatory disease			
men	7,075	22,180	60,345
women	3,587	15,515	56,112
Heart disease			
men	5,159	14,663	38,711
women	2,347	9,096	32,193
Cerebrovascular diseases			
men	1,168	5,290	17,140
women	849	4,933	20,035

Source: Office for National Statistics, 2008

And for Scotland the relevant figures for cardiovascular and cerebrovascular disease by age-group and sex in those aged over 65 (deaths per 100,000) are:

Table 6 Deaths due to circulatory disease, heart disease and cerebrovascular disease in men and women, Scotland 2008

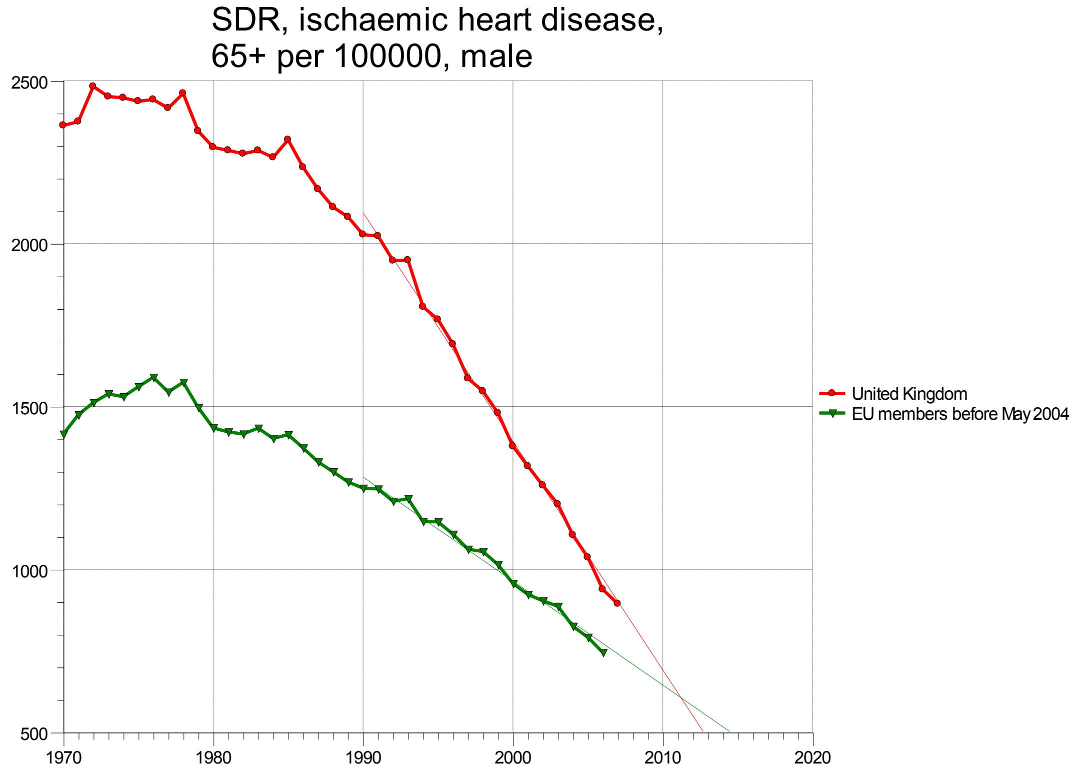
	65-74 years	75 + years
Ischaemic heart disease		
Men	1,225	2,477
Women	609	3,031
Cerebrovascular disease		
Men	392	1,384
Women	313	2805

Source: Office for National Statistics, 2008

The two tables above illustrate the patterns of ischaemic heart disease and cerebrovascular disease across the age range. They demonstrate that death rates as a result of both cardiovascular diseases increase rapidly after age 65 and continue to rise steadily with increasing age. The differential rates between men and women are maintained throughout the lifespan. The higher rates in Scotland as compared to England and Wales also persist across all ages. Death rates from CVD rise sharply in those aged over 65 with a second sharp increase in those aged over 75 years. The rate of increase in the older age group is greater in women than men in all three countries of interest.

The comparison with Europe is as follows:

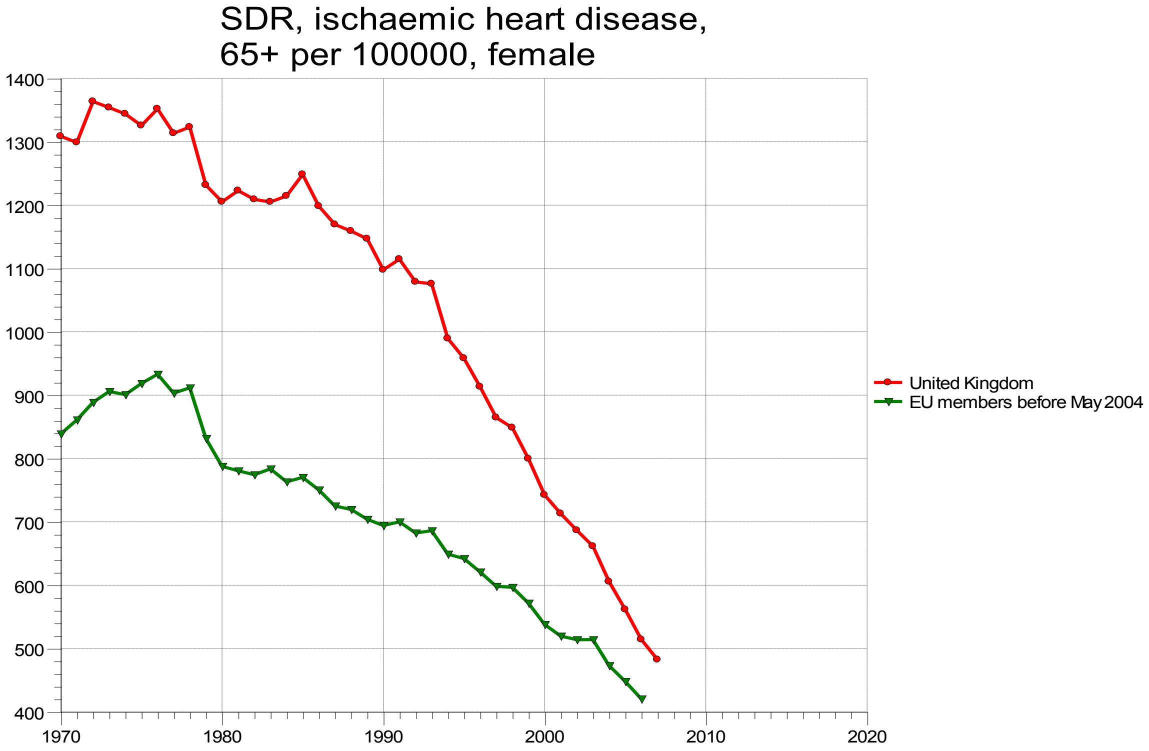
Figure 6 Mortality due to ischaemic heart disease, 65 and over, male, UK and EU15 members



Source: European Health for All (HfA) database, 2009

The graph above shows that the death rate through ischaemic heart disease is declining rapidly in the UK and EU15, and that the UK death rate is declining more rapidly. It is still slightly higher than the EU15

Figure 7 Mortality due to ischaemic heart disease at age 65 years, female, UK and EU15 members



Source: European Health for All (HfA) database, 2009

The graph above shows a similar picture for women as for men; death due to ischaemic heart disease is declining rapidly.

5.3.3 Cancer mortality

Table 7 Cancer death rates by age-group and sex, 2008 (deaths per million population, England and Wales)

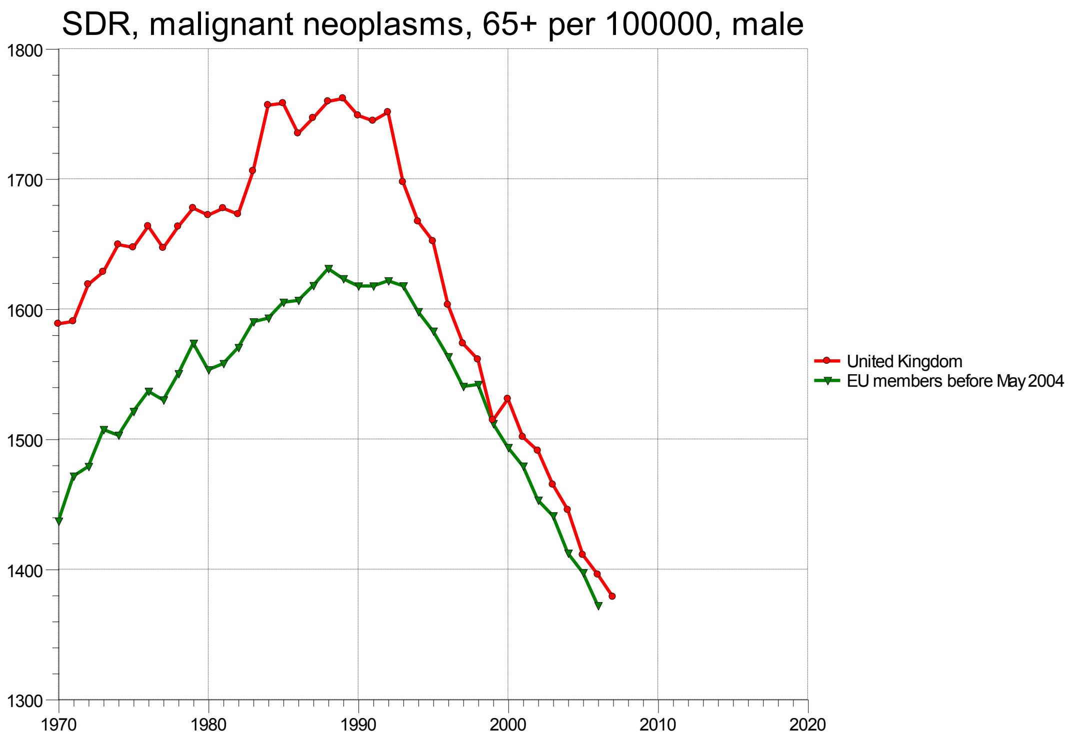
Males	**All ages**	**0-14**	**15-34**	**35-44**	**45-54**	**55-64**	**65-74**	**75+**
All cancers (C00-97)	7,729	9	39	111	433	1,319	2,370	3,448
Trachea, bronchus and lung (C33-34)	2,114	-	1	11	98	400	726	878
Bowel (C18-21)	839	-	1	16	50	139	262	371
Breast (C50)	7	-	-	1	-	1	2	3
Lymphoid, haematopoietic etc (C81-96)	539	3	15	8	28	75	167	243
Urinary tract (C64-68)	525	-	1	6	22	74	149	273
Oesophagus (C15)	520	-	-	11	44	115	172	178
Prostate (C61)	792	-	-	-	8	62	189	533
Pancreas (C25)	319	-	-	5	23	64	99	128
Stomach (C16)	300	-	-	5	16	49	80	150
Other cancers (e.g. bladder, liver)	1,774	6	21	48	144	340	524	691

Females	**All ages**	**0-14**	**15-34**	**35-44**	**45-54**	**55-64**	**65-74**	**75+**
All cancers (C00-97)	7,540	10	40	156	444	1,072	1,921	3,897
Trachea, bronchus and lung (C33-34)	1,966	-	3	11	99	306	625	922
Bowel (C18-21)	746	-	2	13	35	98	188	410
Breast (C50)	1,043	-	4	60	113	178	215	473
Lymphoid, haematopoietic etc (C81-96)	463	1	5	10	11	46	112	278
Urinary tract (C64-68)	350	-	-	4	12	34	88	212
Oesophagus (C15)	311	-	-	2	17	34	69	189
Pancreas (C25)	323	-	-	5	18	44	82	174
Stomach (C16)	211	-	-	4	11	16	49	131
Other cancers (e.g. bladder, liver, ovary)	2,127	9	26	47	128	316	493	1108

Source: Office for National Statistics - note that figures in brackets refer the International Classification of Disease Codes

Age is the most important factor in the risk of most cancers including those which are the major causes of death. These figures can be disaggregated by some other strands; where that is possible, we have put the results in the relevant chapter. However, a comparison with Europe is interesting.

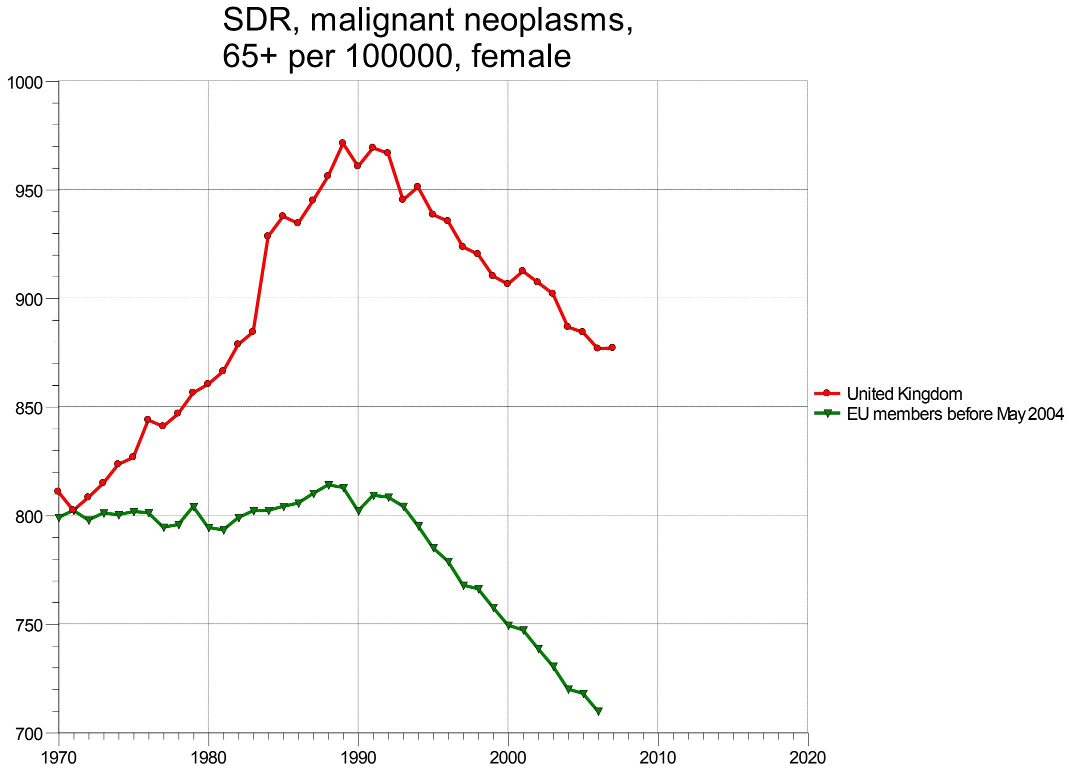
Figure 8 Mortality due to cancer at age 65 + years, male, UK and EU15 members



Source: European Health for All (HfA) database, 2009

The graph above shows that the figure for men is similar between the UK and EU15 and that both are declining.

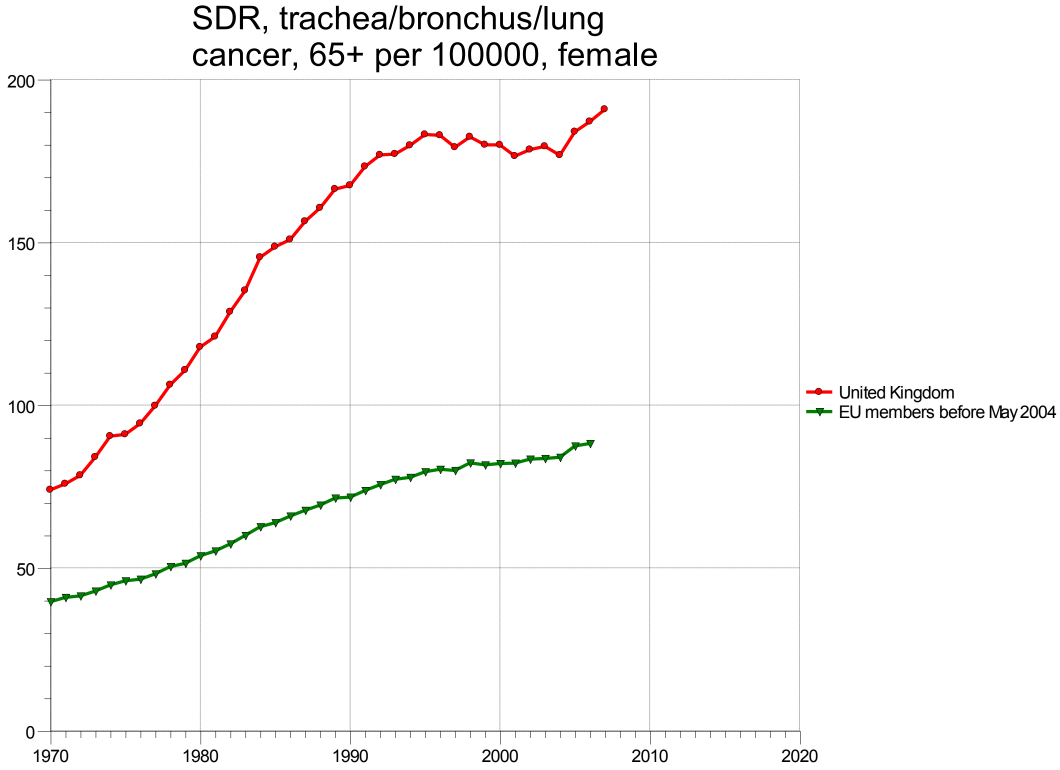
Figure 9 Mortality due to cancer at age 65 + years, male, UK and EU15 members



Source: European Health for All (HfA) database, 2009

The picture for women is different. Women over 65 in EU15 and the UK have a lower death rate than men. However, there is a large and statistically significant gap that has opened up between UK and EU15 women. This difference is largely down to a different in mortality due to lung cancers, as the following graph illustrates.

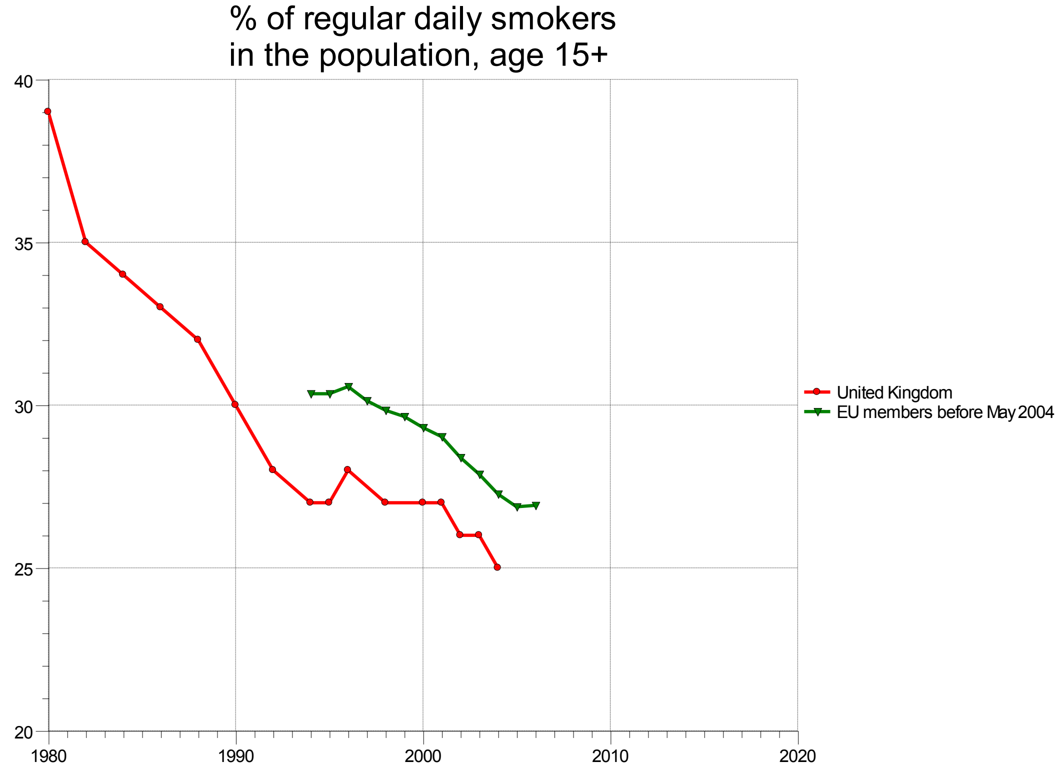
Figure 10 Mortality due to lung and related cancers at age 65 + years, female, UK and EU15 members



Source: European Health for All (HfA) database, 2009

This is an interesting inequality. We could not find comparative data on smoking for these particular groups but other data comparing smokers over 15, for example, suggest that smoking is not disproportionately high in the UK compared to other EU15 countries. This is shown in the graph below. As such, this inequality calls for further study.

Figure 11 % of regular smokers in the population UK and EU15 members



Source: European Health for All (HfA) database, 2009

5.3.4 Suicide rates/risk

Table 8 Age specific suicide death rates, 2008 (deaths per million population, England and Wales)

	65-74	75-84	85+
Suicide and event undetermined (X60-X84, Y10-Y34)			
men	109	125	172
women	42	48	39

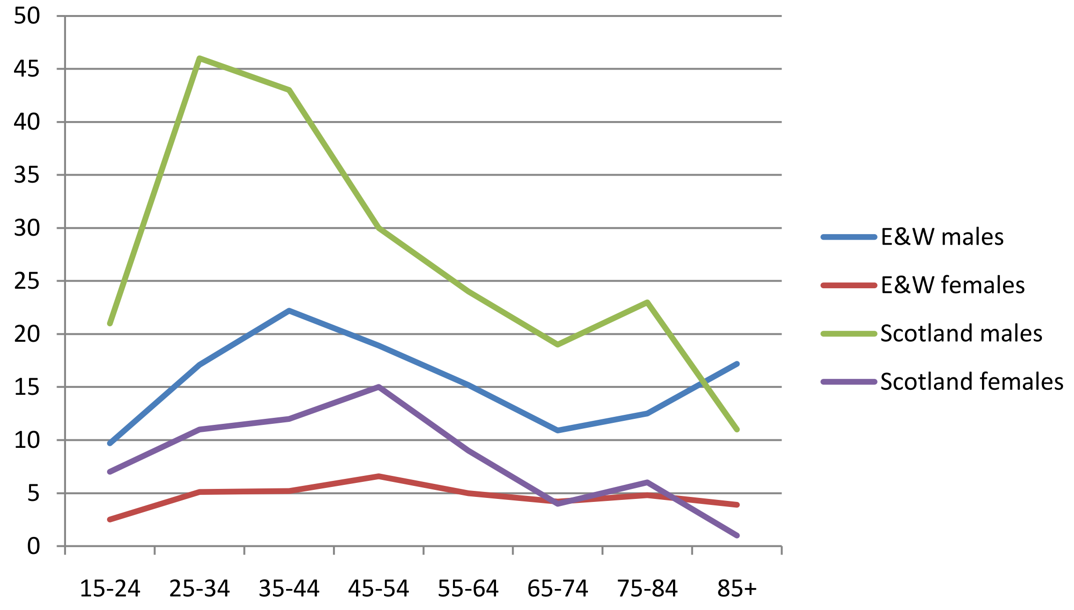
Source: Office for National Statistics

Table 9 Age specific suicide death rates, 2008 (deaths per 100,000 population, Scotland

	65-74	75-84	85+
Suicide and event undetermined			
Men	19	23	11
Women	4	6	1

Source: Office for National Statistics

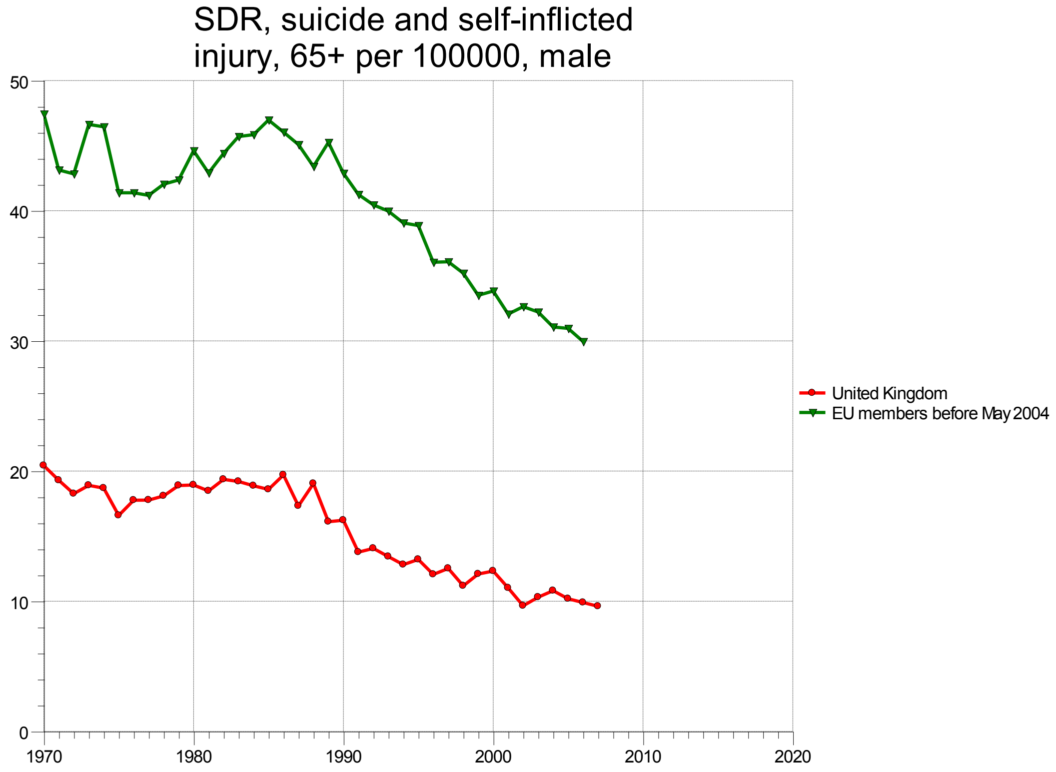
Figure 12 Age-specific suicide rates (deaths per 100,000 population) by sex 2008 England & Wales and Scotland



Source: Office for National Statistics

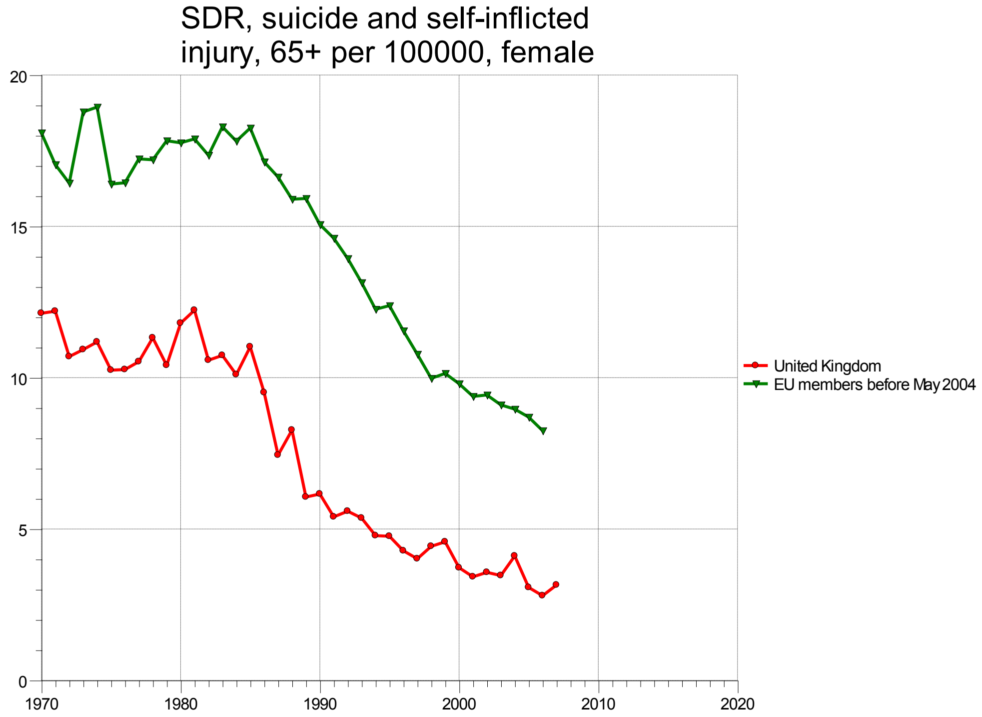
The graph above shows that the rate of suicide decreases in women as they age but increases in men. Middle-age is the peak for both groups but the rate for men is higher throughout the lifespan. We note that that there is a marked increase in the suicide rate for those aged 65-74 both men and women. This subsequently falls in those aged 85+ with the exception of males in England & Wales who experience an increased rate throughout later age. It seems that the gender inequality is perhaps of greater concern than the age inequality here.

Figure 13 Suicide Death Rate at age 65 + years, male, UK and EU15 members



Source: European Health for All (HfA) database, 2009

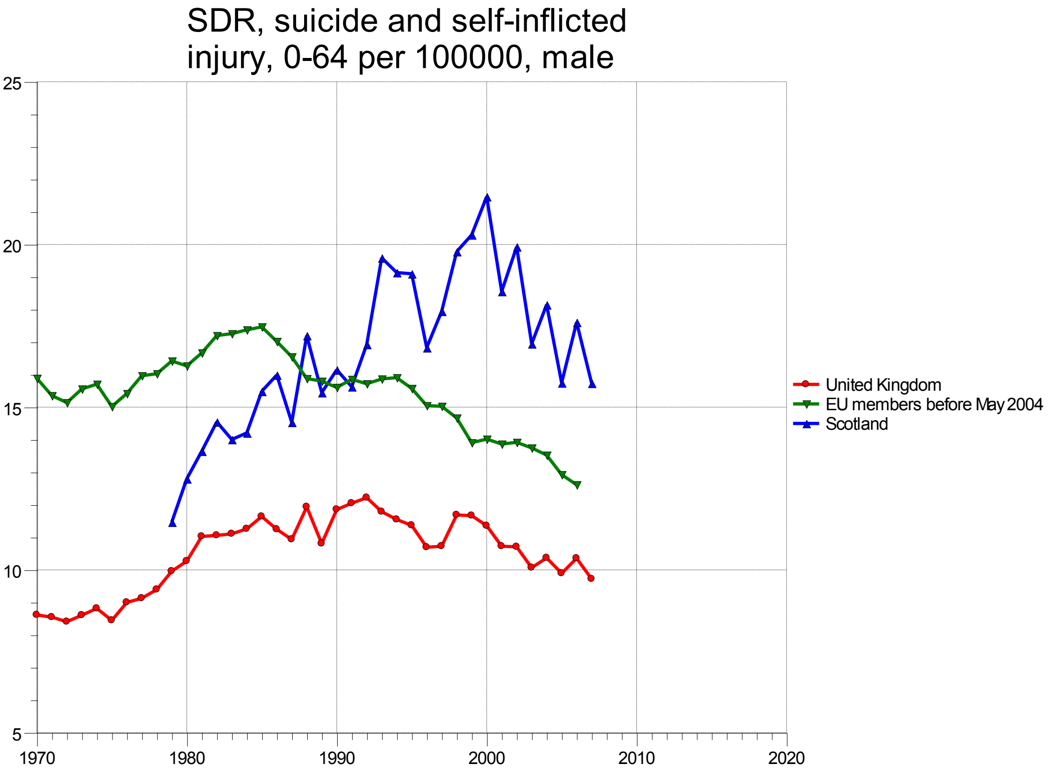
Figure 14 Suicide Death Rate at age 65 + years, female, UK and EU15 members



Source: European Health for All (HfA) database, 2009

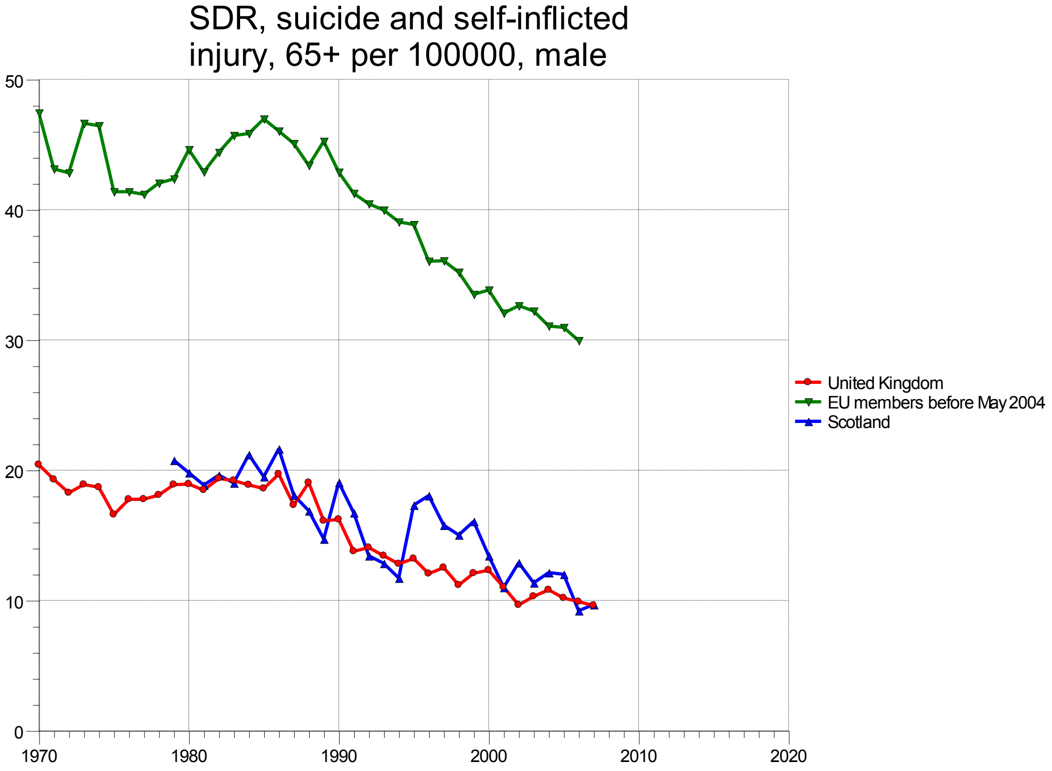
The two graphs above illustrate that the UK has a lower rate of suicide for both men and women than do EU15 countries. Although Scotland has a high rate of suicide in men aged up to 64, that difference disappears after 65, as the following two graphs illustrate.

Figure 15 Suicide Death Rate ages 0-64, male, Scotland, UK and EU15 members



http://www.eurofound.europa.eu/index.htm

Figure 16 Suicide Death Rate ages 65+ male, Scotland, UK and EU15 members



http://www.eurofound.europa.eu/index.htm

5.3.5 Accident mortality rate

Table 10 Age specific accident mortality rates, 2008 (deaths per million population, England and Wales)

	65-74	75-84	85+
Accidents (V01-X59)			
men	267	817	2,994
women	157	707	3,103

Source: Office for National Statistics

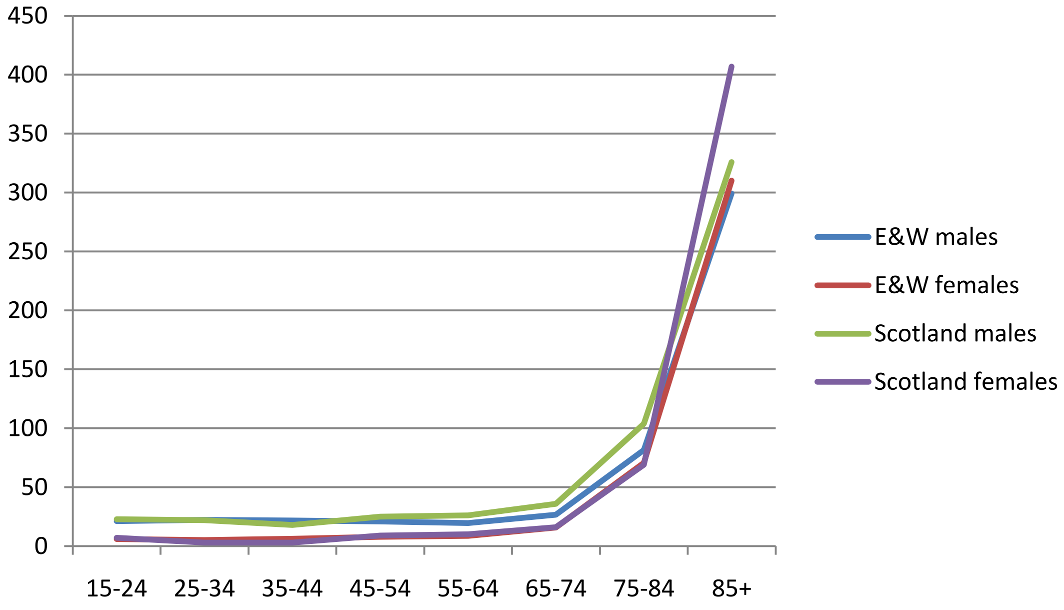
Table 11 Age specific accident mortality rates, 2008 (deaths per 100,000 population, Scotland)

	65-74	75-84	85+
Men	36	104	326
Women	16	69	407

Source: Office for National Statistics

The tables above illustrate the age-specific accident mortality rates in 2008 for England and Wales, and Scotland. The accident rate at age 65-74 is not a great deal higher than throughout the rest of the lifespan (see Table 3) but increases substantially after that and is notably high for the 85+ age group. This would seem to be a major inequality of concern. It is illustrated also by the graph below, which is drawn from these figures.

Figure 17 Age-specific accident death rates (deaths per 100,000 population) by sex 2008 England & Wales and Scotland

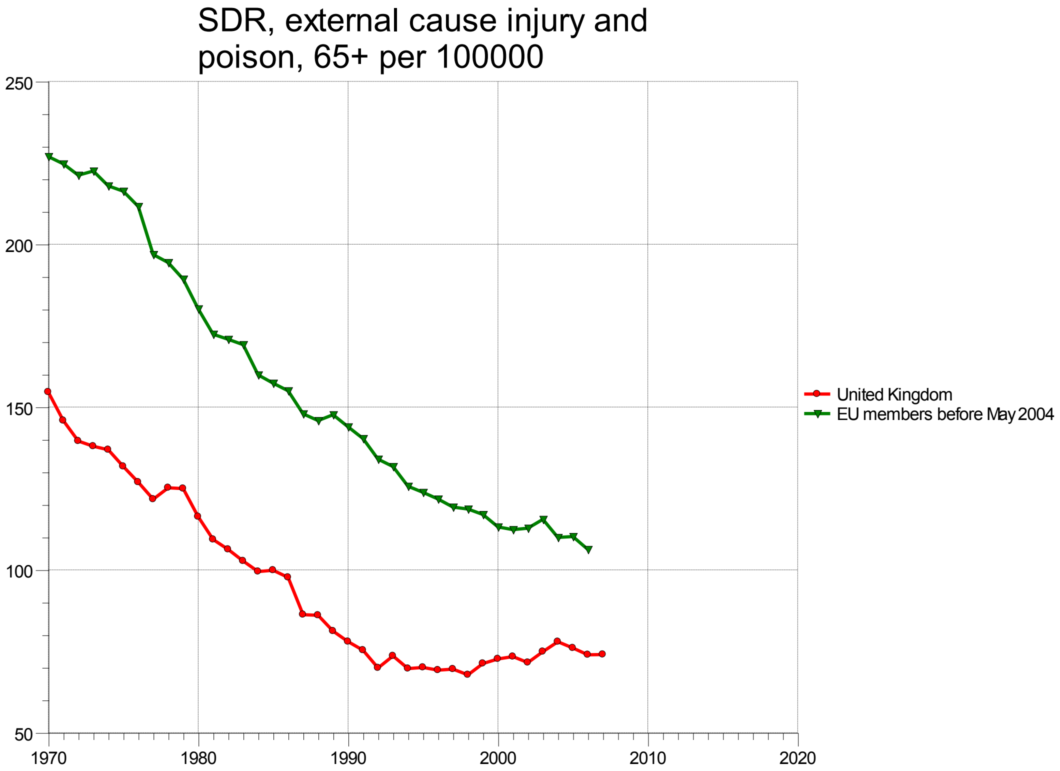


Source: Office for National Statistics

The graph above demonstrates the impact that age has on accident mortality rate. The rising accidental death rate for both men and women as they age is striking in England & Wales and in Scotland. Rising from a fairly constant overall rate throughout adult life, accidents account for a rapidly increasing number of deaths in older adults with an approximate threefold increase in the rate of increase in each of the age bands for which data are collected.

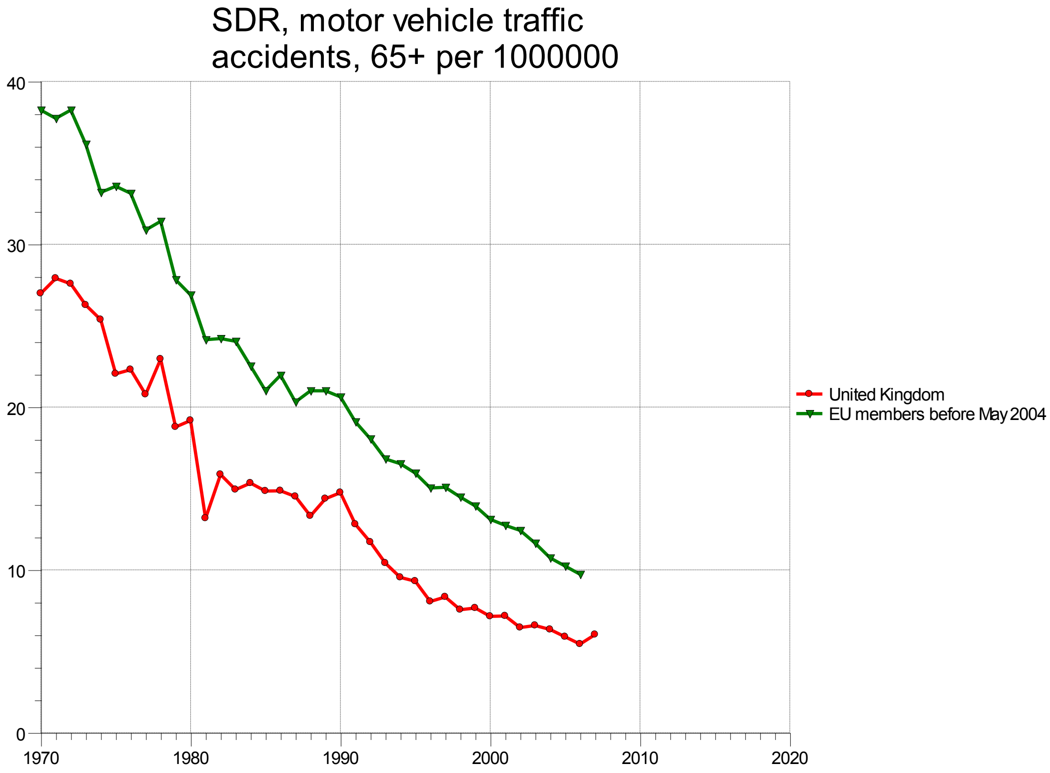
We found no directly equivalent data from the EU Health for All database. However, the following two graphs are relevant.

Figure 18 Death due to external cause and injury at age 65 + years, UK and EU15 members



Source: European Health for All (HfA) database, 2009

Figure 19 Death due to road traffic accidents, 65+, UK and EU15 members



Source: European Health for All (HfA) database, 2009

The two graphs above show that the UK has a slightly lower rate than EU15 countries of accidental death and death due to road traffic accident. In terms of our key concern, accidents in the over-85 age group this tells us little but perhaps indicates that the UK is unlikely to be worse than other EU countries in this respect.

5.3.6 Deaths from non-natural causes for people resident in health or social care establishments

The terms unnatural death, death by natural causes and non-natural death are not defined by statute. As such, they are not captured on death certificates. However, presumably the sense behind the idea of non-natural death is that it is avoidable, perhaps the result of accident or mishap. Older people constitute a high proportion of those resident in health or social care establishments. Non-natural causes of death are a concern as they represent deaths that are often thought to be avoidable, such as through falls, accidental poisoning and accidental exposure.

A statutory category of death that might work as a proxy for death from non-natural causes is 'External causes of morbidity and mortality'. In the ICD-10 categorisation this is sub-categorised in the following way:

V01-Y98 - External causes of morbidity and mortality
  1.1 (V01-X59) Accidents
  1.2 (X60-X84) Intentional self-harm
  1.3 (X85-Y09) Assault
  1.4 (Y10-Y34) Event of undetermined intent
  1.5 (Y35-Y36) Legal intervention and operations of war
  1.6 (Y40-Y84) Complications of medical and surgical care
    1.6.1 (Y40-Y59) Drugs, medicaments and biological substances causing adverse effects in therapeutic use
    1.6.2 (Y60-Y69) Misadventures to patients during surgical and medical care
    1.6.3 (Y70-Y82) Medical devices associated with adverse incidents in diagnostic and therapeutic use
    1.6.4 (Y83-Y84) Surgical and other medical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure

1.7 (Y85-Y89) Sequelae of external causes of morbidity and mortality
1.8 (Y90-Y98) Supplementary factors related to causes of morbidity and mortality classified elsewhere

Of these causes, accidents and intentional self-harm are covered elsewhere in this chapter. However, we were unable to get a specific breakdown of external causes by place of death. Instead, we obtained the following more generic table.

Table 12 External causes of mortality and morbidity by age and place of birth

ICD-10 code	Underlying cause (ICD chapter) and age	**Total deaths**		Hospitals and communal establishments for the care of the sick (excluding psychiatric hospitals and hospices)				Hospices		Psychiatric hospitals				Other communal establishments		At home		In other private houses and other places	
				NHS		Other than NHS				NHS		Other than NHS							
		Male	**Female**	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
U509, V01-Y89	**XX External causes of morbidity and mortality**																		
	All ages, 28 days and over	**11,023**	**7,025**	**4,655**	**4,376**	**130**	**242**	**8**	**8**	**17**	**11**	**6**	**20**	**118**	**243**	**2,991**	**1,395**	**3,098**	**730**
	28 days - 4 years	**78**	**60**	67	47	1	-	-	1	-	-	-	-	-	-	5	6	5	6
	5 - 14	**94**	**58**	60	38	-	-	-	1	-	-	-	-	-	-	10	10	24	9
	15-44	**4,733**	**1,252**	1,271	352	4	1	1	-	8	3	-	1	37	7	1,383	512	2,029	376
	45-64	**2,695**	**1,070**	803	399	14	4	2	1	4	2	2	-	14	1	1,047	459	809	204
	65-74	**879**	**527**	479	319	12	10	1	1	-	1	3	-	6	7	245	133	133	56
	75-84	**1,287**	**1,406**	952	1,103	39	43	2	2	3	3	-	3	20	37	203	160	68	55
	85 and over	**1,257**	**2,652**	1,023	2,118	60	184	2	2	2	2	1	16	41	191	98	115	30	24

Source: Office for National Statistics, 2009

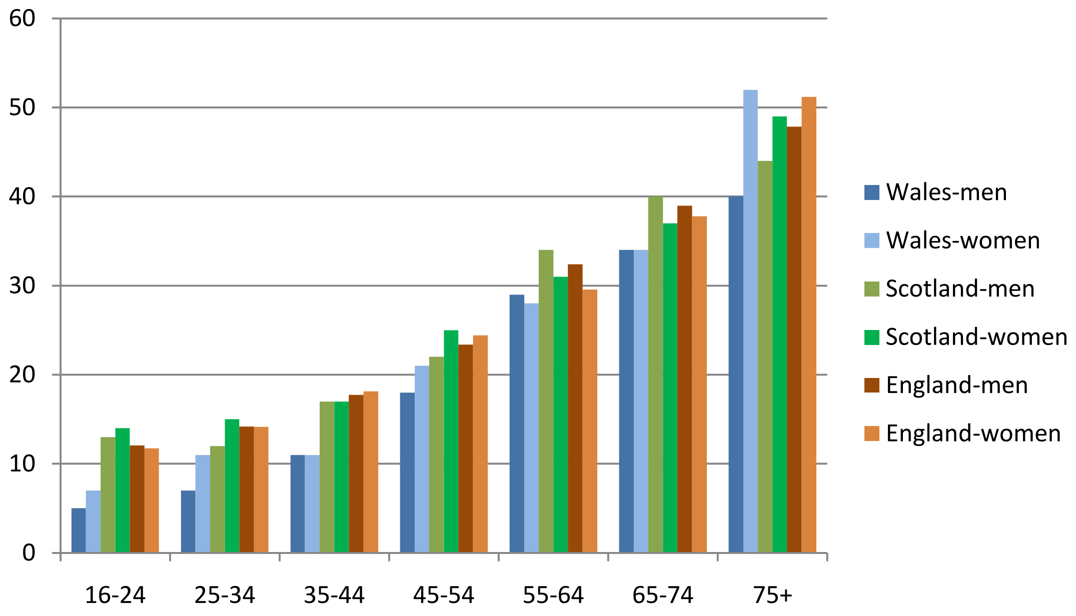
These are raw data only. Were further analysis required by more specific causes of death then the Office for National Statistics would have to be asked for that detail. However, there seems to be little here that appears to raise concerns about the treatment of elderly people in health or social care establishments other than a general concern about accident rates in older people already discussed above.

5.3 Health: Main indicators

Outcome

5.3.7 [2.1] Self-report poor current health

Figure 20 Percentage reporting not good health by age and sex, England, Wales and Scotland, 2008



Source: Health Survey for England 2008, Scottish Health Survey 2008, Welsh Health Survey 2008.

Notes: Question wording varied slightly between the surveys. Welsh figures group responses 'fair' and 'poor', while Scottish and English figures group responses 'fair', 'bad' and 'very bad'.

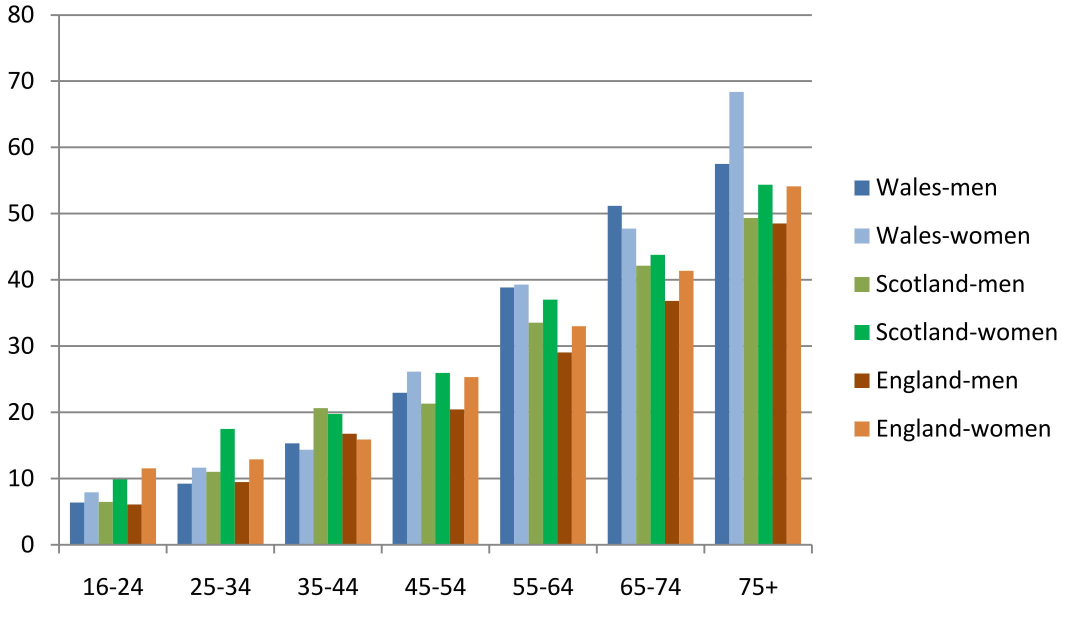
The graph above shows that in the health surveys conducted in England, Scotland and Wales, the proportion of the population reporting not good health increased with age for both men and women. The pattern is a fairly straightforward one in which 16-24 year-olds report the best health, those over 75, the worst. This pattern of deteriorating health with increasing old age is more pronounced in women than in men and particularly in women in Wales; however the wording of the questions differed in the three surveys and this is likely to compromise comparability.

Again, caution should be used in viewing these and other findings as due to an inevitable decline. A review by Kumar and Allcock is helpful here (Kumar and Allcock 2008). It concerns the issue of pain and in the report section the authors seek to establish: first, that pain is not an inevitable part of ageing; second, that attention should be focused on identifying the physical, psychological and social risk factors relating to persistent pain in old age; and third, that greater recognition should be given to the impact pain has on older people's lives. This attitude of not accepting poor health in older people is one that the Equality and Human Rights Commission might seek to encourage more widely.

5.3.8 [1.1] Longstanding health problem or disability (E W) and longstanding illness (S)

The 2008 health surveys in England, Wales and Scotland included questions on limiting long-term illness and disability (LLTI) and the results are presented in the graph below.

Figure 21 Percentage of people reporting a limiting long-term illness or disability by sex, England, Wales and Scotland, 2008

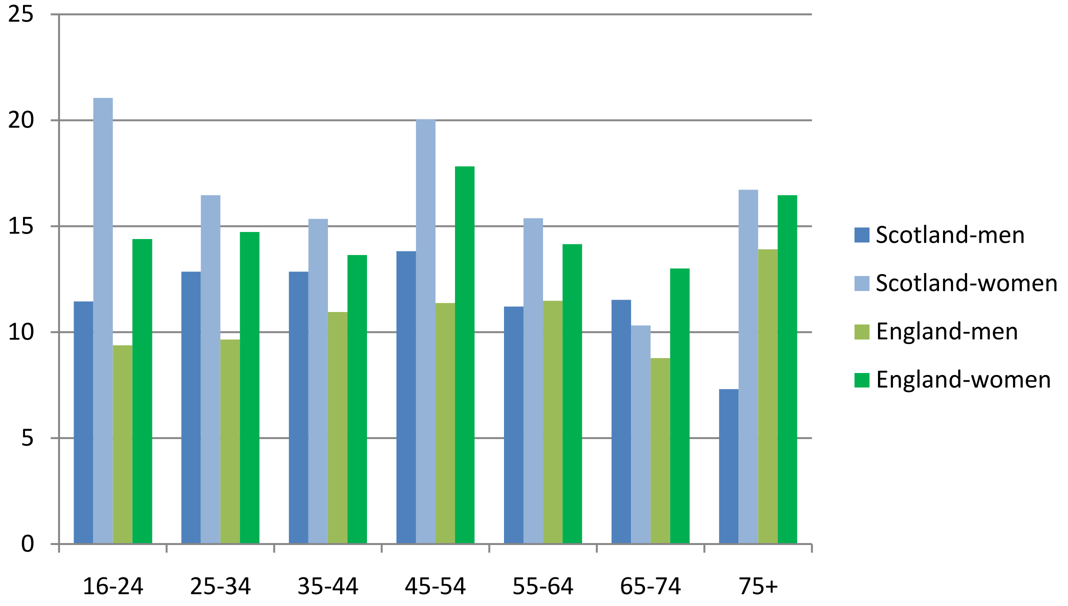


Source: Health Survey for England 2008 (authors' analyses), Scottish Health Survey 2008, Welsh Health Survey 2008.

The graph shows that the proportion of those with an LLTI ranges from 37-47% of the population in those aged 65-74 years. In all cases, levels increase with increasing age such that 68% of women over 75-years-old in Wales report an LLTI.

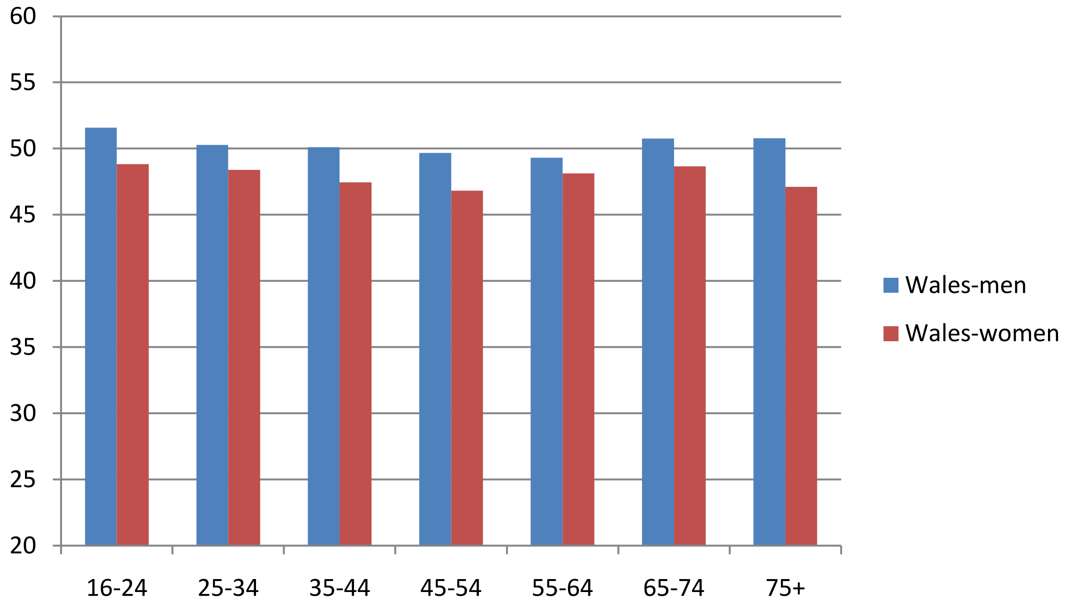
5.3.9 [1.2] Poor mental health or wellbeing

Figure 22 Percentage of people with GHQ score of 4 or more by sex and age-group, England and Scotland, 2008



Source: Health Survey for England 2008, Scottish Health Survey 2008 (authors' analysis).

Figure 23 Mean SF36 score (lower score indicates poorer mental health) by sex and age-group, Wales, 2008



Source: Welsh Health Survey 2008, authors' analysis.

Note: The proportion of the population reporting poor mental health, as measured by the General Health Questionnaire (GHQ12) scoring system in England and Scotland and the EMF-36 measurement system in Wales is presented in the two tables above. Both are validated as measures of poor mental health.

In general older age is not associated with increased levels of poor mental health as compared to the rest of the population. Indeed, the proportion of older females in Scotland reporting poor mental health is lower than for younger compatriots although we then see a sharp rise in the oldest age category. This is in contrast to the pattern for males which shows a substantial decrease

In the Health Survey for England 2005, however, the authors caution against these findings. They suggest that, in particular, the tools used for measurement of depression tend to miss depression in older people. They use, instead, a Geriatric Depression Score (GDS10). Using this, around 25% of those over 65 had significant depressive symptoms. The comparable figure in the population at large is around 10%.

The Survey authors suggest that depression and dementia symptoms can get mixed up in older people, making differential diagnosis difficult. Furthermore, dementia itself is not a single diagnosis but rather the behavioural product of other illness, such as Alzheimer's. However, one study gives the following figures from 1998.

Table 13 Prevalence of dementia by age and sex (%) (pooled results from five centres of the Medical Research Council Cognitive Function and Ageing Study)

Table 1 Prevalence of dementia by age and sex (%) (pooled results from five centres of the Medical Research Council Cognitive Function and Ageing Study)

Age-group	**Men (%)**	**Women (%)**
65-69	1.4	1.5
70-74	3.1	2.2
75-79	5.6	7.1
80-84	10.2	14.1
85+	19.6	27.5

Source: MRC CFAS (1998) Cognitive function and dementia in six areas of England and Wales: the distribution of MMSE and prevalence of GMS organicity level in the MRC CFA Study. Psychological Medicine, 28: 319-335

The incidence of dementia increases with age. It occurs in around 5% of the total population aged 65 and over, rising to 20% in those over 85.

Process

5.3.10 [3.1] Low perception of treatment with dignity

The 2007 Citizenship Survey included the question *'In general, would you say that you are treated with respect when using health services?*' Analysis by age is presented in the table below.

Table 14 Percentage of people who in general say that they are treated with respect when using health services by age, England and Wales 2007

Age group	All the time or most of the time	Some of the time or less	N
16-24	87.6	12.4	1948
25-34	87.7	12.3	2281
35-44	88.8	11.2	2706
45-54	91.8	8.2	2250
55-64	94.1	6.0	2067
65-74	95.3	4.7	1474
75-84	96.6	3.4	969
85+	97.2	2.8	287

Source: Citizenship survey 2007

The survey data in the table suggests that older people are more likely than younger to feel they are treated with respect. There are, however, some doubts as to the usefulness of this question. This survey only takes in the views of people with the capacity to answer and effectively therefore excludes the experience of the most vulnerable sector of this population. This may explain in part the inconsistency of these findings with other research and with official reports that highlight the poor treatment of elderly patients (for example (Alberti 2009).

The treatment of those without capacity might be more problematic. There is a strong link between capacity and ageing which is set to increase in line with increases in dementia rates. This gives rise to a number of concerns about the way that health care is provided for older people and the impact that this has on their health and wellbeing.

One particular area of concern is the use of restraint. In 2007 a report, *Rights, risks and restraints* from the Commission for Social Care Inspection gave many examples of restraint undermining the wellbeing and dignity of vulnerable older people. The Commission used qualitative methods primarily and says it cannot from this work give an idea of the prevalence of restraint. The implication of the report, however, is that it is widespread and troubling. Research findings on prevalence are currently inadequate and contradictory (Laurin et al. 2004).

A major concern in relation to process is access to services and treatment for older people. It seems that ageist discrimination is not viewed as equivalent to racism or sexism because it is thought to have a clinical justification. That justification is the result of the way in which cost-effectiveness is used as a criterion for treatment and resource allocation decisions. It is said that where there is a limited health care resource it should be put where it will do the most good. The problem for older people arises when measurement of what constitutes the most good is taken to include years of benefit. (The literature on this topic is vast; the following are useful introductions, however: (McKie et al. 2009, Tsuchiya, Dolan and Shaw 2003, Harris 2010)).

Take the example of the Quality Adjusted Life Years (QALYs) system used by the National Institute for Health and Clinical Excellence (NICE) in deciding whether a treatment should be funded by the NHS. A QALY is a measure of the additional life years someone will benefit for a treatment divided by a measure of that life's quality. Thus if a treatment adds ten years to someone's life but that life is of low quality (say, a quality score of 0.5) then the treatment is worth 5 QALYs. The cost of the treatment can then be divided by 5 to give a cost-effectiveness score of cost per QALY.

Under systems such as these older people are at a disadvantage because no matter how much a treatment benefits them it will not, on average, benefit them as much as a younger person.

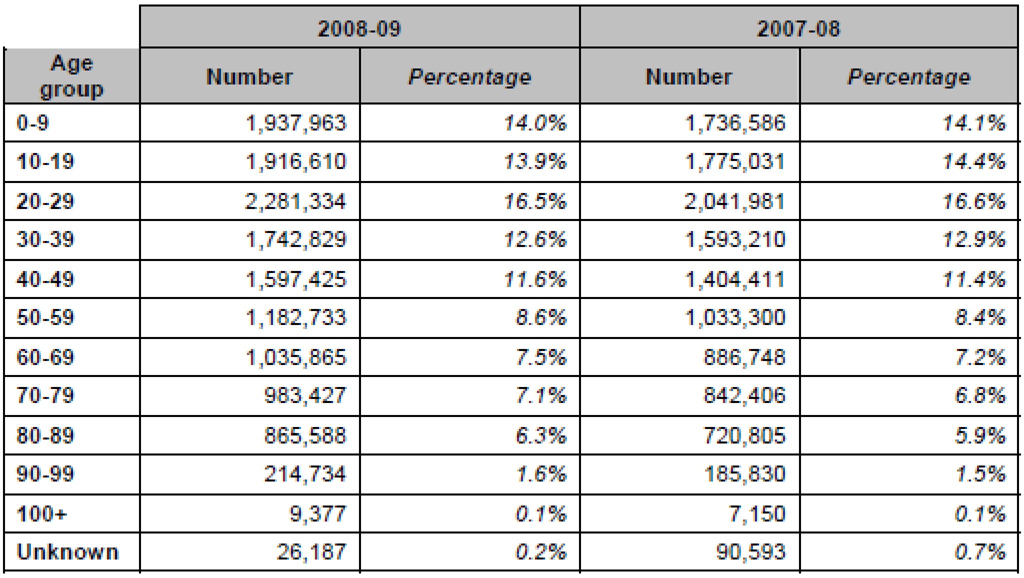
Thus QALY scores will tend to encourage the decision that where a treatment is effective, younger people should receive it as a priority. They will also tend to encourage decisions in favour of treatments for illnesses that affect younger or mixed groups of people rather than older ones; thus expensive treatments for dementia will fare less well than expensive treatments for heart disease. There are elements of cost-effectiveness reasoning that offset the ageist results of QALYs. Where a treatment relieves costs elsewhere, this can be factored in to the reasoning. For example, an effective but expensive treatment for dementia might nonetheless be cost effective because of the reduced care costs that result. Nonetheless, the current methods of cost-effective reasoning generally seem to work against older people. The Department of Health (Department of Health 2009) is aware of and monitoring this issue.

A further problem arises from the desire to give people treatment only that is evidence based. Older people are one group that has in the past been excluded from much clinical research for what now seem to be doubtful scientific reasons (Safiliou-Rothschild 2010). The situation is changing but the legacy is that there is a shortage of information. There is a higher than average possibility that a standard treatment for a disorder has not been tested with older people. This leaves clinicians in a quandary over whether to treat.

5.3.11 [5.1] A&E attendance/accidents

Data for A&E attendance are available for England only, in the database *A&E attendance in England (experimental).* From that database we have the following by age, and by age and gender.

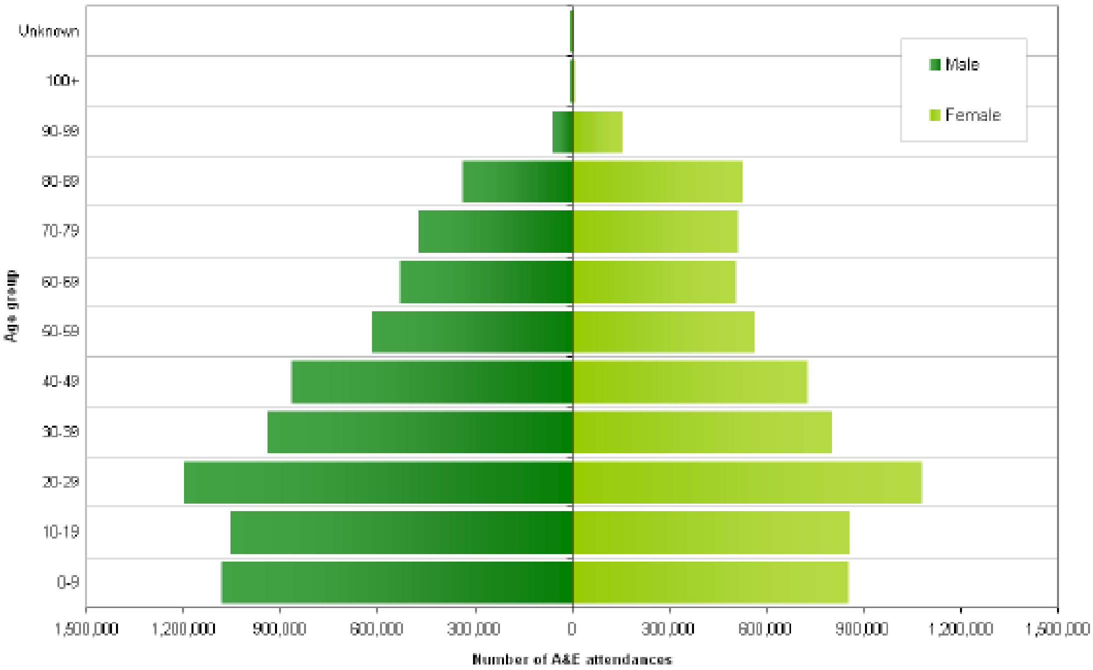
Table 15 A&E attendances by age group, 2008-09 and 2007-8.



	2008-09		**2007-08**	
Age group	**Number**	***Percentage***	**Number**	***Percentage***
0-9	1,937,963	*14.0%*	1,736,586	*14.1%*
10-19	1,916,610	*13.9%*	1,775,031	*14.4%*
20-29	2,281,334	*16.5%*	2,041,981	*16.6%*
30-39	1,742,829	*12.6%*	1,593,210	*12.9%*
40-49	1,597,425	*11.6%*	1,404,411	*11.4%*
50-59	1,182,733	*8.6%*	1,033,300	*8.4%*
60-69	1,035,865	*7.5%*	886,748	*7.2%*
70-79	983,427	*7.1%*	842,406	*6.8%*
80-89	865,588	*6.3%*	720,805	*5.9%*
90-99	214,734	*1.6%*	185,830	*1.5%*
100+	9,377	*0.1%*	7,150	*0.1%*
Unknown	26,187	*0.2%*	90,593	*0.7%*

Source: A&E attendance in England (experimental)

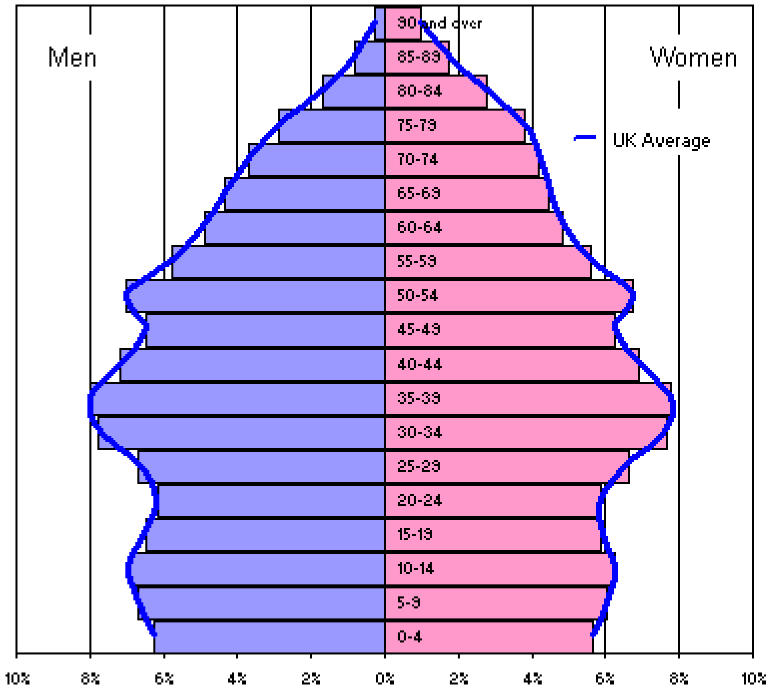
Figure 24 A&E attendances by gender and age, 2008-9



Source: A&E attendance in England (experimental)

The graph and table above give us bare figures only; the percentage or number of attendances. They show that A&E attendance peaks at age 20-29 and declines after that. In order to know whether older people are under or over-represented here we need to know the population make-up by age for England. This is represented in the population pyramid below.

Figure 25 Population pyramid, England, 2001



Source: Office for National Statistics, Census 2001

The pyramid above shows the bulge in the population to be around 30-40 years old (in 2001). It suggests that younger people are slightly over-represented in A&E; there is no obvious evidence of an inequality of concern here. However, the mortality through accidents should be recalled; this peaks as people age. It seems odd that this is not reflected in A&E attendance. This is a puzzle and we have not yet found the evidence to resolve it.

5.3.12 [3.2] Lack of support for individual nutritional needs during hospital stays

This is a specific area of concern in relation to older people (Schenker and Parker 2003). Data are not currently collected on a national basis. However, there is research that gives an indication of the problem. The Department of Health and the Food Standards Agency are undertaking a rolling survey commencing 2008: *National Diet and Nutrition Survey.* This will provide data in three main categories: children, adults and adults over 65. However, there are no data in the over-65 category yet (April 2010).[4]

The Social Care Institute for Excellence (SCIE) on-line guidance relating to dignity in care has a section on nutritional care. It says that 19-30 percent of all people admitted to hospitals, care homes or mental health homes were at risk of malnutrition. It claims the data come from the "largest nutritional screening survey, Nutrition Screening Survey in the UK 2007 saying this was carried out by BAPEN, the British Association for Parenteral and Enteral Nutrition. This is available online[5]. However, there are reasons to be cautious about the data.

In the first place, the definition of malnutrition used is not one that would accord with most people's understanding of the term. The more recent research on the topic uses a definition based in the MUST (Malnutrition Universal Screening Tool). This is a widely recognised tool for the assessment of patients on admission: the assessor takes the patient's BMI, recent weight loss, and acute disease. These factors are fed into the tool which gives an "overall risk of malnutrition" of low, medium or high. In some literature, this risk of malnutrition is taken to be malnutrition; e.g. (Stratton and Elia 2007). However, as a tool for actual malnutrition of patients, perhaps BMI itself would be better.

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[4] http://www.scie.org.uk/publications/guides/guide15/index.asp

[5] http://www.bapen.org.uk/pdfs/nsw/nsw07_report.pdf

A second problem is that the finding of risk of malnutrition on admission to hospital is sometimes taken to imply lack of attention to patient's nutritional needs whilst in hospital. For example, Age Concern (2006) moves from saying that there is a high prevalence of malnutrition *on admission* to hospital and care homes to saying that malnutrition in these settings

"results mostly from logistic failures in getting appetising food to patients at the right time. Specific causes for concern are:

- Food delivered at inflexible and inconvenient times
- Insufficient time given to eat
- Lack of staff to help feed patients
- Patient difficulties in reaching food, using cutlery or opening food packaging
- Unpleasant sights, sounds and smells
- Limited provision for religious or cultural dietary meals."

(Adapted from Hickson, 2006)

The Hickson (Hickson 2006) article referred to by Help the Aged is a review; the list is not based clearly in any study and hence its basis in evidence is doubtful. The article refers to three further articles in making the claim that older people become more malnourished in hospital. Of these: McWhirter (McWhirter and Pennington 1994) is dated and methodologically flawed although it does show weight loss in some patients who were underweight on admission; (INCALZI et al. 1998) is based on Italian research that cannot be simply transferred to UK; and (Potter et al. 1995) is based on 1995 Scottish research and suggests a slight calorie deficit in elderly patients during stay on acute wards. This article itself refers to some older research in what it calls long-stay and psycho-geriatric establishments where under-nutrition is noticed.

It seems, then, there is little or no up-to-date evidence suggesting that older people's nutritional needs are neglected in hospital. There is, however, evidence that their older people have poor nutritional status on admission to hospital.

The claim that nutritional needs are not met in hospital seems to be based in a small amount of survey evidence. A report by the Patient and Public Involvement Forums (*Hospital food could you stomach it*[6]) found that around a third of patients left their food uneaten and that there were various problems; in particular, that people were not getting help they needed to eat. Age Concern's report (*Hungry to be heard*) referred to this and backed up the evidence with reports to it from concerned individuals.

SCIE recommends that patient nutritional status is monitored on admission and throughout their stay in hospital. If this was done and the data could be set alongside the equality strands, we would have a good picture of the meeting of nutritional needs in hospital. As present, the data are unavailable and little can be said with any certainty except perhaps that older people who enter hospital malnourished tend to leave in a similar state; something which in itself represents an unmet and important need.

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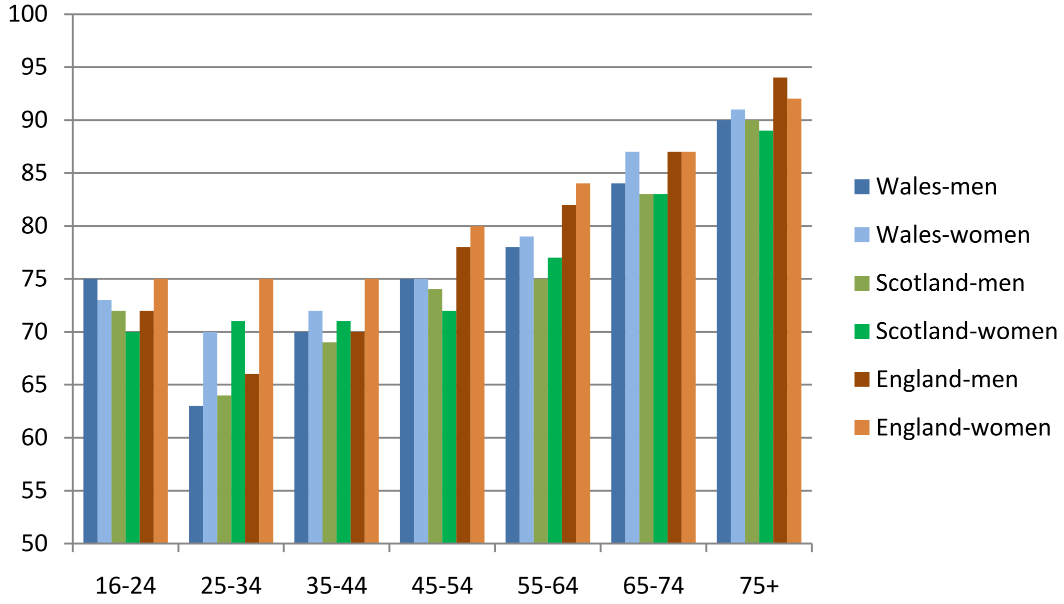
[6] http://webarchive.nationalarchives.gov.uk/20061023100409/http://cppih.org/about_new.html

Autonomy

5.3.13 [4.1] Health related behaviours and lifestyle factors

Smoking

Figure 26 Percentage of people who report not currently smoking cigarettes by sex and age-group, England, Wales and Scotland, 2008

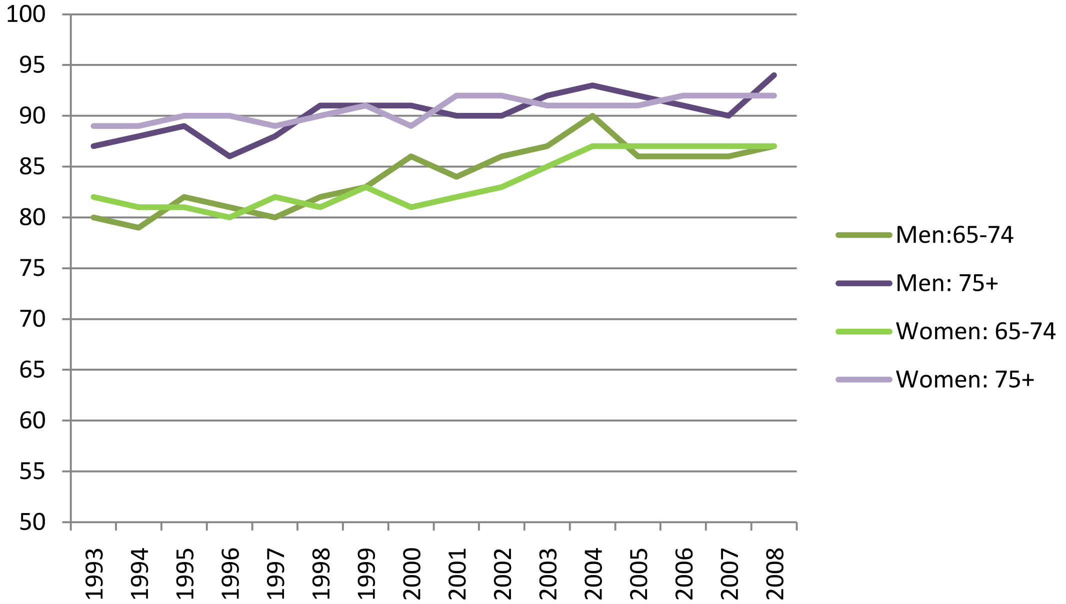


Source: Health Survey for England, 2008, Welsh Health Survey 2008 and Scottish Health Survey 2008.

Note: Figures include those who are ex-smokers and those who have never smoked.

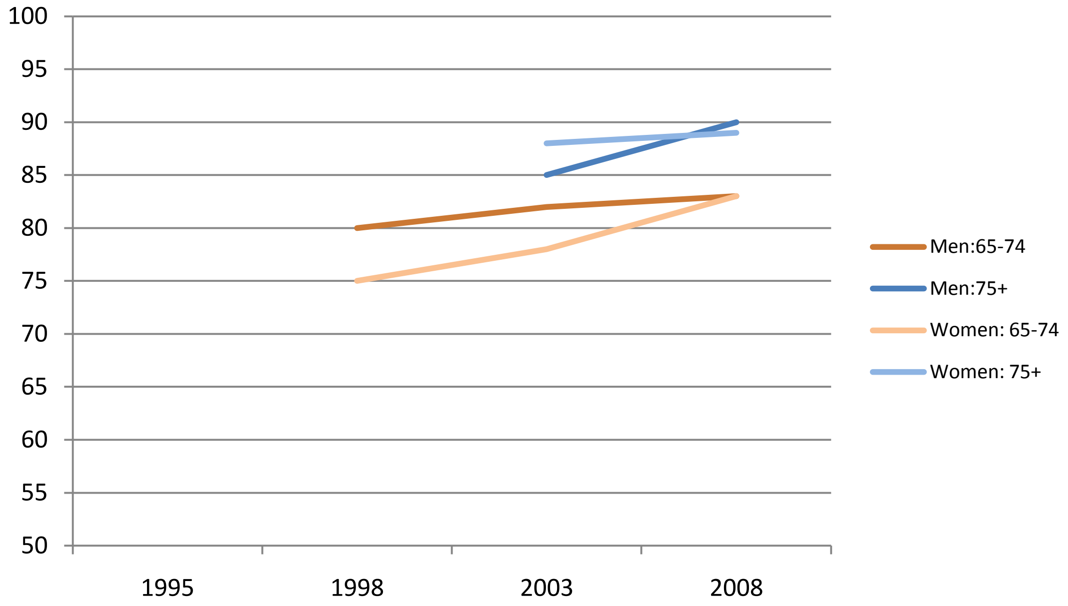
The graph above presents information on smoking rates across the age band. Those over 65 are less likely to smoke than those under 65 years and the highest proportion of non-smokers is found in the oldest age group. This is unsurprising given that smoking is a major risk factor for several of the most common causes of death and therefore not smoking contributes substantially to life expectancy.

Figure 27 Percentage of people reporting not currently smoking by age-group and sex, 1993-2008 England



Source: Health Survey for England latest trend tables http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles-related-surveys/health-survey-for-england/health-survey-for-england--2008-trend-tables

Figure 28 Percentage of people reporting not currently smoking by age-group and sex, 1995, 1998, 2003 and 2008 Scotland



Source: Scottish Health Surveys 1995, 1998, 2003 and 2008

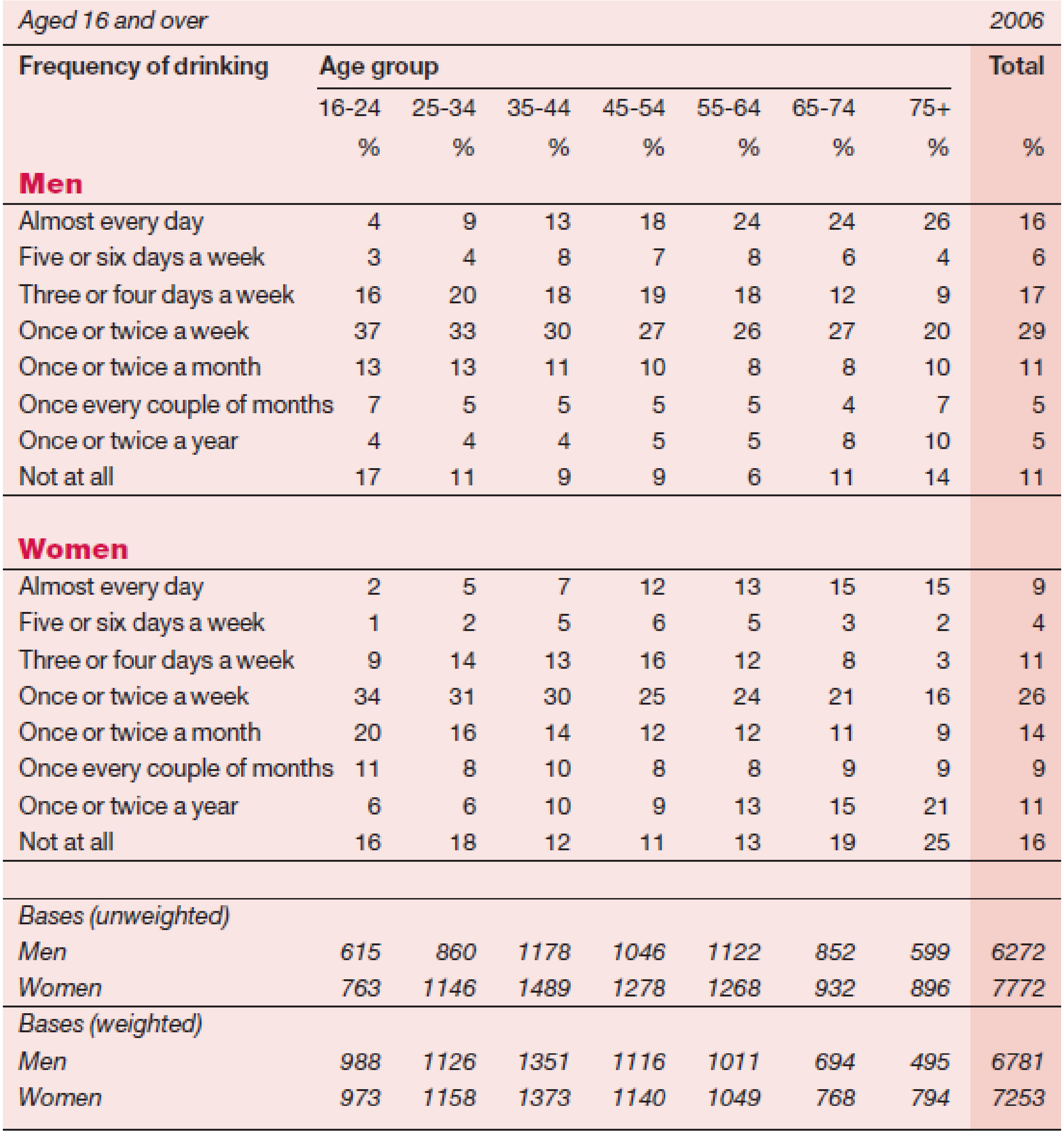
The two graphs above present trends over time for older adults and in older adults over time respectively. These indicate that there has been an increase in the proportion of older men and women who do not smoke in recent years.

Older people who smoke are very likely to be long terms smokers and they are therefore most at risk of the long term cumulative health impact. However there is evidence that stopping smoking can have a positive health benefit, even in those who are long terms smokers with serious smoking related health problems (Connolly 2000). Smoking cessation treatments play a vital role in helping people stop smoking. In terms of possible health inequalities, it may be more meaningful to focus attention on smoking cessation and the availability of services and treatments across the age range.

In terms of comparison with Europe we saw above that smoking rates in the UK are slightly lower than EU15 countries.

Alcohol

Table 16 Usual frequency of drinking alcohol in past year by age and sex



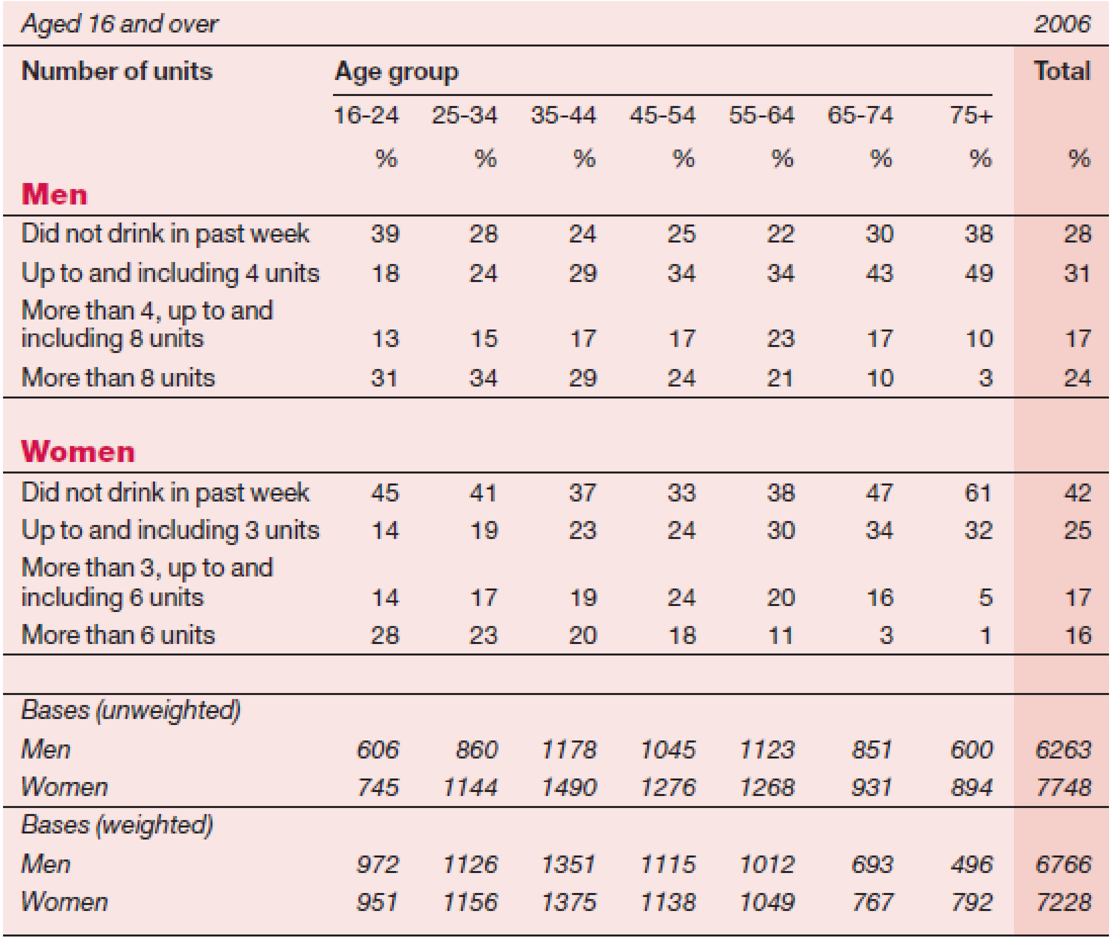
Aged 16 and over *2006*

Frequency of drinking	Age group							Total
	16-24	25-34	35-44	45-54	55-64	65-74	75+	
	%	%	%	%	%	%	%	%
Men								
Almost every day	4	9	13	18	24	24	26	16
Five or six days a week	3	4	8	7	8	6	4	6
Three or four days a week	16	20	18	19	18	12	9	17
Once or twice a week	37	33	30	27	26	27	20	29
Once or twice a month	13	13	11	10	8	8	10	11
Once every couple of months	7	5	5	5	5	4	7	5
Once or twice a year	4	4	4	5	5	8	10	5
Not at all	17	11	9	9	6	11	14	11
Women								
Almost every day	2	5	7	12	13	15	15	9
Five or six days a week	1	2	5	6	5	3	2	4
Three or four days a week	9	14	13	16	12	8	3	11
Once or twice a week	34	31	30	25	24	21	16	26
Once or twice a month	20	16	14	12	12	11	9	14
Once every couple of months	11	8	10	8	8	9	9	9
Once or twice a year	6	6	10	9	13	15	21	11
Not at all	16	18	12	11	13	19	25	16
Bases (unweighted)								
Men	*615*	*860*	*1178*	*1046*	*1122*	*852*	*599*	*6272*
Women	*763*	*1146*	*1489*	*1278*	*1268*	*932*	*896*	*7772*
Bases (weighted)								
Men	*988*	*1126*	*1351*	*1116*	*1011*	*694*	*495*	*6781*
Women	*973*	*1158*	*1373*	*1140*	*1049*	*768*	*794*	*7253*

Source: Health Survey for England, 2006

The table above shows that people aged over 65 are more frequent drinkers than other age groups, with around a quarter drinking every day.

Table 17 Summary of maximum alcohol consumption on any day in the past week, by age and sex



Aged 16 and over | *2006*

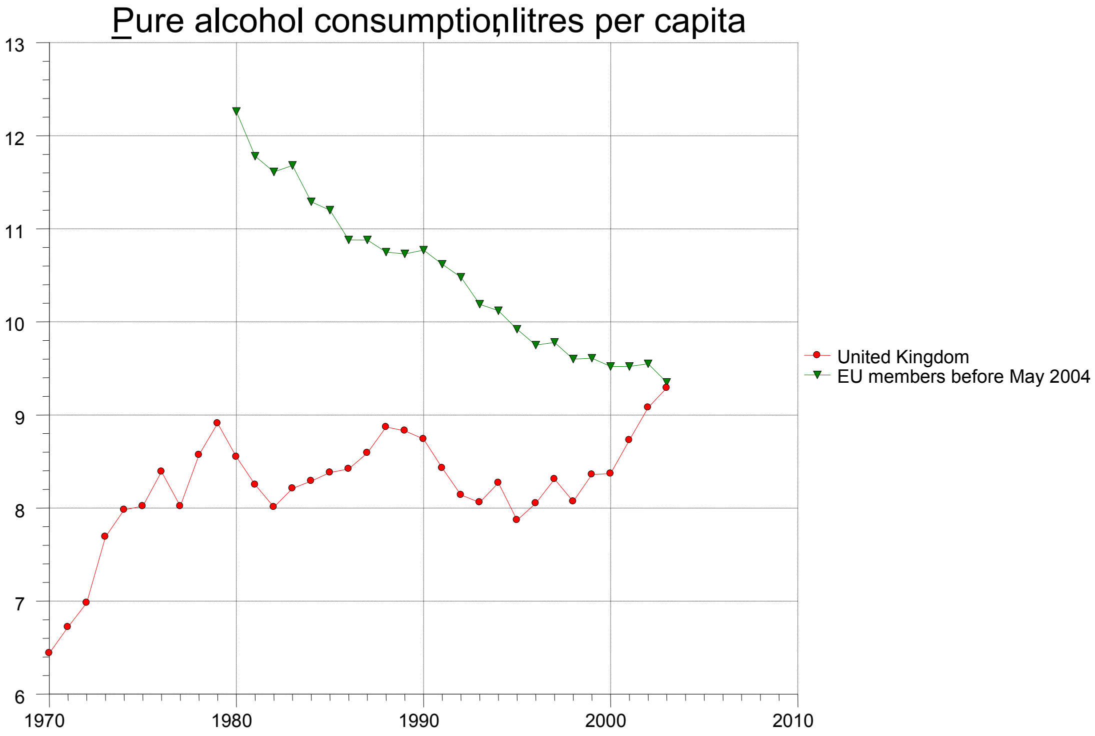
Number of units	Age group							Total
	16-24	25-34	35-44	45-54	55-64	65-74	75+	
	%	%	%	%	%	%	%	%
Men								
Did not drink in past week	39	28	24	25	22	30	38	28
Up to and including 4 units	18	24	29	34	34	43	49	31
More than 4, up to and including 8 units	13	15	17	17	23	17	10	17
More than 8 units	31	34	29	24	21	10	3	24
Women								
Did not drink in past week	45	41	37	33	38	47	61	42
Up to and including 3 units	14	19	23	24	30	34	32	25
More than 3, up to and including 6 units	14	17	19	24	20	16	5	17
More than 6 units	28	23	20	18	11	3	1	16
Bases (unweighted)								
Men	*606*	*860*	*1178*	*1045*	*1123*	*851*	*600*	*6263*
Women	*745*	*1144*	*1490*	*1276*	*1268*	*931*	*894*	*7748*
Bases (weighted)								
Men	*972*	*1126*	*1351*	*1115*	*1012*	*693*	*496*	*6766*
Women	*951*	*1156*	*1375*	*1138*	*1049*	*767*	*792*	*7228*

Health Survey for England, 2006

However, the table above suggests that although older people might drink more frequently, they drink less heavily.

Figures on alcohol intake by age in Europe are not available. The overall comparison, however, is interesting, as the following graph illustrates.

Figure 29 Alcohol consumption UK and EU15 members

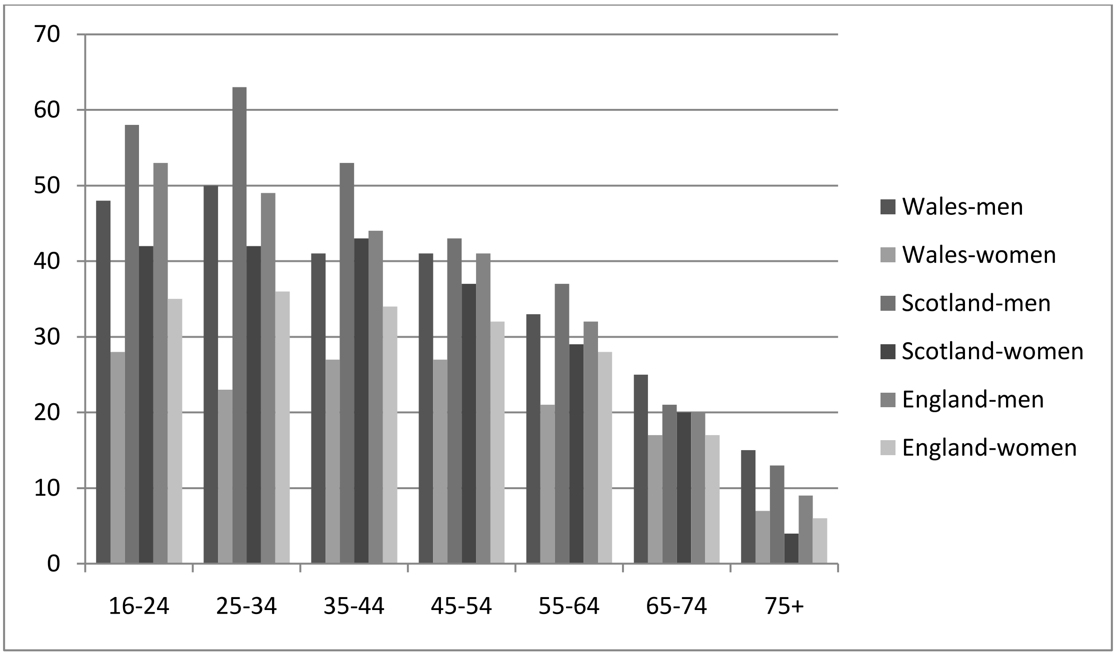


Source: European Health for All (HfA) database, 2009

The graph shows alcohol intake to be increasing in the UK and decreasing in EU15 countries. By 2003, the figures for the two areas were equivalent. If the pattern has continued, UK intake will now be above that of EU15 countries.

Exercise

Figure 30 Proportion of people meeting government recommendations for weekly physical activity by sex, England, Scotland and Wales, 2008



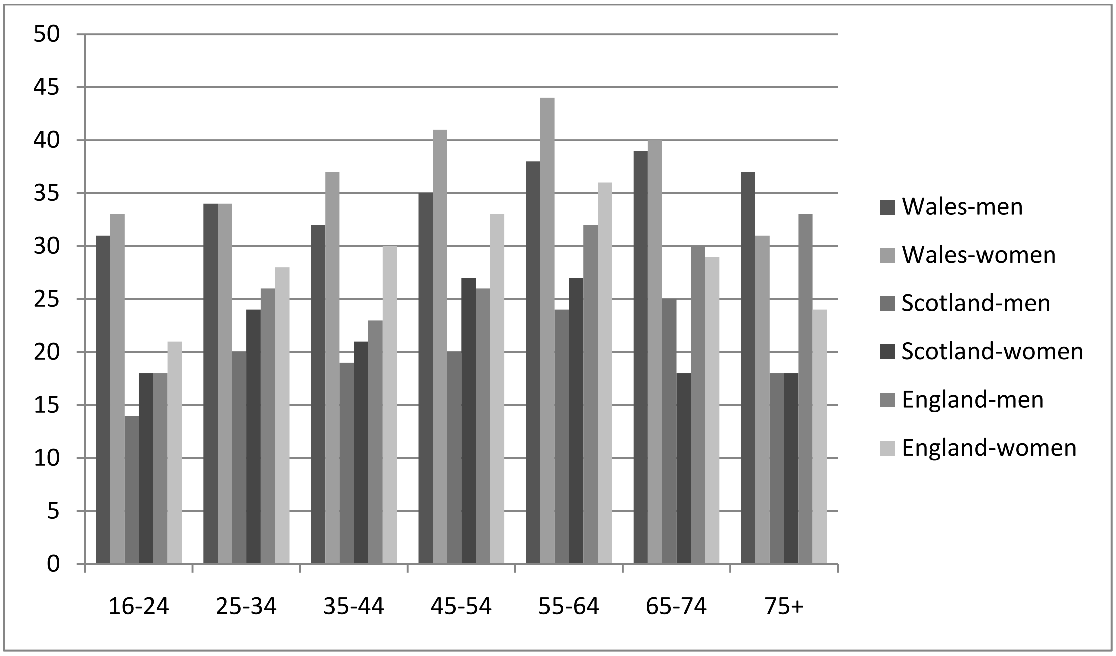
Source: Health Survey for England, Scottish Health Survey and Welsh Health Survey, 2008

Note: The measures are not directly comparable across the surveys since they were computed slightly differently. In the Scottish Health Survey, episodes of activity of about 10 minutes or more have been accumulated to meet the 30 minutes, 5 times a week threshold, whereas in the HSE episodes of activity less than 30 minutes are excluded. In the Welsh Health Survey, the measure represents five or more days in which 'at least moderate exercise/activity' was undertaken.

The graph above shows the proportion of individuals across the age bands who are exercising to the level recommended for health and wellbeing. The data between the surveys are not directly comparable because the information has been computed differently in the surveys. However all sources indicate that exercise levels are lower in those over 65 years as compared to those under 65 and that levels of exercise in the older adult decrease with increasing age. This is an inequality of concern. Lack of physical activity is both cause and effect of ill-health. To some extent, the inequality might therefore be seen as natural. However, the other cause is almost certainly lack of appropriate facilities and opportunity for physical activity. If so, a reduction in this inequality would be a welcome marker of improved welfare for older people.

Consumption of fruit and vegetables

Figure 31 Proportion of people meeting government recommendations for daily fruit and vegetable consumption by sex, England, Scotland and Wales, 2008



Source: Health Survey for England 2008, Scottish Health Survey 2008, Welsh Health Survey 2008

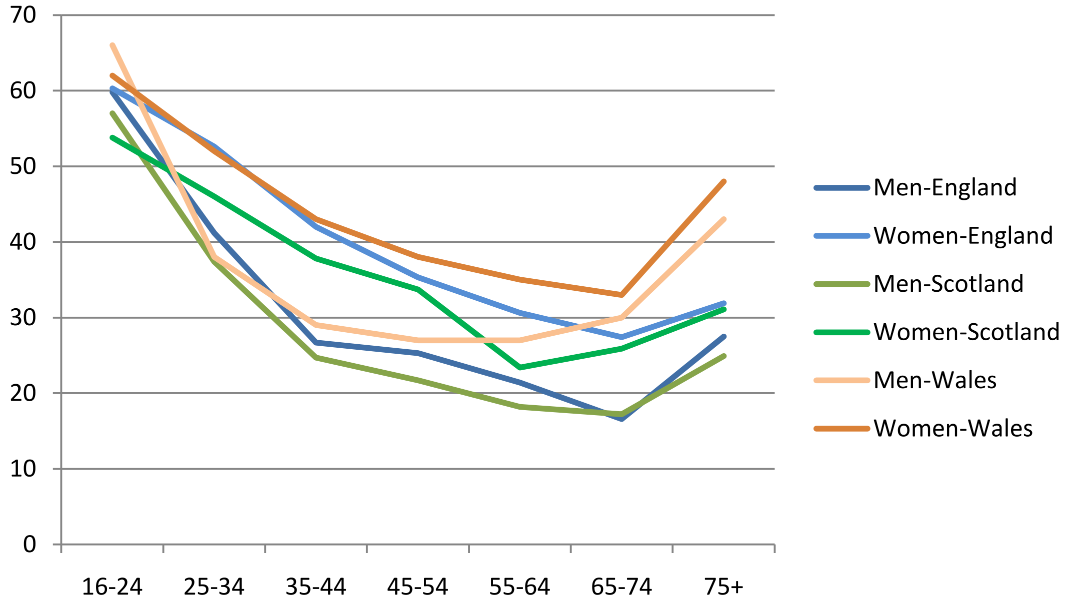
Notes: Measure was based on the reported number of portions of fruit and vegetables consumed in the day prior to interview.

The graph above shows that the proportion of older people eating the recommended amounts of fruit and vegetables are largely comparable with those reported in the younger age groups. Although there is a slight decrease in consumption in those over 65, levels are broadly maintained across the older age groups although there is some difference in direction between men and women. In England, consumption levels for women fall from 29% for those aged 65 - 74 to 24% for those 75+, whilst the pattern in men indicates a 3% increase in rates for the older age group, from 30% to 33%. In several groups, most notably men in both Scotland and Wales, rates of consumption do not fall to the level of those seen in the youngest age group, the 16-24 year olds.

Obesity

The proportion of the population who are of normal weight decreases steadily with increasing age up to age 65 years. In those 65 and over there is a subsequent increase in the proportion who are of normal weight which increases with age, a possible reflection of the extent to which weight impacts on life expectancy.

Figure 32 Proportion of people with normal weight by age-group and sex, England, Scotland and Wales, 2008



Source: Health Survey for England 2008, Scottish Health Survey 2008, Welsh Health Survey 2008

Notes: Normal weight includes those who are not overweight, obese or underweight.

5.4 Cross-over themes

Class

The raw data appear to suggest that the relationship between class and health declines as people age. However, McMunn et al show that this is only partially true (McMunn, Nazroo and Breeze 2009). Some of the change is due to selective mortality; in other words, those who were unwell and poor tend to die younger. In other cases, the difference persists into old age, for example, with some cancers such as lung cancer.

Disability

The issues for ageing disabled people are discussed in the disability chapter.

Ethnicity

See discussion in ethnicity chapter

Gender

The most significant fact here is that women tend to live longer than men. However, older women are more likely to report ill-health than men.

LBG (sexuality)

The issue of ageing and LBG status is discussed in the chapter on LBG issues.

Trans

The issue of ageing and trans status is discussed in the chapter on trans issues.

5.5 Discussion

We saw in chapter three that inequalities are often explained as natural or inevitable. This is true particularly in relation to ageing. It is thought inevitable that as we age our health will deteriorate and disability will set in. There are at least three problems with this view.

The first problem is that the extent that ageing is necessarily linked to morbidity is disputed (Hyde, Higgs and Newman 2009). One hypothesis is of compression morbidity; this is the idea that populations age because they are healthier; as such, people live longer but with a shorter spell of morbidity at the end of life. A second is the failure-of-success model; which states that technical progress lengthens life but not quality of life. The third model is of dynamic equilibrium. This states that as people age they suffer more chronic health problems but adapt to them such that these are not disabling. There are insufficient data to choose between these at present, but it is clear that the link between morbidity and ageing cannot be taken as given.

The second problem is that some inequalities seem unlikely to be primarily due to natural causes. For example, it seems likely that depression in the elderly is more the result of unhappy circumstances such as loneliness than of a natural process.

The third is that natural difference can be compounded by human action. For example, as people age their chance of dying of stroke increases; but this can be compounded by a decision not to allocate resources to the treatment of stroke in older people. Similarly, allocation decisions that discriminate against older people on the basis that older people suffer worse outcomes will in turn worsen the outcomes further.

For these reasons, and in line with the view taken in chapter three, we suggest it is better to err on the side of social rather than natural explanations of inequality. Thus a high rate of morbidity in the elderly should be viewed as a spur to action rather than a twist of fate.

In terms of the evidence presented above, the most worrying inequalities seem to be:

- High rate of accident mortality (alongside normal rate of A&E attendance)
- High rates of mortality and morbidity
- High rates of LLTI
- A climbing rate of suicide in men in the oldest age groups
- A lower than average rate of healthy life in the UK compared with EU15 countries
- Discriminatory processes in allocation of resources
- Low rates of exercise and activity alongside high rates of obesity

The measures used in the *Equality Measurement Framework* are informative in this regard. They need careful interpretation in order to pick out inevitable from avoidable inequality. Additional outcome measures for older people might include specific focus on arthritis, falls, sensory impairment and incontinence. Healthy life expectancy would also be a useful addition. Comparison with EU15 countries is helpful in trying to assess whether inequality that is thought to be inevitable or natural is, in part, also the result of social decisions.

Some life and health indicators for those without capacity, for example, those with dementia are problematic. Such people are generally unable to state whether or not they are treated with dignity. More work is needed here to develop other indicators that do not require self-assessment.

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Chapter 6: Disability

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Tables

6.1 Key messages

What are the inequalities? How persistent and how worrying are they?

We would highlight first the following:

- Learning disability is positively associated with early mortality
- Learning disability is positively associated with mortality due to cardiovascular causes but not with mortality due to cancer
- The suicide rate of those with mental health disorders is high - it has been estimated that around 20% of such suicides are preventable
- There is non-quantitative data suggesting that death from non-natural causes might be an inequality and human rights issue by disability
- Disability is associated with mental health problems although interpretation of this finding is difficult
- There are no data on the meeting of nutritional needs of disabled people in hospitals and other institutions; there is one report from Mencap where this issue is raised in the context of the death of a patient
- There are few clear patterns of difference in relation to lifestyle factors except that those with disability exercise less and are more likely to be overweight or obese
- There are few meaningful data collected nationally; problems arise because of the lack of agreed definitions

LIFE

Death certificates do not include information about disability. As such, data are largely absent. There is indication from other research of inequality in some areas. The SMR of 277 for all-cause mortality of those with learning disability is striking and some specific-cause SMRs are very high. What these figures do not show is the extent of undue, unexpected or unfair mortality.

Some other data particularly that which relates to process indicators, suggest inequity. The phenomenon of diagnostic overshadowing has been noted, as have communication issues. In the wake of advocacy, changes have already been made to improve provision for people with disability and learning disability. If these were to result in a reduction in the SMR that might indicate that some of the original inequality was iniquity. Until the data are collected it is not possible to draw any such conclusions. However, process indicators and some academic research suggest that it is worth collecting the mortality data by different types of disability and causes of death. This would enable charting of SMR change over time and with that, improvements or worsening in equity.

Suicide rate data by disability suggest that mental disorder and some physical disorders (such as MS) are associated with increased risk. Again the extent to which this is avoidable is hard to judge but without all the necessary information it seems best to proceed as though the rates could be reduced and then try to do so. This adds further force to the suggestion that mortality data by disability would be worth collecting.

Much of the literature relating to disability and suicide concerns the ethics of assisted suicide. This literature sits uneasily alongside that which proposes measures to reduce suicide rates. Any move to legalise assisted death would need to be judged in part on its implications for equality and rights for the disabled.

Data relating to accidental death associated with disability seem to be absent. The addition of disability to death certificates would close this gap. The information is of interest; if disabled people suffered high rates of accident-related death this might suggest that the environment should be adjusted to reduce this.

Deaths from non-natural causes in institutions have become an issue of concern following the investigation into six deaths of individuals with learning disability, described above. This is clearly an area worth monitoring although again, at present, the lack of disability information on deaths certificates makes this difficult or impossible.

HEALTH

Around 30% of the population in England, Wales and Scotland have an LLTI (Limiting long-term illness or disability). Having a LLTI is strongly associated with self-report of poor current health. It is also very strongly associated with poor mental health; this finding is hard to interpret, however, as poor mental health can itself be a trigger for LLTI.

Data from England & Wales show no association with LLTI and feeling you are treated with respect by hospital services. There are no data from Scotland. One limitation of this data is that it does not cover those without capacity to say whether they felt treated with respect; as such some, such as those with severe learning difficulty, are excluded.

Support for nutritional needs in hospital is clearly important for those with disability. The majority of the literature on this topic, however, concerns the elderly. This is because the initial concern was that elderly people's needs are neglected. As such, there seem to be no data on the topic aggregated by disability. This is worth rectifying. One of the deaths reported by MenCap in *Death by Indifference* is of Martin Ryan, who was said to have starved to death at Kingston hospital.

People with LLTI in England are neither more nor less likely to smoke than the rest of the population. In Wales, they are slightly less likely to smoke. In Scotland, men with a disability are slightly more likely to smoke.

People with LLTI in England and Scotland are less likely to drink alcohol above the Government recommended limit. In Wales, they are more likely to do so.

People with LLTI in England, Wales and Scotland are less likely to meet Government guidelines for exercise.

In England, Wales and Scotland there is no noticeable association between LLTI and eating fruit and vegetables.

There is however a clear link between LLTI and obesity. In England, having an LLTI is positively associated with not having a healthy weight; 72% with an LLTI do not have a healthy weight, against 61% without an LLTI. In the main, the problem is one of overweight rather than underweight. In Wales, having an LLTI is positively associated with being overweight or obese (65.9% versus 55.4%); this difference is true of both sexes although it is particularly marked in women (63.3% versus 49.8%). In Scotland, an LLTI is positively associated with a non-normal weight (75.9% versus 67.8%). The major problem is being overweight or obese rather than underweight. The inequality is greater for women rather than men although this seems to be because Scottish men *without* an LLTI have a higher proportion of non-normal weight than Scottish women without LLTI.

Data quality and quantity

There are no systematic national data sets on Life and Health outcomes, such as premature death from cancer or heart disease, disaggregated by disability and subsets of disability. Some figures can be disaggregated from, for example, the Welsh Health Survey.

Disability is a broad and disparate category - this makes interpretation of data difficult.

Death certificates include no disability information - there is no national-level picture of inequalities by disability in life indicators.

6.2 Disability: Background

The Disability Discrimination Act (1995, amended 2005) often provides the basis in the UK for definitions of disability. This defines a disabled person as one who has a physical or mental impairment that has a substantial and long-term adverse effect on his or her ability to carry out normal day-to-day activities. Long-term is taken as at least 12 months. The Act also lists capacities which can be affected by disability: these include mobility, manual dexterity, speech, hearing, seeing and memory. Conditions such as pyromania and hay-fever are excluded; some progressive conditions (e.g. HIV) and fluctuating conditions (e.g. some forms of Multiple Sclerosis) are included as disabilities for the purpose of the act even where the disabling effect on capacity is not yet, or not always, present.

Using the notion of limits on capacity it is possible to distinguish different types of disability, for example, the Disability Rights Commission's (DRCs) disability equality duty[1] suggested:

- Physical disability: for example, a person who has difficulty using their arms or someone who uses a wheelchair.
- Sensory impairment: for example, someone who is partially blind or deaf.
- Mental health condition: such as schizophrenia or depression.
- Learning disability: such as Down’s syndrome or Autism.
- Longstanding illness or health condition: such as cancer, diabetes or Multiple sclerosis (MS).

In an earlier document there was an additional category (Molloy, Knight and Woodfield 2003):

- Other forms of disability (for example, disfigurement).

The Department for Work and Pensions (DWP) has also used claiming of disability-related benefits as a marker.[2]

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[1] http://www.dotheduty.org/

[2] http://www.statistics.gov.uk/STATBASE/ssdataset.asp?vlnk=7403

The Office for National Statistics (ONS) is developing a framework within which disability is more consistently defined. This seems likely to use the definition set out in the Census 2011 which will be a self-definition; people will be asked whether they have, or look after, someone who has, a long-standing illness, disability or infirmity. This approach is used also in the General Household Survey, the Health Survey for England and the Family Resources Survey (Walby, Armstrong and Humphreys 2008). For the long-term purposes of the triennial review, however, the Census 2011 category is likely to be the most useful. However, without the detail that the DWP report above suggests, interpreting the statistics in relation to judging the presence of inequity is difficult.

The lack of an agreed definition gives rise to structural problems that can be illustrated with respect to people with learning disabilities. Again, there is no agreed definition of learning disability, even across Government departments. Since LD is a lifelong condition, this means that classifications change as the person ages (as responsibilities for education support and care shift between different government departments); ‘official statistics’ for people with LD cannot therefore be reproduced with respect to the lifespan and important and well documented transitions (which can be critical) in people’s lives; and hence integrated planning by government for this group is dogged by fractured databases. This is in itself an unnecessary and avoidable iniquity. The solution, however, will take wholesale redesign of information systems and official databases right across the public sector at national and local level.[3]

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[3] This point was made by Professor Gordon Grant in personal correspondence.

6.3 Disability: Evidence

The Disability Rights Commission [(Disability Rights Commission.) reports that there are no systematic national data sets on Life and Health outcomes, such as premature death from cancer or heart disease, disaggregated by disability and subsets of disability. Some figures can be disaggregated from, for example, the Welsh Health Survey.

There are other useful data sources, and we report these where available for each indicator below. An important source is a national survey conducted by the Department of Health and a more recent overview which reports this survey primarily but with some additional information (Emerson and Hatton 2008).

The Office for Disability Issues has a set of equality indicators and updates these annually [4]. These do not include Life or Health indicators; but the indicators relating to independent living are of some relevance for matters related to process.

The Disability Rights Commission (DRC) undertook a review of evidence on the nature, extent and causes of inequalities in physical health outcomes and access to, and quality of, primary healthcare services experienced by people with learning disabilities and people with mental health problems; the results are published in a report, *Equal Treatment, Closing the Gap* (Kerr et al. 2005). The report refers to a number of other pieces of evidence, some of which were specially commissioned by the DRC. It is a valuable source of evidence for the two specific disability sub-groups, those with learning disability and those with mental health problems.

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[4] http://www.officefordisability.gov.uk/research/indicators.php#il)

6.3 Life: main indicators

6.3.1 Period life expectancy at birth, ages 20, 65 and 80

These data are not collected in the General Register Office for Scotland or the General Register Office Census Longitudinal Study (for England & Wales).

Age and sex standardised standard mortality rates have been performed using figures from three English counties relating to adults with moderate to profound learning disability (Tyrer and McGrother 2009).

Table 1 Age and sex standardised standard mortality rates in three English Counties

	Male	**Female**	**All**
	SMR%	SMR%	SMR%
Death: All causes	228	324	277
Base: Death rates of people registered with learning disability in three English counties.			

Souce: Tyrer (2009)

This shows the mortality rate to be over two times the average for men and over three times for women. The combined figure is 277. This is an inequality; whether it is an injustice depends on whether the cause is avoidable. This issue is examined further in the discussion section.

6.3.2 Cardiovascular disease mortality

These data are not collected in the General Register Office for Scotland or the Registrar General Mortality Statistics (for England & Wales).

Additional data: age and sex standardised standard mortality rates have been performed using figures from three English counties.

Table 2 Age and standardised mortality rates due to cardiovascular disease in three English Counties

CAUSES	**Male**	**Female**	**All**
	SMR%	SMR%	SMR%
Cerebrovascular disease	241	245	240
Ischaemic heart disease	124	174	149
Other circulatory	146	218	178
Base: Death rates of people registered with learning disability in three English counties.			

Souce: Tyrer (2009)

As in the previous table, this shows a higher mortality rate for those with learning disability; cerebrovascular disease has an SMR of 240; ischaemic heart disease, 149; and other circulatory disease, 178.

6.3.3 Cancer mortality

These data are not collected in the General Register Office for Scotland or the Registrar General Mortality Statistics (for England & Wales). Nor are the available in the list of sources set out in the Equality and Human Rights Commission's own review of equality statistics (Walby, Armstrong and Humphreys 2008) p.18).

Additional data: age and sex standardised standard mortality rates have been performed for men and women with learning disability using figures from three English counties.

Table 3 Age and standardised mortality rates due to cancer in three English Counties

CAUSES	**Male**	**Female**	**All**
CANCER	SMR%	SMR%	SMR%
Breast	0	138	111
Lung, bronchus, trachea	77	0	62
Digestive organs, peritoneum	92	43	80
Other	103	115	112

Base: Death rates of people registered with learning disability in three English counties.

Souce: Tyrer 2009

The table shows that cancer is not particularly raised for those with learning disability and is, in some cases, lower.

Overall, the three tables adapted from Tyrer and McGrother (2009) are based on small samples from a region of England. The figures are in line with those in a Swedish study cited by the authors. Together, the figures suggest that cancer mortality is not raised in the population with learning disability; it is slightly raised for ischaemic heart disease and more than doubled for cerebrovascular disease. The Tyrer study found the largest differences in underlying causes were deaths caused from congenital malformations (SMR = 8560), diseases of the nervous system and sense organs (SMR = 1630) and disease of the genitourinary system (SMR = 603).

6.3.4 Suicide rates/risk

These data are not collected in the General Register Office for Scotland or the Registrar General Mortality Statistics (for England & Wales).

Any interpretation of suicide rates and risk by disability requires consideration of the different types of disability. Insofar as mental health conditions such as depression are categorised as a disability we might expect high rates of suicide. Harris et al's evidence review is crucial here although it is dated (Harris and Barraclough 1997). The authors show that 36 out of 44 mental health disorders were associated with higher standardised mortality rates for suicide. The highest rates were found in those with functional mental disorders such as depression rather than substance misuse or organic disorders such as dementia.

How far these suicides were avoidable would be hard to assess although the effectiveness of steps taken to reduce the rates would be pertinent. The *Five Year Report of the National Confidential Inquiry into Suicide and Homicide by People with Mental Illness* (2001) examined over 6000 suicides of current or recent mental health problems between 2000 and 2004 in the UK. Of these, clinicians estimated that around 20% could have been prevented. The report goes on to make a number of recommendations to reduce this figure. It seems likely, nonetheless, that mental health conditions would remain a risk factor for suicide even in an equitable society.

In relation to other disabilities, such as wheelchair use or Down's syndrome, a finding of high rates of suicide would suggest *prima facie* that needs for flourishing were going unmet. There are few data here. An American literature review looked at the suicide rates of people with MS, spinal cord injury or intellectual disability (Giannini et al. 2009). In the first two groups, the suicide rate is notably higher; in the third group it is slightly lower. None of the data for the review is from UK sources. There is some UK evidence that disorders such as heart disease, cancer, visual impairment and neurological disorders increase the risk of suicide (Waern et al. 2002, Twombly 2006).

6.3.5 Accident mortality rate

These data are not collected in the General Register Office for Scotland or the Registrar General Mortality Statistics (for England & Wales).

6.3.6 Deaths from non-natural causes for people resident in health or social care establishments

These data are not collected in the ONS figures[5]. It will be recalled that in considering this factor in relation to age (section 5.3.6) we were able to give the deaths by external causes in all institutions by sex and age. There is no disaggregation by disability. However, we might infer that those under the age of 65 in non-NHS hospitals (excluding psychiatric hospitals and hospices) and in other communal establishments will include a large proportion of disabled people. However, the numbers in these categories are too small to infer anything. If NHS hospitals are included then the numbers are much larger. However it cannot then be assumed that the figure includes a particularly high proportion of those classified as disabled.

This lack of quantitative data is particularly unfortunate as this topic is widely believed to be important, particularly in relation to learning disability. The underlying concern is that some learning disabled people in health or social care establishments are vulnerable to neglect or abuse. There is qualitative evidence to support this view. In 2006 Mencap published a report documenting the treatment within the NHS of six people with learning disabilities and who had died during treatment or care (Mencap 2007). The Health Service Ombudsman has now responded (Local Government Ombudsman. 2009). She finds that two of the six deaths were either avoidable or probably avoidable; she also lists extensive failure to abide by human rights principles. The numbers behind this data are too small to be generalisable. However, it is worth mentioning as qualitative data because the report had some political impact and is, perhaps, one of the drivers behind non-natural cause being one of the indicators chosen by the Equality and Human Rights Commission.

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[5] http://www.statistics.gov.uk/downloads/theme_health/DR2008/DR_08.pdf

6.3 Health: Main indicators

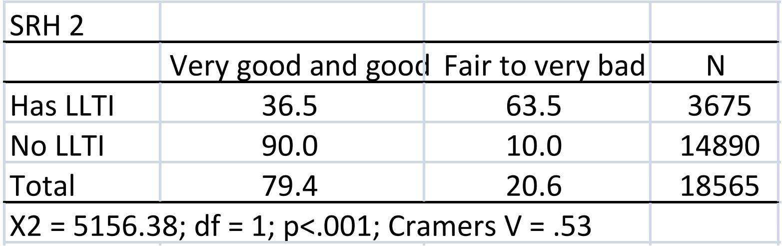
Outcomes

6.3.7 [2.1] Self-report poor current health

- *(E,S,W) Percentage who report poor current health status*

ENGLAND

Table 4 Self-report of poor current health status by LLTI, England



SRH 2			
	Very good and good	Fair to very bad	N
Has LLTI	36.5	63.5	3675
No LLTI	90.0	10.0	14890
Total	79.4	20.6	18565
X2 = 5156.38; df = 1; p<.001; Cramers V = .53			

Source: Health Survey for England 2008

The table shows that the presence of a life-limiting illness (LLTI) is strongly associated with a self-report of poor health. 63.5% of those with LLTI report fair to very bad health as against 10% of those without LLTI.

WALES

Table 5 Self-report of poor current health status, Wales

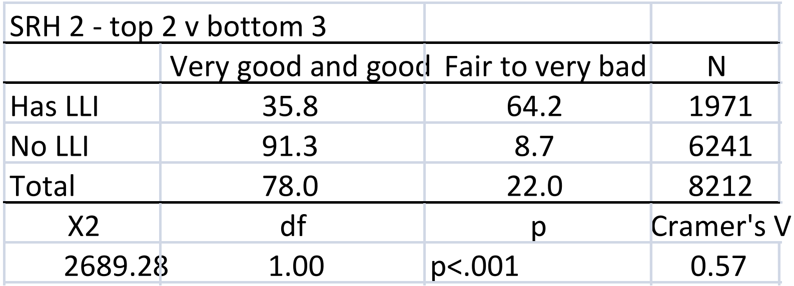
Recoded SRH (top 3 v bottom 2)			
	Excellent to good	Fair to poor	N
No LLTI	93.6	6.4	9032
LLTI	42.6	57.4	3873
Total	78.3	21.7	12905
X2	df	p	Cramer's V
4143	1.00	p<.001	0.57

Source Welsh Health Survey 2008

The table shows that the presence of a long-term life-limiting illness or disability (LLTI) is strongly associated with a self-report of poor health. 57.4% of those with LLTI report fair to poor current health status as against 6.4% of those without.

SCOTLAND

Table 6 Self-report of poor current health status, Scotland



SRH 2 - top 2 v bottom 3			
	Very good and good	Fair to very bad	N
Has LLI	35.8	64.2	1971
No LLI	91.3	8.7	6241
Total	78.0	22.0	8212
X2	df	p	Cramer's V
2689.28	1.00	p<.001	0.57

Source: Scottish Health Survey

The table shows that the presence of a life-limiting illness (LLTI) is strongly associated with a self-report of poor health. 64.2% of those with LLTI as against 8.7% without LLTI, self-report fair to very bad health.

In all three nations there is a large and statistically significant difference in self-reported health status between those with and those without long-term limiting illness and disability.

The Emerson et al (Emerson and Hatton 2008) survey found 15% of those with learning disability reported their health as not good. The rates were highest in those who were unemployed, socially isolated, older and from a minority ethnic community.

6.3.8 [1.1] Longstanding health problem or disability and longstanding illness

As these are generally the defining criteria for disability, we should expect 100% of disabled people to be in this category. The national figures for the proportion of the population that is disabled are as follows.

ENGLAND

Table 7 Proportion of people with Life-limiting illness, England

LLI			
	No LLI	LLI	N
16-24	92.8	7.2	1483
25-34	89.4	10.6	1485
35-44	85.2	14.8	2123
45-54	75.4	24.6	2098
55-64	60.9	39.1	2455
65-74	50.6	49.4	1907
75+	36.2	63.8	1444
All	69.9	30.2	12995
X2	df	p	Cramer's V
2113	6.00	p<.001	0.4

(Source: Health Survey for England 2008)

The table above shows that the proportion of people in England with LLTI is 30%; there is a difference across the age-range; as people age their chance of LLTI increases such that by 75+, the majority of people have one or more LLTI.

WALES

Table 8 Proportion of people with Life-limiting illness, Wales

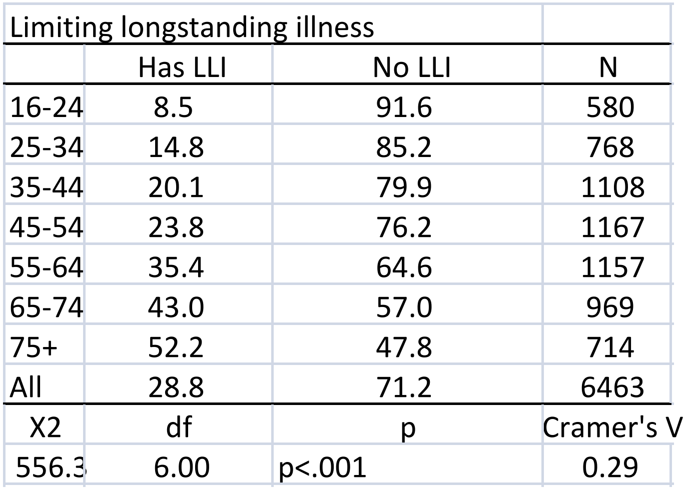
LLI			
	No LLI	LLI	N
16-24	92.8	7.2	1483
25-34	89.4	10.6	1485
35-44	85.2	14.8	2123
45-54	75.4	24.6	2098
55-64	60.9	39.1	2455
65-74	50.6	49.4	1907
75+	36.2	63.8	1444
All	69.9	30.2	12995
X2	df	p	Cramer's V
2113	6.00	p<.001	0.4

Source: Wales Health Survey 2008

The table above shows that the proportion of people in Wales with LLTI is 30%; there is a difference across the age-range; as people age their chance of LLTI increases such that by 75+, the majority of people have one or more LLTI.

SCOTLAND

Table 9 Proportion of people with Life-limiting illness, Scotland



Limiting longstanding illness			
	Has LLI	No LLI	N
16-24	8.5	91.6	580
25-34	14.8	85.2	768
35-44	20.1	79.9	1108
45-54	23.8	76.2	1167
55-64	35.4	64.6	1157
65-74	43.0	57.0	969
75+	52.2	47.8	714
All	28.8	71.2	6463
X2	df	p	Cramer's V
556.3	6.00	p<.001	0.29

Source: Scottish Health Survey 2008

The table above shows that the proportion of people in Scotland with LLTI is around 30%; there is a difference across the age-range; as people age their chance of LLTI increases such that by 75+, the majority of people have one or more LLTI.

6.3.9 [1.2] Poor mental health or wellbeing

Data for assessment of mental health for England and Scotland are taken from the respective health surveys, which use the General Health Questionnaire (GHQ12); the Welsh Health Survey uses the Short Form - 36 (SF36). On the GHQ12, a score of four or more is taken to be a sign of possible psychiatric disorder. The SF-36 includes a section relating to mental health. Higher scores indicate better health; 50 is the population average.

ENGLAND

Table 10 GHQ12 Mental health scores by LLTI, England

GHQ			
	0-3	4 or more	N
Has LLI	74.4	25.6	3588
No LLI	92.8	7.2	14771
Total	89.2	10.8	18359
X2 = 1025.35; df = 1; p<.001; Cramers V = .24			

Source: Health Survey for England 2008

The table above shows that those with an LLTI in England are more likely to report 4 or more symptoms, which is a sign of poor mental health. The difference is large (25.6% against 7.1%). However, mental illness is a possible cause of LLTI and, as such, that makes it difficult to interpret this result.

WALES

Table 11 SF36 Mental health scores, Wales

Recoded SF 36 score - binary (0-46 v 47 or more)

	Below average mental health	Average or above average mental health	N
No LLI	23.6	76.4	8946
LLI	52.2	47.8	3805
Total	32.2	67.9	12751

X2	df		p	Cramer's V
998.12	1.00	p<.001		0.28

Source: Welsh Health Survey 2008

The table above shows that those with an LLTI in Wales have worse mental health. The difference is large, indicating that mental health is worse for those with LLTI.

SCOTLAND

Table 12 GHQ12 Mental health scores, Scotland

GHQ symptoms			
	0-3 symptoms	4 or more	N
Has LLI	73.5	26.5	1690
No LLI	90.6	9.4	4481
Total	85.9	14.1	6171
X2	df	p	Cramer's V
294.944	1.00	p<.001	0.22

Source: Scottish Health Survey 2008

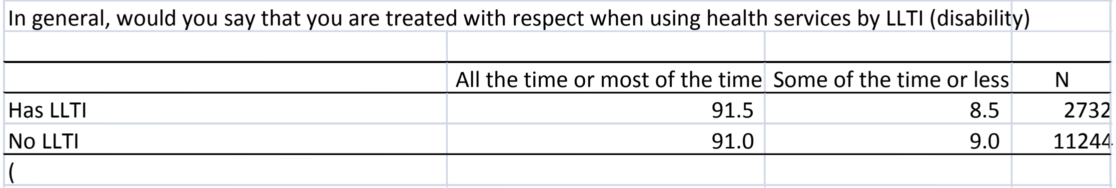
The table above shows that those with an LLTI in Scotland are more likely to report 4 or more symptoms, which is a sign of poor mental health. The difference is large (26.5% against 9.4%) and statistically significant.

Process

6.3.10 [3.1] Low perception of treatment with dignity

ENGLAND

Table 13 Treatment with respect when using health services England & Wales



In general, would you say that you are treated with respect when using health services by LLTI (disability)

	All the time or most of the time	Some of the time or less	N
Has LLTI	91.5	8.5	2732
No LLTI	91.0	9.0	11244
(			

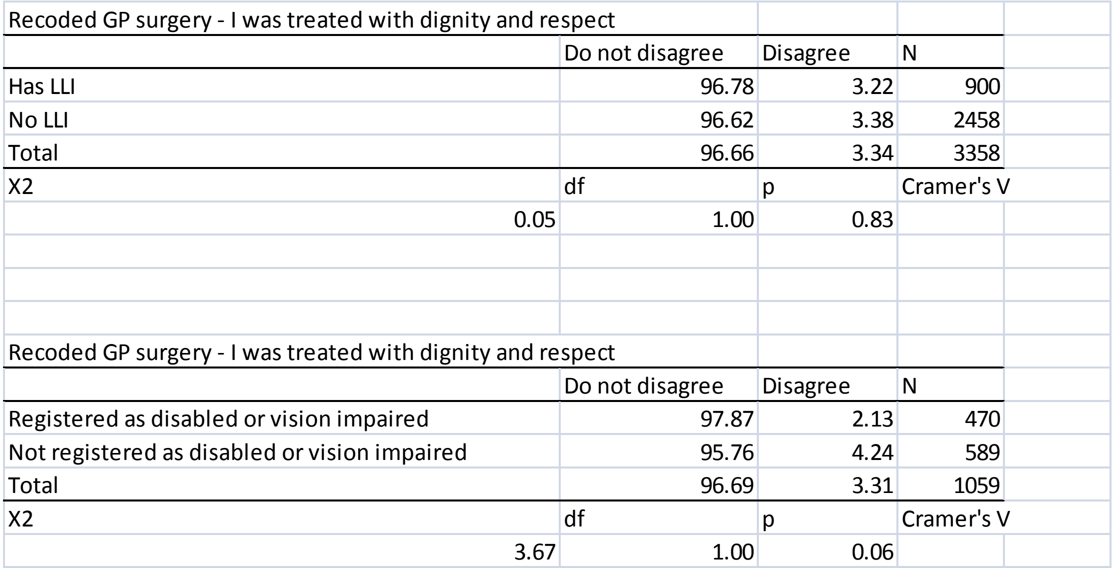
Source: Citizenship Survey, 2007

The table above shows that having a LLTI was not associated with saying you are treated with respect when using health services; around 90% say they are whether or not they have a LLTI. Excluded from this sample are those without the mental capacity to take part in it. This is a limitation for self-reports of this kind.

6.3.10 [3.1] Low perception of treatment with dignity

WALES

Table 14 Treatment with respect when using GP services, Wales

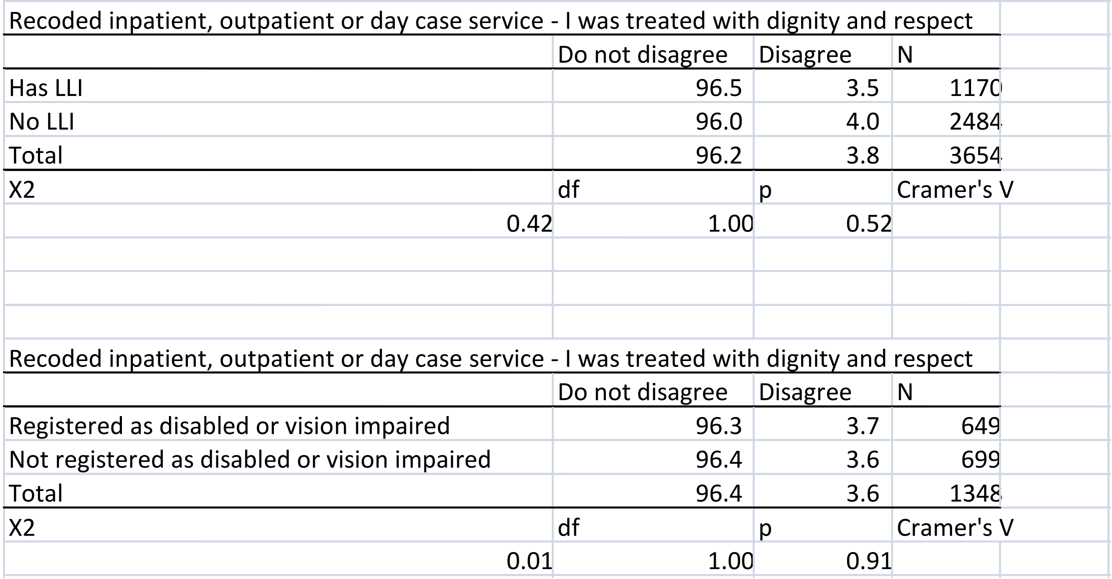


Recoded GP surgery - I was treated with dignity and respect			
	Do not disagree	Disagree	N
Has LLI	96.78	3.22	900
No LLI	96.62	3.38	2458
Total	96.66	3.34	3358
X2	df	p	Cramer's V
0.05	1.00	0.83	
Recoded GP surgery - I was treated with dignity and respect			
	Do not disagree	Disagree	N
Registered as disabled or vision impaired	97.87	2.13	470
Not registered as disabled or vision impaired	95.76	4.24	589
Total	96.69	3.31	1059
X2	df	p	Cramer's V
3.67	1.00	0.06	

Source: Living in Wales Survey, 2008

The Welsh survey has more detail on treatment with dignity and respect insofar as it breaks down the health service into categories such as GP service. The table above shows that LLTI makes no difference to the chance of feeling you are treated with dignity and respect by your GP in Wales.

Table 15 Treatment with respect when using hospital services, Wales



Recoded inpatient, outpatient or day case service - I was treated with dignity and respect

	Do not disagree	Disagree	N
Has LLI	96.5	3.5	1170
No LLI	96.0	4.0	2484
Total	96.2	3.8	3654
X2	df	p	Cramer's V
0.42	1.00	0.52	

Recoded inpatient, outpatient or day case service - I was treated with dignity and respect

	Do not disagree	Disagree	N
Registered as disabled or vision impaired	96.3	3.7	649
Not registered as disabled or vision impaired	96.4	3.6	699
Total	96.4	3.6	1348
X2	df	p	Cramer's V
0.01	1.00	0.91	

Source: Living in Wales Survey, 2008

The table above shows that LLTI makes no difference to the chance of feeling you are treated with dignity and respect by hospital services in Wales. One limitation of this data is that it does not cover those without capacity to say whether they felt treated with respect; as such some, such as those with severe learning difficulty, are excluded.

6.3.10 [3.1] Low perception of treatment with dignity

SCOTLAND

The Better Together survey is under development; as such, there are no data yet from it on perception of treatment with dignity in Scotland.

6.3.11 [5.1] A&E attendance/accidents A&E accidents and injuries rate by location

The main source of data for A&E attendance is the Department of Health experimental statistics.[6] These data are not disaggregated by disability status.

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[6] http://www.ic.nhs.uk/webfiles/publications/AandE/AandE0708/AandE_Attendances_in_England_%28Experimental_Statistics%29_2007-08.pdf

6.3.12 [3.2] Lack of support for individual nutritional needs during hospital stays

ENGLAND

Table 16 Did you get enough help from staff to eat your meals?

Q30 Did you get enough help from staff to eat your meals?

	Survey Year						Significant change between 08 and 09	Significant change between 02 and 09
	2002	2005	2006	2007	2008	2009		
Yes, always	58%	62%	58%	60%	63%	63%		↑
Yes, sometimes	24%	21%	21%	20%	19%	19%		↓
No	18%	18%	20%	20%	18%	18%		
Number of respondents	19049	19982	19041	20709	21079	20364		

Answered by all who needed help from hospital staff to eat their meals

Source: National patient survey programme 2001/2

Support for nutritional needs in hospital is clearly important for those with disability. The majority of the literature on this topic, however, concerns the elderly. This is because the initial concern was that elderly people's needs are neglected. As such, there seem to be no data on the topic aggregated by disability. This is worth rectifying. One of the deaths reported by MenCap in *Death by Indifference* is of Martin Ryan, who was said to have starved to death at Kingston hospital.

WALES and SCOTLAND

No data available.

Autonomy

6.3.13 [4.1] Healthy lifestyle [Smoking, alcohol, exercise, diet (fruit and vegetables), obesity

ENGLAND

Smoking

Table 17 Cigarette smoking status by LLTI, England

Cigarette smoking status			
	Smokes	Does not smoke	N
Has LLI	37.8	62.2	2192
No LLI	38.4	61.6	6263
Total	38.3	61.7	8455
n/s			

Source: Health Survey for England, 2008

Table 18 Cigarette smoking status by LLTI and sex, England

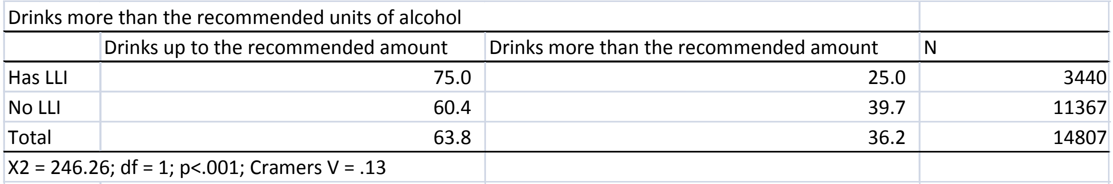
		Smokes cigarettes	Does not smoke	N
Men	Has LLI	36.8	63.2	1098
	No LLI	38.6	61.4	3409
	Total	38.2	61.8	4507
Women	Has LLI	38.8	61.2	1093
	No LLI	38.2	61.8	2854
	Total	38.4	61.7	3947
n/s				

Source: Health Survey for England, 2008

The tables above show no significant difference in smoking status between those with and without LLTI neither overall nor by sex.

Alcohol

Table 19 Alcohol intake by LLTI, England

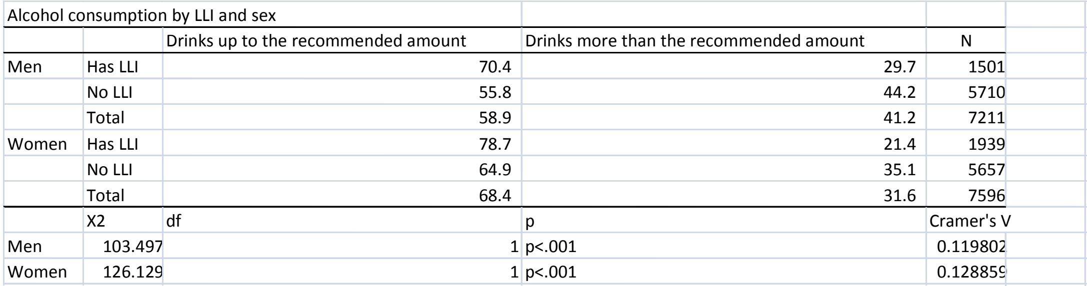


Drinks more than the recommended units of alcohol			
	Drinks up to the recommended amount	Drinks more than the recommended amount	N
Has LLI	75.0	25.0	3440
No LLI	60.4	39.7	11367
Total	63.8	36.2	14807
X2 = 246.26; df = 1; p<.001; Cramers V = .13			

Source: Health Survey for England, 2008

The table above shows that having an LLTI is negatively associated with drinking above the recommended amount in England.

Table 20 Alcohol intake by LLTI and sex, England



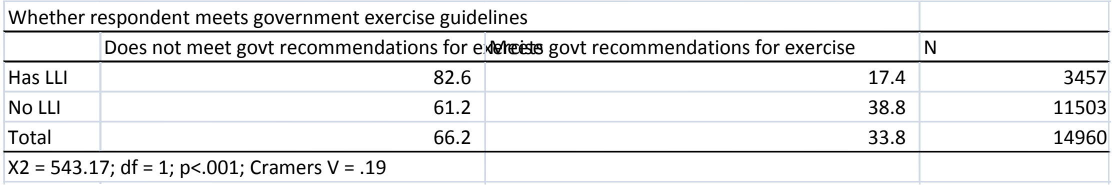
Alcohol consumption by LLI and sex				
		Drinks up to the recommended amount	Drinks more than the recommended amount	N
Men	Has LLI	70.4	29.7	1501
	No LLI	55.8	44.2	5710
	Total	58.9	41.2	7211
Women	Has LLI	78.7	21.4	1939
	No LLI	64.9	35.1	5657
	Total	68.4	31.6	7596
	X2	df	p	Cramer's V
Men	103.497	1	p<.001	0.119802
Women	126.129	1	p<.001	0.12885

Source: Health Survey for England, 2008

The table above shows that the negative association exists across both sexes.

Exercise

Table 21 Meeting government exercise guidelines by LLTI, England

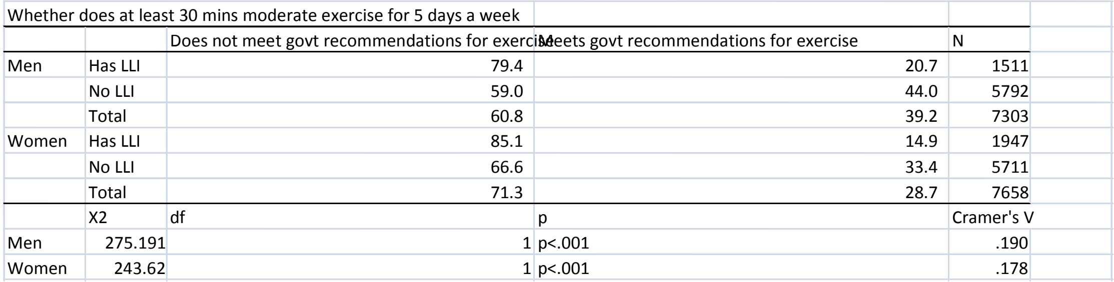


Whether respondent meets government exercise guidelines			
	Does not meet govt recommendations for exercise	Meets govt recommendations for exercise	N
Has LLI	82.6	17.4	3457
No LLI	61.2	38.8	11503
Total	66.2	33.8	14960
X2 = 543.17; df = 1; p<.001; Cramers V = .19			

Source: Health Survey for England, 2008

The table above shows that meeting exercise guidelines is negatively associated with having an LLTI: 83% of people without an LLTI meet the guidelines, 61% of people with an LLTI.

Table 22 Meeting government exercise guidelines by LLTI and sex, England



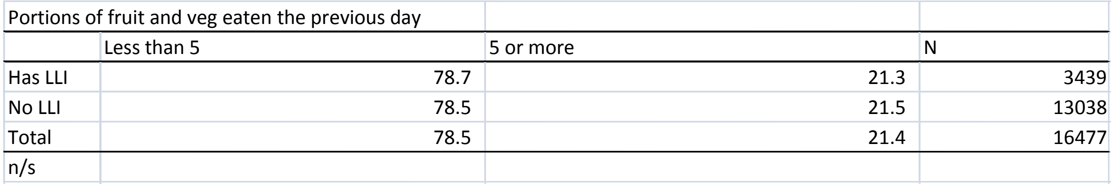
Whether does at least 30 mins moderate exercise for 5 days a week				
		Does not meet govt recommendations for exercise	Meets govt recommendations for exercise	N
Men	Has LLI	79.4	20.7	1511
	No LLI	59.0	44.0	5792
	Total	60.8	39.2	7303
Women	Has LLI	85.1	14.9	1947
	No LLI	66.6	33.4	5711
	Total	71.3	28.7	7658
	X2	df	p	Cramer's V
Men	275.191	1	p<.001	.190
Women	243.62	1	p<.001	.178

Source: Health Survey for England, 2008

The table above shows that meeting exercise guidelines is negatively associated with having an LLTI and that this difference is true for both sexes.

Consumption of Fruit and Vegetables

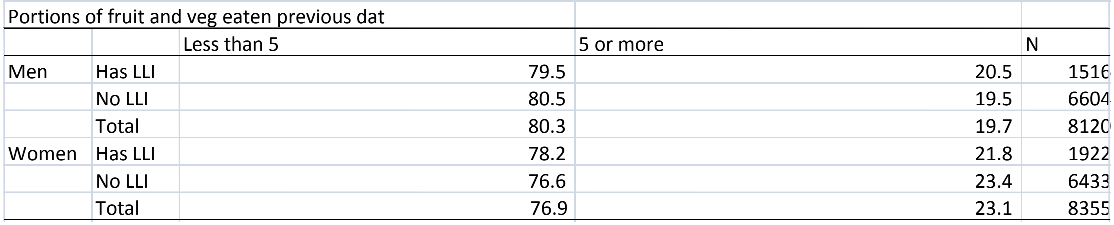
Table 23 Portions of fruit and veg eaten the previous day by LLTI, England



Portions of fruit and veg eaten the previous day			
	Less than 5	5 or more	N
Has LLI	78.7	21.3	3439
No LLI	78.5	21.5	13038
Total	78.5	21.4	16477
n/s			

Source: Health Survey for England, 2008

Table 24 Portions of fruit and vegetables eaten the previous day by LLTI and sex, England



Portions of fruit and veg eaten previous dat				
		Less than 5	5 or more	N
Men	Has LLI	79.5	20.5	1516
	No LLI	80.5	19.5	6604
	Total	80.3	19.7	8120
Women	Has LLI	78.2	21.8	1922
	No LLI	76.6	23.4	6433
	Total	76.9	23.1	8355

Source: Health Survey for England, 2008

The two tables above show no statistical link between having a LLTI and portions of fruit and vegetables eaten the previous day.

Body Mass

Table 25 Body mass index and healthy weight by LLTI, England

BMI healthy weight versus unhealthy weight			
	Healthy weight	Not healthy weight	N
Has LLI	28.2	71.7	2756
No LLI	39.2	60.8	10077
Total	36.8	63.2	12833
X2 = 111.90; df = 1; p<.001; Cramers V = .09			
BMI overweight and obese versus not overweight or obese			
	Underweight and normal weight	Overweight and obese	N
Has LLI	29.6	70.4	2756
No LLI	41.1	58.9	10077
Total	38.6	61.4	12833
X2 = 120.70; df = 1; p<.001; Cramers V = .10			

Source: Health Survey for England, 2008

The table above shows that having an LLTI is positively associated with not having a healthy weight; 72% with an LLTI do not have a healthy weight, against 61% without an LLTI. In the main, the problem is one of overweight rather than underweight.

WALES

Smoking

Table 26 Cigarette smoking status by LLTI, Wales

Recoded smoking status			
	Smokes	Does not smoke	N
No LLI	23.4	76.6	9036
LLI	20.8	79.2	3861
Total	22.6	77.4	12897
X2	df	p	Cramer's V
10.64	1.00	p<.05	0.03

Recoded smoking status				
		Smokes	Does not smoke	N
Men	Has LLI	24.2	75.8	4216
	No LLI	21.7	78.4	1723
	Total	23.5	76.5	5939
Women	Has LLI	22.7	77.3	4820
	No LLI	20.1	80.0	2138
	Total	21.9	78.1	6958
	X2	df	p	Cramer's V
Men	4.575	1	p<.05	0.03
Women	5.817	1	p<.05	0.03

Source: Welsh Health Survey 2008

The table above shows that in Wales there is a slightly lower occurrence of smoking for those with an LLTI against those without (20.8% versus 23.0%); the difference is found across both sexes.

Alcohol

Table 27 Alcohol intake by LLTI, Wales

(D) Maximum daily alcohol consumption: above guidelines - binary			
	Up to guidelines	Above guidelines	N
No LLI	51.4	48.6	8850
LLI	69.6	30.4	3758
Total	56.9	43.2	12608
X2	df	p	Cramer's V
356.76	1.00	p<.001	0.17

(D) Maximum daily alcohol consumption: above guidelines - binary					
		Above guidelines	Up to guidelines	N	
Men	Has LLI	45.0	55.0	4132	
	No LLI	60.2	39.8	1692	
	Total	49.4	50.6	5824	
Women	Has LLI	57.1	42.9	4718	
	No LLI	77.4	2275	2066	
	Total	63.3	36.8	6784	
	X2	df	p	Cramer's V	
Men	111.811	1	p<.001	0.14	
Women	253.937	1	p<.001	0.19	

Source: Welsh Health Survey 2008

The table above shows that in Wales a higher proportion of those with LLTI than those without drink above the recommended guidelines (68.6% versus 51.4%). This is true for both sexes. Note that the reverse pattern is found in England.

Exercise

Table 28 Exercise above 30 minutes, 5 times weekly, by LLTI Wales

(D) At least 30 mins mod/vigorous exercise on 5+ days			
	No	Yes	N
No LLI	65.3	34.7	8989
LLI	85.8	14.2	3843
Total	71.4	28.6	12832
X2	df	p	Cramer's V
556	1.00	p<.001	0.21

(D) At least 30 mins mod/vigorous exercise on 5+ days				
		No	Yes	N
Men	Has LLI	56.7	43.3	4188
	No LLI	80.7	19.3	1705
	Total	63.6	36.4	5893
Women	Has LLI	72.7	27.3	4801
	No LLI	89.9	10.2	2138
	Total	78.0	22.0	6939
	X2	df	p	Cramer's V
Men	302.057	1	p<.001	.23
Women	252.593	1	p<.001	.19

Source: Welsh Health Survey 2008

The table above shows that those with LLTI are less likely to exercise sufficiently than those without one (85.8% versus 65.3%); this difference occurs across both sexes.

Consumption of Fruit and Vegetables

Table 29 Eating five or more portions of fruit and vegetables, by LLTI, Wales

(D) Eaten 5+ fruit or veg the previous day - binary			
	No	Yes	N
No LLI	63.1	36.9	8892
LLI	63.7	36.4	3785
Total	63.2	36.8	12677
X2	df	p	Cramer's V
0.35	1	n/s	

(D) Eaten 5+ fruit or veg the previous day - binary				
		No	Yes	N
Men	Has LLI	65.2	34.8	4143
	No LLI	63.9	36.1	1684
	Total	64.8	35.2	5827
Women	Has LLI	61.2	38.8	4749
	No LLI	63.5	36.6	2101
	Total	61.9	38.1	6850
	X2	df	p	Cramer's V
Men	0.886	1	n/s	0.01
Women	3.138	1	n/s	0.02

Source: Welsh Health Survey 2008

The table above shows that having an LLTI has no effect on your likelihood of eating sufficient fruit and vegetables.

Body Mass

Table 30 Body mass index and healthy weight by LLTI, Wales

Recoded BMI (EHRC)			
	Underweight and normal weight	Overweight and obese	N
No LLI	44.6	55.4	8387
LLI	34.0	65.9	3680
Total	41.4	58.6	12067
X2	df	p	Cramer's V
115.85	1.00	p<.001	0.1

Recoded BMI (EHRC)				
		Underweight and normal weight	Overweight and obese	N
Men	Has LLI	38.4	61.6	4004
	No LLI	30.9	69.1	1671
	Total	36.2	63.8	5675
Women	Has LLI	50.2	49.8	4383
	No LLI	36.7	63.3	2009
	Total	46.0	54.1	6392
	X2	df	p	Cramer's V
Men	28.312	1	p<.001	0.07
Women	101.224	1	p<.001	0.13

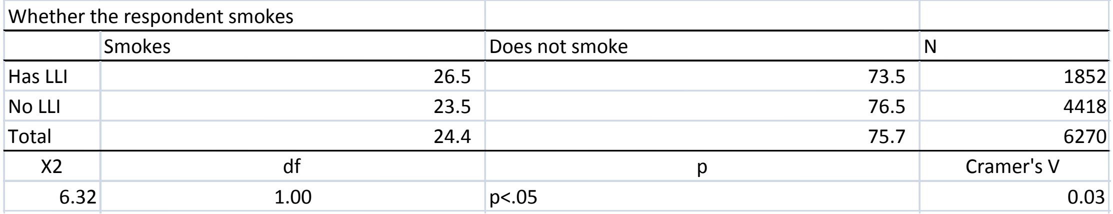
Source: Welsh Health Survey 2008

The table above shows that in Wales having an LLTI is positively associated with being overweight or obese (65.9% versus 55.4%); this difference is true of both sexes although it is particularly marked in women (63.3% versus 49.8%).

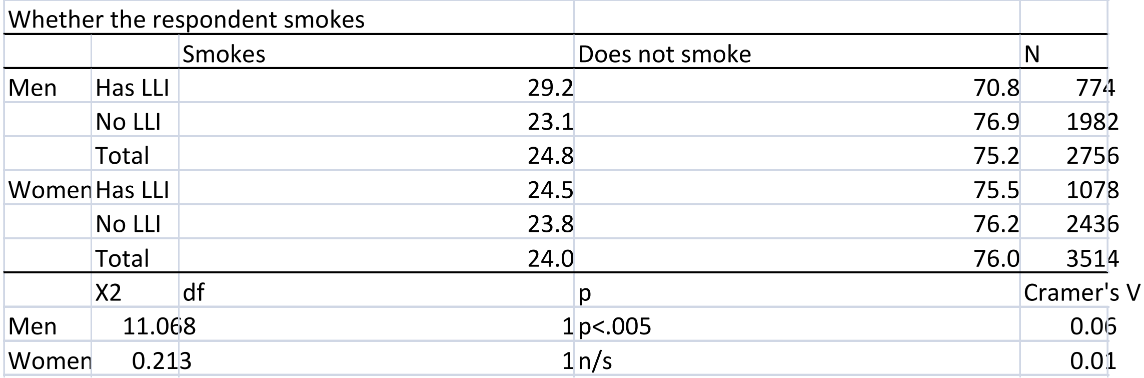
SCOTLAND

Smoking

Table 31 Cigarette smoking status by LLTI, Scotland



Whether the respondent smokes			
	Smokes	Does not smoke	N
Has LLI	26.5	73.5	1852
No LLI	23.5	76.5	4418
Total	24.4	75.7	6270
X2	df	p	Cramer's V
6.32	1.00	p<.05	0.03



Whether the respondent smokes				
		Smokes	Does not smoke	N
Men	Has LLI	29.2	70.8	774
	No LLI	23.1	76.9	1982
	Total	24.8	75.2	2756
Women	Has LLI	24.5	75.5	1078
	No LLI	23.8	76.2	2436
	Total	24.0	76.0	3514
	X2	df	p	Cramer's V
Men	11.068	1	p<.005	0.06
Women	0.213	1	n/s	0.01

Source: Scottish Health Survey, 2008

The table above shows that there is little statistically significant difference in smoking status overall for those with and without LLTI. There is a slight difference in smoking status for men, with having an LLTI being associated with smoking (29.2% with LLTI smoke versus 23.1% without).

Alcohol

Table 32 Alcohol intake by LLTI, Scotland

Whether respondent drinks more than recommended amount			
	Respondent drinks up to recommended amount	Respondent drinks more than recommended amount	N
Has LLI	52.1	47.9	913
No LLI	38.1	61.9	3062
Total	41.3	58.7	3975
X2	df	p	Cramer's V
57.037	1.00	p<.001	0.12

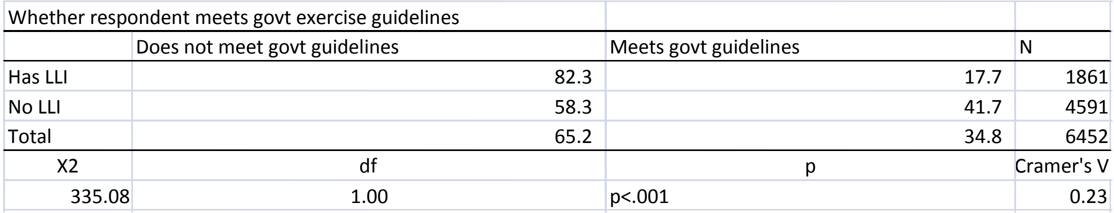
Whether respondent drinks more than recommended amount				
		Respondent drinks up to recommended amount	Respondent drinks more than recommended amount	N
Men	Has LLI	53.4	46.2	444
	No LLI	38.2	61.2	1498
	Total	41.7	58.4	1942
Women	Has LLI	51.0	49.4	469
	No LLI	38.0	62.0	1564
	Total	41.2	58.9	2033
	X2	df	p	Cramer's V
Men	32.532	1	p<.001	0.13
Women	24.878	1	p<.001	0.11

Source: Scottish Health Survey, 2008

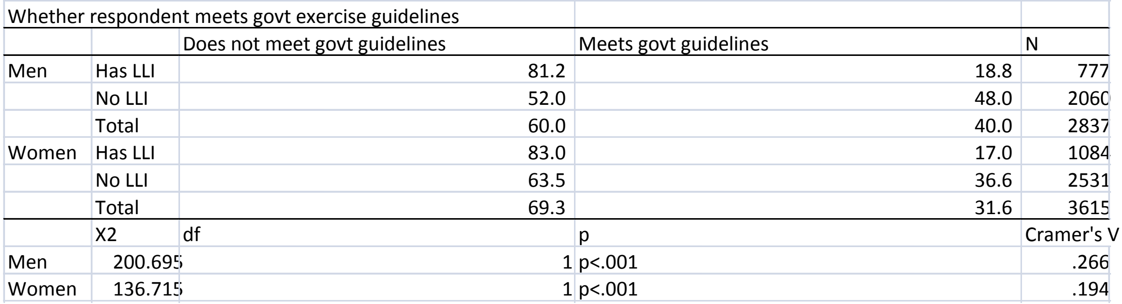
The table above show that in Scotland having an LLTI is negatively associated with drinking more than the recommended amount (47.9% versus 61.9%), and that this is true for both men and women.

Exercise

Table 33 Meeting government exercise guidelines by LLTI, Scotland



Whether respondent meets govt exercise guidelines			
	Does not meet govt guidelines	Meets govt guidelines	N
Has LLI	82.3	17.7	1861
No LLI	58.3	41.7	4591
Total	65.2	34.8	6452
X2	df	p	Cramer's V
335.08	1.00	p<.001	0.23



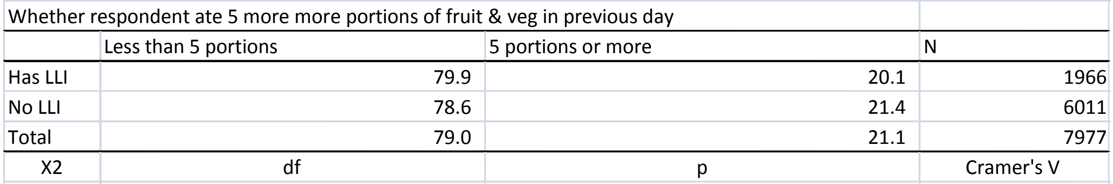
Whether respondent meets govt exercise guidelines				
		Does not meet govt guidelines	Meets govt guidelines	N
Men	Has LLI	81.2	18.8	777
	No LLI	52.0	48.0	2060
	Total	60.0	40.0	2837
Women	Has LLI	83.0	17.0	1084
	No LLI	63.5	36.6	2531
	Total	69.3	31.6	3615
	X2	df	p	Cramer's V
Men	200.695	1	p<.001	.266
Women	136.715	1	p<.001	.194

Source: Scottish Health Survey, 2008

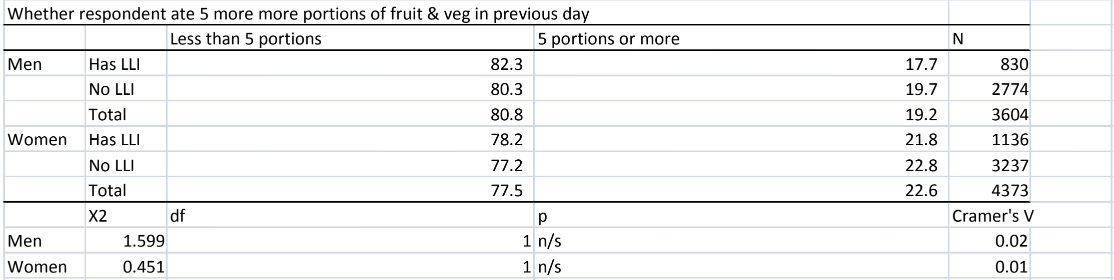
The table above shows that in Scotland having an LLTI is negatively associated with sufficient exercise. This is true for both sexes and is statistically significant.

Consumption of Fruit and Vegetables

Table 34 Portions of fruit and vegetables eaten the previous day by LLTI, Scotland



Whether respondent ate 5 more more portions of fruit & veg in previous day			
	Less than 5 portions	5 portions or more	N
Has LLI	79.9	20.1	1966
No LLI	78.6	21.4	6011
Total	79.0	21.1	7977
X2	df	p	Cramer's V



Whether respondent ate 5 more more portions of fruit & veg in previous day					
		Less than 5 portions	5 portions or more	N	
Men	Has LLI	82.3	17.7	830	
	No LLI	80.3	19.7	2774	
	Total	80.8	19.2	3604	
Women	Has LLI	78.2	21.8	1136	
	No LLI	77.2	22.8	3237	
	Total	77.5	22.6	4373	
	X2	df	p	Cramer's V	
Men	1.599	1	n/s	0.02	
Women	0.451	1	n/s	0.01	

Source: Scottish Health Survey, 2008

The table above shows that in Scotland there is no association between having an LLTI and whether or not a person eats five or more portions of fruit and vegetables.

Body Mass

Table 35 Body mass index and healthy weight by LLTI, Scotland

Recoded BMI normal v not normal weight			
	Normal weight	Non-normal weight	N
Has LLI	24.1	75.9	1501
No LLI	32.2	67.8	3972
Total	30.0	70.0	5473
X2	df	p	Cramer's V
33.7	1.00	p<.001	0.78
Recoded BMI (EHRC) not overweight v overweight			
	Underweight and normal	Overweight and obese	N
Has LLI	25.5	74.5	1501
No LLI	33.6	66.4	3972
Total	31.4	68.6	5473
X2	df	p	Cramer's V
32.94	1.00	p<.001	0.78

Recoded BMI (EHRC) not overweight v overweight				
		Underweight and normal	Overweight and obese	N
Men	Has LLI	24.1	7597	630
	No LLI	27.9	72.2	1824
	Total	26.9	73.1	2454
Women	Has LLI	26.5	73.5	871
	No LLI	38.5	61.6	2148
	Total	35.0	65.0	3019
	X2	df	p	Cramer's V
Men	3.303	1	n/s	0.04
Women	38.784	1	p<.001	0.11

Source: Scottish Health Survey, 2008

The table above shows that in Scotland having an LLTI is positively associated with a non-normal weight (75.9% versus 67.8%). The major problem is being overweight or obese rather than underweight. The inequality is greater for women rather than men although this seems to be because Scottish men *without* an LLTI have a higher proportion of non-normal weight than Scottish women without LLTI.

6.4 Cross-over themes

There is a complicated interplay of disability with other strands of inequality. For example, disabled people are more likely to be unemployed or in low-income work. But it is not clear whether the unemployment is a product of disability or that (later-onset) disability is a product of unemployment and deprivation. This reinforces the need to have more nuanced statistics, perhaps using the categories suggested by Rolland (1994) and discussed in the section below.

The phenomenon of multiple disadvantage is perhaps clearest in relation to disability. For example, we know that for people with learning disabilities their health and wellbeing is mediated by other personal factors (severity of LD, additional disabilities, mental health, gender, age), social and cultural factors (family support, ethnicity) and economic factors (income, area deprivation). Those who are most disadvantaged, and who have been persistently disadvantaged, are those characterised by such multiple markers. It is this same group that is most likely to be excluded from health and social care research (often on the grounds of mental capacity), and so this serves to weaken the evidence base about strategies for supporting them.

6.5 Health and life: Strand: Discussion

As an equality strand, disability presents unique problems in assessing inequity in the indicators of health and life. The Census 2011 definition of disability incorporates the indicator relating to reporting long-lasting health problems, disability or illness. Thus, by definition, 100% of disabled people will be in this inequality indicator. For similar reasons, we would expect a high proportion to self-report poor current health.

How, then, do we decide whether an inequality is iniquitous? There are at least two models of disability and the answer to this question depends to some extent on the one chosen.

- The social model describes disability as socially created: wheelchair use is a disability because society is organised for pedestrians; deafness is a disability because it is organised for oral language users. On this account, all inequalities that are a function of a disability that could be overcome were society arranged differently are iniquitous. Thus, for example, a lower rate of exercise and a higher rate of obesity for disabled people are iniquitous because the social environment disadvantages them in these regards.
- The medical model is one in which disability is intrinsic to the individual, it is a product of a malfunctioning part rather than a social injustice. On this account, the exercise/obesity problem is due to the disability and the way it inhibits exercise. This is natural rather than unjust. Society might develop systems to help the disabled; however, this is a matter of charity rather than justice. Society is not to blame for the existence of the disability in the first place.

How are we to choose between these approaches? In the first place there are good philosophical grounds to reject the medical model. At its heart is a false belief that illness and disability are facts about someone; no value judgement is involved in deciding that, for example, cancer is an illness and Down syndrome a disability. In fact, however, these statements are not simply empirical facts but rather they are judgements based on the facts

(Kennedy 1983). That someone has a low IQ might be a fact about them; that this is a disability is a judgement involving values. That someone has a tumour might be a fact; that it is an illness is a judgement involving values. We do not declare high IQ to be a disability; and some tumours are dismissed as benign. Low IQ is deemed a disability and some tumours deemed illnesses because they are associated with things we don't like, that we disvalue. In the case of low IQ it is the difficulty in coping with a complex world, perhaps; with some tumours, it is the association with limited function, pain and death.

Thus the medical model is grounded in a false account of the nature of illness and disability. This might lead us to favour the social account but more is needed. Someone might accept this rejection of the medical model but nonetheless say that someone having the conditions we disvalue as disability is still the product of nature, society is not to blame. At this point, Nussbaum's account of the Capability approach becomes relevant (Nussbaum 2006, Nussbaum 1999).

In our chapter on methodology above, we set out some of the details of Nussbaum's approach. We noted that Nussbaum gives a set of ten capacities that she takes to be essential for a human being to live a good life or to flourish. These capacities give rise to the demands of justice, often in the form of human rights. For example, the capacity to live a reasonable life-span gives rise to the rights not to be killed and where possible to resources to enable life; the capacity to bodily health gives rise to the rights to nourishment, shelter and health care. We saw also that these ten capacities are closely allied to the ten domains set out by the Equality and Human Rights Commission in its *Equality Measurement Framework.*

For Nussbaum, though, disability creates a puzzle. It might be said that some disability, for example, a learning disability such as Down syndrome, is associated with inability to meet these capacities; for example, it is associated with short life-span, constrained abilities to take part in civic life, and problems with health. If this is so, should we say either that people with Down syndrome have a different set of capacities so that they can be said to flourish in their way, which is different to those without the disability? Or should we say that people with Down syndrome are unable to live a truly flourishing human life?

Nussbaum believes that the first option is unacceptable. The problem is that it declares to be natural and inevitable that which is often social and, in particular, based on cost. For example, were we to believe Down syndrome to be inevitably and naturally associated with a shorter lifespan we might make decisions that reinforce it, such as not providing life-prolonging surgery on the basis that people with Down syndrome will not benefit from it sufficiently. This is the argument that has been used in denying children with Down syndrome access to cardiac surgery (Savulescu 2001). By declaring that people with Down syndrome have the capacity to a full lifespan we make a priority the research and care necessary to achieve it; and we potentially declare it a violation of rights to deny life-prolonging treatment that is available to others.

Thus Nussbaum favours giving all people the same rights based on the same set of capacities. There will, of course, be some who do not and will never have these capacities; someone in persistent vegetative state, for example. But Nussbaum wants us to err on the side of trying to achieve capacities for all. People with a learning disability, for example, might need more help in achieving civic involvement, including voting, for example; the capacities approach says we should provide that help. This idea is reflected in the England & Wales *Mental Capacity Act* 2005 which requires practitioners to do all that is possible to help someone make their own decisions rather than simply to take over decision making for them.

It follows that the capabilities approach sits comfortably with the social model of disability rather than the medical model. For example, if a blind person could live independently were resources allocated to the necessary aids then that person has a claim on society for those aids; whether she has a right to those aids will depend on other factors, particularly resources.

In interpreting the inequalities related to disability, therefore, we should err on the side of viewing them as of concern, as issues of justice. The shorter lifespan of many people with disability should not be dismissed simply as natural and acceptable but should be viewed as a spur to action, something which requires action. In practice, this is often what happens, as we've seen with the improvements in treatment for people with Down syndrome or with cerebral palsy that have resulted in longer lifespan. However, also in practice, we've seen discrimination justified on the basis of differences in capacity being too lightly accepted as inevitable.

In practical terms, a model suggested by Rolland might be useful in collecting more nuanced data (Rolland 1994). He talks about four related parameters: onset (which may be sudden or gradual, expected or not expected), course (which may be progressive, constant or relapsing/episodic), outcome (concerning the likelihood of a shortened lifespan or death, and finally there is incapacity (cognitive, sensory, mobility, energy and stigma). These perspectives may be useful where there is a premium on the linking of experience (health status, community integration, family coping etc) across or between groups of disabled people.

What are the inequalities? How persistent and how worrying are they?

Life indicators

Death certificates do not include information about disability. As such, data are largely absent. There is indication from other research of inequality in some areas. The SMR of 277% for all-cause mortality of those with learning disability is striking and some specific-cause SMRs are very high. What these figures do not show is the extent of undue, unexpected or unfair mortality, presumably the issue of interest to the Equality and Human Rights Commission.

Some other data particularly that which relates to process indicators, suggest inequity. The phenomenon of diagnostic overshadowing has been noted, as have communication issues. In the wake of advocacy, changes have already been made to improve provision for people with disability and learning disability. If these were to result in a reduction in the SMR that might indicate that some of the original inequality was iniquity. Until the data are collected it is not possible to draw any such conclusions. However, process indicators and some academic research suggest that it is worth collecting the mortality data by different types of disability and causes of death. This would enable charting of SMR change over time and with that, improvements or worsening in equity.

Suicide rate data by disability suggest that mental disorder and some physical disorders (such as MS) are associated with increased risk. Again the extent to which this is avoidable is hard to judge but without all the necessary information it seems best to proceed as though the rates could be reduced and then try to do so. This adds further force to the suggestion that mortality data by disability would be worth collecting.

Much of the literature relating to disability and suicide concerns the ethics of assisted suicide. This literature sits uneasily alongside that which proposes measures to reduce suicide rates. Any move to legalise assisted death would need to be judged in part on its implications for equality and rights for the disabled.

Data relating to accidental death associated with disability seem to be absent. The addition of disability to death certificates would close this gap. The information is of interest; if disabled people suffered high rates of accident-related death this might suggest that the environment should be adjusted to reduce this.

Deaths from non-natural causes in institutions have become an issue of concern following the investigation into six deaths of individuals with learning disability, described above. This is clearly an area worth monitoring although again, at present, the lack of disability information on deaths certificates makes this difficult or impossible.

HEALTH

Around 30% of the population in England, Wales and Scotland have an LLTI. Having a LLTI is strongly associated with self-report of poor current health. It is also very strongly associated with poor mental health; this finding is hard to interpret, however, as poor mental health can itself be a trigger for LLTI.

Data from England & Wales show no association with LLTI and feeling you are treated with respect by hospital services. There are no data from Scotland. One limitation of this data is that it does not cover those without capacity to say whether they felt treated with respect; as such some, such as those with severe learning difficulty, are excluded.

Support for nutritional needs in hospital is clearly important for those with disability. The majority of the literature on this topic, however, concerns the elderly. This is because the initial concern was that elderly people's needs are neglected. As such, there seem to be no data on the topic aggregated by disability. This is worth rectifying. One of the deaths reported by MenCap in *Death by Indifference* is of Martin Ryan, who was said to have starved to death at Kingston hospital.

People with LLTI in England are neither more nor less likely to smoke than the rest of the population. In Wales, they are slightly less likely to smoke. In Scotland, men with a disability are slightly more likely to smoke.

People with LLTI in England and Scotland are less likely to drink alcohol above the Government recommended limit. In Wales, they are more likely to do so.

People with LLTI in England, Wales and Scotland are less likely to meet Government guidelines for exercise.

In England, Wales and Scotland there is no noticeable association between LLTI and eating fruit and vegetables.

There is however a clear link between LLTI and obesity. In England, having an LLTI is positively associated with not having a healthy weight; 72% with an LLTI do not have a healthy weight, against 61% without an LLTI. In the main, the problem is one of overweight rather than underweight. In Wales, having an LLTI is positively associated with being overweight or obese (65.9% versus 55.4%); this difference is true of both sexes although it is particularly marked in women (63.3% versus 49.8%). In Scotland, an LLTI is positively associated with a non-normal weight (75.9% versus 67.8%). The major problem is being overweight or obese rather than underweight. The inequality is greater for women rather than men although this seems to be because Scottish men *without* an LLTI have a higher proportion of non-normal weight than Scottish women without LLTI.

How might change be measured?

There is a danger that the presence of capacity and articulacy difficulties for some disabled people result in issues to do with NHS process being missed by indicators that stress satisfaction with services. Those whose needs are not understood might not be able to express themselves through satisfaction surveys. Other indicators are required. One marker might be registration with a GP, although the numbers not registered seem to be small (Disability Rights Commission 2006). Another indicator could be access to communication aids, such as loop, signing and alternative communication (AAC) systems; and training of staff in competent communication. At the moment, such data are hard to come by and generally collected locally, or are the product of specific research such as (Ubido, Huntington and Warburton 2002).

Though only likely to apply to a small minority of people, the mapping of Serious Case Reviews that have involved children and adults with disabilities is likely to raise some questions about inequity. These data could perhaps be coupled to data about non-accidental injury.

In regard to suicides, there is a case for collecting data about secondary diagnoses, lifestyle factors, social and financial factors. The data show that mental health and recent use of mental health and primary care services are key and significant markers in suicide; data also suggest markers include the existence of a variety of secondary physical illnesses/conditions such as HIV/AIDS, Huntingdon's disease, certain malignant neoplasms and MS (National Institute for Mental Health in England. 2005). As shown by the data presented here, the information currently collected on suicide tends to be broad and of limited use in painting the picture of inequality related to suicide.

Data quality and quantity

There are no systematic national data sets on Life and Health outcomes, such as premature death from cancer or heart disease, disaggregated by disability and subsets of disability. Some figures can be disaggregated from, for example, the Welsh Health Survey.

Disability is a broad and disparate category - this makes interpretation of data difficult.

Death certificates include no disability information - there is no national-level picture of inequalities by disability in life indicators.

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Chapter 7: Race and Ethnicity

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Key messages

What are the inequalities? How persistent and how worrying are they?

Some minority ethnic groups experience significantly higher levels of ill-health and premature death than the White majority. However, ethnic patterns of mortality and morbidity are complex and minority ethnic groups do not experience worse outcomes across the board when compared to the White British group.

Among the main enumerated ethnic groups, Pakistani and Bangladeshi people stand out as having the worst health profile (and probably the lowest life expectancies), though most minority ethnic groups have worse general self-reported health than the White British majority. These inequalities are persistent and do not appear to be improving across generations for most groups. It should be remembered, however, that some of the ethnic categories currently in use are broad. These categories conceal important heterogeneity and potentially hide even more disadvantaged 'groups' from view.

There is evidence that other groups about whom very little research has to-date been conducted - notably Gypsies and Travellers, asylum seekers and refugees - have particularly low levels of health and wellbeing.

We summarise the evidence against the main EMF indicators below:

LIFE:

- Direct estimates of life expectancy by ethnic group cannot be computed since ethnic group is not recorded on death registration certificates in Great Britain.
- Country of birth analyses carried out for deaths occurring around the time of the 2001 Census produced all-cause Standardized Mortality Ratios (SMRs) for people aged 20 years and over that, when compared to the population of England & Wales as a whole, were statistically significantly *higher* for: men and women born in Ireland, Scotland, East Africa or West Africa; men born in Bangladesh; and women born in India or Pakistan. Standardized Mortality

Ratios were statistically significantly *lower* for men and women born in China or Hong Kong, for men born in India and for women born in Eastern Europe.

- Recent *indirect* estimates of life expectancy based on a method that uses self-reports of limiting long-term illness (LLTI) and its empirical link to later mortality, suggest that life expectancy is highest among Chinese men and women (estimates of 78.1 years and 82.1 years respectively), and lowest among Pakistani men (77.3 years) and among Bangladeshi women (72.7 years).
- Infant Mortality varies between ethnic groups. Black Caribbean and Pakistani babies are more than twice as likely to die in their first year as White British or Bangladeshi babies.
- There are no direct estimates of cause-specific death rates by ethnicity for the countries of Great Britain. Estimates produced by other means are imprecise and should be treated with caution.
- Analyses of cause-specific deaths by country of birth around the time of the 2001 census produced SMRs for people aged 20 years plus compared to the general England & Wales population for ischaemic heart disease (IHD) that were *high* among men and women born in Ireland, East Africa, Bangladesh, Pakistan or India, men born in Eastern Europe or the Middle East and women born in Scotland. Low SMRs for IHD were observed among men born in West Africa or the West Indies and both men and women born in China or Hong Kong. In young adults (20–44 years of age), very high mortality from IHD was seen for men born in Eastern Europe and in Pakistan.
- This country of birth analysis also found that cerebrovascular disease mortality was higher than the general England & Wales population among men born in all the countries analysed apart from the Middle East. SMRs were also significantly higher than the England & Wales population among women born in Ireland, Scotland, West Africa, Bangladesh, India, Pakistan and the West Indies. Particularly high SMRs for cerebrovascular disease were seen for men and women born in Bangladesh and for men born in West Africa.
- Morbidity data collected in the HSE 2004 showed that reported cardiovascular (including all CVD that had been diagnosed by a doctor) was most prevalent among Irish men (14.5%) and among women in the general population (13.0%). Black African men and Chinese women were significantly *less* likely

than the general population to have any CVD condition. The prevalence of any CVD condition increased markedly with age in all ethnic groups. However, when the analysis is broken down by age-group, Pakistani men and women in the 55+ age-group have the highest levels of CVD.

- There are widespread claims that the rate of decline in mortality from ischaemic heart diseases has been slower in recent years among South Asians than in the rest of the UK population. Though this may be true, it can not be confirmed with certainty from the available data.
- The perception that Black African and Black Caribbean populations have particularly high levels of stroke mortality do not appear to be well substantiated by the available national-level statistics.
- Death rates from cancer by ethnicity are not currently available. Analyses by country of birth for deaths occurring around the time of the 2001 census suggest statistically significantly *higher* mortality from all cancers combined, lung and colorectal cancer among people born in Scotland and Ireland, *lower* mortality for all cancers combined, breast and prostate cancer among people born in Bangladesh (except for lung cancer in men), India, Pakistan and China/Hong Kong. Lower lung cancer mortality was found among people born in West Africa and the West Indies, while higher breast cancer mortality was seen among women born in West Africa (SMR 132) and higher prostate cancer mortality among men born in West Africa (SMR 271) and the West Indies (SMR 198).
- Cancer incidence data by ethnicity are far from perfect and suggest a complex and changing picture. Areas of concern include: higher incidence of prostate cancer in Black males and higher incidence of cervical cancer in Black and South Asian women over 65 years. There are no consistent patterns in terms of survival rates from different cancers across the different ethnic groups.
- The Confidential Enquiry into Maternal and Child Health CEMACH (Lewis 2007) reported that Black African, Black Caribbean and Middle Eastern women were significantly more likely to experience a direct or indirect maternal death than White women. Black African women (including asylum seekers and newly arrived refugees) had a mortality rate six times higher than White women and experienced major problems in accessing maternal healthcare.

- Data on suicide and accidental death by ethnicity are limited. Older analyses by country of birth, using data relating to 1991-3, suggested increased risk of both suicide and accidental death among both men and women born in Scotland or Ireland compared to the general England & Wales population, but not among other migrant groups. However, a recent analysis of suicides occurring within 12 months of contact with mental health services in England & Wales (which employed broad, clinician-assigned, ethnic groups) suggests elevated risks of suicide among some minority ethnic groups. These include young Black Caribbean and Black African men aged 13-24 years, as well as women aged 25-39 years of South Asian, Black African and Black Caribbean ethnicity when compared to the White group.

HEALTH:

- For the measures of general self-reported poor health and limiting long-term illness, the Pakistani and Bangladeshi groups stand out as having the worst health. Census data for England & Wales and also for Scotland show high proportions of these groups reporting poor health and LLTI, while Chinese males and females report low levels. At older ages, Indian men and particularly women, also report high levels of poor health. The White Irish population in England also faces significant health disadvantage when compared to the White British.
- Patterns of mental wellbeing by ethnicity are complex and there are ongoing debates as to how easily psychiatric morbidity can be assessed across cultural and linguistic groups. In the HSE 2004 Pakistani men and women and Bangladeshi men were more likely to have a high GHQ12 score than the general population. Findings from EMPIRIC suggest very few ethnic differences in the prevalence of common mental disorders once age is adjusted for, with only Bangladeshi women standing out as having a lower risk than White women.
- Asylum seekers and refugees may face particular mental health issues because of past experiences of torture and abuse as well as the extreme stress associated with their dislocation. Gypsies and Travellers also appear

to face high levels of emotional and psychological distress associated with a lack of control over their lives, forced relocation and societal discrimination.

- Some particular health issues are of concern among some migrant and minority ethnic groups, including diabetes, some infectious diseases (including TB and HIV), haemoglobinopathies, and female genital mutilation.

Process

- The broader tension between two wings of policy - immigration control (and the associated concerns with community cohesion and preservation of British identity) on the one hand and race equality on the other - is evident within the health arena. This comes most sharply into focus when examining the healthcare experiences and outcomes of asylum seekers, refugees and new migrant communities; though it is also a common thread underlying the poor provision and persistent inequalities of established minority ethnic populations.

- There is a large body of evidence that documents the poorer experiences and lower level of satisfaction with NHS health services experienced by minority ethnic groups as compared to the White British majority. The latest figures from the Care Quality Commission confirm that people of South Asian and Chinese origin report less positive experiences than the White British majority across a range of care settings, but that differences are particularly noticeable in primary care. In 2008/9, compared to White British people, people of Asian/Asian British ethnicity had an odds of reporting that they were always treated with dignity and respect by their GP of 0.5, while for Chinese people it was just 0.3.

- Other evidence suggests that Gypsies and Travellers have extremely poor experiences of primary care and may face significant obstacles to registering with a GP. There are also particular access issues facing asylum seekers and refugees.

- The disproportionately high levels of detention of Black Caribbean and Black African men in secure psychiatric institutions as well as their increased likelihood of receiving coercive intervention and compulsory detainment represent enduring and worrying inequalities.

- Poor communication is a commonly cited problem and there are widespread inadequacies in interpretation and translation facilities. Furthermore, communication barriers are not merely an issue for those who cannot speak English. Poor listening, dismissiveness, rushed consultations and disrespectful attitudes are factors that have been found to undermine patient-provider communication for many minority ethnic people even if they can speak English.

- Concerns about coercive and disrespectful care are particularly evident within mental health and maternity services.

- Despite numerous broad policy directives and strategy documents that signal the importance of understanding and tackling ethnic inequalities in health, there is a lack of detailed and systematic attention to the needs of minority ethnic populations in action plans and service specific policy documents, such as National Service Frameworks, though there are some areas of good practice.

- There is a widespread lack of collection and application of local ethnic monitoring data in the commissioning and evaluation of services. Many Primary Care Trusts do not have accurate figures on the make-up of their populations by ethnicity.

- Effective diagnosis and treatment may be undermined when minority ethnic people do not present with the 'typical' symptoms that have been identified on the basis of research and clinical experience with the majority White British population. For instance, compared with White British people, South Asians are more likely to experience 'atypical' symptoms during myocardial infarction which may delay diagnosis or optimal intervention. They are also less likely to be prescribed lipid-lowering medications and are more likely to withdraw from cardiac rehabilitation programmes.

- Health-related life-style factors vary greatly across ethnic groups and there are no clear patterns whereby minority ethnic groups are exposed to increased health risk across a range of behaviours. Issues that are of particular cause for concern include: high levels of smoking among Bangladeshi men (HSE 2004 found 40% of Bangladeshi men were smokers compared with 24% of men in the general population); frequent and heavy drinking among White Irish men and women; and high levels of obesity and raised waist circumference among Pakistani and Black Caribbean women. Levels of physical activity among men and women are lower among all the minority ethnic groups, except the White Irish, when compared to the general population. In contrast, minority ethnic people (except the White Irish), particularly men, are more likely than the general population to report eating the recommended amounts of fruit and vegetables.

Autonomy

- Lack of access to information and lack of familiarity with the system appears to make it more difficult for people from some minority ethnic backgrounds to exercise choice in terms of their healthcare and this is particularly true for new migrants and those with poor English language skills.

- Culturally incompetent services and practitioners can restrict the ability of people from minority ethnic backgrounds to engage with services in the ways that they would prefer. For instance, factors such as a lack of facilities for family members to be involved, inappropriate dietary provision, and a lack of privacy, particularly for women, can result in poor patient experiences and withdrawal from services/treatments.

- A lack of choice and control over their lives and the pervasive experience of discrimination are prominent issues for Gypsies and Travellers, as well as asylum seekers, that impact negatively on their health and well-being.

Cross over themes and vulnerable groups

There are complex patterns of ethnic inequalities in LIFE and HEALTH by other axes of inequality, particularly sex/gender, age and socioeconomic status. We discuss these in more detail below.

A number of human rights concerns have been identified by Aspinall and Watters (Aspinall and Watters 2010) in relation to the health of asylum seekers and refugees including:

- Difficulties accessing GP treatment and consequent increased reliance on A and E services.
- Uncertainty and lack of clarity among service providers about asylum seekers' eligibility for secondary healthcare services resulting in care being withheld in some cases.
- Inadequate response to communicable diseases, particularly TB. The health of asylum seekers with HIV/AIDs is negatively affected by the policy of dispersal at short notice and chargeable HIV treatment for refused asylum seekers.
- Human rights implications around the deportation of failed asylum seekers with HIV/AIDS.
- Institutional failure to address health concerns of asylum seekers in detention (particularly in relation to children's health, mental health, treatment for those with HIV and access to female GPs, especially for women who have suffered rape and sexual violence). Aspinall and Watters (2010) summarise the conclusions of the Joint Committee as follows *"The Committee concluded that it had concerns about the extent to which the quality of healthcare provided to asylum seekers in detention is fully compliant with international human rights obligations. Particular concern was expressed about gaps in care for people with HIV and with mental health problems and with procedures for identifying and supporting torture victims. The Committee recommended that female GPs and other medical practitioners should be available in detention centres where women are held."*

Gypsies and Travellers also stand out as another 'group' that is particularly vulnerable across outcome, process and autonomy aspects of the LIFE and HEALTH capabilities.

Finally, some groups of minority ethnic women, particularly those who do not speak English, are recently arrived in Great Britain, who have poor social networks and/or who are elderly emerge as particularly vulnerable to poor health outcomes and poor healthcare experiences.

Are there any emerging trends?

- New migrant communities have different health needs from established minority communities, and there are signs that their health and life outcomes may be poor.

- Increasing ethnic, linguistic and cultural diversity demands new responses from health services. At the same time, an increasing proportion of people are claiming a 'mixed' ethnic identity.

- Some of the factors that seemed to protect/enhance health for first generation migrants appear to be diminished in second and third generation migrants e.g. dietary habits. Some health advantages in first generation migrants are not well explained, but the picture among second generation migrants is worsening e.g. there is a rising incidence of some cancers.

What are the causes?

- Ethnic inequalities in health are complex and have multiple contributing factors, many of which remain poorly understood.

- Genetic/biological factors appear to contribute in part to some of the excess risks of ill-health faced by some minority ethnic groups. However, socially constructed ethnic groups are poor markers for genetic traits and evidence suggests that social, economic and health system related factors are far more important factors in explaining the large differences observed in health outcomes between groups.

- Holding a particular ethnic identity may imply certain sets of beliefs and behaviours that have implications for health and healthcare outcomes and experiences. Therefore, though there is great diversity within groups as well as change over time in cultural practices, at an aggregate level culturally informed beliefs, attitudes, preferences and associated behaviours may account for some of the observed inequalities. The most obvious area where these factors may be important relates to healthy life-styles; though it should be noted that minority ethnic groups do better than the White British majority on some key life-style related risks including alcohol consumption and smoking among women.

- Socioeconomic deprivation plays a significant part in the excess poor health faced by some minority groups - notably Bangladeshi and Pakistani Muslims. There is also evidence that access to state welfare benefits intended to offset the financial implications of poor health is poorer among minority ethnic groups than the majority White British. However, this is only part of the story and socioeconomic disadvantage does not explain the complex patterns of health observed across all ethnic groups, or the areas where minority groups fare better than the White British majority.

- There is growing evidence that racism plays a role in the poorer health of minority ethnic populations both via direct personal experience of racist victimisation or discrimination and fear of or expectation that racism may be encountered. The pervasive experience of racism in day-to-day life may also increase the likelihood of negative experiences and low satisfaction with health services.

- There is also evidence that the experience of statutory services, including but not limited to health services, can exacerbate the poor mental and physical health of minority ethnic people by being unresponsive, inappropriate and stressful.

- There is growing evidence of differentially poor access to key primary and secondary preventive and curative health services among minority ethnic groups that could help to reduce inequalities in the major causes of morbidity and mortality - e.g. uptake of cancer screening; access to smoking cessation services etc.

Data quality and quantity

- There has been a significant increase in the availability of health-related information disaggregated by ethnic group and in the volume of research that addresses the health outcomes and needs of minority ethnic groups in the UK over the past 10-15 years. However, most of this information relates to England and there is a limited picture of the health profiles of minority ethnic populations in Wales and Scotland.

- Routine health data sources still frequently fail to collect ethnicity data that is sufficiently complete and consistent to sustain robust analyses, a situation that the Association of Public Health Observatories (APHO) has recently described as 'unacceptable' (APHO, 2007).

- In addition, national surveys often employ sampling schemes that produce samples of insufficient size to sustain detailed analyses by ethnic group. Often groups are collapsed into large, heterogeneous categories that are unhelpful in understanding patterns or causes of health inequality. While the Health Survey for England (HSE) in 1999 and 2004 employed 'ethnic minority boost samples', the national surveys in Wales and Scotland have not adopted this approach at any time so that sample sizes are too small for meaningful analyses by ethnicity.

- Though there are clear advantages to the use of standardized, statutory ethnic categories, these are often not particularly helpful in terms of identifying groups of individuals with common health experiences and outcomes. For instance, the 'Black African' and the 'Other White' categories are particularly broad and unhelpful.

- A number of national surveys have recently added important information to our understanding of ethnic health inequalities including the Ethnic Minority Psychiatric Illness Rates in the Community (EMPIRIC) survey in 2000 and the HSE in 1999 and 2004. There have also been important new developments in terms of record linkage such as that using the NHS Numbers for Babies (N4BB) that has allowed estimates of infant mortality by ethnicity for the first time, as well as innovative techniques for indirectly estimating levels of morbidity and mortality by ethnicity.

- Though patterns of ethnic inequalities in health are now well-documented for the largest minority groups in England, there is a lack of evidence regarding (i) the multifaceted causal processes that contribute to poorer experiences of health services and poorer outcomes for some groups, and particularly (ii) how best to intervene to address poor health. Though there have been some important initiatives to address health disadvantage among minority ethnic groups, by-and-large these have been small-scale, local projects that have not been rigorously evaluated or scaled-up. In the absence of such detailed knowledge there is a danger that policy and practice responses can serve to further stereotype, stigmatise and marginalise minority groups. In addition, the research literature is heavily dominated by studies of the health needs and experiences of South Asian groups, with less evidence relating to other large minority groups, particularly Africans and Chinese.

- Within the broad migrant and minority ethnic population, there are some groups about which there is very limited information including: new White migrant communities, asylum seekers and refugees, Gypsies and Travellers and people of 'mixed' ethnicity.

How might change be better measured?

- Improved ethnic monitoring at primary care level is essential. The Quality and Outcomes Framework dataset could potentially be used to provide individual-level data rather than simply aggregated practice-level data that do not enable analyses by patient characteristics.

- Specialist efforts are needed to gather robust data for 'hidden' minority populations including: Gypsies and Travellers (including those who are housed), new migrant communities, asylum seekers and refugees.

- As with religion, there is a need for the collection of data that can enable a better understanding of process and autonomy – causal pathways cannot be inferred from descriptive analyses of inequalities between groups since ethnicity can be a proxy for multifarious factors that may impact upon health. It is likely that multi-disciplinary and cross-national comparative research will be helpful here.

- More research is needed that focuses on identifying effectiveness, and cost effectiveness, of interventions aimed at reducing ethnic health inequalities.

- The inclusion of indicators of access to healthcare services might usefully supplement the Equality Measurement Framework (EMF) (while acknowledging the complexities of establishing inequities in access). In particular, access to GP services and preventive measures (including screening) should be monitored. In addition, access to interpretation and translated information should be monitored since this is a major factor undermining quality of care and equitable outcomes for some minority ethnic people.

Evidence: Data quality and quantity

There has been a significant increase in the availability of health-related information disaggregated by ethnic group and in the volume of research that addresses the health outcomes and needs of minority ethnic groups in the UK over the past 10-15 years. However, most of this information relates to England and there is a limited picture of the health profiles of minority ethnic populations in Wales and Scotland.

The 2001 Censuses of England, Scotland and Wales collected information on ethnicity and provide a general picture of the health status of the different ethnic groups in the three countries. Census data also provide the best available estimates of the size of the minority ethnic populations in the three countries. Table 1 shows the percentage distribution and numbers of people belonging to each of the main enumerated ethnic groups in the 2001 Census of England.

Table 1: Population of England: by ethnic group, April 2001

	Numbers	Percentages
White British	42,747,100	87.0
White Irish	624,100	1.3
Other White	1,308,100	2.7
White	**44,679,400**	**91.0**
Mixed	**643,400**	**1.3**
Indian	1,028,500	2.1
Pakistani	706,500	1.4
Bangladeshi	275,400	0.6
Other Asian	237,800	0.5
Asian or Asian British	**2,248,300**	**4.6**
Black Caribbean	561,200	1.1
Black African	475,900	1.0
Other Black	95,300	0.2
Black or Black British	**1,132,500**	**2.3**
Chinese	**220,700**	**0.4**
Other	**214,600**	**0.4**
All non-white	**4,459,400**	**9.0**
All population	**49,138,831**	**100**

Source: Census 2001, ONS
Note: Numbers rounded to nearest 100.

ONS have produced experimental estimates of the ethnic composition of the populations of England and of Wales for 2007 using a cohort component method taking the 2001 Census population as the population base. In 2007, the total proportion of the population of England that were of minority ethnic identity (i.e. other than White British) was estimated to be around 16%. The proportion of people reporting a 'mixed' ethnic identity and a 'White other' ethnic identity have particularly increased over the period since the last Census.

In comparison to England, the total minority ethnic population of Wales is much smaller, comprising around 4% of the population, with the non-White population comprising 2% (Table 2). The Indian and Pakistani groups were the largest, with around 8,200 people in each.

Table 2: Population of Wales: by ethnic group, April 2001

	Numbers	Percentages
White British	2,786,605	96.0
White Irish	17,689	0.6
Other White	37,211	1.3
White	**2,841,505**	**979**
Mixed	**17,661**	**0.6**
Indian	8,261	0.3
Pakistani	8,287	0.3
Bangladeshi	5,436	0.2
Other Asian	3,464	0.1
Asian or Asian British	**25,448**	**0.9**
Black Caribbean	2,597	0.1
Black African	3,727	0.1
Other Black	745	0.03
Black or Black British	**7,069**	**0.2**
Chinese	**6,267**	**0.2**
Other	**5,135**	**0.2**
All non-white	**61,580**	**2.1**
All population	**2,903,085**	**100**

Source: Census 2001, ONS
Note: Numbers rounded to nearest 100.

In 2007, the total proportion of the population of Wales that were of minority ethnic identity (i.e. other than White British) was estimated to be almost 3%, compared to

2% recorded in the 2001 census (Statistics for Wales 2010). This represents 86,300 people. The largest ethnic groups were the Asian or Asian British categories; Indian, 13,600 people, Pakistani, 11,000 and Bangladeshi, 6,500 people.

Table 3: Population of Scotland: by ethnic group, April 2001

	Numbers	Percentages
White Scottish	4,459,000	88.1
Other White British	373,700	7.4
White Irish	49,400	1.0
Other White	78,200	1.5
White	**4,960,300**	**98.0**
Mixed	**12,800**	**0.3**
Indian	15,000	0.3
Pakistani	31,800	0.6
Bangladeshi	2,000	0.04
Other Asian	6,200	0.1
Asian or Asian British	**55,000**	**1.1**
Black Caribbean	1,800	0.04
Black African	5,100	0.1
Other Black/Black Scottish	1,100	0.02
Black or Black British	**8,000**	**0.16**
Chinese	**16,300**	**0.3**
Other	**9,600**	**0.2**
All non-white	**101,700**	**2.0**
All population	**5,062,000**	**100**

Source: 2001 Census of Scotland., The Scottish Government.
Note: Numbers rounded to nearest 100.

The minority ethnic population of Scotland is also much smaller than in England at just over 100,000 in 2001 or 2% of the total population of Scotland (Table 3). Pakistanis are the largest minority ethnic group, followed by Chinese, Indians and those of Mixed ethnic backgrounds. The size of the minority ethnic population in Scotland increased between the 1991 and 2001 Census by 62.3%.

Given the differing sizes of the minority ethnic populations across England, Scotland and Wales it is perhaps not surprising that there is a much greater volume of data for England than the other two countries. The Scottish Public Health Organisation has commented that *'Understanding needs and monitoring progress is hampered by the* *severe lack of routine information on the health of minority ethnic groups in Scotland. Work is in progress to improve the routine collection of data on ethnicity in order to address ethnic inequalities in health'* (ScotPHO 2010).

A similar situation exists in Wales. Much of the following discussion therefore relates to England rather than to Scotland or Wales.

Routine health data sources still frequently fail to collect ethnicity data that is sufficiently complete and consistent to sustain robust analyses, a situation that the APHO has recently described as 'unacceptable' (2007) Hospital trusts have been required to collect ethnicity data for all in-patients since 1996, though these data are still of variable completeness and quality. In primary care the collection of ethnicity data is not mandatory, though GP practices are encouraged to collect these data via incentives in the Quality and Outcomes Framework as well as via Directed and Local Enhanced Services (carrying additional financial incentives) where these operate. Furthermore, ethnic monitoring in primary care is not a newly introduced idea, and there has been commentary on this area of work and examples of good practice in England from the 1990s onwards (Pringle and Rothera 1996; Aspinall and Jacobson 2006). Despite this, a recent review by the King's Fund concluded that in general Primary Care Trusts (PCTs) did not have adequate data on the ethnic make-up of their populations to inform the commissioning or evaluation of health services, though a few PCTs were found to be very active in trying to meet the local needs of their multiethnic populations. It can be argued that a failure to collect and report these data is in contravention of the RR(A)A 2000, since without such information it is not possible to assess whether services are being delivered equitably. Despite these shortcomings, some useful analyses of Hospital Episodes Statistics and local primary care data have been conducted, mainly at a local level, and techniques promoted for coping with inadequate data (Aspinall and Jacobson 2007)

Turning to survey data, by-and-large national surveys in England, Scotland and Wales employ representative sampling schemes that produce samples of insufficient size to sustain detailed analyses by ethnic group. During analyses of such survey datasets ethnic groups are often collapsed into large, heterogeneous categories that are unhelpful in understanding patterns or causes of health inequality. However, in

England some recent population-based health-related surveys have been specially designed to have 'booster samples' of minority ethnic people - including the Health Survey for England in 1999 and 2004 which took a special focus on the health of minority ethnic groups in these years, and the Ethnic Minority Psychiatric Illness Rates in the Community Survey, 2000. No similar surveys have yet been conducted in Scotland or Wales.

Health Survey for England 2004

This was the fourteenth annual survey of health in England covering adults aged 16 and over living in private households in England as well as children aged 0 to 15, who live in households selected for the survey. Like the 1999 survey, this survey focused on the health of adults from various minority ethnic groups in England. Additional households were included in the survey to increase the number of Black Caribbean, Black African, Indian, Pakistani, Bangladeshi, Chinese and Irish participants. The sampling approach for most of the minority ethnic groups was based on a version of focused enumeration. A different approach was needed for the Irish and the sampling approach for the Chinese group included screening the electoral register for 'Chinese sounding' surnames to identify wards with higher numbers of potentially eligible respondents. Comparative analyses were performed with the general population in England. The survey included core questions and measurements (including blood pressure, anthropometric measurements and analysis of blood, saliva and urine samples) taken during a nurse visit. The survey yields a range of information on general health, chronic and acute health conditions, health risks, health-related behaviours and medications.

Further details of the methodology of the survey are available here:
http://www.ic.nhs.uk/webfiles/publications/healthsurvey2004ethnicfull/HealthSurveyforEnglandVol2_210406_PDF.pdf

Ethnic Minority Psychiatric Illness Rates in the Community (EMPIRIC) 2000

This survey was carried out among ethnic minority adults aged 16-74 living in England in 2000 to make comparisons with the prevalence of psychiatric morbidity in the general population. The survey used the existing 1999 Health Survey for England, which had a focus on minority ethnic groups, to draw its sample. The survey consisted of two elements, a quantitative survey of rates of mental illness among different ethnic groups in England and a qualitative study investigating ethnic and cultural differences in the context, experience and expression of mental distress. Measures of mental health included in the survey were designed to be administered by a survey interviewer and to be used in a fully structured interview. The survey did not include a follow-up clinical interview administered by a trained clinician.

Further details of the methodology of the survey are available here:

http://www.archive2.official-documents.co.uk/document/deps/doh/empiric/chapter1.htm#1.3

Other national surveys including the Labour Force Survey and the General Household Survey can and have been used to explore general patterns of health by ethnic groups, often by pooling several years of data, but these do not collect such detailed information on health conditions or health-related risk factors.

While a number of surveys fielded in Scotland collect information on health and ethnicity - such as the Scottish Health Survey or the GLF - the numbers of minority ethnic respondents included in any one year are too small to sustain meaningful analyses. For instance, the following figures were supplied by the Scottish Government for the total number of respondents in the 2008 SHeS by self-reported ethnicity: White Irish (48), Indian (26), Pakistani (31), Bangladeshi (1), Chinese (6), Black Caribbean (6) and Black African (13). Even aggregating data across two or three years would not yield numbers to sustain analyses. Nevertheless, the health of minority ethnic groups has received quite a lot of attention in Scotland, largely the result of an active group of researchers at the University of Edinburgh, and Scotland has recently published an 'Ethnicity and Health Research Strategy' (The Scottish Ethnicity and Health Research Strategy Working Group 2009)

Surveys of health service users have also produced some useful data in recent years that allow examination of the differential experiences of patients across ethnic groups. These include the GP Access Surveys, the Quality Care Commission Patient Satisfaction Surveys and the Count me In Census of in-patient mental health service users that has been conducted annually from 2005 to 2010. Similar surveys in Scotland and Wales have not included sufficient numbers of minority ethnic respondents to enable analyses by ethnicity.

In addition to national datasets, over the past 10-20 years the volume of research into ethnicity and health has grown rapidly in the UK, mostly in England and to a lesser extent also in Scotland. There are a number of large-scale special surveys as well as many smaller-scale qualitative and clinically-focused studies that have collected data that allow comparisons between minority ethnic groups and the majority White British population (see for instance Harding et al., 2007).

Data relating to Gypsies and Travellers' health is extremely limited and the invisibility of this severely socially excluded group is a major concern. Health service commissioners and planners commonly operate in the absence of any information on the size or needs of these communities. We draw on one special study extensively in the sections that follow - the Health Status of Gypsies and Travellers 2004 (Parry et al. 2007) - since it is the only study of any size that has explored health among this particularly disadvantaged group.

Health Status of Gypsies and Travellers 2004 (Parry et al. 2007)

Currently the only substantial, quantitative study of the health of Gypsies and Travellers in the UK, this study was carried out in 2002 and included a relatively modest sample size of 293 'Gypsy-Travellers' across five locations: London, Bristol, Sheffield, Leicester and Norfolk. This study employed a survey including standard health measures, supplemented by 27 in-depth interviews to explore health experiences, beliefs and attitudes. The study identified distinct groups: English Gypsies, Welsh Gypsies, Scottish Gypsy Travellers and Irish Travellers, and sampled in such a way as to include English/Welsh and Irish Traveller samples. The majority of the results are presented for the total group combined, though some differences within the sample are highlighted. The study also included a matched comparator sample of 260 people matched for age and sex and living in one of the five locations, including British people in White, Pakistani, Black Caribbean ethnic groups, urban and rural environments, and those who were socio-economically deprived. All participated in a structured health interview including standardised measures of health status and specific illnesses, medication use, and health service contacts.
Further details of the study are available here:
http://www.sheffield.ac.uk/content/1/c6/02/55/71/GT%20report%20summary.pdf

Despite the upsurge in interest and data, some important gaps remain, as well as significant concerns about the quality and usefulness of some of the research that has been conducted on ethnic inequalities in health. The important gaps are summarised below:

- Ethnicity is not currently collected at death or birth registration.
- Ethnic monitoring in primary care remains poor meaning that there is a lack of up-to-date information on population size by ethnic group and hence an absence of denominators for the calculation of rates of disease, admissions to hospital and so on. Census projections are the most accurate information on population size by ethnic group in many places.
- South Asian groups have been studied much more than other ethnic groups and there remains relatively little research on the health of Black African groups or Chinese. This is both because sample sizes in national datasets are too small for many groups, but also because focused studies have tended to examine the

situation of South Asians more than other groups, perhaps because they are large in size and often geographically concentrated.
- New migrant groups are not included in most datasets and most research studies.
- There is a lack of attention to White ethnicities and limited data on White minority groups.
- Asylum seekers, refugees and Gypsies and Travellers are groups that are known to have very poor health and healthcare experiences but for which the available data is extremely limited. Aspinall and Watters report that the first data arising from a survey of refugees and a migrant survey instigated by the Home Office should be available from 2010 (Aspinall and Watters 2010).

It is worth noting that a variety of approaches have been adopted in the absence of adequate ethnicity data. These include:

- Record linkage: For example, the recent introduction of NHS Number for Babies at birth and the collection of ethnicity in this record plus record linkage to birth registration data have recently enabled the analysis of birth outcomes and infant mortality by ethnicity. Similarly, NHS Hospital Episode Statistics and national cancer register data have been combined in order to create a National Cancer Data Repository which has resulted in analyses of cancer incidence by ethnicity. Significant record linkage has also been taking place in Scotland to help fill the gaps in information about ethnicity and health there (Fischbacher, et al. 2005; Bhopal, et al. 2005).

- Country of birth: Analyses have frequently employed country of birth either as a proxy for minority ethnicity (which is becoming increasingly problematic) or to produce analyses for migrants versus UK-born. For instance, recent analyses by Harding and colleagues (Harding, Rosato and Teyhan, 2008) of cause-specific mortality rates over time for migrant groups has shown evidence of some widening in disparities for migrants from particular countries over time.

- Imputation and other techniques to get around the problems of missing data.

- Use of name algorithms (Cummins et al. 1999; Nanchahal et al. 2001) to assign ethnicity to respondent/patient records. Though useful in some settings, these techniques can not be applied to all ethnic groups or all contexts.

In addition to issues relating to the quantity and quality of data, a number of conceptual and methodological issues have been highlighted by researchers interested in understanding and tackling ethnic inequalities in health. These have been summarised elsewhere (Bradby 2003; Salway et al. 2009; Salway and Ellison 2010). In brief, these relate to the importance of researchers and users of research evidence:

- recognising that the term 'ethnicity' is used in diverse and contradictory ways and that the multifaceted nature of ethnicity and its varied influences on health outcomes and experiences should be acknowledged;

- recognising that ethnic categories are socially constructed varying across time and place, are not natural or neutral, and are inevitably crude markers of health-related risk;

- exploring diversity within, and similarities across, ethnic groups as well as differences between ethnic groups since many important health issues affect individuals across ethnic groups similarly and other axes of disadvantage (such as gender and socioeconomic deprivation) cut across ethnic groups;

- acknowledging that though the 2001 Census categories have been carefully tested for acceptability and salience with the general public, they do not necessarily delineate groups of individuals who have similar experiences of health or healthcare services. Some groups are particularly broad and unhelpful in this regard and conceal important heterogeneity (for instance in religion, language, socioeconomic circumstances and so on);

- being aware that data collection instruments - such as survey questions asking about self-perceptions of health - may operate differently across ethnic and language groups thereby compromising comparisons;

- recognising that simple comparisons between ethnic groups can tell us nothing about the underlying causal factors explaining any differences and that caution is needed in drawing conclusions unless information is available on all potential explanatory factors; and

- appreciating the ways in which research on ethnic inequalities in health and healthcare can be misinterpreted and misused if not carefully managed and can serve to further stereotype, marginalise and stigmatise minority groups if not conducted with ethical and scientific rigour.

Though the data situation has improved considerably in recent years in England, much more needs to be done in Scotland and Wales before an adequate picture of ethnic inequalities can be ascertained. In addition, there are areas in need of further information across all three countries. While some of these undoubtedly require significant resource investments and/or the development of innovative methods (for instance for sampling dispersed refugee populations) there are also some 'missed opportunities'. The key issues are highlighted here:

- Improved ethnic monitoring at primary care level is essential and further efforts should be made to support Primary Care Trusts to ensure this. Furthermore, the Quality and Outcomes Framework dataset could potentially be used to provide individual-level data rather than simply aggregated practice-level data that do not enable analyses by patient characteristics.

- Some datasets that currently collect individual-level data on ethnicity - such as the CQC Patient Satisfaction Surveys - are not routinely deposited in the UK data archive with this variable included so that further secondary analysis is not easily possible. While recognising the need to ensure adequate data protection mechanisms are in place, steps should be taken to promote further analyses of such datasets.

- Specialist efforts are needed to gather robust data for 'hidden' minority populations including: Gypsies and Travellers (including those who are housed), new migrant communities, asylum seekers and refugees.

- As with religion, there is a need for the collection of data that can enable a better understanding of process and autonomy – causal pathways cannot be inferred from descriptive analyses of inequalities between groups since ethnicity can be a proxy for multifarious factors that may impact upon health.

- More research is needed that focuses on identifying effectiveness, and cost effectiveness, of interventions aimed at reducing ethnic health inequalities. Though there have been some important initiatives to address health disadvantage among minority ethnic groups, by-and-large these have been small-scale, local projects that have not been rigorously evaluated and this hampers progress towards rolling out better service approaches for minority ethnic people. At the same time, well-designed healthcare evaluation studies commonly fail to include participants from minority ethnic backgrounds and/or to analyse outcomes by ethnicity, so that we know little about the (potentially) differential benefits of such interventions across ethnic groups. In the absence of such detailed knowledge there is a danger that policy and practice responses can serve to further stereotype, stigmatise and marginalise minority groups.

- The inclusion of indicators of access to healthcare services might usefully supplement the Equality Measurement Framework (EMF) (while acknowledging the complexities of establishing inequities in access). In particular, access to GP services and preventive measures (including screening) should be monitored. In addition, access to interpretation and translated information should be monitored since this is a major factor undermining quality of care and equitable outcomes for some minority ethnic people.

LIFE: main indicators

Life expectancy and mortality

Ethnicity is not collected at death registration in England, Scotland or Wales meaning that routine mortality statistics are not produced disaggregated by ethnic group. It is not therefore possible to produce direct estimates of the life expectancy measures or the cause-specific mortality rates that are included in the EMF by ethnic group.

In the absence of direct estimates, a number of other approaches have been adopted in order to gain some indication of the levels of mortality experienced by minority ethnic populations in comparison with the majority White British.

All cause mortality by country of birth: around 1991

The first approach has been to use country of birth as a proxy for ethnic group. Country of birth is recorded at the time of death (by a proxy respondent), and for newer migrants is a reasonable proxy for ethnicity. However, over time this approach has become less satisfactory as a growing proportion of the minority ethnic population of Britain are British-born. There are also some historical factors that can make country of birth an inaccurate indicator of ethnic identity. For instance, Fischbacher et al. (2005)) report that a large proportion of older people living in Scotland who report their country of birth as India are of White British ethnicity as they were born to British parents living in India during the colonial period. Another example would be older people who would report their ethnicity as Bangladeshi, but whose country of birth would be Pakistan since they were born prior to the formation of Bangladesh in 1971.

Despite these shortcomings, a number of analyses have been carried out using country of birth in order to gain some insights into the patterns of mortality among migrant minority groups in Great Britain. Though these are now rather out-of-date, we reproduce below the standardized mortality ratios computed by Gill et al. (2002) and by Maxwell and Harding (1998) using broadly similar methods (though different country of birth categories) and data from around the 1991 Censuses of England and

Wales. Gill et al.'s (2002) analyses suggest that among males, people born in India, West and South Africa and Bangladesh have a higher mortality level than the England and Wales population as a whole, while those born in Pakistan and China/Hong Kong/Taiwan have lower mortality. Among females, those born in India and the Caribbean had higher mortality than the England and Wales standard, while those born in Pakistan, Bangladesh and China/Hong Kong/Taiwan had lower mortality (Table 4). Maxwell and Harding's (1998)) analyses group all South Asian born together and suggest that men born in this region have higher mortality than the overall England & Wales population, but that women born in South Asia do not differ in their mortality level from the standard. Elevated mortality is seen among both men and women born in Scotland or in Ireland, while Caribbean-born men appear to have lower mortality (Table 5). As noted above, it is important to remember that these analyses do not include minority ethnic people who were born in Britain, and these made up around 44% of people identifying as Indian, Pakistani or Bangladeshi in the 1991 census and around 54% of Black Caribbean people (percentages that were even higher in the 2001 Censuses).

Table 4: All cause Standardized Mortality Ratios (indirectly standardized using the England & Wales 1991 census population) 20-74 years by country of birth, England & Wales 1989-92

Country of birth	Males	Females
India	**103** [2,318]	**113** [1,883]
Pakistan	**90** [571]	**83** [267]
Bangladesh	**114** [255]	**70** [53]
Hong Kong/China/Taiwan	**79** [218]	**88** [201]
Caribbean	98 [1,200]	**111** [798]
West and South Africa	**108** [198]	107 [102]

Source: (Gill, et al. 2002)
Notes: 95% confidence intervals given in brackets. Average number of deaths per year in [] All people resident in England and Wales = 100. * indicates statistically significantly different from the standard England and Wales population.

Table 5: All cause standardised mortality ratios (SMR) by country or region of birth and sex, 20–64 years, England and Wales 1991–93

Country of birth	Males	Females
Caribbean	**89** [1,680]	104 [1,095]
Indian sub-continent	**107** [4,114]	99 [1,877]
Scotland	**129** [4,596]	**127** [2,391
Ireland	**135** [5,994]	**115** [3,191]

Source: (Maxwell and Harding 1998)
Notes: Numbers of deaths in []. All people resident in England and Wales 1991 = 100. Bold indicates statistically significantly different from the standard England and Wales population.

All cause mortality by country of birth: around 2000

Wild et al.'s (2007)) analyses found that SMRs for all-cause mortality were statistically significantly higher than for England and Wales as a whole for: men and women born in Ireland, Scotland, East Africa or West Africa; men born in Bangladesh; women born in India or Pakistan. SMRs for all-cause mortality in the broad age group 20 years plus were statistically significantly below the national average for men and women born in China or Hong Kong, for men born in India and for women born in Eastern Europe. For most populations, similar patterns were seen when narrower age bands were examined, with differences persisting into the oldest age group (≥70 years). However, men born in Bangladesh had a statistically significantly low SMR in the 20–44-year age group but high SMRs in the older age groups and men born in Eastern Europe had statistically significantly high SMRs in the 20–44- and 45–59-year age groups but SMRs similar to that of the national average in the oldest two age groups. Women born in West Africa had a significantly elevated SMR for the broad age group (≥20 years) but a statistically significantly lower SMR for all-cause mortality among the oldest age group. Table 6 reproduces Wild et al.'s figures for all cause SMRs.

Table 6: Numbers of deaths and all–cause SMRs by sex and country of birth for people aged 20 years and over, England & Wales 2001

Country of birth	Males		Females	
	No. of deaths	SMR	No. of deaths	SMR
England and Wales	663,116	**97**	756,899	**97**
Scotland	18,147	**113**	17,077	**109***
Ireland	20,939	**128**	20,484	113*)
Eastern Europe	7,990	102	3,852	**96***
East Africa	1,792	**105**	1,194	**108***
North Africa	759	100	711	107
West Africa	1,238	**117**	807	**121***
West Indies	5,240	102	3,562	98
Middle East	2,266	98	1,502	97
Bangladesh	1,291	**120**	465	98
India	7,977	96	7,260	**104***
Pakistan	2,878	99	1,934	**106***
China and Hong Kong	987	83	877	**82***

Source: (Wild et al. 2007)
Notes: Indirect age-standardization using 2001 census population of England & Wales by sex and 5 year age-group as standard.. All people resident in England and Wales in 2001 = 100. Bold indicates statistically significantly different from the standard England and Wales population.

Country of birth information has also been used more recently to produce SMRs for Scotland by Fischbacher et al. (2005), who argue that though country of birth provides only a partial solution to the lack of ethnicity data, analyses by country of birth can provide some useful insights. Fischbacher et al. (2005) calculated SMRs with 95% confidence intervals for Scottish residents 25 years and over for a 6.25 year period using routine mortality statistics and adjusted census denominators. They used both an indirect standardization method taking (i) the England & Wales population, and (ii) the Scottish population as the comparator (which permits comparisons between each country of birth group and the England & Wales rates but not between the country of birth groups), as well as direct standardisation to allow direct comparisons between the different countries of birth groups (though this was compromised by small numbers in some groups). We reproduce below the SMRs that were calculated using the indirect standardization against the population of Scotland (Table 7). The results suggest that in comparison with the general Scottish population, none of the migrant groups had elevated mortality levels among either men or women. Indeed, most of the country of birth groups had lower mortality levels than the standard Scottish population, including all the South Asian born groups among men.

Table 7: SMRs among Scottish residents (aged 25-69 years) from all causes for 6.25 years (Jan 1997-Mar 2003) by country of birth and sex, using death rates from Scottish born in Scotland as reference.

Country of birth	Males		Females	
	No. of deaths	SMR	No. of deaths	SMR
England & Wales	480417	**72.0**	304571	**75.9**
UK (other)	3888	**64.9**	2415	**69.8**
N. Ireland	365	**85.2**	216	**80.5**
R/Ireland	426	106.4	253	**81.5**
India	173	**72.2**	107	94.5
Pakistan	121	**65.4**	78	87.5
Bangladesh	6	**36.3**	3	72.1
China	26	71.9	12	**55.0**
Hong Kong	62	**66.0**	25	**58.3**
Rest of the world	884	**76.4**	553	**70.7**

Source: (Fischbacher, et al. 2005)
Notes: Bold denotes significantly different from standard population

A further approach has recently been developed which involves the *indirect* estimation of mortality using an empirical relationship between reported long-term limiting illness and mortality for local areas to derive ethnic group SMRs from ethnic group Standardized Illness Ratios (SIRs) derived from the 2001 Census. Readers should refer to Rees et al.'s paper for a full understanding of the steps involved (Rees, Wohland and Norman 2009). Rees et al.'s (2009) indirect estimates suggest that the Chinese group life expectancies were highest for both men and women, with both men and women in the Other White and Other Ethnic groups having life expectancies above the all group mean, and Black African men having a life expectancy slightly above the all group men. The Indian group had life expectancies close to the all group average for men but well below average life expectancies for women. The lowest life expectancies were among the Bangladeshi group, the Pakistani group, the Other Black group and the White and Black Caribbean group. The mixed groups, White and Black African and White and Asian as well as the White Irish, Black Caribbean and Other Mixed groups, all had life expectancy below the all group mean, though the difference was not large (Table 8). It is important to emphasise that these indirect estimates are based upon self-reported limiting long-term ill-health/disability, a measure that may well be sensitive to cultural (linked to ethnicity and/or gender) variation in the experience and expression of ill-health.

Table 8: Indirect estimates of Life expectancy at birth (e_0) for ethnic groups, men and women, England, 2001, calculated with the Standardized Illness Ratio method

Ethnic group	**Women e_0**	**Men e_0**
White British	80.5	75.9
White Irish	80.3	74.9
Other White	81.3	76.9
Indian	79.3	75.5
Bangladeshi	77.7	72.7
Pakistani	77.3	73.1
Other Asian	79.5	75.2
Black Caribbean	79.1	74.4
Black African	80.4	76.1
Other Black	78.5	73.4
Chinese	82.1	78.1
White-Asian	80.0	75.1
White-Black Caribbean	78.7	73.4
White-Black African	79.5	74.2
Other Mixed	79.9	74.6
Other Ethnic	81.5	76.2
All groups	80.5	76.0

Source: Rees et al. (2009)
Notes: Readers should refer to Rees et al.'s paper for a full description of the method employed.

It has been confirmed by the authors of this paper that indirect estimates of life expectancy at other ages (age 20, 65 and 80, as reported in other chapters in this report) could also be produced from these linked datasets but these were not available at the time of publication.

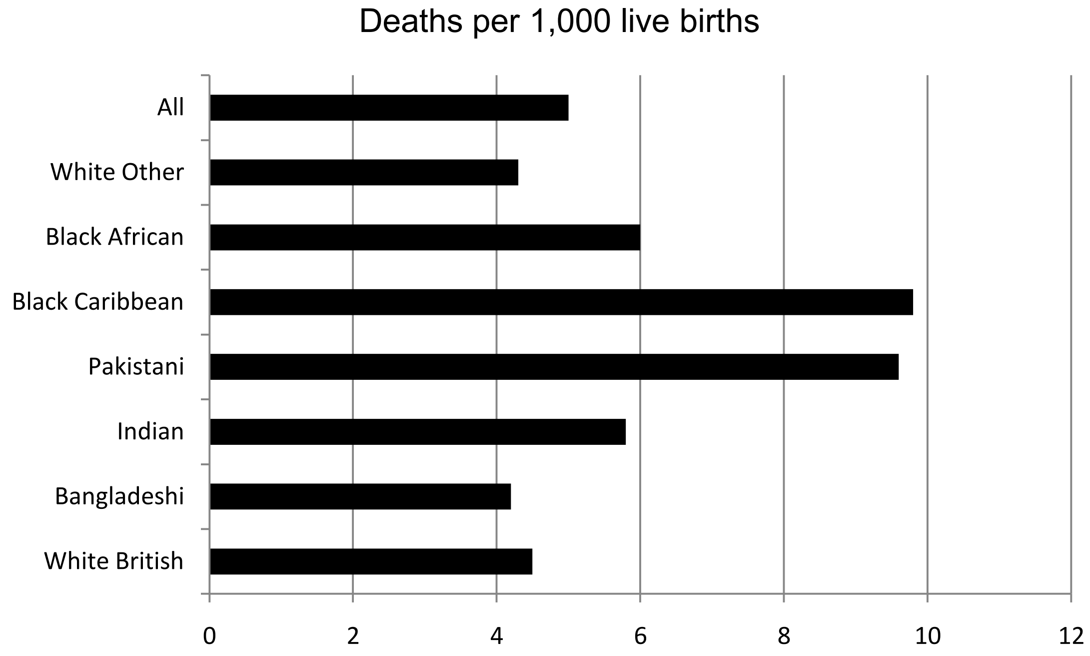
No life expectancy estimates are currently available for Gypsy and Traveller populations or for asylum seekers and refugees.

Infant mortality

Until recently it has not been possible to publish infant mortality rates (IMRs) by ethnic group in Britain as birth statistics routinely produced by Office for National Statistics (ONS) are based on information collected at birth registration and ethnic group is not recorded at birth registration. The introduction of NHS numbers for babies (NN4B) born in England, Wales and Isle of Man, which includes ethnic group information, has enabled record linkage to death certificates to enable IMR to be estimated by ethnic group for the first time for all births in England & Wales 2005.

Figure 1 illustrates large differences between the ethnic groups, with White British and Bangladeshi babies being least likely to die before age one (estimated rates of 4.5 and 4.2 per 1,000 live births) and Pakistani and Black Caribbean babies being most likely to die (estimated rates of 9.6 and 9.8 deaths per 1,000 live births). It is worth noting that all minority ethnic groups are found to have lower birth weights than the majority White British population (Moser et al. 2008). Furthermore, the predominant cause of infant deaths differed between the two groups with highest IMRs in 2005. While Pakistani babies were most likely to die from congenital abnormalities (accounting for 116 out of the total 231 deaths occurring), among Black Caribbean babies the most prevalent cause of death was 'immaturity related conditions' (accounting for 49 out of the 73 deaths occurring).

Figure 1: Infant mortality rates (IMR) by ethnic group: babies born in England & Wales, 2005



Source: ONS, http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=15111
Notes: There were 3,200 infant deaths in total with the number of deaths to babies in each ethnic groups being: Bangladeshi (34), Indian (93), Pakistani (231), Black Caribbean (73), Black African (118), White Other (142) and White British (1,859). IMR for Chinese was not computed separately due to small numbers.

There are no estimates of infant mortality for Gypsy and Traveller populations or for asylum seekers/refugees. The study by Parry et al. (2007) described above in the section on Data Quality and Quantity attempted to capture some relevant information by asking respondents “Are all your children still living?” They report that *'25 of 142 Gypsy Traveller women (17.6%) had suffered the death of a child (of any age but excluding miscarriages) compared with one of 110 matched comparators (0.9%) (χ^2=16.9, $p<0.001$).... Eight Gypsy Travellers but no comparators reported one or more stillbirths or death of a neonatal infant, with one woman experiencing multiple stillbirths'* (pg 41).

Maternal mortality

While in general deaths related to pregnancy and childbirth are uncommon in Britain, there are concerns that women of minority ethnic background, and particularly Black African women who are newly arrived in the country, experience significantly higher risks of such death. The Confidential Enquiry into Maternal and Child Health (CEMACH) (Lewis 2004), which reported on maternal deaths between 2000 and 2002, reported that women from ethnic minority groups were, on average, three times more likely to die as a result of a direct or indirect maternal death, and that for Black African women (including asylum seekers and newly arrived refugees) the mortality rate was seven times higher than White women. The more recent CEMACH report (Lewis 2007)) which reported on data from 2003-5, also found significantly elevated maternal mortality rates among Black African women (62.4 deaths per 100,000 maternities, CI 43.7-89.0; 30 deaths in total); Black Caribbean women (41.1 deaths per 100,000 maternities, CI 21.6-78.1; 9 deaths in total and); and Middle Eastern women (32.0 deaths per 100,000 maternities, CI 5.5-66.1; 7 deaths in total), when compared to White women (11.1 deaths per 1000,00, CI 9.5-12.9). These enquiries have identified major problems in accessing maternal healthcare for these women and significant communication barriers, particularly for new migrants.

Cause specific mortality

There are no direct estimates of cause-specific mortality rates by ethnicity for England, Scotland or Wales since ethnicity is not recorded at death registration. However, the country of birth analyses described above do offer some insights into the causes of death experienced by migrant minority populations. In addition, we present some data that are available on morbidity patterns for the major killers identified in the EMF by ethnicity.

It is important to note that the major killers are common across most ethnic groups and both sexes (though some differences do emerge). Therefore, comparisons between minority ethnic groups and the White British majority - for instance using SMRs - may not indicate elevated risks among minority groups but nevertheless conceal worryingly high levels of mortality. It is important therefore to explore absolute rates as well as inequalities between groups.

Cardiovascular disease mortality

Cardiovascular mortality: country of birth analyses (around 1991)

Gill et al.'s (2002) analysis of cause-specific mortality by country of birth for England and Wales around the time of the 1991 census concluded that for those born in

India, circulatory diseases, and specifically ischaemic heart disease (IHD), were the dominant causes of death in men (Table 9). The SMRs produced supported earlier findings that suggest these diseases to be 30–50% more common in migrant Indians compared to the population as a whole. Indian men had higher mortality rates from circulatory disease than Indian-born women. Among those born in Pakistan and Bangladesh too, cardiovascular diseases dominated for men, and to a lesser extent for Pakistan-born women. For those born in the Caribbean, both men and women, IHD, as well as cerebrovascular disease, were again the dominant causes of death. For those born in West and South Africa, SMRs were elevated for hypertension and cerebrovascular disease in men and for cerebrovascular disease in women, but ischaemic heart disease mortality was lower for both men and women in this group. The China-born men and women had much lower mortality from circulatory disease than the general population, but these diseases were still the second most common cause of death.

Table 9**:** Cause-specific SMRs for cardiovascular disease by country of birth, England and Wales, 1989-92

Country of birth	Males		Females	
	IHD	Cerebro-vascular	IHD	Cerebro-vascular
India	**142**	**134**	**158**	**146**
	[668]	[120]	[261]	[103]
Pakistan	**148**	**149**	111	**159**
	[229]	[42]	[38]	[24]
Bangladesh	**151**	**281**	91	151
	[93]	[29]	[7]	[6]
Hong Kong/China/Taiwan	**44**	129	**43**	135
	[27]	[14]	[9]	[12]
Caribbean	**62**	205	**86**	**197**
	[210]	[126]	[83]	[76]
West and South Africa	**58**	**261**	**61**	**162**
	[25]	[20]	[5]	[9]

Source: (Gill, et al. 2002)
Notes:. Average number of deaths per year in []. All people resident in England and Wales = 100. Bold indicates statistically significantly different from the standard England and Wales population.

Maxwell and Harding's (1998) results are presented in Table 10 below using slightly different country of birth groupings. The broad patterns are consistent with Gill et al.'s (2002) analysis above.

Table 10: Cause-specific standardised mortality ratios (SMR) for ischaemic heart disease by country or region of birth and sex, 20–64 years, England and Wales 1991–93

Country of birth	Males		Females	
	IHD	Cerebro-vascular	IHD	Cerebro-vascular
Caribbean	**60** [369]	**169** [160]	100 [146]	**178** [115]
Indian sub-continent	**150** [1,736]	**163** [299]	**175** [423]	**132** [151]
Scotland	**117** [1,253]	111 [189]	**127** [324]	**131** [150]
Ireland	**121** [1,706]	**130** [288]	**129** [521]	**118** [202]

Source: (Maxwell and Harding 1998)
Notes: Numbers of deaths in []. All people resident in England and Wales = 100. Bold indicates statistically significantly different from the standard England and Wales population.

Cardiovascular mortality: country of birth analyses (around 2001)

Fischbacher et al. (2007) computed SMRs for IHD mortality by country of birth for Scotland for deaths 1997-2003. When using the Scottish born population of Scotland as the reference, the SMRs for women and men born in India, Pakistan or Bangladesh were not significantly elevated, suggesting that in Scotland these South Asian minority ethnic groups do not have an excess risk of IHD mortality when compared to the Scottish born population. However, it is important to note that when the population of England & Wales was taken as the reference, SMRs were elevated among both men and women for those born in Scotland, Northern Ireland, India, and particularly Pakistan, illustrating the generally higher IHD mortality rates experienced among much of the Scottish resident population. (Numbers of deaths were too small for robust estimates for those born in Bangladesh or China).

Wild et al. (2007) examined circulatory disease mortality for people aged 20 years and over in England & Wales by country of birth using population data from the 2001 Census and mortality data for 2001–2003. Indirect standardization was used to estimate sex-specific SMRs and 95% confidence intervals (CI) in comparison to mortality for England and Wales as a whole. As shown in Table 11 below, high IHD SMRs were observed among men and women aged ≥20 years born in Ireland, East Africa, Bangladesh, Pakistan or India, men born in Eastern Europe or the Middle East and women born in Scotland. Low SMRs for IHD were observed among men born in West Africa or the West Indies and both men and women born in China or Hong Kong. In young adults (20–44 years of age), very high mortality from IHD was seen for men born in Eastern Europe (SMR 235; 95% CI 151–350) and in Pakistan (SMR 261; 95% CI 203–330). SMRs for IHD for men born in Eastern Europe or Pakistan were also elevated in other age groups but the difference from the standard was less marked at older ages. In relation to mortality from cerebrovascular disease, the picture was somewhat different. Cerebrovascular disease mortality was statistically significantly elevated among men born in all the countries analysed apart from the Middle East. SMRs were also significantly higher than the standard among women born in Ireland, Scotland, West Africa, Bangladesh, India, Pakistan and the West Indies. Particularly high SMRs for cerebrovascular disease were seen for men and women born in Bangladesh and for men born in West Africa.

Table 11: Numbers of deaths and cerebrovascular disease (ICD–10 I60–I69) and IHD (ICD–10 I20–I25) SMRs by sex and country of birth for people aged 20 years and over

Country of birth	Men		Women	
	IHD	Cerebrovascular	IHD	Cerebrovascular
Scotland	104 [3,813]	**113** [1,587]	**107** [2,767]	**107** [2,104]
Ireland	**118** ([4,531]	**127** [1,825]	**108** [3,298]	**111** [2,512]
Eastern Europe	**111** [1,981]	**112** [886]	104 [711]	100 [525]
East Africa	**141** [521]	**124** [126]	**130** [177]	112[102]
North Africa	97 [163]	**131** [75]	111[120]	112 [88]
West Africa	**61** [132]	**234** [144]	81[61]	**131** [70]
West Indies	**73** [897]	**160** [652]	96 [547]	**137** [515]
Middle East	**115** [592]	96 [168]	105 [247]	98 [162]
Bangladesh	**175**[409]	**249** [169]	**167** [97]	**207** [79]
India	**131** [2,528]	**116** [796]	**149** [1,672]	**122** [997]
Pakistan	**162**[1,044]	**141** [294]	**174** [454]	**139** [254]
China and Hong Kong	**66** [172]	**125** [113]	**67** [110]	114 [140]

Source: (Wild et al. 2007)
Notes: Indirect age-standardization using 2001 census population of England & Wales by sex and 5 year age-group as standard.. All people resident in England and Wales in 2001 = 100. Bold indicates statistically significantly different from the standard England and Wales population.

Cardiovascular disease: morbidity levels by ethnic group

The HSE 2004 collected data intended to indicate the prevalence of CVD among the minority ethnic groups of England. Informants were classified as having a cardiovascular (CVD) condition if they reported having ever had any of the following conditions diagnosed by a doctor: angina, heart attack, stroke, heart murmur, abnormal heart rhythm and/or ‘other heart trouble’. Reported cardiovascular disorder diagnosed by a doctor was most found to be prevalent among Irish men (14.5%) and among women in the general population (13.0%). Black African men and Chinese women were significantly less likely than the general population to have any CVD condition. The prevalence of any CVD condition increased markedly with age in all ethnic groups. However, when the analysis is broken down by age-group, Pakistani men and women in the 55+ age-group have the highest levels of CVD.

Cardiovascular disease incidence and mortality: trends over time

There are claims in recent government policy documents and British Heart Foundation literature (Department of Health 2004) that, while coronary heart disease mortality is falling in the general population in England & Wales, the rate of decline is slower among South Asian populations than other groups. However, this claim can not be confirmed with certainty with the data that are available. Nevertheless, Harding et al. (2008) have performed a useful analysis using the available country of birth data in which they computed age-standardized and sex-specific IHD and cerebrovascular disease mortality rates and also SMRs for people aged 30-69 years and born in various countries when compared to those born in England & Wales for the time periods 1979-83, 1989-93 and 1999-2003. These analyses showed that IHD mortality fell over the period among migrants, particularly in the second decade. Rate ratios for IHD mortality remained significantly higher than the England & Wales-born standard among men and women born in Scotland, Northern Ireland, Republic of Ireland, India, Pakistan and Bangladesh, and lower for men from Jamaica (identified separately in these analyses), other Caribbean, West Africa (which will include so-called 'twice migrant' Indian-Africans), Italy and Spain. As a result of smaller declines in mortality rates than among those born in England & Wales, SMRs increased for men from Pakistan (1979-83: 114, 1999-2003: 193), Bangladesh (1979-83: 136; 1999-2003: 211), Republic of Ireland (1979-1983: 118; 1999-2003:145) and Poland (1979-83:117; 1999-2003: 197) and for women from Jamaica (1979-83: 63; 1999-2003: 123) and Pakistan (1979-83: 114; 1999-2003: 245,). As a result of smaller declines than the England & Wales-born reference population, SMRs for cerebrovascular mortality also increased among some migrant groups including: men born in Pakistan (1979-1983: 99; 1999-2003: 158), Scotland (1979-1983: 111; 1999-2003: 130) and Republic of Ireland (1979-1983: 127; 1999-2003: 167).

It is clearly important to remember that (i) we do not have data on cause of death by ethnicity, and that (ii) latest estimates of cause of death data by country of birth provide a poor proxy for ethnicity, and relate to the 2001 period. In 2001, the proportion of people who were born in the UK among the largest ethnic groups were: Irish 34%, Indian 46%, Pakistani 55%, Bangladeshi 46%, Black Caribbean 58%, Black African 34% and Chinese 29% (ONS, online statistics available at http://www.statistics.gov.uk/statbase/product.asp?vlnk=14629). As such the mortality figures produced for most migrant minority groups, including the South Asian populations, are imprecise estimates for the total (migrant and non-migrant) ethnic minority populations and may over- or under-estimate the excess risk in comparison with the White British majority (Bhopal 2000). It is not possible therefore to confidently assess trends over time in heart disease mortality, or any specific cause of mortality, by ethnicity at the present time. It is also important to highlight the significant variation in morbidity and mortality profiles that exist between the ethnic groups that are sometimes lumped together into the broad 'South Asian' category. Various analyses have shown that the elevated risk of coronary heart disease is confined to the Pakistani and Bangladeshi ethnic groups, with Indians having much lower risks (Bhopal 2000; Bhopal et al. 1999; Nazroo 2001).

Limited trend data on cardiovascular disease prevalence are available from the HSE 1999 and 2004. A comparison of data from these two surveys suggests that the prevalence of CVD (all circulatory diseases combined) increased over this period among Pakistani men from 4.8% in 1999 to 9.1% in 2004 and among Indian women, from 2.3% to 4.2%. No evidence of such increases was found for other sub-groups.

Cancer mortality rates

In common with cardiovascular disease mortality discussed above, there is some evidence on cancer mortality rates for migrant minority groups from the country of birth analyses that have been performed around the time of the 1991 and 2001 censuses.

We report here findings from Wild et al. (2006) since these are the most up-to-date findings (Table 12). Wild et al. (2006) used population data from the 2001 Census and mortality data for 2001-2003 to estimate standardised mortality ratios for all cancers combined and major cancers among men and women aged 20 years by country of birth taking the whole of England and Wales as the reference group.

Statistically significantly higher mortality from all cancers combined, lung and colorectal cancer was found among people born in Scotland and Ireland. Lower mortality for all cancers combined, breast and prostate cancer was found among people born in Bangladesh (except for lung cancer in men), India, Pakistan and China/Hong Kong. Lower lung cancer mortality was found among people born in West Africa and the West Indies, while higher breast cancer mortality was seen among women born in West Africa (SMR 132, CI 105-163) and higher prostate cancer mortality among men born in West Africa (SMR 271, CI 207-349) and the West Indies (SMR 198, CI 178-221).

It is important to note that although the SMRs indicated mortality levels below those of the general population for many of the migrant groups, cancers are nevertheless a leading cause of death for all migrant-minority groups.

Table 12: All cancer and lung cancer SMRs by sex and country of birth for people 20+ years of age, England and Wales, 2001-2003

Country of birth	Men		Women	
	All cancers	Lung	All cancers	Lung
Scotland	**115** [5,271]	**132** [1,506]	112 [4,372]	**147** [1,026]
Ireland	**125** [6,110]	**149** [1,848]	**110** [5,130]	**136** [1,167]
Eastern Europe	95 [1,979]	98 [497]	**93** [878]	**70** [118]
East Africa	**75** [384]	**48** [61]	**84** [361]	**31**[22]
North Africa	93 [206]	79 [43]	107[197]	79 [26]
West Africa	115[352]	**68** [50]	109 [280]	**40** [16]
Middle East	100 [685]	87[148]	93 [447]	**35** [30]
Bangladesh	**85**[283]	116 [99]	**65** [117]	**36** [11]
India	**58**[1,440]	**44**[279]	**72** [1,410]	**45**[158]
Pakistan	**60** [526]	**58** [128]	**69** [414]	**31** [32]
West Indies	103 [1,679]	**81**[348]	**82** [996]	**22** [51]
China and Hong Kong	**84** [287]	**74** [63]	**81** [240]	**67** [34]

Source: (Wild et al. 2006)
Notes: Indirect age-standardization using 2001 census population of England & Wales by sex and 5 year age-group as standard. Numbers of deaths in [], All people resident in England and Wales in 2001 = 100. Bold indicates statistically significantly different from the standard England and Wales population.

SMRs for women for breast cancer and for men for prostate cancer, as well as for colorectal cancer for both sexes, were also calculated (Wild et al., 2006). For breast cancer, the statistically significant findings were an elevated risk among women born in West Africa (SMR 132) and a reduced risk among women born in Eastern Europe (SMR 81), Bangladesh (SMR 27), India (SMR 79) and Pakistan (SMR 73). For prostate cancer, men born in Eastern Europe (SMR 76), Middle East (SMR 75), Bangladesh (SMR 21), India (SMR 64), Pakistan (SMR 72) and China or Hong Kong (SMR 55) all had a lower risk than the England & Wales standard. In contrast, men born in West Africa (SMR 271) and the West Indies (SMR 198) had a statistically significantly higher risk. Risks of colorectal cancer were lower among men and women born in India and Pakistan, and men born in East Africa or the Middle East. Higher risks were found for men and women born in Scotland and for men born in Ireland. For all other groups there was no evidence of significantly different risks compared to the standard.

Cancer incidence data:

The National Cancer Intelligence Network provides information on incidence data for 18 specific sites of cancer and produces disaggregated data for broad ethnic groups categorised as 'White', 'South Asian', 'Chinese', 'Mixed' and 'Black'. Drawing on the report of cases diagnosed from 2002-2006 in England (and bearing in mind that 25% of cases could not be assigned to an ethnic category), the overall, cancer incidence was found to be lower in South Asian, Chinese and mixed groups than Whites. However, some important specific differences were also identified (National Cancer Intelligence Network 2009):

- Black males of all ages were more likely to have a diagnosis of prostate cancer than White males (Age standardised Relative Risk (RR) between 1.26 and 2.48, based on different assumptions regarding patients with unknown ethnicity)
- Black males and Black females had higher rates of cancers of the stomach than their White comparators (RR 1.14 – 1.74)
- Black males and Black females had a higher rate of liver cancer than their White comparators (RR 1.47 – 2.67)
- Black males and Black females had a higher rate of myeloma than their White comparators (RR 1.79 – 2.80)
- Black females aged 65 and over were at a higher risk of cervical cancer than White females of the same age (RR 1.13 - 2.50)
- South Asian females aged 65 and over had a higher risk of cervical cancer than White females (RR 1.15 - 2.29)
- South Asian men and women had a higher rate of liver cancer than their White comparators (RR 1.47 – 2.43)
- South Asian females 65 and over had an increased risk of cancer of the mouth (RR 1.18 – 1.97), whereas South Asian men may have a lower risk of getting cancer of the mouth than White males.

These incidence data are consistent with the country of birth mortality data in suggesting increased risks of prostate cancer for Black Caribbean and Black African men. However, they also suggest that other cancers are more prevalent among

Black men and women, suggesting that there may be increased risks among British-born minorities.

Suicide and accidental death

No recent estimates of mortality by suicide or accidental death by country of birth could be found. Maxwell and Harding's (1998) analysis is now rather old, being as based on deaths around the time of the 1991 census. In the absence of any other information, we reproduce their figures for SMRs by country of birth below. Compared to the standard England and Wales population, men born in the Caribbean and in the Indian sub-continent had lower suicide mortality, as did women born in the Caribbean. However suicide mortality was statistically significantly elevated among men and women born in Scotland and Ireland. Looking at accidental deaths, men born in the Indian sub-continent had a lower risk compared to the standard, but again mortality was significantly elevated for both men and women born in Scotland or in Ireland (Table 13).

Table 13: Suicide and accidental injury standardised mortality ratios (SMR) by country or region of birth and sex, 20–64 years, England and Wales 1991–93

Country of birth	Males		Females	
	Suicide	Accident	Suicide	Accident
Caribbean	**59** [38]	121 [83]	**49** [12]	103 [29]
Indian sub-continent	**73** [146]	**80** [172]	115 [66]	**93** [63]
Scotland	**149** [284]	**177** [363]	**153** [78]	**201** [122]
Ireland	**135** [244]	**189** [371]	**144** [87]	**160** [117]

Source: (Maxwell and Harding 1998)
Notes: 95% confidence intervals given in (), numbers of deaths in []. All people resident in England and Wales 1991 = 100. * indicates statistically significantly different from the standard England and Wales population. Suicides include deaths of undetermined event.

Bhui et al. (2008) have conducted an analysis of data from the National Confidential Inquiry which receives data on all potential suicides from the ONS, and investigates suicides within 12 months of contact with mental health services in England and Wales. They calculated suicide rates using data from the NCI as the numerator and data from the 1991 and 2001 national census as the denominator. The denominators for the years 1996 to 2001 were estimated from ethnic-specific age, sex, and age-by-sex population projections. The rates and standardized mortality ratios (SMRs) of suicide *following contact with mental health services* were calculated for four ethnic groups in England and Wales: Black Caribbean, Black African, South Asian (Indian, Pakistani, and Bangladeshi), and white and, unusually, ethnicity was clinician-assigned. The study also investigated whether clinical indices of risk show ethnic variations. Overall, compared with the SMRs for their white counterparts, low SMRs were found for South-Asian men and women (SMR 50 for men and SMR 70 for women). Overall SMRs did not differ significantly from the White group for Black Caribbeans or Black Africans. However, high SMRs were found for Black Caribbean and Black African men aged 13–24 (SMR 290 for Black Caribbean men and SMR 250 for Black African men). High SMRs were also found for young women aged 25–39 of South-Asian origin (SMR 280), Black Caribbean origin (SMR 270), and Black African origin (SMR 320).

HEALTH: outcome indicators

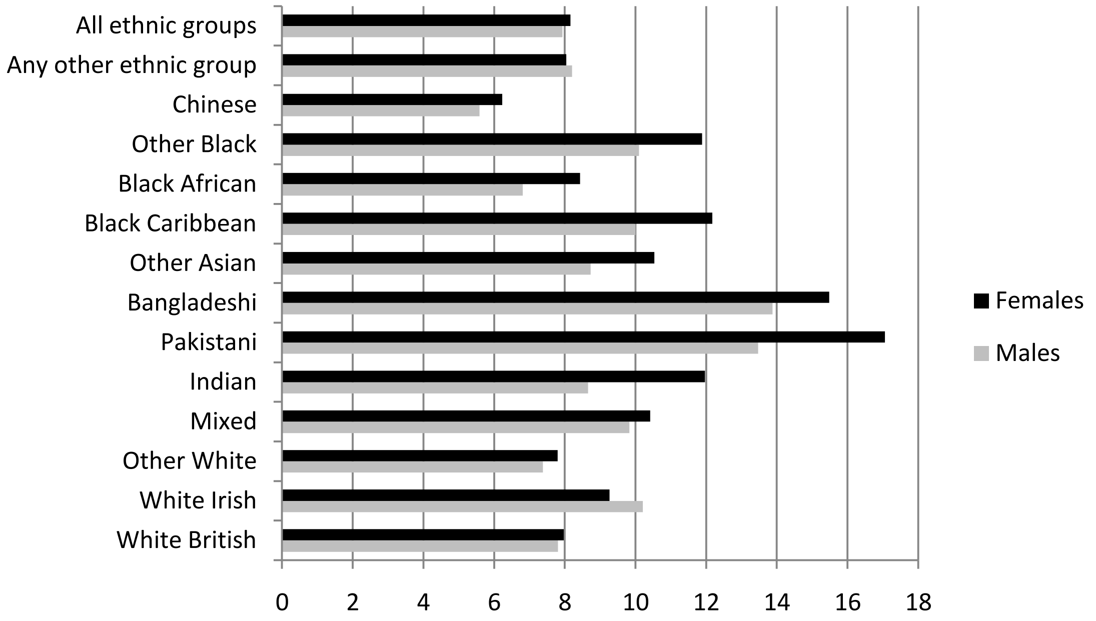
Self-reported general health

Proportion of people reporting 'poor' or 'not good' health: current picture

Though now somewhat out-of-date, the 2001 census provides the most robust estimates of self-reported health by ethnicity for the countries of Great Britain. Figures are available for Scotland and for England and Wales combined. Figures disaggregated for England and Wales separately are not currently available from ONS and would require a specific data request.

Figure 2 shows the age-standardised percentages of people reporting 'not good' health for England and Wales combined from the 2001 censuses by sex and ethnic group. Among both males and females the Bangladeshi and Pakistani groups stand out as having by far the highest levels; over 13% for males and over 15% for females, and the Chinese group is noticeable for its low level among both sexes, around 6%.

Figure 2: Age standardised percentages of people reporting 'not good health': by ethnic group and sex (all ages), England & Wales, April 2001



Source: Census, April 2001, ONS.
Notes: Differences between males and females were significant for White British, White Irish, Indian, Pakistani, Other Asian, Black Caribbean and Black African groups. Directly age-standardized against the European Standard Population.

ONS report that, among males, differences between the White British group and the other ethnic groups were statistically significant in all cases except the 'Any other' and the 'Other white' groups. While the levels of reported 'not good health' were significantly lower among Chinese and Black African males, in all other minority ethnic groups more males reported 'not good' health than among White British males. Among females, the age-standardised percentage among the Chinese category was significantly lower than the White British, while in all other groups the percentage was significantly higher, except the 'Any other' and Black African where there was no significant difference.

It should be remembered that smaller ethnic groups that remain un-enumerated or hidden within larger categories, such as Somalis within the broad Black African group, may experience even worse health than Bangladeshi and Pakistani groups.

Age-specific rates of reporting 'not good health' by sex and ethnic group have been computed from the raw Census figures supplied by ONS and are presented in Table 14 below. Patterns by age-group are somewhat more complex than the aggregate figures suggest, though Pakistani and Bangladeshi men and women stand out as being most likely to report not good health at most ages and Chinese men and women being least likely at most ages. However, among younger men, it is the Irish who are most likely to report not good health, and the disadvantaged position of the Bangladeshi and Pakistani groups worsens with increasing age-group among both sexes. Among the Indian group, while in the younger age-group both men and women are no more likely to report not good health than the White British and several other groups, the proportion reporting not good health increases steeply with age, as it does for the Black Caribbean group. Among the Mixed groups, the White and Asian group appears to have better self-reported health than the White and Black Caribbean and the White and Black African groups among both males and females.

Table 14: Percentage of people reporting 'not good health' by sex, age-group and ethnic group, England & Wales 2001

		White:			**Asian or Asian British:**				**Black or Black British:**		
		British	**Irish**	**Other White**	**Indian**	**Pakistani**	**Bangladeshi**	**Other Asian**	**Caribbean**	**African**	**Other Black**
Men	16-49	5.2	7.5	4.1	4.3	6.9	6.3	5.3	5.6	3.7	6.4
	N	*10,237,521*	*132,201*	*387,345*	*294,132*	*191,230*	*72,507*	*79,708*	*139,603*	*136,769*	*23,298*
	50-64	15.2	21.8	13.6	18.3	28.9	34.0	16.7	21.4	12.0	19.8
	N	*4,125,581*	*83,354*	*82,965*	*65,910*	*26,856*	*8,303*	*16,641*	*33,485*	*15,576*	*2,323*
	65+	21.9	25.1	23.5	25.7	34.9	37.7	24.3	30.7	22.0	26.4
	N	*3,246,944*	*67,662*	*61,436*	*34,077*	*16,555*	*6,010*	*6,567*	*30,679*	*5,795*	*1,502*
women	16-49	5.9	7.1	4.4	5.9	9.0	7.9	6.5	7.7	4.7	8.4
	N	*10,299,484*	*137,730*	*448,789*	*303,447*	*190,886*	*73,372*	*62,074*	*173,797*	*154,515*	*28,519*
	50-64	14.1	18.2	13.5	25.2	36.1	32.9	19.6	24.0	16.5	23.0
	N	*4,187,100*	*90,461*	*100,892*	*67,421*	*25,859*	*9,635*	*13,650*	*42,287*	*16,933*	*2,437*
	65+	24.5	25.0	26.6	38.2	43.8	36.0	31.1	36.7	25.3	28.8
	N	*4,533,921*	*92,600*	*78,719*	*34,493*	*13,374*	*3,058*	*5,926*	*29,183*	*5,337*	*1,551*

		Mixed:				**Chinese or Other Ethnic Group:**	
		White and Black Caribbean	**White and Black African**	**White and Asian**	**Other Mixed**	**Chinese**	**Other Ethnic Group**
Men	16-49	6.3	6.4	5.6	6.2	2.1	4.6
	N	*41,209*	*18,074*	*41,067*	*33,690*	*70,862*	*63,202*
	50-64	22.5	21.2	17.2	18.9	10.3	14.2
	N	*3,126*	*1,734*	*5,041*	*4,628*	*11,672*	*9,969*
	65+	25.7	25.8	18.1	23.4	19.7	24.3
	N	*2,696*	*794*	*3,028*	*2,288*	*5,414*	*2,756*
Women	16-49	7.2	7.1	6.5	6.7	3.0	4.3
	N	*47,408*	*19,565*	*41,070*	*38,396*	*77,509*	*83,357*
	50-64	22.7	21.3	17.9	19.4	10.3	13.7
	N	*3,439*	*1,881*	*5,375*	*5,360*	*13,681*	*14,495*
	65+	27.9	23.7	21.9	25.3	23.7	27.4
	N	*2,907*	*978*	*3,620*	*3,057*	*6,221*	*3,626*

Source: Computed from raw figures provided by ONS at http://www.statistics.gov.uk/StatBase/Expodata/Spreadsheets/D7547.xls

Notes: General health refers to health over the 12 months prior to census day. Ethnic group categories and age-groups are those supplied by ONS.

The 2001 census of Scotland also provides information on self-reported health by ethnicity. Table 15 below gives the percentage of people reporting their health as 'not good' by sex, age-group and ethnic group. Numbers are small in several of the cells, particularly at the older age-groups, making it difficult to compute robust estimates. Bangladeshi and Pakistani people again stand out as reporting not good health in high numbers and Chinese as being less likely to rate their health as not good than other ethnic groups. Over age 60 years, a high proportion of Indian and Pakistani men, and particularly women, report their health to be 'not good'. Among the White groups, the Irish and Scottish are more likely to report 'not good' health than the other White British and Other White groups at almost all ages.

Table 15: Percentage of people reporting their health to be 'not good' by age-group, sex and ethnic group, Scotland, 2001

	White Scottish	**Other White British**	**White Irish**	**Other White**	**Indian**	**Pakist-ani**	**Bangla-deshi**	**Other South Asian**	**Chinese**	**Caribb-ean**	**African**	**Black Scottish or other Black**	**Any Mixed Back-ground**
Men													
16-24	2.7	2.2	2.7	2.2	2.2	2.9	3.5	2.0	1.5	2.4	5.5	4.8	3.3
N	*244,332*	*21,745*	*2,813*	*6,320*	*1,487*	*2,873*	*199*	*588*	*1,836*	*126*	*437*	*83*	*1,227*
25-34	5.4	3.6	5.4	3.4	3.6	5.3	3.7	6.7	1.9	3.4	4.1	7.4	9.3
N	*287,486*	*29,515*	*3,877*	*8,059*	*1,729*	*2,885*	*216*	*616*	*1,475*	*175*	*704*	*94*	*825*
35-59	11.6	7.8	13.7	8.5	9.3	15.3	14.1	10.3	5.6	10.5	6.5	17.3	15.5
N	*748,344*	*77,540*	*9,409*	*11,428*	*2,268*	*3,895*	*313*	*1,136*	*2,440*	*342*	*928*	*156*	*919*
60-64	22.7	15.9	26.6	19.2	25.9	37.6	-	29.0	15.5	-	-	-	25.3
N	*110,658*	*10,040*	*1,529*	*1,080*	*278*	*537*	*25*	*62*	*226*	*25*	*43*	*10*	*75*
65 and over	22.2	19.5	28.4	26.8	28.0	35.1	-	25.2	18.8	25.0	-	-	19.3
N	*290,321*	*24,937*	*4,342*	*3,723*	*425*	*609*	*39*	*127*	*357*	*68*	*39*	*44*	*249*
Women													
16-24	3.4	2.9	2.3	2.3	1.6	3.2	6.7	2.4	1.6	6.1	2.3	3.4	4.4
N	*239,356*	*22,711*	*3,008*	*7,299*	*1,294*	*2,978*	*163*	*459*	*1,731*	*132*	*432*	*87*	*1,296*
25-34	6.3	4.7	3.9	3.6	4.7	8.2	4.8	7.6	2.2	8.6	4.5	11.5	6.8
N	*308,044*	*29,403*	*3,709*	*9,652*	*1,503*	*2,963*	*187*	*551*	*1,515*	*187*	*599*	*87*	*943*
35-59	12.5	9.3	13.6	8.9	14.5	23.0	17.3	16.1	7.2	8.3	6.9	14.2	15.1
N	*785,113*	*76,218*	*9,178*	*12,972*	*2,039*	*3,733*	*191*	*720*	*2,615*	*324*	*640*	*155*	*1,120*
60-64	17.2	12.8	20.9	13.9	31.7	45.3	-	24.5	17.4	-	-	-	17.6
N	*123,013*	*9,982*	*1,831*	*1,274*	*189*	*329*	*15*	*53*	*167*	*28*	*25*	*14*	*108*
65 and over	24.1	21.9	29.0	25.6	42.3	47.3	-	21.5	26.2	17.5	29.1	29.7	27.1
N	*432,077*	*33,451*	*6,954*	*4,933*	*352*	*499*	*24*	*158*	*424*	*57*	*55*	*64*	*354*

Source: Raw figures supplied by GRO(S), percentages computed by authors.
*Notes: 1. General health refers to health over the 12 months prior to Census day (29 April 2001).*2. Ethnic group categories and age-groups are those supplied by GRO(S)

More recent data are available for England from the 2004 Health Survey for England which included a 'booster' sample of people from seven main enumerated minority ethnic groups (Sproston and Mindell 2006a). As in the other surveys in the HSE series, the general self-reported health question included five possible responses: very good, good, fair, bad and very bad. Our own analyses based on grouping the responses 'fair', 'bad' and 'very bad' together as 'not good' and standardizing these for age using the European Standard Population, estimated the following *age-standardised* proportions. Among women, the figures were Bangladeshi group 52%, Pakistani group 48%, Black Caribbean group 40%, Indian 33%, Black African 30% and Chinese 26%. Among men, a similar pattern was seen: Bangladeshi group 47%, Pakistani group 34%, Indian group 33%, Chinese 26%, Black Caribbean group 25% and Black African 24%.

The HSE 2004 report presented age-standardised risk ratios for self-reported health grouped as 'bad'/'very bad' compared to the 'general population' and these are reproduced in Table 16 below. The figures in bold indicate that among women, the Black Caribbean, Indian and Pakistani groups had significantly raised risks of reporting 'bad or very bad' health compared to the general population and the Chinese had significantly lower risk. Among men, the Indian and Pakistani groups stood out as being more likely to rate their health as 'bad or very bad' compared to the general population.

Table 16: Proportions and age-standardised risk ratios for self-reported bad or very bad general health by ethnic group, England, 2004

	Black Caribbean	Black African	Indian	Pakistani	Bangladeshi	Chinese	Irish	General Population
Men								
%	**9**	**4**	**9**	**10**	**15**	**4**	**10**	**6**
RR	**1.37**	**0.81**	1.45	2.33	**3.77**	**0.75**	**1.41**	**1**
Women								
%	11	**7**	**8**	**15**	**14**	**3**	**5**	**7**
RR	1.90	**1.68**	1.39	3.54	**4.02**	0.55	**0.74**	**1**

Source: HSE 2004
Notes: Figures in bold indicate statistically significantly different from the general population (which was a representative sample of the population of England). Figures were standardised using a bespoke, artificial standard population designed to minimise the increase in standard errors of the estimated risk ratios.

The 2004 study by Parry and colleagues of Gypsy and Traveller health found very high levels of self-reported 'not good' health (Parry et al. 2007). Overall, around 30% of their sample reported 'not good' health, with a further 31% reporting 'fairly good' health and just 40% reporting 'good health'. These figures diverge considerably from the overall national estimates for even the worst-off, Pakistani and Bangladeshi groups. They were also significantly worse than those for a 'comparator' sample matched for age, sex and locality which included both minority ethnic and White British respondents of low socioeconomic status - the figures for this sample being 14% 'not good', 29% 'fairly good' and 57% 'good health'.

Self-reported poor health: trends over time

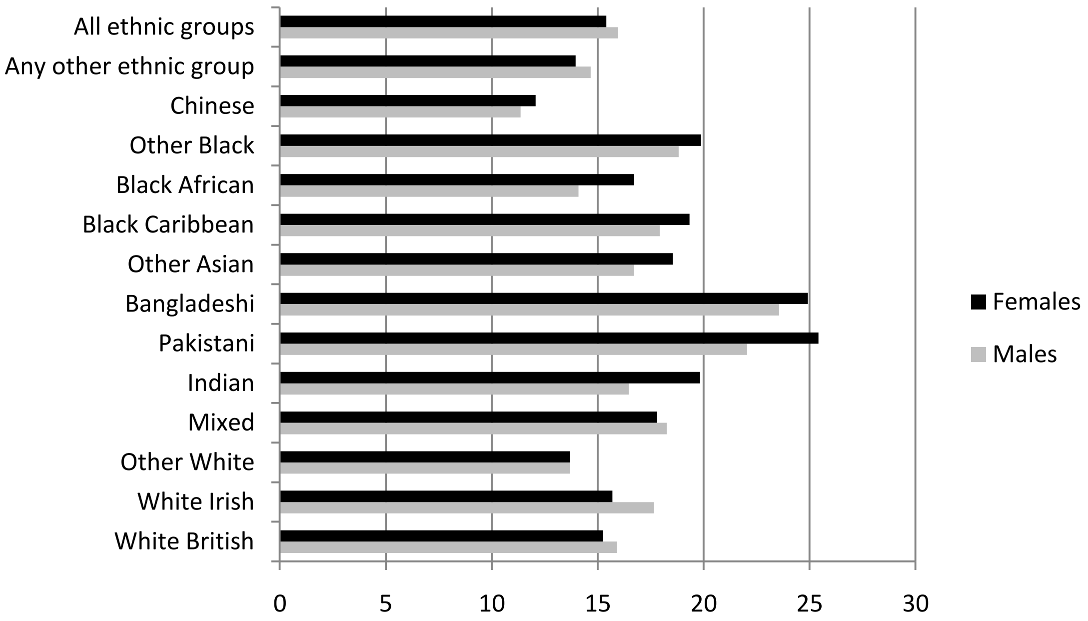
As noted above, there are very limited data on trends over time in the health of minority ethnic populations in Britain. Comparing the Health Survey for England data from 1999 and 2004, in both surveys Bangladeshi and Pakistani men and women and also Black Caribbean women, were more likely to report poor health than the general population. Chinese women were less likely to report poor health than the general population in both surveys. Comparing within each ethnic group, there was no evidence of change in the proportions reporting poor health between 1999 and 2004 for any group except for Indian women, for whom the percentage declined from 12% to 8% (Sproston and Mindell 2006b). The patterns of self reported poor health reported in the 1993-4 FNSEM were also similar, with the combined Bangladeshi-Pakistani group being most likely to report or poor health followed by the Black Caribbean group and the Chinese group being least likely (Nazroo 1997).

Self- reported limiting long-standing illness or disability

LLTI: current picture

Again, the Censuses of 2001 provide the most robust data on the minority ethnic populations of England, Wales and Scotland. Figure 3 presents age-standardised rates for people in the Censuses of England and Wales combined, by sex and ethnic group. People of Pakistani and Bangladeshi origin stand out as reporting the heaviest burden of limiting long-term ill-health/disability among both males and females. The patterns across sex are complex for the other ethnic groups, though people of Chinese origin stand out as reporting much lower levels of LLTI than other groups. Rates of reporting are also high among Indian females and females in the Other Black group.

Figure 3: Age standardised rates of LLTI by ethnic group and sex, April 2001, England & Wales (ONS, 2004)



Source: Census, April 2001, ONS. http://www.statistics.gov.uk/statbase/Product.asp?vlnk=10991
Notes: Differences between males and females were significant for White British, White Irish, Indian, Pakistani, Black Caribbean and Black African groups.

Examination of the confidence intervals shows that, among males in comparison with the White British group, the White Irish, Mixed, Indian, Pakistani, Bangladshi, Black Caribbrean and Other Black groups all had higher rates of reporting LLTI, while the Other White, Black African and Chinese had lower rates. Among women, just the Other White and Chinese groups had lower rates than the White British, with all other minority ethnic groups having higher rates.

Age-specific percentages have also been computed from the raw figures supplied by ONS for England and Wales combined and are presented in Table 17 below. The age-specific patterns are very similar to those shown above for self-reported general health. While the prevalence of LLTI increases with age across all age-groups, very high levels of LLTI are found among the over 65s among Indian, Pakistani, Bangladeshi and Caribbean groups. Over 65% of Indian and Pakistani women aged 65 years or over report an LLTI. While rates of LLTI are markedly lower among the Chinese than all other ethnic groups in the two younger age-groups (16-49 and 50-64 years), at ages over 65 their advantageous position is less apparent.

Table 17: Percentage of people reporting a long-term limiting illness or disability by sex, age-group and ethnic group, England & Wales 2001

		White:			**Asian or Asian British:**				**Black or Black British:**		
		British	**Irish**	**Other White**	**Indian**	**Pakistani**	**Bangladeshi**	**Other Asian**	**Caribbean**	**African**	**Other Black**
Men	16-49	9.9	11.8	6.9	7.7	11.2	10.8	9.2	11.1	7.2	12.1
	N	*10,237,521*	*132,201*	*387,345*	*294,132*	*191,230*	*72,507*	*79,708*	*139,603*	*136,769*	*23,298*
	50-64	26.6	33.6	22.7	32.0	45.5	55.7	29.4	33.4	23.8	33.3
	N	*4,125,581*	*83,354*	*82,965*	*65,910*	*26,856*	*8,303*	*16,641*	*33,485*	*15,576*	*2,323*
	65+	49.4	49.2	47.9	52.9	59.1	65.2	50.2	50.8	44.7	47.7
	N	*3,246,944*	*67,662*	*61,436*	*34,077*	*16,555*	*6,010*	*6,567*	*30,679*	*5,795*	*1,502*
Women	16-49	9.6	10.1	6.5	9.0	12.6	11.7	10.0	10.7	8.0	11.9
	N	*10,299,484*	*137,730*	*448,789*	*303,447*	*190,886*	*73,372*	*62,074*	*173,797*	*154,515*	*28,519*
	50-64	25.7	29.2	22.9	40.9	53.2	52.7	33.7	37.8	32.0	36.8
	N	*4,187,100*	*90,461*	*100,892*	*67,421*	*25,859*	*9,635*	*13,650*	*42,287*	*16,933*	*2,437*
	65+	53.0	49.1	51.4	65.1	66.5	59.4	59.2	59.2	52.8	54.5
	N	*4,533,921*	*92,600*	*78,719*	*34,493*	*13,374*	*3,058*	*5,926*	*29,183*	*5,337*	*1,551*

		Mixed:				**Chinese or Other Ethnic Group:**	
		White and Black Caribbean	**White and Black African**	**White and Asian**	**Other Mixed**	**Chinese**	**Other Ethnic Group**
Men	16-49	12.6	11.5	9.9	10.7	3.8	7.3
	N	*41,209*	*18,074*	*41,067*	*33,690*	*70,862*	*63,202*
	50-64	33.1	32.4	29.0	32.5	19.8	24.6
	N	*3,126*	*1,734*	*5,041*	*4,628*	*11,672*	*9,969*
	65+	48.4	50.4	44.5	47.5	43.8	47.0
	N	*2,696*	*794*	*3,028*	*2,288*	*5,414*	*2,756*
Women	16-49	11.1	10.4	9.6	9.5	4.6	6.0
	N	*47,408*	*19,565*	*41,070*	*38,396*	*77,509*	*83,357*
	50-64	35.7	34.6	29.0	30.8	20.3	22.8
	N	*3,439*	*1,881*	*5,375*	*5,360*	*13,681*	*14,495*
	65+	53.1	53.2	48.5	50.3	48.5	52.0
	N	*2,907*	*978*	*3,620*	*3,057*	*6,221*	*3,626*

Source: Computed from raw figures provided by ONS at http://www.statistics.gov.uk/StatBase/Expodata/Spreadsheets/D7547.xls

Notes: Ethnic group categories and age-groups are those supplied by ONS.

In the Scottish census, small numbers of minority ethnic groups make analyses by age more difficult. Nevertheless, similar patterns are observed to those in England & Wales, with the Chinese having particularly low rates at younger ages, Pakistani men and women having high rates across all ages, and Indian women having high rates at older ages (see Table 18). White Scottish and White Irish have rates that are higher than the Other White British for both sexes and all ages.

Table 18: Percentage of people reporting a limiting long-term illness or disability by age-group, sex and ethnic group, Scotland, 2001 (Census 2001)

	White Scottish	Other White British	White Irish	Other White	Indian	Pakistani	Bangladeshi	Other South Asian	Chinese	Caribbean	African	Black Scottish or other Black	Any Mixed Background
Men													
16-24	6.6	5.1	5.5	4.7	4.8	7.9	6.0	4.8	3.2	7.1	5.7	10.8	7.0
N	*244,332*	*21,745*	*2,813*	*6,320*	*1,487*	*2,873*	*199*	*588*	*1,836*	*126*	*437*	*83*	*1,227*
25-34	10.1	6.9	8.5	6.3	5.0	9.4	6.5	9.3	2.6	9.1	4.3	10.6	14.3
N	*287,486*	*29,515*	*3,877*	*8,059*	*1,729*	*2,885*	*216*	*616*	*1,475*	*175*	*704*	*94*	*825*
35-59	19.3	13.9	21.1	13.9	15.3	24.6	17.6	17.4	11.1	16.7	10.3	24.4	23.1
N	*748,344*	*77,540*	*9,409*	*11,428*	*2,268*	*3,895*	*313*	*1,136*	*2,440*	*342*	*928*	*156*	*919*
60-64	43.7	33.6	47.2	35.0	38.8	62.2	20.0	53.2	38.5	44.0	37.2	70.0	52.0
N	*110,658*	*10,040*	*1,529*	*1,080*	*278*	*537*	*25*	*62*	*226*	*25*	*43*	*10*	*75*
65 and over	53.5	50.5	58.8	56.5	54.4	62.1	-	58.3	48.7	48.5	-	-	52.2
N	*290,321*	*24,937*	*4,342*	*3,723*	*425*	*609*	*39*	*127*	*357*	*68*	*39*	*44*	*249*
Women													
16-24	6.1	5.1	4.5	4.2	4.4	5.4	9.8	5.0	2.5	6.8	5.3	4.6	6.7
N	*239,356*	*22,711*	*3,008*	*7,299*	*1,294*	*2,978*	*163*	*459*	*1,731*	*132*	*432*	*87*	*1,296*
25-34	9.6	7.4	6.1	5.0	7.0	10.3	5.9	10.3	4.2	8.0	5.5	13.8	10.1
N	*308,044*	*29,403*	*3,709*	*9,652*	*1,503*	*2,963*	*187*	*551*	*1,515*	*187*	*599*	*87*	*943*
35-59	19.9	15.5	20.5	14.3	20.4	32.4	26.2	21.7	12.2	14.2	11.6	21.3	21.2
N	*785,113*	*76,218*	*9,178*	*12,972*	*2,039*	*3,733*	*191*	*720*	*2,615*	*324*	*640*	*155*	*1,120*
60-64	36.9	29.7	40.4	30.8	52.4	66.0	-	39.6	39.5	-	-	-	44.4
N	*123,013*	*9,982*	*1,831*	*1,274*	*189*	*329*	*15*	*53*	*167*	*28*	*25*	*14*	*108*
65 and over	56.2	54.5	59.0	55.8	72.7	74.5	-	52.5	57.5	47.4	52.7	60.9	59.0
N	*432,077*	*33,451*	*6,954*	*4,933*	*352*	*499*	*24*	*158*	*424*	*57*	*55*	*64*	*354*

Source: Raw figures supplied by GRO(S), percentages computed by authors.
Notes: 1. Ethnic group categories and age-groups are those supplied by GRO(S)

Table 19 presents findings from HSE 2004 showing the proportions and age-standardised risk ratios for minority ethnic groups compared to the general population. Black African men and Chinese men and women were less likely to report LLTI than the general population, while Pakistani women and Bangladeshi men were more likely to. Other differences were not statistically significant.

Table 19: Proportions and age-standardised risk ratios for LLTI by ethnic group, England, 2004

	Black Caribbean	Black African	Indian	Pakistani	Bangladeshi	Chinese	Irish	General Population
Men								
%	**24**	**10**	**23**	**20**	**24**	**9**	**26**	**23**
RR	**1.00**	0.63	**1.12**	**1.17**	1.52	0.57	**1.11**	**1**
Women								
%	**28**	**15**	**19**	**30**	**21**	**10**	**23**	**27**
RR	**1.20**	**0.83**	**0.89**	1.60	**1.22**	0.46	**0.80**	**1**

Source: HSE 2004

Notes: Figures in bold indicate statistically significantly different from the general population (which was a representative sample of the population of England). Figures were standardised using a bespoke, artificial standard population designed to minimise the increase in standard errors of the estimated risk ratios.

The 2004 study of Gypsy and Traveller health reported that 39% of respondents had a limiting long-term illness or disability, far higher than the comparator sample included in the study, and higher than figures from other sources for any of the regularly enumerated minority ethnic groups (Parry et al., 2004).

LLTI: trends over time

Comparing the Health Survey for England data from 1999 and 2004, the level of reported LLTI fell among Indian women from 25% to 19%, but rose for Pakistani women from 23% to 30%. No other significant changes were apparent. In the FNSEM, age and sex-standardised rates of reported LLTI were similar across all the ethnic groups, except the Chinese who had a significantly lower rate. Therefore, though it is difficult to discern trends over time with any confidence, the evidence would suggest increasing, rather than decreasing, inequalities, among Bangladeshi and Pakistani groups compared to the White majority and a persistent advantage among the Chinese on this measure of health status.

Poor mental health or wellbeing

Assessing the relative prevalence of mental illness among different ethnic groups in Britain is both a controversial and complex field of investigation. Existing research evidence presents an inconsistent picture and much of it is based on service-based statistics rather than population-based surveys. An additional difficulty with exploring ethnic differences in mental health is the possibility that there are important cultural differences in the ways in which people experience and express mental illness, making the comparability of measures questionable (Sproston and Nazroo 2002). Qualitative work conducted in conjunction with EMPIRIC suggested ethnic differences in the description of certain diagnostically-important symptoms, especially among Bangladeshi people and those who were not interviewed in English, which may mean that itemised approaches to the measurement of mental health operate differently across ethnic groups (O'Connor and Nazroo 2002). The EMF includes a GHQ12 score of 4+ as a measure of poor mental wellbeing. Though this instrument has been used in the Health Survey for England with respondents from minority ethnic backgrounds, it should be noted that it has not been validated for specific minority ethnic groups and that it is possible that variability in the interpretations of the questions may affect comparability between ethnic groups.

GHQ12: current picture

In HSE 2004, Pakistani men and women were found to have a higher risk of a high GHQ12 score than the general population, as were Bangladeshi men. The risk of a high GHQ12 score did not vary significantly from that in the general population for any of the other minority ethnic groups. Sex differences suggest higher risks for women across most ethnic groups (as is seen in the general population), but these were largely not significant, except in the case of Black Africans (Table 20).

Table 20: Percentage of people with GHQ12 score 4+ and standardised risk ratios by ethnic group, England, 2004

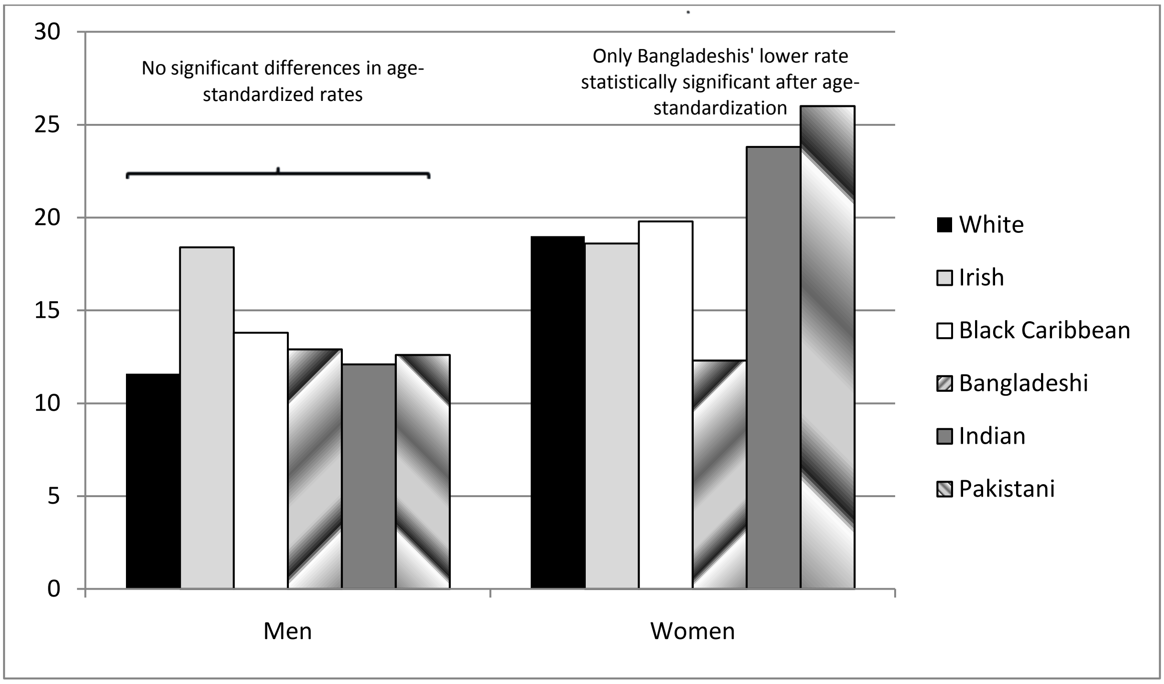
	Black Caribbean	Black African	Indian	Pakistani	Bangladeshi	Chinese	Irish	General Popn
Men								
% 4+	**13**	**11**	**16**	**15**	**18**	**9**	**12**	**11**
RR	**1.21**	**0.88**	**1.32**	1.56	1.83	**0.76**	**1.08**	**1**
Women								
% 4+	**18**	**19**	**14**	**20**	**15**	**13**	**15**	**15**
RR	**1.27**	**1.19**	**0.99**	1.73	**1.37**	**0.83)**	**0.95)**	**1**

Source: HSE 2004
Notes: Bold figures indicate statistically significantly different from the general population. Figures were standardised using a bespoke, artificial standard population designed to minimise the increase in standard errors of the estimated risk ratios.

Neither the Scottish Health Survey nor the Welsh Health Survey includes sufficient numbers of people from minority ethnic groups to allow analyses by ethnicity.

Additional information is available from the EMPIRIC survey 2000 which focused on exploring patterns of mental ill-health across different ethnic groups (Sproston and Nazroo 2002). Rather than the GHQ12, this survey employed the Revised Clinical Interview Schedule to identify probable common mental disorder (CMD) (Lewis et al. 2009). The findings from this survey suggest that, among men, the prevalence of CMD was very similar in all groups apart from the Irish, who had a rate that was statistically significantly higher than the White group before adjusting for age. Among women, the rates were similar in the White, Irish and Black Caribbean groups, but significantly higher among Indian and Pakistani women. Bangladeshi women had a very low rate compared to the White group. However, once adjustments were made for the differing age profiles of the ethnic groups, the only statistically significant difference was the lower rate among Bangladeshi women when compared to the White women (Figure 4).

Figure 4: Percentage of people with high score on CIS-R by sex and ethnic group, England, 2000.



Source: EMPIRIC, 2000
Notes: Ethnic group categories are those supplied in EMPIRIC quantitative report (Sproston and Nazroo, 2002). Unweighted bases were for men: White (368), Irish (329), Black Caribbean (280) Bangladeshi (312), Indian (315), Pakistani (337), and for women: White (469), Irish (404), Black Caribbean (414) Bangladeshi (338), Indian (328), Pakistani (387).

Parry et al.'s (2004) study of Gypsies and Travellers found much higher levels of anxiety and depression among their Gypsies and Travellers sample than the comparator sample, with levels of these common mental disorders being particularly high among female Gypsies and Travellers. Another smaller study conducted in Sheffield also suggests very high levels of anxiety and depression among Gypsies and Travellers (Goward et al. 2006).

Aspinall and Watters' review reports that mental health is one of the most commonly reported health issues among asylum seekers including anxiety, depression, phobias and post traumatic stress disorder (PTSD), and that the provision of mental health services for this group, particularly for those that are survivors of torture and organised violence, is widely regarded as inadequate (Aspinall and Watters, 2010). They cite a study which reports that among asylum seekers and refugees in Warwickshire and Coventry, women frequently identified ways in which the asylum system impacted negatively on their mental health, with many experiencing high levels of anxiety (Phillimore and Goodson 2006).

GHQ12: trends over time

Comparisons between the findings from the 1999 and 2004 HSEs show some differences, though small numbers and the existence of just two sources of data preclude any definite conclusions about trends over time. Whereas in 1999 HSE, Bangladeshi and Pakistani men and women had a higher risk of a high GHQ12 score compared to the general population, in 2004 differences for these groups were replicated for Pakistani men (1.56) and women (1.73) and Bangladeshi men (1.83) but not for Bangladeshi women. In 1999, Chinese men and women were found to have lower rates of high GHQ12 scores than the general population, but this pattern was not repeated in the 2004 data. A decrease in rates of high GHQ12 score was also seen between 1999 and 2004 for Irish and Bangladeshi men and women, and Black Caribbean, as well as the general population.

Other mental health problems:

A widely cited finding in the literature is the apparently high rates of schizophrenia and other forms of psychosis among African Caribbean people. However, findings are not entirely consistent across different studies, and there have been few population surveys of ethnic differences in the prevalence of mental illness, with most work focusing on rates of contact with services for those with psychotic disorders (which reflect the responses of individuals and health professionals, as well as the actual prevalence of illness). EMPIRIC 2000 used the Psychosis Screening Questionnaire (PSQ) to assess psychotic symptoms - a tool that covers five broad categories of symptoms: hypomania; thought interference; delusions of persecution; a feeling that something ‘strange’ is taking place that is hard to explain; and auditory hallucinations. Two or three questions are used for each symptom category, and an informant must have answered ‘yes’ to all questions within a symptom category in order to screen positive on that item. The survey reports both positive responses to these psychosis symptoms and also uses a formula to estimate annual prevalence of psychosis in each ethnic group and by gender within ethnic group. In contrast to studies on rates of contact with services, EMPIRIC community-based findings indicated a twofold higher rate for Black Caribbean people (16 per 1,000) compared with the White group (8 per 1,000), and this was only statistically significant for women at the level of reporting psychosis symptoms on the PSQ. It was not significant for men or the total Black Caribbean population and was not significant at the level of estimated rates of psychotic illness. This finding is consistent with the only other national community survey that has estimated the prevalence of psychotic illnesses among different ethnic groups, the FNSEM 1993/4. Also, rates for Black Caribbean people were not particularly elevated among men, the young, or 'non-migrant' people. No other statistically significant differences were found between minority ethnic groups and the White majority for screening positive for psychosis or for the estimated prevalence of psychotic illness. However, it is possible that the tools used to capture psychotic illness do not function well for South Asian people (Sproston and Nazroo 2002).

Other specific health conditions of concern

Though beyond the scope of the EMF, it is important to identify a number of health conditions which are of particular concern in relation to people of minority ethnic identity. These include:

- Diabetes, particularly among Bangladeshi, Pakistani and Indian groups. The HSE 2004 showed that after adjusting for age diabetes was almost four times as prevalent in Bangladeshi men, and almost three times as prevalent in Pakistani and Indian men compared with men in the general population. For women, the increased risks were five times for Pakistani women, three times among Bangladeshi and Black Caribbeans, and two and half times among for Indian women.

- Haemoglobinopathies (thalassemia and sickle-cell anaemia), which are found across all ethnic groups but are more prevalent among people with ancestral origins in the Mediterranean, the Middle East, Africa and Asia (WHO Secretariat 2006).

- Infectious diseases including sexually transmitted diseases in migrant populations e.g. TB, HIV; a particular concern among forced migrants and asylum seekers. Aspinall and Watters (2010) have highlighted the growing concern about the increase in incidence of TB in those recently arrived from in the UK and the barriers to effective treatment that are faced.

- Female Genital Mutilation (also referred to as female circumcision) and its implications for health and well-being. FGM has been recognised as an issue among ethnic minority communities in Great Britain since the early 1980s. Morison et al. (Morison et al. 2004) state that '*estimates of numbers of circumcised women in Britain or of girls at risk of the practice are extremely crude as routine immigration data and data from the national census are not conducive to such calculations. Unpublished estimates by the Foundation for Women's Health Research and Development (FORWARD) are that around 25,000 first generation immigrants in Britain have undergone female circumcision whilst another 10,000 are at risk*' (p. 78). Aspinall and Watters (2010) discuss the high prevalence of FGM among asylum seekers from some parts of Africa, particularly the Horn of Africa, and highlight the potentially serious psychological and physical health impact, particularly where women find themselves unable to communicate effectively with healthcare staff and health professionals are ill-informed about FGM and its consequences.

HEALTH: process indicators

Low perception of treatment with dignity and respect

The Department of Health has published a report on the experiences of patients in Black and Minority Ethnic groups, based on data from the National Patient Survey Programme led by the Care Quality Commission, up to and including 2008 patient surveys (Department of Health, 2009). This report presents results from the 2008/09 adult inpatient, 2008/09 emergency department, 2007/08 primary care services and 2007/08 community mental health patient surveys. The report employs fairly broad ethnic group categories, which while less than satisfactory, do allow us to explore important differences in experience among minority ethnic patients in comparison with the White British majority. While these surveys cover many dimensions of the patient experience, we have extracted the data that correspond to the questions relating to the EMF core indicator - perception of treatment with dignity and respect. Unfortunately, the data that are currently published by the CQC do not include the basic rates, but rather just the odds ratios for answering 'yes, always' to questions about whether the respondent was treated with dignity and respect in comparison with the White British sample. Table 21 below presents these odds ratios for the results from four different NHS healthcare settings. There was no evidence that patients of minority ethnic background were less likely than the White British majority to report treatment with dignity and respect by psychiatrists in the community mental health setting. In contrast, in emergency care and the primary care setting all minority groups except the Irish were less likely than the White British to report that they had always been treated with dignity and respect. Looking across the minority ethnic groups, the Asian/Asian British group stand out as being significantly less likely than the White British to report that they had always been treated with dignity and respect in three out of the four settings. In the primary care setting, however, it was the Chinese who, in comparison with the White British, had the lowest odds ratio of reporting that their GP always treated them with dignity and respect. The report concludes that there are few changes over time between the earlier report in 2008 and this one a year later.

Table 21: Odds ratios of reporting 'yes, always' to question about being treated with dignity and respect in various NHS settings compared to White British group, by ethnic group, National Patient Surveys 2007/8 and 2008/9

	White: Irish	**White: Other**	**Mixed**	**Asian/ Asian British**	**Black/ Black British**	**Chinese/ other**
While in hospital	1.50	0.96	0.91	**0.80**	0.96	0.85
In the emergency department	1.10	**0.74**	**0.79**	**0.66**	**0.83**	**0.54**
By the doctor in primary care	0.95	**0.68**	**0.65**	**0.50**	**0.75**	**0.34**
By the psychiatrist in a community mental health setting	1.43	1.19	1.27	1.02	0.97	0.91

Source: (Department of Health 2009)

Notes: Question wording: ' Overall, did you feel you were treated with respect and dignity while you were in the hospital? / while you were in the emergency department?' 'Did the doctor / psychiatrist treat you with dignity and respect?'. Data for hospital stay and emergency are from 2008/9 and for primary care and community mental health are from 2007/8. Bold indicates statistically significantly different from White British reference group.

In addition to the information provided via the postal questionnaires of the National Patient Survey Programme, some information on perceptions of treatment with dignity and respect are available in national population-based surveys. We have performed some basic descriptive analyses using the 2007 Citizenship Survey of England (Table 22). The numbers are, however, small for the minority ethnic groups making the estimates imprecise and compromising our ability to detect differences between the groups. The proportion of respondents saying that they were treated with respect only some of the time or less was highest in the 'Any other mixed background', followed by the Chinese and the Bangladeshi. These findings for Chinese and Bangladeshi people are consistent with other sources of evidence, but were not statistically significant in this case. The low proportion among Pakistanis does not fit well with evidence from qualitative studies discussed more below.

Table 22: Percentage responses to question "In general, would you say that you are treated with respect when using health services" by ethnic group, England, 2007

	All the time or most of the time	Some of the time or less	N
White British	91.4	8.6	8,024
White Irish	93.1	7.0	166
Any other White background	87.9	12.1	316
Asian or Asian British - Indian	91.2	8.8	1,362
Asian or Asian British - Pakistani	91.8	8.2	806
Asian or Asian British - Bangladeshi	86.4	13.6	289
Any other Asian/Asian British background	90.9	9.1	278
Black or Black British - Caribbean	89.9	10.1	804
Black or Black British - African	86.8	13.3	811
Any other Black or Black British background	100	0	45
Chinese	85.0	15.0	160
Mixed White and Black Caribbean	90.0	10.0	188
Mixed White and Black African	88.9	11.1	108
Mixed White and Asian	88.9	11.1	90
Any other mixed background	84.2	15.8	92
Any other ethnic group	90.3	9.7	

Source: Citizenship Survey 2007, authors' analysis.
Notes: Overall Chi-Square, 19.39; df, 15; p= .197.

We explored the possibility of analysing the Living in Wales 2008 survey to examine perception of treatment with dignity and respect by ethnic group but the numbers of minority ethnic individuals included in the survey are extremely small. Less than 20 people gave responses to the relevant question in each of the groups Irish, Indian, Pakistani, Bangladeshi, Black Caribbean and Black African, so that no meaningful analyses could be carried out.

No data are yet available from the Better Together patient survey programme for Scotland. It is unclear whether these will sustain analyses by ethnicity when they become available, but this seems unlikely.

There are no large-scale quantitative data on 'dignity and respect' in healthcare services among Gypsies and Travellers, but this was a strong theme in the qualitative component of the Parry et al. (2004) study. The authors commented:

'The general mistrust of non-Travellers in wider society ... includes health staff. The everyday experience of racism and the defensive expectation of it underlie this widespread mistrust and give rise to low expectations of staff and service provision. The common experience of difficulty in gaining access to GP's and being registered is frequently attributed to racism, as is poor care. Mistrust is frequently manifested as fears, either of investigations, procedures or treatments. Close community and large family networks ensure stories of unpleasant experiences, medical mishaps or adverse outcomes are frequently recounted and so make the incidence of negative events appear higher. The reverse is also true with good reputations being well circulated. Avoidance behaviour is a common outcome arising from lack of trust. Lack of accurate information is compounded by usually poor communication with health staff and leads to reliance on trust rather than informed decision-making about health related options.' (pg 57)

Health-related behaviours and life-style factors

The HSE series is a useful source of information on health-related attitudes and behaviours, providing a wealth of indicators for a nationally representative sample. The HSE has taken a particular focus on the health of minority ethnic populations in 1999 and 2004, allowing some exploration of trends over time.

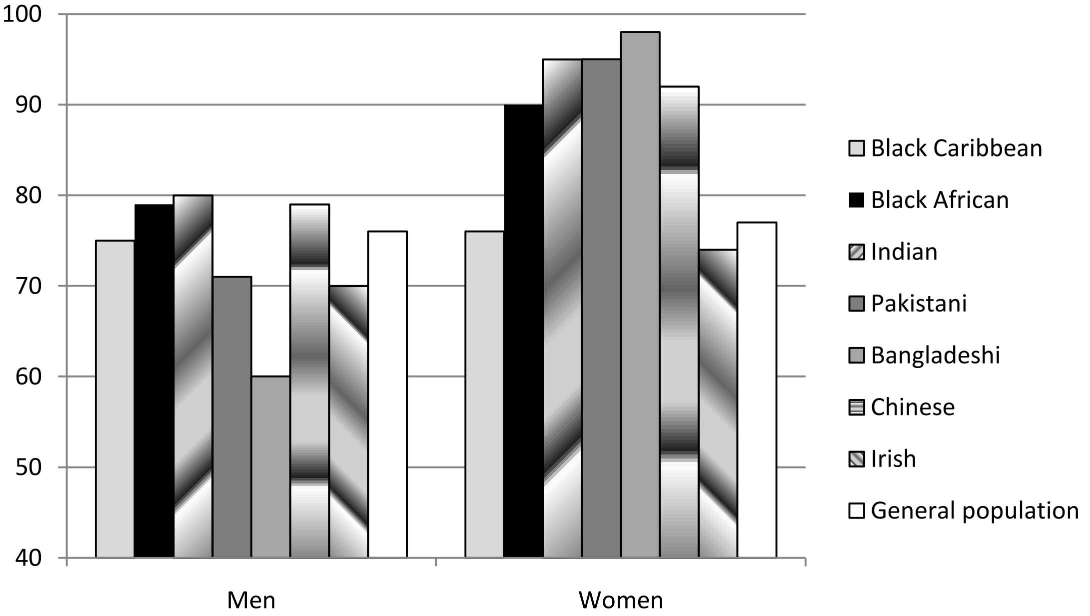
The national-level health surveys in Wales and Scotland do not include sufficient numbers of people from minority ethnic backgrounds to produce robust estimates of any of the life-style indicators.

Smoking

Percentage of people not currently smoking cigarettes: current picture

Data from the HSE 2004 indicate that overall, the percentage of men *not* currently smoking cigarettes was 76% among men in the general population. In comparison, 60% of Bangladeshis, 70% of Irish, 71% of Pakistanis, 75% of Black Caribbeans, 79% of Black Africans and Chinese, and 80% of Indians were not current smokers. After adjustment for age, Bangladeshi and Irish men were statistically significantly more likely, and Indian men less likely, to report smoking cigarettes than men in the general population. Self-reported smoking prevalence was higher among women in the general population than most minority ethnic groups, except Irish and Black Caribbean women. The percentage of women *not* currently smoking cigarettes was 77% in the general population, compared to 74% of Irish women, 76% of Black Caribbeans, 90% of Black Africans, 92% Chinese, 95% Indian and Pakistani, and 98% of Bangladeshi women (Figure 5).

Figure 5: Percentage of people *not* currently smoking cigarettes (self-reported) by sex and ethnic group, HSE, England 2004



Source: HSE 2004

It is worth mentioning that the Turkish population, who are not currently enumerated as a separate ethnic category, have been found to have very high levels of smoking among both men and women (Aspinall and Jacobsen, 2004). It should also be noted that though the EMF indicator focuses exclusively on smoking tobacco there are concerns about the level of tobacco chewing among some ethnic groups, particularly Bangladeshis. In the HSE 2004, 9% of Bangladeshi men and 16% of Bangladeshi women reported chewing tobacco and among women aged 35 years and over the figure was 26% (Sproston and Mindell, 2006b) and further analysis suggests significant under-reporting of tobacco use among this group (Roth et al., 2009).

Aspinall and Watters (2010) reviewed information on the health status of asylum seekers and refugee populations. They found a dearth of information on health-related behaviours in general, though there is some evidence from small scale studies of high rates of smoking in comparison with the general population.

There are currently no national data on smoking prevalence by ethnicity for Wales or Scotland.

The EMF does not include any HEALTH indicators related to the use of other drugs (except alcohol which is discussed below). However, there appear to be some important ethnic variations in drug use, as revealed by the British Crime Survey (BCS) (Aust and Smith, 2003). The chewing of qat (or khat; a shrub traditionally grown in North Africa) is largely confined to Somali and Ethiopian communities and may have significant effects on health and well-being.

Percentage of people not currently smoking: trends over time

The HSE 2004 reports on comparisons with the 1999 figures for cigarette smoking. The proportion of people not currently smoking in the general population rose to 76% of men and 77% of women in 2004, from 73% for both in 1999 (both significant increases). Among Black Caribbean men and Irish men and women, cigarette smoking was also less prevalent in 2004 than in 1999. The prevalence of non-smokers in Black Caribbean men rose to 75 in 2004 from 65% in 1999, in Irish men to 70% in 2004 from 61% in 1999, and in Irish women to 74% in 2004 from 67% in 1999. For all other minority ethnic groups no differences were observed over the time period.

Overweight and obesity

Percentage of people who are not overweight or obese: current picture

Data from the HSE 2004 shows that the prevalence of normal/healthy weight (BMI 18.5 to less than 25) varies greatly between ethnic groups, with the Chinese group having the highest proportions among both men and women. Across the ethnic groups, the sex pattern of normal/healthy weight varied. Whereas men are less likely to be of normal/healthy weight than women in the general population and among Black Caribbean, Chinese and Irish groups, it is women who are less likely to be of normal/healthy weight among the Pakistani, Bangladeshi and Black African groups. Having adjusted for age, Indian, Pakistani, Bangladeshi and Chinese men were less likely than the general population to be overweight or obese. Among women, age-standardised risk ratios indicated that Black African and Pakistani women were more likely than the general population to be overweight or obese, while Chinese women were much less likely to be so (Table 23).

Table 23: Percentage of people who are *not* overweight or obese by sex and ethnic group and standardised risk ratio of being overweight or obese, England 2004

	Black Caribbean	Black African	Indian	Pakistani	Bangladeshi	Chinese	Irish	General Popn
Men								
% normal weight	**32**	**38**	**45**	**44**	**55**	**63**	**33**	**33**
RR	**1.02**	**1.00**	0.82	0.89	0.75	0.62	**0.99**	**1**
Women								
% normal weight	**36**	**31**	**45**	**37**	**49**	**75**	**42**	**43**
RR	**1.16**	1.37	**1.00**	1.24	**1.06**	0.46	**0.99**	**1**

Source: HSE 2004

Notes: RR= standardised risk ratio for being overweight or obese compared to the general population. Bold figures indicate statistically significantly different from the general population. Figures were standardised by age using a bespoke, artificial standard population designed to minimise the increase in standard errors of the estimated risk ratios.

It should be remembered that there is a lack of evidence of the validity of the thresholds currently adopted for defining overweight and obesity for different ethnic groups. In addition to the EMF indicator which is based on BMI, the HSE 2004 data enabled exploration of alternative indicators of obesity (and potential negative health effects) - raised waist-to-hip ratio (WHR) and raised waist circumference - which are considered more useful measures than BMI when comparing ethnic groups because they more clearly distinguish body fat from body shape. These measures showed somewhat different ethnic variations than those reported above for BMI. After age-standardisation, the risk of raised waist hip ratio (WHR) was higher than in the general population for Pakistani (1.46) and Bangladeshi men (1.34), and lower for Chinese (0.66) and Black Caribbean men (0.73). Black Caribbean, Indian, Bangladeshi and Chinese men had a lower risk of raised waist circumference than the general population. The risks of raised WHR and raised waist circumference were higher than the general population for women in most minority ethnic groups, except among Indian and Irish women, who had about the same risk as women in the general population, and Chinese women, who had a lower risk.

Percentage of people who are not overweight or obese: trends over time

Comparison of data from the 1999 and 2004 HSEs suggests an increasing level of overweight, obesity and WHR among most ethnic groups and both sexes, in common with the general population. Patterns between ethnic groups were similar across the years.

Physical activity

Percentage of people meeting government guidelines for physical activity: current picture

Data from the HSE 2004 reveal important differences in the proportion of people who report levels of physical activity that meet the government guidelines by sex and ethnic group. Across all ethnic groups, women are less likely than men to meet the guidelines, but the differences are particularly large for Indian, Pakistani, Bangladeshi and Chinese groups. In comparison to the general population, men and women in the Indian, Pakistani, Bangladeshi and Chinese groups are statistically significantly less likely to meet the guidelines (Table 24). Patterns by age were consistent across groups, with both men and women being less likely to take high levels of physical exercise at older ages.

Table 24**:** Percentage of people who reported meeting government guidelines for physical activity and standardised risk ratio of meeting guideline, by sex and ethnic group, England 2004

	Black Caribbean	Black African	Indian	Pakistani	Bangladeshi	Chinese	Irish	General Popn
Men								
% meeting exercise guideline	**37**	**35**	**30**	**28**	**26**	**30**	**39**	**37**
RR	**1.03**	**0.84**	0.75	0.64	0.58	0.74	**1.05**	**1**
Women								
% meeting exercise guideline	**31**	**29**	**23**	**14**	**11**	**17**	**29**	**25**
RR	**1.17**	**1.03**	0.81	0.46	0.32	0.59	**1.08**	**1**

Source: HSE 2004
Notes: RR= standardised risk ratio for being overweight or obese compared to the general population. Bold figures indicate statistically significantly different from the general population. Figures were standardised by age using a bespoke, artificial standard population designed to minimise the increase in standard errors of the estimated risk ratios.

Percentage of people meeting government guidelines for physical activity: trends over time

Comparisons between HSE 1999 and 2004 showed inconsistent patterns with some sex-ethnic groups showing a slight rise and others a slight decline in the proportion meeting the guidelines. Overall, there was little evidence of any major shift in exercise levels over the period.

Healthy eating

Percentage of people meeting government guidelines for eating 5 a day fruits and vegetables: current picture

Findings from the HSE 2004 show that, with the exception of Irish men, the proportion of men meeting the '5 a day' guideline was significantly higher in all minority ethnic groups than among men in the general population. Chinese and Indian men were the most likely to report eating five or more portions of fruit and vegetables a day. Among women, the Chinese and Indian groups were also most likely to meet the guideline. Comparing to the general population, Black African, Indian and Chinese women were more likely to meet the guideline than the general population, while rates were similar among the other ethnic groups. Levels of consumption were more similar among men and women in the minority ethnic groups (with the exception of the Irish and the Chinese) than in the general population.

Table 22: Percentage of people who reported meeting government guidelines for daily fruit and vegetable consumption and standardised risk ratio of meeting guideline, by sex and ethnic group, England 2004

	Black Caribbean	Black African	Indian	Pakistani	Bangladeshi	Chinese	Irish	General Popn
Men								
% meeting 5 a day guideline	**32**	**31**	**37**	**33**	**32**	**36**	**26**	**23**
RR	1.40	1.40	1.64	1.47	1.48	1.66	**1.14**	**1**
Women								
% meeting 5 a day guideline	**31**	**32**	**36**	**32**	**28**	**42**	**32**	**27**
RR	**1.16**	1.23	1.37	**1.19**	**1.00**	1.65	**1.24**	**1**

Source: HSE 2004

Notes: RR= standardised risk ratio for being overweight or obese compared to the general population. Bold figures indicate statistically significantly different from the general population. Figures were standardised by age using a bespoke, artificial standard population designed to minimise the increase in standard errors of the estimated risk ratios.

Percentage of people meeting government guidelines for eating 5 a day fruits and vegetables: trends over time

No important trends over time have been identified.

Alcohol use

Percentage of people reporting drinking in line with government's 'sensible' drinking guidelines: current picture

The HSE 2004 did not report on the prevalence of drinking within government guidelines in terms of units per day (though we do report this indicator from our own analyses in the Chapter on religion). Instead, the HSE main report reported on usual drinking frequency (Sproston and Mindell, 2006) and we reproduce the key indicators in Table 25 below. Across all ethnic groups women are more likely than men not to drink at all, and less likely than men usually to drink on three or more days in a week. There are also striking differences in alcohol consumption patterns across ethnic groups, with 97% and 98% of Bangladeshi men and women reporting that they do not drink at all, compared with just 8% of men in the general population. Among men, the Irish are more likely to drink on three or more days a week than the general population, but all other minority ethnic groups are significantly less likely to do so and the differences in the proportions are large in all cases. Among women, the Irish do not differ significantly from the general population, but again, among all the other minority ethnic groups women are significantly less likely to drink on three or more days in a week than the general population.

Table 25**:** Percentage of people who reported not drinking at all, drinking 3 or more days in a week, and standardised risk ratio of drinking 3 or more days in a week guideline, by sex and ethnic group, England 2004

	Black Caribbean	Black African	Indian	Pakistani	Bangladeshi	Chinese	Irish	General Popn
Men								
% not drinking at all	**15**	**32**	**33**	**89**	**97**	**19**	**10**	**8**
% drinking 3+days per week	**28**	**17**	**18**	**2**	**1**	**18**	**51**	**41**
RR	0.75	0.47	0.44	0.05	0.01	0.49	1.23	**1**
Women								
% not drinking at all	**21**	**45**	**59**	**95**	**98**	**33**	**11**	**14**
% drinking 3+days per week	**11**	**6**	**5**	**0**	**0**	**9**	**30**	**26**
RR	0.42	0.28	0.21	0.01	0.00	0.37	**1.06**	**1**

Source: HSE 2004

Notes: Not drinking at all includes those who have not drunk in past 12 months and those who never drink. Drinking within guideline includes those who do not drink at all. RR= standardised risk ratio for being overweight or obese compared to the general population. Bold figures indicate statistically significantly different from the general population. Figures were standardised by age using a bespoke, artificial standard population designed to minimise the increase in standard errors of the estimated risk ratios.

Alcohol consumption: trends over time

No important trends over time have been identified.

HEALTH & LIFE: autonomy

The EMF does not include any quantitative indicators of autonomy. A review of the available literature highlights some areas of concern:

- Lack of access to information and lack of familiarity with the system appears to make it more difficult for people from some minority ethnic backgrounds to exercise choice in terms of their healthcare and this is particularly true for new migrants and those with poor English language skills.

- Culturally incompetent services and practitioners can restrict the ability of people from minority ethnic backgrounds to engage with services in the ways that they would prefer. For instance, factors such as a lack of facilities for family members to be involved, inappropriate dietary provision, and a lack of privacy, particularly for women, can result in poor patient experiences and withdrawal from services/treatments.

- A lack of choice and control over their lives and the pervasive experience of discrimination are prominent issues for Gypsies and Travellers, as well as asylum seekers, that impact negatively on their health and well-being.

We discuss these issues more in the discussion section below.

Cross-over themes and vulnerable groups

As shown in Chapter 9 on Religion & Belief, several of the ethnic groups in Great Britain, including Indians and Black Africans, are religiously diverse and there is evidence to suggest that within these ethnic groups, Muslims often suffer poorer health than people reporting other religions. The reasons for this are not well understood, but are discussed in some detail in that Chapter.

The social construction of gender roles, responsibilities and expectations are often closely tied to ethnic identities, and women's norms of behaviour in particular are often taken as symbols of ethnic group inclusion and exclusion (both by those within and outside of particular ethnic groups). Therefore, it is not surprising that gendered patterns of health-related behaviour, as well as gendered health experiences and outcomes, vary between ethnic groups. This is illustrated in some of the indicators presented above - for instance patterns of smoking across gender vary importantly between ethnic groups. That said, some gendered differences are seen across all ethnic groups - such as women's disadvantaged position in relation to healthy levels of physical activity. The interplay of gendered and ethnic identities in relation to health experiences and outcomes has not been well articulated even in research that has foregrounded a concern with gender issues (Doyal, Payne and Cameron, 2003). Women from minority ethnic groups may, for a number of inter-related reasons, be more severely socioeconomically marginalised than men, and experienced higher levels of poor health. There are particular concerns regarding mental and maternal health among asylum seeking and refugee women, and evidence of very poor access to essential services. Gypsy and Traveller women also appear to be particularly disadvantaged. This area deserves further investigation.

Evidence from the Fourth National Survey of Ethnic Minorities suggests that ethnic inequalities in health in the United Kingdom increase with age, with relatively small differences at younger ages and larger differences emerging from the mid-30s onwards. The data presented above also highlight the particularly high levels of ill-health among older Pakistani and Bangladeshi people. The Equalities Review (The Equalities Review 2007) also noted the greater ethnic health inequalities at older ages, but also that ill-health and associated health and social care needs tend to appear at a younger age for Pakistani and Bangladeshi people than average. Many ethnic minority older people live in areas of high deprivation, have poor English language skills and limited knowledge and understanding of available services, making them particularly vulnerable to poor health and well-being (Allmark, et al., 2010; Grewal et al., 2004).

There is evidence to suggest that the experiences of disabled people may be patterned by their ethnic identity as well as their religious affiliation and their faith (Atkin, Ahmad and Jones, 2002b; Molloy, Knight and Woodfield, 2003). Factors that may contribute to such differential experiences include: cultural or religiously based understandings of the ‘meaning’ of disability and appropriate individual, familial and community-level responses to disability; faith as a resource for ‘coping’ with/adjusting to disability; and formal and informal ethnic and religiously based networks of support (Salway, et al., 2007). There is evidence to suggest that services designed to support disabled people’s health and wellbeing frequently do not adequately respond to ethnic and religious diversity (Allmark, et al., 2010; Atkin and Ahmad 2000; Atkin, Ahmad and Jones 2002a).

Discussion

What are the key inequalities? How persistent and how worrying are they?

Among the main enumerated ethnic groups, Pakistani and Bangladeshi people stand out as having the worst health profile (and probably the lowest life expectancies), though most minority ethnic groups have worse general self-reported health than the White British majority. These inequalities are persistent and do not appear to be improving across generations for most groups (Smith, Kelly and Nazroo, 2009). It should be remembered, however, that some of the ethnic categories currently in use are broad. These categories conceal important heterogeneity and potentially hide even more disadvantaged 'groups' from view.

There is evidence that other groups about whom very little research has to-date been conducted - notably Gypsies and Travellers, asylum seekers and refugees - have particularly low levels of health and wellbeing and severe problems in accessing services.

It is important to recognise that there is variation both within religious groups by ethnicity and within ethnic groups by religion (see Chapter 9 on Religion & Belief).

The persistent failure of NHS health services to respond effectively to ethnic diversity and ensure equitable experiences and outcomes for patients of minority ethnic identity is a cause for concern; we discuss this more below.

Are there any emerging trends?

The growing ethnic diversity of Great Britain's population, both in terms of the size of the minority ethnic population and the range of ethnic, religious and linguistic groups that are represented, presents significant challenges for those charged with promoting the public's health and well-being.

New waves of migration are bringing to Britain new migrant groups with health needs that differ from the established communities. At the same time, a growing proportion of people are identifying themselves as being of 'mixed' ethnic identity.

Established minority ethnic communities are now ageing with a consequent increasing level of ill-health and greater demands on services that are largely ill-equipped to provide culturally competent care.

Some of the factors that seemed to protect/enhance health for first generation migrants appear to be diminished in second and third generation migrants, for instance some dietary habits. Some health advantages in first generation migrants are not well explained, but the picture among second generation migrants is worsening, for instance there appears to be a rising incidence of some cancers.

What are the causes?

Ethnic inequalities in health are complex and have multiple contributing factors, many of which remain poorly understood. Ethnic inequalities in healthcare access, experience and outcomes also have complex patterns of causation and it is often difficult to assess whether differences necessarily constitute inequities.

Genetic and biological factors

There is more genetic variation *within* ethnic groups than *between* them. This does not mean, however, that differences in *some* health problems observed between ethnic groups are not influenced by genetic factors. Though ethnic groups are social constructions, varying across time and place, and are generally very poor proxies for genetic markers, there are two principal mechanisms through which ethnic group boundaries can either reflect or produce genetic variation along ethnic lines. First, the classification of ethnic groups frequently draws on phenotypic characteristics (including, for example, skin colour) or geographical ancestry (including, for example, grand/parental origins) and so the genetic traits that are more commonly associated with these characteristics and geographical regions will be more commonly found amongst individuals classified within particular ethnic groups (including, for example, certain types of skin cancer and sickle cell trait). Likewise, the classification of ethnic groups frequently draws on cultural or political characteristics (such as religious, language or structural barriers) that encourage endogamous marriage (that is marrying someone seen to belong to the same ethnic group) meaning that particular genetic traits may become concentrated and more common amongst individuals classified within particular ethnic groups (including, for example, Tay-Sachs trait amongst Ashkenazi Jewish populations). However, the extent to which genetic traits are concentrated within particular groups varies from group to group, as does the relative impact of such genetic difference on disparities in health. Moreover, only a minority of variable genetic traits seem to vary by contemporary ethnic categories (around 3-7%) and only a small proportion of these traits (perhaps as small as 5-10%, though no one is yet sure) are likely to directly or indirectly affect health.

That said, Davey-Smith et al. (2000) caution against discounting the role of biological factors entirely, saying that '*many important determinants of health are physiological characteristics which are strongly influenced by socioeconomic and other environmental factors, and in turn have a long-lasting influence on health….. Several aspects of bodily habitus, such as birthweight, growth in childhood, achieved height and lung function, are factors which are at the same time socially produced and biological*' (p401).

Astin and Atkin (2010) have reviewed evidence on IHD and ethnicity highlighting both that some biological factors associated with IHD do appear to vary across ethnic groups but also that the significance of known risk factors for levels of disease varies across individuals and groups. *'Diet, lipoprotein metabolism, cholesterol levels, physical activity and socioeconomic status not only influence one another but are potentially changed by other biological processes that occur within the human body'* (p2). Astin and Atkin (2010) argue that biological factors should be explored in conjunction with psychosocial and contextual factors. Drawing on the Fourth Joint European Societies' Task Force on Cardiovascular Disease Prevention in Clinical Practice (Graham et al., 2007), they note that '*depression, social isolation, a lack of social support and work and domestic stress are recognised as important factors that* *contribute to the development of CHD and subsequent prognosis'* (p2), so that a narrow focus on biological factors or life-style behaviours is misleading.

There is widespread consensus amongst geneticists and epidemiologists that genetic factors contribute only marginally to ethnic inequalities in health, and that cultural and structural factors which result in very different levels of social and environmental health risks across ethnic groups are far more important. Nevertheless, while it is important to resist the 'racialization' of research and healthcare policy and practice which focuses disproportionately on genetic difference, there is a need to consider the role that biological factors, and their complex interplay with environmental factors, can have on ethnic inequalities in health (Davey-Smith et al., 2000). Currently, our understanding of these complex processes is very limited.

Migration

Davey-Smith et al. (2000) provide a useful summary of the varied ways in which a history of migration might contribute to the explanation of health disparities between ethnic groups, including: health-related risk exposures prior to migration (including for example, trauma experienced by asylum seekers), healthy migrant selection effects, return migration when sick or elderly, and the stress associated with the migration process itself. Some of these factors would tend to reduce health and mortality differentials between migrants and the established population. None can explain the persistent health disadvantage among second and third generation migrants. Migration may, however, have a prolonged and cross-generational effect because of its links to low socioeconomic status, racism and social exclusion.

Norms, behaviours and expectations

Holding a particular ethnic (and often religious) identity may imply certain sets of beliefs and behaviours that have implications for health and healthcare outcomes and experiences. Therefore, though there is great diversity within groups as well as change over time in cultural practices, at an aggregate level culturally informed beliefs, attitudes, preferences and associated behaviours may account for some of the observed inequalities presented above. The most obvious area where these factors may be important relates to healthy life-styles; though it should be noted that minority ethnic groups do better than the White British majority on some key life-style related risks including alcohol consumption and smoking among women. Dietary patterns are often implicated in the higher levels of IHD among some South Asian groups, though there is limited firm evidence to confirm this association (Brock et al., 2009)

Cultural and religious beliefs and understandings may also shape specific health-seeking behaviours and the degree of adherence with the advice and prescriptions of health professionals (as discussed more in the Chapter 9 on Religion & Belief). Some studies suggest that people from some minority ethnic groups, particularly the Chinese, are more likely to self-medicate and use complementary medicines than White British people and that this may conflict with advice offered by health professionals (Higginbottom, 2008; Boreham, 2006). Such individual behaviours must, however, be seen within the context of the healthcare system and the degree to which cultural preferences are understood, respected and accommodated (as discussed further below).

Ethnic (and religious) identity also implies inclusion within (and exclusion from) particular networks of support. As well as shaping beliefs, values and behaviours, such networks may provide access to resources, including information, which can promote health and well-being. Evidence suggests that people of minority ethnic identity, particularly those of lower socioeconomic status and newer migrants, are commonly heavily dependent upon such ethnic networks for information and support in negotiating access to statutory services, including healthcare (Salway et al., 2007). Since such networks, which may include community-based organisations, vary in the quality and quantity of support they can offer, individuals who rely on such networks may struggle to access appropriate care and entitlements (Allmark et al., 2010).

The factors discussed so far, though relevant to our understanding of health and healthcare needs among different ethnic groups, are far less important in explaining observed inequalities than the following inter-related factors: socioeconomic status; design and delivery of the healthcare system; and exclusion and discrimination.

Socioeconomic status and deprivation

A growing body of evidence indicates that a large part of the health disadvantage experienced by certain minority ethnic groups in Great Britain is explained by their poorer socioeconomic position relative to the White British majority. We review in this section (i) the evidence that minority ethnic groups have a poorer socioeconomic profile than the majority White British; (ii) that there is an association between health outcomes and socioeconomic status among minority ethnic groups (as has been widely demonstrated for the majority White British population), and (iii) that a proportion of the excess risk of poor health outcomes among some minority ethnic groups can be attributed to their poorer socioeconomic circumstances.

Ethnic inequalities in socioeconomic circumstances:

The socioeconomic profile of Britain's ethnic groups is described in detail in another of the Triennial Review background papers and we do not repeat that analysis here. Instead, we highlight the key patterns that are relevant to the present discussion. Berthoud's (Berthoud, 1998) analysis of data from the Fourth National Survey of Ethnic Minorities and the Family Resources Survey provided a detailed description of income sources and levels among minority ethnic households. While the profiles were diverse both within and between the groups, there was compelling evidence that Pakistanis and Bangladeshis *'were strikingly - shockingly - the worst off ethnic groups in Britain'* (p43). The Black African group also tended to fair worse than Black Caribbeans, who in turn had lower incomes than Whites. The Indian group tended to earn as much as the White majority, but larger family sizes meant that overall prosperity was lower on average. The Chinese population were harder to characterise in terms of income levels due to small samples, though working Chinese families did have relatively high incomes. Platt's more recent report to the DWP on child poverty (Platt 2009) using a range of data including the Family Resources Survey 2002-6 has again highlighted the stark ethnic differentials. She summarises the situation as follows: *"All minority groups have higher rates of poverty than the average and compared to the White majority, according to the standard measure adopted by the Government for monitoring child poverty. With a fifth of children in poverty overall, Black Caribbean and Indian children had rates of poverty* *of 26 and 27 per cent rising to 35 per cent for Black African children. Over half of Pakistani and Bangladeshi children were in poverty according to most recent figures."* Evandrou's analysis of the GHS (1991-6) focused on the socioeconomic status of older people and found significant differences both between and within minority ethnic groups (Evandrou, 2000). Evandrou reports that in her sample, 1/5 of White, and 1/4 of Irish people aged 60 years or over were in the poorest 20% of the income distribution compared with 1/3 Black Caribbean, 1/2 Indian, and 3/5 of the combined Pakistani/Bangladeshi group of older people. Evandrou also found that a lower proportion of minority ethnic older people were in receipt of a pension from their former employer than White or Irish elderly people and that while over 3/4 of the older Pakistani/Bangladeshi group and 3/5ths of older Black Caribbeans were in receipt of Income Support the comparable proportion for White older persons was 1/3. Over half of Pakistani/Bangladeshi, 2/5ths Black Caribbean and 1/4 of Irish older people were found to experience high or medium levels of deprivation.

The HSE 2004 data also provide a useful summary of the socioeconomic profile of different ethnic groups (Table 26), illustrating clearly the disadvantaged position of the Pakistani, and particularly the Bangladeshi, groups. The proportion of people falling into the bottom income quintile is lower for all the minority ethnic groups than the White British majority, though the differences are small for the White Irish, Chinese and Indian groups.

Table 26: Indicators of socio-economic position by ethnic group, England, 2004

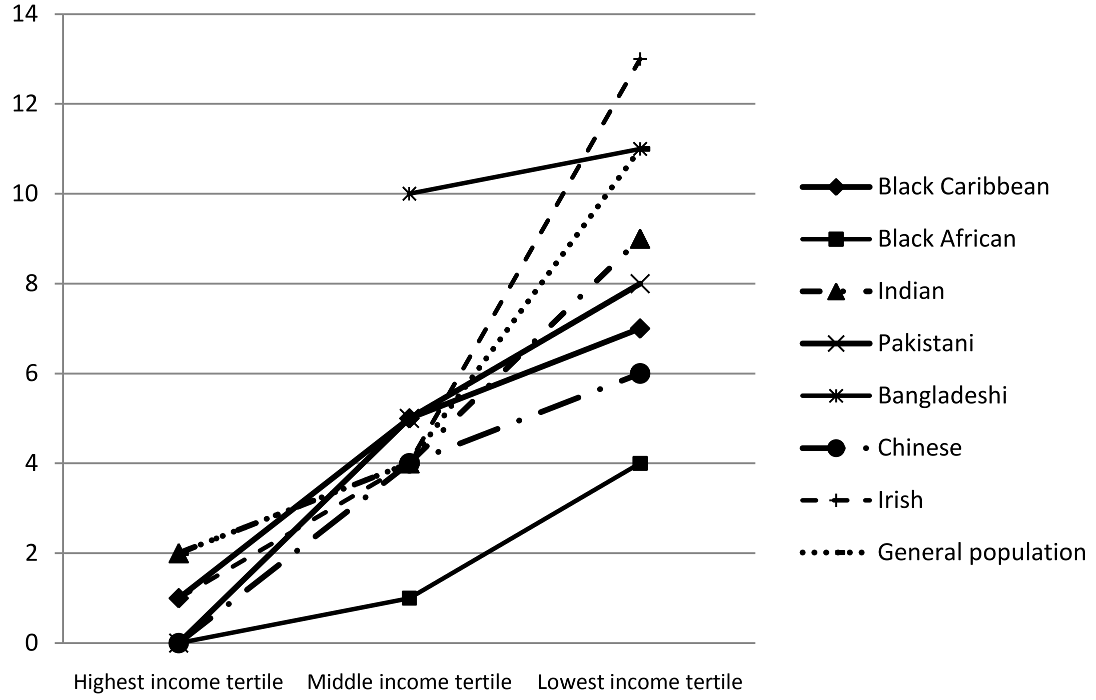
	No qualific-ations	***Manual occupation***	***Registered unemployed***	***Unemployed or long-term sick***	***Bottom income quintile***
			Cell percentages		
White British	30	46	2	6	17
White Irish	31	47	3	8	18
Black Caribbean	32	54	6	12	36
Black African	20	41	6	10	42
Indian	28	44	3	7	28
Pakistani	44	61	6	12	52
Bangladeshi	52	74	9	13	72
Chinese	25	43	5	6	21

Source: HSE 2004, authors' analysis.
Notes: Indian includes African Indians. White British includes White Other.

Differentials in health status by income among ethnic groups:

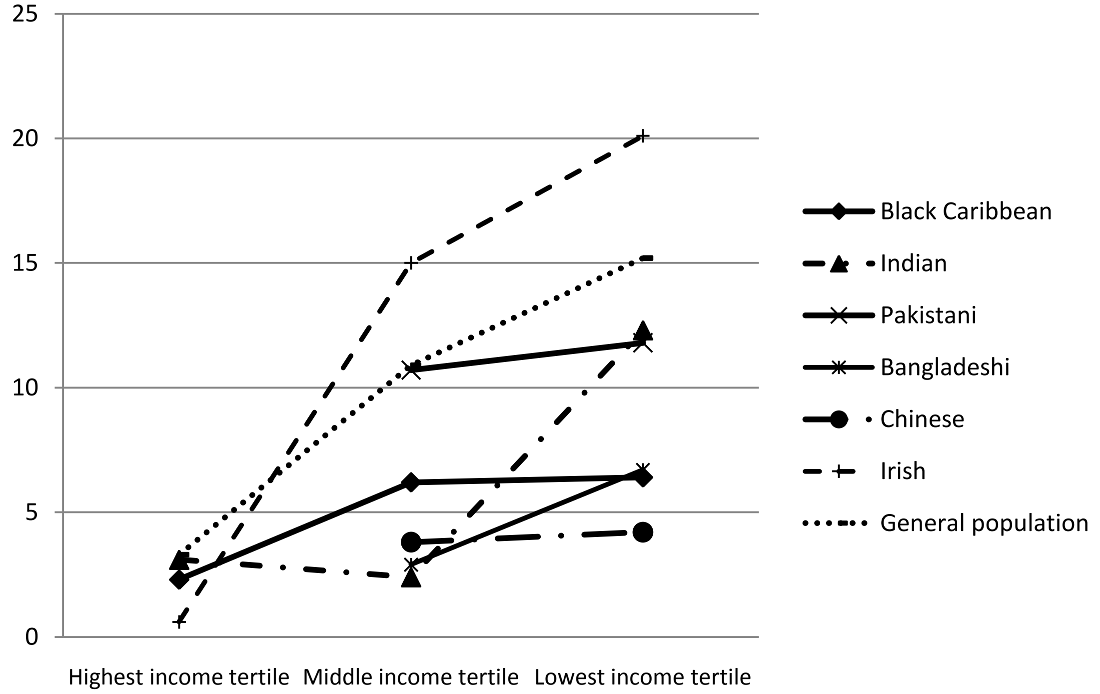
HSE 2004 data show very consistent patterns of rising proportions of people reporting poor health with declining income tertile within almost all ethnic groups for self-reported bad/very bad health, LLTI, and GHQ12 score of four or more. The few exceptions tend to be where numbers are too small to produce robust estimates (e.g. there were small numbers of Chinese people in the lowest income tertile and small numbers of Bangladeshi and Pakistani people in the highest income tertile making it difficult to discern patterns for these groups). Figure 6 shows this pattern for self-reported bad/very bad health, and Figure 7 for cardiovascular disease.

Figure 6: Percentage of men reporting bad/very bad health by income tertile and ethnic group, England 2004



Source: HSE 2004. Not standardised for age.

Figure 7: Percentage of men reporting IHD or cerebrovascular disease by income tertile and ethnic group, England 2004



Source: HSE 2004. Not standardised for age.

Exploring the contribution of socioeconomic status to ethnic health inequalities:
We turn now to consider the extent to which the poorer socioeconomic status of several of the minority ethnic groups might contribute to their poorer health outcomes when compared to the majority White British. One way to assess the contribution of socioeconomic factors to the excess burden of ill-health experienced by minority ethnic groups is to model the odds of a particular health outcome both without controlling for socioeconomic status and with suitable controls and then to compare the odds ratios. An important decline in the size of the odds ratio when controls are included in the model would tend to suggest that part of the excess health risk experienced by the minority group is 'explained' by their poorer socioeconomic status. There are, however, some important conceptual and methodological caveats that should be borne in mind. Kaufman et al. (1997) and Karlsen and Nazroo (2009) discuss these issues in more detail. In brief, it is extremely difficult to control for differences in socioeconomic status between ethnic groups in practice because within any measure of socioeconomic status the profile for minority groups tends to be less favourable than for the majority. In other words, ethnic groups differ on so many dimensions of socioeconomic status that there will always be residual confounding with any adjustment that an analyst might realistically make. Furthermore, the act of controlling for socioeconomic status may inadvertently imply that socioeconomic factors confound, or obscure, the 'real' relationship between ethnicity and health, and thereby may direct attention towards essentialist cultural or genetic accounts of health inequalities. It is important not to overlook the fact that socioeconomic disadvantage is intimately bound up with holding a minority ethnic identity in that societal processes of exclusion and discrimination sustain such disadvantage. In other words, weak material and social resources must in part be seen as lying on the causal pathway between minority ethnic identity and health outcomes, rather than as something separate. Notwithstanding the need for caution in interpretation, an exploration of odds ratios adjusted for indicators of socioeconomic position can provide some indication of the potential role that these factors play in ethnic health inequalities.

Nazroo (1997) performed analyses of the FNSEM 1993/4 data to explore the extent to which the poorer socioeconomic profile of minority ethnic groups could explain their increased prevalence of ill-health. In these analyses, rather than using a single measure of social class, Nazroo used a combination of variables in an attempt to better 'control' for the effects of poorer socioeconomic position, including a standard of living index (overcrowding, household amenities, consumer durables and access to car), social class and housing tenure. We present below in Table 27 and Table 28 figures from these analyses that were presented in Davey-Smith et al. (2000) relating to 'fair/poor health' and diagnosed heart disease respectively. The most obvious patterns are for the combined Bangladeshi/Pakistani group where controlling for class and for standard of living substantially reduces the relative risk of ill-health. Indeed, in the case of heart disease, when standard of living is controlled for the excess risk is no longer statistically significantly different from the majority White group.

Table 27: Relative risk compared to Whites of reported fair or poor health, standardised for socioeconomic factors, England, 1993/4

	Black Caribbean	Indian and African-Asian	Pakistani and Bangladeshi	All minority ethnic
Age and sex	**1.25**	0.99	**1.45**	**1.17**
Class, age and sex	**1.15**	1.00	**1.36**	**1.14**
Tenure, age and sex	**1.17**	1.04	**1.45**	**1.18**
Standard of living, age and sex	**1.15**	0.94	**1.24**	1.08

Source: FNSEM 1993/4; (Davey-Smith et al. 2000)
Note: Figures in bold indicate statistically significant from 1.

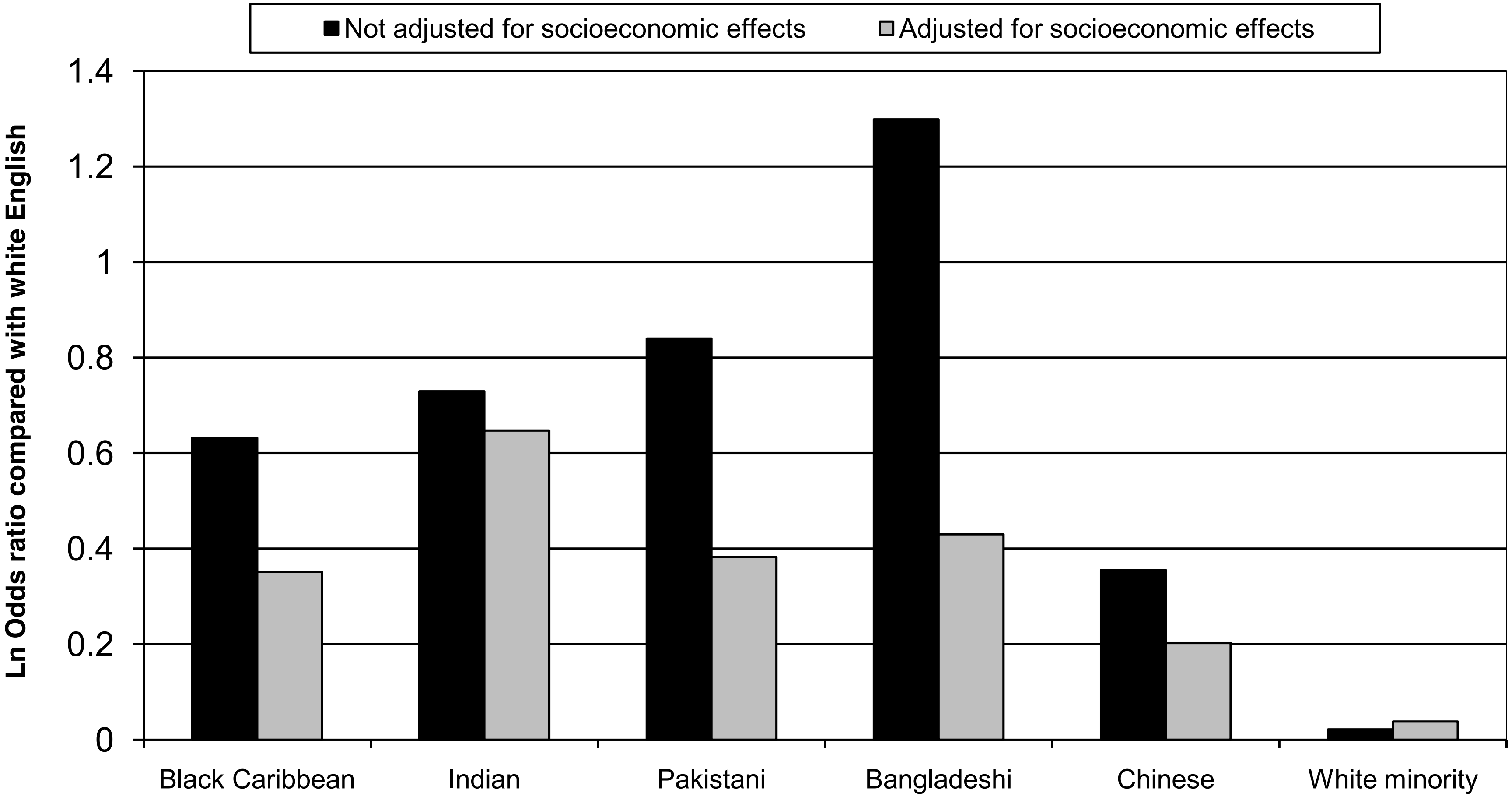
Table 28: Relative risk compared to Whites of diagnosed heart disease, standardised for socioeconomic factors, England, 1993/4

	Black Caribbean	Indian and African-Asian	Pakistani and Bangladeshi	All minority ethnic
Age and sex	0.95	0.77	**1.50**	0.97
Class, age and sex	1.05	0.92	**1.49**	1.10
Tenure, age and sex	0.93	0.85	**1.57**	1.05
Standard of living, age and sex	1.02	0.67	1.24	0.92

Source: FNSEM 1993/4, (Davey-Smith et al. 2000)
Note: Figures in bold indicate statistically significant from 1.

More recent analyses using data from HSE 1999 allowed Nazroo (2003) to examine these relationships across a larger number of ethnic groups. Looking at the outcome self-reported 'fair or poor' health, and controlling simultaneously for several socioeconomic indicators (income, housing tenure, economic activity), Nazroo found a clear and large reduction in relative risk compared to the White British comparator group for most groups (shown in Figure 8). Only the White minority (predominately Irish) group (which had odds close to 1) and the Indian group (for whom the reduction in relative risk was small) were the exceptions. We present other similar analyses using religio-ethnic groups in the Religion Chapter that have used 1999 and 2004 HSE datasets combined and present a similar picture.

Figure 8: Effect of adjusting for socioeconomic factors on odds ratio of reporting fair or poor health minority ethnic groups compared with White English group (Ln odds ratio), England 1999



Source: HSE 1999, Nazroo (2003)

Though data do not allow similar analyses for Gypsies and Travellers, available evidence points to the very significant contribution of poor socioeconomic conditions to the high levels of ill-health of these groups. Poor accommodation is a key factor for these groups as well as low levels of income and education (Parry et al., 2004; Goward et al., 2006).

There is also evidence that access to state welfare benefits intended to offset the financial implications of poor health is poorer among minority ethnic groups than the majority White British (Salway, et al. 2007b; Allmark et al., 2010).

The evidence presented above suggests an important role for low socioeconomic status in explaining the excess risk of ill-health among minority ethnic groups in Great Britain. However, it also suggests that inequalities in socioeconomic circumstances cannot fully explain the observed differences in health between ethnic groups (Nazroo, 2003).

Design and delivery of healthcare

We turn now to consider the role of the health system and whether the ways in which health services are designed and delivered may contribute to the health inequalities described. Notwithstanding the dominant role of poor socioeconomic circumstances in shaping health outcomes for the majority of minority ethnic people in Great Britain, timely access to appropriate and effective healthcare – such as cancer screening programmes or heart surgery – can and should have an important impact (Davey-Smith et al., 2000). We look first at health policy and broader strategy which defines the priorities for the health service to see whether and how ethnicity has been considered. We then explore the evidence relating to service access and utilization and healthcare outcomes. Finally, we describe evidence relating to the experiences of patients within the NHS since where these are poor it may suggest sub-optimal care and unacceptable treatment even for minority ethnic groups that have relatively good indicators of health overall (such as the Chinese).

Health policy and strategy:

Government health policy in Great Britain, and particularly in England, has emphasised the importance of understanding and tackling ethnic disparities in health and healthcare for at least four decades. A large number of general policy documents have focused on ethnic health inequalities (NHS Scotland 2006)(NHS Scotland 2006) and the importance of increasing cultural competence among providers and in service settings. There is also evidence that where national-level research has documented significant ethnic health inequalities the government has responded by further investigation and policy responses. For instance, the five-year *Delivering Race Equality in Mental Health* (Department of Health 2005) initiative was a response to the poorer mental health experiences of people from minority ethnic backgrounds (starkly evidenced in the tragic death of David Bennett), and the *No Patient Left Behind* policy document responded directly to evidence of poorer primary care experiences among minority ethnic patients (Lakhani 2008).

There are also some areas of specific health policy where the importance of addressing the needs of specific ethnic groups has been clearly articulated. For instance, the National Service Framework for heart disease has been extended to give a special focus to South Asian groups (Department of Health 2004) and the National Service Framework for Mental Health (Department of Health 1999) gives some attention to the differential needs of minority ethnic groups .

There is also evidence that the needs of particularly marginalised minority ethnic groups are gaining attention at policy level. For instance, CEMACH (Lewis 2007) included specific attention to migrant women within its top ten recommendations stating that *'All pregnant mothers from countries where women may experience poorer overall general health, and who have not previously had a full medical examination in the United Kingdom, should have a medical history taken and clinical assessment made of their overall health, including a cardio-vascular examination at booking, or as soon as possible thereafter. This should be performed by an appropriately trained doctor, who could be their usual GP. Women from countries where genital mutilation or cutting is prevalent should be sensitively asked about this during their pregnancy and management plans for delivery agreed during the antenatal period.'* The Scottish Government's document *Fair for All* makes explicit reference to Gypsies and Travellers, as does a recent Welsh review, both of which emphasise the significance of discrimination in the lives of these people (cited in Parry et al. 2004).

The Department of Health has also invested significant resources in special initiatives aimed at encouraging innovative policy and practice responses to the persistent inequalities, such as Race for Health (Race for Health 2009) and Pacesetters.

Despite this apparent policy commitment to take ethnic health inequalities seriously, attention to ethnic inequalities has yet to be mainstreamed and many areas of health policy remain poorly specified with respect to the needs of minority ethnic communities. Furthermore, as we describe more below, there has been disappointing translation of policy statements into positive change on the ground (Atkin and Chattoo. 2007; Culley and Dyson, 2001). A lack of evidence on the effectiveness of interventions aimed at tackling ethnic health disadvantage has no doubt impeded progress (Oakley, 2006). It is noticeable, for instance, that the majority of NICE Public Health guidance documents include very few recommendations in relation to minority ethnic populations and instead contain only generic statements about the need for interventions to be 'culturally and religiously appropriate' or similar. However, additional, systemic factors are also at play. It has been argued that UK public policy relating to minority ethnic communities has lacked coherence, with initiatives relating to immigration control and citizenship clashing with those relating to race equality (Hepple, 1992). UK health policy and practice has been found to struggle to reconcile these conflicting messages and to fail in establishing improved services and outcomes for minority ethnic populations, frequently locating the causes of poor health with those who are deprived (Atkin and Chattoo, 2007). It is noticeable that the significant attention to tackling health inequalities in the UK in recent years has been framed almost entirely in terms of socioeconomic disparities, in contrast for instance with the US where the racial/ethnic dimension of health disparities has been emphasised far more (Exworthy et al., 2006). This bias in UK policy is exemplified by the limited attention to ethnicity (or other axes of difference and inequality) within the recent Marmot Review (Salway, et al., 2010). The work of the Equality and Human Rights division of DH, while a very positive step forwards, remains divorced from this high profile health inequalities agenda; a situation which serves to marginalise its contribution and reinforce the perception that the health issues facing minority ethnic populations lie in their own cultural mores rather than in the broader social and economic hierarchies of UK society.

Access and uptake of services:

There is a widespread concern that many of the health services commissioned and delivered by the NHS fail to adequately meet the needs of our diverse, multiethnic population (Atkin and Chattoo, 2007; Culley and Dyson, 2001). However, assessing whether the uptake of services across ethnic groups is inequitable is extremely difficult (Aspinall and Jacobson, 2004) and the volume of high quality evidence in this area remains limited. Studies that examine the utilization of primary and secondary care services must generally take into account the level of need before conclusions about (in)equity can be drawn. Assessing the appropriateness or effectiveness of care received is even more complex and will often need to take account of potential ethnic variation in preferences and incorporate patient-defined outcomes (Astin and Atkin, 2010). Where evidence of ethnic differences in the care received and/or outcomes achieved are found, it is very difficult to establish the factors causing such differential receipt and few rigorous studies have been conducted to date. Nazroo et al. (2009) note that research in this area in the UK has tended to explore a limited range of conditions, to use local-level rather than national data, and to exclude individuals with undiagnosed disease. Despite these complexities, a growing body of quantitative and qualitative research evidence suggests that important ethnic differences do exist, at least in some areas of healthcare.

Looking first at utilization and access to services, analyses have tended to show that people from minority ethnic groups are more likely than the majority White British population to see their GP, but less likely to access some more specialist types of primary care service. Nazroo et al. (2009) used data from the HSE 1999 and 2004 to explore ethnic patterns of health service utilization. Age- and sex-adjusted odds compared with the White majority group showed that, having controlled for self-reported health status, Black Caribbean, Indian, Pakistani and Bangladeshi respondents were all *more* likely to have visited their GP in the last two weeks.

However, all minority ethnic groups, Irish and Chinese included, were *less* likely to report visiting a dentist for check-ups.

GP Patient Surveys have, however, tended to suggest that levels of access in relation to expectations and demand are somewhat lower for minority ethnic groups when compared to the White British majority. In 2007, the DH conducted the first national GP patient survey. It was sent to five million people selected at random from GP practices' lists of NHS patients in England. Results showed the majority of patients to be satisfied with access to primary care. However, people from minority ethnic groups reported, on average, significantly worse access than White British people. For example, 32% of Pakistani and 33% of Bangladeshi respondents answered 'no' to the question *'In general, are you satisfied with how easy it is to get through to someone on the phone at your doctor's surgery?'* compared to 12% of White British respondents. When asked whether they were able to book an advance appointment, 43% of Bangladeshi and 37% of Pakistani respondents said 'no' compared to 24% of White British people. The DH report concluded that overall Black populations are 5-10% less satisfied, Asian populations are 5-10% less satisfied, and Bangladeshi communities are 20% less satisfied than White populations (DH, 2009). Satisfaction was significantly lower in practices with a high proportion of minority ethnic patients, but even within the same practice satisfaction was lower among minority ethnic patients than White patients. Lower rates of satisfaction were associated with large practices in deprived areas serving a significant minority ethnic community.

Access to GP services in Scotland has also been assessed via a postal survey of a random sample of patients from over 1,000 GP practices in 2008/9 (Scottish Government, 2009). The survey found that whereas 8% of White respondents reported that they had *not* been able to obtain an appointment within 48 hours when needed, the figure was 12% for Asian respondents. In the case of access to an advance appointment, 20% of White respondents answered 'no' compared to 23% of Asian respondents. Clearly, these results suggest higher levels of satisfaction overall and smaller ethnic differences than those for the English survey, though the patterns are in the same direction.

Though a number of factors may underlie such differential satisfaction with access including area- or practice-level effects that could apply locally regardless of ethnic identity, other evidence suggests that minority ethnic people may find it harder to access appointments with a GP in some areas. The following quote is from a Somali respondent in a recent qualitative study (Gerrish, Ismail and Naisby, 2009).

> *"When you ring for an appointment they will say we don't have one but when someone that they know rings they will give an appointment to them and they can tell who is ringing, is it Somali or Asian"*.

There is also strong evidence that Gypsies and Travellers and also asylum seekers and refugees have poorer access to GPs and other primary care services. Parry et al., (2004) report severe difficulties in registering with a GP among Gypsies and Travellers. They found that 16% of their respondents were not registered with a GP either where they were living or elsewhere, and the proportion was as high as 38% for those living in trailers on empty land and 37% for those who travel all year. In terms of contact with specific health (or health-related) professionals in the past year, Parry et al. (2004) found that, compared to the comparator group of non-travellers included in their study, Gypsies and Travellers were less likely to visit the GP, practice nurse, a counsellor, chiropodist, dentist, optician, or alternative medical worker, or to contact NHS Direct for advice. Conversely, more of the Gypsies and Travellers had spoken to health visitors, social workers and midwives (all of whom are likely to make home-based visits) and more had made use of Accident and Emergency services.

Aspinall and Watters (2010) have reviewed the evidence on access to GP services among asylum seekers and summarise the situation as follows:

"There is now an extensive evidence base on the difficulties experienced by asylum seekers in accessing GP treatment. The Joint Committee reported the following problems: the difficulties experienced in registering with a GP (the burden of documentation required to prove address and/or identity, including lack of address for rough sleepers or those in very temporary accommodation); unwillingness to

register asylum seekers for time/resource reasons; eligibility mistakes made by receptionists and others in GP surgeries; and a shortfall in the availability of interpreting services. One of the consequences of these difficulties is an increased reliance on accident and emergency services as a substitute, resulting in increasing healthcare costs and pressure on A and E *services. A large number of research studies have documented similar difficulties.*" (pg20)

Focusing on some of the primary healthcare interventions that relate to CVD and cancer - the morbidities of focus in the EMF - there is also evidence of some important ethnic differences. For instance, the Association of Public Health Observatories 2005 report on ethnicity and health (APHO, 2007) estimated the number of people by ethnic group and sex who have attended NHS Stop Smoking Services and set a quit date (using quit data for 2002-3 and 2003-4) per 1,000 current smokers (based on data from the GHS), and found that Asian, Black and Mixed minority populations had lower rates of setting a smoking quit date for both males and females than the majority White group. Females were found to be more likely to set a quit date than males in every ethnic group. The report also noted that though monitoring of smoking cessation by ethnic group is important it is currently hampered by a lack of local reliable data on smoking prevalence. The report suggests that *'Primary Care Trusts and other NHS organisations may not have been able to identify differences in utilisation rates by ethnic group and to address these differences during the development of the service'* (p34). White et al. (2006) found in their qualitative study of Bangladeshi and Pakistani adults in Newcastle that despite high levels of motivation to stop smoking few participants had sought advice from health professionals or received cessation aids or support. Participants perceived services unfavourably and identified cultural and language barriers to access.

Screening services are an important part of efforts to reduce cancer mortality and differential uptake of screening tests by ethnicity is a cause for concern. Several studies have documented lower levels of breast and cervical cancer screening among women from minority ethnic groups, particularly South Asians (Hoare, 1996; Sutton et al. 1994; Szczepura, Price and Gumber ,2008). Szczepura et al. (2008) examined breast and bowel cancer screening and found that despite some improvement over time, there were persistent disparities between South Asian groups and Whites that were not explained by socioeconomic differences. There is some evidence, however, that rates of cervical cancer screening are high among Black Caribbean women (Szczepura, 2005). Robb et al. (2008) explored attitudes and behaviours in relation to colorectal cancer screening and found that though intentions to screen were similarly high across all ethnic groups (at around 80%), actual screening was considerably lower among Asians (54%) compared to Whites (69%) and Blacks (80%). The authors could not explain these differences in terms of socioeconomic status, poorer health or 'fearful or fatalistic' attitudes. Szczepura (2005) also reported that early data from the colorectal screening programme in the UK suggested very low uptake among South Asian people and suggested that '*the introduction of CRC screening in the UK will represent a major challenge in terms of ensuring equitable access for BME populations*' (p146).

Aspinall and Watters' (2010) review of health among asylum seekers and refugees reported that "*When considering preventative healthcare, low rates of cervical screening have been reported in many asylum seeker/refugee communities. Of the three studies identified in a systematic review, uptake was very substantially lower than that found in the general population. Similarly, very few studies of asylum seekers and refugees report rates of breast screening, the two studies identified suggesting a pattern of very low uptake."* (p27)

There are also doubts that the NHS Health Check Programme, that is aimed at detecting risk of cardiovascular disease early on and is currently being rolled out to GP practices, will successfully engage minority ethnic people (Patel et al., 2009).

A number of studies have highlighted the lower levels of awareness and poor access to health-promoting information among minority ethnic groups. While this in part relates to language barriers, obstacles to gaining access to the necessary information to make informed decisions do not appear to be confined to non-English speakers (Allmark, et al., 2010; Hawthorne et al. 2008; Waller et al., 2009; Chauhan et al., 2010) Clearly there are multiple routes through which individuals may access health-related information, and preferences for particular modes of communication will vary between groups of people. There is some evidence that people from minority ethnic backgrounds, particularly those who have low levels of literacy and

English language competency, prefer to receive information via direct inter-personal communication rather than in written form or via the telephone, for instance (Allmark, et al. 2010). Given the poor provision of interpreting services and low levels of cultural competence of many healthcare providers (discussed more below) this may often result in inadequate receipt of information.

Turning now to look at secondary care, there is evidence from several local studies that minority ethnic patients may be less likely to be referred for follow-up services (Gillam et al., 1989). Nazroo et al. (2009) found significantly lower levels of hospital utilization (out- or day-patient visit in the last year) among Indian, Pakistani, Bangladeshi and Chinese respondents, though the reasons for this could not be elucidated from the survey data analysed. Particular issues face asylum seekers who need secondary care. Aspinall and Watters (2010) have provided a summary of the current situation with respect to entitlement to free secondary care for asylum seekers, failed asylum seekers, undocumented migrants and victims of human trafficking. The situation is complex and emergent. There are persistent concerns that a lack of clarity on the ground is leading to the withholding of essential care in a minority of cases. Confusion is a serious source of concern for practitioners as well as those seeking healthcare.

Looking at services that relate specifically to CVD, there is some evidence of differential access to hospital and follow-on treatments. Sekhri et al.(2008) concluded that at an early stage after presentation with suspected angina, coronary angiography is underused in South Asians (as well as in older people, women and people from deprived areas). Not receiving appropriate angiography was associated with a higher risk of coronary events in all groups. Uptake of cardiac rehabilitation is also lower among minority ethnic groups, women and those from lower socioeconomic backgrounds (Bethell, Lewin and Dalal, 2009). People who do not speak English face particular barriers and there is limited provision of culturally appropriate cardiac rehabilitation services (Astin and Atkin, 2010).

A further area of particular concern relates to maternity care for asylum seeking women and some other new migrants. Aspinall and Watters (2010) conclude that "*there does now appear to be robust evidence that pregnant asylum seekers are* *experiencing barriers to accessing maternity services, even when they are eligible for such care. This may be a particular difficulty for failed asylum seekers, arising from the confusion among healthcare professionals about eligibility."* (p26)

Effectiveness and outcomes:
Greater access to services is not necessarily associated with better health outcomes for minority ethnic patients, though available evidence is complex and somewhat contradictory. Poorer intermediate outcomes for minority ethnic patients with diabetes have been found in a number of local-level studies (Millett et al. 2007; Gray et al. 2007; Fischbacher et al., 2009; Soljak et al., 2007).

However, analyses of the national HSE data by Nazroo et al. (2009) that explored outcomes of care for three chronic conditions: hypertension, cholesterol and diabetes, produced more positive findings. For each condition, respondents were assessed on (i) whether they had the condition (on the basis of clinical tests performed by a nurse during the survey), (ii) whether they were diagnosed (based on self-reports of whether a doctor had told them they had the condition and on examination of medications) and (iii) whether the condition was controlled (based on the clinical tests). This enabled four alternative codes to be generated: no disease/condition; uncontrolled condition; controlled condition; and undiagnosed condition. Multinomial regression explored the relative risk ratios for being in the uncontrolled and undiagnosed categories compared with the controlled category and found very few differences. Treatment and diagnosis of hypertension appeared to be as good among the minority ethnic groups as the White group, while Indian, Pakistani and Bangladeshi respondents seemed to have better quality of cholesterol care than the White group. Results for diabetes were less robust due to small numbers, but again suggested few differences. However, Pakistanis were found to have a higher risk than Whites for ‘uncontrolled diabetes’ and Black Caribbeans to have a higher risk of ‘undiagnosed diabetes’.

Two areas where there are particular concerns about differential effectiveness and adverse outcomes for people from minority ethnic groups are mental health services and maternity services.

A recent review of the literature on the quality of mental health services received by people of minority ethnic background by Newbigging et al. (2007) summarised the situation as follows:

"Research has shown that African and Caribbean men comprise a social group that experience particular difficulty accessing appropriate mental health services and support. In particular, they are under-represented as users of the enabling services and over-represented in the population of patients who are admitted to, compulsorily detained in, and treated by mental health services. Studies have demonstrated the experience and expectation of racist mis-treatment by mental health services alongside disproportionate admission and detention that discourages early access. Under-utilisation of services has also been identified as an important factor in poor outcomes in African and Caribbean communities."

The results of the 2009 Count Me In Survey - an annual census of inpatients in mental health and learning disability services in England and Wales - confirmed the persistent inequalities in the quality and type of care received by some minority ethnic people within the mental health services (Browne and Lim, 2008; Healthcare Commission 2007). The survey illustrated that despite government targets, detention rates remain significantly higher than average among Black Caribbean, Black African and Other Black groups. More detailed studies also highlight persistent inequalities in quality of care for Black groups (McLean, Campbell and Cornish, 2003).

Aspinall and Watters (2010) have also highlighted the inadequacy of mental healthcare for asylum seekers and refugees:

"The provision of mental health services for survivors of torture and organised violence is widely regarded as inadequate for the needs of asylum seekers and refugees. Estimates of the proportion of asylum seekers who have been tortured vary from five to 30 per cent, local studies reporting that injuries caused by persecution and torture are one of the most frequent issues raised among asylum seekers. The Scrutiny Report on Access to Primary Care in London indicated that to meet mental health needs adequately, PCTs would have to increase their allocation two- or three-fold. … training of health workers - has been identified as an important

need by both asylum seekers and professionals, especially in relation to mental health, understanding the asylum system and cultural awareness."(p31)

Similarly, Goward et al. (2006) have highlighted the need for significant changes in mental health services if the needs of Gypsies and Travellers are to be adequately understood and addressed.

As reported above, there is evidence that maternal mortality rates are higher among some minority ethnic groups than White British people and that Black African and Black Caribbean women are most at risk. Poor quality of maternity care is implicated in these stark ethnic inequalities (Lewis 2007). A recent study by Raleigh et al. (2010) based on a large-scale survey of recently delivered women reports some important ethnic inequalities in maternity care including: women from all ethnic minority groups except for the Mixed group were less likely than White British women to say they received adequate pain relief during labour and birth, had complete confidence and trust in staff, and were never left alone by doctors/midwives when worried during labour and birth; and they were almost consistently less likely to say they had a postnatal check-up, and that they saw the midwife as often as they wanted after the delivery. These analyses clearly showed that minority ethnic women have poorer outcomes and report poorer experiences across several – though not all – dimensions of maternity care. Bharj and Salway (2008) have reviewed other evidence that documents the poorer experiences and outcomes of minority ethnic women.

These findings of poorer healthcare outcomes link closely to patient experiences, the appropriateness of service provision and provider competencies.

Patient experiences, cultural competence and discrimination:

We follow Atkinson et al. (2001) and Szczepura (2005) in regarding equitable access as extending beyond simply service uptake to include access to appropriate information, services that are timely and sensitive to individual needs, being able to use services with ease and having confidence that you will be welcomed and treated with respect. Insensitivity and inappropriateness in healthcare provision is not only a concern in its own right, but is likely to contribute to health inequalities both by leading to sub-optimal care (for instance due to poor communication and poor adherence to treatment) and by undermining the mental wellbeing of patients through being stressful. In some cases there is evidence of direct racist discrimination against patients of minority ethnic background by healthcare providers, but more often the evidence suggests that ignorance, stereotyping and uncertainty compound to produce poor patient experiences (Kai et al., 2007). A lack of confidence and competence at individual practitioner level is (re)produced by wider structures that fail to provide the necessary training, resources and environment within which 'cultural competence' is expected and rewarded. Few interventions aimed at raising cultural competence have been evaluated with any rigour (Bhui et al. 2007; Mir and Tovey 2002).

As noted above, numerous surveys and detailed qualitative studies have documented higher levels of dissatisfaction with health services among minority ethnic patients than the White majority in a variety of service contexts. Levels of reported satisfaction appear to be particularly low among Pakistani, Bangladeshi and Chinese people (Department of Health 2009; Chau and Yu 2009; Chau, Yu and Wai 2009).

We briefly discuss here three broad and inter-related ways in which the delivery of health services appears to undermine the health and healthcare experiences of many people from minority ethnic groups: failure to understand and accommodate specific cultural preferences; failure to put in place effective communication; and discriminatory attitudes and behaviours that directly compromise care and cause significant levels of distress among patients and their carers.

There is evidence to suggest that the failure of services and individual practitioners to understand and accommodate patients' cultural and religious beliefs, preferences and behaviours does, in some cases, lead to sub-optimal care and may exacerbate levels of ill-health. Perhaps the most commonly cited example relates to the provision of same-sex providers and single-sex facilities that some women from some minority ethnic groups regard as essential. Mir and Sheikh (2010) found evidence of Pakistani women suffering severe humiliation when being forced to accept care from male health professionals as well as opting not to take up recommended exercise programmes when those on offer were of mixed sex. The importance of same-sex provision had also been noted among Gypsy and Traveller groups (Parry et al., 2004). We discuss several more examples of how culturally inappropriate models of service delivery may compromise quality of care in Chapter 9 on Religion & Belief.

Poor provider-patient communication is another area that has received significant attention. Inadequate access to interpreting services and translated information is a widespread problem for many people of minority ethnic background (Gerrish et al. 2004; Davies and Bath 2002; Bulman and McCourt 2002), particularly those who are recent migrants and older people (Aspinall and Waters, 2010; Allmark et al., 2010). However, it is important to recognise that communication can also be poor even when patients do speak English. This is very clearly illustrated by the experiences of Gypsies and Travellers who frequently experience very poor communication with health providers (Goward et al., 2006; Parry et al., 2004). Effective communication can be hampered by: real and perceived cultural barriers, lack of provider confidence, lack of patient empowerment and rushed consultations (Mir 2008). Parry et al. (2004) describe the situation for Gypsies and Travellers as follows:

'Communication difficulties with health staff are common, particularly where the professional does not understand Gypsy Traveller culture. Poor literacy increases the lack of confidence. This, and fear of being scorned for ignorance, makes it more difficult to ask for clarification when explanations from health professionals are not understood. These difficulties appear to contribute to reduced compliance with prescribed treatments.' (pg 61)

A further important dimension of the health system's contribution to ethnic health inequalities relates more generally to the way in which people of minority ethnic status are received and treated by actors within the health system. A prevalent theme in research studies is that ethnic and religious minorities feel unwelcome and isolated from services and that some providers are dismissive and disrespectful in general terms (Bharj and Salway 2008; Worth et al. 2009) Providers have been found to hold preconceptions and negative stereotypes about the characteristics and preferences of particular minority ethnic and religious groups, in some cases leading to the withholding of particular interventions or treatments (Mir and Sheikh 2010; Chowbey, et al. 2008; Davies et al. 2009).

Several authors have argued that the healthcare system reflects and reinforces the discriminatory attitudes towards minority religious and ethnic communities in wider society (Atkin and Rollings, 1993). It is suggested that the constellation of services and the behaviour of providers impacts upon the health and wellbeing of minoritised people not only via sub-optimal care, but also importantly via the reinforcement of a sense of being devalued and having low social status and associated stress (Mir and Sheikh, 2010). In this way, the experiences of minority ethnic people within the health service can be seen to add to the experiences of discrimination and exclusion in other aspects of their life.

Wider society: inclusion, exclusion and racism

In a review in 2004, Aspinall and Jacobsen noted the widespread neglect of the impact of racial discrimination and racism on health and healthcare disparities across ethnic groups and suggested that this should be a key area of enquiry. Recent years have seen a growing number of studies in this area, particularly by Saffron Karlsen and James Nazroo.

Assessing the impact of racism on health, and the extent to which racism can explain excess ill-health at group level, is complex (Karlsen and Nazroo, 2006; Paradies, 2006). Nevertheless, a growing body of evidence suggests that the direct and indirect effects of racism on the health of minority ethnic people may be substantial.

Qualitative studies and quantitative surveys have documented the high levels of interpersonal discrimination experienced by people of minority ethnic identity. Nazroo (2003) summarised the evidence from qualitative studies as follows:

"*Qualitative investigations of experiences of racial harassment and discrimination in the United Kingdom have found that for many people experiences of interpersonal racism are a part of everyday life, that the way they lead their lives is constrained by* *fear of racial harassment, and that being made to feel different is routine and expected"* (p281).

There is also evidence that many people of minority ethnic background (as well as the majority White British population) perceive there to be widespread differential treatment and opportunities based on ethnic identity in UK society. Analyses of data from the 2005 Citizenship Survey (Becares, Stafford and Nazroo, 2009) show that 51% of Bangladeshi people were fairly or very worried about racial attack, with the figures being 47% among the Indian group, 48% among the Pakistani group, 28% among the Black Caribbean group and 44% among the Black African group. The same study showed that around 40% or higher of respondents from each of the minority ethnic groups reported that they 'expected to be treated worse than other 'races' ' in a range of public sector settings. This study also highlighted some important variations within and between ethnic groups in the level of experienced and perceived discrimination. For instance, fear of racial or religious attack was significantly higher among women than men.

Evidence suggests that the experience of racism is particularly extreme for Gypsies and Travellers (Parry et al. 2007; Goward et al. 2006; Van Cleemput et al. 2007). Parry et al. (2004) reported that for the respondents in their qualitative interviews:

'The experience of racism and negative stereotyping was pervasive and was automatically anticipated as a result. Most described a feeling of complete rejection by society. There was conflict between pride in identity and a felt need to hide identity to avoid discrimination. Prior experience and expectation of racism was closely associated with mistrust of non-Travellers in general that leads to defensive hostile behaviour and avoidance of unnecessary encounters with non-Travellers.' Parry et al., pg 52)

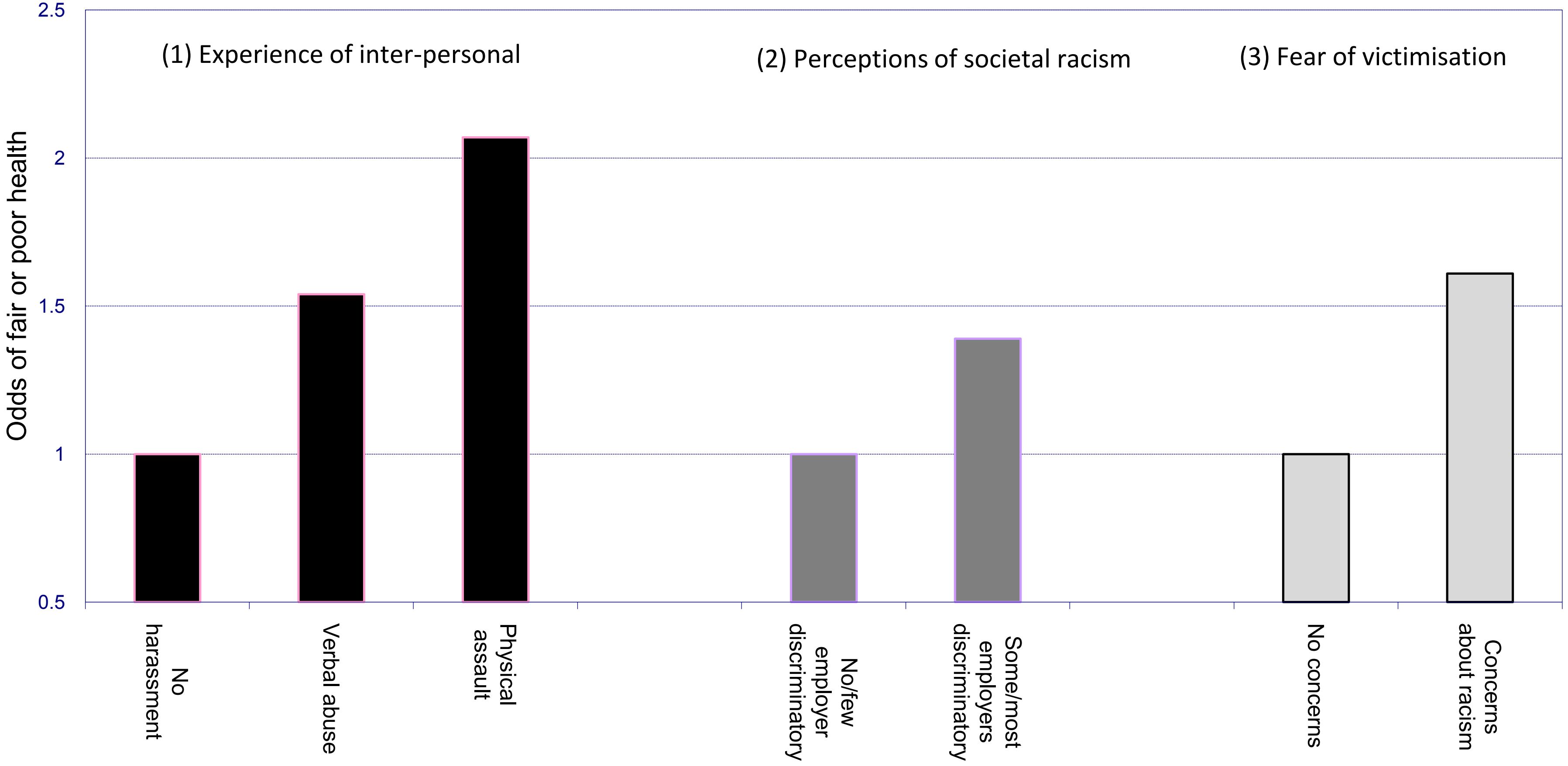
Importantly, respondents in Parry et al.'s (2004) study felt that societal discrimination and exclusion had not improved over time and some that it had got worse and impacted on many aspects of life including education, accommodation and healthcare.

Aspinall and Watters (2010) report on work that documents the significant levels of racial hostility that asylum seekers and refugees experience.

In recent years a number of studies have been published that document the association between the experience and/or perception of racial discrimination and prejudice and poorer health (Karlsen and Nazroo, 2009; Becares, Stafford and Nazroo, 2009; Bhui et al., 2005; Karlsen et al., 2005; Karlsen and Nazroo 2004). We reproduce some of these findings in Figure 9 and Table 29 below. Figure 9 illustrates that, among all minority ethnic groups combined, the odds of reporting fair or poor health are significantly elevated among people who report (1) direct experience of inter-personal racism, (2) a perception that employers discriminate on the basis of ethnic identity, and (3) fear of racial/religious victimisation.

Table 29 shows the associations between indicators of experienced and perceived racial discrimination and two mental health outcomes: common mental disorder (CMD) (anxiety disorder or depression) in the previous week and an estimate of the annual prevalence of psychosis. These findings are adapted from work by Karlsen, Nazroo and colleagues (2002, 2004 and 2005). The presence of CMD was assessed using the Revised Clinical Interview Schedule (CIS-R), which asks about the presence and severity of fourteen non-psychotic psychiatric symptoms during the week prior to interview; with a case threshold of ≥12 (Lewis et al. 2009). Risk of a psychosis diagnosis was assessed at the individual level on the basis of responses to the Psychosis Screening Questionnaire (PSQ), which screens for symptoms commonly found in psychotic disorders (Bebbington and Nayani, 1995). Estimated annual prevalence of psychosis in each ethnic population was then calculated using an algorithm based on the PSQ scores at the individual level (Nazroo and King, 2002). Figures in bold indicate a statistically significantly elevated risk among people who report experience or perception of racial discrimination. Personal experience of racial harassment shows a positive association with CMD across all groups except Bangladeshis and a positive association with psychosis among three of the five groups.

Figure 9: Odds of reporting fair or poor health by indicators of experience or perception of racial discrimination, all non-White ethnic groups combined, England 1993/4



Source: FNSEM 1993/4; Adapted from Karlsen and Nazroo (2002, 2004)

Table 29: Standardised odds ratios for associations between estimated weekly prevalence of CMD, estimated annual prevalence of psychosis and indicators of racism, all minority ethnic minority groups combined.

	Irish	Caribbean	Bangladeshi	Indian	Pakistani
Estimated weekly prevalence of CMD					
Racial harassment					
none	1.00	1.00	1.00	1.00	1.00
verbal or physical	**2.86**	**2.03**	1.51	**2.70**	**2.21**
Employment-related discrimination					
No	1.00	1.00	1.00	1.00	1.00
Yes	2.12	**2.08**	3.52	**2.17**	1.15
British employers are racist					
None/ A few	1.00	1.00	1.00	1.00	1.00
About half/ More than half	**2.71**	1.37	1.84	1.02	1.38
Estimated annual prevalence of psychosis					
Racial harassment					
none	1.00	1.00	1.00	1.00	1.00
verbal or physical	2.26	**3.45**	**7.83**	2.16	**3.36**
Employment-related discrimination					
No	1.00	1.00	1.00	1.00	1.00
Yes	0.79	1.40	0.90	1.40	2.23
British employers are racist					
None/ A few	1.00	1.00	1.00	1.00	1.00
About half/ More than half	1.07	**2.34**	1.12	0.74	1.01

Source: EMPIRIC 2000 adapted from Karlsen,S., et al. (2005)
Note: Standardised for age, gender and socioeconomic status. Bold figures indicate statistical significance.

Clearly, the effects of racial discrimination on health must also be traced via the poorer socioeconomic conditions and social status enjoyed by minority ethnic people, as we have described above. Nazroo (2003) has summarised the key role of racism as follows:

"It is important to consider the centrality of racism to any attempt to explain ethnic inequalities in health. Not only are personal experiences of racism and harassment likely to influence health, but racism as a social force will play a central role in structuring the social and economic disadvantage faced by ethnic minority groups. The socioeconomic differences between ethnic groups should not be considered as somehow autonomous (which is a danger of an approach that attempts to examine the extent to which socioeconomic differentials "explain" ethnic differentials in health). …while the postwar migration of ethnic minority people into the United Kingdom was driven by a shortage of labor, this process and the socioeconomic disadvantage faced by ethnic minority migrants was, and continues to be, structured by a racism that has its roots in colonial history" (p282)

It is important also to note that, though minority ethnic identities may imply a sense of belonging and pride, the perception that minority ethnic communities are somehow better endowed with networks of support and that extended families ensure that the ill and needy are well cared for without the need for statutory services, have been firmly refuted (Atkin and Rollings, 1992). Evidence from the HSE 2004 shows that all minority ethnic groups were more likely to report low levels of social support than the general population. The risk ratios of reporting severe lack of support, compared with men and women in the general population, were higher for men and women in all minority ethnic groups except Irish (Sproston and Mindell, 2006b). A more detailed study by Salway et al. (2007a) also highlighted significant levels of isolation and low social support among some minority ethnic people with chronic illness, particularly Black African women. Recent work by Williams et al. (Williams et al., 2009) illustrates the higher levels of psychosocial stress experienced by South Asian populations when compared with White people linked to the intersection of low levels of social support, financial strain, residential crowding, family conflict, social deprivation and discrimination. The authors suggest that these risk factors for cardiovascular disease deserve fuller investigation.

Exclusion from the evidence base

A final factor that undoubtedly contributes to poorer health and healthcare outcomes for minority ethnic groups is the paucity of high quality research evidence that is inclusive of minority ethnic populations. The requirement for researchers to generate an evidence base that reflects the needs of our ethnically diverse population has been formally acknowledged by the Department of Health in its Research Governance Framework for Health and Social Care in which it sets out a number of general principles that should apply to all research (Department of Health 2001/2005):

'Research, and those pursuing it, should respect the diversity of human society and conditions and the multi-cultural nature of society. Whenever relevant, it should take account of age, disability, gender, sexual orientation, race, culture and religion in its design, undertaking and reporting. The body of research evidence available to policy makers should reflect the diversity of the population' (Para 2.2.7)'

Despite this directive, a majority of health research still fails to engage with ethnicity. A number of factors appear to have contributed to this inadequate attention including: a lack of awareness of the potential significance of ethnicity; a tendency to consider ethnicity as a specialist area of investigation; conscious exclusion of minority ethnic individuals on the grounds of added cost and complexity; and a lack of researcher confidence and skills to engage with individuals from ethnic groups that are perceived to be 'hard-to-reach'. At the same time, growing awareness of past abuses and negative experiences of research may also make individuals from minority ethnic groups reluctant to participate in research (Salway and Ellison, 2010). Furthermore, though interest in ethnicity and health is growing in the UK and elsewhere there are concerns regarding the *quality* of this research, its potential to inform changes in policy and practice that benefit minority ethnic populations, and its potential role in stereotyping and stigmatising minority ethnic populations (Salway et al., 2009).

The present lack of high quality evidence has several implications:

- Evidence generated through studies of the majority White British population alone may not necessarily be applicable to other ethnic groups and this may mean differential patterns of diagnosis, treatment and outcomes for minorities. For instance, minority ethnic patients may be less likely to 'fit' the criteria for certain diagnoses or prescriptions. Bhui et al. (2008) found that in their examination of the clinical records that related to people who had committed suicide within 12 months of contact with mental health services, some widely accepted suicide risk indicators were less common in the minority ethnic groups than in the White group. Immediate risk of suicide was perceived by the clinicians to be highest among White people, suggesting that indications of risk were not effectively identified for some minority patients via the established clinical screening procedures.

- Health issues that specifically affect minority ethnic groups are not well researched or are researched in ways that serve to stigmatise and pathologise (e.g. congenital abnormalities in Pakistanis (Modell and Darr, 2002))

- Research is often not framed in ways that address the problems that are of central concern to minoritised populations and may not be conducted in ways that are empowering to those communities. There has been a particular lack of attention to racism and how it can be countered in healthcare settings.

- A lack of research on effectiveness and cost effectiveness of interventions undermines the commissioning of services that are sensitive to the needs of minority ethnic communities. This is particularly the case in the current economic context where all new proposed intervention needs to have a solid business case, or indeed have evidence of cost saving potential.

Researching ethnicity and health raises many complex ethical, theoretical and practical issues and good quality research demands additional resources and particular expertise (for example to work across languages effectively). There is a particular need to develop a more diverse body of researchers working in this area, as well as to increase multidisciplinary and cross-national comparative work.

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Chapter 8: Sex and Gender

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Key messages

What are the inequalities? How persistent and how worrying are they?

Though men and women share many health risks, there are some marked differences between men and women in their patterns of morbidity and mortality. These differentials are influenced by a complex of factors relating to both the biological and social aspects of men's and women's lives, as well as the interactions between these realms. We use the term 'sex' to refer to the genetic and biological factors that shape men's and women's health. We use the term 'gender' to refer to the socio-cultural construction of male and female identities; that is the roles, responsibilities and entitlements that are typically assigned to men and women because of their sex, as well as the expected norms of behaviour, internalised sense of self and any other aspects of 'being a man' or 'being a woman' that may shape health and well-being. In practice, these influences closely interact to pattern health outcomes and experiences. In the sections that follow, for convenience, we use the term 'sex' when describing simple differences in quantitative indicators between groups of individuals categorised as either 'males' or 'females', 'men or 'women', while recognising that an understanding of the reasons for any observed differences requires an exploration of gender.

Outcome

LIFE:

- Male life expectancy is less than female life expectancy at all ages. Latest figures for the UK as a whole show that males born in 2006-8 can expect to live 77.4 years and females 81.6 years at current mortality rates. The comparable figures for England are males 77.7 and females 81.9 years, for Wales, males 76.9 and females 81.2 years and for Scotland, males 75.0 and females 79.9 years.
- Life expectancy at birth has been steadily rising for males and females over the past 25-30 years and though female advantage persists, the gap between males and females has declined over time.
- Life expectancy at older ages has also been rising for both men and women in recent years and the sex/gender gap has declined. However, women who

reach age 80 can still expect to live longer than their male counterparts in England, Wales and Scotland.

- Though life expectancy has been improving for both men and women across the whole life-span in Scotland over the past 20-30 years, people resident in Scotland continue to die earlier than in any other Western European country. The sex gap in life expectancy at birth is also larger in Scotland than in England or Wales.
- The leading cause of death - ischaemic (or coronary) heart disease - is the same for men and for women across all three countries, though age-patterns of onset differ and men's mortality rates are higher overall. Cerebrovascular disease (stroke) is the second biggest killer for men in England and for women in all three countries, and the third biggest killer for men in Wales and Scotland.
- There have been significant declines in death rates among men and women from cardiovascular diseases (CVDs) over time, but improvements seem to have been relatively greater for men so that the sex gap has declined over time. Very high death rates from cerebrovascular diseases among women at older ages are a particular cause for concern.
- High levels of cardiovascular disease mortality in comparison with England & Wales and other European countries are cause for concern for both men and women in Scotland.
- Cancer is a major cause of death for both sexes in England, Wales and Scotland, though overall cancer death rates are higher among men than women at most ages. Cancer death rates in Scotland are particularly high.
- For both men and women lung cancer is the leading cancer cause of death in all three countries. However, whereas male lung cancer death rates fell steadily between 1991 and 2008 in England & Wales, there was no such improvement among women. In Scotland, while the male lung cancer rate has been falling since 1980, it has been rising among women. The second leading cancer mortality is breast for women and prostate for men.
- For the majority of cancers, women have a small survival advantage over men (as measured by the percentage who are alive five years after diagnosis).
- There are stark and persistent differences in suicide rates between the sexes with men experiencing higher rates at all ages. For the UK as a whole, the

2008 suicide rate was around five per 100,000 population for women and 17 per 100,000 population for men. The high suicide rates among young men in Britain, particularly in Scotland, are a persistent concern, though recent evidence does suggest some decline.

- Though deaths from accidents have declined over time, men continue to suffer much higher accidental death rates than women at all adult ages except in the oldest age-group.
- Men are much more likely than women to die as the result of assault, particularly at younger ages.
- While the level of maternal mortality is not an issue of concern in the general population, maternal mortality among minority ethnic and migrant women is worryingly high. Recent data indicate that, compared to White women, women from minority ethnic groups are, on average, three times more likely to die from a cause directly or indirectly related to pregnancy. Black African women had a mortality rate seven times higher than White women. Asylum seekers and newly arrived refugees are identified as at particularly high risk.

HEALTH:

Sex differences in morbidity are complex and often difficult to interpret. General measures of poor health are affected by the fact that men and women may assess and report their health differently.

- In general, a higher proportion of women tend to report 'not good health' than men, though the sex differences are small and statistically insignificant. In the 2008 health surveys, the following proportions of adults aged 16+ reported their health to be other than 'good': England 24% of men and 25% of women; Wales 21% of men and 23% of women; and Scotland 25% of men and 25% of women.
- Among both men and women, a large proportion of the working age population of the three countries of Great Britain report having a limiting long-term illness or disability that limits daily activity but the figure does not differ greatly between men and women until older ages. Nevertheless, women's level of reported LLTI was statistically significantly higher than men's in 2008 in the Health Survey for England (HSE) in which 21% of men and 25% of

women aged 16+ reported having at least one limiting longterm illness or disability, in the Scottish Health Survey (SHeS) in which 23% of men and 28% of women reported LLTI and in the Welsh Health Survey (WHS 2008), in which 26% of men and 29% of women reported LLTI.

- Looking across the three countries of interest, in all cases females had higher Healthy Life Expectancy at birth than males, though the gaps between males and females are smaller than for life expectancy. This indicates that a portion of the additional years lived by women are spent in 'poor health'.
- The General Health Questionnaire (GHQ12) is used to measure mental wellbeing and to identify common mental disorders. Women are more likely to have a high GHQ12 score than men, indicating a higher proportion with poor mental wellbeing. In the HSE 2008, 11% of all men had GHQ12 score of 4+ compared to 15% of women, and in Scotland these figures were 12% of men and 17% of women. In Wales an alternative measure of mental ill-health also suggested female disadvantage.
- Studies in the general population suggest that the overall prevalence of mental illness does not vary significantly between women and men. For specific disorders, however, clear sex differences are found. Anxiety, depression and eating disorders are more common in women, substance misuse and anti-social personality disorders are more common in men.
- For men, there are particular concerns around the under-diagnosis and therefore lack of treatment for mental health problems which are believed to account, at least in part, for the much higher risk to men of: becoming homeless, being imprisoned, becoming drug dependent and being involved in violence.
- For women, there are particular concerns around the high levels of domestic and sexual violence and its links to poor mental and physical health.

Process

- Men tend to access GP services less often than women. They also appear to ignore symptoms of ill-health and delay healthcare seeking more often than women. Men may be more likely than women to self-medicate in harmful ways, e.g. through use of alcohol and drugs when experiencing mental distress.
- There is evidence across a range of health services that patterns of access, uptake and treatment diverge between women and men. The patterns are, however, complex, so that both men and women appear to be disadvantaged in some arenas of healthcare.
- Women are more likely than men to receive treatment for minor mental health conditions. However, more than twice as many male as female psychiatric inpatients are detained and treated compulsorily.
- Indicators of perception of treatment with dignity and respect within healthcare do not appear to vary by sex. However, there is evidence that maternity services frequently fail to provide satisfactory services to women, and particularly to women from minority ethnic backgrounds.
- Indicators of healthy life-style show complex patterns across sex and age, with neither men nor women being uniformly disadvantaged.
- Among adults, men continue to be more likely to smoke than women, though differences are far smaller than in the past. However, among teenagers and the youngest adults, females are as likely as, or more likely than, males to smoke in England, Scotland and in Wales.
- There has been a downward trend in the proportion of men and women who report themselves to be current smokers, though this has been steeper in men than in women. In the 2008 General Lifestyle Survey of Great Britain, 88% of men and 89% of women said that they did not currently smoke - a statistically insignificant difference between the sexes.
- The proportion of people who are of normal/healthy weight (neither overweight nor obese, and not underweight) has declined over the last 10-15 years across Britain, and is consistently lower among men than women. In 2008, 37% of Welsh men and 44% of Welsh women were of normal/healthy weight. In England these figures were 32% of men and 41% of women, and in

Scotland just 30% of men and 36% of women were of 'normal/healthy' weight (all statistically significant differences between the sexes).

- Over time since the mid 1990s, the proportion of both men and women who are of 'normal/healthy' weight has declined steadily, though the gap between the sexes has remained roughly stable. This decline is explained by the rising proportion of men and women who are obese (BMI 30+).
- Physical activity levels tend to be lower in women than in men across the three countries at all ages. However, levels of physical activity fall well below current guidelines for the majority of both men and women at almost all ages. Recent data for England suggest that physical activity is particularly worryingly low in teenage girls compared to their male counterparts.
- Indicators of healthy eating tend to be better among women than men. The SHeS 2008 found that overall 20% of men over 16 years and 24% of women reported eating five or more portions of fruit or vegetables a day and in the HSE 2008, 25% of men and 29% of women reported eating 5 or more portions a day (both statistically significant differences between men and women). In the WHS 2008, the figures were higher, at 35% of men and 37% of women, and the sex difference of borderline significance.
- Patterns of alcohol consumption vary greatly by age, but males tend both to consume more alcohol, and to drink alcohol more frequently, than females. In England, the HSE 2008 found that overall 59% of men aged 16 years and over and 68% of women reported that they did *not* drink above government guidelines on any day in the week prior to interview. In the WHS 2008, these figures were 48% of men and 62% of women, and in the SHeS 2008, 56% of men and 64% of women (all statistically significant differences). While recent trends over time suggest a rise in 'sensible' drinking for both men and women, the increase has been smaller for women than men. Quantitative indicators of problematic alcohol use suggest an increase over the past 10 years in Scotland, particularly among women and younger people.

Autonomy

- Gendered identities and expectations of male and female behaviour place significant constraints on both men and women realising their full potential for good health and longevity.

- Women may experience particular constraints on their autonomy within intimate and family relationships that expose them to health risks and may prevent them from accessing health-promoting resources. There is some evidence that these aspects of limited autonomy may be particularly pronounced for women from some minority ethnic backgrounds, including Gypsies and Travellers and asylum seekers, and for women living in extreme financial hardship.

Vulnerable sub-groups across outcome, process and autonomy

Sub-groups which are particularly vulnerable include:

- Minority ethnic women, particularly those who are asylum seekers and refugees or new migrants who can not speak English and have limited social support.
- The detained population (which is predominantly male). In prison, mental health is a risk factor for suicide.
- The homeless, who are again predominantly male and about whose health very little is known in terms of health.

Are there any emerging trends?

There are several emerging issues and concerns. Some of these reflect changes in societal attitudes and expectations, so that longstanding illness issues are now receiving heightened attention and new data are throwing light on important inequalities. In other cases, there appear to be real changes in morbidity and mortality patterns that deserve attention, as well as new issues emerging because of changing demographics - particularly the ageing population and increasing ethno-cultural diversity and new migration. There is:

- Increased attention to poor male mental health and its links to suicide (as well as men's health more generally).

- Renewed concern regarding women's vulnerability to abuse within intimate relationships, particularly for teenagers and young women, and its health consequences.
- Persistent concern with worrying patterns of alcohol use and smoking among female teenagers and young women (though positive indications in recent years that these are on the decline).
- Increased attention to dementia which disproportionately affects women (see Chapter on Age)
- Concerns regarding the unmet maternal health needs of migrant and minority women, particularly asylum seekers (see Chapter 7 on Ethnicity).

What are the causes?

- The socio-cultural constructions of masculinities and femininities undermine both men's and women's health in important ways. For men, male roles and expectations tend to: encourage risk taking; discourage disclosure of ill-health and health seeking behaviour; and result in weaker social support. For women, female roles and expectations tend to mean: weaker access to resources; heavy workloads combining caring and income-generating responsibilities; lower status and respect.

- Women's poorer access to material resources undermines their mental and physical health.

- Patchy attention to gendered influences on health within health policy and strategic documents means that many areas of service provision continue to operate in a 'gender blind' fashion and fail to adapt to the differential needs of men and women. A more mainstreamed approach has been advocated to ensure that gender sensitivity becomes part-and-parcel of health policy, commissioning and service delivery.

- The social constructions of gender influence provider-patient interactions and result in differential diagnosis, treatment and care in many areas of healthcare. In relation to the major killers, these processes tend to disadvantage women since CVD and lung cancer are still commonly perceived to be 'male' diseases. Men, however, appear to lose out in other areas.

- Exclusion from the evidence base further exacerbates the above processes since women are less likely to 'fit' the standard diagnostic and therapeutic guidelines that have been developed on the basis of research that is disproportionately focused on men.

Data quality and quantity

All of the key indicators of LIFE and HEALTH can be disaggregated, and are meaningful, by sex, allowing a comprehensive picture of sex inequalities across a range of measures in this domain.

Despite the routine inclusion of sex in health-related data sources, information is not always presented in published sources for men and women separately, particularly at regional and local levels.

Where information is presented by sex, age-standardization is not always routinely employed to enable comparisons, for instance over time.

Our understanding of the ways in which gender - the sociocultural construction of masculinities and femininities - impacts upon health risks and responses is limited. As such, we are not able to describe the process and autonomy aspects of this capability in sufficient detail confidently to inform policy and practice.

In particular, there is evidence of important and complex sex/gender differences in access to healthcare services at primary and secondary level. It may be useful to supplement the EMF with regular monitoring of some key indicators of appropriate health service access and uptake

Gender inter-relates importantly with other equality strands. Gender inequalities in LIFE and HEALTH indicators can usually be examined by age and socioeconomic class. However, since information is less complete across ethnicity, religion/belief, disability and sexual orientation, the ways in which gender inequalities in health are patterned by these other dimensions can only be partially described.

An understanding of the extent to which the LIFE and HEALTH capabilities are adequately achieved for men and women requires not just comparisons between the sexes but also comparisons (i) within sub-groups of each sex, (ii) comparisons within and between the sexes across the countries and regions of Great Britain, and (iii) within each sex across other comparable countries.

How might change be better measured?

- A wide range of data is collected and can be disaggregated by sex. However, greater consistency in presentation of data in routinely published tables would aid comparisons across countries within the UK as well as over time. Consistent methods for age-standardization should be used and these should be explicitly reported.

- There is now a need to measure improvements in process and autonomy, as well as outcomes. More information on the gender sensitivity of policies and services, and their impact on outcomes, would be helpful.

- Improvements in the reporting of local and regional level data by sex would help to flag up areas of good/poor outcomes as well as ensure that the commissioning and delivery of services was based on a detailed understanding of local gendered needs.

- The EMF might usefully be supplemented by some measures of access and uptake of key healthcare services/interventions.

- Monitoring against other EU countries is also useful and should be regularly done for England, Wales and Scotland.

Evidence: Data quality and quantity

The mortality and morbidity patterns of men and women are influenced by a complex of factors relating to both the biological and social aspects of men's and women's lives, as well as the interactions between these realms. We use the term 'sex' to refer to the genetic and biological factors that shape men's and women's health. We use the term 'gender' to refer to the socio-cultural construction of male and female identities; that is the roles, responsibilities and entitlements that are typically assigned to men and women because of their sex, as well as the expected norms of behaviour, internalised sense of self and any other aspects of 'being a man' or 'being a woman' that may shape health and well-being. In the sections that follow, for convenience, we use the term 'sex' when describing simple differences in quantitative indicators between groups of individuals categorised as either 'males' or 'females', 'men or 'women', while recognising that an understanding of the reasons for any observed differences requires an exploration of gender.

Sex is routinely recorded on death registration data, national-level population-based health and social surveys, the Census, national patient surveys and Hospital Episode Statistics. As such, all of the key LIFE and HEALTH indicators identified in the Equality Measurement Framework (EMF) can be produced separately for men and women across the three countries enabling comprehensive comparisons between the sexes.

Indeed, it is accepted practice that national-level statistics on mortality and morbidity are routinely presented for men and women separately and all of the EMF selected key indicators are meaningful when considered across sex.

However, it is disappointing to note that the sex-disaggregation of health-related data is still not a routine practice at regional and local levels and that comparisons between men and women are not always undertaken to ascertain where disparities exist and what their causes might be. For instance, a survey of English primary care trusts (PCTs) carried out by the Men’s Health Forum in 2006 suggested that fewer than a third of PCTs always used gender-disaggregated data when planning services in relation to heart disease and cancer, and less than a fifth when planning diabetes services (Wilkins 2006).

Furthermore, there is a surprising lack of evidence and detailed understanding of how gendered norms, expectations and processes influence health experiences and outcomes, despite clear indications that the behaviours of patients and providers, as well as wider health policy and health systems, are importantly shaped by socio-cultural constructions of gender.

A number of recent reports have usefully highlighted the importance of further mainstreaming attention to gender in UK health policy and practice as well as flagging up key areas of concern in relation to the health and wellbeing of men and women in UK society (Men's Health Forum, 2008; Wilkins 2010)

It is important to note, however, that drawing comparisons *between* the sexes will not always be informative in terms of assessing whether or not the capabilities of men and women to achieve their potential within the realms of LIFE and HEALTH are adequately protected and supported. This is the case because (i) some health issues affect (or mainly affect) only one sex; and (ii) it is possible that where no, or only a very small, inequality exists between the sexes, that the overall level of ill-health or health-related issue is nevertheless unacceptably high in *both* sexes. For these reasons, it is important that comparisons *within* the sexes are also undertaken (particularly between socioeconomic and ethnic groups) and that comparisons are drawn between regions, the different countries of the UK and with other similar countries elsewhere. Such comparisons help to illuminate health-related issues where men and/or women could be achieving better outcomes and may be suggestive of process or autonomy issues that need attention in the British context. We draw below on information presented in the Health Profile of England (Department of Health 2009) and the report - Scottish Mortality in European Context (ScotPHO 2007b) - to provide such comparisons where possible.

Gender intersects importantly with the other equalities strands in the arenas of LIFE and HEALTH. By-and-large, it is possible to explore sex inequalities in LIFE and HEALTH across the age spectrum and by socioeconomic class. However, available evidence does not always provide a detailed picture of the health profiles of men and women across ethnicity, belief/religion, disability and sexuality. Some relevant data in other chapters and key patterns are flagged up below.

LIFE: main indicators

Period life expectancy at birth and at ages 20, 65 and 80

Life expectancy at birth: current picture

The latest figures issued by the Office for National Statistics (ONS) show that life expectancy at birth is higher than it has ever been before for both males and females, though women continue to live longer. A baby boy born in the UK today could expect to live to 77.4 years and a girl to 81.6 years if the mortality rates remain at 2006-8 levels. There are, however, disparities in life expectancy at birth for both men and women between England, Scotland and Wales. As shown in the Table 1 below, life expectancy at birth is lowest for males and females in Scotland and the gap between males and females is also greatest here, at 4.9 years. Nevertheless, females born in Scotland can expect to live longer than males born in England.

Table 1: Life expectancy at birth, UK, England, Wales and Scotland, 2006-8

Years

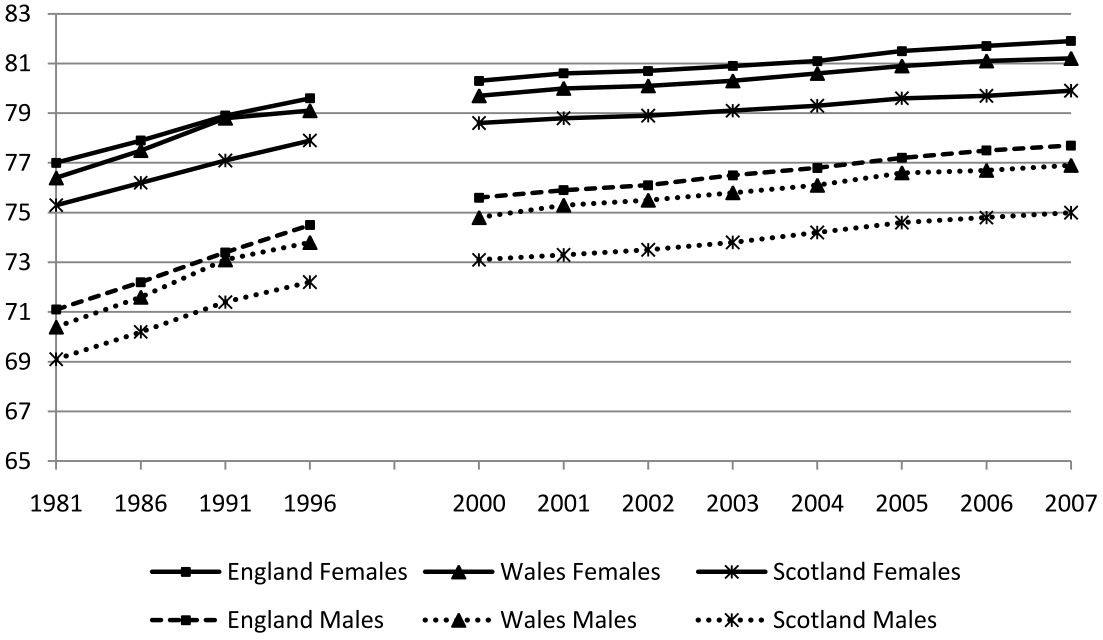
	Males	Females	Difference (males-females)
UK	77.4	81.6	- 4.2
England	77.7	81.9	- 4.2
Wales	76.9	81.2	- 4.3
Scotland	75.0	79.9	- 4.9

Source: Figures produced from interim life tables prepared by GAD and supplied by ONS at http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=14459

Life expectancy at birth: trends over time

In the UK, large improvements in expectancy of life at birth have been seen over the past century for both males and females. In 1901 males could expect to live to around just 45 years of age and females to around 49 years. Early gains were largely the result of reductions in infant and child mortality, with improvements in adult life expectancy only occurring towards the end of the 20th century. Recent years, however, have witnessed large increases in adult life expectancy, particularly for older adults. As shown in Figure 1, life expectancy has been steadily rising for both males and females over the past 25-30 years. Though the female advantage in life expectancy persists, the gap between men and women has declined over this period. The difference in life expectancy at birth between men and women was 6.0 years in 1980-2 and had closed to 4.2 years by 2004-6. Life expectancy is expected to continue to rise for both sexes but with the gap between the sexes continuing to decline. ONS has produced projected life expectancies for people born in 2008 of 88.6 years for men and 92.2 years for women.

Figure 1: Period expectation of life at birth (years) England, Wales and Scotland, 1980-2 to 2006-8, by sex



Source: Graphs drawn from figures produced by GAD/ONS and supplied by ONS at http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=14459
Note: All figures are based on a three-year period, so that for instance 2003 represents 2002-2004. The population estimates used to calculate these life expectancies are the latest available at time of publication of the 2006-8 interim life tables (21 October 2009). All figures are based on death registrations.

Life expectancy at age 20: current picture

The number of further years someone reaching age 20 in 2006–08 could expect to live – life expectancy at age 20 - is also higher for women than for men. Based on 2006–08 mortality rates for the UK as a whole, a man aged 20 can expect to live a further 58.1 years and a woman another 62.2 years. The sex gap is again largest in Scotland at 4.7 years and least in England at 4.0 years [Table 2].

Table 2: Life expectancy at age 20, UK, England, Wales and Scotland , 2006-8

Years

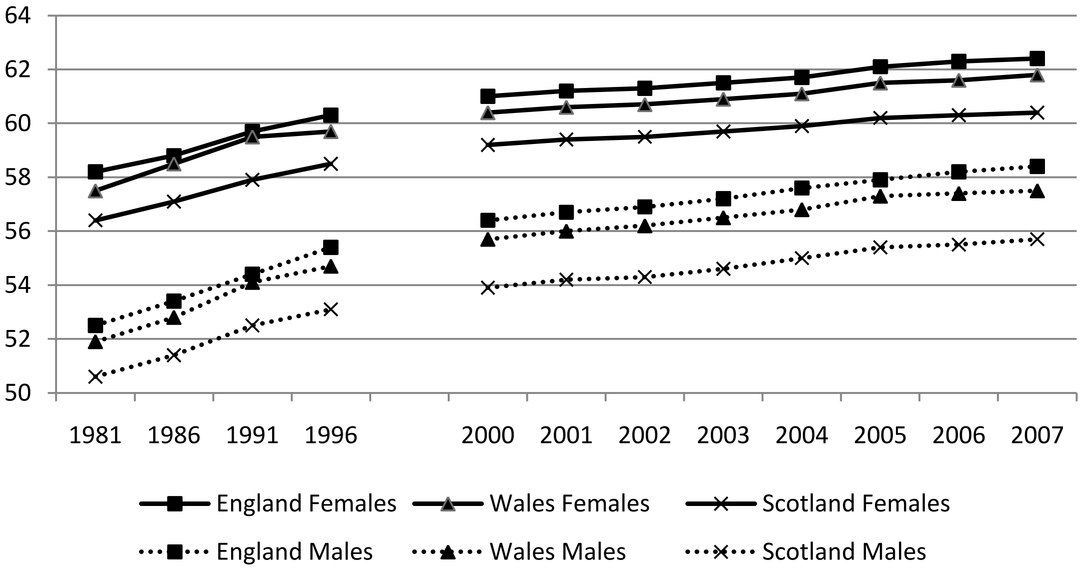
	Males	Females	Difference (males-females)
UK	58.1	62.2	- 4.1
England	58.4	62.4	- 4.0
Wales	57.5	61.8	- 4.3
Scotland	55.7	60.4	- 4.7

Source: Figures produced from interim life tables prepared by GAD and supplied by ONS at http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=14459

Life expectancy at age 20: trends over time

Figure 2 shows the rising life expectancy at age 20 for both men and women across all three countries and the persistent female advantage over time.

Figure 2: Period expectation of life at age 20 England, Wales and Scotland, 1980-2 to 2006-8, by sex



Source: Graphs drawn from figures produced by GAD/ONS and supplied by ONS at **http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=14459**
Note: All figures are based on a three-year period, so that for instance 2003 represents 2002-2004. The population estimates used to calculate these life expectancies are the latest available at time of publication of the 2006-8 interim life tables (21 October 2009). All figures are based on death registrations.

Life expectancy at age 65 and age 80: current picture

The number of further years someone reaching age 65 in 2006–08 could expect to live – life expectancy at age 65 - is also higher for women than for men. Based on 2006–08 mortality rates for the UK as a whole, a man aged 65 could expect to live a further 17.4 years, and a woman aged 65 another 20.0 years. As with life expectancy at other ages, life expectancy at age 65 is also higher for England than for the other countries of the UK, and the female advantage can be seen across all three countries (Table 3).

Table 3: Life expectancy at age 65, UK, England, Wales and Scotland, 2006-8

Years

	Males	Females	Difference (males-females)
UK	17.4	20.0	- 2.6
England	17.5	20.2	- 2.7
Wales	17.1	19.8	- 2.7
Scotland	16.2	18.8	- 2.6

Source: Figures produced from interim life tables prepared by GAD and supplied by ONS at http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=14459

Among individuals in the UK aged 80 in 2006-8, men could expect to live a further 7.8 years and women a further 9.2 years. Though women continue to have an advantage, the gap is, unsurprisingly, smaller. As shown in Table 4, the differential between males and females persists across all countries, as does the disadvantaged position of men and women in Scotland as compared to England and to Wales.

Table 4: Life expectancy at age 80, UK, England, Wales and Scotland, 2006-8

Years

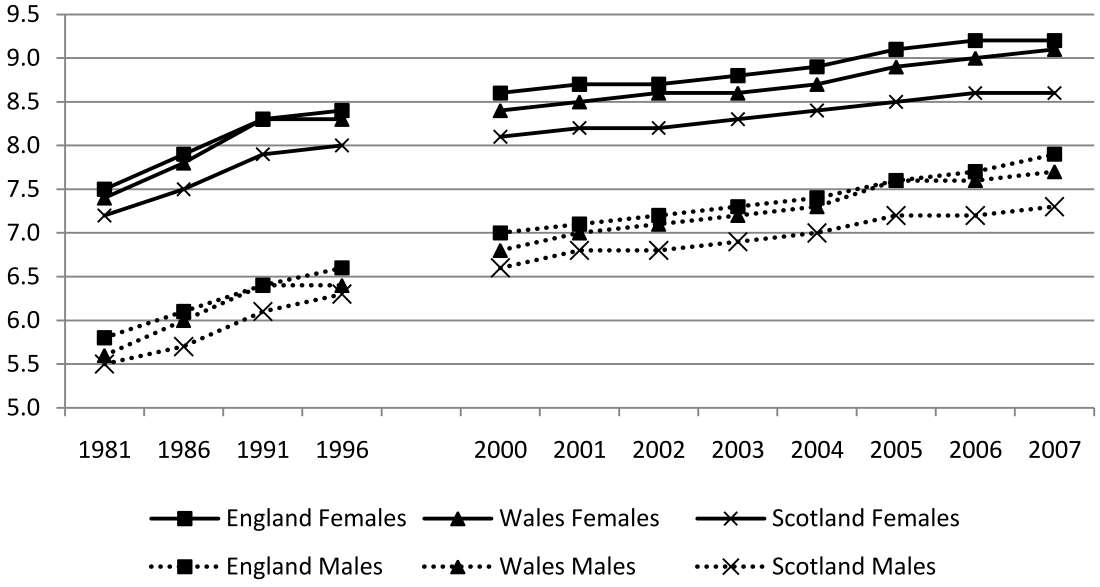
	Males	Females	Difference (males-females)
UK	7.8	9.2	- 1.4
England	7.9	9.2	- 1.3
Wales	7.7	9.1	- 1.4
Scotland	7.3	8.6	- 1.3

Source: Figures produced from interim life tables prepared by GAD and supplied by ONS at http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=14459

Life expectancy at age 65 and age 80: trends over time

In recent decades the increase in life expectancy among older adults in the UK has been dramatic and the gap between men and women has declined. For example, life expectancy for men aged 65 increased by over four years between 1981 and 2007. The trend towards greater life expectancy in recent years also extends to the oldest adults. As shown above, among individuals aged 80 in 2006-8, men could expect to live a further 7.8 years and women a further 9.2 years; this represents a remarkable increase since 1980-2 when the comparable figures were 5.8 and 7.5 years respectively (see Figure 3).

Figure 3: Period expectation of life at age 80 UK, England, Wales and Scotland, 1980-2 to 2006-8, by sex



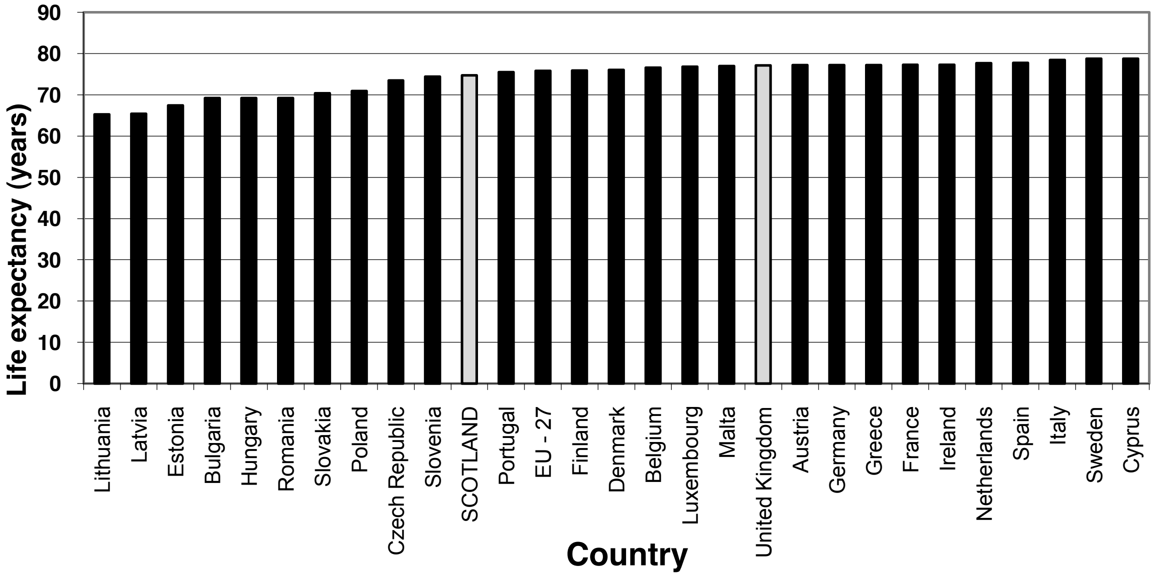
Source: Graphs drawn from figures produced by GAD/ONS and supplied by ONS at http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=14459
Note: All figures are based on a three-year period, so that for instance 2003 represents 2002-2004. The population estimates used to calculate these life expectancies are the latest available at time of publication of the 2006-8 interim life tables (21 October 2009). All figures are based on death registrations.

Scottish life expectancy

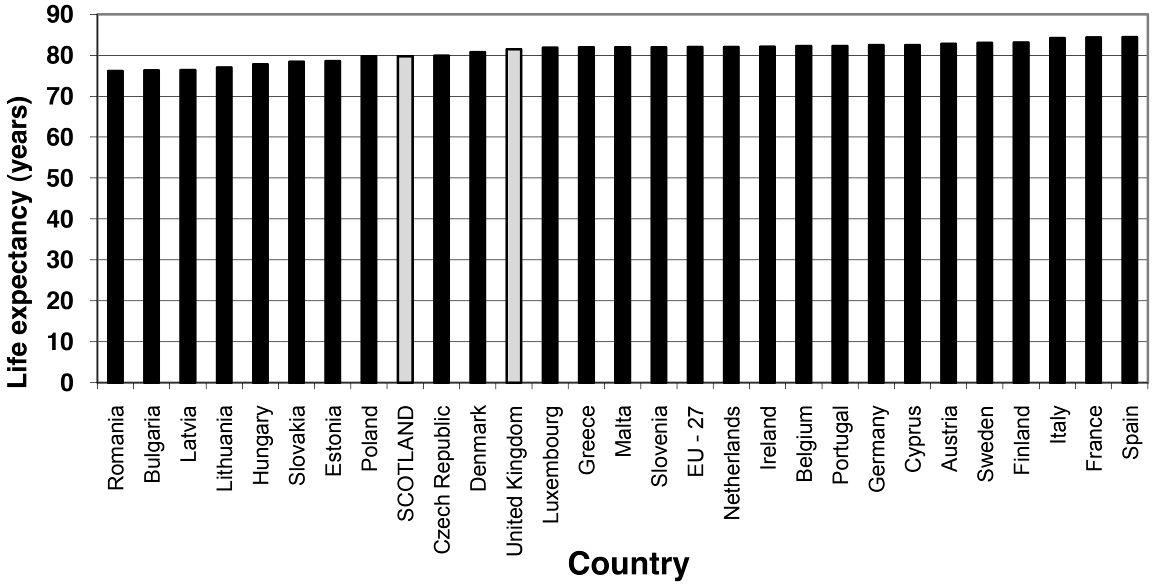
Though life expectancy has been improving for both men and women across the whole life-span in Scotland over the past 20-30 years, people resident in Scotland die earlier than in any other Western European country. Moreover, the improvement in mortality has been greater in many other European countries than in Scotland meaning that Scotland's relative position in European league tables declined during the 20th century for both men and women, particularly among the working age population (ScotPHO, 2007b). Figure 4, taken from the Scottish Registrar General's annual review of demographic trends, illustrate Scotland's position in terms of life expectancy at birth in comparison with other European countries in 2006 for both men and women. Both the upper panel (males) and the lower panel (females) illustrate Scotland's disadvantaged position relative to other European countries, but the position of Scottish women is particularly poor.

Figure 4: Life expectancy at birth, 2006, selected countries

Males



Females



Source: Scotland's Population 2008 - The Registrar General's Annual Review of Demographic Trends - Chapter 3 Deaths
http://www.gro-scotland.gov.uk/statistics/publications-and-data/annual-report-publications/annual-review-2008/figures-chapter-3.html

Infant mortality

Infant mortality rate: current picture

Table 5 presents the infant mortality rates (IMRs) for the UK as a whole and for England, Wales and Scotland separately for the period 2006-8 for males and females. In contrast to the patterns in life expectancy, Scotland and Wales have lower levels of infant mortality than England among both males and females. Across all three countries, the IMR is higher among males than females (a pattern seen worldwide), though the difference between the sexes was greatest in Wales, at 1.5 deaths per 1,000 live births.

Table 5: Infant mortality rates by sex, UK, England, Wales and Scotland, 2006-8

Deaths in first year of life per 1,000 live births

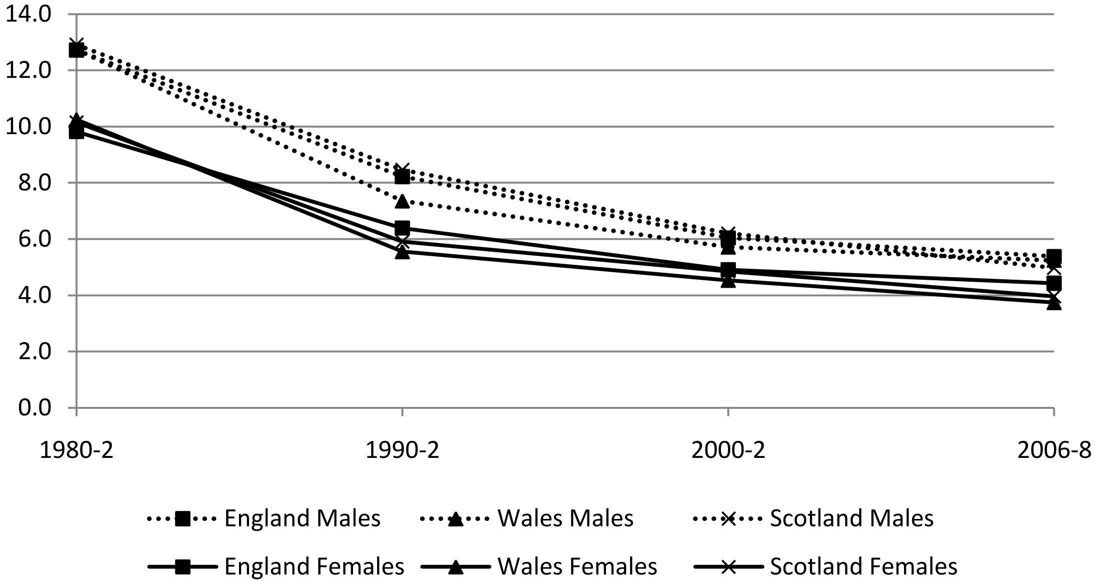
	Males	Females	Difference (males-females)
UK	5.34	4.37	0.97
England	5.38	4.43	0.95
Wales	5.24	3.74	1.50
Scotland	4.97	3.96	1.01

Source: Figures produced from interim life tables prepared and supplied by ONS at http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=14459

Infant mortality rate: trends over time

Infant mortality has declined steadily in England, Wales and Scotland over several decades among both males and females, with the absolute gap between the sexes declining over time (Figure 5).

Figure 5: Infant mortality rates UK, England, Wales and Scotland, 1980-2 to 2006-8, by sex



European comparisons:

Despite these overall improvements, and the reduction in the sex inequality over time, infant mortality remains much higher in all countries of the UK than in many other European countries. There also remain stark differences in infant mortality between geographical areas and by socioeconomic class and ethnic group As such, infant mortality remains a national target indicator for health inequalities and a dedicated National Support Team currently provides support to those areas identified as having an excess of infant deaths.

Age-specific mortality rates

The indicators presented above suggest that the 'capability to be alive' has been improving over time in all three countries of Great Britain for both men and women and that the excess mortality risks experienced by men in comparison to women have declined over time. These trends are illustrated further for England & Wales in Table 6 which presents the age-standardised overall all cause mortality rates for males and females over time, as well as the age-specific mortality rates. At all ages the mortality rates are higher for males than for females, but the improvement over time has also been greater for males than for females at all ages except the 35 to 49 year period.

Table 6: Death rates by sex and age, 1998, 2007 and 2008, England & Wales

Age group	**1998**		**2007**		**2008**		**Percentage change 1998-2008**	
	Males	Females	Males	Females	Males	Females	Males	Females
Age-standardised mortality rate[2], all ages, all causes, per million population	**8,967**	**5,928**	**6,949**	**4,921**	**6,854**	**4,898**	-23.6	-17.4
Age-specific mortality rates per 1,000 population								
Under 1 [3]	6.3	5.0	5.3	4.3	5.3	4.2	-16.2	-16.0
1-4	0.3	0.2	0.3	0.2	0.2	0.2	-31.5	-10.5
5-9	0.1	0.1	0.1	0.1	0.1	0.1	-19.4	-15.9
10-14	0.2	0.1	0.1	0.1	0.1	0.1	-37.0	-30.7
15-19	0.6	0.3	0.4	0.2	0.4	0.2	-28.5	-26.2
20-24	0.9	0.3	0.6	0.3	0.7	0.3	-28.7	-18.2
25-29	1.0	0.4	0.8	0.3	0.8	0.3	-22.9	-12.7
30-34	1.1	0.5	1.0	0.5	1.0	0.5	-9.8	0.0
35-39	1.3	0.8	1.3	0.7	1.3	0.7	1.7	-8.3
40-44	2.0	1.3	1.8	1.1	1.8	1.1	-7.2	-10.2
45-49	3.1	2.0	2.6	1.8	2.7	1.8	-11.3	-13.0
50-54	4.9	3.2	4.3	2.8	4.3	2.9	-12.6	-10.9
55-59	8.5	5.2	6.9	4.4	6.7	4.3	-21.6	-16.9
60-64	14.2	8.4	10.7	6.8	10.4	6.7	-26.5	-20.3
65-69	24.3	14.4	17.8	11.0	17.2	10.8	-29.3	-25.4
70-74	41.7	25.4	28.0	18.4	27.8	18.1	-33.5	-28.7
75-79	65.9	40.9	48.7	32.8	47.5	32.1	-27.9	-21.5
80-84	109.1	72.7	84.0	60.1	82.1	59.4	-24.7	-18.3
85 and over	192.7	158.4	161.0	143.6	161.4	145.5	-16.3	-8.1

1 Table source: ONS, published at http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=14409

2 These rates are standardised to the European Standard Population, expressed per million population; they allow comparisons between populations with different age structures, including between males and females and over time.

3 Deaths per 1,000 live births.

Cause-specific mortality

Though causes of mortality do differ between the sexes, it is important to note that the leading cause of death - coronary heart disease (CHD, also commonly referred to as Ischaemic Heart Disease, IHD) - is the same for both men and women in England, Wales and Scotland. Among women in all three countries and men in England, cerebrovascular disease (stroke) is the second leading cause of death, while this is the third biggest killer of men in Wales and in Scotland also, behind lung cancer (Table 7).

Table 7: Leading causes of death[1] among men and women, numbers of deaths registered in 2008

	England		**Wales**		**Scotland**	
Men	**rank**		**rank**		**rank**	
Ischaemic heart diseases (I20-25)	1	40,327	1	2,930	1	4,852
Cerebrovascular disease (I60-69)	2	16,678	3	1,095	3	2,051
Cancer (trachea, bronchus, lung) (C33-34)	3	16,019	2	1,170	2	2,114
Chronic lower respiratory disease (J40-47)	4	12,510	4	827	4	1,400
Influenza and pneumonia (J10-18)	5	10,814	5	741	6	942
Cancer (prostate) (C61)	6	8,597	6	553	8	792
Cancer (colon,sigmoid,rectum,anus)(C18-21)	7	7,178	7	499	7	839
Cancer (lymphoid, haematopoietic and related tissue) (C81-96)	8	6,644	8	425	10	539
Dementia and Alzheimer's disease(F01,03,G30)	9	6,627	9	420	(5)	(1,335)[2]
Cirrhosis and other diseases of the liver (K70-K76)	10	4,384	10	325	9	692
Women						
Ischaemic heart diseases (I20-25)	1	31,196	1	2,258	1	3,989
Cerebrovascular disease (I60-69)	2	26,704	2	1,893	2	3,316
Influenza and pneumonia (J10-18)	3	16,334	3	1,076	6	1,521
Dementia and Alzheimer's disease(F01,03,G30)	4	15,187	4	959	(4)	(2,027)[2]
Heart failure, other heart diseases (I26-52)	5	13,554	5	956	8	828
Cancer of trachea, bronchus, lung (C33-34)	6	12,203	6	862	3	1,966
Chronic lower respiratory disease (J40-47)	7	11,686	7	836	5	1,637
Cancer (breast) (C50)	8	10,065	8	627	7	1,043
Diseases of the genitourinary system (N00-N99)	9	6,625	9	437	9	768
Cancer (colon,sigmoid,rectum,anus)(C18-21)	10	6,138	10	418	10	746

Source: Adapted from ONS Vital Statistics Tables 2008; Registrar General's Annual Review of Population trends, 2008 GRO Scotland.
Notes:
1. Clearly there are different ways of grouping the ICD codes into 'causes' of death and some of the above represent broader groupings than others. The groupings used here largely follow those employed by ONS see http://www.statistics.gov.uk/pdfdir/dthreg0809.pdf. Figures for England & Wales are based on deaths classified by 'original cause of death' since these are available disaggregated for England & Wales separately. As such, the figures differ slightly from those published in the ONS Mortality Statistics: Deaths registered in 2008 since those are based on 'underlying cause of death'.
2. These figures for Scotland include deaths from all mental and behavioural disorders (F00-F99) not just dementias although these make up the bulk of this category. Alzheimer's disease deaths are not included for Scotland in this category.

The EMF focuses on monitoring mortality from cardiovascular disease (both ischaemic heart disease and cerebrovascular disease) and cancers. However, while these are the leading causes of death, other causes are also important and show some significant sex differentials. In England and in Wales, the third leading cause of death among females is influenza and pneumonia (J10-J18) accounting for around 17,000 deaths compared to around 11,500 such deaths among males. The fourth leading cause of death among females is dementia and Alzheimer's disease (F01, F03 & G30) accounting for over 16,000 deaths compared to less than 7,000 such deaths among males, reflecting the older age profile of women compared to men. Meanwhile, cirrhosis and other diseases of the liver caused 4,384 male deaths in England, 325 male deaths in Wales and 692 male deaths in Scotland in 2008 compared to 2,563, 220 and 367 female deaths in each country respectively.

Cardiovascular disease mortality (diseases of the circulatory system)

The EMF identifies the cardiovascular disease (CVD) mortality rate as one of the core indicators within the Life domain. However, cardiovascular disease encompasses a range of diseases of the circulatory system, among which the major killers are ischaemic heart diseases (IHD) and cerebrovascular diseases (including stroke). It is important to distinguish between these types of cardiovascular disease because they affect men and women differently and have some different risk factors.

CVD mortality: Current picture

The sex patterns of cardiovascular disease mortality are complex. In 2008, in England & Wales, the total *number* of deaths due to all diseases of the circulatory system was slightly higher among women than men, at 87,392 compared to 80,846. However, the overall age-standardized death rate was higher for men at 221 per 100,000 population compared to 142 per 100,000 population for women. In England & Wales, the overall age-standardized death rate for IHD is far higher for men than for women, while the figures for cerebrovascular disease are similar for men and women (Table 8). The pattern is somewhat different in Scotland. Here, both men and women have very high mortality from IHD, though men are still disadvantaged compared to women. However, the overall death rate from cerebrovascular disease is higher among women in Scotland than among men (based on crude rates not standardized for age).

Table 8: All ages death rates per 100,000 population, 2008

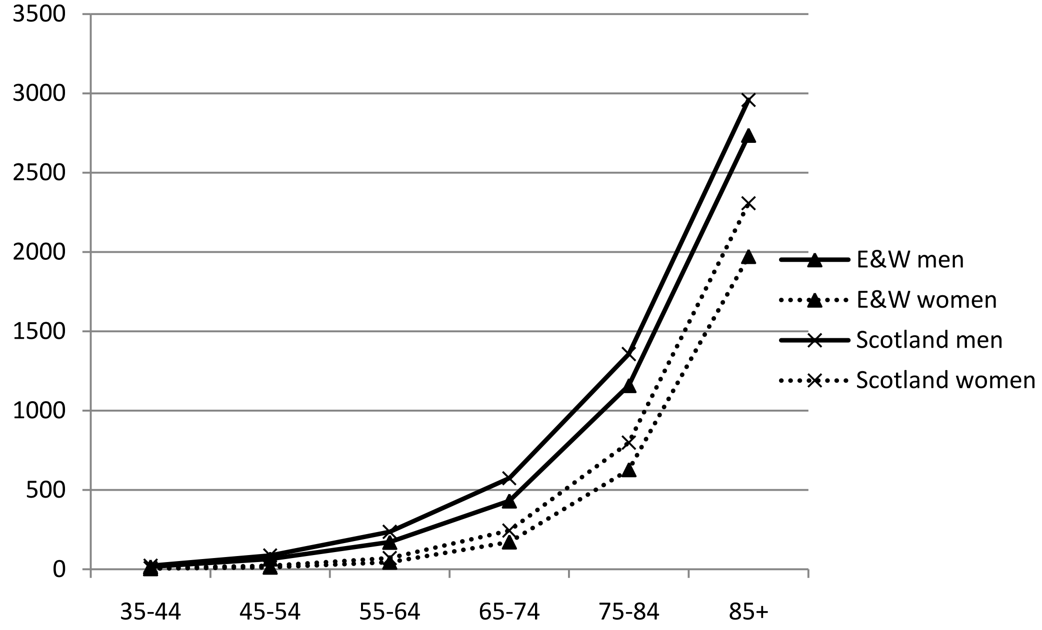
	England & Wales (age - standardised)	Scotland (crude)
All cardiovascular diseases (I00-I99)		
Men	221	340
Women	142	350
Ischaemic heart diseases (I20-I25)		
Men	121	194
Women	56	149
Cerebrovascular diseases (I60-I69)		
Men	47	82
Women	44	124

Source: ONS Mortality Statistics 2008; Registrar General's Annual Review of Population trends, 2008 GRO Scotland.
Notes: England & Wales figures are age-standardized against the European Standard Population. Figures above for Scotland are crude rates and no age-standardized rates are currently provided by GRO(S). Cause-specific death rates are not produced routinely by ONS for England and Wales separately.

Age-specific death rates from cardiovascular diseases:

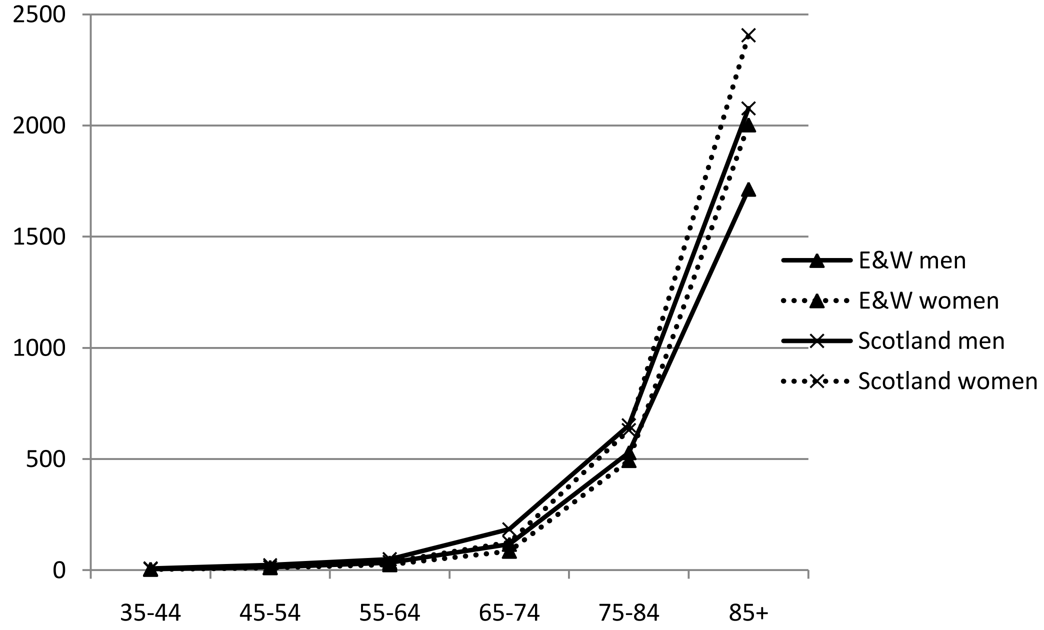
Figure 6 and Figure 7 illustrate the differing age-sex patterns of IHD and cerebrovascular disease with data for England and Wales combined and for Scotland. Men have higher death rates at all ages compared to women for IHD, though women’s risks of heart disease increase during the menopausal transition and following the menopause (Fodor and Tzerovska 2004). Women’s risks continue to increase in later life and the gap between women and men narrows. The part played by modifiable risk factors also varies for women and men. One study has suggested that up to half the difference in IHD mortality between women and men can be explained by modifiable factors, particularly high-density lipoprotein (HDL) cholesterol levels and smoking, which has been more common among men historically (Purcell, Daly and Petersen 2004). However, there is emerging evidence that the impact of those factors might also vary between women and men (Doyal, Payne and Cameron 2003). In contrast to the age-sex pattern for IHD, men's death rates from cerebrovascular disease are closer to those of women across much of the age-span and are lower than women's at the oldest ages.

Figure 6: Death rates per 100,000 population from ischaemic heart disease by sex and age-group, England & Wales and Scotland, 2008



Source: Adapted from ONS Mortality statistics: deaths registered in 2008 and Scottish Registrar General's Annual Review of Population, Table 6.2.

Figure 7: Death rates per 100,000 population from cerebrovascular disease and age-group, England & Wales and Scotland, 2008



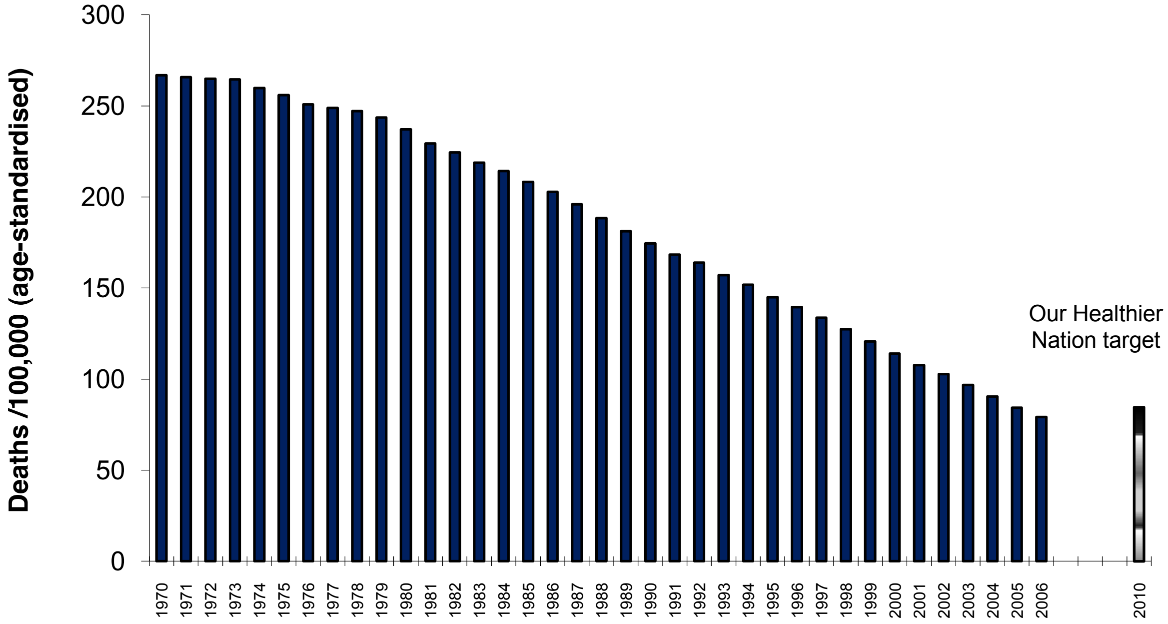
Source: Adapted from ONS Mortality statistics: deaths registered in 2008 and Scottish Registrar General's Annual Review of Population, Table 6.2.

Having described the sex differentials in cardiovascular disease mortality, it is important to highlight the inequalities in risk of death from these diseases that exist between the countries of Great Britain. Age-adjusted mortality rates in 2006 were highest in Scotland, followed by Wales and then England for both IHD and cerebrovascular disease for both men and women.

Cardiovascular disease mortality: trends over time

Overall, the cardiovascular mortality rate has fallen since 1970 in England, Wales and Scotland. Figure 8 illustrates this downward trend for England and shows that the target set for 2010 in the government policy document, *Our Healthier Nation,* was met by 2005.

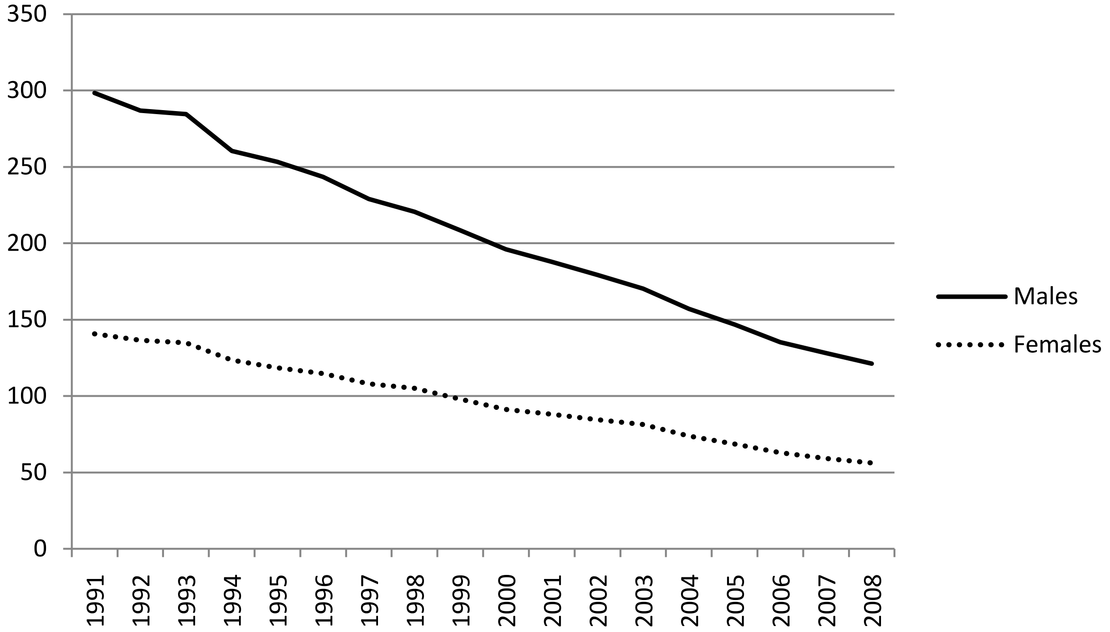
Figure 8: Death rates under age 75 from all cardiovascular disease men and women combined, 1969-2007, England



Notes: Three year moving averages plotted against middle year. ICD-9 codes adjusted to be comparable with ICD-10 codes.
Source: ONS, analysis by Health Improvement Analytical Team - Monitoring Unit, DH, reported at www.heartstats.org

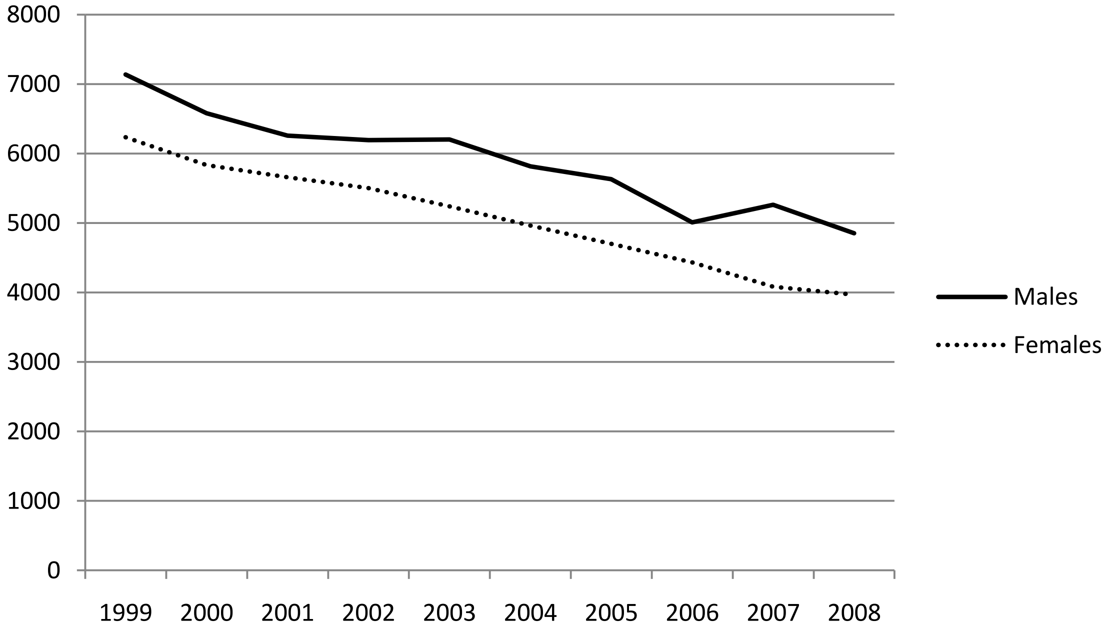
Looking at trends over time in age-standardized deaths rates in England & Wales from IHD and cerebrovascular disease separately for men and women we find evidence of improvement over time for both sexes. For IHD, there has been a greater improvement over time for men than for women and a significant narrowing of the absolute gap over time (Figure 9). For cerebrovascular disease too the sex gap seems to have declined over time (Figure 11), though not as noticeably as for IHD. Age-standardized rates were not available for Scotland so we have plotted absolute numbers of deaths (Figure 10 and Figure 12). These two figures again illustrate improvement over time for both sexes and suggest a narrowing of the sex differential in the number of cerebrovascular disease deaths, though *numbers* of deaths to women persistently outnumber those to men from this cause.

Figure 9: Age-standardized overall death rate (deaths per 100,000 population) from ischaemic heart disease by sex 1991-2008, England & Wales



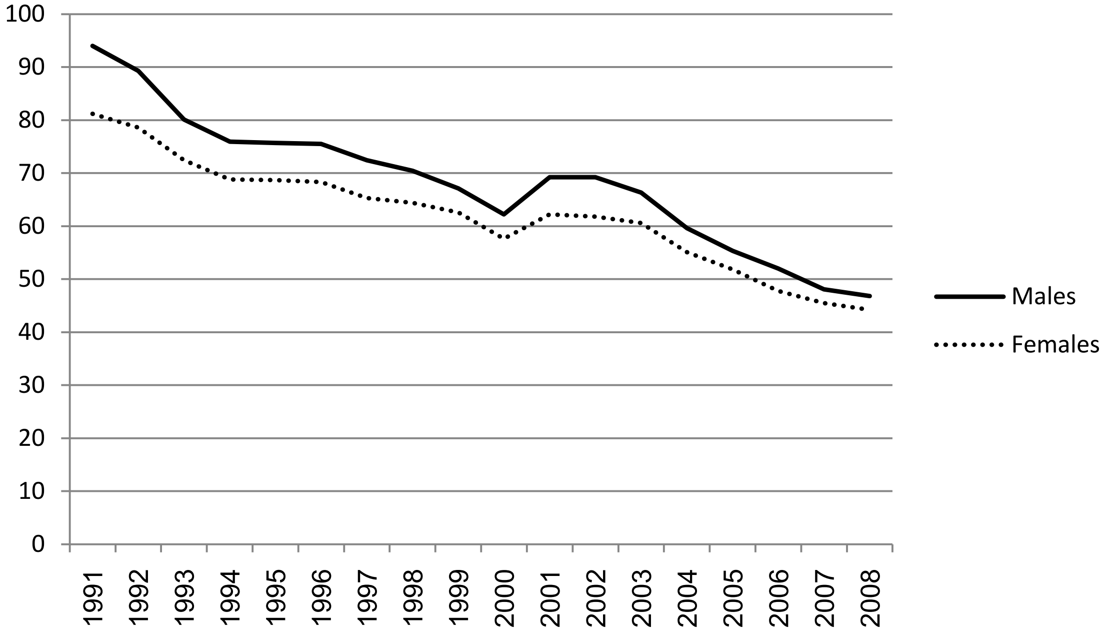
Source: ONS Mortality Statistics 2008.

Figure 10: Numbers of deaths caused by ischaemic heart disease by sex 1999-2008,Scotland



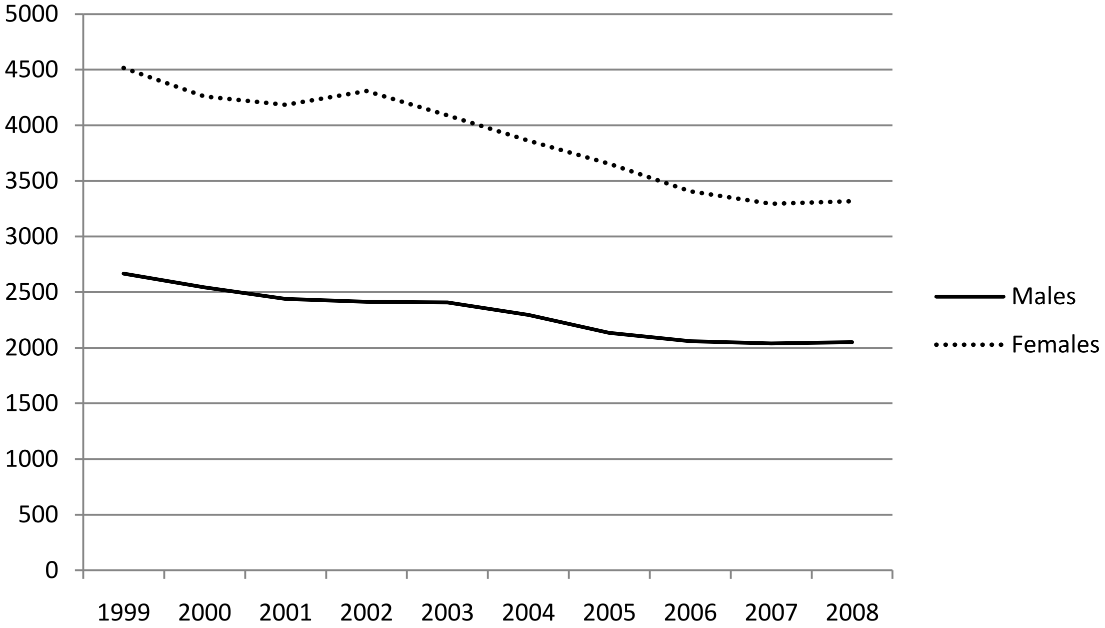
Source: Scottish Registrar General's Annual Review of Population
Note: Death rates for Scotland were not available for all years but are presented for selected years below.

Figure 11: Age-standardized overall death rate (deaths per 100,000 population) from cerebrovascular disease by sex 1991-2008, England & Wales



Source: ONS Mortality Statistics 2008.

Figure 12: Numbers of deaths caused by cerebrovascular disease by sex 1999-2008, Scotland



Source: Scottish Registrar General's Annual Review of Population
Note: Death rates for Scotland were not available for all years but are presented for selected years below.

Table 9 illustrates that, though the sex gap has declined over time for both IHD and cerebrovascular disease mortality in Scotland, the decline has been steeper for IHD.

Table 9: Crude death rates (deaths per 100,000 population) from Ischaemic heart disease and Cerebrovascular disease, by sex, Scotland, 1980-2008

	Ischaemic heart disease			Cerebrovascular disease		
	Males	Females	Difference Males-Females	Males	Females	Difference Males-Females
1980-82	408	304	104	139	210	-71
1990-92	367	297	70	119	191	-72
2000-02	261	216	45	101	162	-61
2008	194	149	45	82	124	-42

Source: Scottish Registrar General's Annual Review of Population 2008.
Note: Figures for 1980-2, 1990-2 and 2000-2 are averaged over the three-year period and are crude rates.

However, despite evidence of declines, there are concerns that the rate of improvement in IHD deaths has slowed in recent years and that unfavourable trends in cardiovascular risk factors, including obesity and associated diabetes, are beginning to impact on mortality (Scottish Government 2009a). Gains that have been achieved through improved medical intervention are unlikely to be sustained without significant shifts in life-style risk factors. The fall in mortality from cerebrovascular disease has been more consistent and premature deaths from this cause have fallen in line with national targets. However, the growing proportion of older people means that the *number* of people suffering a cerebrovascular disease continues to be high, particularly among women.

European comparisons:

The Health Profile for England (2008) presents data on premature mortality (aged under 65 years) from all circulatory diseases (CVD) for England in comparison with other EU countries using data from 2005 or its nearest equivalent. The rate for women in England was 23 deaths under 65 years per 100,000 population, a figure placing the country 14th out of all EU nations and well behind the EU-15 average. In comparison, the country with the lowest premature mortality from CVD among women was France - just 13 deaths per 100,000 people. English men had a much higher premature death rate - 61 deaths per 100,000, placing them 8th and with a rate higher than the EU-15 average of 56. France had the lowest male rate at 41 deaths per 100,000. The report on Scottish Mortality in European context (ScotPHO, 2007b) draws some useful comparisons for IHD. The report notes that despite some convergence with rates for other Western European countries, Scottish mortality rates for IHD in women have consistently been the highest since the 1950s and among men, Scotland has had the highest IHD mortality in Western Europe since the 1980s. The mortality rates from cerebrovascular disease among Scottish men and women are converging with those of other Western European countries, though they still remain high for both sexes.

Cancer mortality

Mortality from cancers: current picture

Men continue to experience excess cancer-related deaths when compared to women. In England & Wales in 2008, the overall cancer mortality rate was 206 per 100,000 for men and 150 per 100,000 for women. Cancer rates are far higher in Scotland for both men and women. In 2008, men in Scotland had an overall cancer mortality rate of 309 per 100,000 and women had a slightly lower rate of 283 per 100,000. The male age-specific death rates exceed those for females in all age-groups in all countries, except in the age period 25-54 in England & Wales and in 25-44 in Scotland (figures in bold in Table 10). The sex differentials are particularly large at older ages.

Table 10: Age-specific death rates from all cancers by sex, 2008 (deaths per 100,000 population) England & Wales and Scotland

	15-24	**25-34**	**35-44**	**45-54**	**55-64**	**65-74**	**75-84**	**85+**
England & Wales								
males	4	8	25	97	351	906	1,877	3,039
females	3	**11**	**37**	**111**	296	625	1,169	1,732
Scotland								
males	5	6	30	120	424	1,111	2,068	3,409
females	4	**8**	**39**	116	329	768	1,410	2,002

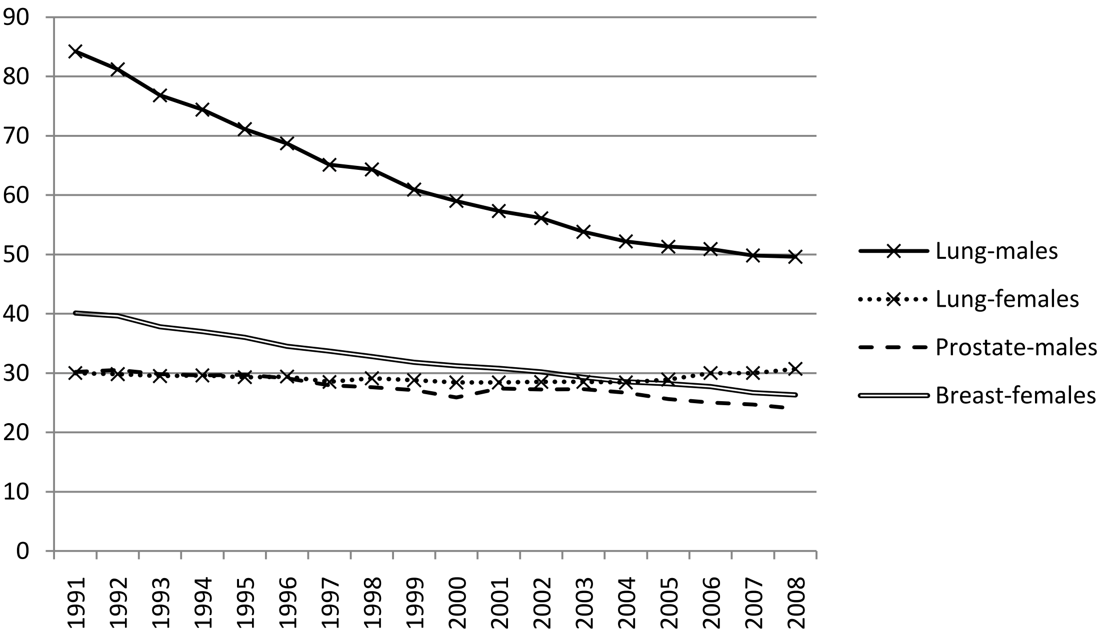
Source: Adapted from ONS Mortality Statistics Deaths registered in 2008 and Scottish Registrar General's Annual Review of Population, 2008.

Men and women are at risk of some of the same cancers - notably lung cancer and bowel cancer (colon, sigmoid, rectum, anus) - while also experiencing heightened sex-specific risks - prostate cancer and breast cancer. In 2008, Scottish men had a death rate of 85 per 100,000 population from lung cancer and 32 per 100,000 from prostate cancer, while Scottish women had a death rate of 74 per 100,000 from lung cancer and 39 per 100,000 from breast cancer. In England & Wales, the 2008 figures were 49 per 100,000 men for lung cancer and 24 per 100,000 men for prostate, and 31 per 100,000 women for lung and 24 per 100,000 women or breast cancer.

Cancer mortality: trends over time

Figure 13 presents age-standardized death rates from main cancers for England & Wales. A steady fall in the lung cancer death rate among men can be seen, with some flattening out in recent years. In contrast, lung cancer rates for women, though far lower than for men, have actually increased over the period, reflecting historical changes in women's smoking patterns. The rising female rates of lung cancer death have been even more striking in Scotland in recent decades. The Registrar General's Annual Report of Population 2008 presents a female lung cancer crude death rate of 74 per 100,000 for 2008 compared with 41 per 100,000 in 1980-2 and 57 per 100,000 in 1990-2 (General Register Office for Scotland 2009). However, other analyses suggest that there may be a slight decline in recent years (ScotPHO, 2007).

Figure 13: Age-standardized cancer death rates (deaths per 100,000 population) by sex, 1991-2008, England & Wales



Source: ONS mortality statistics 2008

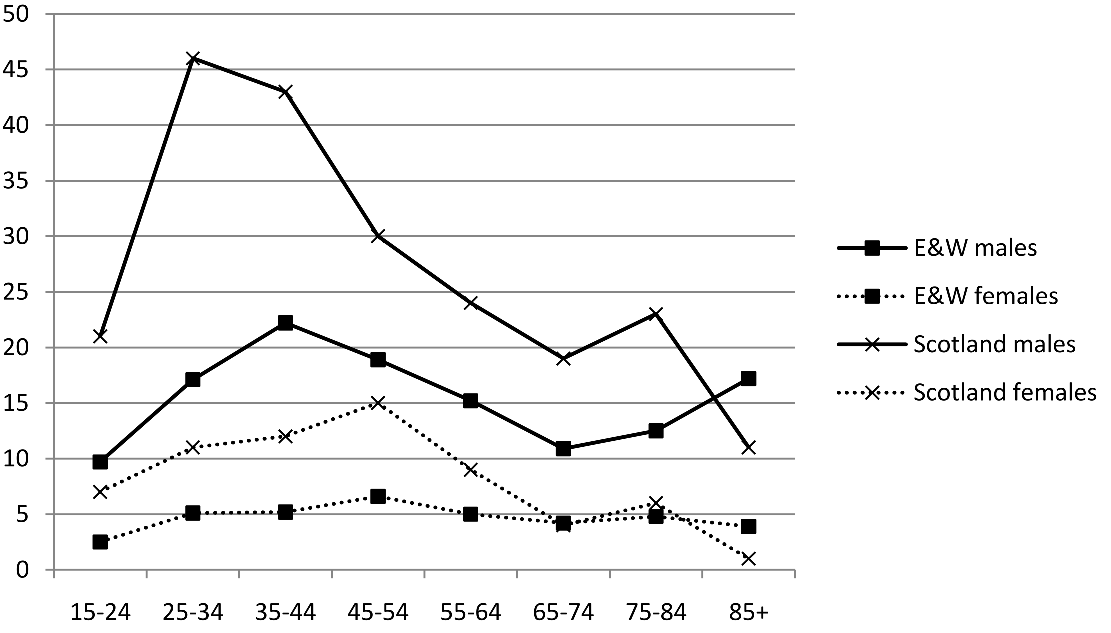
Suicide

Mortality rates from suicide: current picture

Stark differences between men and women in deaths from suicide exist in Great Britain. In 2008, in England, 3,273 male deaths were classified as due to 'intentional self-harm' or 'event of undermined intent' (X60-X84 and Y10-Y34) compared to 1,028 female deaths. In Wales, the 2008 figures were 197 male deaths and 72 female deaths, and in Scotland, they were 630 male deaths and 213 female deaths (ONS Vital Statistics tables).

Age-sex patterns of suicide are presented for 2008 for England & Wales and Scotland in Figure 14 below. In both sets of data, the female suicide rate peaks in the 45-54 years age-group, though the variation across the age-groups is far less marked than for males. For males in Scotland the highest rate was recorded for the 24-34 and 35-44 years age-groups and for males in England & Wales for the 35-44 years age-group. Therefore, though numbers of deaths are far lower than for the other causes discussed above, suicides result in a large loss of potential years of life. Furthermore, a majority of suicide deaths occur at times of crisis and are seen therefore to be potentially preventable given the right kinds of support to people in distress (Wilkins, 2010).

Figure 14: Age-specific suicide rates (deaths per 100,000 population) by sex 2008 England & Wales and Scotland



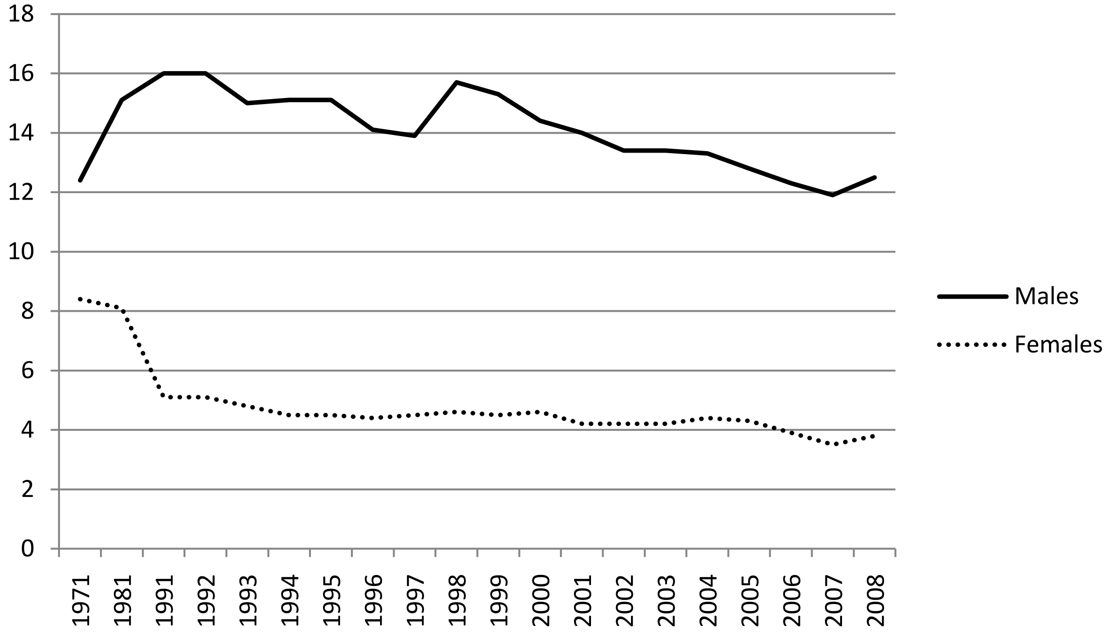
Source: ONS Mortality Statistics Deaths registered in 2008 and Scottish Registrar General's Annual Review of Population, 2008.

The role of alcohol misuse in Scotland's high male suicide rate has been highlighted in the 2008 Chief Medical Officer's report (CMO 2008) which cited the confidential enquiry into Suicides and Homicides which estimated that more than 60% of males who committed suicide had consumed excess quantities of alcohol at the time of their suicide (though clearly there may be complex causal pathways involved). It is also worth noting that there are gendered patterns in the use of different methods of suicide with men being more likely to die from hanging and suffocation and women more likely to use self-poisoning and these may account in part for different rates since females are more likely to have attempted suicide but not died as a result (Wilkins, 2010; Doyal et al., 2003)

Mortality from suicide: trends over time:
Overall, the trend in suicide death rates in the UK since 1991 has been downwards. However, the patterns have diverged between England & Wales and Scotland.

Figure 15 below shows the trend over time in the age-standardized suicide rates for males and for females in England & Wales. The rate appears to have declined steadily among females, and, though the pattern is less clear, a downward trend is also seen for males.

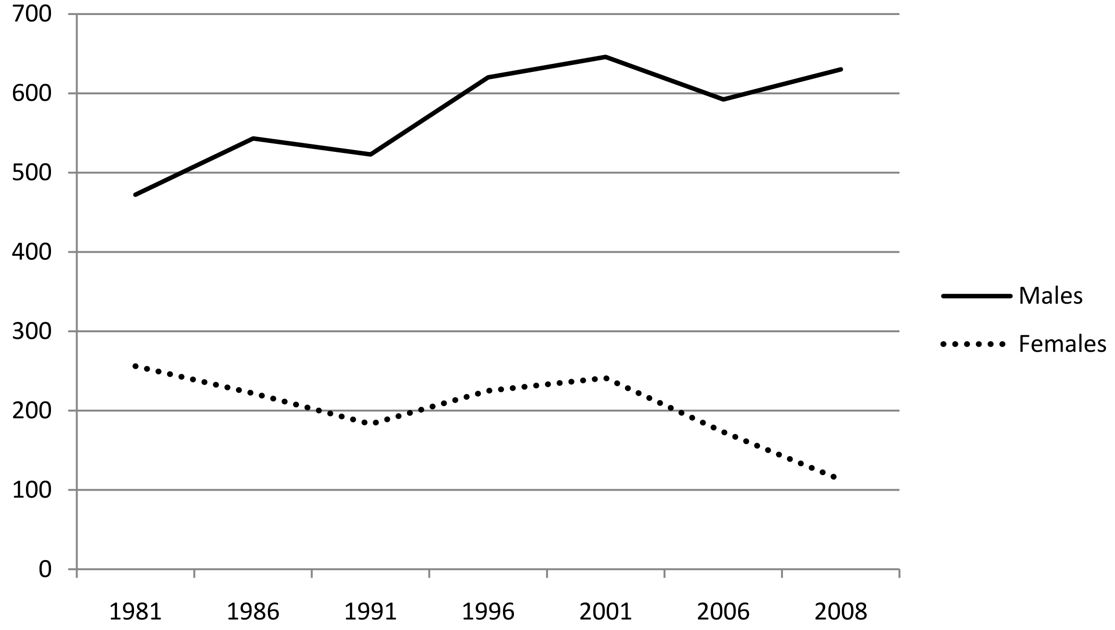
Figure 15: Age-standardized overall suicide rates by sex, England & Wales, 1971-2008.



Source: ONS: Mortality statistics: Deaths registered in 2008.
Notes: Includes deaths classified by underlying cause as due to intentional self-harm and event of undetermined intent (ICD codes X60-X84 and Y10-Y34)

In Scotland the patterns over time have been somewhat different. Prior to the 1970s suicide rates in Scotland were low in comparison with England & Wales. However, in the 1980s and 1990s male suicide rates rose when they were on the decline in England & Wales, and female rates declined at a slower rate than among women in England & Wales. At the time of writing we did not have access to age-standardized suicide rates for Scotland to plot alongside those of England & Wales. However, we present the absolute numbers of suicide deaths by sex for Scotland in Figure 16. Analyses by Stark et al. (Stark et al. 2004) covered the period 1981 to 1999 and found a 35% increase in suicide and undetermined death among Scottish men between 1981-5 and 1996-9, with the largest increases among the youngest age-groups. Among Scottish women, Stark et al. (2004) recorded a decline over the period overall, but an increase in the younger age-groups. The rising suicide rate among Scottish men, particularly young Scottish men, has been a significant cause for concern in recent years (ScotPHO, 2007b).

Figure 16: Absolute numbers of suicide deaths by sex Scotland, 1981-2008



Source: Scottish Registrar General's Annual Review of Population, 2008.

However, recent analyses by Stark et al. (Stark, Stockton and Henderson 2008) suggest that the rate of young male suicide has declined in Scotland. They estimated a 40% reduction in rates among 15-29 year old men from 43/100,000 in 2000 to 25/100,000 in 2004; a statistically significant reduction. They also noted that this reduction had been accompanied by a reduction in hanging as a method of suicide.

Despite this recent more positive evidence, levels of suicide among young men remain worryingly high and continue to be a concern.

European comparisons:

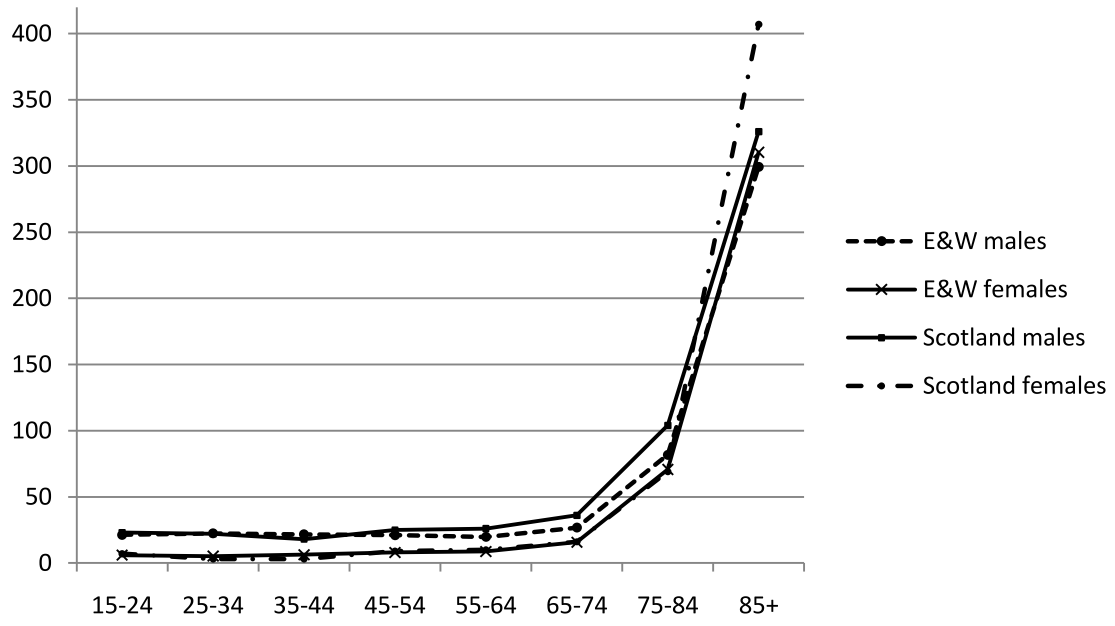
Suicide rates vary considerably across Europe, though men consistently have higher rates than women. The three countries of Great Britain do not stand out as having particularly high rates compared to other countries (though comparisons may be compromised by differences in cause of death registration practices). The Health Profile of England 2008 ranks England 7th for male suicide, below the EU-15 average and 10th for female suicide, again below the EU-15 average. It is worth noting, however, that the rates in Cyprus are reported to be just 1.2 and 0.3 deaths per 100,000 for men and women respectively.

The detained population (which is predominantly male) is particularly vulnerable to suicide. In prison, mental health has been shown to be a risk factor for suicide. The recently established Ministerial Council on Deaths in Custody which comprises a ministerial board and independent advisory panel, is intended to bring about a continuing and sustained reduction in the number and rate of deaths in all forms of state custody in England and Wales (Independent Advisory Panel on Deaths in Custody 2009).

Accidental mortality, assault and injury

In common with suicide, death rates from accidents, assault and injury vary considerably between the sexes. Figure 17 illustrates that at all ages except the very oldest age-group, 85+ years, males experience higher mortality rates from accidents than females. The rising accidental death rate for both men and women after age 65 years is striking in England & Wales and in Scotland. Deaths from assault are also higher among males than females at all ages up to 64 years in England & Wales and in Scotland. Above age 65 there are few such deaths and rates become unstable. The excess male mortality risk from assault was evidenced in 2008 by 521 such deaths among men in England compared to 220 among women, with the figures in Wales being 34 and 16 for men and women respectively, and in Scotland, 57 for men and 31 for women. Though deaths from violence are far less common among women than men, they are more likely to experience violence and abuse within intimate relationships and within the home which is believed to contribute to their heavier burden of mental ill-health (Doyal 2001).

Figure 17: Age-specific accident death rates (deaths per 100,000 population) by sex 2008 England & Wales and Scotland



Source: ONS Mortality statistics: deaths registered in 2008; Registrar General's Annual Review of Population 2008, GRO(S).

Other causes of death of concern

As illustrated in Table 7 above, in addition to the 'big three killers' - IHD, cerebrovascular disease and cancers - a number of other diseases are a cause for concern because of the high and rising mortality rates experienced, and because of the sex patterns observed. Liver disease is of particular concern and rising rates of mortality from this cause have been seen among both men and women over the past 30 years. Liver disease is particularly prevalent among men, and notably among Scottish men (though Scottish women have also experienced rising mortality rates in recent years). Liver disease mortality rates are very high in comparison with other Western European countries for both men and women in Scotland. In 2008, 692 Scottish men and 367 women died of chronic liver disease.

High quality family planning and obstetric services play a crucial role in enabling women to realise their potential for life and health. While in the UK, maternal mortality is not a major public health issue, there is worrying evidence that particular sub-groups of women - notably minority ethnic women who are newly arrived in the UK and asylum seekers - are at increased risk of maternal mortality and morbidity, and that poor quality healthcare is a major contributing factor.

HEALTH: outcome indicators

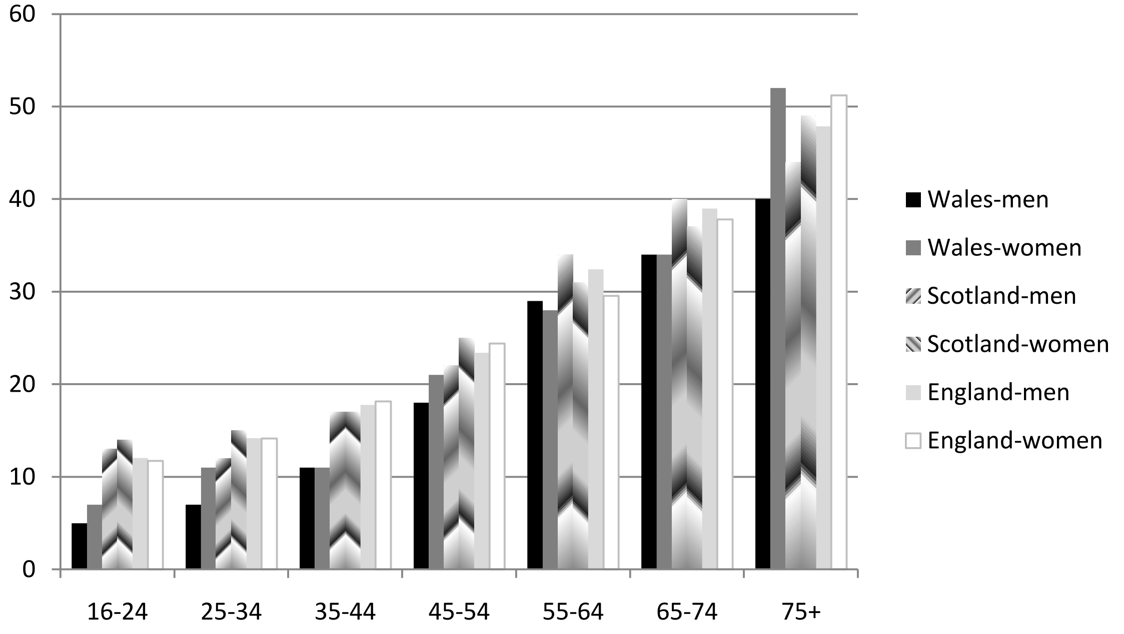
Self-reported general health

Percentage of people reporting 'not good' health: current picture

The 2008 health surveys in England, Wales and Scotland included questions designed to capture self-reported general health, though the exact form of the questions differed slightly (See Chapter 3 Methods) (Corbett, et al. 2009; Welsh Assembly Government; Craig, Mindell and Hirani 2009).

Overall, the following proportions of adults aged 16+ reported their health to be other than 'good': England 23.7% of men and 24.7% of women; Wales 20.9% of men and 23.2% of women; and Scotland 24.6% of men and 25.4% of women - small differences that were not statistically significant. Figure 18 presents this variable for men and women by age-group.

Figure 18: Percentage of people reporting not good health by sex, England, Wales and Scotland, 2008



Source: HSE 2008, SHeS 2008, WHS 2008.
Notes: Question wording varied slightly between the surveys. Welsh figures group responses 'fair' and 'poor', while Scottish and English figures group responses 'fair', 'bad' and 'very bad'.

Across all three countries, a higher proportion of women than men tend to report not good health with few exceptions across all the age-groups, though the differences are not large and mostly not statistically significant. Not surprisingly, among both men and women there is a sharp increase in the proportion reporting not good health with rising age. The age-sex patterns across the three countries are complex, with no one country standing out as having higher rates across the board. While the Welsh rates are lower for men and women at most ages, the wording of the questions were not exactly the same in the three surveys and this is likely to compromise comparability.

Percentage of people reporting 'not good' health: trends over time:
Trend tables are routinely produced for the HSE. Data from 1993 to 2008 do not suggest any consistent patterns among men or women in the proportion reporting not good health. The differential between men and women has remained reasonably stable throughout the period.

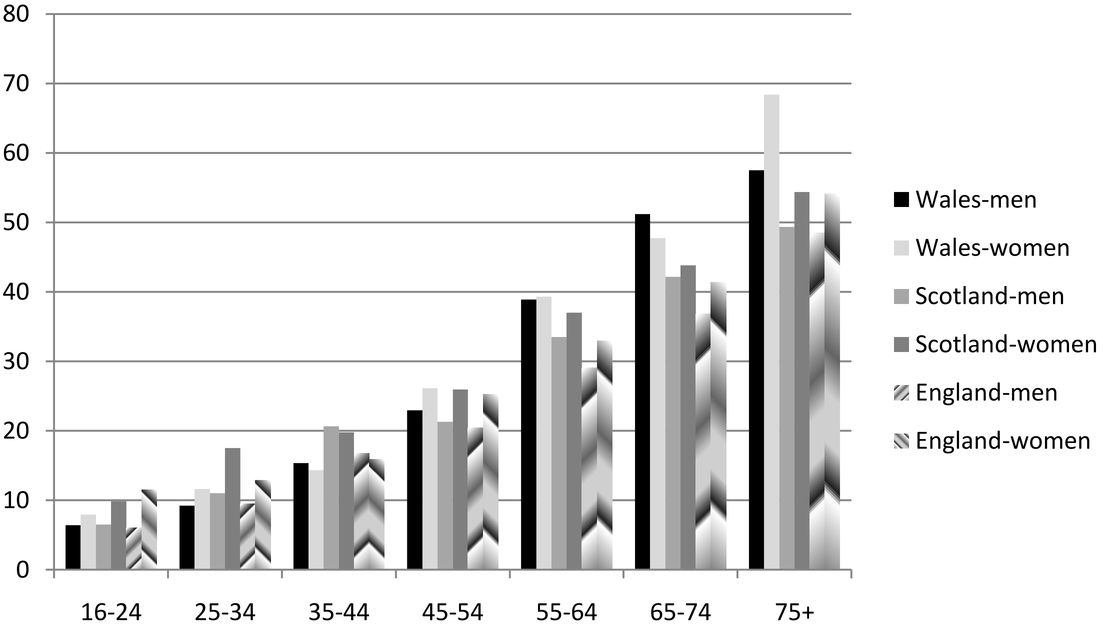
European comparisons are not particularly helpful because both the form and the interpretation of questions varies in important ways across countries.

Self-reported limiting long-term illness or disability (LLTI)

LLTI: Current picture
The 2008 health surveys in England, Wales and Scotland included questions on limiting long-term illness (LLTI) and disability. Among both men and women, a large proportion of the working age population of the three countries of Great Britain report having a LLTI. Women's level of reported LLTI was statistically significantly higher than men's in 2008 in the HSE in which 21.7% of men and 25.4% of women aged 16+ reported having at least one limiting longstanding illness or disability, in the SHeS in which 23.3% of men and 27.9% of women reported LLTI and in the WHS 2008, in which 26% of men and 29% of women reported LLTI (figures reported rounded to nearest whole percentage).

The results for men and women are presented by age-group in Figure 19 below. At most ages, across all three countries, a higher proportion of women than men report a LLTI. The exception is the 35-44 year age-group where there is little difference in the rates between men and women, and men's rates are a little higher in all three countries.

Figure 19: Percentage of people reporting a limiting long-term illness or disability by sex, England, Wales and Scotland, 2008



Source: HSE 2008 (authors' analyses), SHeS 2008, WHS 2008.
Notes: Question wording varied slightly between the surveys (See Chapter 3 Methods)

LLTI: trends over time

HSE trend data from 1993 to 2007 suggest that the proportion of men and of women reporting an LLTI has increased slightly over the period, though the differential between men and women has remained constant. Analysis of the General Household Survey, which includes a longer time period, confirms the steady increase over time since the 1970s in the overall proportion of men and women who report LLTI and disabilities, a function of the ageing population (ONS 2004). However, there are no clear changes in the sex differentials in reporting, with slightly higher levels among women being the consistent pattern.

Healthy years of life

The ONS produces two measures that combine life expectancy and population data with self-reported indicators of general health described above to describe the years of healthy life that a person can expect to live from a particular age: (1) Healthy Life Expectancy (HLE) which defines healthy life as years in good or fairly good self-perceived general health, and (2) Disability-free Life Expectancy (DFLE) which defines healthy life as years free from limiting longstanding illness (LLTI).

In 2005–07 males in the UK could expect to live in ‘good’ or ‘fairly good’ health for 68.4 years at birth and females for 70.4 years. Looking across the three countries of interest to the EHRC, in all cases females had higher HLE at birth than males, though the gaps between males and females are smaller than for life expectancy indicating that a portion of the additional years lived by women are spent with 'poor health'.

England had the highest HLE at birth for both males and females (68.7 years and 70.7 years respectively), followed by Scotland (67.3 and 69.9 years respectively), with Wales having the lowest figures (67.1 and 69.1 years respectively). The relatively better figures for Scotland's HLE compared to its low life expectancy figures suggests that Scottish residents spend the least number of years of life in ‘poor’ health compared with residents of the other UK countries.

In 2005–07 males born in the UK could expect to live 62.5 years free from a LLTI, and females again had a slight advantage and could expect to live 63.7 years. Again, of the three countries of focus, England had the highest DFLE at birth for both males and females, and DFLE estimates for Scotland were the second highest for males and females at birth (61.7 and 63.2 years respectively).

Poor mental health and wellbeing

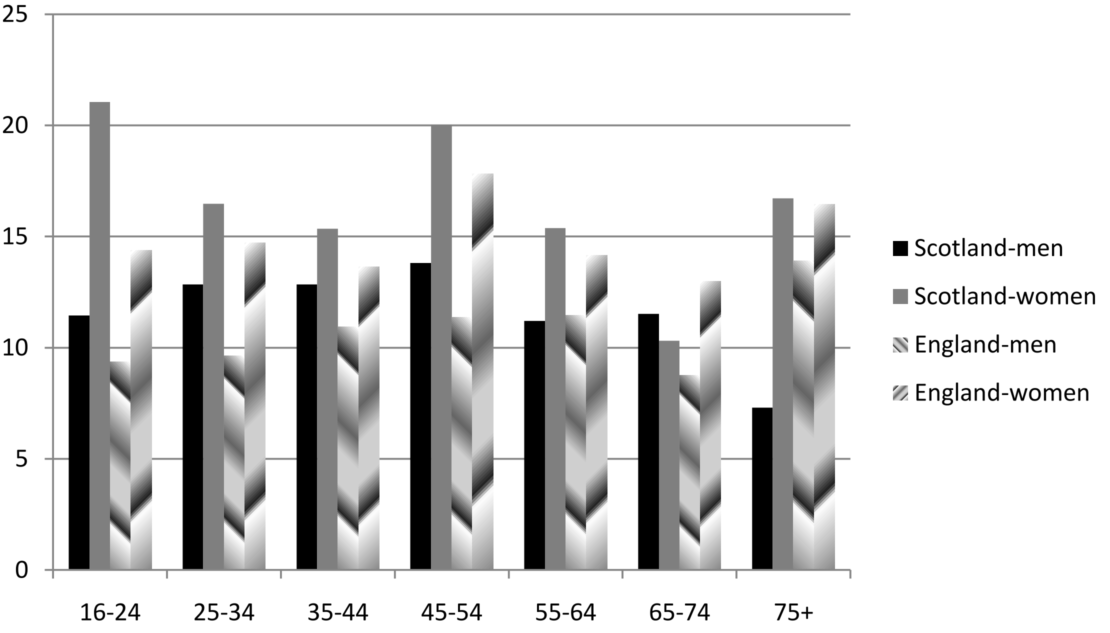
General population studies have found that the overall prevalence of mental illness does not differ significantly between women and men, though there are clear sex differences in the prevalence of specific disorders (Doyal et al. 2003). Anxiety, depression and eating disorders are more commonly reported in women; substance misuse and anti-social personality disorders are more commonly reported in men. Sex differences are also observed in the way in which women and men present with mental ill health. In contrast, schizophrenia and bipolar affective disorder do not show such clear gender differences in prevalence, though there is some evidence that schizophrenia may have an earlier onset and a more disabling course in men. Post-natal depression is experienced by a significant proportion of women and a smaller number suffer post-partum psychosis (Department of Health 2002).

A variety of general measures of poor mental health have been used in the UK. The EMF includes the use of a score of four or more on a standard set of questions known as the GHQ-12 to identify individuals with a probable common mental disorder (including depression and anxiety). This measure is available in the HSE 2008 and the SHeS 2008, but the MHS 2008 used a different measure of mental wellbeing - SF36(MHI-5) which has also been shown to be a robust measure of common mental disorders (See Chapter 3 Methods).

Poor mental health: current picture

In the HSE 2008, 10.6% of all men had GHQ12 score of 4+ compared to 14.9% of women, and in Scotland these figures were 12.4% of men and 17.1% of women, in both cases statistically significant differences. Figure 20 shows that in England and in Scotland at almost all ages, women were more likely than men to have a high GHQ-12 score (the single exception being in the Scottish sample of people age 65-74 years where the male rate was a little higher than that among females).

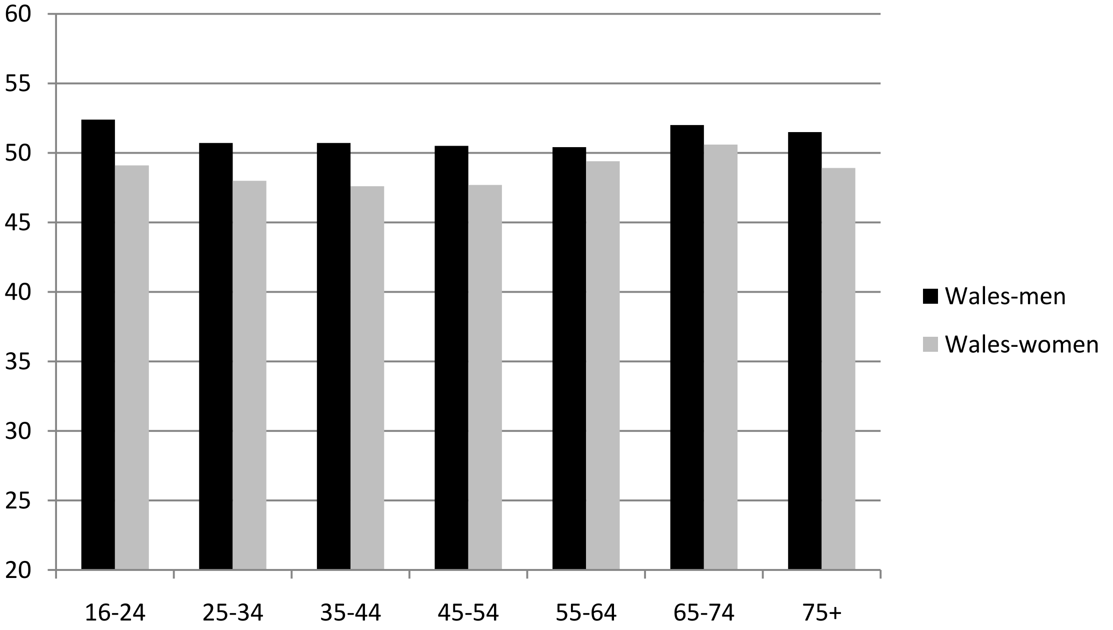
Figure 20: Percentage of people with GHQ-12 score of four or more by sex and age-group, England and Scotland, 2008



Source: HSE 2008, SHeS 2008 (authors' analysis).

The data available for Wales from the WHS 2008 show a similar pattern, with women consistently having a lower mean SF36 score, indicative of poorer mental health, than men (Figure 21).

Figure 21: Mean SF36 score by sex and age-group, Wales, 2008



Source: WHS 2008, authors' analysis. Lower score indicates poorer mental health.

Poor mental health: trends over time:

The proportion of all men and women with a GHQ12 score of 4+ according to the HSE series was 15% and 19% respectively in 1999, 11% and 15% in 2004, and 11% and 15% in 2008, suggesting a slight decrease over time for both sexes but a persistent sex gap. The proportion of men and women of different ages with a GHQ12 score of 4 + is available from the SHeSs of 1995, 1998, 2003 and 2008, reproduced in Table 11 below. However, no consistent patterns emerge over time and the differential between women and men persists across all age-groups and for all years.

Table 11: GHQ12 scores (percentage with score 4 or more), Scotland, 1995, 1998, 2003, 2008, by age and sex

GHQ12 score 4+	Age								
	16-24	25-34	35-44	45-54	55-64	65-74	75+	Total 16+	Total 16-64
Men									
1995	9	11	12	17	17	-	-	-	13
1998	9	12	13	12	20	11	-	-	13
2003	10	12	14	14	13	13	14	13	13
2008	12	13	13	15	12	11	7	12	13
Women									
1995	16	23	19	22	16	-	-	-	19
1998	17	18	19	20	19	15	-	-	19
2003	16	17	18	18	15	14	18	17	17
2008	20	16	17	21	17	11	16	17	18

SHeS 1995, 1998, 2003, 2008. Figures supplied rounded to nearest whole percentage

Under-reporting and under-diagnosis in men:

There are growing concerns that men's mental health problems may frequently remain undiagnosed and untreated (Wilkins 2010). It is likely that at least part of the consistent excess risk of common mental disorders among women may be explained by lower reporting among men. The higher rates of suicide among men than women reported above are consistent with such an explanation, though it has also been found that women have higher levels of attempted suicide than men and higher rates of hospital admission for self-harm. Regardless of these complications, it is increasingly recognised that the sociocultural constructions of masculinity, particularly acceptable 'masculine' ways of dealing with emotions and stress, undermine men's mental well-being. At the same time, these gendered norms and expectations are bad for women's mental health and wellbeing too, as is starkly illustrated by the fact that around 90% of domestic violence incidents are perpetrated by men and women are the victims of such violence in 85% of cases (Kershaw, Nicholas and Walker 2008). The BCS 2007/8 estimates that around 10,000 women are sexually assaulted, and 2,000 women are raped, every week. Younger women are more at risk of domestic violence than older women. It has been estimated that 19% of the total disease burden carried by women aged 15-44 in developed countries is the result of domestic violence and rape (Doyal, 2001).

Other specific health conditions of concern:

In addition to the core indicators identified in the EMF, it is important to highlight some other health conditions that are a cause for concern, particularly those that have a gendered dimension. Rising rates of diabetes are seen among both men and women across all three countries, though rates among men continue to be higher than among women.

The high levels of sexually transmitted infections (STIs) in the UK and substantial increases in infection rates over the past few years are a cause for concern. Incidence data relating to STIs are routinely collected in genitourinary clinics and collated by the Health Protection Agency (KC60 data). This is the best information available but it is limited because it is confined to a single service provider. These data indicate a greater burden of infection in males overall. In 2008, from a total of 399,738 new diagnoses of STIs in the UK, 232,031 (58%) were in males and 167,707 (42%) in females. The differences in diagnosis rates are most marked in relation to syphilis and gonorrhoea in males with particularly high rates of infection in men who have sex with men (MSM). The number of cases of syphilis being diagnosed has risen dramatically in recent years, with the greatest increase being in males. Chlamydia is also a health concern both in terms of the amount of infection and its potential complications. A national screening programme is in place for 15-24 year olds, managed separately across England, Scotland and Wales. In England, there has been higher uptake of screening among females than males. In 2008/9, 16% of 15-24 year old population of England were screened, and this constituted 24% of the female and 8% of the male population in that age-group. The proportion of positive cases among index cases (those who accepted opportunistic testing through the national screening programme) were found to be higher for women (8%) than men (6%) (Health Protection Agency 2009).

Maternal and reproductive health issues are a concern for some sub-groups of women, particularly new migrant women. Female Genital Mutilation presents particular health risks, but there is also evidence that maternal health more generally can be compromised for vulnerable migrant and minority ethnic women (See Chapter 7 Ethnicity for a fuller discussion of these issues).

HEALTH: Process indicators

Low perception of treatment with dignity and respect

Analyses of data from the 2007 Citizenship Survey of England & Wales performed for this report found no difference in the responses of men and women to the question *'In general, would you say that you are treated with respect when using health services?'*. 91% of both men and women in England & Wales answered 'all the time' or 'most of the time', with 9% of both groups saying 'some of the time or less'. There are, however, some doubts as to the usefulness of this question since the pattern observed by age - with very few older people reporting 'some of the time or less' - is inconsistent with other research that highlights the poor treatment of elderly patients.

Similarly, analyses of the Living in Wales Survey 2008 performed for this report found no difference between men and women in the percentages agreeing with the statement 'I was treated with dignity and respect' when referring to GP services - with just 3% of men and 4% of women disagreeing; or when referring to inpatient, outpatient or day case hospital experience - with 4% of men and 4% of women disagreeing. Again, the proportion disagreeing was highest among the youngest age-group for both men and women and declined steadily with increasing age for both the statement referring to GP treatment and that referring to hospital treatment. In the case of GP treatment, 13% of women and 6% of men aged 16-24 years disagreed compared to just 2% of women and less than 1% of men in the 75+ years age-group.

Better Together, Scotland's Patient Experience Programme, has undertaken recent surveys of patients in GP practices and in-patients but at present these data are not presented in a way that allows examination of potential inequalities by sex. A qualitative study of patient preferences and experiences within the Scottish NHS has recently been completed (Bruster 2008). Being treated with dignity and respect was identified by patients as an important dimension of GP care, but the study did not highlight any particular gendered concerns about lack of respect or dignity in treatment (Bruster, 2008). Two recent surveys were also commissioned in Scotland to inform the development of the GP service and in-patient experience surveys in that country. These surveys have produced some insights into the aspects of care that are most important to Scottish patients (McKissock 2008; Reeves and Bruster 2009). In the survey of GP users, respondents were more likely to rank 'having enough time', 'listening to me' and 'talking to me in a way that I can understand' as priorities for interactions with health professionals rather than 'being treated with dignity and respect'. In the survey of in-patients, respondents ranked cleanliness as the most important aspect of their care and experience, though being treated with dignity and respect was considered important along with prompt treatment in an emergency, getting the best treatment, doctors' clinical competence, and good information about their condition and treatment. It seems likely that these relative rankings may reflect perceptions of areas where services sometimes do badly as well as aspects that are inherently important to users. No significant sex issues were identified in these reports.

While the overarching Care Quality Commission reports do not draw attention to any important sex/gender issues in terms of treatment with dignity and respect, the specialist surveys of maternity services have highlighted some areas where women's experience of health services are less than satisfactory. The 2007 survey of women's experiences of maternity services in the NHS in England found that overall levels of satisfaction with services were high, with a majority of women reporting a positive experience, but also identified some areas of concern. For instance:

- during labour and/or at the birth of their baby, a quarter of respondents (26%) reported that they had been left alone by midwives or doctors at a time when it worried them and 30% did not always feel involved in decisions about their care
- 20% of women rated the overall care received after the birth of their baby as either "fair" or "poor"
- of those respondents who stayed in hospital after the birth, 42% said they were not always given the information or explanations they needed and 37% felt they had not always been treated with kindness and understanding

- of the respondents who stayed in hospital after the birth, over half (56%) said the hospital food was “fair” or “poor” and 19% said the toilets and bathrooms were “not very clean” or “not at all clean”.

The report of this survey also concluded that NHS services needed to do more to involve women in their maternity care (Healthcare Commission 2007).

Health-related behaviours and life-style factors

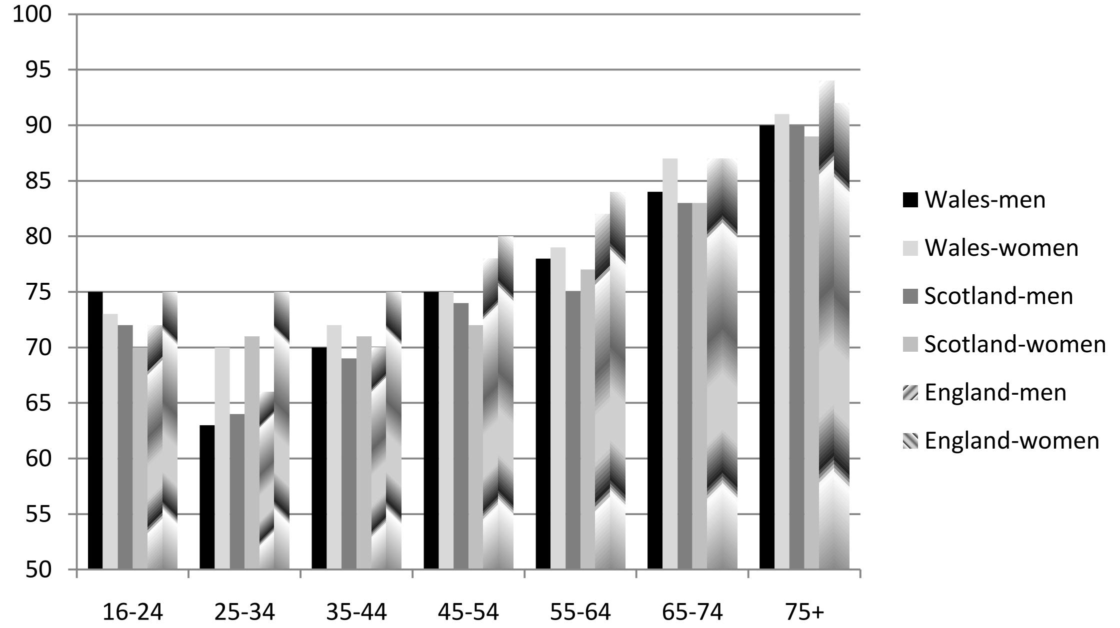
The HSE 2008, WHS 2008 and SHeS 2008 are used here to assess the current patterns across sex of the core EMF indicators of healthy life-styles. Wherever easily accessible, we also present trend data for the three countries by sex, although patterns over time may be difficult to discern where the questions and indicators have changed across survey periods. Furthermore, methods of age-standardization are not always consistently applied by analysts producing the published reports from these three national-level surveys.

Smoking

Percentage of people not smoking cigarettes: current picture

Figure 22 presents the percentage of people not currently smoking cigarettes by age-group and sex for Wales, Scotland and England. The sex patterns are complex across the ages and the countries, with no consistent picture. In England, women were less likely to report smoking than men at all ages except the oldest age-groups. In contrast, in Wales, women are more likely to be currently smoking than men in the youngest age-group - 16-24 years - though they are less likely, or have very similar rates of smoking to men, at all other ages. In Scotland too, the youngest age-group sees more women being smokers than men, though the sex patterns are varied across the older age-groups. That said, it is notable that the differences between the sexes are not large (and do not all reach statistical significance) except in the 24-35 year age-group.

Figure 22: Percentage of people who report not currently smoking cigarettes by sex and age-group, England, Wales and Scotland, 2008



Source: HSE, 2008, WHS 2008 and SHeS 2008.
Note: Figures include those who are ex-smokers and those who have never smoked.

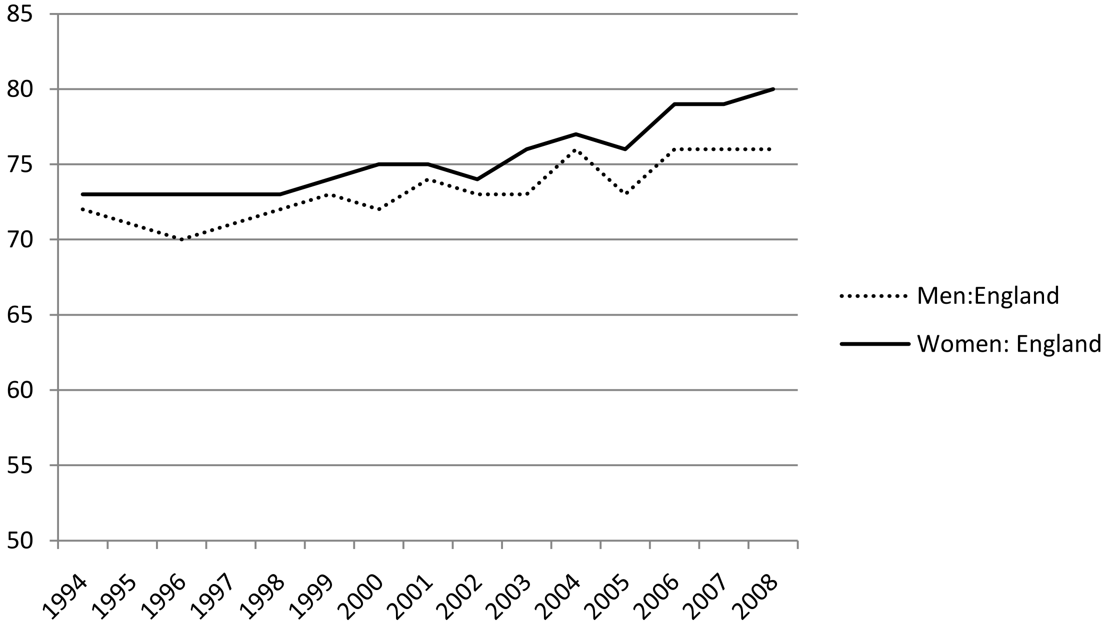
Percentage of people not smoking cigarettes: recent trends over time

Analysis of data for Great Britain from the General Lifestyle Survey (GLF, a part of the Integrated Household Survey IHS and previously the General Household Survey, GHS) reveals that there were sharp declines in the proportion of both men and women who smoke cigarettes in the 1970s and the 1980s but that the declines became less steep in the 1990s and levelled out. Since 2000 a slow and steady decline has resumed. Throughout the period in which the GHS has been monitoring cigarette smoking, the prevalence of smoking has been higher among men than women but the gap was far greater in the 1970s - around 10 percentage points - than in more recent years. In 2008, the difference between men and women was not statistically significant - 88% of men and 89% of women reported themselves to be *not* current cigarette smokers in the GLF (Robinson and Buglar 2008).

Trends produced using HSE data also show increasing proportions who report not smoking among both men and women in England since 1994. Again, men were more likely to smoke than women across the whole time period and recent estimates suggest a slight widening of the gap between men and women in the proportion who do not smoke (Figure 23).

Trend data are available from the SHeSs for 1995, 1998, 2003 and 2008 and show that the proportion of all men (aged 16-64 years) not currently smoking increased from 66% in 1995 to 71% in 2008. Among women the increase was from 64% to 72%. For Wales, we have trend data only for more recent years. The proportion of men (aged 16+) who do not currently smoke was estimated to be 73% in 2003/4 and 75% in 2008 and the proportion of women, 74% in 2003/4 and 78% in 2008.

Figure 23: Percentage of people reporting not currently smoking cigarettes by sex, England 1994-2008



Source: HSE latest trend tables **http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles-related-surveys/health-survey-for-england/health-survey-for-england--2008-trend-tables**

Age-specific trends are available from the HSEs from 1993 to 2008, though the estimates are rather volatile given the relatively small numbers involved. The upward trend towards fewer people smoking seems to be most consistent and pronounced among women aged 25-34 years, and the gap between the sexes has widened over time for this age-group.

Trends for Scotland are also available by age-group from the SHeS 1995, 1998, 2003 and 2008. Again, the trend over time in not smoking is more consistent for women aged 25-34 years than for other groups.

The HSE 2007 collected more detailed information on smoking practices and highlighted the fact that among current smokers men are more likely to smoke heavily than women. Male smokers reported smoking more cigarettes a day on average than female smokers (14.0 cigarettes and 12.4 cigarettes respectively) (Craig and Shelton 2008).

It is also worth highlighting the sex patterns in smoking that have been found among teenagers, since they diverge from those seen among adults. Data from the HSE series show that teenage girls are more likely to have ever-smoked and to be currently smoking than teenage boys at all ages between 12 and 15 years.
In a survey of school pupils in England in 2004, 26% of girls and 16% of boys aged 15 years reported smoking regularly (Westlake and Yar 2006). The HSE trend tables indicate a downward trend over time from 1997 to 2008 in the proportions of boys and girls who have ever smoked, though the proportion remains higher in girls than in boys. For boys, the proportion who had ever smoked was 18% in 1997 and 11% in 2008, and for girls the figures were 20% in 1997 and 13% in 2008 (NatCen UCL 2009).

In 2008, the Scottish Schools Adolescent Lifestyles and Substance Use Survey (SALSUS) reported that the proportions of 13-15 year-old girls and boys currently smoking has declined considerably from its peak in 1996. In 2008, it was estimated that 16% of 15 year old girls and 14% of 15 year old boys currently smoked (a difference that was not statistically significant) (NHS Scotland 2008b).

Overweight and obesity

Obesity is highlighted as an area of concern in public health policy documents (Scottish Government 2010, Welsh Assembly Government 2010, ScotPHO 2007a, Department of Health 2004). While obesity affects both men and women, some significant gender differentials are observed.

Proportion of people who are not overweight or obese: current picture

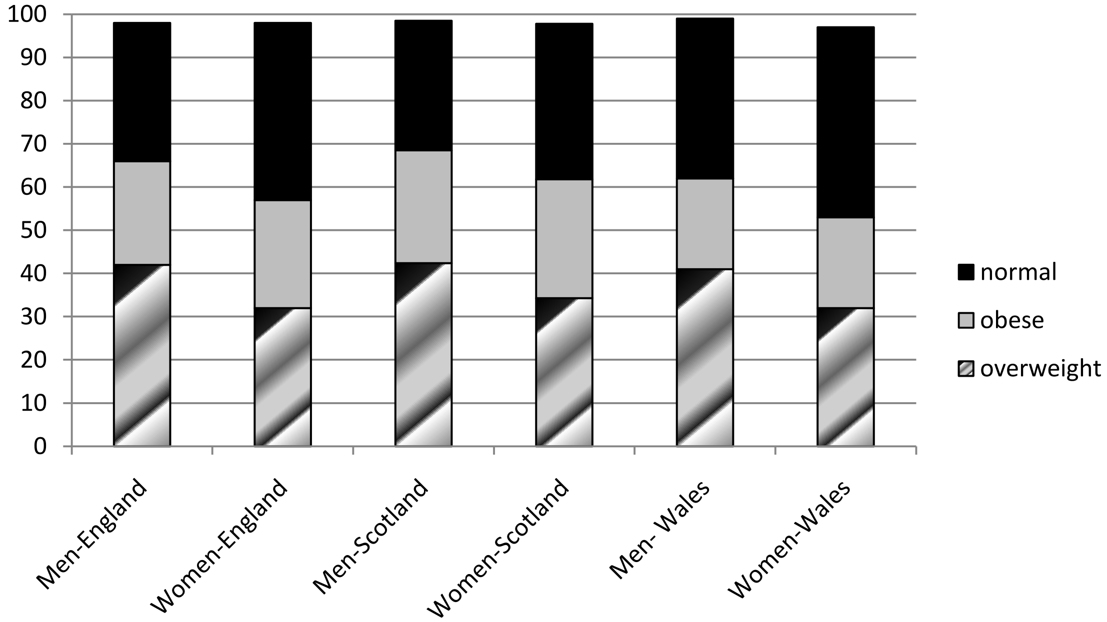
In terms of the EMF chosen indicator - the proportion of people who are not overweight or obese - men generally do worse than women across all three countries. The WHS 2008 reported that overall 62% of men aged 16+ years were overweight or obese (BMI of 25+), and 21% were obese (BMI of 30+), compared to 53% of women who were overweight or obese and 21% who were obese. Excluding the small number of people who are underweight, this means that 37% of Welsh men and 44% of Welsh women were found to be of 'healthy/normal weight' in 2008.

In the HSE 2008, overall 66% of men aged 16+ years were overweight or obese and 24% were obese, compared to 57% of women who were overweight or obese and 25% who were obese. Excluding people who are underweight, this means that 32% of English men and 41% of English women were found to be of 'healthy/normal weight' in 2008. However, using additional indicators that incorporate waist circumference measures, the HSE 2008 reported that 35% of men and 41% of women were at 'high' or 'very high' risk of chronic health conditions due to their obesity levels.

The SHeS 2008 found that overall 69% of men aged 16+ years were overweight or obese, and 26% were obese, compared to 62% of women who were overweight or obese and 28% who were obese. Excluding the small number of people who are underweight, this means that 30% of Scottish men and 36% of Scottish women were a 'healthy/normal weight' in 2008.

Figure 24 contrasts these levels of overweight, obesity and healthy weight by sex across the three countries. The stacked bars illustrate that across all three countries a higher proportion of men than women are overweight or obese, but that this differential is explained by the greater proportion of men who fall into the overweight category (BMI 25 to less than 30). Levels of obesity were highest in Scotland for both men and women, and Scottish women had the highest level of obesity among all the sub-groups.

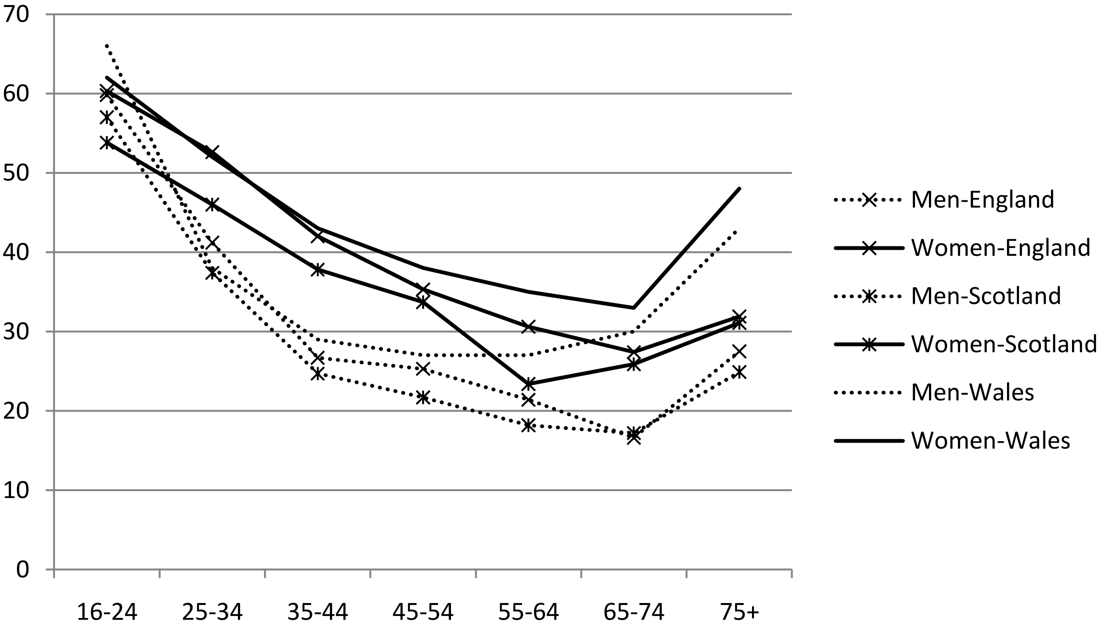
Figure 24: Percentage of people overweight, obese and with normal weight by sex, England, Scotland and Wales, 2008



Source: HSE 2008, SHeS 2008, WHS 2008
Notes: Overweight is categorised as BMI 25 to less than 30, obese as BMI over 30, and normal weight as BMI 18.5 to less than 25.

Looking across the age range, the proportion of men and women with a normal weight declines gradually with increasing age up to the age-group 65-74, and then rises again among the oldest, 75+ years, age-group across all three countries and for men and for women (Figure 25).

Figure 25: Proportion of people with 'normal/healthy' weight by age-group and sex, England, Scotland and Wales, 2008



Source: HSE 2008, SHeS 2008, WHS 2008
Notes: Normal weight includes those who are not overweight, obese or underweight.

European comparisons:

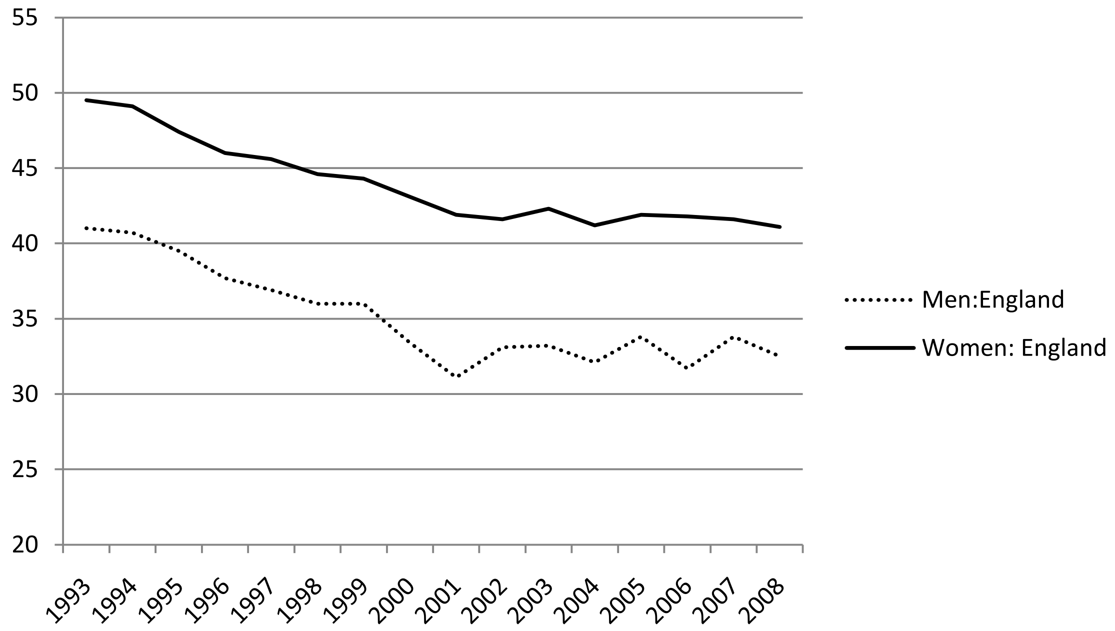
The prevalence of obesity in England, Scotland and Wales is high in comparison with EU-15 countries (countries that were EU members prior to 2004) and the wider OECD group of nations (Sassi, et al. 2009). Scotland has one of the highest levels of obesity in OECD countries; only the USA and Mexico having higher levels (Scottish Government 2010).

Proportion of people with normal weight: trends over time

Analyses of data from the HSE, WHS and SHeS series allow some exploration of trends over time in levels of obesity and normal weight by sex.

In England, between 1993 and 2008, the proportion of men and women recording a normal or healthy weight declined steadily, though the gap between men and women remained roughly stable (Figure 26). This decrease is explained by the rapidly rising proportions of people in the obese category - from 13% in 1993 to 24% in 2008 among men, and from 16% to 25% among women in the same time period, while the proportions who are 'overweight' have remained fairly stable over time. Clearly, the gap between men and women in the proportion obese has declined over time, since men's obesity levels have been increasing more rapidly than women's.

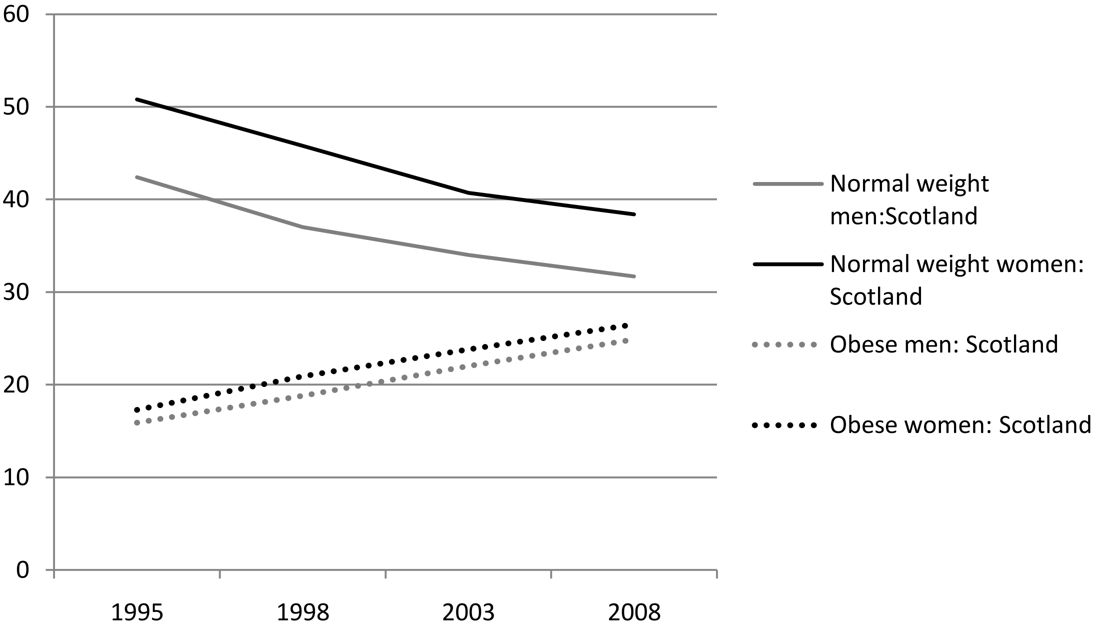
Figure 26: Percentage of people with 'normal/healthy' weight by sex, England 1994-2008



Source: HSE latest trend tables http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles-related-surveys/health-survey-for-england/health-survey-for-england--2008-trend-tables

In Scotland too, the prevalence of normal weight has decreased and the prevalence of obesity has increased over the past two decades among both men and women (Figure 27). There is some evidence that women's level of obesity is increasing faster than that of men in Scotland (Scottish Government 2009a), in contrast to the picture in England.

Figure 27: Percentage of people who have 'normal/healthy' weight and who are obese by sex, Scotland 1995, 1998, 2003 and 2008



Source: SHeS 2008 report.

Trend data for Wales are only available from 2003/4 to 2008. Among men, the proportion found to be obese was 17% in 2003/4 and rose steadily to 21% in 2008, and the figures for women were 18% in 2003/4 and 21% in 2008. The proportion of men who were not overweight or obese was 41% in 2003/4 and dropped to 38% in 2008, with the corresponding figures for women being 51% in 2003/4 and 47% in 2008 (though, as noted above, these figures include around 2-3% of people who are classified as underweight).

Age-specific trend data do not reveal any important differences by age. In general, levels of obesity are rising, and levels of normal weight declining, across all age-groups and both sexes, across all three countries.

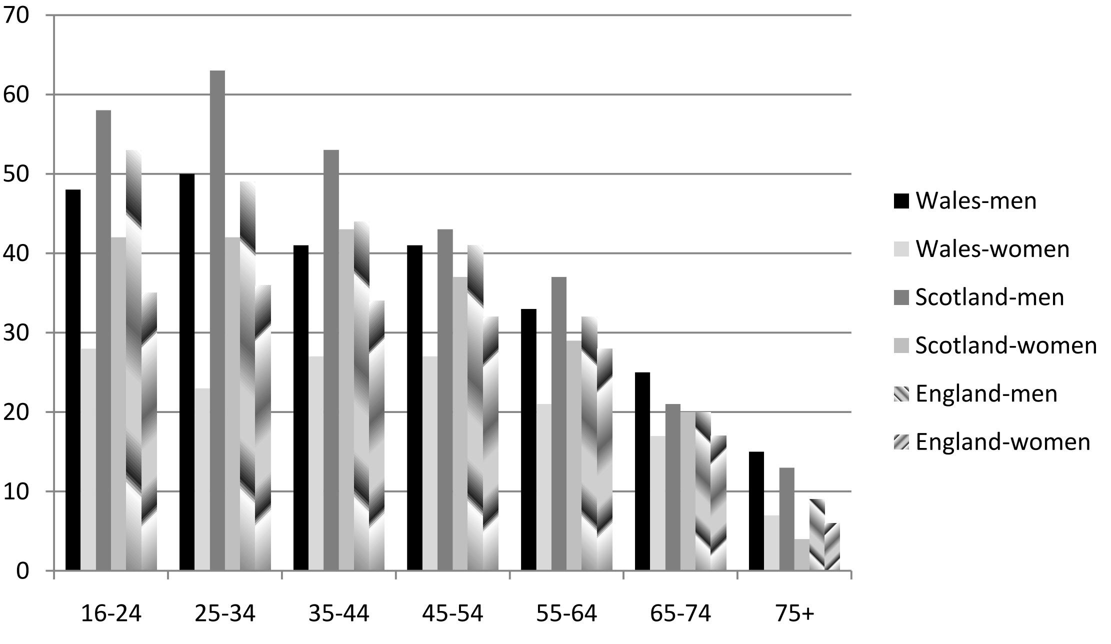
Physical activity

The collection of data on physical activity through self-reports in standard face-to-face questionnaires is difficult and recent analyses of detailed data from the HSE 2008 have illustrated the significant over-estimation that occurs when self-reports are taken as indicative of actual physical activity (see below). Nevertheless, for the purposes of comparing between men and women, self-reports may illustrate the existence of important sex differences even if the absolute levels are poor estimates.

Proportion of people meeting government guidelines on physical activity: current picture

Taking data from HSE 2008, SHeS 2008 and WHS 2008, we find that the proportion of men who report that they meet the government's recommendations for the minimum level of activity to achieve health benefits exceeds that of women at every age-group across all three countries (Figure 28). Sex differences are particularly large at the younger ages and decline from age 45 years onwards. Regardless of the sex differential, it can be seen that in almost all sub-groups less than 50% of people are meeting the government guidelines. Since the Scottish survey employed a slightly different measure, it is likely that the noticeably higher levels reported for Scottish men in the younger age-groups are not strictly comparable with the other two countries.

Figure 28: Proportion of people meeting government recommendations for weekly physical activity by sex, England, Scotland and Wales, 2008



Source: HSE 2008, SHeS 2008 and WHS 2008
Note: The measures are not directly comparable across the surveys since they were computed slightly differently. In the SHeS figures bouts of 10 minutes or more have been accumulated to meet the 30 minutes, 5 times a week threshold, whereas in the HSE episodes of activity less than 30 minutes are excluded. In the WHS, the measure represents five or more days in which 'at least moderate exercise/activity' was undertaken

A more detailed picture from HSE 2008:
The HSE 2008 focused on physical activity and fitness and collected data through self-reported activity, objective measures of activity and also fitness tests on a sub-sample of respondents. Across all the measures, consistent sex differences were seen with men being found to be more active than women. Based on self-reported information, 39% of men and 29% of women aged 16 and over met the government's minimum recommendations for physical activity. However, when actual physical activity was measured using an accelerometer, just 6% of men and 4% of women met the current government recommendations of 30 minutes moderate exercise 5 times a week. Young adults aged 16-24 years were most likely to have met the recommendations, but here too more men (11%) than women (8%) had achieved the target. The proportion of both men and women meeting the recommendations fell in the older age groups. Cardiovascular fitness was assessed among a sub-sample of survey participants aged 16-74, using a step test. 32% of men and 60% of women were not fit enough to sustain walking at 3mph up a 5% incline, and were classified as 'unfit'. The survey found that the proportion of people being classified as 'unfit' increased significantly with age. Among children, physical activity levels were much lower among teenagers than among younger children, and there were large and statistically significantly differences between teenage girls and boys with girls being less likely to take recommended levels of exercise (Craig, Mindell and Hirani 2009).

Interestingly, the HSE has found that a high proportion (60-70%) of men and women across all age-groups reported that they would like to do more exercise, and that more women than men report wanting to take more exercise in all age-groups. There were also sex differences in reasons cited for not doing more exercise with women being more likely to report 'caring for children' and 'lack of leisure time' and men being more likely to report 'work commitments'.

Proportion meeting government recommendations for physical activity: trends over time
Analyses of trend data from the HSE series allow trends over time in physical activity levels to be examined for 1997, 1998, 2003, 2004, 2006 and 2008. These data indicate that between 1997 and 2008 the proportion achieving recommended levels of physical activity according to self-reports has increased, from 32% in 1997 to 39%

in 2008 for men, and from 21% to 29% for women. The increases appear to have occurred across all age-groups of women, though the rises were greatest at younger and older ages. Among men too, large increases were seen across all age-groups except the youngest, 16-24 years, where the increase was more modest. However, as noted above, more objective measures suggest much lower levels of physical activity among both sexes.

In Scotland, comparable trend data are available for 1998, 2003 and 2008. There was an increase for men and women over this period in both the proportions meeting the recommendations and in overall levels of physical activity. Both men and women aged 16 to 74 saw an increase of 6 percentage points in the proportions meeting the physical activity recommendations between 1998 and 2008: from 40% to 46% among men, and from 29% to 35% among women, a significant change. The increase in the proportion meeting the recommendations occurred across all age groups among women, and appears to have been largest in the oldest age-groups. In contrast, the largest increases for men were among those aged 25-34 and 35-44, both of which saw rises of 10 percentage points meeting the recommendations. However, this pattern was not evident among men aged 16-24, among whom the proportion meeting the recommendations remained constant at 57%.

Trend data for Wales are available for 2003/4 to 2008. These data show that among men the percentage meeting the exercise guidelines has fluctuated between 36% and 38% over the period. For women, the percentage has also fluctuated with no clear trend between 22% and 25%.

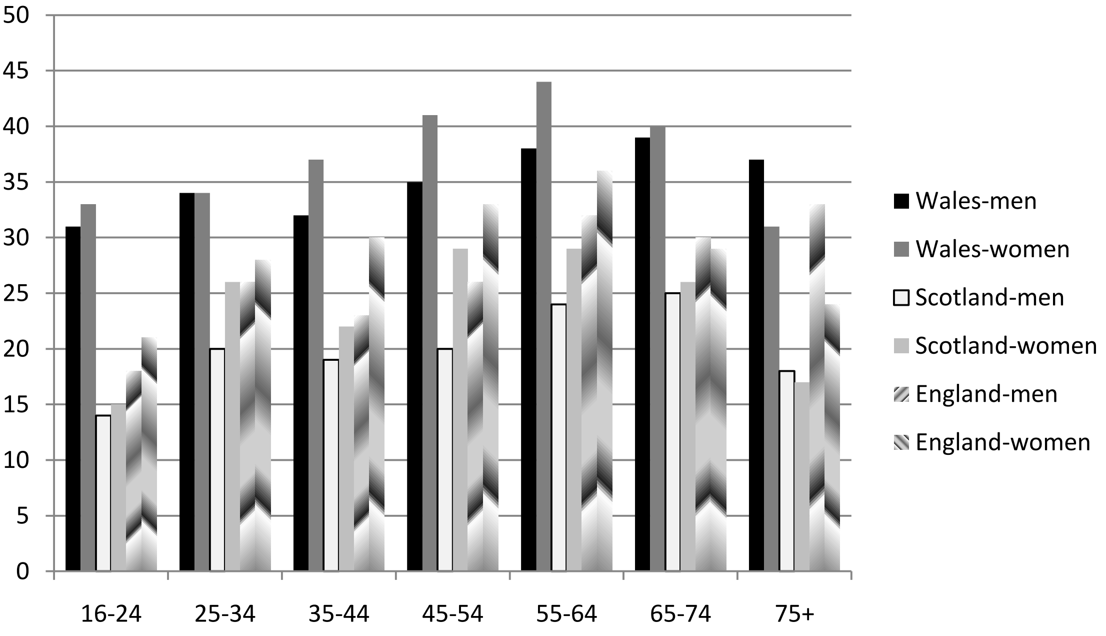
Healthy eating

The EMF core indicator of healthy eating is the proportion of people who reported eating five or more portions of fruit or vegetables a day (the current government guideline). This measure is produced in the health surveys for England, Scotland and Wales from a list of questions about types and quantities of food eaten.

Proportion eating '5 a day': current picture

The SHeS 2008 found that overall 20% of men over 16 years and 24% of women reported eating five or more portions of fruit or vegetables a day. In the WHS 2008, these figures were higher, at 35% of men and 37% of women, and in the HSE 2008, 25% of men and 29% of women reported eating 5 a day. Figure 29 plots the age-specific proportions by sex. While a higher proportion of women than men meet the guideline amounts across the age-groups up to 55-64 years, at the older ages women seem not to be at an advantage and even to be less likely to meet the guideline than men.

Figure 29: Proportion of people meeting government recommendations for daily fruit and vegetable consumption by sex, England, Scotland and Wales, 2008



Source: HSE 2008, SHS 2008 and WHS 2008
Notes: Measure was based on the reported number of portions of fruit and vegetables consumed in the day prior to interview.

A more detailed picture from HSE 2007:

The HSE, 2007 focused on the general public's attitudes towards smoking, drinking, eating and physical activity and highlighted a number of important sex differences. A far higher proportion of women (78%) than men (62%) were able to state that the recommended number of portions of fruit and vegetables per day is five, though, as described above, the sex difference in actual consumption is far smaller. When asked about attitudes towards healthy eating, more women than men agreed with the statements 'healthy foods are enjoyable' and 'I really care about what I eat'. A higher proportion of men than women said that they added salt to their food at the table without tasting it first (18% compared with 13%). Overall, 63% of women and 58% of men reported that they rarely or never add salt to food. Around 70% of male and female survey respondents believed their diet to be 'quite' healthy, though women were more likely to consider that they had a 'very' healthy diet (19% compared with 16% in men) and less likely to report their diet as 'unhealthy' (8% compared with 12% of men). More men than women agreed with the statements 'I get confused over what's supposed to be healthy and what isn't' (30% compared with 24% of women) and 'If you do enough exercise you can eat whatever you like' (20% compared to 14%). Respondents who stated that they would benefit from making changes to their diet were asked about any barriers that would prevent making such improvements. The most common barriers were 'I don't have enough time', 'It is hard to change my eating habits' and 'It costs too much', with very similar proportions of men and women reporting each of these.

Proportion eating '5 a day': trends over time

The HSE trend data illustrate that among both men and women the proportion who consumed five or more portions of fruit and vegetables per day remained generally steady between 2001 and 2004, but then increased significantly in 2005 and 2006 among both men and women to a similar extent. Among men the proportion rose from 22% in 2001 to 28% in 2006, and from 25% to 32% for women. However, the percentage declined again to 25% of men and 29% of women in 2008. Throughout the period women were more likely than men to report that they eat the recommended quantity of fruit and vegetables, though the differences are not large.

In Scotland, we can compare the reports for 2003 and 2008 only. For all men, the proportion eating the recommended amount was 20% in both 2003 and 2008. For all women, these figures were 22% and 24%.

It is not possible to examine trends over time for Wales since changes in the question wording make the data incomparable.

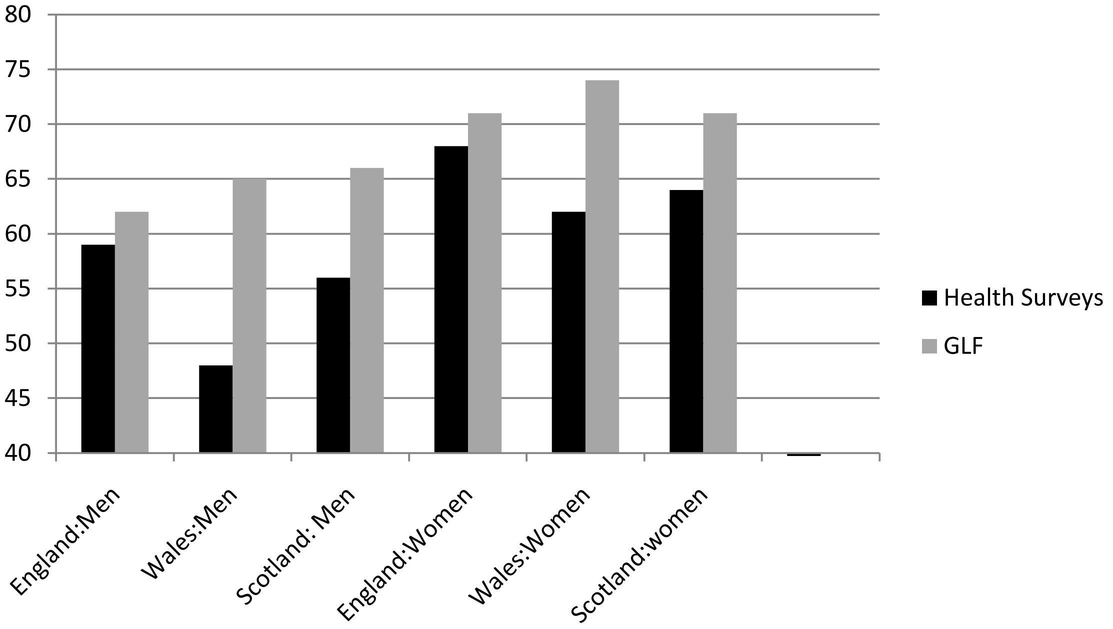
Alcohol use

The EMF identifies one of its core indicators as the 'percentage of people not drinking more than the recommended amount of alcohol'. The current Department of Health guidelines about sensible drinking are that men should not drink more than 3 - 4 units of alcohol per day, and women no more than 2 - 3 units (Department of Health 2010) .

Proportion of people not exceeding government drinking guidelines: Current picture
Data from 2008 from varied sources consistently indicate that a lower proportion of men than women reported drinking only within government guidelines. In England, the HSE 2008 found that overall 59% of men aged 16 years and over and 68% of women reported that they did not drink above government guidelines on any day in the week prior to interview. In the WHS 2008, these figures were 48% of men and 62% of women, and in the SHeS 2008, 56% of men and 64% of women. All these differences were statistically significant.

Data from the GLF (GHS) for 2008 show a slightly different pattern across the three countries to that from the three health surveys, and, though the direction of the sex differences are consistent, the size of the gap between men and women varies between the data sources (Figure 30). The differences between the two data sources are most marked for Wales, and particularly for Welsh men.

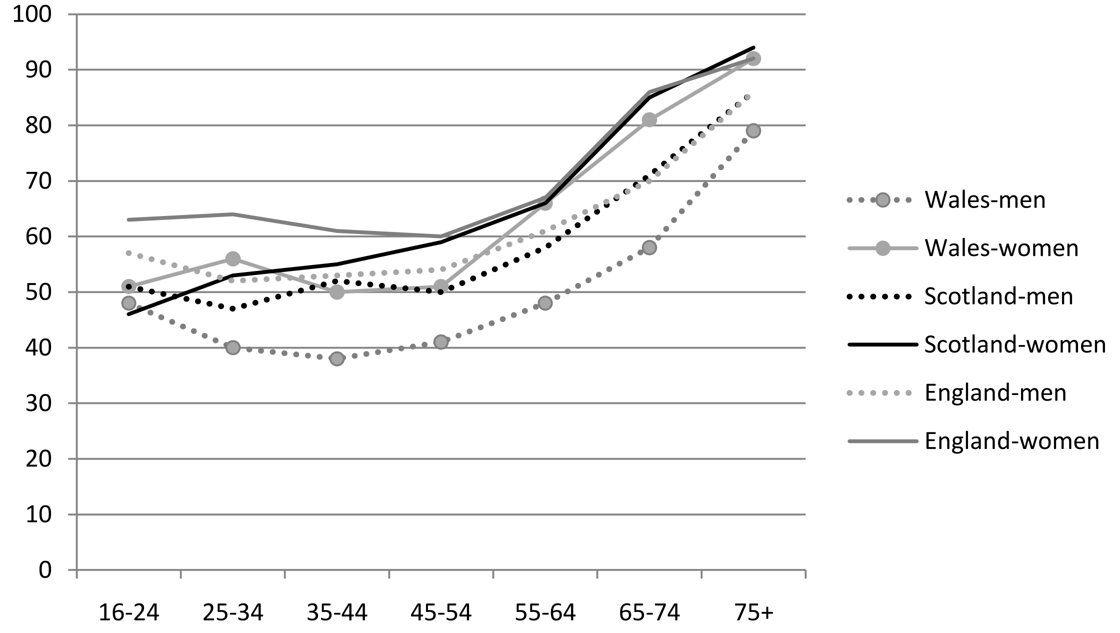
Figure 30: Proportion of people reporting drinking within guidelines even on heaviest drinking day in past week by sex, England, Scotland and Wales, GLF and HSE/SHeS/WHS data compared



Source: GLF08
http://www.statistics.gov.uk/downloads/theme_compendia/GLF08/GLFSmoking&DrinkingAmongAdults2008.pdf ; HSE 2008, SHeS 2008 and WHS 2008.

Figure 31 presents the age-specific percentages by sex across the three countries using the health survey data. There is only one sub-group where women are less likely than men to drink within guidelines - among Scottish 16-24 years olds 46% of women compared 51% of men reported drinking within the limit. Among both men and women in the three countries the proportion drinking within the guideline amounts is fairly stable up to age-group 45-54, though differentials across the countries can be seen. Beyond age 55, there is a steady increase in all sub-groups with age in the proportions who report that their drinking in the past week, even on the heaviest day, was within government guidelines.

Figure 31: Proportion of people not exceeding government recommendations for alcohol consumption by age-group and sex, England, Scotland and Wales, 2008



Source: HSE 2008, SHeS 2008 and WHS 2008
Notes: The three surveys appear to have employed very similar methods for collecting and computing this variable. In the WHS 2008, respondents were asked to indicate how many measures of each type of alcohol from a list they had consumed on their heaviest drinking day the previous week. 'Within guidelines' includes those who did not drink, and men drinking no more than 4 units, women no more than 3 units, on any day in the previous week.

A more detailed picture from HSE, 2007:

In the HSE 2007 a number of additional questions were included that help to provide a more detailed picture of alcohol use. This survey found that 90% of men and 84% of women said they drank alcohol at least occasionally and the majority of adults had drunk alcohol in the last week: 73% of men and 57% of women. This included 22% of men and 13% of women who reported that they had drunk alcohol on five or more days in the last week. Frequent drinking was most common among men and women aged 45 and over and in higher income households. Among those adults who drank in the last week, the majority exceeded recommendations on at least one day; 59% of men and 55% of women had done so. 35% of men and 27% of women had drunk more than twice the recommended levels on at least one day in the last week. This heavy drinking was most commonly reported among the youngest age group (56% of men and 52% of women aged between 16 and 24), and declined with age. Average consumption was also highest among young adults and declined with age. Most adults (92% of men and 89% of women) had heard of 'units' as a way of measuring the volume of alcohol being consumed, but there was less knowledge of the recommended maximum daily intake or the alcoholic content of particular drinks.

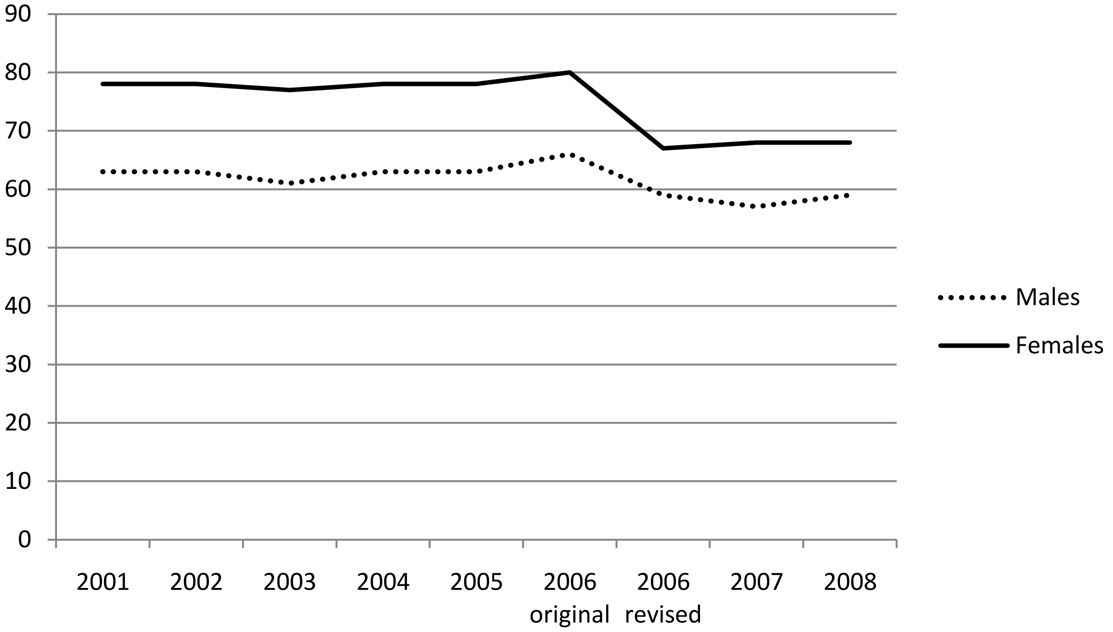
Proportion of people not exceeding government drinking guidelines: trends over time

Data from the GLF for Great Britain as a whole have been used to explore trends over time in drinking behaviour whilst taking into account changes in methodology (Robinson and Buglar, 2008). The changes can be summarised as follows. The proportions of men exceeding four units and women exceeding three units on their heaviest drinking day were fairly stable between 1998 and 2004 but have since fallen. Using the original method of converting to units, the figures show falls for both men and women between 2004 and 2006. Using the revised method, the figures show a continuing downward trend. The proportion of men exceeding 4 units on their heaviest drinking day was 41% in 2007 and 37% in 2008. The proportions for women exceeding three units were 34% in 2007 and 32% in 2008. This suggests that a growing proportion of people are drinking within the government guideline, but that the increases in recent years have been smaller among women than men, so that the sex gap is declining over time.

The most marked changes have occurred among men aged 16-24 years where the proportion drinking more than 4 units on their heaviest drinking day fell from 50% in 2000 to 39% in 2006. However, since the introduction of the revised methodology in 2006, the figures have been fairly stable. There have also been large falls for women aged 16-24 years, with the proportion drinking more than 3 units on their heaviest drinking day falling from 42% in 2000 to 34% in 2006. It is too soon to tell whether this trend will continue under the revised methodology since the recent changes observed between 2006 and 2008, though still downwards, are not statistically significant.

Figure 32 presents figures taken from the HSE 2008 latest trend tables that show the trend over time from 2001 to 2008 for England alone. It is important to remember that from 2006 changes were made in the way the HSE and other surveys estimated alcohol consumption. For both men and women the proportion of people drinking within government guidelines remained roughly constant from 2001 to 2006 using the old measures. However, using the new measures from 2006 onwards, the proportion drinking within guidelines is estimated to be rather lower, and the gap between men and women to be smaller. The levels appear to be roughly constant between 2006 and 2008.

Figure 32: Proportion of people reporting drinking within government guidelines even on heaviest drinking day in past week by sex, England 2008



Source: HSE 2008 latest trend tables.
Notes: Changes in data collection and computation methods compromise comparisons over time. Original and revised estimates are given for 2006

Trends over time in this particular indicator of alcohol consumption cannot be produced for Wales since changes in question wording make the figures across years incomparable, and this survey question has only been fielded in recent years. The SHeS 2008 has reported 'estimated usual weekly alcohol consumption' between 2003 and 2008, despite the potential problems in drawing strict comparisons over this period. For men as a whole, the percentage who reported consuming over 21 units per week (that is above recommended weekly levels) was 34% in 2003 and 30% in 2008. For women, the percentage who reported consuming over 14 units per week (that is above recommended weekly levels) was 23% in 2003 and 20% in 2008. Among men and women, a decline was reported for all age-groups except the youngest, 16-24 year olds, among whom there was an increase from 36% to 41%

among men and from 32% to 37% among women. The overall mean number of units consumed weekly also declined from 20.3 to 18.0 among men, and from 9.1 to 8.6 among women, between 2003 and 2008 (though these changes are not statistically significant). These declines were again seen across all age-groups except the youngest, 16-24 years, where there was an increase in the mean for both men and women - a finding that is noticeably out-of-sync with the broader British trends described above. Given that the change to the methodology for calculating units consumed tends to increase the estimates of alcohol consumption, the apparent general declines among both men and women over this period may even be more pronounced.

Harmful drinking:

In addition to describing the patterns of 'sensible' drinking as above, it is of interest to explore the levels of so-called 'harmful drinking', usually defined as exceeding 50 units per week for men and exceeding 30 units per week for women, as well as 'heavy' or 'binge drinking' which is usually defined as consuming more than twice the recommended amount on any particular day.

Data from GLF for Great Britain as a whole show that among men 21% reported drinking heavily (more than eight units on at least one day in the previous week) in 2008 compared to 14% of women (more than six units on at least one day in the previous week). There was little change between 1998 and 2004 in the proportion of men drinking heavily, but since 2004 this proportion has fallen, and using the revised methodology seems to be continuing to decline. There appears to be a similar downward trend in the proportion of women drinking heavily. Again, the most pronounced changes have occurred among the youngest age-group of men and women. Between 2000 and 2006, the proportion reporting 'heavy' drinking fell from 37% to 27% among men and from 27% to 20% among women. Though recent data for 2007 and 2008 suggest a continuing downward trend, numbers are small and it is too soon to tell whether the trend will be sustained.

The SHeS has also administered the CAGE questionnaire (Mayfield, McLeod and Hall, 1974) to participants aged 16 and over; a tool that was self-completed and designed to highlight up to six indicators of problem drinking, including three indicators of physical dependency on alcohol. In 1998, 12% of men and 5% of women reported two or more indicators of potential problem drinking. In 2003, these figures were 13% and 7% and in 2008, 16% and 11% respectively. This apparent increase in the proportion of people with drinking problems is a cause for concern, particularly among women and younger people where the increase has been greatest, and warrants further investigation.

Teenage drinking:

Teenage drinking patterns also suggest that the gap between males and females in both the proportion of people who drink alcohol, and the volume of alcohol consumed by drinkers, is closing. In 2004 in England, among both boys and girls aged 11 to 15, 23% drank alcohol in the previous week, whereas before 2004 the percentage had been higher for boys than girls. There is also evidence that the volume of alcohol consumed regularly among teenage drinkers is rising more steeply among teenage girls than teenage boys in England (NHS Scotland 2008b). The Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS) 2008 found that girls aged 15 were slightly more likely than boys to report ever having an alcoholic drink - 83% compared to 80%. However, there was no sex difference in the proportions who reported having alcohol in the past week (a little over 30% in both sexes), and there has been a steady decline in the proportion of teenagers drinking since 2002, when girls were more likely than boys to be regular consumers of alcohol.

HEALTH: Autonomy indicators

None of the EMF core quantitative indicators directly relate to autonomy. We discuss issues of autonomy in the Discussion section below.

Cross-over themes and vulnerable groups

Important intersections are evident between sex/gender and most or all of the other equality strands, though evidence is limited in most areas. While we show below that sex and gender interact in complex ways to undermine the capabilities of *both* men and women to live long and healthy lives, it is women who, by-and-large, stand out as experiencing particular vulnerabilities when we explore intersections with other axes of inequality.

The social construction of gender roles, responsibilities and expectations are often closely tied to ethnic identities, and women's norms of behaviour in particular are often taken as symbols of ethnic group inclusion and exclusion (both by those within and outside of particular ethnic groups). Therefore, it is not surprising that gendered patterns of health-related behaviour, as well as gendered health experiences and outcomes, vary between ethnic groups. This is illustrated in some of the indicators presented in Chapter 7 on ethnicity - for instance patterns of smoking across sex vary importantly between ethnic groups. That said, some sex differences are seen across all ethnic groups - such as women's disadvantaged position in relation to healthy levels of physical activity. There is evidence that some sex patterns of health service use differ across ethnic groups while others are similar (Doyal, et al. 2003). Also, while women in general may feel poorly respected within the healthcare system, this is a particular issue for some minority ethnic women (Bharj and Salway 2008). Importantly also, the more constrained access to material and social resources that women face in comparison to men may be particularly extreme for women from some minority ethnic groups. Platt et al. (2008) have described the varied household structures across ethnic groups and the co-incidence of ill-health, caring and childcare that occurs within many Bangladeshi and Pakistani households with consequent heavy workloads and potential isolation for women. Aspinall and Watters (2010) have highlighted the vulnerability of refugee and asylum seeker women to domestic violence arising from a lack of family and community support.

Parry et al. (2007) have noted the high levels of psychosocial stress and mental ill-health experienced by Gypsy and Traveller women. The interplay of gendered and ethnic identities in relation to health experiences and outcomes are clearly important but have not to-date been well articulated even in research that has focused on a concern with gender issues (Doyal et al., 2003).

Older women, particularly those from some minority ethnic groups, experience higher levels of long-term limiting illness than men. However, there are areas where older men may also lose out, for instance in their relative lack of social support and greater isolation (Sixsmith and Boneham, 2002).

As shown in Chapter 5 on Disability, the healthcare experiences and health outcomes of learning disabled people are poor. Clearly, the particular issues faced by learning disabled people will vary according to their sex/gender. For instance, there is evidence that learning disabled women have very low uptake of cervical screening (Disability Rights Commission; Wood and Douglas 2007). It is likely also that the way in which services respond to the needs of these patients will be shaped by sex/gender as well as disability-related issues, though there has been little detailed exploration of these inter-sections to-date.

There are complex intersections between sex/gender related inequalities and those that relate to sexuality. A number of health concerns are highlighted in Chapter 6 on LGB issues, including: high rates of STIs, including syphilis and gonorrhoea, in MSM and low uptake of cervical screening among lesbian women. It is also suggested that the higher levels of suicide among young men may be linked to the vulnerability of young gay men. The healthcare experiences of lesbian and gay patients are likely to be influenced both by their gender identity and their sexuality. However, the ways in which sex and gender inter-relate with sexuality to produce differential experiences and outcomes require further investigation. There are also likely to be intersections between gender and transgender in relation to health outcomes, service design and delivery, though these have to-date been little explored.

Discussion

What are the inequalities? How persistent and how worrying are they?

Though men and women share many health risks, there are some marked differences between men and women in their patterns of morbidity and mortality.

Life expectancy at birth has been steadily rising for males and females over the past 25-30 years and the gap between males and females has declined over time. Nevertheless, female advantage persists across all countries of Great Britain.
The leading causes of death are the same for men and for women across all three countries, though age-patterns of onset differ and men's mortality rates are higher overall.

The high suicide rates among young men in Britain, particularly in Scotland, are a persistent concern, though recent evidence does suggest some decline.

While the level of maternal mortality is not an issue of concern in the general population, maternal mortality among minority ethnic and migrant women is worryingly high.

Sex differences in morbidity are complex and often difficult to interpret. General measures of poor health are affected by the fact that men and women may assess and report their health differently. However, self-reported measures of general health suggest moderately higher levels of ill-health among women than men.

Overall prevalence of mental illness does not vary significantly between women and men, but clear sex differences are found in specific disorders. For men, there are particular concerns around the under-diagnosis and lack of treatment for mental health problems which are believed to account, at least in part, for the much higher risk to men of: becoming homeless, being imprisoned, becoming drug dependent and being involved in violence. For women, there are particular concerns around the high levels of domestic and sexual violence and its links to poor mental and physical health.

Are there any emerging trends?

We have presented trend data above under each indicator where they are available. Here we highlight a number of the issues that are currently gaining attention.

There have been sweeping changes in women's and men's lives in past twenty to thirty years. However, it is clear that there is no unidirectional movement towards more egalitarian inter-personal relationships and more equal opportunities and outcomes for women. While there is evidence that women have increasing choice and control over some aspects of their lives, this has brought with it new health risks as reflected in the higher rates of smoking and problematic alcohol consumption among younger women. At the same time persistence of gendered inequalities in power, particularly within intimate relationships, is reflected in domestic violence with the concomitant adverse health impact which falls disproportionately on women (Doyal 2001, Kershaw, Nicholas and Walker 2008). For men too, societal changes have brought both positive and negative health consequences.

Changing expectations have brought to the fore new concerns about aspects of men's lives that were previously largely unchallenged - such as men's involvement in their children's lives and the implications of this for their own health and wellbeing (as well as for their children's development).

Demographic changes bring new gender issues into focus, particularly the ageing population and older women's health issues and increasing migration and diversity and the vulnerabilities of migrant women.

What are the causes?

Patterns of morbidity and mortality among men and women are shaped by a complex array of factors relating to both their biological sex and their socio-cultural gender. We highlight below some of the main processes - operating at individual, family, health system and wider societal levels - that appear to impact upon men's and women's health and healthcare experiences differentially, though evidence is patchy in some areas.

Biological sex differences

It is self evident that biological differences account for some of the differences in disease patterns between men and women and therefore contribute to the observed differences in health outcomes described above. Anatomical differences result in sex-specific conditions such as prostate cancer and cervical cancer which are significant causes of morbidity and mortality for males and females respectively. The burden of reproductive ill-health falls overwhelmingly on women. Sex-specific physiological differences also provide explanation for differences in prevalence rates and patterns of several other diseases. Oestrogen is particularly important in this respect. It contributes substantially to the differences in breast cancer rates in men and women and plays a role in the prevalence patterns of IHD and osteoporosis in women, both of which rise sharply in the post-menopausal period. However, this is only one component in a multifactorial interaction between sex and disease. There is mounting evidence that biological differences extend far beyond the reproductive realm; a wide range of other genetic, metabolic and hormonal differences are increasingly considered to contribute to differences in the incidence, symptoms and prognosis of many other health problems (Doyal, 2001; Doyal et al., 2003;Wizemann and Pardue 2001). There is also evidence of complex inter-play between risk factors for disease and the biological and social contexts of women's and men's lives. For instance, being obese seems to increase the risk of CVD more for women than for men (Doyal et al., 2003).

While biological differences clearly contribute to the different health experiences and outcomes of men and women, the socio-cultural construction of femininities and masculinities also account for a substantial proportion of the inequalities observed in life and health. They do so in a multitude of complex and interrelated ways impacting on: health expectations; access to health-promoting resources; health-related risk behaviours; perceptions of health and illness; health-seeking behaviours; engagement with and uptake of health services; and the design and delivery of those healthcare facilities.

Gendered norms and expectations: roles, responsibilities and risks

Sociocultural constructions of masculinity and femininity are reflected in: individuals' subjective identity (the gendered self); the social and economic roles that are designated as 'feminine' and 'masculine' and the values assigned to these; and expected and approved 'male' and 'female' behaviours. Though the variations across time and space, as well as by age, ethnicity, social class and so on, should not be downplayed, there are some common elements in the ways that femininity and masculinity are constructed, and these can have significant implications for the health risks and responses that men and women experience. Broadly speaking, at the individual level, the implications of men's and women's gendered roles and identities can be seen to impact upon health via (1) their access to resources that promote health, and (ii) the 'ways of being and doing' that are associated with being a man or a woman that affect exposure to health risks and responses to ill-health. We discuss the differential access to socioeconomic resources below. In this section we are concerned with how masculinity and femininity impact upon health via four inter-related areas: the sex division of labour; orientations towards health and illness; communication and social support; and risk-taking.

In most families in Great Britain, women shoulder a disproportionate burden of domestic work, caring and childcare responsibility. There is evidence to suggest that this work impacts negatively upon women's health via: stress and exhaustion; greater risk of unhealthy lifestyle behaviours (such as reduced opportunities to engage in physical exercise); and reduced uptake of health services due to problems such as transport difficulties and caring responsibilities leading to missed appointments and non-adherence to treatment (Doyal et al., 2003).

In contrast, men still predominantly hold the breadwinner role within families and work outside the home with consequent exposure to a different range of potential health risks than women. Of course, men's and women's patterns of work have changed considerably in recent decades, with a growing proportion of women entering the labour force. Nevertheless, significant differences persist in the types of occupation that men and women have meaning differential exposure to occupational health risks. These occupational differences are reflected in the higher mortality among men from accidental causes, though, as Doyal et al. (2003) point out, the occupational health hazards of women have rarely been explored in any detail. Men are also more likely to work full-time than women and to work very long hours, with associated work-related stress than can impact negatively on physical and mental health (Wilkins, 2010). Furthermore, while women are increasingly sharing the income-earning role with men, evidence suggests that there has been less of a shift in domestic responsibilities so that many working women experience extremely heavy workloads (Treas and Drobnič 2010).

It is increasingly recognised that men and women tend to differ in their orientations towards health and illness - that is, in their expectations regarding what it means to be healthy and how they perceive and respond to signs of ill-health. Courtenay, (1998, 2000, 2009) drawing on his experience of researching men's health in the US, suggests that a man who 'does gender correctly' would not pay much attention to his health and well-being; would see himself as physically and emotionally stronger than most women; would think of himself as independent and self-reliant, rarely calling on others for help; and would face danger fearlessly and frequently take risks.

Men are also characterised as having poor communication and emotional expression, weaker social support structures than women, being encouraged to look outside rather inside themselves, having greater physicality and aggression than women, and being discouraged from showing weakness or seeking help (Wilkins, 2010). Sixsmith and Boneham's (2002) qualitative study in Bolton clearly illustrated many of these themes. They found that men in the study: showed mistrust even of close friends; saw community centres and health-related activities as female space; considered ill-health as a private matter to be endured rather than shared with others; experienced illness and incapacity as an attack on manhood and mental illness as a particular weakness. The HSE 2000 and 2005 also documented men's lower levels of social support from family and friends in comparison to women (Scholes 2007).

These male characteristics are argued to be linked to poorer engagement with health services, particularly preventive and primary care services (discussed more below) and harmful coping mechanisms including use of tobacco, smoking, alcohol and other drugs (Wilkins, 2010). Further, it is suggested that these characteristics are reflected in greater levels of undiagnosed mental health problems among men and result in other manifestations of social exclusion:

"Men's undiagnosed mental health difficulties may also be reflected in their higher risk, compared with women, of experiencing other problems. For example, more men are imprisoned each year, men are more likely to be homeless, more men have problems with drugs and alcohol, and more boys than girls are excluded from school. These figures may represent a wide range of ways in which male mental health problems are expressed and also their needs are not met." (pg. 51).

A further related way in which men's gendered identity can impact negatively upon health is via risk-taking, or the so-called 'pressure of masculinity'. Doyal (2001) comments:

"Though the shape of masculinity may vary between communities, the development and maintenance of a heterosexual male identity usually requires the taking of risks that are seriously hazardous to health" (p162)

The patterns of mortality from accidents and violence illustrated above demonstrate the greater risks that men tend to be exposed to in comparison to women.

Notwithstanding these significant patterns, it is important to acknowledge that gendered norms and behaviours are not fixed over time and that there may be large variations within the population, particularly along class and ethnic lines. Sixsmith and Boneham (2002) found important differences between younger and older men in their study, with older men being more likely to exemplify the masculine stereotype described above. Research with Pakistani women has revealed high levels of stoicism and a 'culture of silence' around ill-health, traits that might be considered 'masculine' in other cultural contexts. Salway et al.'s study of people living with long-term health conditions found that levels of social support were particularly low among Black African women (Salway, et al. 2007). Furthermore, changing patterns of smoking and alcohol use among women in recent decades clearly illustrate the fluidity of acceptable 'male' and 'female' behaviour. Thus, while male and female attitudes and behaviours may diverge in important ways, they are also emergent and contextually contingent (Frosh and Phoenix 2002, Sabo 1999). This suggests that the health sector should not only be sensitive to, but actively work to challenge gendered norms, attitudes and behaviours that are detrimental to health. Presenting gender as immutable and problematic can constrain the options for individuals and the wider health system to work towards better health outcomes (Greene and Biddlecom 2000) .

Socioeconomic status and deprivation

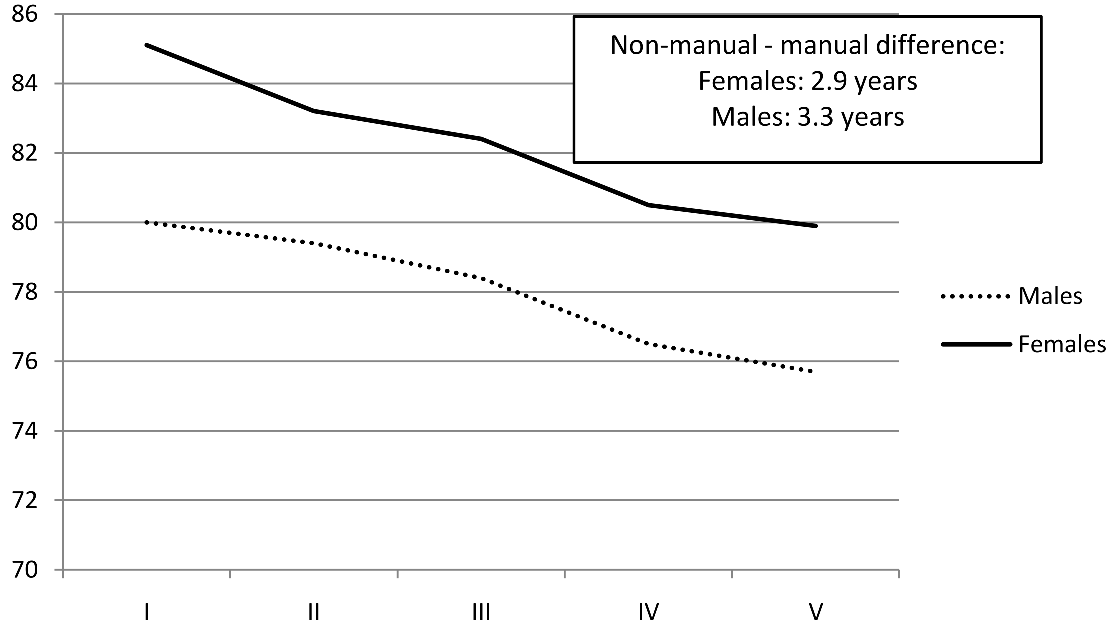
It has been argued that a focus on gender roles and norms of behaviour can lead to a down-playing of the relational nature of gender and the persistent inequality between men and women in their access to material and social resources and status; the so-called 'patriarchal dividend'. Furthermore, since men tend to be better endowed with social and economic resources than women, the broad inequalities in life and health status between men and women do not, at first sight, appear to be explained by socioeconomic inequalities.

Nevertheless, there is evidence to suggest that gendered inequalities in access to material resources (as well as social status) do contribute to poor health and well-being among women (Doyal, 2001), and therefore that action to improve women's socioeconomic position relative to men would likely result in health gains for women. This may be particularly true for single women, particularly those who are divorced and caring for children, as well as those who are older and widowed. It is also true for women who lack control over material resources within their households. Patterns are, however, complex across different indicators.

Looking first at mortality, life expectancy at birth (and at older ages) is found to decline steadily with decreasing social class for both men and women, though the difference between the highest and lowest social class is greater for men than for women (

Figure 33).

Figure 33: Life expectancy at birth (years) by social class and sex, England & Wales, 2002-5



Source: Office for National Statistics, Longitudinal Study.

The relationship between area deprivation and suicide rate has also been shown to be stronger among men than among women (Brock et al. 2006). Using data for England & Wales from 1999-2003, Brock et al. found that the difference between the most affluent deprivation twentieth and most deprived was 13.5 per 100,000 for men compared to 3.8 per 100,000 for women; representing relative risks of 2.13 and 2.06 respectively.

Nevertheless, poor socioeconomic conditions clearly increase the risk of premature death for women. Since its inception the Confidential Enquiry into Maternal and Child Health has consistently found evidence of the serious effects of socioeconomic deprivation on women's potential for long and healthy life. In 2004, CEMACH reported that women living in families where both partners were unemployed, many of whom had features of social exclusion, were up to twenty times more likely to die from a maternity-related cause than women from the more advantaged groups. Single mothers were three times more likely to die than those in stable relationships. Area-level effects were also evident, with women living in the most deprived areas of England having a 45% higher death rate compared to women living in the most affluent areas (Lewis 2004).

Turning now to indicators of health and morbidity, a wide range of both qualitative and quantitative work has illustrated how low socioeconomic position and constrained access to material resources compromises women's health and well-being, operating via a number of causal pathways including: poor diet, poor living conditions, high levels of psychosocial stress, harmful behaviours including smoking and drug use, and poorer access to preventative and curative health services (Doyal, 2001).

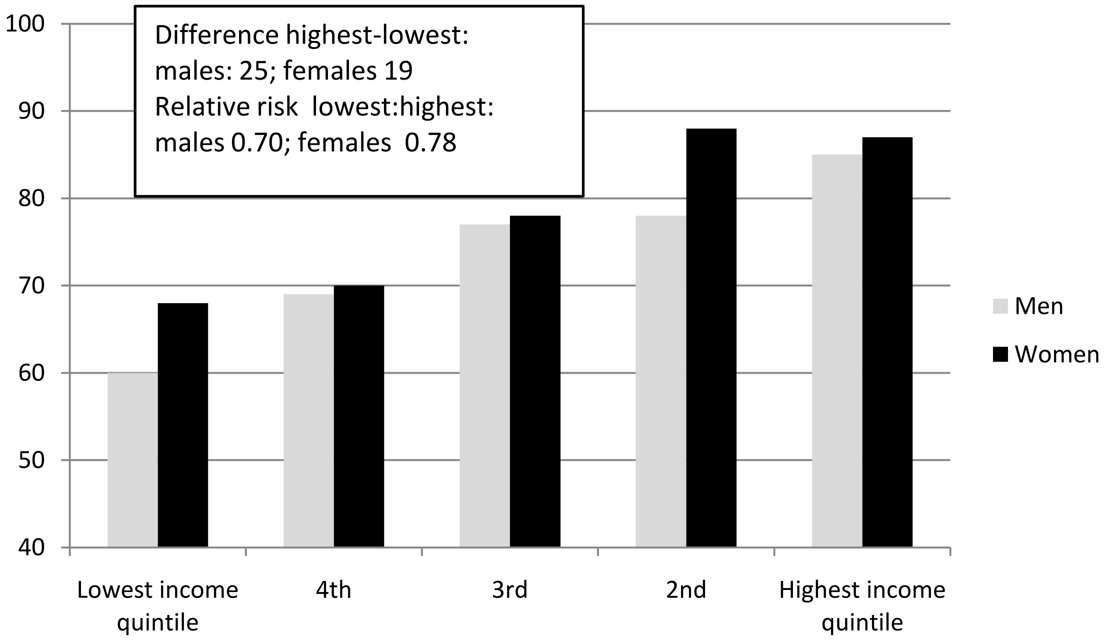
Self-reported measures of general ill-health and LLTI show fairly similar patterns across measures of socioeconomic status among men and among women in Great Britain, though there is evidence in some studies that men's health may be more strongly associated with socioeconomic circumstances than women's. The SHeS 2008 found that, compared to the highest household income quintile, the odds ratio of reporting bad/very bad health among the lowest quintile was eight times higher among men compared to two and a half times higher among women (SHeS, 2008). It is important to recognise, however, that absolute and relative differences may show quite different patterns across the sexes, and have different implications. For instance, HSE data for 2006-8 reported at the Poverty Site show that the proportion of men with a GHQ12 score of four or more (i.e. probable common mental disorder) was 7% in the richest income quintile group and 20% in the poorest. This represents a difference of 13% and a relative risk of 2.9. For women, these figures were 10% and 24%, meaning a larger difference than for men, at 14%, but a smaller relative risk at 2.4.

Watt et al. (2009) used data from the longitudinal British Women's Heart and Health Study and found that among older women, healthful eating and physical activity were positively associated with both current and childhood socioeconomic status. Further analysis, reported separately, illustrated the independent effects of both individual socioeconomic status and area-level deprivation on healthy eating, exercise and smoking (Amuzu et al. 2009).

A recent qualitative study in South Wales took a detailed look at the health of 65 women (Charles and Walters, 2007). The study found that the most frequently mentioned health problems were tiredness, stress, headaches and arthritis and the most frequently mentioned social problem was worrying about money. Women in the study felt that their health concerns were linked to other problems such as unemployment, juggling childcare and work, and money worries, creating further stress. The authors argue that such psychosocial stress exacerbated ill-health directly as well as encouraging smoking and drinking as a way of coping.

Survey data also provide evidence that poor socioeconomic conditions are associated with some life-style related health risks for both sexes, but that the relationships vary somewhat between men and women. For instance, in England, the positive association between income and not smoking is seen for both men and women, but is somewhat stronger for men, when the highest and the lowest income quintiles are compared (Figure 34).

Figure 34: Percentage of adults *not* currently smoking by income quintile and sex, England, 2007



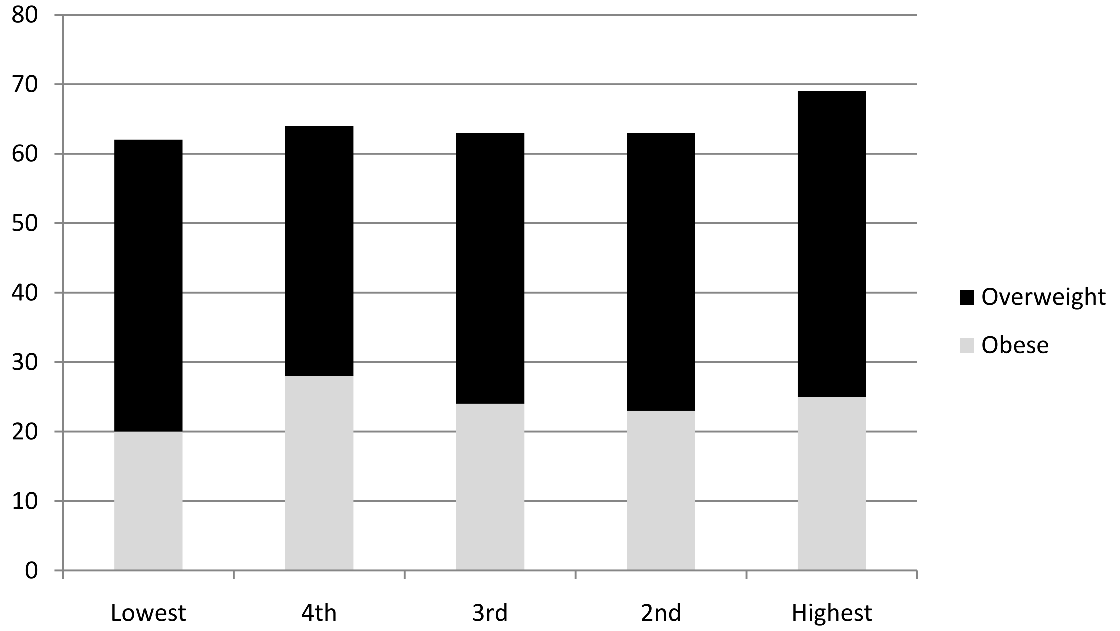
Source: Health Survey for England, 2007

Similarly, proportions reporting consumption of the recommended '5 a day' portions of fruit and vegetables vary more between the highest and the lowest income quintiles among men (34% versus 20%) than among women (36% versus 25%) (NatCen 2009), though the difference is clearly evident for both sexes.

Patterns of alcohol use also seem to vary between the sexes according to social class. For men, there appears to be a positive association between drinking above government guidelines and income, so that better off men are more likely to report both drinking over the guidelines and 'heavy drinking' (more than twice the guideline). For women, the pattern is less clear, women in the higher income quintiles seem more likely to drink over the guidelines than those in the lower income quintiles, but no more likely to drink 'heavily' (that is to drink more than twice the guideline amount) (NatCen 2009).

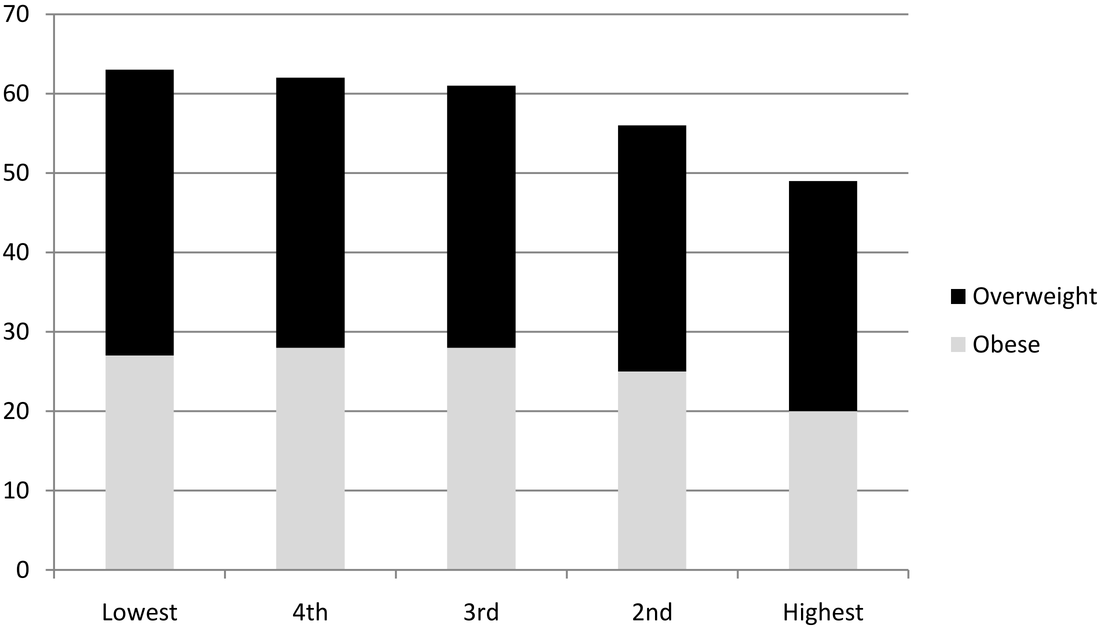
Patterns of obesity and overweight also show some important differences by social class between women and men. The Health Survey for England 2008 data are presented in Figure 35 and Figure 36 below. Whereas for men, the proportion who are either overweight or obese is highest in the richest quintile, among women there is a declining trend of overweight and obesity with increasing income. Sixty three per cent of women in the lowest income quintile were either obese or overweight compared to 49% in the highest quintile; while 62% of men in the lowest income quintile were obese or overweight compared to 69% of those in the highest quintile. Raised waist circumference, an alternative measure of obesity, shows the same pattern (NatCen 2009).

Figure 35: Proportion of men classified as obese and overweight, by equivalised household income quintile, England, 2008



Source: Health Survey for England, 2008
Note: Obese: BMI 30kg/m^2 or more; overweight: BMI 25 to less than 30 kg/m^2

Figure 36: Proportion of women classified as obese and overweight, by equivalised household income quintile, England, 2008



Source: Health Survey for England, 2008
Note: Obese: BMI 30kg/m^2 or more; overweight: BMI 25 to less than 30 kg/m^2

Interestingly, data for the health survey of Wales (WES, 2008) are not all routinely presented in sex-disaggregated form so that the same comparisons are not readily available (though could be produced from the archived data relatively easily). Data for Scotland are presented in Chapter 11on social class and again show some important differences in socioeconomic patterns in lifestyle indicators between men and women.

The message from the above evidence seems to be that women's health is undermined by their poorer socioeconomic status relative to men's but that the causal pathways are complex and not necessarily the same as those operating for poor and disadvantaged men. Clearly, interventions aimed at promoting men's and women's health will need to be sensitive to these complexities.

Design and delivery of healthcare

We turn now to consider the role of the health system and whether the ways in which health services are designed and delivered may undermine men's and women's capabilities for health and life. Timely access to appropriate and effective healthcare – such as cancer screening programmes or heart surgery – can and should have an important impact on the health of men and women. We look first at health policy and broader strategy which defines the priorities for the health service to see whether and how sex/gender has been considered. We then explore the evidence relating to service access and utilization and healthcare outcomes among men and women. Finally, we consider the extent to which health services are gender sensitive and result in positive experiences for male and female patients, since where experiences are poor they may suggest sub-optimal care and unacceptable treatment.

Health policy and strategy:

Recent years have witnessed increased attention to the role of gender in shaping men's and women's health both nationally and internationally (Doyal et al., 2003; WHO, 1998). Furthermore, while women's health needs have been highlighted and lobbied for over several decades, there is a growing focus on the need for health policy and practice to better understand and address gendered influences on men's health and well-being (Sabo, 1999). It is still early days, however, and progress towards mainstreaming such gender sensitivity remains limited.

Doyal et al., in their 2003 review for the Equal Opportunities Commission, found that although an equalities agenda had been in evidence running alongside the modernisation agenda in UK health policy, *'a detailed review of polices reveals that in practical terms, sex and gender concerns have received very little attention. While there is some recognition of 'special needs' for women, such as family planning or breast screening, there appears to be little or no recognition of the need for gender sensitivity in mainstream services'* (p3).

Since the time of Doyal et al.'s review, there have been some significant developments, in particular the Equality Act 2006, which should provide significant additional ammunition towards achieving gender sensitive policies and practices.

The 2008 Gender and Access to Health Services Report (MHF, 2008) commented that:

"It will no longer be enough simply to say that the services are there to be used on a population-wide basis and that if men and women use them in disproportionate measure then that is not the business of the service provider. Nor will it be enough to wait until someone complains. Where it is probable that inequitable use of services is resulting in unequal outcomes between men and women, it is the statutory responsibility of the service-providing authority to examine the service and to adjust it towards achieving a better balance." (pp 9)

Nevertheless, this 2008 report (MHF, 2008) came to many of the same conclusions as the earlier review by Doyal et al. (2003), suggesting that attention to gender issues within UK health policy is still partial and piecemeal. At a general level the review was critical of the way in which the predominant focus on socioeconomic dimensions of health inequalities (and particularly the use of area-based measures) serves to conceal patterns of, and solutions to, gender inequalities in health. The report recommended that Public Service Agreements and targets set in relation to health inequalities should explicitly refer to gaps in health outcomes between men and women in conjunction with disparities between the least well off and the rest of the population.

Looking at policy in relation to specific areas of service development and delivery, various National Service Frameworks have also been scrutinised for their degree of gender awareness and sensitivity. Doyal et al. (2003) highlighted the lack of explicit attention to sex and gender within the National Service Framework for Coronary Heart Disease (Department of Health 2000) despite the extensive evidence of differences between men and women in patterns of disease and healthcare responses, experiences and outcomes. The more recent report from MHF (2008) concluded that these differences have not been addressed by more recent policy statements and that current policies aimed at reducing the risk factors contributing to IHD mortality and ensuring standards of clinical care for IHD patients remain largely gender blind. For instance, the report notes that guidance for primary care trusts on meeting targets on smoking cessation do not consider gendered needs in any detail (women are only discussed separately in relation to pregnancy), despite the fact that research indicates key differences between women and men in the importance of the timing of a quit attempt, the role of social support and the value of nicotine replacement therapies (MHF, 2008). It may even be the case that strategies laid out in the NSF could exacerbate gender inequalities. For instance, screening of patients through primary care health checks may benefit men disproportionately since women are more likely to have undetected symptoms and 'abnormal' presentation than men (Doyal et al., 2003).

Doyal et al. (2003) identify mental health as a policy area where there has been greater attention to gender issues, as illustrated in the 1999 NSF for Mental Health and the subsequent document *Women's Mental Health: Into the Mainstream* (DH, 2002). These policy documents explored the specific mental health needs of women in relation to pregnancy, violence and abuse as well as the needs of particular sub-groups of women. However, there is evidence that strategic directives are being enacted only slowly across practice settings and that there are significant delays in embedding these in service provision. For instance, the importance of providing single sex accommodation in psychiatric (as well as other) health facilities has been acknowledged for a long time but progress towards achievement is slow. Women in mixed psychiatric wards experience a number of problems including harassment, risk of sexual and physical abuse and the stress of feeling unsafe. The NIMHE expert briefing (NIMHE 2003) found examples across England where women-only and women-sensitive services had been introduced, often in the voluntary sector, but also reported significant gaps in provision. Other reviews also suggest that developments in gender-specific service provision remain patchy, variable and vulnerable, despite some significant advances in recognising women’s special needs. Significant gaps in personalised services continue to exist, in particular for women from minority ethnic groups (National Mental Health Development Unit 2010);MHF, 2008.

Doyal et al. (2003) concluded that though mental health policy showed some positive signs in terms of gender awareness and sensitivity it continued to suffer from (i) a focus on particular groups of women perceived to have particular needs, and (ii) a lack of attention to men. In this way, existing policy approaches, even in the field of mental health, still fall far short of genuinely mainstreaming attention to gender.

"gender concerns will need to be more fully integrated into mainstream service delivery if real change is to be achieved" (Doyal et al. 2003: 37)

Thus, though there are some positive indications that health policy in Great Britain is making progress towards this goal (for instance the publication of *Improving Gender Practice in NHS Scotland* (NHS Scotland 2008a), there is clearly much work to be done.

Access and uptake of health services:
Clearly, health-seeking behaviours and the uptake of services result from a complex inter-play between: individual perceptions, knowledge and preferences; the way in which services are provided and promoted; and wider factors at individual, family and societal level that may constrain or support timely and appropriate healthcare use.

Primary care use
Surveys consistently show that women are more likely to receive care from primary care services than men. Data from the General Household Survey for 1972 to 2002 show that over that period the proportion of people who reported consulting their GP in the 14 days prior to interview increased among both men and women by three to four percentage points, but that women are consistently more likely to report GP consultation than men over time (Figure 37), and that these patterns hold across age-groups. Recent analyses using the QResearch general practice database confirm that consultation rates have risen between 1995 and 2008 and that women's consultation rates exceed those of men at all ages except the oldest age-group (Hippisley-Cox 2009). The latest GLF survey data for 2008 report that females had an average of five NHS GP consultations per year whereas males had four (Ali, Curtis and Bugler 2010).

Figure 37: Trends in consultations with an NHS GP in the 14 days before interview by sex and age: 1972 to 2002, Great Britain

Source: General Household Survey of Great Britain, Living in Britain 2002, published 2004 (**http://www.statistics.gov.uk/cci/nugget.asp?id=827**)

The slightly higher rates of consultation among women seem to reflect higher levels of demand rather than differential access *per se*. Indeed, available evidence suggests that when men seek access to GP services they are no more likely to face problems than women. For instance, a recent postal survey asked 543,246 GP patients in Scotland about two aspects of *access* to their GP practice and found no evidence of gender differences. When asked whether, in the last year, they had been able to obtain a consultation with an appropriate health professional within 2 working days, 93% females and 91% males answered 'yes'. When asked whether, in the last year, they had been able to book an appointment with a GP more than 2 days ahead, 79% of females and 82% of males answered 'yes' (Scottish Government 2009b).

Similarly, the GP Patient Survey of 2006/7 in England found that overall 87% of men and 86% of women responded 'yes' to the question '*In general, are you satisfied with how easy it is to get through to someone on the phone at your doctor's surgery?'.*

Similarly, 86% of both men and women answered 'yes' to '*Think about the last time you tried to get an appointment with a doctor fairly quickly. Were you able to get the appointment on the same day or on the next 2 days the surgery was open?'*, and 77% of men and 74% of women responded 'yes' to '*Last time you wanted to, were you able to get an appointment with a doctor more than 2 full days in advance?'* (Department of Health 2007a).

Evidence from a variety of sources also suggests that the differential uptake of primary healthcare services is partly explained by men's own attitudes and behaviours, including their greater tendency to ignore symptoms and delay treatment or to 'self-medicate' (with potentially harmful consequences) (Wilkins, 2010).

These processes are in evidence in the patterns of uptake of preventive and primary care services relating to CVD and cancer. For instance, there is evidence from varied sources that men are less likely than women to take up screening. For instance, the evaluation of phase 2 of the National bowel cancer screening programme in England found lower rates of uptake in men than women (47.7% versus 56.2%) (Weller, et al. 2006). Men have also been found to delay seeking medical attention in response to signs and symptoms of lung cancer (Tod, Craven and Allmark 2008). Evidence suggests that *w*omen are more likely than men to be treated for overweight or obesity in primary care. A study by Counterweight (Laws 2004) reports that, in addition to being more likely than men to receive diet counselling, dietetic or obesity centre referral, women were also significantly more likely than men to be prescribed the weight loss drug, orlistat. There is limited data on exercise referral schemes but indications are that while more women are referred to ERS, and more attend initial consultations, men are more likely than women to complete a 14-week course (Dugdill, Graham and McNair 2005, Gidlow et al. 2007).

It must be recognised that these differences between men and women result from a complex inter-play between individual perceptions, preferences and behaviours and the services that are on offer to women and men; and that both of these are shaped by socio-cultural constructions of masculinity and femininity.

"… even where men and women are apparently 'choosing' to engage with services to a different extent from each other, the differences in uptake may, in reality, reflect

a lack of sensitivity to attitudinal and behavioural differences between men and women in the way that services are designed. In other words, another important cause for variations in effectiveness between men and women is that some services have been allowed to develop in such a way that they actively fail to meet the needs of one sex as well as they meet the needs of the other." (MHF, 2008, pg9).

Furthermore, patterns of uptake vary importantly by other factors, particularly social class and ethnicity, and it is misleading to portray men as solely disadvantaged in terms of service access. For instance, CEMACH 2007 drew attention to these mutually reinforcing risk factors drawing attention to the fact that maternal deaths continue to disproportionately affect those from the most vulnerable and excluded groups in society. They identify the fact that such women are less likely to seek antenatal care and stay in regular contact with maternity services demonstrating that services are used least by those who need them most (Lewis 2007):

Receipt of secondary care services:

Patterns of receipt of secondary care by sex are even more complex, and suggest disparities not just in basic indicators of access but also in quality of care and treatment outcomes. Indeed, there is evidence across a range of health services that patterns of access, uptake and treatment diverge between women and men. The patterns are, however, complex, so that both men and women appear to be disadvantaged in some arenas of healthcare. Here we summarise some of the observed inequalities that relate to the major causes of mortality and morbidity identified in the EMF above.

In relation to cardiovascular disease, there are identifiable differences in access to services for men and women in all stages of the disease trajectory and treatment management. There is indication that women receive less good care for heart disease as compared to men (Lockyer and Bury 2002). Women with heart disease are less likely than men to have risk factors measured and recorded (Hippisley-Cox et al. 2001; Raine 2000;Crilly et al. 2008) and less likely to receive secondary prevention and cardiac investigation (Crilly et al. 2008). Women are also less likely to receive intensive management including invasive investigations ad revascularisation (Raine, 2000; Sproston and Primatesta; Crilly, 2008). There are also marked differences in access to cardiac rehabilitation; the proportion of men to women referred is around 2 to 1 with particularly low referral rates in ethnic minority populations (Bethell, Lewin and Dalal 2009). There is evidence to suggest that there are gender differences in the symptomatic presentation of heart disease and in the language used to describe those symptoms with women more commonly reporting atypical symptoms (Zaman et al. 2008, Philpott et al. 2001) which may have some impact on investigation and diagnosis of disease. These factors do not, however, provide satisfactory explanation for the differences observed.

In relation to mental health services, there is evidence that men are less likely than women to be diagnosed and receive treatment for common mental disorders. In an 18 month follow up study of the National Psychiatric Morbidity Survey (NPMS), among those with symptoms of common mental disorders, more women than men were in receipt of mental health treatment – 29% of women compared with 17% of men (King, Bebbington and Nur 2003). At every level of mental illness severity more women than men receive treatment with the greatest gap being seen in the least severe categories of illness, that is among those patients with relatively minor symptoms. Women in the follow-up study were found to be much more likely than men to be in receipt of psychiatric treatment from either their GP or specialist services (King et al., 2003).

The MHF (2008) report suggests that *“gender stereotypes of depression may play a part both for health professionals and their patients, decreasing the chances that men’s problems are identified”* (pg 52).

Sensitivity, appropriateness and patient experiences:
The design and delivery of services may make them more or less attractive and accessible to men and women and may have serious implications for the ways in which men and women experience healthcare impacting upon their satisfaction and likely future engagement with services.

One issue that has received a large amount of attention relates to the provision of single-sex accommodation within hospitals. The DH report *Privacy and Dignity* (Department of Health 2007b) reported that 99% of NHS trusts stated that they provided single-sex sleeping accommodation and 97% reported that they had single-sex toilets and bathrooms. These figures do not tally well with findings from the

National NHS patient survey programme, Survey of Adult Inpatients 2008, in which 24% of patients reported that they had to share a sleeping area with patients of the opposite sex when they were first admitted to hospital (Care Quality Commission 2009).

Though women, particularly those from some minority ethnic and religious backgrounds, may find some aspects of health service provision insensitive to their needs and preferences, it seems more often to be the case that men perceive health services to be uninviting. A number of innovative service delivery approaches have been developed in recent years to overcome these problems and to take healthcare out into the places where men may feel more comfortable - such as the Playing Safely project that takes sexual health awareness and screening services to men via sports clubs and health screening programmes being run in barber shops in Bradford and elsewhere (see http://www.menshealthforum.org.uk).

In addition to specific aspects of the care and facilities provided within healthcare settings, there are concerns that some patients may receive disrespectful and insensitive treatment by providers in general. The quantitative measures of 'treatment with respect and dignity' reported above reveal no systematic differences between men and women. However, other evidence suggests that women, and particularly women of minority ethnicity, may feel less respected and be more likely to receive unsatisfactory care from health professionals (Doyal et al., 2003; Bharj and Salway, 2008). These patterns relate closely to the ways in which women tend to be devalued relative to men within wider society. Doyal et al. (2003) have drawn attention to the fact that healthcare professionals are not routinely trained to be gender aware or sensitive to the needs of men and women and suggest that this is a major capacity development need within the NHS.

Wider society: processes of identification and discrimination

Greig et al. (2000) and others have argued that one of the main functions of discourses of masculinity is to naturalize men's power and women's subordination. Sociocultural constructions of masculinity and femininity not only portray men and women as inherently different, with contrasting abilities and attributes, they systematically devalue women constructing them as dependent and inferior.

Despite improvements in some aspects of women's lives, notably their access to employment opportunities, there is worrying evidence that women in Great Britain continue to suffer systemic discrimination and disadvantage. This is perhaps most evident in the persistence of high levels of violence and abuse against women within intimate relationships. High levels of self harm, anxiety and anorexia compared to men are also linked to women's vulnerable position within intimate relationships and wider society. There is evidence to suggest that the subordination of women may be particularly extreme within some sections of particular minority ethnic groups - exemplified for instance in the illegal practice of Female Genital Mutilation and so-called 'honour killings'. However, it is important to note that domestic violence is a significant issue for women across all class and ethnic groups (Meetoo and Mirza 2007) and there are no societies or cultural groups where women are treated as equals with men across the board.

Exclusion from the evidence base

Explanations for differential diagnosis and treatment between the sexes also lie in part in the body of research evidence that guides healthcare practice and the ways in which this evidence is generated. Much of the evidence that today informs 'evidence-based' clinical practice has been generated by research studies that have included only young, White men (Lee et al. 2000; Neutel and Walop, 2005) and women have too often been excluded from studies for inappropriate reasons (Doyal, 2001). The findings from studies that exclude women will not be generalisable across the sexes and may lead to less effective, or even hazardous, clinical practice. Where clinicians are aware that drugs or procedures have not been shown to be safe and effective in women as well as men, or where women fail to meet the established clinical criteria, these treatments will likely be withheld. Unlike the US and a number of other countries, there are no current guidelines regarding the inclusion of women as well as men in clinical trials in Great Britain. The Department of Health's research governance framework (Department of Health 2001/2005) includes a statement relating to the importance of research being inclusive and reflective of the diversity of the population, but this has yet to be translated into concrete guidance for researchers or those serving on scientific or ethical review panels. As well as the poor representation of women in clinical research, there has been relatively little attention to gender issues within other types of health research, except within a relatively narrow set of issues, including reproductive health issues for women and sexual health issues among gay men. Improving the quantity and quality of research that pays attention to the role of both sex and gender in the health and healthcare experiences of men and women should be a high priority.

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Chapter 9: Religion and belief

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Outcome

LIFE

- Data are not currently available for any of the Life indicators by religion/belief for England, Scotland or Wales.

HEALTH

Outcome

- 2001 Census data for all people for Great Britain as a whole reveal large differences in self-reported health between religious groups. Among males, the age-standardized percentage of people reporting not good health was highest among Muslims (12.8%) and those reporting 'Any other religion' (12.2%) and lowest among Jewish males (6.5%). Among females, the highest percentage was again among Muslims (16.1%) with the percentage among Sikhs (13.8%) and 'Any other religion' (13.7%) also being high, and lowest again among the Jewish group (6.9%).
- 2001 Census data for Great Britain also show that the prevalence of limiting long-term illness and disability (LLTI) varies between religious groups. Age-standardized rates of LLTI for all people for Great Britain as a whole were highest among Muslims for both males (21.4%) and females (24.3%), though males and females reporting 'Any other religion' and also Sikh females, had high rates. Jewish males (12.6%) and females (12.8%) were the least likely to report an LLTI when age standardized rates were compared. Levels of poor health and LLTI among Muslims appear to be particularly high in comparison to other religious groups in the middle age-range (30-74 years).

- Health Survey for England (HSE) 2004 data for people aged 16+ years show broadly similar differentials, with Muslim and Sikh men and women standing out as having the highest prevalence of not good health and LLTI.
- Available evidence does not suggest significant and systematic differences in indicators of common mental disorder, such as GHQ12, between religious groups.

Process

- Though studies that have focused in detail on religion are limited, there is evidence from a number of service settings that NHS services in England, Wales and Scotland frequently struggle to deliver religiously sensitive care.

- National level data on treatment with respect are limited, but there is some evidence that people of minority religion, and particularly Muslims, are less likely to report that they feel they are treated with respect in healthcare than are Christians. A number of rigorous qualitative studies support this picture, with common themes including: feelings of exclusion, dismissiveness and lack of engagement with professionals.

- Some particular religiously based health needs are not currently, routinely accommodated by the NHS, such as male infant circumcision and the desire to avoid porcine or alcohol derived drugs.

- There are some significant religious differences in indicators of healthy life-style, however, patterns vary within religious groups along ethnic lines as well as by sex. Key patterns include: very low prevalence of alcohol consumption among Muslims; low prevalence of smoking among Sikhs; low levels of physical activity among all religious groups but particularly low levels among most minority religious groups; high levels of obesity/overweight among all religious groups but particularly high levels among several minority religious groups especially among women.

Autonomy

- Patient choice and preferences that are shaped by religious beliefs and practices are not always well accommodated e.g. preference for same-sex providers.

- Spiritual care may often be lacking in NHS settings for followers of minority religions. This may be a particular issue in relation to end-of-life care and bereavement.

Vulnerable groups:
Older Muslim and Sikh women, particularly those with poor English language skills, appear to suffer heavy burdens of ill-health, disability and also caring responsibilities. These women are also often in a weak position to negotiate religiously-appropriate support from statutory services.

Are there any emerging trends?

- The concerning rise in Islamophobia in recent years has been expressed within the health sector as in other arenas. The negative health consequences of victimisation suggest this trend may exacerbate the health disadvantage facing Muslim groups.

- Since the exploration of health experiences and outcomes by religion is in its infancy in the UK, it is difficult to identify trends or changes over time. However, the increasing interest in religion as a factor shaping health and life chances is bringing new issues to the fore.

What are the causes?

- Though religious and ethnic identities are closely inter-related, religion may nevertheless have distinct implications for health experiences and outcomes.

Religion also demands particular responses from policies and services that are intended to protect and promote life and health. There is evidence to suggest that increasing numbers of ‘minority’ individuals identify strongly with religious affiliations, particularly among UK-born minority ethnic populations.

- The following factors all appear to shape health outcomes by religion, though we know little about how important each of these is in relation to explaining inequalities in health: socioeconomic status and deprivation; discrimination at societal level; unresponsive and inappropriate health service provision; religiously informed patterns of behaviour and life-style choices; and networks of association and support that shape access to information and resources (as well as norms and expectations of behaviour).

- The interplay of discrimination and low economic and social status, operating both within the healthcare sector and in wider society, seems to account for much of the excess health burden experienced by Pakistani and Bangladeshi Muslims. Though the processes linking these structural processes to health outcomes need further explication, it is clear that the major health inequalities between religious groups will not be addressed without attention to the wider social determinants.

- It seems likely that some of the issues that have attracted significant attention, such as the failure of GPs routinely to offer non-porcine derivative drugs, may be important breaches of patient choice (and possibly infringement of human rights). However, these are unlikely to account for the large inequalities in health status observed between religious groups.

- Some aspects of routine healthcare may seriously undermine the health status of some religious minorities - such as the failure to routinely offer Muslim patients with diabetes adequate advice and support to enable them to manage their disease and safely fast during Ramadan.

- There is also evidence that discriminatory behaviour of some health providers may result in poor quality care and poor health outcomes for some patients and that religious identities and perceptions of religious difference (often inter-related with ethnic 'otherness') underlies such discrimination in some contexts. Available evidence largely relates to the experiences of Muslims.

Data quality and quantity

- Until recently there has been little exploration of health and life indicators by religion or belief in England, Scotland or Wales. However, there is increasing interest among health researchers in this aspect of identity and its potential role in shaping health outcomes and inequalities.

- Information on religion is not collected at death registration, nor is it routinely collected in health service statistics in primary or secondary care.

- The inclusion of a voluntary question on religion in the 2001 Censuses of England, Wales and Scotland has provided a general picture of the health status of Britain’s religious groups.

- In terms of national surveys, the Fourth National Survey of Ethnic Minorities 1993-4 yielded some useful data on health status by religion, but these data are now rather old. The Health Survey for England in 1999 and 2004 included ethnic minority boost samples (unlike other years). Though the focus of these surveys was ethnicity, they did collect information on religion and do allow some exploration of health across the largest religious groups.

- Clinical studies and local level data rarely collect and report health outcomes by religion or belief.

- In the absence of data on religion, information recorded by ethnicity can be informative for some groups such as Pakistani and Bangladeshi Muslims, but most ethnic groups are religiously diverse.

- A number of special studies have explored religion and belief in relation to health experiences and outcomes, but these have predominantly focused on a limited number of issues where faith has been assumed to play an important role – such as end-of-life care, organ donation and prenatal counselling.

- Though data are limited across the board, more attention has been given to the largest religions and particularly the religious needs of South Asian Muslims, than to other religious groups. There has been little exploration of other aspects of belief or variations in the meaning of religion in people's lives.

- To-date there has been little exploration of the important interplay between ethnic and religious identities in present-day UK in relation to health. Even where information is collected on both ethnicity and religion, datasets often do not yield sufficient numbers to allow breakdown into religio-ethnic[1] groups which may be the most meaningful in terms of describing and understanding health outcomes.

How might inequalities and change over time be better measured?

- There is a need for the establishment of standard codes and procedures for recording religion in routine health datasets.

- There is a need for precision and justification in the use of religious categories and labels. For instance, the term ‘British Muslim’ is sometimes used to refer to studies that have focused exclusively on Pakistanis, the findings from which may not be relevant across the whole, diverse range of Muslim experience in the country.

- As with ethnicity, there is a need for the collection of data that can enable a better understanding of process and autonomy – causal pathways cannot be inferred from descriptive analyses of inequalities between groups since

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[1] We use the terms religio-ethnic and ethno-religious interchangeably to refer to 'groups' of people identified by a combination of their self-reported religion and ethnic identity, e.g. Pakistani-Muslim.

religion can be a proxy for multifarious factors that may impact upon health. More detailed surveys and qualitative studies are needed that can generate information about religion that takes account of its multi-dimensional nature and diverse links to health.

- There is a need for data generating approaches that allow the exploration of the interplay between ethnic and religious identities. There is a need to be able to disaggregate indicators by ethnicity, religion and also religio-ethnic group in order to be able to identify trends and to understand the interplay of these two dimensions of diversity and inequality. A focus on either one in isolation is likely to produce a partial picture and risk the conflation of distinct influences on health and life. Many studies of minority ethnic health, particularly those focused on South Asian populations, include some attention to religion but there is often a tendency to conflate ethnic and religious identities. There has not to-date been any detailed exploration of how these factors inter-relate to shape health experiences and outcomes.

- Efforts to monitor and understand health patterns by religion must extend beyond the Muslim population, or the largest religious groups, to include smaller minority religious groups and other aspects of belief.

Evidence: Data quality and quantity

Until recently there has been little exploration of health and life indicators by religion or belief in England, Scotland or Wales. However, there is increasing interest among health researchers in this aspect of identity and its potential role in shaping health outcomes and inequalities.

Information on religion is not collected at death registration. Nor is information on religion routinely collected at primary care level or in secondary care datasets, such as the Hospital Episode Statistics, meaning that opportunities for data linkage are fewer than in the case of ethnicity.

The inclusion of a voluntary question on religion in the 2001 Censuses of England, Wales and Scotland - which was answered by the great majority of people - has provided a general picture of the health status of Britain's religious groups. Tables 1-3 below present the basic distribution of the population of England, Wales and Scotland by religion from the Censuses.

Table 1: Percentage distribution of all people by current religion, England, 2001

	Number	**Percentage (%)**
Christian	35,251,200	71.7
Buddhist	139,000	0.3
Hindu	547,000	1.1
Jewish	257,700	0.5
Muslim	1,524,900	3.1
Sikh	327,300	0.7
Other religions	143,800	0.3
All religions	38,191,000	77.7
No religion	7,171,300	14.6
Religion not stated	3,776,500	7.7
Total	49,138,800	100

Source: Census, April 2001, Office for National Statistics

Note: Question: "What is your religion?", Numbers rounded to nearest hundred.

Table 1 shows that close to 78% of people in England reported a religion, with around 15% reporting no religion and 8% choosing not to answer the question. While Christians accounted for 92% of all people reporting a religion, Muslims were the second largest group (almost 4% of all those reporting a religion), comprising over 1.5 million people.

Table 2: Percentage distribution of all people by current religion, Wales, 2001

	Number	**Percentage (%)**
Christian	2,087,200	71.9
Buddhist	5,400	0.2
Hindu	5,400	0.2
Jewish	2,300	0.1
Muslim	21,700	0.8
Sikh	2,000	0.1
Another Religion	6,900	0.2
All Religions		*73.4*
No religion	537,900	18.5
Not Answered	234,100	8.1
Total	2,903,100	100

Source: Census, April 2001, Office for National Statistics

Note: Question: "What is your religion?" Numbers rounded to nearest hundred.

In the 2001 Census of Wales, the proportion of all people reporting a religion was rather lower in Wales than in England at 73% and the proportion reporting no religion rather higher at 19%. Behind Christians, Muslims were again the largest minority religious group, comprising around 22,000 people.

Table 3: Percentage distribution of all people by current religion, Scotland, 2001

	Number	**Percentage (%)**
Church of Scotland	2,146,300	42.4
Roman Catholic	803,700	15.9
Other Christian	344,600	6.8
All Christian		*65.1*
Buddhist	6,800	0.1
Hindu	5,600	0.1
Jewish	6,400	0.1
Muslim	42,600	0.8
Sikh	6,600	0.1
Another Religion	27,000	0.5
All Religions	*3,389,500*	*67.0*
No religion	1,394,500	27.6
Not Answered	278,100	5.5
Total	5,062,000	100

Source: Census, April 2001, GRO(S)

Note: Question: "What religion, religious denomination or body do you belong to?" Numbers rounded to nearest hundred.

In the 2001 Census of Scotland, just over two-thirds (67%) of the population reported currently having a religion, far lower than in England or Wales, and 28% reported not belonging to any religion. More than six out of ten people said that their religion was Christian (65%). Just under half (45%) of the non-Christian religious population was Muslim. The next largest non-Christian religious groups were Buddhists, Sikhs and Jews, each comprising around 6,500 people. People who reported a religion other than one listed on the Census form were a significant minority - 27,000 people.

While the Census data provided some broad indicators of health by religious group, health-focused surveys are needed to provide richer detail on patterns of ill-health and health-related behaviours. However, few national surveys that have collected relevant health-related information have had sample designs that allow exploration of religious inequalities. The Fourth National Survey of Ethnic Minorities (FNSEM) 1993-4 yielded some useful data on health status by religion (Nazroo 1997), but these data are now rather old and analyses were constrained by limited sample sizes. The Health Survey for England in 1999 and 2004 had a special focus on minority ethnic populations and a boosted sample of respondents from minority ethnic groups (unlike the usual representative sample design) and also included a question on religion. However, the standard published reports and tables have not included attention to religious difference in health experiences and outcomes, and the survey was not designed with the explicit aim of producing adequate samples of minority religious groups. Sample sizes are insufficient to explore the health profiles of Buddhists or Jews, but there are reasonable numbers of Muslims, Sikhs and Hindus for some indicative analyses. Furthermore, recent work by Saffron Karlsen and James Nazroo has involved pooling the 1999 and 2004 datasets to allow analyses by religion and ethnicity, and we report on some of these findings below. We have also produced some new descriptive analyses using the 2004 HSE data for the present report, in order to describe some of the EMF indicators by religious group.

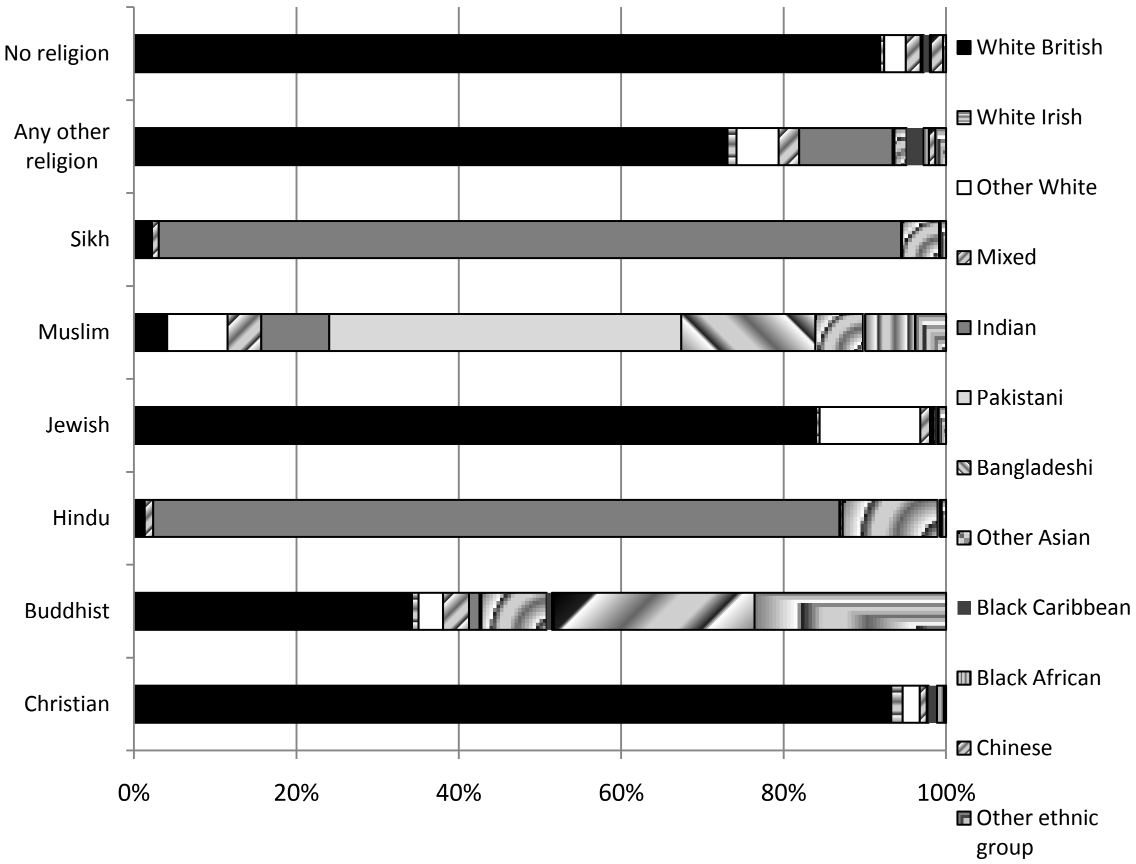
The Citizenship Surveys fielded in England & Wales are also a potential source of information on religious patterns in health-related indicators. We therefore performed some exploratory analyses for possible inclusion in this report. However, the numbers are small and do not sustain complex analyses. We report findings from this survey only in relation to patients' reports of being treated with respect in healthcare, since the HSE 2004 is a preferable source of information for the other indicators.

We described these surveys and their usefulness for explorations of health indictors by ethnicity and religion more in Chapter 7 on ethnicity.

Turning to local data and special studies, compared to ethnicity, far fewer health-relevant datasets have to-date included information on religion or belief. For example, Sultana and Aziz interrogated the Directory of Clinical Databases (DoCDat), which is a comprehensive, freely available UK compilation of 162 local and national health datasets (Sultana and Sheikh 2008). They were able to ascertain whether questions on ethnicity and/or religion were included in 132 of these datasets and found that 62 (46%) contained a question on ethnicity and just seven (5%) on religion, all of which used different coding structures. While a number of special studies have explored religion in relation to health experiences and outcomes, these have predominantly focused on a limited number of issues where religious faith and beliefs has been assumed to play an important role – such as end-of-life care, organ donation and prenatal screening and counselling. Some of these studies have explored aspects of faith, religious belief and religiosity in relation to health experiences and outcomes, but the body of knowledge is limited. We draw on some of these studies in the discussion section of this chapter.

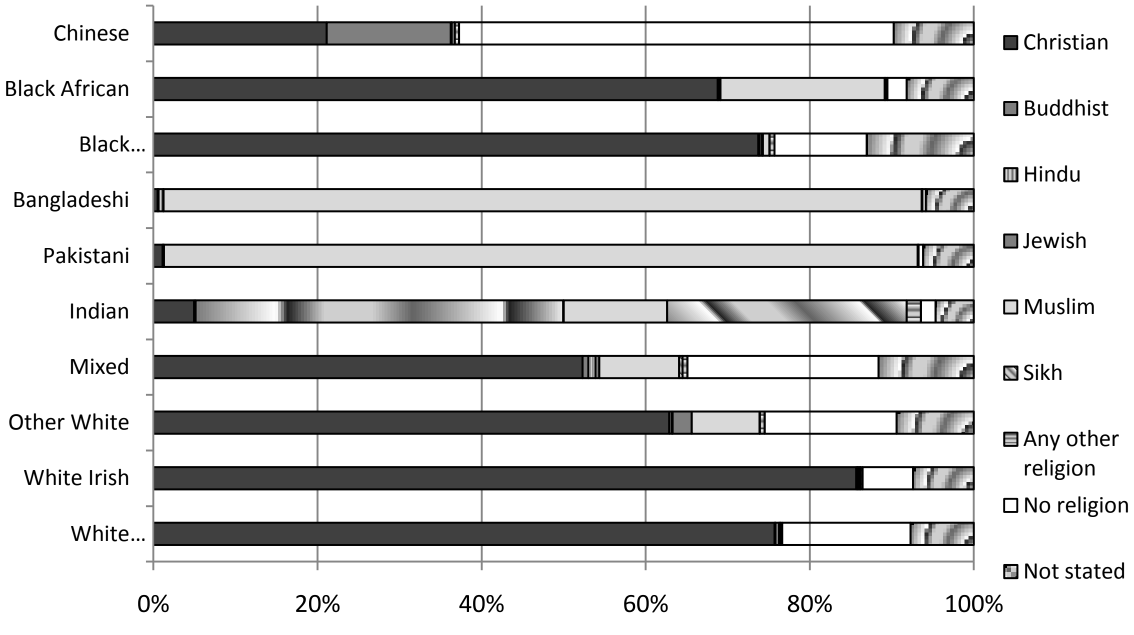
As noted above, religious and ethnic identities are frequently closely inter-related, particularly among some minority ethnic groups in present-day Britain. However, the relationships are varied and have not been explored in any detail within the health arena. Census data has been compiled for the whole of Great Britain by ONS to produce cross-tabulations of ethnicity and religion. We reproduce these data in Figure 1and Figure 2 below. Looking at Figure 1 it can be seen that some religious categories map quite closely onto ethnic categories. For instance, people reporting themselves as Jewish predominantly self-identify as 'White British' or 'Other White'. Also, in Figure 2 it can be seen that some ethnic groups are fairly homogenous in terms of their religious identity. For instance, people identifying themselves as Bangladeshi or British Bangladeshi are almost uniformly Muslim. However, the religious category Muslim is itself made up of people reporting a number of different ethnic identities. Furthermore, some of the Census 2001 ethnic categories - such as Indian or Black African - include people reporting a variety of religions.

Figure 1: Ethnic composition of religious groups in Great Britain, 2001



Source, Census 2001, Great Britain, ONS
Note: The 'Other Black' group made up 0.05 to 0.4% of each religion group but is omitted for ease of presentation.

Figure 2 : Religious composition of main ethnic groups in Great Britain, 2001



Source, Census 2001, Great Britain, ONS
Note: 'Other Black', 'Other Asian' and 'Other ethnic group' were all religiously diverse, but are omitted for ease of presentation.

Additional detail is available from the report 'Religion in the 2001 Census' for Scotland (Scottish Governmentref), and this indicates a pattern that is essentially similar to that for Great Britain as a whole. The most ethnically diverse religious group in Scotland, as in Great Britain overall, was those identifying themselves as Buddhists. Just over half (52%) of Buddhists in Scotland reported themselves to be of a White ethnicity. The remainder comprised Chinese (28%), Other Ethnic groups (14%), Other South Asian (4%), Mixed (2%) and Indian (1%).

The ONS has also produced information on the largest ethno-religious groups from the 2001 Censuses and we reproduce these figures in Table 4 below.

Table 4: Largest ethno-religious groups, Great Britain, 2001

Percentages and numbers

	Proportion of total population	Proportion of ethnic group	Proportion of religious group	Total population (Numbers)
White British Christian	66.8	75.7	93.0	38,137,200
White British No religion	13.8	15.7	91.8	7,887,00
White British Jewish	0.4	0.5	84.0	224,500
White British Muslim	0.1	0.1	4.0	63,900
White British Buddhist	0.1	0.1	34.2	51,000
White Irish Christian	1.0	85.7	1.4	592,200
White Irish No religion	0.1	6.2	0.5	42,600
Other White Christian	1.6	62.9	2.2	895,700
Other White No religion	0.4	16.1	2.7	228,600
Other White Muslim	0.2	8.3	7.4	117,700
Other White Jewish	0.1	2.3	12.4	33,100
Mixed Christian	0.6	52.3	0.9	352,600
Mixed No religion	0.3	23.3	1.8	157,300
Mixed Muslim	0.1	9.7	4.1	65,600
Indian Hindu	0.8	44.8	84.4	471,500
Indian Sikh	0.5	29.2	91.4	307,100
Indian Muslim	0.2	12.6	8.3	132,600
Indian Christian	0.1	5.0	0.1	52,100
Pakistani Muslim	1.2	91.9	43.2	686,200
Bangladeshi Muslim	0.5	92.4	16.5	261,400
Other Asian Muslim	0.2	37.5	5.8	92,800
Other Asian Hindu	0.1	26.3	11.7	65,200
Other Asian Christian	0.1	13.5	0.1	33,300
Black Caribbean Christian	0.7	73.7	1.0	417,100
Black Caribbean No religion	0.1	11.3	0.7	63,600
Black African Christian	0.6	68.8	0.8	333,500
Black African Muslim	0.2	20.0	6.1	97,100
Chinese No religion	0.2	53.00	1.5	128,900
Chinese Christian	0.1	21.1	0.1	51,400
Chinese Buddhist	0.1	15.1	24.7	36,800
Other ethnic group Christian	0.1	32.8	0.2	75,200
Other ethnic group No religion	0.1	14.0	0.4	32,200
Other ethnic group Muslim	0.1	26.0	3.8	59,700
Other ethnic group Buddhist	0.1	15.3	23.6	35,100
Largest ethno-religious groups	**91.56**	.	.	**52,281,700**

Source: Census 2001, Office for National Statistics; Census 2001, General Register Office for Scotland

Note: Eight per cent of respondents chose not to state their religion. The percentage classified as religion not stated was greater in Black and Mixed groups. Numbers rounded to nearest 100.

Clearly, it may be important to differentiate groups of people along both religious and ethnic lines in order to identify important areas of inequality. However, even where data sources collect information on both ethnicity and religion, the datasets often do not yield sufficient numbers to allow breakdown into religio-ethnic groups which may be the most meaningful in terms of describing and understanding health outcomes. Given the importance of also stratifying analyses by sex and age, it is usually not possible to discern differences between religion groups with the currently available data.

It is also worth noting the proportions of people who state that they have no religion within each ethnic group (Table 5), since this varies considerably from over 50% among the Chinese group to less than 1% among the Bangladeshi and Pakistani group. So, it seems likely that the relevance of religion to describing and understanding health outcomes may vary across different ethnic groups. It is important to remember, however, that the Census questions on religion may not have captured dimensions of belief or spirituality that people identify with but which do not fit within the framework of established religions. For instance, King and colleagues found that around 18% of White British and White Irish people, and 16% of Black Caribbean people, reported themselves to have a 'spiritual but not religious' life view (King et al., 2006).

Table 5: Percentage of people reporting no religion: by ethnic group and country of birth, Great Britain, 2001

	Born in UK	Born outside UK	Total
White	15.6	13.8	15.5
Indian	2.4	1.3	1.8
Pakistani	0.7	0.4	0.6
Bangladeshi	0.6	0.3	0.5
Other Asian	5.0	2.9	3.6
Black Caribbean	13.6	8.0	11.5
Black African	3.5	1.8	2.4
Other Black	13.5	7.2	12.5
Chinese	57.9	51.0	53.0
Mixed	26.2	12.6	23.3
Other Ethnic Group	13.4	14.1	14.0
Total	*15.5*	*10.8*	*15.1*

Source: Census, April 2001, Office for National Statistics; Census, April 2001, General Register Office for Scotland

A number of special studies have explored religion and belief in relation to health experiences and outcomes, but these have predominantly focused on a limited number of issues where faith has been assumed to play an important role – such as end-of-life care, organ donation and prenatal counselling (Randhawa et al., 2010; Cobb, 2008; Shaw, 2009; Rozario and Gilliat-Ray, 2006). Furthermore, though data are limited across the board, more attention has been given to the largest religions and particularly the religious needs of South Asian Muslims, than to other religious groups. There has been little exploration of other aspects of belief or variations in the meaning of religion in people's lives.

This highlights a further area in need of development in relation to understanding the links between religion and health - namely the need for theoretical work to more clearly articulate the nature of religious identity and its potential links to health and healthcare experiences. As has been illustrated above, several of the largest religious groups in Great Britain, including Christians and Muslims, are very diverse in terms of ethnic make-up. In many instances therefore, the broad religious categories lack meaning for analyses that aim to describe and understand differentials in health experiences and outcomes. Nevertheless, there may be aspects of health and healthcare for which it is meaningful to examine religious groups - for instance where there is a concern to understand and address the implications of particular religious practices for health status, or where there is evidence that religious identity over-rides other identities in shaping the ways in which healthcare providers treat patients. Religious identities may also inter-relate in complex ways with socioeconomic status and gender, further highlighting the need for conceptual clarity.

Side-by-side there is a need for the establishment of standard codes and procedures for recording religion in routine health datasets. Currently there is a lack of precision and justification in the use of religious categories and labels. For instance, the term ‘British Muslim’ is sometimes used to refer to studies that have focused exclusively on Pakistanis, the findings from which may not be relevant across the whole, diverse range of Muslim experience in the country.

As with ethnicity, there is a need for the collection of data that can enable a better understanding of process and autonomy – causal pathways cannot be inferred from descriptive analyses of inequalities between groups since religion can be a proxy for multifarious factors that may impact upon health. More detailed surveys and qualitative studies are needed that can generate information about religion that takes account of its multi-dimensional nature and diverse links to health.

Finally, efforts to monitor and understand health patterns by religion must extend beyond the Muslim population, or even the largest religious groups, to include smaller minority religious groups and other aspects of belief.

LIFE: main indicators

The following LIFE indicators are not currently available for different religious groups.

- Period life expectancy at birth, ages 20, 65 and 80
- Infant mortality
- Cause-specific mortality – Cardiovascular disease and cancer
- Suicide
- Accidental mortality, assault and injury
- Deaths in institutions

HEALTH: main indicators

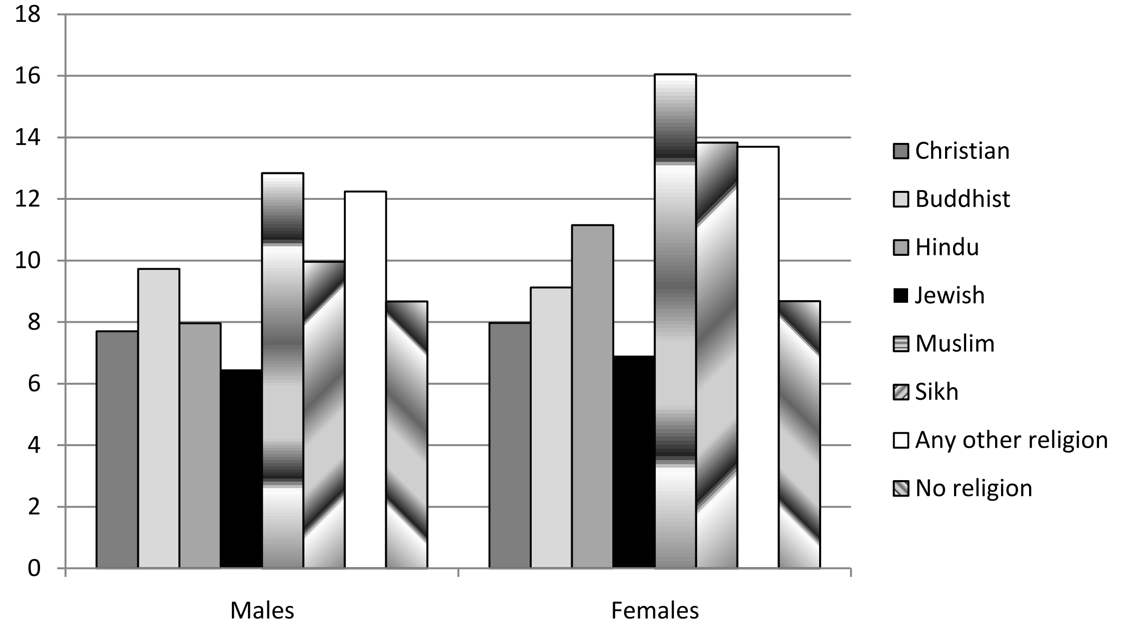
Outcomes

Self-reported general health

Percentage of people reporting not good health: 2001 Census data

We present first the aggregate data for all people for the whole of Great Britain from the Censuses of 2001. Among males, the age-standardized percentage of people reporting not good health was highest among Muslims (12.8%) and those reporting 'Any other religion' (12.2%) and lowest among Jewish males (6.5%). Among females, the highest percentage was again among Muslims (16.1%) with the percentage among Sikhs (13.8%) and 'Any other religion' (13.7%) also being high, and lowest again among the Jewish group (6.9%) (Figure 3).

Figure 3: Age-standardized percentages of people reporting 'not good' health, by religion, Great Britain, 2001



Source: Census, April 2001, Office for National Statistics; Census, April 2001, General Register Office for Scotland
Note: These figures are for all people of all ages.

Clearly, the pattern presented for Great Britain is dominated by the data for England. However, disaggregated data for Wales are not currently available from the Office for National Statistics (ONS). The statistics reported for England & Wales combined mirror those above, with self-reported not good health status among males being highest in Muslims, closely followed by 'Other Religion' and then Sikhs and Buddhists. Among females, Muslims stood out as having by far the highest proportion reporting not good health, followed by Sikhs, and then the 'Other Religion' category.

Patterns of poor health by religion have been reported on separately for the Scottish Census and the age-sex proportions are presented in Table 6 below. We have computed age-standardized rates for men and women aged 16 years and over using the European Standard Population and these are also shown in the table. These figures indicate that in Scotland, as in Great Britain as a whole, Muslims were most likely to report 'not good' health among both males and females out of all the religious groups. Other groups with relatively high levels of 'not good' health were Sikhs, Roman Catholics and those reporting 'other religion'. Hindu and Jewish men had particularly low levels of self-reported 'not good' health. Looking at the age-specific rates, the high levels of 'not good' health reported among the older age-groups of Muslims, Sikhs and Hindu women are notable.

Table 6: Percentages of people aged 16+ reporting 'not good' health by age-group, sex and religious group, Scotland, 2001

		16 - 29	30 - 49	50 - Pensionable age	Pensionable age - 74	75+	Age standardized rate all people aged 16+
Church of Scotland	Male	2.9	7.3	16.5	18.0	24.2	10.2
	Female	3.4	8.3	14.4	16.5	27.5	10.4
Roman Catholic	Male	4.1	10.3	25.6	27.6	33.0	15.1
	Female	4.5	11.6	23.1	26.4	36.0	15.4
Other Christian	Male	5.6	13.1	17.7	24.0	21.7	13.7
	Female	4.9	10.8	17.5	17.1	30.0	12.5
Buddhist	Male	5.6	13.1	17.7	24.0	21.7	13.7
	Female	4.9	10.8	17.5	17.1	30.0	12.5
Hindu	Male	1.8	3.3	13.4	18.7	43.3	8.8
	Female	1.8	6.5	14.7	32.8	52.9	13.3
Jewish	Male	1.8	7.6	13.6	16.0	29.0	9.4
	Female	5.2	8.0	14.0	15.9	31.6	10.8
Muslim	Male	3.5	9.1	28.8	31.8	36.2	15.8
	Female	4.1	13.8	36.1	47.1	43.8	21.2
Sikh	Male	2.2	10.3	24.3	27.9	45.2	15.0
	Female	2.8	13.0	33.5	38.8	33.7	19.1
Other religion	Male	5.2	10.1	18.2	23.9	29.7	13.1
	Female	7.0	13.9	22.5	22.3	29.0	15.7
No religion	Male	3.4	7.0	15.7	20.1	27.3	10.4
	Female	4.2	8.5	15.6	19.5	30.5	11.5

Source: Analysis of religion in the 2001 Census, Scotland, http://www.scotland.gov.uk/Publications/2005/02/20757/53575

Notes: Age standardized rates computed by the authors using direct standardization and the European Standard Population.

Percentage of people reporting not good health: HSE 2004 data

As an alternative source of information on self-reported health among people of different religious groups, we made use of the HSE, 2004. No such survey data are available for Scotland or Wales. Table 7 presents the crude and age-standardized rates of self-reported 'not good' health for all people aged 16 years and over. Among men, it was the Sikh group that had the highest proportion reporting not good health, followed by the Muslim group, and among women, Muslims had the highest proportion followed by Sikhs. Examination of confidence intervals suggested that differences between the Muslims and the White Christian group were statistically significant among both men and women, but not so for Sikhs; a finding that reflects the smaller sample size.[2] It should be noted that the sample sizes for those reporting to be Jewish and Buddhist were too small to sustain meaningful analyses and are therefore not reported here.

Though the actual levels of 'not good' health cannot be compared across the two data sources due to differences in data collection method, question wording and age-group covered, the patterns between religious groups are broadly consistent across the Census and HSE findings.

Table 7: Percentage of people aged 16+ years self- reporting 'not good' health (fair/bad/very bad) by religious group, England, 2004

	Men			**Women**		
	Crude %	Age-standardized	N	Crude %	Age-standardized	N
No religion (White)	19.7	22.2	608	19.4	21.9	560
Christian (White)	23.9	21.3	1,869	26.9	23.3	2,653
No religion (minority)	26.0	29.0	414	25.0	31.5	402
Christian (minority)	26.3	24.7	1,133	24.1	22.7	1,653
Muslim	29.3	36.7	967	35.0	48.0	1,131
Hindu	30.3	31.2	296	27.8	31.6	305
Sikh	34.9	37.9	106	36.1	42.8	145

Source: HSE 2004, authors' analyses.
Notes: Estimates for the Christian (White) and the No religion (White) come from the core sample while all others come from the minority ethnic boost sample. Figures presented are crude rates not adjusted for differing age structures and also age-standardized rates standardized using the European Standard Population in 5 years age-groups up to 70+. Rates are not presented for Buddhist or Jewish groups since numbers are very small. N's shown are the unweighted sample sizes.

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[2] Approximate confidence intervals were computed for both crude and age-standardized rates using estimated design factors.

Ethno-religious groups:
We present below the simple, crude rates among religio-ethnic groups as an indication of the differing levels of 'not good' health experienced among these groups (Table 8). Clearly, small sample sizes limit the power to detect statistically significant differences between groups. Nevertheless, the elevated levels of 'not good' health among the Muslims across the ethnic categories and the Sikhs are a consistent pattern, even without adjusting for their younger age-structures.

Table 8: Percentage of people self- reporting 'not good' health (fair/bad/very bad) (crude rates) by ethno-religious group, England, 2004

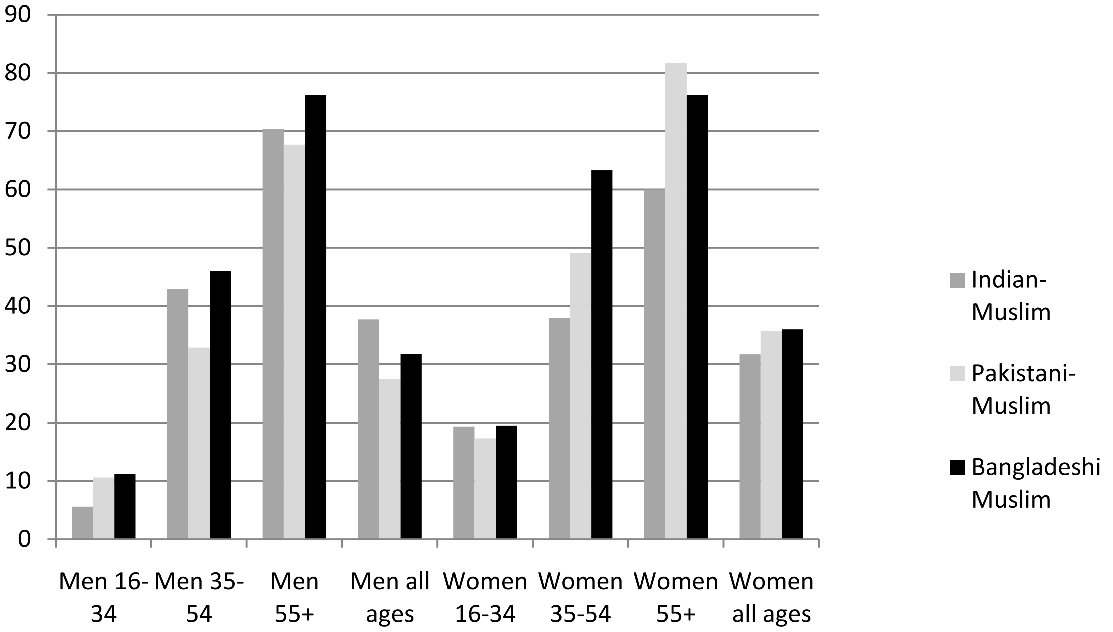
	Men		**Women**	
	%	N	%	N
Black Caribbean no religion	26.2	96	31.9	91
Black Caribbean Christian	26.7	304	38.9	538
Black African Christian	11.9	269	20.1	349
Black African Muslim	19.0	72	28.6	91
Indian Christian	10.7	33	22.5	53
Indian Muslim	37.7	71	31.7	76
Indian Hindu	30.1	294	27.8	305
Indian Sikh	34.9	106	36.1	145
Bangladeshi Muslim	31.8	400	36.0	466
Pakistani Muslim	27.5	420	35.7	492
Chinese no religion	16.5	192	20.7	191
Chinese Christian	20.9	101	20.0	123
Irish Christian	29.5	422	21.1	578
Irish no religion	27.0	69	22.3	66
White Christian	23.9	1869	26.9	2653
White no religion	19.7	608	19.4	560

Source HSE 2004, authors' analyses.

Notes: No Jews included. Numbers of Chinese Buddhist too small to include. Rates given are crude rates, unadjusted for differing age structures.

There is also some indication here that levels of self-reported ill-health vary *within* ethnic groups by religion - a pattern that was shown in Nazroo's analysis of the Fourth National Survey of Ethnic Minorities (FNSEM) 1993-4 (Nazroo, 1997). Small numbers preclude detailed analysis, but we present below the levels of self-reported 'not good' health by ethnic group *among* Muslims, and also by religion *among* Indians.

Figure 4: Percentage of people reporting not good health by age, sex and religio-ethnic group, Muslim groups compared, HSE 2004.

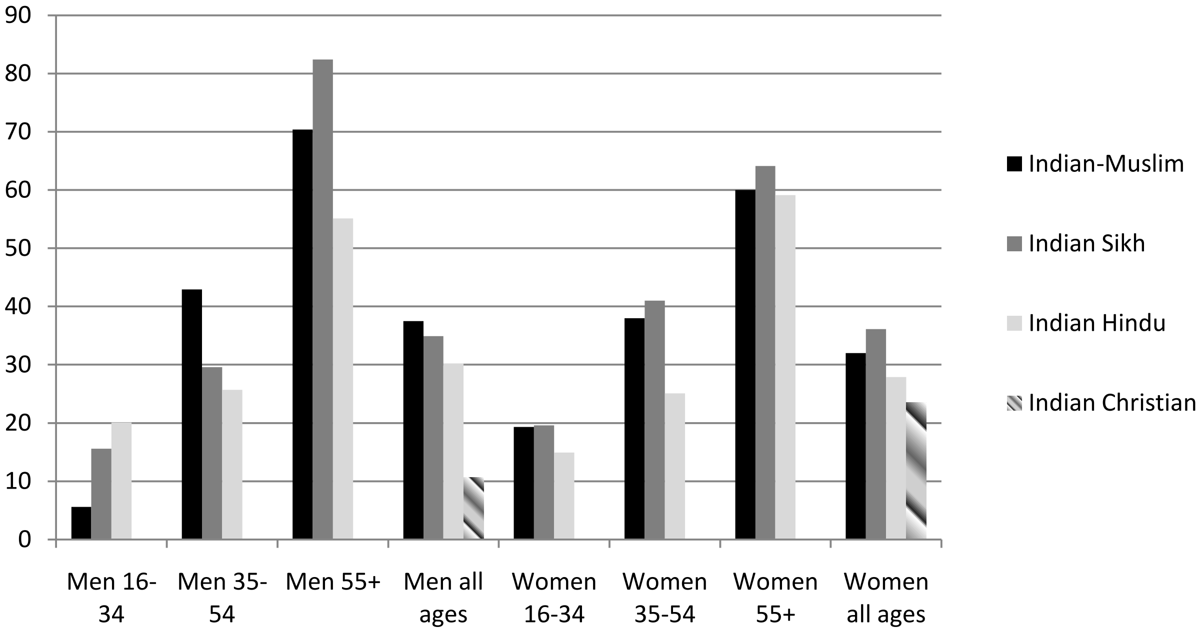


Source: HSE 2004, authors' analysis
Note: All-age estimates are crude rates, not standardized for age.

Numbers of Black African Muslims were very small in the survey and so are not included in the chart above. The patterns by age and sex are complex (Figure 4), particularly among men, and the Indian Muslim rates are based on small numbers meaning that the estimates are imprecise. Among women aged 35 and over, the data suggest that levels of not good health may be higher among Pakistani and Bangladeshi Muslims than among Indian Muslims, though small numbers preclude any firm conclusions.

Among the Indian ethnic group (Figure 5), a smaller proportion of the Hindu sample reported not good health than the other religions in all age-sex groups except among the youngest age-group of men. Numbers of Indian Christians were too small to produce age-specific estimates, but their overall crude rate was the lowest among both men and women.

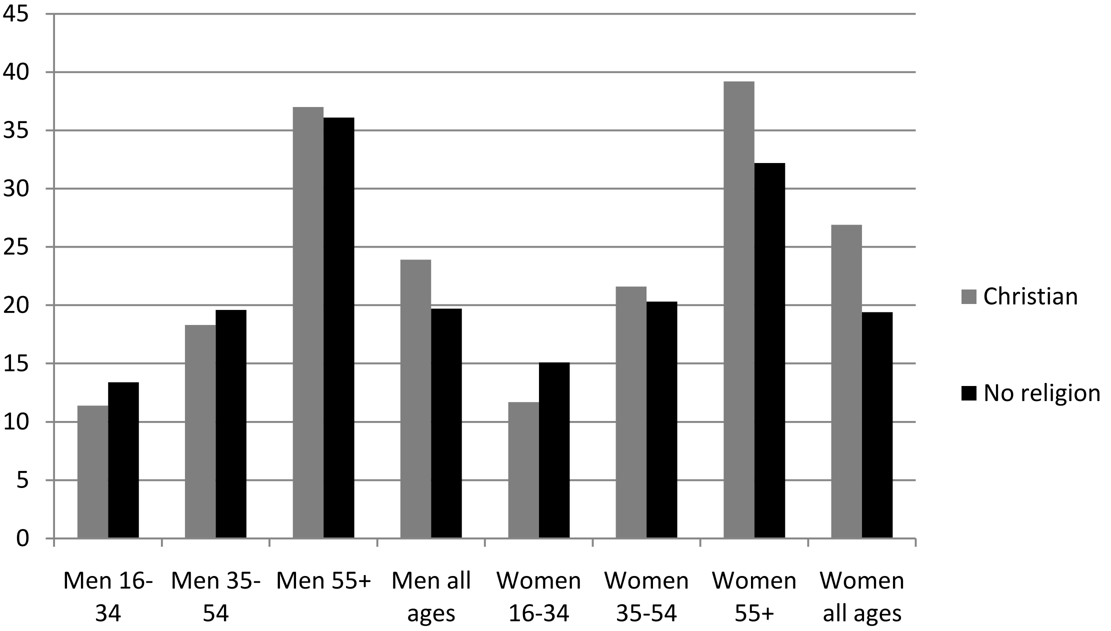
Figure 5: Percentage of people reporting not good health by age, sex and religio-ethnic group, among those reporting their ethnicity as 'Indian', HSE 2004.



Source: HSE 2004, authors' analysis
Note: All-age estimates are crude rates, not standardized for age.

It is also of interest to explore whether there are religious differences in health outcomes among the White majority. Figure 6 below compares self-reported poor health among White Christians and Whites who report no religion. The numbers were too small to compare those who were Christian with those who reported no religion for the Black Caribbean group. The overall crude rates show that people reporting no religion are less likely to report not good health than those who report themselves as Christian. However, this is in part explained by the younger age-profile of those who state no religion. Age-specific comparisons suggest modest and non-significant differences between the two groups, except among older women, where Christians report significantly worse health.

Figure 6: Percentage of people reporting 'not good' health by religion among those reporting their ethnicity as 'White', by sex, England 2004



Source: HSE 2004 authors' analysis
Notes: All age rates are crude not adjusted for age,

Self-reported not good health: multivariate analyses of HSE data

Using HSE data pooled across 1999 and 2004 - the two years that have included ethnic boost samples - Karlsen and Nazroo have been able to look more closely at patterns of ill-health by religio-ethnic groups (Karlsen and Nazroo, 2009ab; Karlsen and Nazroo, in press). They performed multivariate analyses to explore the associations between ethno-religious groups and self-reported health status (as well as a number of other indicators of health (LLTI, diagnosed diabetes, diagnosed hypertension). They found that the health of the White Christian group was as good as, or better than, all the other ethno-religious categories identifiable through the survey (though HSE did not cover all such groups in the population). In very few instances did minority groups stand out as better than the White Christians on any of the indicators examined. The Muslim group stood out as having the most disadvantaged health indicators. In contrast with Indian Muslims and Sikhs, the health of Indian Christians and Hindus compared more favourably with that of White Christians.

In Table 9 below we reproduce their results for self-reported 'not good' health. The figures in bold indicate the odds ratios for comparisons against the White British

Christian group that were statistically significantly different from one, indicating an elevated risk of 'not good' health. Among men, Irish Christians had significantly higher odds of reporting 'not good' health than White British Christians. Among both men and women, Black Caribbean Christians, Black Caribbeans with no religion, Pakistani Muslims, Bangladeshi Muslims, Indian Muslims, Indian Sikhs and Indian Hindus, the odds ratios were also greater than one indicating a significantly higher risk of reporting 'not good' health. The largest odds ratios were seen for the Bangladeshi Muslims. None of the minority ethno-religious groups had significantly lower odds of reporting not good health than the White British Christians.

Table 9: Odds of reporting health to be 'not good' adjusted for age, by sex and ethno-religious group, England, HSE 1999 and 2004 pooled data

		Men			Women		
Religion	Ethnicity	%	Age-standardised odds	Un-weighted bases	%	Age-standardised odds	Un-weighted bases
Christian	White British	25	1.00	4644	26	1.00	6288
	Irish	32	**1.50**	718	22	0.85	1011
	Black Caribbean	32	**1.57**	660	40	**2.41**	1040
	Indian	17	0.83	55	23	1.17	70
	Chinese	19	0.96	145	13	0.60	189
	African	17	0.97	267	17	0.91	333
None	White British	19	1.01	1257	19	0.99	1114
	Black Caribbean	29	**1.75**	161	31	**2.38**	150
	Chinese	24	1.52	376	12	0.62	401
Muslim	Pakistani	28	**1.88**	1014	36	**2.84**	1107
	Bangladeshi	37	**3.01**	921	36	**3.04**	1023
	Indian	34	**2.14**	126	39	**2.80**	144
	African	8	0.49	76	26	1.96	85
Sikh	Indian	30	**1.78**	307	37	**2.57**	349
Hindu	Indian	30	**1.88**	584	27	**1.50**	613

Source: Adapted from (Karlsen and Nazroo in press)
Notes: 'Not good' includes fair, poor or very poor. * White British and other white groups, excluding Irish people.

Limiting long-term illness (LLTI):

Percentage of people reporting limiting long-term illness or disability: 2001 Census data

As shown in Table 10, age-standardized rates of LLTI for all people for Great Britain as a whole were highest among Muslims for both males and females, though males and females reporting 'any other religion' and also Sikh females, had high rates. Jewish males and females were the least likely to report an LLTI when age standardized rates were compared.

Table 10: Age standardised limiting long-term illness or disability rates (LLTI): by religion and sex, Great Britain, April 2001

	Men		**Women**	
	Crude LLTI rates	Age standardised LLTI rates	Crude LLTI rates	Age standardised LLTI rates
Christian	19.1	15.9	21.0	15.3
Buddhist	14.8	16.4	13.4	15.4
Hindu	12.5	15.6	15.0	18.9
Jewish	17.0	12.6	20.5	12.8
Muslim	13.2	21.4	14.1	24.3
Sikh	13.1	17.5	16.1	21.4
Any other religion	22.6	21.7	24.6	22.7
No religion	12.2	16.0	10.4	15.3
Not stated	17.9	17.7	21.2	16.9
Total	17.4	16.1	19.3	15.6

Source: Census, April 2001, Office for National Statistics Census, April 2001, General Register Office for Scotland

Age-sex patterns of LLTI by religion are shown in Table 11 for Scotland alone. Patterns are complex and it should be remembered that numbers are not large in some of the cells. Among men the religions with the highest prevalence of LLTI at each age-group were: 16-29 years, Roman Catholic 8.2%, 30-49 years, Buddhist, 17.7%, 50-pensionable age, Muslim, 45.1%, pensionable age – 74 years, Muslim, 63.3% and 75+ Hindu, 76.7%. Among women, the religions with the highest prevalence of LLTI at each age-group were: 16-29 years 'Other religion' 9.5%, 30-49 years 'Other religion' 20.5%, 50-pensionable age Muslim 50.3%, pensionable age to 74 years Muslim 70.1% and 75+years Hindu 82.4%. We have computed age-standardized rates for all people aged 16 years and over using the European

Standard Population, the highest rates being among the Muslims for both men and women though Roman Catholics and Sikhs also have high rates.

Table 11: Percentage of people with long-term limiting illness and disability by current religion, Scotland 2001

		16-29	30-49	50-Pension age	Pension age-74	75+	Age-standard-ized all people 16+years
Church of Scotland	M	6.9	12.8	30.1	46.1	60.7	21.0
	F	6.3	12.9	25.5	39.5	66.5	20.4
Roman Catholic	M	8.2	16.4	41.3	56.5	67.7	26.6
	F	7.2	16.4	35.5	50.2	72.2	25.6
Other Christian	M	6.5	12.3	27.5	45.6	62.8	20.1
	F	6.4	14.2	26.6	40.6	68.4	21.3
Buddhist	M	7.5	17.7	31.7	47.0	58.7	23.3
	F	7.0	14.2	27.9	42.3	68.6	22.0
Hindu	M	3.1	4.6	22.5	49.0	76.7	16.3
	F	3.7	9.9	24.3	56.7	82.4	22.0
Jewish	M	4.3	10.9	24.2	39.5	61.3	17.6
	F	7.2	9.8	23.7	37.0	66.6	18.8
Muslim	M	6.9	14.4	45.1	63.3	60.9	26.7
	F	6.4	18.9	50.3	70.1	73.6	30.7
Sikh	M	5.3	16.2	39.4	50.5	54.8	24.1
	F	5.4	17.2	42.0	62.9	69.6	28.4
Another Religion	M	7.8	15.7	31.8	45.6	65.1	22.8
	F	9.5	20.5	34.0	47.9	69.7	26.9
No religion	M	7.1	11.8	27.4	46.6	61.7	20.1
	F	6.7	12.4	26.1	42.2	65.6	20.8

Source: Analysis of religion in the 2001 Census, Scotland, http://www.scotland.gov.uk/Publications/2005/02/20757/53575
Notes: Age standardized rates computed by the authors using direct standardization and the European Standard Population.

Percentage of people reporting LLTI: HSE 2004 data

We draw on the HSE 2004 survey as a further source of data on LLTI by religion, though this of course relates only to England. Table 12 presents the percentages of people reporting an LLTI by sex for the largest religious groups. Age-standardized rates have been computed using the European Standard Population. In line with the Census data reported above, the Muslim and Sikh groups had the highest levels of LLTI once adjustments were made for differing age structures. Muslim and Sikh women had a particularly high percentage reporting LLTI, again mirroring the pattern in the Census data.

Table 12: Percentage of people aged 16+ years self- reporting LLTI by religious group, England, 2004

	Men			**Women**		
	Crude %	Age-adjusted	N	Crude %	Age-adjusted	N
No religion (White)	16.7	19.4	607	21.1	24.2	560
Christian (White)	25.7	22.6	1867	29.4	25.4	2649
No religion (minority)	15.1	18.6	414	16.7	19.4	403
Christian (minority)	24.4	22.1	1134	23.2	22.2	1652
Muslim	22.1	27.3	968	26.3	37.4	1132
Hindu	22.3	23.3	296	16.3	18.4	305
Sikh	26.0	31.4	106	25.7	32.9	145

Source: HSE 2004, authors' analyses.
Notes: Estimates for the Christian (White) and the No religion (White) come from the core sample while all others come from the minority ethnic boost sample. Figures presented are crude rates not adjusted for differing age structures and age-standardized rates based on the ESP. Age-standardized rates are not presented for Buddhist group since numbers are very small.

LLTI: multivariate analyses of HSE data

We again report findings from the multivariate analyses performed by Karlsen and Nazroo (Karlsen S. and Nazroo J., 2009a, in press) to explore evidence of differentials in the prevalence of LLTI among different ethno-religious groups. Table 13 below presents the odds of reporting LLTI as compared to the White British Christian comparator for various minority ethno-religious groups, adjusted for age. The table shows that among men, Chinese with no religion and African Muslims were less likely than the White British Christian group to report LLTI, but Irish Christians, Pakistani Muslims, Bangladeshi Muslims, and Indian Muslims were all more likely to report LLTI. Among women, it was the Chinese Christians, African Christians and Chinese with no religion who had lower odds of reporting LLTI than the White British Christians, while Black Caribbean Christians, Black Caribbeans with no religion, Bangladeshi Muslims, Pakistani Muslims and Indian Muslims were all more likely to. Odds ratios for Sikhs were greater than one, but did not reach statistical significance.

Table 13: Odds of reporting LLTI adjusted for age, by sex and ethno-religious group, England, HSE 1999 and 2004 pooled

		Men			Women		
		%	Age-standardised odds	Un-weighted bases	%	Age-standardised odds	Un-weighted bases
Christian	White British	26	1.00	4644	28	1.00	6291
	Irish	30	**1.28**	718	25	0.90	1010
	Black Caribbean	27	1.11	662	29	**1.25**	1042
	Indian	18	0.88	55	17	0.72	70
	Chinese	14	0.61	145	8	**0.29**	125
	African	15	0.81	267	9	**0.41**	333
None	White British	18	0.88	1257	21	1.07	1113
	Black Caribbean	23	1.23	162	31	**2.15**	150
	Chinese	6	**0.32**	376	5	**0.23**	401
Muslim	Pakistani	21	**1.23**	1015	27	**1.75**	1108
	Bangladeshi	27	**1.79**	920	21	**1.31**	1023
	Indian	28	**1.54**	126	30	**1.71**	144
	African	5	**0.34**	76	20	1.34	85
Sikh	Indian	29	1.66	306	26	1.37	350
Hindu	Indian	18	0.90	584	18	0.78	613

Source: Adapted from (Karlsen S. and Nazroo J. in press)

Trends over time in general health by religion:

It is not possible to ascertain trends over time in religious differentials in general health due to data shortages. However, it is worth noting that analyses of data from the 1993-4 FNSEM found evidence of higher levels of self-reported not good health, LLTI and also heart disease among Muslims within the Indian/African Asian ethnic group when compared to Hindus in this ethnic group. It therefore seems likely that the disadvantaged health situation of Asian Muslims has persisted for some time.

Poor mental health or wellbeing

Percentage of people reporting high GHQ12 score: HSE 2004 data

The chosen EMF indicator of poor mental wellbeing - GHQ12 score of four or more - is available for religious groups from the HSE 2004 for England only. Table 14 presents the percentage of people with a GHQ12 score of four or more by religious group for men and women. The highest percentage was among Muslims for both men and women, though there were no statistically significant differences between the groups.

Table 14: Percentage of people with GHQ12 score 4+ by religious group and sex, England, 2004

	Men			**Women**		
	Crude %	Age-adjusted	N	Crude %	Age-adjusted	N
No religion (White)	12.2	11.8	557	15.9	14.8	527
Christian (White)	10.8	10.7	1727	13.9	14.2	2478
No religion (minority)	10.4	12.5	346	17.4	17.2	341
Christian (minority)	12.2	12.0	340	15.8	16.3	1384
Muslim	16.4	19.4	670	17.8	26.9	724
Hindu	14.3	14.6	253	17.1	17.3	264
Sikh	13.2	14.8	84	12.5	14.3	116

Source: HSE 2004, authors' analyses.
Notes: Estimates for the Christian (White) and the No religion (White) come from the core sample while all others come from the minority ethnic boost sample. Figures presented are crude rates not adjusted for differing age structures and age-adjusted rates used ESP. Numbers too small for Buddhists and Jews.

These findings mirror those of King and colleagues (2006) in their analysis of data from the Ethnic Minority Psychiatric Illness Rates in the Community (EMPIRIC) Survey, in which no association was found between religious denomination (irrespective of ethnicity) and prevalence of Common Mental Disorder (as measured by the CIS-R tool). The overall prevalence of CMD was estimated to be: 17.5% among people reporting no religion, 21.6% among those reporting themselves as Hindu including Jain, 17.0% among Sikhs, 16.4% among Muslims and 16.3% among Christians. When King et al. (2006) explored the relationship between religious faith in general and CMD, they found that people professing a religious life view were no less likely to have CMD than those without such a view. However, multivariate analyses suggested a positive association between holding a spiritual life view without a religious affiliation and risk of CMD. Individuals who reported neither a spiritual nor a religious life view had similar levels of CMD to those who reported themselves to be religious.

Process

Treatment with dignity and respect

The EMF includes an indicator of people's perception of whether or not they have been treated with dignity and respect when seeking healthcare. We carried out new analyses of data from the Citizenship Survey 2007 for England & Wales to examine reports of treatment by health services. The numbers are fairly small and should be treated with caution. Overall, high proportions - around 90% - of people in all the religious groups said that they were treated with respect when using health services 'all of the time or most of the time'. The groups with most people saying 'some of the time or less' were Buddhist, Muslim and No religion at all, though the differences were not large and did not reach statistical significance (Table 15).

Table 15: Percentage of people who answer 'some of the time or less' when asked whether they are treated with respect when using health services', by religion, England & Wales, 2007

	%	N
Christian	8.5	8,874
Buddhist	12.2	125
Hindu	7.9	754
Jewish	8.3	53
Muslim	9.1	1,765
Sikh	8.8	338
Any other religion	8.1	381
No religion at all	10.8	1,665
All people	8.9	13,955

Source: Citizenship Survey 2007, Authors' analysis.
Note: Overall Chi-Square, 13.67; df, 7; p=.07.

A further question in the survey asked about experiences of religious discrimination at the respondent's local doctor's surgery. Table 16 below shows that overall few people reported such discrimination, and the survey found that reports of discrimination in healthcare settings were less common than for other public services (Kitchen, Michaelson and Wood, 2005). Nevertheless, while just 0.4% of Christians reported such discrimination, 4.5% of Muslim respondents felt that they had experienced religious discrimination, a difference that was statistically significant. Numbers for other religious groups are small and do not reveal significant differences.

Table 16: Percentage of people reporting discrimination at their local medical surgery by religion, England & Wales, 2007

Religion	%	N
Christian	0.4	8,929
Buddhist	0.0	129
Hindu	1.2	751
Jewish	2.4	52
Muslim	4.5	1,777
Sikh	1.5	340
Any other religion	0.8	384
No religion at all	0.5	1,676
All people	0.6	14,038

Source: Citizenship Survey 2007, Authors' analysis.

There are no national data on respect and dignity in treatment by religion for Wales or Scotland.

Other evidence of health service experiences

A somewhat less positive picture is painted by those detailed, qualitative studies that have explored healthcare experiences among individuals of minority ethnic and minority religious identity. By-and-large these studies have suggested rather low levels of satisfaction with services and some significant concerns around feeling unwelcome and disrespected by healthcare professionals (Bharj and Salway, 2008; Mir and Sheikh, 2010). Though a majority of these studies take an ethnicity focus (See Chapter 7 on Ethnicity), several have highlighted the ways in which certain religious identities - notably a Muslim identity - may result in particularly negative experiences in healthcare settings (as in other public service settings) (Worth et al. 2009; Mir and Sheikh, 2010). We return to the issue of religious sensitivity and appropriateness of health services in our discussion below.

Health-related behaviours and life-style factors

The EMF includes indicators relating to various aspects of maintaining a healthy life-style including: smoking; obesity; physical activity; consumption of fruit and vegetables, and alcohol consumption. We report on data from the HSE 2004 for each of these areas across the religious groups for men and women separately in turn below. No such data are available for Scotland or Wales at the present time.

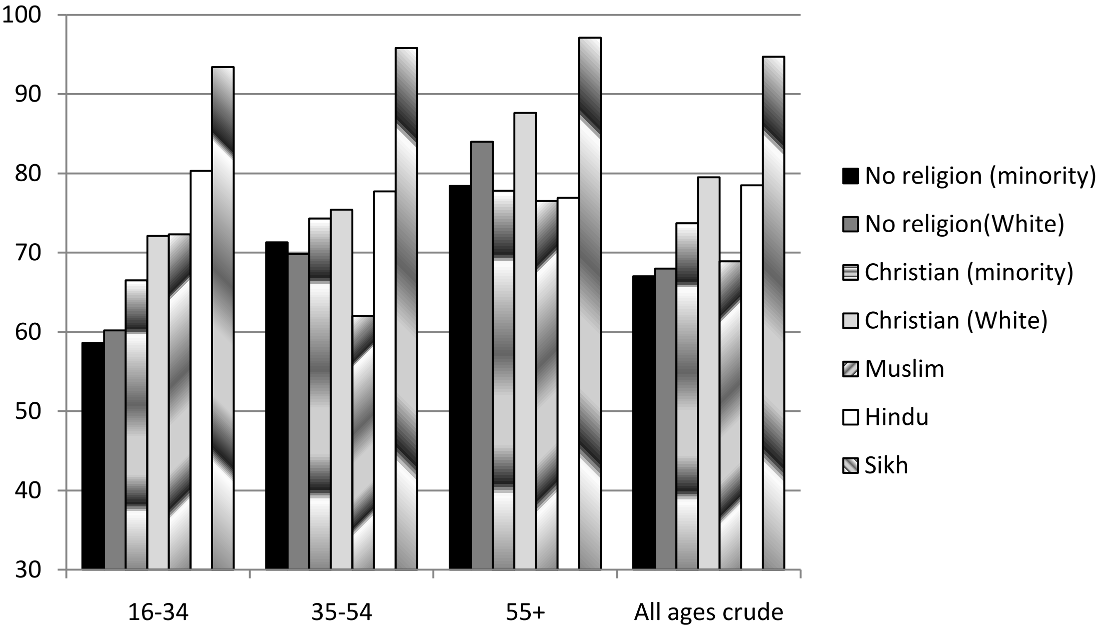
Smoking:

Percentage of people not smoking, HSE 2004

The chosen EMF indicator is 'percentage of people not currently smoking'. It is worth noting, however, that tobacco chewing is prevalent among some minority religio-ethnic groups, including among older Bangladeshi Muslim women, with associated health risks (Wardle, 2004).

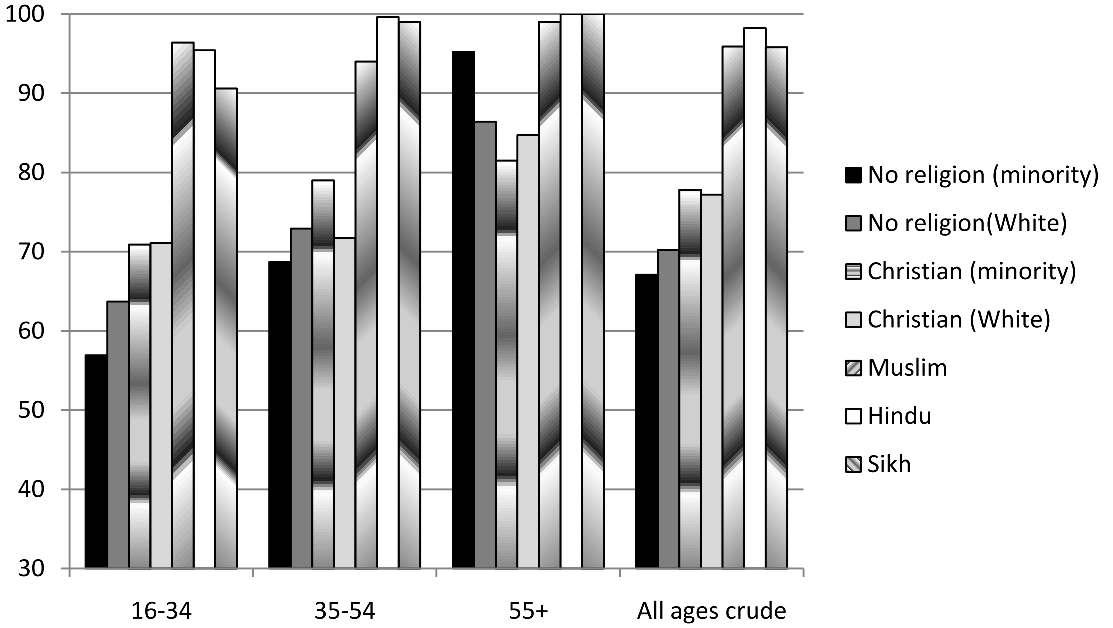
Figure 7 and Figure 8 present the percentages of men and women respectively who report not currently smoking (including ex-smokers and never smokers) among each religious group. Among men, only the Sikh group stands out clearly as being more likely not to smoke than the other religions at all ages. Among the youngest men, those who report no religion are the most likely to be current smokers, while in the middle age-range, it is Muslim men who appear most likely to smoke.

Figure 7: Percentage of men *not* currently smoking by age-group and religion, England, 2004



Source: HSE 2004, authors' analysis.
Note: Buddhist and Jewish numbers too small to produce estimates by age-band. Numbers in some older age-bands are small. Age standardization made little difference to the overall rates and crude rates are therefore reported here.

Figure 8: Percentage of women *not* currently smoking by age-group and religion, England, 2004



Source: HSE 2004, authors' analysis.
Note: Buddhist and Jewish numbers too small to produce estimates by age-band. Numbers in some older age-bands are small. Age standardization made little difference to the overall rates and crude rates are therefore reported here.

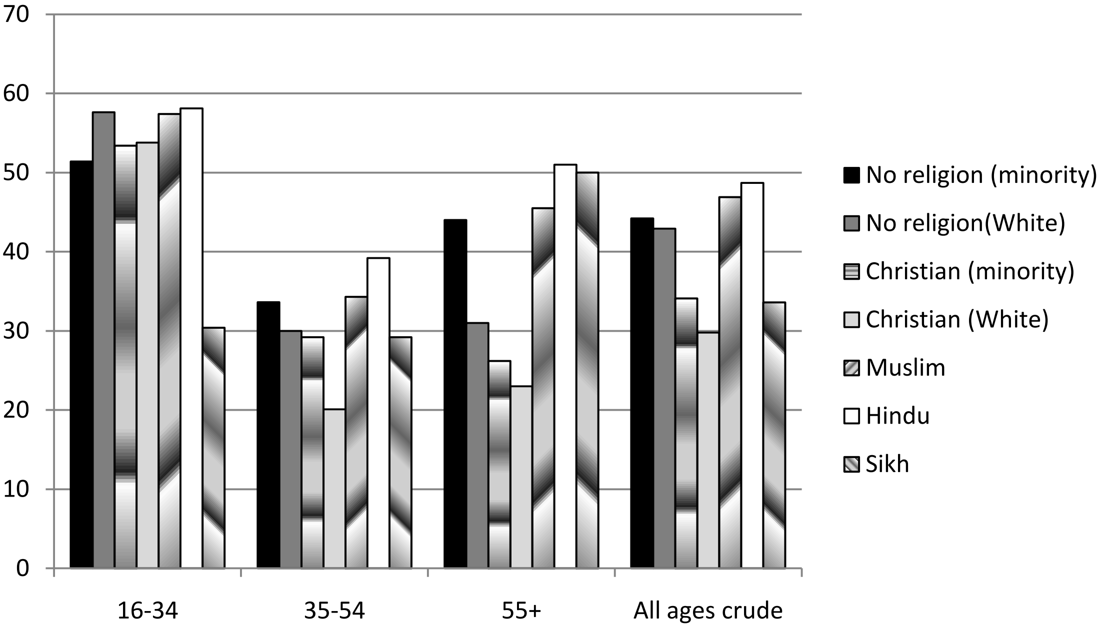
Looking at women, we see some important differences in smoking behaviour, with Muslim, Hindu and Sikh women standing out at all ages as being less likely than other religions to be current smokers. Gender differences are large among Hindus and Muslims, while the great majority of both Sikh men and Sikh women are non-smokers, and among Christians and those with no religion the gender differences are much smaller too, but with a larger proportion of both sexes smoking.

Overweight and obesity:

Percentage of people of 'healthy/normal' weight, HSE 2004

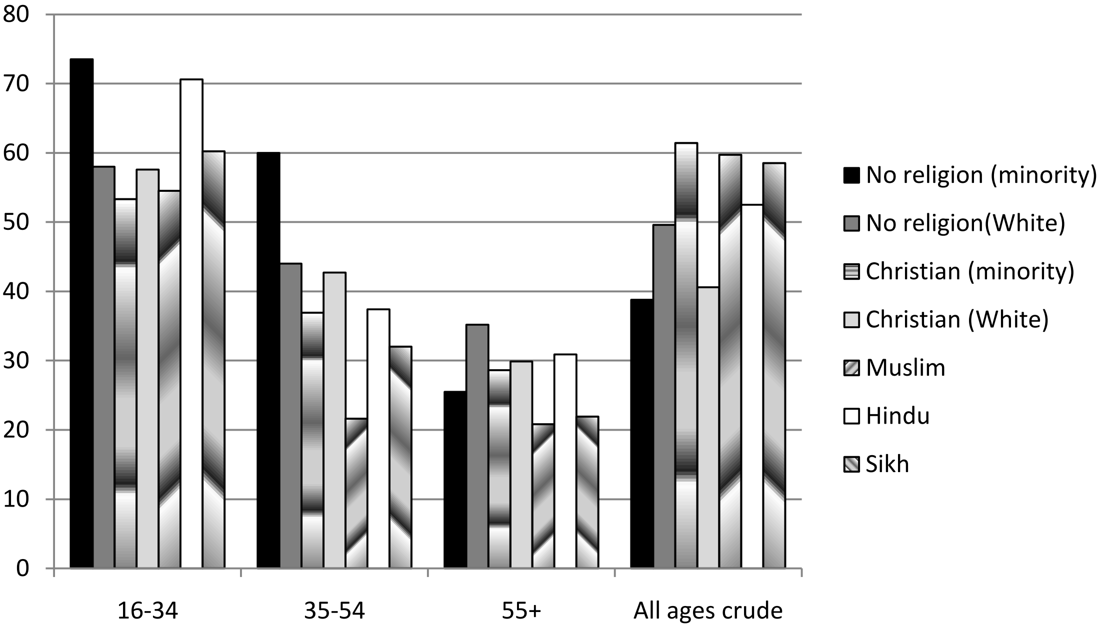
Figure 9 and Figure 10 present the percentages of men and women respectively whose BME was within the normal/healthy range of 18.5 to less than 25. No clear patterns in the percentage of men who are of healthy-normal weight could be discerned between the religious groups. Similarly, it was not possible to identify clear differences among women. The declining proportion of people who are of normal/healthy weight with increasing age is, however, clearer for women, with just 35% or less women aged 55 years plus having a healthy weight in all religious groups.

Figure 9: Percentage of men with normal/healthy weight, by age-group and religion, England, 2004



Source: HSE 2004, authors' analyses.
Notes: All-ages rate are crude rates not standardized for differing age structures. Normal/healthy weight=BMI18 to less than 25.

Figure 10: Percentage of women with normal/healthy weight, by age-group and religion, England, 2004

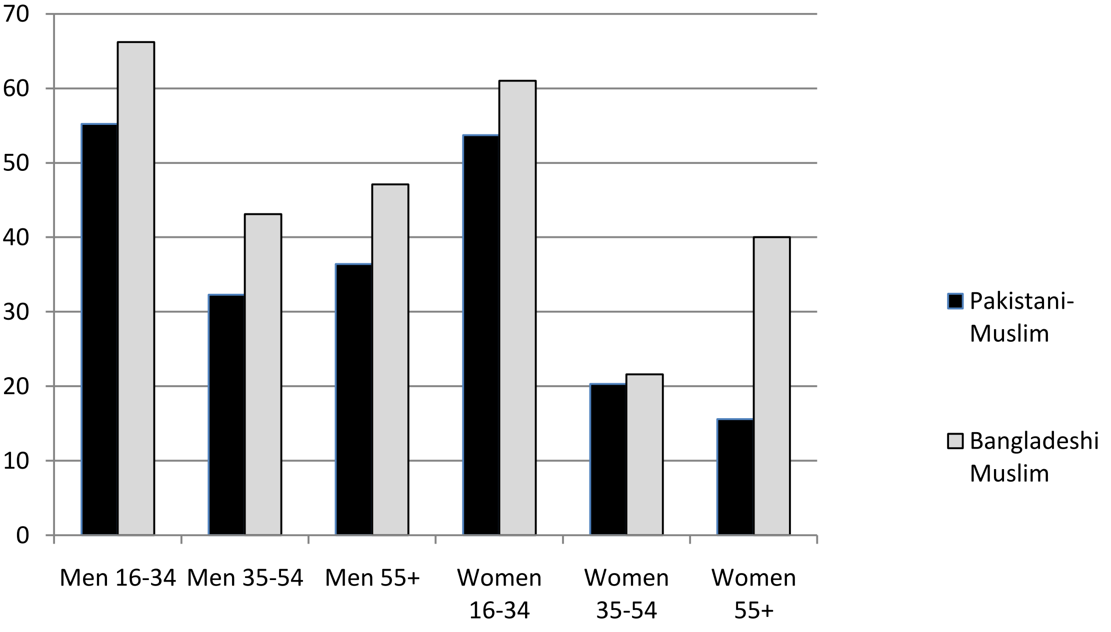


Source: HSE 2004, authors' analyses.
Notes: All-ages rate are crude rates not standardized for differing age structures. Normal/healthy weight=BMI18 to less than 25.

Healthy weight: ethno-religious differences

As noted above, there is important diversity within some of the religious groups in terms of ethnic identity (as well as other factors). It is therefore of interest to examine patterns among religio-ethnic groups where this is possible. The numbers of Black African Muslims and Indian Muslims in the sample were small, however a comparison between Pakistani and Bangladeshi Muslims seemed reasonable to explore. At all ages and across both sexes, the estimated proportion of Bangladeshi Muslims who have a normal/healthy weight is higher than the proportion of Pakistani Muslims (Figure 11). The sample sizes are not large enough to be confident that these differences in the estimates reflect true differences in the wider population, but analyses by Karlsen and Nazroo reported below support this assertion.

Figure 11: Percentage of people with normal/healthy weight, by age-group, Pakistani and Bangladeshi Muslims compared, England, 2004



Source: HSE 2004, authors' analyses. Normal/healthy weight = BMI 18 to less than 25.

Karlsen and Nazroo used pooled 1999 and 2004 HSE data to examine odds of having BMI of 25 of over (Karlsen and Nazroo, in press). In comparison with the White Christian group, men were significantly *less* likely to have a raised BMI in the following religio-ethnic groups: Chinese Christian; Chinese no religion; Buddhist; Black African Christian; White British no religion; Black Caribbean no religion;

Pakistani Muslim, Bangladeshi Muslim, Indian Muslim and Indian Hindus. Among women, however, the picture was very different with none of the minority religio-ethnic groups having significantly lower odds of high BMI, and the following groups all having significantly *higher* odds: Black Caribbean Christians; Black African Christians; and Pakistani Muslims.

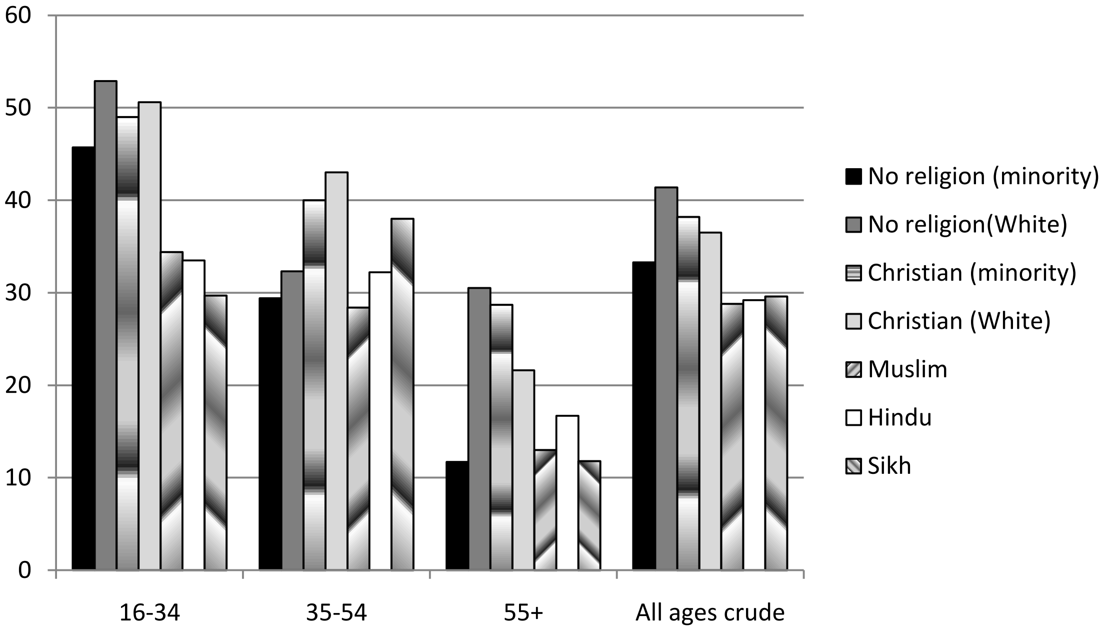
Karlsen and Nazroo (in press) also explored a measure of central obesity - waist to hip ratio of over 0.85 for women and 0.95 for men - across different religio-ethnic groups. Waist-hip ratio (WHR) is considered a more useful measure than body mass index, particularly when comparing ethnic groups, because it more clearly distinguishes body fat from body shape. Compared to the White British Christian group, among men the age-adjusted odds of a high WHR were significantly higher among Pakistani Muslims, Indian Muslims and Sikhs, and significantly lower among Black Caribbeans with no religion. Among women, the odds were significantly raised in comparison with White British Christians among a majority of the minority religio-ethnic groups including: Irish Christians; Black Caribbean Christians; Indian Christians; Black African Christians; Black Caribbeans with no religion; Pakistani Muslims; Bangladeshi Muslims; Indian Muslims; Sikhs and Buddhists. This alternative measure therefore suggests that men in the minority religio-ethnic groups may not be as advantaged relative to White British Christians in terms of obesity-related ill-health risks as suggested by a comparison of BMI alone.

Physical activity:

Percentage of people meeting physical activity guidelines, HSE 2004

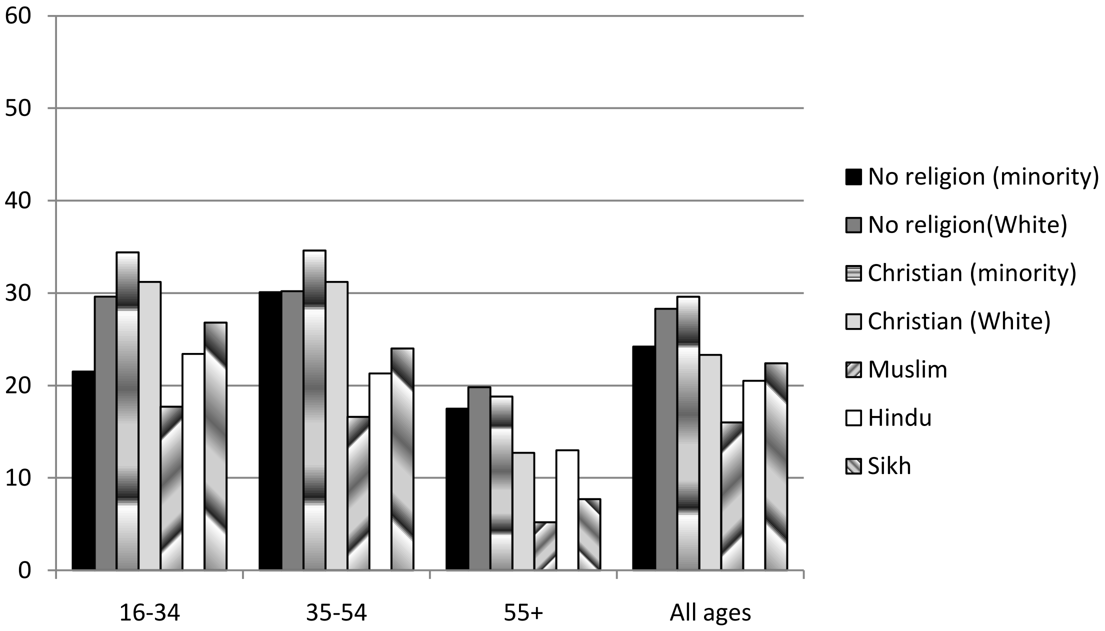
Figure 12 and Figure 13 present the percentage of men and women respectively who report physical activity levels that meet current government guidelines. The most striking differences are between men and women regardless of religious group, with far lower proportions of women meeting the guidelines. Lower proportions of people meeting the guidelines in the 55 years and over group are also clearly evident regardless of religious identity for both men and women. Among men the differentials by religion are not conclusive, though Muslims, Hindus and Sikhs do have lower proportions meeting activity guidelines than the White British Christian and White British no religion groups at all ages.

Figure 12: Percentage of men reporting that they meet guidelines for physical exercise, by age-group and religion, England, 2004



Source: HSE 2004, author's analyses

Figure 13: Percentage of women reporting that they meet guidelines for physical exercise, by age-group and religion, England, 2004



Source: HSE 2004, author's analyses

Among women (Figure 13), Muslims stood out as having the lowest proportions meeting the activity guidelines, though levels were low across the board. Given that we know self-reported physical activity over-estimates actual physical activity to a large degree, this indicates that the great majority of women are not meeting current guidelines.

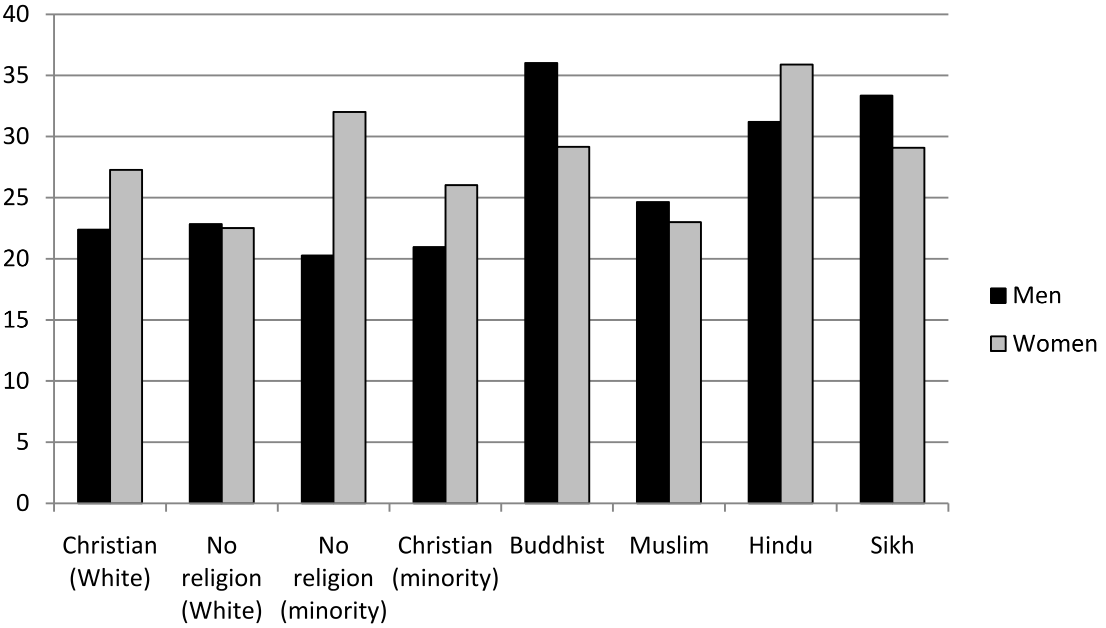
Karlsen and Nazroo's (in press) analysis of the pooled HSE datasets for 1999 and 2004 examined the odds of reporting no regular physical activity at all. Again, they took the White British Christian group as the comparator. Among both men and women almost all minority religio-ethnic groups had significantly higher odds of reporting no regular physical activity including: Black Caribbean and Irish Christians; Black Caribbeans with no religion; Pakistani Muslims, Bangladeshi Muslims, Indian Muslims, Sikhs and Hindus. Among women, the same was also true for Black African Muslims and Buddhists. Levels of no regular physical activity were strikingly high among Bangladeshi and Pakistani Muslim women - at 29% and 23% respectively.

Healthy eating:

Eating at least five portions of fruit and vegetables a day, HSE 2004

As can be seen in Figure 14, across all religious and sex groups, the proportion of people who consumed the recommended number of portions of fruit and vegetables ('5-a-day') was around one third or even less. Differences between the religious groups were not statistically significant, and there was no evidence that minority religious groups were disadvantaged in this area when compared with White British Christians or White British with no religion.

Figure 14: Percentage of people reporting that they meet guidelines for 5-a-day fruit and vegetable consumption, by age-group, sex and religion, England, 2004



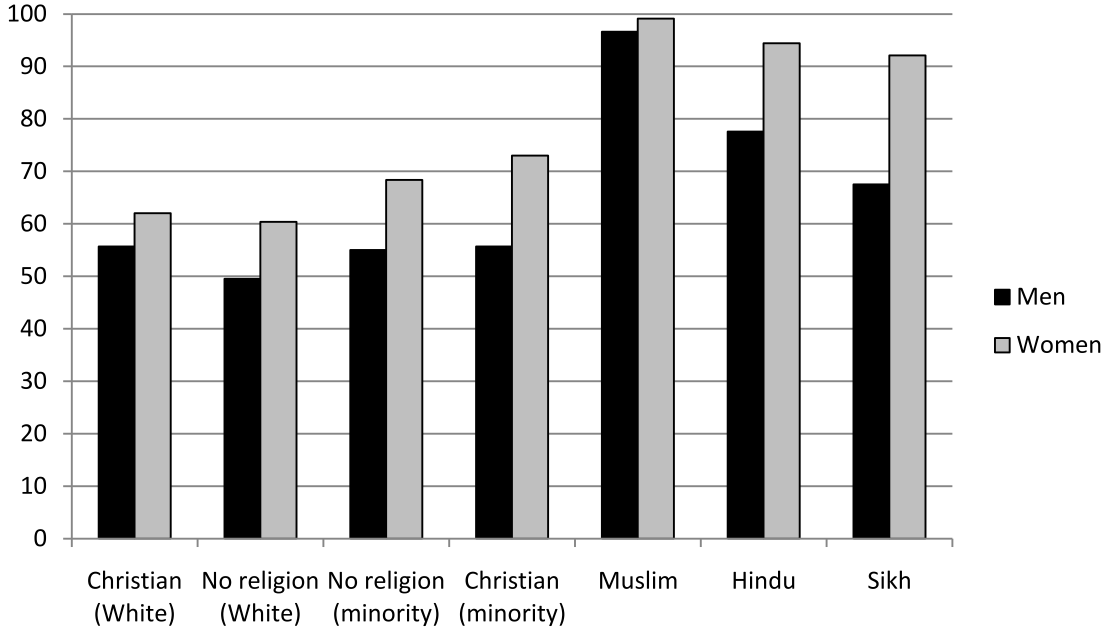
Source: HSE 2004, authors' analyses.

Alcohol:

Alcohol consumption within government guidelines, HSE 2004

Figure 15 illustrates the important religious differences in patterns of alcohol consumption across both sexes. Muslims, Hindus and Sikhs were more likely to report that they do not drink at all or drink only within government guidelines than Christians or those reporting no religion (regardless of ethnic identity). The differences were, not surprisingly, largest and statistically significant for men and women among the Muslims. Among Hindus and Sikhs, it was among women that the differentials were most important and statistically significant. Women were consistently more likely than men to drink within guidelines across all religious groups (though the differences were not statistically significant in all cases).

Figure 15: Percentage of people reporting that they drink alcohol within guidelines (including non-drinkers) by age-group, sex and religion, England, 2004



Source: HSE 2004, authors' analyses.

Autonomy

The EMF does not include any quantitative indicators of autonomy. We discuss issues relating to autonomy in the discussion section below.

Cross-over themes and vulnerable groups

As has been illustrated above, several of the largest religious groups in Great Britain, including Christians and Muslims, are very diverse in terms of ethnic make-up (as well as other dimensions of identity and socio-economic status). In many instances therefore, the broad religious categories lack meaning for analyses that aim to describe and understand differentials in health experiences and outcomes. Nevertheless, there may be aspects of health and healthcare for which it is meaningful to examine religious groups - for instance where there is a concern to understand and address the implications of particular religious practices for health status, or where there is evidence that religious identity over-rides other identities in shaping the ways in which healthcare providers treat patients. Nevertheless, religious and ethnic identities inter-relate in complex ways and there is a need for cautious interpretation of simple descriptive differences between religious categories. The available data tend to suggest that Pakistani and Bangladeshi Muslims (and probably also Indian Muslims and Indian Sikhs, though smaller sample sizes have compromised analyses) have a poorer health profile on a range of indicators when compared to the White British Christian majority, and also when compared to Indian Hindus and Indian Christians. It should be remembered, however, that the currently available data do not sustain careful analyses of the interplay of ethnicity and religion across all potential groups of interest.

As with ethnicity, the social construction of gender roles, responsibilities and expectations are often closely tied to religious identities. Therefore, gendered patterns of health-related behaviour, as well as gendered health experiences and outcomes, vary between religious groups. This is illustrated in some of the indicators presented above - for instance patterns of smoking across gender vary importantly between religious groups. That said, some gendered differences are seen across all religious groups - such as women's disadvantaged position in relation to healthy levels of physical activity. The interplay of gendered and religious identities in relation to health experiences and outcomes has not been well articulated even in research that has foregrounded a concern with gender issues. This area deserves further investigation.

There is evidence to suggest that the experiences of disabled people may be patterned by their religious affiliation and their faith (Atkin, Ahmad and Jones, 2002). Factors that may contribute to such differential experiences include: religiously based understandings of the ‘meaning’ of disability and appropriate individual, familial and community-level responses to disability; faith as a resource for ‘coping’ with/adjusting to disability; and formal and informal religiously based networks of support (Salway, et al., 2007)). There is evidence to suggest that services designed to support disabled people’s health and wellbeing frequently do not adequately respond to religious diversity (Atkin and Ahmad, 2000; Atkin and Rollings, 1993; McCarthy, Mir and Wright, 2008).

Though older age clearly brings a higher burden of ill-health across the religious groups, some religious groups may be more likely than others to enjoy good health in later years. The data presented above suggest that older Muslim and Sikh women may have particularly high levels of poor health. The ways in which life-stages and the process of growing older are understood by people from different religious (and ethnic) backgrounds have been found to differ (Wray, 2003; Gerrish, McNair and Higginbottom, 2005), so that the experience and expectations of health and health services may also diverge with potential implications for how we identify and address apparent inequalities.

Discussion

What are the key inequalities? How persistent and how worrying are they?

The available data tend to suggest that Muslims (and probably also Sikhs, though smaller sample sizes compromise analyses) have a much poorer health profile on a range of indicators when compared to the White British Christian majority.

It is important to recognise that there is variation both within religious groups by ethnicity and within ethnic groups by religion.

Most minority religious groups have less favourable patterns of physical activity when compared to the White British Christian majority, and there is evidence that most also have less favourable patterns of obesity (particularly among women). Though these are issues of concern across the population regardless of religion.

The persistent failure of NHS health services to respond effectively to religious (and ethnic) diversity and ensure equitable experiences and outcomes for patients of minority religious identity is a cause for concern; we discuss this more below.

Are there any emerging trends?

The concerning rise in Islamophobia in recent years has been expressed within the health sector as in other arenas (Richardson, 2004)). The negative health consequences of victimisation (Paradies, 2006; Wamala, Bostrom and Nyqvist, 2007) suggest this trend may exacerbate the health disadvantage facing Muslim groups.

Since the exploration of health experiences and outcomes by religion is in its infancy in Great Britain, it is difficult to identify trends or changes over time. However, the increasing interest in religion as a factor shaping health and life chances is bringing new issues to the fore. Data from the FNSEM in 1993-4 suggested similar broad patterns of religious inequalities in health with significant health disadvantage among Muslims. However, available data do not allow an assessment of whether such inequalities are increasing or declining.

What are the causes?

It is increasingly recognised that inequalities in health and healthcare outcomes between religious and religio-ethnic groups are shaped by a complex mix of multifarious factors. However, our understanding of these factors is still fairly limited, particularly when the focus is on religious identity, rather than ethnic identity. Nevertheless, it is clear that some factors are far more important than others in accounting for the very large differences in health outcomes between the White British Christian majority and certain religio-ethnic groups.

Biological and genetic factors:

Genetic factors do not play an important role in explaining the health inequalities observed between different religious or religio-ethnic groups. Nevertheless, it must be recognised that, although religio-ethnic categories are poor proxies for genetically-determined risk factors, in some cases genetic factors do appear to contribute in part to elevated rates of particular diseases or conditions seen among some such delineated 'groups'. This is discussed in more detail in the Ethnicity Chapter.

Norms, behaviours and expectations:

Holding a particular religious identity may imply certain sets of beliefs and practices that have implications for health and healthcare outcomes and experiences. Therefore, though there is great diversity within groups and change over time in religious practices, at an aggregate level religiously informed beliefs and associated behaviours may account for some of the observed inequalities presented above.

The most obvious area where these factors may be important relates to healthy life-styles; though it should be noted that minority religious groups do better than the White British Christian majority on some key life-style related risks including alcohol consumption and smoking among women.

Moreover, beliefs and behaviours are shaped by local-level norms as well as broader understandings of religious doctrine, so that significant variety of behaviour can be found within religious groups. For instance, Bush and colleagues' (2003) study of influences on smoking among Bangladeshi and Pakistani Muslims identified important differences between the two groups in terms of the role that smoking played in male identity and sociability. They also found a wide variety of expressed opinions within both groups in terms of what religious teachings relating to addiction and intoxicants implied for smoking.

Religious beliefs and understandings may also shape specific health-seeking behaviours and the degree of compliance with the advice and prescriptions of health professionals. For instance, some Muslim women may choose not to take up an exercise referral scheme if the exercise classes on offer are open to both men and women. Another example is the reluctance of some Muslim patients to take medication that has been produced using porcine or alcohol derivatives. Such individual behaviours must, however, be seen within the context of the healthcare system and the degree to which religious preferences are understood, respected and accommodated (as discussed further below).

Religious identity also implies inclusion within (and exclusion from) particular networks of support; including in some cases membership of and attendance at religious institutions. As well as shaping beliefs, values and behaviours, such networks may provide access to resources, including information, which can promote health and well-being. Evidence suggests that people of minority religious (and minority ethnic) identity, particularly those of lower socioeconomic status and newer migrants, are commonly heavily dependent upon such religio-ethnic networks for information and support in negotiating access to statutory services, including healthcare (Salway, et al. 2007). Since such networks, which may include community-based religious organisations, vary in the quality and quantity of support they can offer, individuals who rely on such networks may struggle to access appropriate care and entitlements (Allmark, et al. 2010).

The factors discussed so far, though relevant to our understanding of health and healthcare needs among different religious groups, are far less important in explaining observed inequalities than the following inter-related factors: socioeconomic status; design and delivery of the healthcare system; and exclusion and discrimination.

Socioeconomic status and deprivation:

We draw on the analyses by Karlsen and Nazroo (2009a, in press) of pooled data from the HSE 1999 and 2004 to first describe the socioeconomic profiles of different religio-ethnic groups in England, and then to explore the extent to which differing socioeconomic status can account for inequalities in health outcomes.

Table 17 presents five different indicators of low socioeconomic status across the main religio-ethnic groups that were identified in the HSE. A detailed discussion of the socioeconomic conditions of the different religious groups is beyond the scope of the current chapter, and we therefore highlight only the key patterns. Across all five indicators, Bangladeshi Muslims have the highest rates, followed by Pakistani Muslims for all indicators except the percentage of people in manual occupations, for which Sikhs occupy the second position. Black Caribbean Christians and Black Caribbeans with no religion also have high rates across most indicators. Important differences are also evident between Indian Christians, and Hindus who have more favourable profiles than Indian Sikhs and Indian Muslims. Of the minority groups, Chinese Christians have the most favourable profile. It is important to note the relatively favourable income profile of White Christians in comparison with other groups, despite a higher rate of no qualifications and manual occupations, than several other groups - an advantage that has been well-documented (Berthoud, 2002).

Table 17: Indicators of socio-economic position by religio-ethnic group, England, 1999/2004

	No qualific-ations	***Manual occupation***	***Registered unemployed***	***Unemployed or long-term sick***	***Bottom income quintile***
			Cell percentages		
White Christian	33	48	2	6	18
Christian minority					
All	29	48	3	8	23
Irish	33	48	2	8	19
Black Carib.	34	56	5	11	35
Black African	14	40	4	8	30
Chinese	18	23	1	2	8
Indian	15	30	3	5	18
No religion					
All	18	40	3	6	14
White British	18	39	3	6	14
Chinese	24	51	7	8	25
Caribbean	24	47	8	15	37
Muslim					
All	42	56	7	12	51
Pakistani	44	61	6	12	52
Bangladeshi	52	74	9	13	73
Indian	37	53	4	9	51
Sikh	38	64	2	7	38
Hindu	25	32	3	7	22
Buddhist	26	46	2	6	28

Source: HSE 1999/2004, (Karlsen and Nazroo 2009a)
Note: White Christian includes White British and other white groups, excluding Irish people

We turn now to consider the extent to which the poorer socioeconomic status of several of the minority religious groups might contribute to their poorer health outcomes relative to the majority White British Christians. One way to assess the contribution of socioeconomic factors to the excess burden of ill-health experienced by minority religio-ethnic groups is to model the odds of a particular health outcome both without controlling for socioeconomic status and with suitable controls and then to compare the odds ratios. An important decline in the size of the odds ratio when controls are included in the model would tend to suggest that part of the excess health risk experienced by the minority group is 'explained' by their poorer socioeconomic status. There are, however, some important conceptual and methodological caveats that should be borne in mind. Jay Kaufman and colleagues discuss these issues in some detail (Kaufman et al., 1998; Kaufman, Cooper and McGee, 1997). In brief, it is extremely difficult to control for differences in socioeconomic status between religio-ethnic groups in practice because within any measure of socioeconomic status the profile for minority groups tends to be less favourable than for the majority. In other words, religio-ethnic groups differ on so many dimensions of socioeconomic status that there will always be residual confounding with any adjustment that an analyst might realistically make. Furthermore, the act of controlling for socioeconomic status may inadvertently imply that socioeconomic factors confound, or obscure, the 'real' relationship between religio-ethnic identity and health, and thereby may direct attention towards essentialist cultural or genetic accounts of health inequalities. It is important not to overlook the fact that socioeconomic disadvantage is intimately bound up with holding a minority religio-ethnic identity in that societal processes of exclusion and discrimination sustain such disadvantage. In other words, weak material and social resources must in part be seen as lying on the causal pathway between religio-ethnic identity and health outcomes.

Notwithstanding the need for caution in interpretation, an exploration of odds ratios adjusted for indicators of socioeconomic position, can provide some indication of the potential role that these factors play in health inequalities between religio-ethnic groups.

Table 18 shows of age-standardised odds and odds adjusted for both age and social position for LLTI and 'not good' health computed by Karlsen and Nazroo from the HSE 1999 and 2004 pooled data sets. White British Christians are taken as the comparator. Looking first at LLTI, it can be seen that the odds ratios for Black

Caribbeans with no religion and for Sikhs remain significantly greater than one even after adjustment for the socioeconomic variables, though both are reduced in size slightly. In contrast, the odds ratios for Bangladeshi, Pakistani and Indian Muslims decline importantly in size and become non-significant once the controls for socioeconomic status are included, suggesting that the poorer socioeconomic conditions of these groups explains a large part of their excess risk of LLTI. In contrast, when the outcome of focus is self-reported 'not good' health, all the odds ratios that were statistically significant before controlling for socioeconomic status retain significance after the controls are introduced in the model. Nevertheless, the size of the odds ratios is reduced in all cases, and particularly so for the Pakistani and Bangladeshi Muslims. These findings suggest that lower socioeconomic status is playing an important role in the excess risk of poor health for these groups, but it is not the whole story. It is important to note the persistent disadvantage in self-reported health of Black Caribbeans within the Christian group even after controlling for their poorer socioeconomic circumstances.

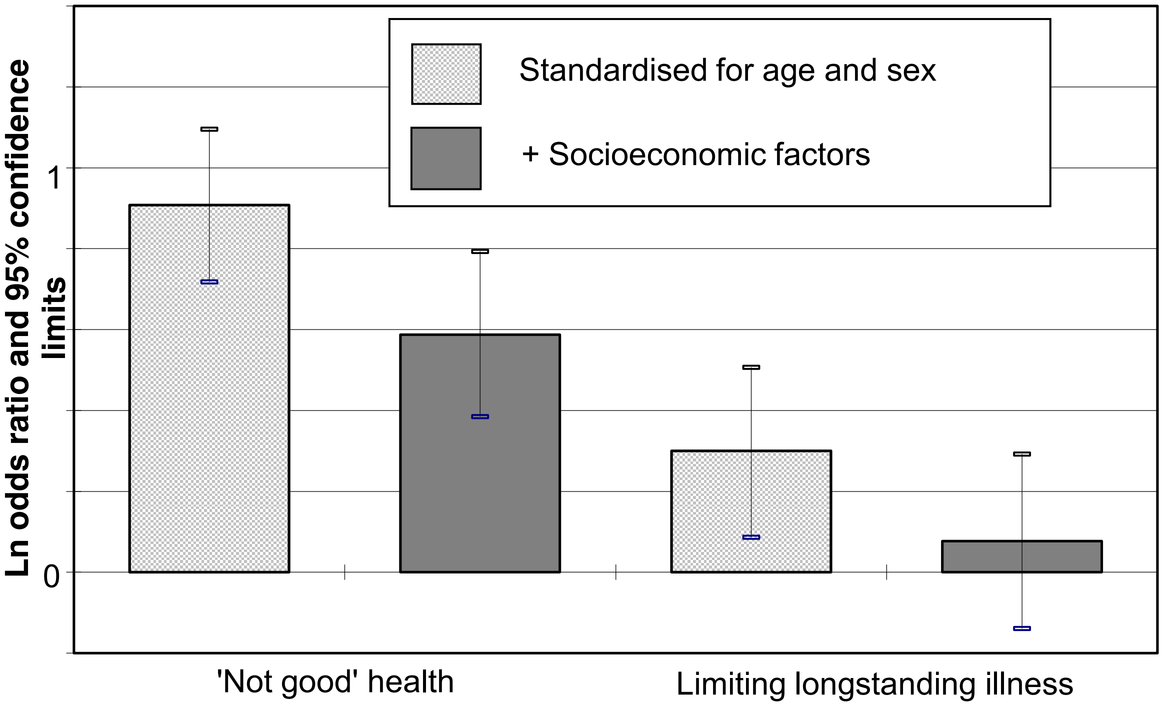
Table 18: Odds ratios for LLTI and 'not good' health adjusted for age and social position, England 1999/2004 (all adults)

		LLTI		Self-reported not good health	
		Age-standardised odds**	Odds adjusted for social position	Age-standardised odds**	Odds adjusted for social position
Christian	White British	1.00	1.00	1.00	1.00
	Irish	1.06	1.05	1.09	1.07
	Black Carib.	1.18	1.07	**2.04**	**1.85**
	Indian	0.73	0.80	0.92	1.11
None	White British	0.97	1.05	1.00	1.15
	Black Carib.	**1.58**	**1.47**	**2.04**	**1.83**
Muslim	Pakistani	**1.42**	1.08	**2.26**	**1.49**
	Bangladeshi	**1.49**	1.08	**2.94**	**1.69**
	Indian	**1.70**	1.48	**2.68**	**2.10**
Sikh	Indian	**1.50**	**1.44**	**2.17**	**1.83**
Hindu	Indian	0.79	0.81	**1.59**	**1.75**

Source:HSE pooled data 1999 and 2004. Adapted from Karlsen and Nazroo (in press)
Note: Odds adjusted for social position computed while controlling for: economic activity, highest educational qualification gained, household income, and head of household's occupational class. White British includes White and White Other but not Irish.

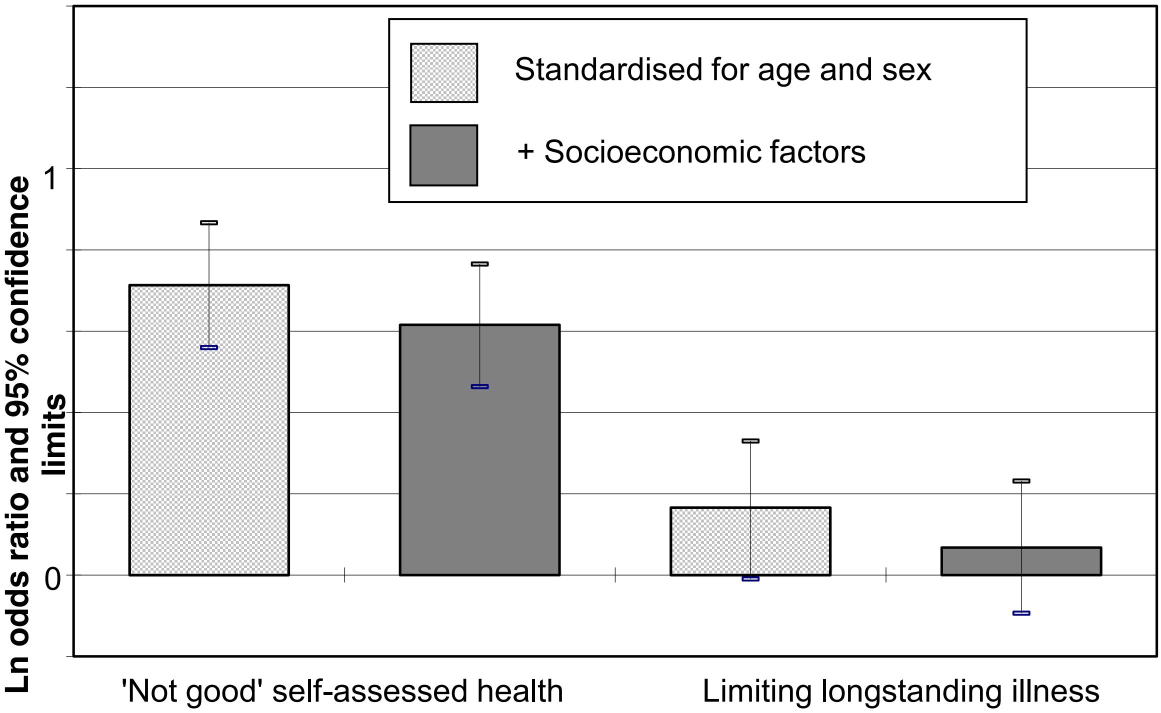
We present the results visually for Muslims as a whole and for Black Caribbean Christians in Figure 16 and Figure 17 respectively. The natural logarithm of the odds is used in these figures so that the visual size of the reduction is meaningful. Where the confidence interval (indicated by the bars) includes 0 this indicates a statistically non-significant difference.

Figure 16: Age-sex adjusted odds ratios with and without controls for socioeconomic status, Muslims compared to White British Christians



Source: HSE 1999 and 2004, adapted from (Karlsen and Nazroo, 2009a).

Figure 17: Age-sex adjusted odds ratios with and without controls for socioeconomic status, Black Caribbean Christians compared to White British Christians



Source: HSE 1999 and 2004. Adapted from (Karlsen and Nazroo (2009a).

Design and delivery of health system:

Health policy and strategy:

To-date religious identity has rarely been considered in any detail in policy aimed at addressing health inequalities in Great Britain. Where attention has been given to minority religio-ethnic communities, the key focus has been on ethnicity, though this has also been unsatisfactory in its detail (see Chapter 7 on Ethnicity). The Equality, Diversity and Human Rights section within the DH in England has in recent years emphasised the importance of NHS and social services taking account of the religious and cultural requirements of the spiritually diverse communities it serves and has produced a number of guidance documents to support commissioners and providers in ensuring that services are delivered appropriately to all (Equality and Human Rights, DH; DH, 2009). It is perhaps too early to tell whether such initiatives are likely to have any impact on the actual delivery of services.

Furthermore, these initiatives are largely separate from DH's mainstream health inequalities work and tend to focus on specific aspects of care rather than more systemic issues of social and economic marginalisation.

A majority of government health policy documents include no reference to religious diversity and associated issues of inequality.

Appropriateness and effectiveness of services and providers:
We discuss issues of service access and language/communication difficulties in Chapter 7 on Ethnicity but note that these issues will also apply to minority religious groups in some cases. Here we draw out the evidence that relates more specifically to religious identity. There are three broad ways in which the delivery of health services appears to contribute to the heightened levels of ill-health experienced by some religio-ethnic groups: failure of services and practitioners to understand and accommodate specific religious beliefs and practices that impact upon health and treatment outcomes; failure of services and practitioners to appreciate and support the spiritual needs of patients; and discriminatory attitudes and behaviours that directly compromise access to appropriate care and may contribute to levels of psychosocial stress.

There is evidence to suggest that the failure of services and individual practitioners to understand and accommodate patients' religious beliefs, preferences and behaviours does, in some cases, lead to sub-optimal care and may exacerbate levels of ill-health. For instance, the failure of GPs routinely to offer non-porcine and non-alcohol derivative drugs can result in patients opting not to take medications prescribed (Khokhar et al., 2008; Ward and Savulescu, 2006). Gatrad and colleagues (2005) point out that national and local formularies do not routinely highlight potentially unacceptable drugs or provide advice on suitable substitutes. Bravis and colleagues (2010) note that it is common practice to advise Muslim patients with diabetes not to fast during Ramadan but also illustrate that with appropriate advice and support some patients can fulfil the religious obligations they feel to fast as well as manage their condition effectively. Sheikh (2007) has highlighted the fact that male infant circumcision is only available through the NHS in a handful of NHS trusts across Great Britain. Another example that is commonly cited relates to the provision of same-sex providers and single-sex facilities that some Muslim women regard as essential. Mir and Sheikh (2010) found evidence of Muslim women suffering severe humiliation when being forced to accept care from male health professionals as well as opting not to take up recommended exercise programmes when those on offer were of mixed sex. Worth and colleagues' (2009) study of Muslim and Sikh patients with life-limiting illness in Scotland concluded that 'institutional discrimination' created a barrier to appropriate care in many cases, reporting that:

'Services often had difficulty managing basic needs such as communication with non-English speakers, the halal *diet (that which is allowed in Islam), and need for specific hygiene practices, such as* wudu *(ritual ablution preceding daily prayers) and* istinja *(washing with free flowing water after urination or a bowel movement).' (p7)*

Such examples are important breaches of patient choice (and might possibly be considered infringement of human rights). The bulk of evidence relates to Muslim patients, though some studies have highlighted similar issues for Hindus and people of other minority religions (Ward and Savulescu, 2006; Chowbey, et al., 2008; Thakrar, Das and Sheikh, 2008; Spitzer,2003). Though there are examples of good practice in some parts of the country these appear to be largely ad hoc and to depend on the innovation and commitment of particular individuals (Mir and Tovey, 2002). It seems clear that much more needs to be done to mainstream attention to religious beliefs and practices within the health system (Sheikh, 2007).

In addition to ignorance of specific religious preferences and behaviours, it is increasingly argued that the spiritual needs of patients and carers from minority religious groups are not well supported within the NHS (Sheikh, 2007; Sheikh et al., 2004). While this may be a particular concern in certain medical contexts - such as end-of life care, bereavement and prenatal counselling - recent research suggests the significance of religious faith more generally within healthcare for many patients. Mir and Sheikh (2010) found that religious identity influences responses to long-term health conditions among many Pakistani Muslim patients and provides an additional resource distinct from other methods of managing illness. Mir and Sheikh concluded that '*failure to acknowledge and discuss this influence on long-term illness* *management leads to a vacuum in professional knowledge, inadequate support for patients' decision-making and poor responses to their requests for assistance*' (Mir and Sheikh 2010). It should be remembered, however, that the role and significance of religion varies between individuals both within and across religio-ethnic groups, as will people's preferences for support from health professionals in this area (Spitzer, 2003). Sproston and Bhui (2002) found important variation in the ways in which people from minority ethnic backgrounds with mental health problems drew on religious coping mechanisms. They noted that:

'Although religion clearly helped some respondents to cope with difficulty, this was by no means a universal experience. On the whole, Muslim respondents had more to say about the role of religion, and offered a greater level of detail in their accounts of this than those in other religious groups did. Among the South Asian groups, there were some similarities between Hindus, Sikhs and Muslims. However, there were clear differences between Black Caribbean respondents' relationship with religion compared with that of South Asian people. Black Caribbean people, unlike most South Asian people, often described their beliefs in a more flexible way when they talked about religion. They tended to voice their views on religion in less certain, or fixed terms. Religious ways of coping featured least in the accounts of White British and Irish respondents' (p47)

And Mir and Sheikh (2010) also highlight the variation within their sample of Pakistani Muslim respondents, saying that:

'Diverse attitudes existed, however, and for some respondents religion was unimportant or of marginal significance to health decision-making. Religion was an important value framework for over half the final sample, with primary- or secondary-level influence for a third of patients. However, even amongst this group, the centrality of religious influence varied considerably, superseding any other influence on decision-making for some patients and occupying a more advisory role for others, alongside the influence of family members, health professionals and friends.'

There is clearly a need for flexible, responsiveness on the part of services and professionals to ensure that the religious and spiritual needs of minority ethnic patients and carers are not prejudged and that there is room for individual choice.

A further important dimension of the health system's contribution to religious health inequalities relates more generally to the way in which people of minority religio-ethnic status are received and treated by actors within the health system. A prevalent theme in research studies is that religious minorities feel unwelcome and isolated from services and that some providers are dismissive and disrespectful in general terms (Bharj and Salway, 2008; Worth et al., 2009) Providers have been found to hold preconceptions and negative stereotypes about the characteristics and preferences of particular minority religious groups, in some cases leading to the withholding of particular interventions or treatments (Mir and Sheikh, 2010; Chowbey, et al., 2008). Despite a growing body of evidence of widespread poor provider behaviour and low levels of patient satisfaction with care, Sheikh (2007) has argued that 'the healthcare profession is still largely in denial about religious discrimination'.

Several authors have argued that the healthcare system reflects and reinforces the discriminatory attitudes towards minority religious and ethnic communities in wider society (Atkin and Chattoo, 2007; Ahmad 1993). It is suggested that the constellation of services and the behaviour of providers impacts upon the health and wellbeing of minoritised people not only via sub-optimal care, but also importantly via the reinforcement of a sense of being devalued and having low social status and associated stress (Mir and Sheikh 2010).

Wider society: processes of exclusion and discrimination:

Paradies (2006) has drawn attention to the need for greater precision in the ways in which researchers conceptualise and operationalise indicators of racism and the related notions of ethnic and religious discrimination, victimisation and prejudice in order that the links to health outcomes be better established. Karlsen (2007) has also highlighted the many direct and indirect ways in which racial harassment and discrimination can manifest itself, making the task of assessing the contribution of these processes to poorer health outcomes extremely challenging. Notwithstanding these complexities, a growing body of findings suggests that processes of religious (and ethnic) exclusion and discrimination make an important contribution to observed inequalities in health (Paradies, 2006).

We report here some quantitative findings from the work of Saffron Karlsen and James Nazroo, as well as some recent qualitative findings. Table 19 shows the proportions of people in each religious group answering 'yes' to three questions about experience and perceptions of discrimination. Black Caribbeans were most likely to answer 'yes' to each of the questions, with Hindus, Sikhs and Muslims having somewhat lower and similar proportions answering 'yes'. Over one in 10 of each of these groups reported that they had experienced victimisation in the past year, and over one in five that they had experienced discrimination at work in the past.

Table 19: Religious and ethnic differences in experiences of racism and perceptions of discrimination, England 1999 and 2004

	Racial victimisation in the past year	***Discrimination at work (ever)***	***Believe half or more British employers discriminate***
Christian or no religion			
Irish	8	9	14
Black Caribbean	15	39	38
Indian	6	21	4
Muslim	12	21	19
Sikh	15	21	23
Hindu	11	23	23

Source: EMPIRIC 2000, adapted from Karlsen and Nazroo, (2009a).

Though these figures clearly suggest significant levels of both experienced and perceived discrimination, they are perhaps surprisingly low, particularly for the Muslims. It should be noted, however, that the questions were not specifically worded in terms of 'religious discrimination'. Findings from the Citizenship Survey in 2005 revealed that almost all respondents felt that there was some degree of religious prejudice in Britain today: 24% thought there was a lot of religious prejudice, 39% thought there was a fair amount, 25% thought there was a little, 5% thought there was none and 7% did not know (Kitchen, Michaelson and Wood, 2005).

Table 20 and Table 20 present findings from multivariate analyses in which the association between indictors of the experience and perception of discrimination and self-reported 'not good' health and common mental disorder respectively, are explored. The top line in Table 20 indicates that among all minorities together, there was a positive association between 'not good' health and each of the three indicators. This means that among minority religio-ethnic individuals as a whole, those who report experiencing or perceiving discrimination/victimisation are more likely to report 'not good' health than those who do not report such discrimination/victimisation. Significantly positive associations were also found among all minority Christians and all non-White Christians, though other differences were not statistically significant.

Table 20: Odds ratios of 'not good' self-reported health by indicators of experience and perception of discrimination

	Racial victimisation in the past year	***Believe half or more British employers discriminate***	***Either victimised or believe employers discriminate***
	Age and gender standardised odds-ratio (95% C.I.) compared with those without experience of racism or belief of discrimination		
All minorities	**1.70** (1.20,2.40)	**1.52** (1.14,2.03)	**1.63** (1.24,2.14)
Christian			
All	**2.12** (1.15,3.93)	**2.13** (1.34,3.39)	**2.12** (1.33,3.38)
Irish	1.61 (0.61,4.24)	**2.78** (1.36,5.68)	**2.27** (1.12,4.59)
Non-white	**3.27** (1.85,5.78)	**1.78** (1.11,2.84)	**2.20** (1.45,3.34)
No religion	1.61 (0.61,4.24)	1.71 (0.46,6.32)	2.04 (0.58,7.17)
Muslim	1.17 (0.74,1.86)	1.25 (0.77,2.03)	1.31 (0.85,2.02)
Sikh	1.52 (0.69,3.32)	0.68 (0.33,1.39)	1.02 (0.54,1.92)
Hindu	2.36 (0.85,6.55)	1.21 (0.61,2.38)	1.49 (0.81,2.74)

Source: EMPIRIC 2000, adapted from Karlsen and Nazroo (2009a).

In Table 21, we can see that the associations are stronger and more consistent with common mental disorder as the outcome (GHQ12 score 4+). In this case, positive and significant associations were also found for Muslims and Irish Christians across all the indicators and for Sikhs on the first measure.

Table 21: Odds ratios of common mental disorder (GHQ score four or more) by indicators of experience and perception of discrimination

	Racial victimisation in the past year	***Believe half or more British employers discriminate***	***Either victimised or believe employers discriminate***
	Age and gender standardised odds-ratio (95% C.I.) compared with those without experience of racism or belief of discrimination		
All minorities	**2.27** (1.61,3.19)	**1.86** (1.372,2.53)	**2.20** (1.66,2.92)
Christian			
All	**2.64** (1.49,4.68)	**2.08** (1.29,3.34)	**2.44** (1.54,3.86)
Irish	**2.53** (1.04,6.17)	**2.44** (1.11,5.39)	**2.64** (1.28,5.42)
Non-white	**2.76** (1.56,4.90)	**1.88** (1.22,2.91)	**2.41** (1.53,3.80)
No religion	0.95 (0.28,3.17)	2.49 (0.81,7.64)	2.50 (0.75,8.34)
Muslim	**1.88** (1.04,3.37)	**1.63** (1.03,2.59)	**1.93** (1.24,3.01)
Sikh	**4.38** (1.93,9.94)	0.59 (0.22,1.58)	1.56 (0.74,3.32)
Hindu	**3.24** (1.33,7.90)	1.77 (0.82,3.81)	1.87 (0.93,3.78)

Source: EMPIRIC 2000, adapted from Karlsen and Nazroo (i2009a).

A number of qualitative studies in Great Britain also suggest that the experience and perception of discrimination and victimisation linked to religio-ethnic identity has detrimental effects on people's mental and physical wellbeing. Mir and Sheikh (2010) found that among their respondents many felt that their social status in UK society was adversely influenced by their religious identity, and that *' the perception of exclusion affected respondents' emotional and physical well-being and was related to broader identification with disadvantage and injustice experienced by the Muslim community in general'.*

Female respondent with diabetes (Mir and Sheikh, 2010):

> *'When I read all this [news of conflict involving Muslims] I was very upset and even cried. I had a very bad headache all day […] I am more interested in this kind of news because it is obviously an injustice to us. It's not like it doesn't affect me because it involves you - we are linked to each other'*

Both the qualitative and quantitative evidence suggests that discrimination and negative stereotyping on religious (or ethnic grounds) does not have to be experienced personally for it to have a negative effect on minoritised people's health and wellbeing (Mir and Sheikh, 2010;Karlsen and Nazroo, 2004; Bhui et al., 2005). As the quote above illustrates, the strength of collective identities can mean that people are deeply affected by events and situations that do not directly involve them. Mir and Sheikh (2010) highlighted the important *'dichotomy between the significant personal resource that faith provides and the discrimination that Muslim identity triggers in UK society'*.

Though there is a need for more research that can explain the precise links between discrimination/victimisation, psychosocial wellbeing and health among minority religious, and particularly Muslim, communities, a growing body of evidence suggests that this is a significant part of the explanation for religio-ethnic health inequalities.

Exclusion from the evidence base:
Finally, it is worth noting that the lack of research on health experiences and outcomes among different religious groups undoubtedly serves to contribute to the persistent inequalities that have been demonstrated. In the absence of evidence, the scale of disadvantage can not be illustrated, underlying causal processes can not be understood, and appropriate responses can not be developed. Issues that affect particular minority ethnic groups - such as how to manage chronic conditions during fasting - require specialist research for effective solutions to be found. Importantly too, negative stereotypes and discriminatory practices will persist unless they are rigorously documented and exposed.

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Chapter 10: Sexuality

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Contents

TABLES

10.1 Key messages

What are the inequalities? How persistent and how worrying are they?

LIFE

There are no data on life expectancy collected by sexual orientation. There are differences in lifestyle that might have effects in either direction but the data are not available to show whether this is so.

There are no data relating to cardiovascular mortality and few relating to cancer mortality. There is, for example, a small amount of research suggesting that gay men have a higher risk of prostate and anal cancer. Lesbian women are thought to be at low risk of cervical cancer although the risk is present, particularly as many lesbian women have heterosexual intercourse at times in their lives. As such, it is wrong to deny them access to cervical smears.

Some UK and international research suggests that the suicide rate and risk is higher in the LGB population and that within this there are particularly high risk groups, such as young gay men and disabled gay men. The quality of evidence here is weak, however; more data are required.

HEALTH

The Citizenship Survey 2007 collected some data by sexual orientation. These showed no difference between heterosexual and gays/lesbians in self-report of good health. Bisexual people and those self-classified as other were more likely to report not good health. There seem to be no differences in any of these categories in relation to the proportion reporting LLTI (limiting long-term illness or disability). However, mental health surveys suggest a higher prevalence of mental health problems in the LGB population than in the heterosexual population. As with the suicide statistics, sub-groups within the LGB population, such as bisexual people, report worse mental health. Eating disorders seem to disproportionately affect gay men. HIV and AIDS disproportionately affect gay men.

There are insufficient data to determine whether LGB people are more likely than heterosexuals to report they were not always treated with dignity when using health services; there are some indications that this is so but the numbers fall short of statistical significance. However, numerous surveys suggest that LGB people do have problems in using the health service: reluctance to disclose sexuality and negative effects from disclosing sexuality.

In terms of lifestyle, the national datasets do not collect this information by sexual orientation. However, survey research findings conflict; they point roughly in the direction of a higher smoking rate for gay men but not lesbians. There is some indication from survey data that there is a higher rate of alcohol and recreational drug use.

Comparative data on living with HIV suggest that of those living with HIV in the UK, 43% were Men who have Sex with Men (MSM)[4], 31% heterosexual women, 21% heterosexual men and 4% injecting drug users. As such, MSM are disproportionately overrepresented; 5.4% of MSM aged 15-44 is infected with HIV as opposed to around 1% of heterosexual males.

Are there any emerging trends?

Year on year increases in the diagnoses of HIV and other sexually transmitted infections in gay men is an ongoing health concern.

Mental ill health and suicide risk are also an area of considerable concern in LBG people.

In relation to other areas of health, data sources are largely confined to one-off surveys and qualitative studies and as such provide little meaningful indication of health trends over time. However, individual life style choices such as smoking and alcohol and the provision of health services that are

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[4] MSM is the category used to collect clinical data relating to sexually transmitted infections. The emphasis is in activity rather than sexual orientation as this is relevant to transmission of infection.

insufficiently sensitive to the specific needs of this population both have the potential to impact adversely on health.

What are the causes?

- In many studies, homophobia is stated as a possible cause of some health problems. Perhaps the clearest example of this is mental health problems.
- The existence of a club scene in which activities such as smoking, drinking, drug use and unsafe sex sometimes prevail can undermine health and life outcomes.
- HIV infection in gay men is linked to chronic ill-health.

How might change be measured?

- LGB health research should not focus only on sexual health.
- Routine monitoring of sexuality in health care will enable the collection of baseline figures and the monitoring of trends in wider areas of health process and outcomes.

Data quality and quantity

Most official data sets currently provide no information on Life or Health indicators for LGB people. This is set to change in the next Census, which will collect some data on relationship status including civil partnerships and therefore provide some limited data. There are data from other sources although they only provide a small part of the picture. HIV, sex and sexually transmitted infections are prominent as issues covered in research.

10.2 LGB Evidence

The official data sets currently provide no information on life or health indicators for LGB individuals. Data from other sources are available but are usually incomplete or unsatisfactory. In some cases the data are international, in others they are local; there are no attempts to provide comprehensive pictures of the indicators across the three nations of England, Scotland and Wales. It appears that the HIV pandemic spurred health-related research on LGB people in the early 1990s. One problem with this is that the focus of such research is narrow; sex and sexually transmitted infections feature high in the topics chosen. Other health issues for LGB people can be missed and it is possible that, for example, attempts at promoting healthy lifestyles are stymied by insufficient attention to the difference between LGB and the majority population.

Since we do not know the mortality or morbidity rate for LGB people, we cannot know the rate for subgroups by ethnicity, age, disability and so on. It is likely that differences are hidden here. There is some suggestion, for example, of a higher suicide rate in young rather than older LGB people. Without data, serious problems such as these, which appear to call for attention, are missed.

In general, LGBT health research tends to relate to the following areas although the amount of data in some areas is very limited:

- Experiences of services (including homophobia and/or heterosexism)
- Gay men’s sexual health
- Mental health
- Young LGB (much relating to mental health, the effects of homophobic bullying, etc.)
- (Poor) LGB health behaviours - smoking / alcohol consumption / drug use
- Breast or cervical cancer (in LGB women)

Noticeable gaps relate to physical health generally, and women's sexual health in particular. There are virtually no data available on 'life' (as opposed to 'health' and related risks relating to 'life'). Much research evidence cited in the UK originates from US research (and to a lesser extent Australia and New Zealand), with less research conducted in the UK. This is slowly changing, however, with more interest recently, including from within the Department of Health (DH) who funded Julie Fish's set of briefings for health and social care staff (Fish 2007). Other notable data sources emerging recently include: Stonewall's lesbian and bisexual women's health check (Hunt and Fish 2008); and the 'Count me in too' surveys carried out in Brighton and Hove (Browne 2007). There still remains a prevalence of small, 'grey' literature in the UK, however. Another source is the annual Gay Men's Sex survey (Hickson et al. 2004) although this covers only sexual health issues. Examples of current work ongoing (and thus not yet reported on) include drug and alcohol research (LGB related) by The Lesbian and Gay Foundation with the University of Central Lancashire.

Three methodological issues restrict/influence LGB health research. First, there is widespread reticence to record sexuality as part of routine monitoring data (health or otherwise) and this restricts the possibility of any baseline/comparative data analysis; the Census is possibly the best example of this. Second, historical beliefs about 'low risk' amongst the medical profession means that some data are unrecorded, thus disallowing any comparison to establish 'low risk' or not. An example of this concerns the recording of data within genitourinary medicine and the Health Protection Agency. Whilst data is routinely reported for men who have sex with men (MSM) there is no comparable recording of sexual health statistics for women who have sex with women. Third, the use of convenience/community samples in LGB research may over-report risk behaviours, for example related to sexual health, alcohol, or drug use, as not all LGB are actively involved in the scene in this way (Dodds, et al. 2004).

Routine recording of sexual orientation in health data could be beneficial however there are problems associated with this. Much research highlights that LGB patients/potential patients already have confidentiality concerns and may therefore be reluctant to disclose their sexuality status (Cant 2002, Mugglestone 1999, Formby 2009, Buston 2004). This would result in inaccurate data recording. One possible solution may be for more research to be conducted through health settings where participants could anonymously record their sexuality and be confident that this would not be reported to their health practitioner. Additionally, research could be conducted within LGB communities to seek further views on the issue of monitoring sexual orientation in health settings.

10.3 Life: main indicators - commentary

10.3.1 Period life expectancy at birth, ages 20, 65 and 80

As sexual orientation is unknown at birth it makes no sense to use life expectancy at birth as a measure for this group. It would be possible to use it as a measure for ages 20, 65 and 80. These data are not collected in the General Register Office for Scotland or the General Register Office Census Longitudinal Study (for England & Wales). We found no data in other sources.

There is speculation that factors in the LGB community could both increase and decrease life expectancy. These are set out in relevant sections below. They include: unhealthy behaviours related to drink, drugs and smoking; low or late childbirth in lesbian women leading to increased risk of breast or ovarian cancer; low uptake of screening; reduced risk of cervical cancer in lesbian women who have had little or no unprotected heterosexual intercourse; and higher rates of depressive illness that are linked to suicide. HIV infection in gay men is higher than the national average; this is likely to be associated with increased mortality and morbidity from AIDS-related illnesses.

However, even where there is some evidence to support the existence of a risk or protective factor, it is not known whether that factor has any effect on lifespan. Furthermore, some concern has been expressed about the attitudes and beliefs underlying the speculation. For example, an assumption that gay men have risky life styles might reflect prejudice or be based on generalisations from the behaviour of gay men on the club scene rather than on firmer evidence.

10.3.2 Cardiovascular disease mortality

No data are available. Cardiovascular disease mortality could be higher in this group due to lifestyle risk factors, including smoking.

10.3.3 Cancer mortality

Few data are available. Cancer mortality rates could be higher in the LGB group due to lifestyle risk factors, including smoking.

Insofar as gay men's behaviour differs from the average in terms of health-related behaviour associated with cancer risk or protection, we should expect differences in morbidity and mortality. Thus there is evidence of increased risk of liver cancer and lung cancer due to higher levels of alcohol consumption and of smoking. These higher levels might be associated with another factor, the tendency not to respond to preventative health messages or campaigns.

There are data relating to sex-specific cancers which affects either gay men or lesbian women. Some is based on UK research alone; other data arises from international research. Gay and bisexual men might be at higher risk of prostate and anal cancer than heterosexual men (Hunt and Minsky 2003) Bower conducted highly specific work which suggested that anal cancer is more common in gay/bisexual men with HIV or AIDS than those without (Bower M. 2004). However, as anal cancer is not an AIDS defining illness, the linkage between these two conditions is not clear.

Turning to lesbians and their risk of cancer, there might be differences in cancer morbidity and mortality between them and the general population of women on the basis of lifestyle factors. Lesbians and bisexual women are thought to be more likely to smoke, have a poor diet, and drink excess alcohol. This puts them at higher risk of various associated cancers, including breast cancer (Hunt and Minsky 2003). The risk of breast cancer might also be increased because women are less likely to go through pregnancy and childbirth, thus losing the protection against breast cancer that pregnancy affords. From UK survey data alone, Hunt and Fish found a much higher rate of breast cancer in lesbian and bisexual women than heterosexual women aged 50-79 (1 in 12 against 1 in 20) (Hunt and Fish 2008).

Lesbians have been thought to be at no or low risk of cervical cancer because the substantial body of evidence which has explored the association between sexual intercourse and cervical cancer has focused exclusively on heterosexual intercourse, exploring factors such as number of sexual partners, age of first intercourse and use of oral contraception (e.g. (Deacon et al. 2000)) with the result that cervical cancer is conceptualised in this way. For this reason, health care professionals have not always recommended cervical smear tests and lesbian women have not sought them. However, exposure to Human Papillomavirus, the primary cause of cervical cancer can occur through all kinds of sexual activity and is therefore not confined to heterosexual women. Smoking is also a recognised risk factor for cervical cancer and rates of smoking are higher among lesbian women. As such, cervical smears are appropriate for lesbians.

10.3.4 Suicide rates/risk

There is evidence from UK and international research indicating higher rates of mental illness, risk of suicide, attempted suicide and self-harm amongst lesbian, gay and bisexual people. A systematic review and Meta-analyses of data extracted on 214,344 heterosexual and 11,971 non heterosexual people revealed a two fold excess in suicide attempts in lesbian, gay and bisexual people [pooled risk ratio for lifetime risk 2.47 (CI 1.87, 3.28)] (King et al. 2008).

UK evidence comes from a number of surveys all of which report high rates of considered and attempted suicide among all LGB groups. Hutchison et al surveyed 98 GB men in Edinburgh and found that 54% of the study sample had at some point seriously considered taking their own life (Hutchison, Porter and Le Voil 2003). The 'Count Me In Too' study which surveyed 819 LGBT people in Brighton and Hove (Browne and Lim 2008) reports that 23% of their sample had had serious thoughts of suicide in the previous five years. A larger national survey conducted by Warner et al. which used a snowball sampling technique to recruit the 1285 LGB men and women who participated in the study similarly reports high rates of considered suicide; 47% for gay men, 56% for lesbian women and 55% and 57% for bisexual men and women respectively (Warner et al. 2004).

These findings are similarly reflected in high rates of attempted suicide in all three studies. In the Hutchison study, 26% of the total sample had attempted suicide whilst Warner et al reports slightly higher rates of 25%, 27%, 31% and 33% for their four groups of gay men, lesbian women, bisexual men and bisexual women (Hutchison, Porter and Le Voil 2003, Warner et al. 2004).

Table 1 Serious thoughts of suicide in LGBT respondents to the 'Count me in too' survey.

	Frequency	Percent	Valid %
Yes	192	23.4	29.8
No	452	55.2	70.2
Total	644	7.6	100.0

Source: Adapted from Count me in too survey

The table above shows that in response to the question ' Have you had any serious thoughts about suicide in the past five years? 30% of respondents reported that they had considered suicide.

In the Hutchison study, a substantial proportion of those attempting suicide had done so on more than one occasion; over one third had made more than three attempts and nearly one quarter had made five or more attempts, indicative of severe and sustained mental health problems within this sub section of the population. The main reasons given for wanting to take their own life were sexual orientation, depression, relationship problems and difficulties with family.

There is some indication that the risk of attempted suicide appears to be higher among specific sub groups of the LGB population although the data are insufficient for statistical significance. Those who are bisexual appear to be more likely to consider and attempt suicide (Browne, K. and Lim, J. 2008) (Warner et al. 2004). There is also indication that young people may be particularly vulnerable because of the problems that they experience in coming to terms with their sexual orientation and coping with social hostility, stigma, bullying and homophobia (Rivers 2001, Mullen 1999, McDermott, Roen and Scourfield 2008, King M, et al. 2007). There is a limited amount of age comparable data which suggests high rates in both gay and bisexual men and women aged under 20 years (Hunt and Fish 2008, Hutchison, Porter and Le Voil 2003) and in younger mid-life; in the Count me in Too survey, those aged 35 - 45 years were more likely than any other age group to have attempted suicide in the previous five years (Browne and Lim 2008).

Attempted suicide is more common among those with mental health problems and particularly associated with self harm. Browne & Lim report that those who engaged in self harm were five times more likely to have had serious thoughts of suicide and over seven times more likely to have attempted suicide in the past five years (Browne 2007).

10.3.5 Accident mortality rate

These data are not collected in the General Register Office for Scotland or the General Register Office Census Longitudinal Study (for England & Wales).

10.3.6 Deaths from non-natural causes for people resident in health or social care establishments

These data are not collected in the General Register Office for Scotland or the General Register Office Census Longitudinal Study (for England & Wales).

10.3 Health: Main indicators

Outcomes

10.3.7 [2.1] Self-report poor current health

ENGLAND

Table 2 General health by sexual orientation

	Good Health %	Not good health %	N
Heterosexual or straight	76.9	23.1	13337
Gay or lesbian	76.7	23.3	146
Bisexual	61.5	38.5	91
Other or would prefer not to say	62.6	37.8	214

Chi-Square, 36.75; df 4; p<0.001

Source: Citizenship Survey, 2007

The table above suggests no difference between the heterosexual and gay/lesbian population in terms of self-reported health; bisexual and others seem to have poorer health although the sample sizes are small. 'Prescription for change', a large scale opportunistically recruited survey which explored the general health of over 6000 lesbian women and included those from England, Scotland and Wales and reports similar findings; 80% of lesbians who completed the survey reported good or excellent health whilst 2% reported poor health (Hunt and Fish 2008).

WALES & SCOTLAND

No separate data

3.8 [1.1] Longstanding health problem or disability (E W) and longstanding illness (S)

ENGLAND

Table 3 Proportion of reported Limiting Long term illness by sexual orientation

	Has LLTI	No LLTI	N
Heterosexual or straight	19.0	81.0	13337
Gay or lesbian	20.1	79.6	146
Bisexual	24.2	75.9	91
Would prefer not to say	24.2	74.9	214

Chi Square, 6.23: df, 4 p = 0.182

Source: Citizenship survey, 2007

The small numbers for the LGB groups restrict the possibility of making any meaningful interpretation of this data. The lack of any statistical difference in the proportion of those in each category with LLTI tentatively indicates that there is no indication of important differences in the proportion of those with LLTI in relation to sexuality.

A particular long term health concern in relation to this population is HIV. Advances in treatment have contributed to the current conceptualisation of HIV as a chronic health condition rather than a terminal illness. Those living with HIV are subject to physical and mental health problems that may be exacerbated by financial hardship and prejudice (Dodds, et al. 2004, White, L.C. and Cant, B. 2003). 'Count Me In Too' reported that those living with HIV are less likely than other LGB people to report good or very good mental and emotional health over the past twelve months (Browne and Lim 2008). The high prevalence of HIV among gay men make this an area of particular concern for this population.

WALES & SCOTLAND

No separate data

10.3.9 [1.2] Poor mental health or wellbeing

ENGLAND

Data are available from a range of studies and surveys all of which indicate high levels of poor mental health in this population. Warner et al in a survey of 1285 LGB people found that 43% had a mental disorder as defined by the revised Clinical Interview Schedule (CIS-R) (Warner et al. 2004).

The 'Count me in too' study found extremely high levels of reported mental health problems among LGB people. The majority of LGBT people in that survey this research reported experiencing difficulties with their mental health in the past five years. Only one in five respondents stated that they had experienced no mental health difficulties in the past 5 years. 79% (n = 643) of the respondents in that study had experienced a wide range of mental health problems. In many cases, individuals had experienced a number of difficulties; 55% (n = 302) had had three or more mental health problems in the past five years.

Table four below demonstrates the proportions of individuals reporting difficulties with a wide range of mental health problems.

Table 4: Mental health difficulties experienced by LGB people over the last five years

	Frequency	Per cent
Stress	491	60.0
Confidence/self esteem	375	45.8
Depression	361	44.1
Anxiety	361	44.1
Significant emotional distress	274	33.5
Insomnia	274	33.5
Isolation	225	27.5
Suicidal thoughts	174	21.2
Panic attacks	150	18.3
None of the above	140	17.1
Problem eating/eating distress	119	14.5
Fears/phobias	111	13.6
Addictions/dependencies	94	11.5
Anger management	92	11.2
Self harm	73	8.9

Source: *Count me in too, 2008*

There is evidence presented in the 'Dimensions of diversity' report that there are higher levels of mental health problems among LGB people as compared to the general population with higher prevalence rates for depression and anxiety, suicidal thoughts and self-harm, eating disorders and substance misuse (Gordon, et al. 2010). These are supported by a controlled study conducted in London which found that gay men reported higher levels of psychological symptoms than heterosexuals (King and Nazareth 2006). Further evidence is provided from a large systematic review and meta analysis of international data. Meta-analyses of data extracted on 214,344 heterosexual and 11,971 non heterosexual people revealed that the risk for depression and anxiety disorders (over a period of 12 months or a lifetime) on meta-analyses were at least 1.5 times higher in lesbian, gay and bisexual people (RR range 1.54–2.58). Alcohol and other substance dependence over 12 months was also 1.5 times higher (RR range 1.51–4.00). Results were similar in both sexes but meta analyses revealed that lesbian and bisexual women were particularly at risk of substance dependence (alcohol 12 months: RR 4.00, CI 2.85, 5.61; drug dependence: RR 3.50, CI 1.87, 6.53; any substance use disorder RR 3.42, CI 1.97–5.92) (King et al. 2008).

There is some variability in the levels of poor mental health by identity groupings with consensus agreement on the susceptibility of bisexual individuals. 'Dimensions of diversity' reports particularly high rates among young people whilst the 'Count Me In Too' reports some indication that lesbians are more likely to have experienced significant emotional distress than gay men. However both reports are in agreement in identifying that those identifying as queer[5] or bisexual appear to be particularly susceptible to mental ill health. They are significantly less likely to describe their emotional and mental wellbeing as good or very good in the last twelve months compared to lesbians and gay men and more likely to have experienced mental health difficulties than lesbians or gay men. Bisexual and queer respondents are also more likely than lesbians or gay men to have experienced difficulties with: significant emotional distress; depression; anxiety, isolation, confidence/self esteem; anger management, insomnia, fears/phobias, problem eating disorders, panic attacks, self harm, addictions/dependencies and suicidal thoughts. Similar findings were found in the Warner study (2004) and in the systematic review and meta analyses conducted by King et al (2008).

WALES & SCOTLAND

No additional data

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[5] "Queer" is given a specialised meaning in this project and elsewhere, referring to non-conventional sexuality outside of the LGBframework, such as sado-masochism.

Process

10.3.10 [3.1] Low perception of treatment with dignity

ENGLAND

From the 2007 'Citizenship Survey' in England & Wales, the findings in response to the question ' in general would you say that you were treated with respect when using the health service?' as analysed by sexual orientation are presented below.

Table 5 Treatment with respect when using health services, by sexual orientation

	All of the time or most of the time	Some of the time or less	N
Heterosexual or straight	91.2	8.8	13260
Gay or lesbian	86.3	13.7	146
Bisexual	92.2	7.8	90
Other or would prefer not to say	87.9	12.1	215

Chi -Square, 7.53: df 4 p = 0.111

Source: Citizenship Survey 2007

The table above shows that whilst gay and lesbian people are more likely than heterosexual people to report that they are not treated with respect all or most of the time, the difference is not statistically significant.

Nevertheless, there is a clear body of work suggesting that experiences, and potentially more importantly, fear of potential prejudice can significantly affect LGB take-up of health advice and services (Cant 2002, Formby 2009, Cook, et al. 2007). Findings from a range of both qualitative and quantitative studies indicate ongoing concerns about the attitudes of health care providers towards sexual orientation and the adverse impact of this on health care provision.

There is a marked reluctance among a proportion of LGB to disclose their sexual orientation to health care providers. Surveys by Dodds et al. and Keogh et al. report that two fifths and one third of their respective samples had no intention of disclosing their sexual orientation to their health care provider and would be unhappy if they were to find out (Dodds, Keogh and Hickson 2005, Dodds, Keogh and Hickson 2005, Keogh, et al. 2004). Similarly the 'Prescription for Change' survey reported that half of lesbian and bisexual women have not told their GP. This can have negative implications for care. When sexual orientation is part of the health issue for which the person seeks help, it can lead to them receiving inappropriate care or advice (Hunt and Fish 2008). It may also impact on mental health. Robertson et al. explored the health needs of gay men and reported that their reluctance to come out to a health professional may not only lead to the under diagnosis of mental health problems, but further exacerbate them through the imposed secrecy (Robertson 1998).

Among those that have shared this information, a substantial proportion have experienced negative effects. King et al. found a third of gay men and up to two-fifths of lesbians recounted negative or mixed reactions from mental health professionals when being open about their sexuality (King et al. 2003). These reactions seemed even more negative for bisexual men and women. It was also common for professionals to link the person's sexual orientation to his or her mental health problem; however, the report points out that it is hard to get the balance right here between underplaying and overplaying the importance of sexual orientation.

A London-based study of gay men showed that, despite all the research participants having previously disclosed their sexual orientation in many areas of their lives, there was considerable anxiety and fear of stigmatisation in relation to doing so in the context of primary care services (Cant 2002). This generated problems for men wishing to discuss health needs and treatments in relation to their sexual orientation. This research illustrates the difficulties experienced by gay and bisexual men in communicating their personal needs and the social context of their lives to primary care providers which may further impact on their health and wellbeing.

In terms of experience of discrimination, a survey conducted for Stonewall by Hunt & Fish in 2008 suggests that one in fourteen lesbian and gay people expect to be treated worse than heterosexuals when seeking healthcare. Gay women are almost twice as likely to expect discrimination because of their sexual orientation. However, there are some significant regional differences in attitudes to healthcare. For example, Welsh lesbian and gay people are seven times more likely to expect unequal treatment in an emergency and during routine procedures than those in the South West. Additionally lesbian and gay people in Yorkshire and the Humber are five times more likely to expect discrimination during routine procedures than those in the South West. The figures for discrimination from this survey seem relatively low; other evidence puts them higher. For example The Equality Network reports on findings from a small online survey conducted on lesbian and bisexual women's experiences of information and support around sexual health. The majority (81%) of the 43 respondents lived in Scotland. The survey found that that 42% of the respondents had experienced prejudice or discrimination when seeking help or advice about their sexual health (Equality network 2004).

'Inside out' is a survey of the experiences of LGB people accessing health services in North and West Wales produced in 2007 (Cook, et al. 2007). It surveyed the 67 respondents by means of questionnaires (52 participants) and focus groups (15 participants). 62% of questionnaire respondents had either come ‘out’ or been ‘outed’ whilst accessing a health service. One quarter of these people felt that this changed the response or attitude of the health care provider. Experiences of attitudinal changes after disclosure ranged from a less friendly atmosphere, a change in mannerism, staff being embarrassed and respondents feeling uncomfortable, to staff being judgmental. 67% of questionnaire respondents in that same study reported a positive and 15% a negative experience whilst receiving care or treatment. However, the qualitative data indicates that respondents had such low expectations that they classified as ‘positive’ the absence of overt prejudice. The positive experiences reported are summarised as: a lack of negative reaction from staff to disclosure of sexual orientation, being treated for the illness, and partners being treated with respect and equal footing to heterosexual couples.

WALES and SCOTLAND

No separate data

10.3.11 [5.1] A&E attendance/accidents

The main source of data for A&E attendance is provided by the Department of Health. Information on sexual orientation is not routinely collected and these data have not been aggregated by sexual orientation. The effect of injury or death through homophobic attacks on the recipients' and/or their immediate family/friends' health outcomes remains largely unexplored.

10.3.12 [3.2] Lack of support for individual nutritional needs during hospital stays

These data are not collected in the National Patient Survey Programme.

Autonomy

10.3.13 [4.1] Healthy lifestyle

These data are not collected in the health surveys of Wales, England and Scotland.

SMOKING

Research suggests that LGB people in general are more likely to smoke than heterosexual people although there is a lack of agreement in terms of differential rates between the sub-groups and the smoking patterns. This is due in part to the nature and scale of the evidence base. A controlled study from London reports that women classified as bisexual and lesbian, and men classified as bisexual were more likely to be smokers (King and Nazareth 2006). From Scotland, the Dimensions of diversity report cites a smoking rate of 32.5% among gay men which is substantially higher than that of the general population (26%) (Gordon, et al. 2010).

However, other research, in relation to lesbian women, suggests that smoking rates appear to be broadly similar to those of the general population (25% and 24% respectively in 2007) (Gordon, et al. 2010). These findings are supported by 'Prescription for change' which reports that two thirds of lesbian and bisexual women have smoked compared to half of women in general and that just over a quarter currently smoke. 20% of those who smoke, smoke more than 20 cigarettes per day, as compared to 28% of women in general. Thus their data indicates that lesbians are more likely to have ever smoked than women in general but no more likely to smoke now, and among those who do smoke, the amount of smoking is lower than for the general population (Hunt and Fish 2008).

ALCOHOL

Reported levels of alcohol and drug use are higher within the LGB population as compared with the general population (Mercer et al. 2007). A number of sources, primarily surveys, find high levels of illicit drug use among gay and bisexual men, with up to half having used at least one drug in the last year (Gordon, et al. 2010, Keogh, et al. 2009). A similar pattern is seen among women who are five times as likely to have taken drugs as compared to women in general (Hunt and Fish 2008). Specific identities and conditions predispose to high levels of alcohol and drug use. In relation to alcohol, women classified as bisexual appear more likely to abuse alcohol (King and Nazareth 2006) whilst men living with HIV are much more likely to use almost all drugs (Keogh, et al. 2009). Levels of drug and alcohol use among those with mental health problems are high. In the 'Count me in too' report, 85% of the sample drank alcohol and 50% said that they had taken illegal drugs or used legal drugs without a prescription in the last five years. Focus groups from that study pointed to the use of drugs and alcohol as coping mechanisms for the social and emotional difficulties experienced by LGB people (Browne and Lim 2008).

EXERCISE, DIET AND OBESITY

There is little evidence relating to exercise, diet and obesity. Physical activities levels have been found to be low among young LGB people in Glasgow as compared with other young people (Gordon, et al. 2010). From the 'Prescription for Change' survey, lesbian and bisexual women have the same BMIs as women in general and half of them exercise three times per week (Hunt and Fish 2008).

A matter of greater concern relating to this population may be the patterns of eating disorders which appear to be disproportionately prevalent in gay men as compared to the general population, reflective of different community norms and expectations about size and body image. However the evidence base for this assertion is not great and draws on non UK literature (Gordon, et al. 2010, Scott et al 2004).

SEXUAL HEALTH.

Sexual health is a matter of concern in relation to the incidence of sexually transmitted infections and HIV. The majority of lifestyle research in relation to the LGB population has been conducted in this area and largely focused over recent decades on gay men in response to the emergence of HIV. Data supplied by the Health Protection Agency comes from the collation of statutory returns provided by genitourinary medicine clinics throughout the country. For the purpose of these data, information is gathered on sexual activity rather than sexual orientation. As such it categorises men who have sex with men (MSM) (rather than gay or bisexual men) and does not routinely gather data on women who have sex with women.

It is difficult to obtain any prevalence data in relation to sexually transmitted infections because of high rates of asymptomatic infection and the consequent high proportion of undiagnosed infections. However data are available from the Health Protection Agency in relation to HIV in specific populations from the unlinked anonymous prevalence monitoring programme. This shows that of all new HIV diagnoses in 2007, 41% (3,160) were among men who have sex with men (MSM), and 82% of these infections were probably acquired in the UK. Table 6 below presents the numbers of individuals living with HIV (diagnosed and undiagnosed) by exposure category, excluding those infected by blood, tissue or blood products or by mother to child transmission. This demonstrates that an estimated 30,000 MSM were living with HIV, with between one in three and one in four of them being unaware of their infection (Health Protection Agency 2009).

Comparative data on living with HIV suggest that of those living with HIV in the UK, 43% were MSM, 31% heterosexual women, 21% heterosexual men and 4% injecting drug users. As such, MSM are disproportionately overrepresented; 5.4% of MSM aged 15-44 are infected with HIV as opposed to around 1% of heterosexual males (Health Protection Agency 2007)

Table 6 Estimated number of adults (15-59) living with HIV (diagnosed and undiagnosed) UK 2007.

Exposure category	Number diagnosed	Number undiagnosed	total
MSM	20,900	9,200	30,100
IDU	1,600	1,100	2,700
Heterosexuals	25,300	11,100	36,400
Men	9,100	5,600	14,700
Women	16,200	5,400	21,600
Grand total	47,800	21,600	69,400

Source: Adapted from Health Protection Agency: Testing Times:

The number of HIV diagnoses among MSM has increased steadily over the current decade; from 1,565 in 2000 to 2,828 diagnoses in 2007. This figure appears to have levelled of and then fallen to 2,126 in 2009 although this is considered an underreporting and the HPA have given a corrected figure for new HIV diagnoses in 2007 of 3,160 (Health Protection Agency 2008). Whilst it is encouraging to note that the level of increase in infection is currently falling slightly, it is probably too early to report this as a trend.

First AIDS diagnoses and deaths in this population have decreased year on year over the same time period. For first AIDS diagnoses, the number per year fell from 349 in 2000 to 125 in 2009 whilst deaths fell from 349 in 2000 to 125 in 2009.[6]

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[6] Source: Health Protection Agency: http://www.hpa.org.uk/web/HPAweb&HPAwebStandard/HPAweb_C/1203928687610

Table 7 Percentage of MSM who have been tested for HIV, percentage tested positive, and percentage living with diagnosed HIV

Year	% HIV tested	% diagnosed positive among men ever tested	% living with diagnosed HIV
2007	70.6%	15.2%	10.7
2006	65.7%	12.9%	8.5
2005	60.1%	11.9%	7.2
2004	59.8%	11.8%	7.1
2003	59.1%	11.7%	6.0

Source: Adapted from Testing Targets, 2009: http://www.sigmaresearch.org.uk/files/report2009f.pdf

Some indication of testing rates are available from the Gay men's survey conducted in 2007 and presented in the report Testing Targets which involved a self-selected sample of over 6000 men(Hickson, et al. 2009). The table above shows that across the UK, one third of the sample had never been tested for HIV. Whilst a matter of concern, this represents a substantial increase in testing rates when compared to previous similar reports.

The health burden associated with HIV is enormous and falls disproportionately upon the MSM population. The proportion of MSM with HIV in the gay men's survey has increased year on year. As shown in the table above, in the 2007 report, 10% of the sample was living with HIV. In 2007, a total of 23,990 HIV diagnosed MSM were seen for HIV-related care, more than double the number accessing services in 1998, a product of new diagnoses and improved life expectancy of those who are HIV infected.

HIV and sexually transmitted infections are a double health problem. HIV negative men who are exposed to HIV are more vulnerable to infection if they have another STI at the time of their exposure. Also an HIV positive man who has another STI is more infectious than if he did not have another infection. Together, these effects mean that the more sexual exposures that occur in the presence of another STI, the more HIV transmissions will occur.

Incidence rates of some sexually transmitted infections, several of which have seen substantial year on year increases, are extremely high in the MSM population. Two are of particular concern. Rates of gonorrhoea, the second most common STI in MSM, have seen a 23% increase in cases between 2000 and 2007. MSM accounted for 30% (3,868/12,933) of all men diagnosed with gonorrhoea in 2007, the majority of whom were aged 25-34 (39%; 1,499/3,868) (Health Protection Agency 2007).

Syphilis is also a health problem for this group of people. Between 2000 and 2007, diagnoses of infectious syphilis among MSM in genitourinary medicine (GUM) clinics increased over 11-fold, from 130 to 1463. Enhanced surveillance in 2007 reported 1,568 diagnoses of infectious syphilis among MSM. The highest proportion of cases was seen in the 35-44 age group (37%, 518/1,439). Primary syphilis was diagnosed in 40% of cases, with secondary and early latent syphilis being seen in 30% and 24% of cases respectively.

Rates of sexually transmitted infections in MSM are substantially higher for those who have tested positive for HIV as compared to those who have not. The HPA in Testing Times report that 28% (148/523) of those who were infected with Gonorrhoea were HIV positive. For syphilis 34% (444/1,324) of those diagnosed in England & Wales and 22% (30/137) of those diagnosed in Scotland were co-infected. The greatest proportion of HIV co-infection was seen in LGV cases, accounting for 75% (362/484) of cases reported. HIV co-infection was greatest within the 35-44 age group for all three STIs.

Findings from the survey Testing Targets which surveyed over 6000 men support this data. 11.4% (n=707) of respondents said they had picked up an STI in the last year and this proportion was much higher for men who had tested HIV positive (28.4%) than those whose last test was negative (12.8%). The lowest rates were in those who had never tested for HIV (3.9%) (Hickson, et al. 2009). The table below which presents data from that report shows the proportion of those diagnosed with each STI who were living with HIV.

Table 8 New STI in the last year self-reported in the Gay Men's Survey 2007

STI diagnoses	Number diagnosed with this infection in the last year	% of those diagnosed in the last year who were living with diagnosed HIV at the time of survey
Gonorrhoea	166	27.2
Chlamydia	152	27.6
Syphilis	94	46.8
NSU	91	17.6
Crabs/lice/scabies	86	3.5
HPV/warts	68	7.4
HIV	34	-
Herpes	29	24.1
LGV	7	100
Hepatitis C	6	83.3
Other	17	17.6

Source: Testing Targets (2009)

There is less information about rates of sexually transmitted infections among lesbian women and they appear to be a neglected group in this respect. Data is routinely gathered in genito-urinary medicine clinics for women who have sex with women and there is no equivalent of the gay men's sex survey for women. 'Prescription for Change' reports that over half of lesbian and bisexual women in their survey had never been for a sexual health check up. Three quarters of those who have not been tested did not consider themselves to be at risk and 4% had been told by healthcare workers that they do not need a test (Hunt and Fish 2008).

Health screening attendance

Cervical screening uptake rates in lesbian and bisexual women appears to be comparable with that of the rest of the population. Whilst the proportion of lesbian and bisexual women over the age of 25 who had never had a cervical smear test was lower than that of women in general (15% as compared to 7%), 70% of the respondents had had a smear test in the last three years, which is comparable with national data (Hunt and Fish 2008). From the same report, one in five of those who had not had a test had been told that they did not require one. Although the numbers are not large, this is a matter of concern as it appears to indicate that there is an erroneous perception among some health professionals that these women are not at risk and so do not require the offer of screening.

There do not appear to be differences in the uptake rates of breast screening. Four in five lesbians over the age of 50 reported that they had had a breast screening test, which is similar to women in general (Hunt and Fish 2008).

10.4 Health and life: LGB: Discussion

Julie Fish's briefings for health and social care staff are a good starting place for discussion of health and life inequalities as they affect LBG (and Trans) people. She suggests that LGB experience health inequalities that often go unnoticed. In the data collected here using Equality and Human Rights Commission indicators, those inequalities are seen in relation to: experience of health services; some risk-taking behaviour; suicide; and mental health issues. Lack of data in relation to many indicators means we cannot draw conclusions about these; there might be significant issues in relation to life-span, for example. The Equality and Human Rights Commission indicators are appropriate, in the main, although data on sexual health might be informative in relation to this strand and perhaps also to others. The lifestyle indicators are of interest although data are limited. Inequalities here could indicate at least two problems. The first is stress linked to homophobia and indirectly to risk-taking behaviour (and, perhaps, suicide). The second is that approaches to health promotion that are based on the heterosexual population might be of little use for LGB people.

A key aspect of much of the literature concerns the existence of homophobia and/or heterosexism in wider society that informs LGB experiences of health care (and hence health inequalities, and potential human rights breaches). Not only are discriminatory experiences from health services documented, but some research suggests that the ‘stress’ of identifying as LGB in this context can lead to poorer health behaviours, such as higher rates of smoking or drug use, as well as poorer health outcomes, such as mental health problems (Hutchison, Porter and Le Voil 2003, McDermott, Roen and Scourfield 2008, King 2006). Other research studies, however, explain these behaviours as being more linked to LGB ‘cultures’ on the scene (Hunt and Fish 2008, Dodds, et al. 2004, Hunt and Minsky 2003, Keogh, et al. 2004, Keogh, et al. 2009) (which may be linked to homophobia). A body of research suggests that young LGB groups may be particularly vulnerable to mental health problems or ‘self-destructive behaviours’ due to the stresses of coming / being out in adolescence, with related levels of homophobic bullying, etc. (Rivers 2001, King M, et al. 2007, Mitchell, M., Collins, P., Doheny, S., Randhawa, G., Davis, S. 2001).

Some research studies have also suggested that LGB patients who are not ‘out’ are put at risk of not receiving applicable/appropriate advice or treatment (Hunt and Fish 2008). Other studies have recorded inappropriate and/or insensitive responses when patients did come out to a health care worker (Hunt and Fish 2008). Research has also documented LGB patients/potential patients feeling invisible and/or ignored in health promotion and/or information materials. Research participants have emphasised the lack of appropriate / in-depth knowledge or information about LGB communities and/or health issues among health practitioners, which is sometimes coupled with a lack of sensitivity and/or understanding (Mugglestone 1999, Farquhar, C., Bailey, J. & Whittaker, D. 2001, Henderson, et al. 2002).

Sexual health remains an important area for LGB communities, though researchers in this area are often at pains to point out that LGB health should not be viewed as referring to only sexual health (just as people’s identities should not only be related to their sexuality). Sexual health is important for two main reasons: first, there is growing recognition that lesbian and bisexual women’s sexual health has been largely ignored or under-explored which has resulted in widespread misperceptions among both health practitioners and women themselves. Second, HIV rates continue to rise, particularly among men who have sex with men (and young men in particular), suggesting that more is still to be done in terms of health promotion and HIV prevention.

Other issues explored in LGB health research identify potentially increased cancer risks due to health behaviours such as poor diet, smoking or drinking (linked to causing ill-health), as well as lower levels of behaviours designed to help early diagnosis (e.g. self-examination or attending cancer screening services) and/or different lifestyle patterns, such as lower/later conception rates.

Local and national level studies have also evidenced poorer mental health within some LGB communities, including suicide attempts, self harm, depression, and anxiety, with some evidence to suggest that young people, bisexuals and trans people are particularly vulnerable in this regard. Those using mental health / related services are not always satisfied with the support they receive, with some suggestion that there is a balance to achieve for health care professionals between ignoring sexual orientation and addressing the impact that it may have on mental ill-health.

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Chapter 11: Gender Identity (Trans)

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11.1 Key messages

What are the inequalities? How persistent and how worrying are they?

LIFE

There are no data on life expectancy or cardiovascular disease mortality. Neither are there data on cancer mortality, although there is some limited data on cancer screening, some of it American.

HEALTH

Outcome

Localised and small-scale survey data provide some evidence suggesting that trans people experience less good health compared to non-trans. There is no consistent evidence on whether trans status has any effect on the chance of having a longstanding health problem or disability.

Localised and small-scale survey data suggest that levels of poor mental health are higher in the trans population. One study indicates significantly higher levels of the following disorders over the past five years as compared to the non trans population; insomnia, fears and phobias (and panic attacks).

Process

Lack of respect towards trans people from health-care professionals is a major theme in qualitative literature. There is also some small-scale survey research to back this up. One in seven trans people who responded to a satisfaction survey said they had been treated adversely by health-care professionals because of their trans status. Many concerns centred on the gender to which people are assigned by the health carers.

For trans individuals, gender reassignment treatment is important. Some of the complaints about health care processes relate to attitudes to and availability of this treatment. For example, in one survey, one in five trans people did not find their General Practitioner (GP) helpful in dealing with this issue.

Autonomy

There is little data relating to healthy lifestyle. In one survey, trans individuals appeared to be more likely not to consume alcohol than non-trans LGB. There was also some evidence that a lack of trans-friendly spaces limited physical activity. There are specific issues relating to some cancer screening. From a satisfaction survey, 33% of respondents reported that their GP had ensured they were on appropriate screening programmes; it seems that Female to Male individuals are rarely included in breast screening and that Male-to-Female individual are similarly not offered prostate cancer. However, data are limited on this as they are also on the question of the effects of hormonal treatments on risk of, for example, breast cancer.

11.2 Trans Evidence

The official data sets currently provide no information on life or health indicators for trans individuals.

There have been two large-scale UK studies of trans people. Whittle et al conducted a general survey of trans people (Whittle, Turner and Al-Alami 2007). This included a self-selected sample of 872 respondents who completed an online questionnaire and analysis of messages from a correspondence database. The Schonfield and Gardner survey of 647 trans people focused on their experience of NHS services, specifically their satisfaction (Schonfield and Gardner 2008). There are substantial methodological issues associated with both of these, and with the smaller qualitative studies that make it difficult to generalise findings to the whole trans population. However, both surveys provide insight into some of the key health concerns. Similarly there is material from the United States and from a European survey (Whittle, et al. 2008) which provides further insights but which should be used with care. Fish's briefing note for health care professionals (Fish 2007) and the EHRC commissioned trans research review (Mitchell and Howarth 2009) both provide useful analysis and insights into the existing body of evidence.

Data concerning trans life and health indicators are sometimes hidden within research carried out under a lesbian, gay, bisexual and trans (LGBT) rubric. However, the 'Count me in' surveys from Brighton and Hove are disaggregated by trans status.

Examples of current work ongoing (and thus not yet reported on) include:

- Audit of treatment experiences and outcomes by North West London Specialised Services Commissioning Team (trans related) by the Audit, Information and Analysis Unit

- National mapping existing models for provision of services to people undergoing gender reassignment in England (trans related) by Press for Change

11.3 Life: main indicators - commentary

11.3.1 Period life expectancy at birth, ages 20, 65 and 80

As trans status is, for the most part, unknown at birth it makes no sense to use life expectancy at birth as a measure for this group. It would be possible to use it as a measure for ages 20, 65 and 80 if such data was collected at other points along the life continuum. These data are not collected in the General Register Office for Scotland or the General Register Office Census Longitudinal Study (for England & Wales).

As with the LGB community it would be possible to speculate on factors that could increase and decrease life expectancy. Mental health problems, for example, could be associated with decreased life span. However, data are absent.

11.3.2 Cardiovascular disease mortality

These data are not collected in the General Register Office for Scotland or the General Register Office Census Longitudinal Study (for England & Wales).

11.3.3 Cancer mortality

These data are not collected in the General Register Office for Scotland or the General Register Office Census Longitudinal Study (for England & Wales).

Additional data

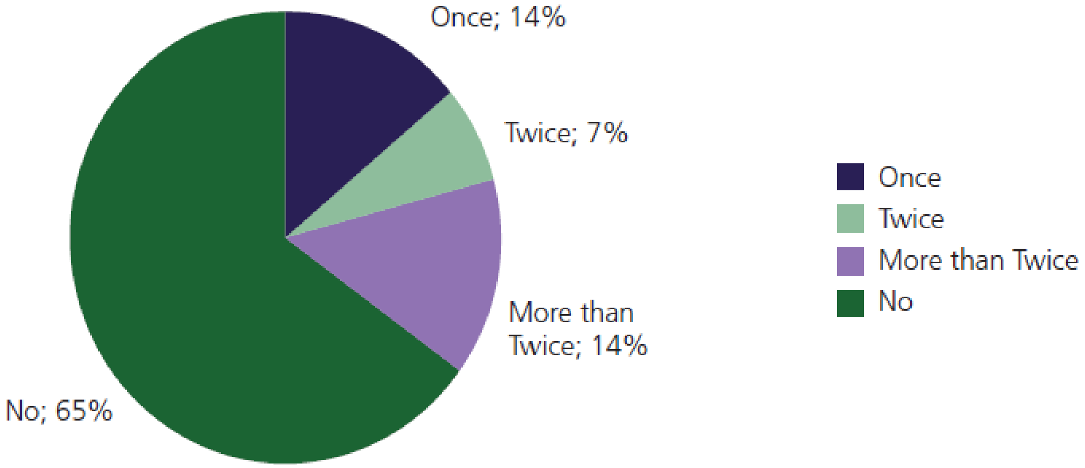
There is some evidence to suggest that trans people may not have access to some routine cancer screening programmes which may impact on cancer mortality rates (Fish 2007) (Schonfield and Gardner 2008). This is discussed in detail later in this chapter.

11.3.4 Suicide rates/risk

These data are not collected in the General Register Office for Scotland or the General Register Office Census Longitudinal Study (for England & Wales).

Below is a graph presenting data from the Whittle et al report which found that 34% of those surveyed (N = 872) had attempted suicide (Whittle, Turner and Al-Alami 2007). Of those, nearly two thirds had attempted to take their life on more than one occasion and two fifths had made more than two attempts.

Figure 1 Respondents who reported attempting suicide or self harm, as an adult, resulting from being a cross-dresser, transgender/transsexual person or because of other people's reactions to them being trans



Source: Whittle et al 2007

These findings are supported by those from the 'Count me in too' trans report (Browne and Lim 2008). From that study in which 5% of the respondents (n = 43) self identified as trans, those who identify as trans are twice as likely (56%, compared to 28% of those who are not trans) to have had serious thoughts of suicide, more than three times as likely (26%, compared to 8%) to have attempted suicide in the past five years, and over five times as likely (16%, compared to 3%) to have attempted suicide in the past twelve months as non-trans people. In a series of three participatory workshops conducted in Scotland with very small numbers of trans gender individuals, suicidal feelings were identified as being among the greatest health concerns (Laird and Aston 2003).

11.3.5 Accident mortality rate

These data are not collected in the General Register Office for Scotland or the General Register Office Census Longitudinal Study (for England & Wales). We found nothing elsewhere.

11.3.6 Deaths from non-natural causes for people resident in health or social care establishments

These data are not collected in the General Register Office for Scotland or the General Register Office Census Longitudinal Study (for England & Wales). We found nothing elsewhere.

11.3 Health: Main indicators

Outcomes

11.3.7 [2.1] Self-report poor current [physical] health

These data are not collected by trans status in the English, Scottish and Welsh health surveys.

Localised survey data from the 'Count me in too' trans analysis (Browne and Lim 2008) provides tentative evidence that suggests that trans people experience less good health as compared to non trans people as indicated in the table below. Trans respondents are much less likely (44%) to say that they have good or very good physical health than non-trans respondents (77%) (Browne and Lim 2008).

Table 1 Physical health by trans identity

		Trans identity	Not trans	Total
Good/Very good	No	19	581	600
	%	44.2	76.8	75.0
Neither good nor poor	No	11	112	123
	%	25.6	14.8	15.4
Poor/Very poor	No	13	64	77
	%	30.2	8.4	9.6
Total	No	43	757	800
	%	100	100	100

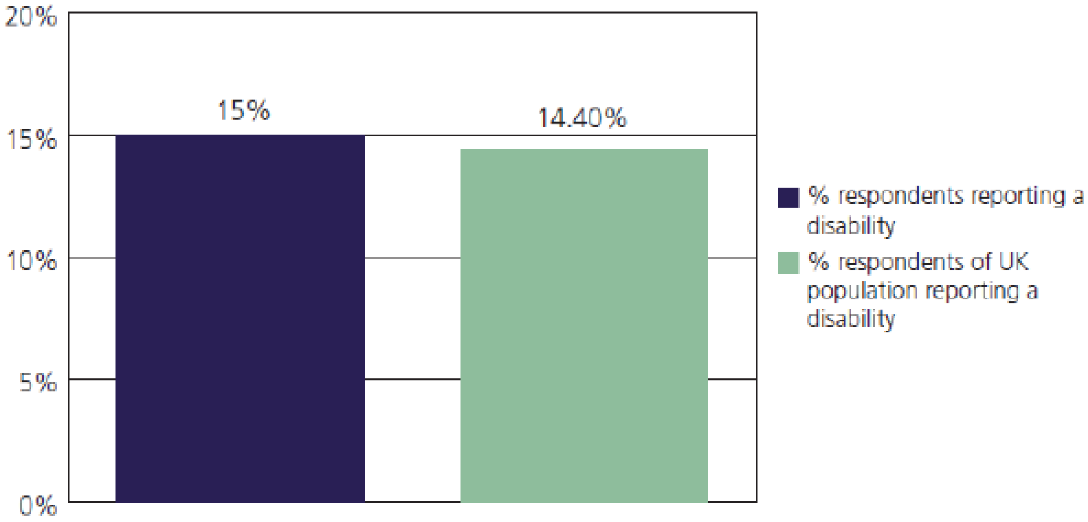
Source: Count me in too 2008

11.3.8 [1.1] Longstanding health problem or disability (E W) and longstanding illness (S)

These data are not collected by trans status in the English, Scottish and Welsh health surveys.

There is no clear agreement from the small amount of data available about the levels of longstanding health problems or disability in this population. Below is a graph presenting data from the UK-wide study which shows comparable levels of reported disability with the general population (15% as compared to 14.4%) (Whittle, Turner and Al-Alami 2007). The numbers are small and it is not stated in the survey report whether the statistics it reports are significant.

Figure 2 Percentage of respondents who were disabled compared with disabled people in the UK



Source: Whittle et al 2007

These findings are at variance with those from the survey of 71 trans people in Scotland in which 37% reported being disabled (Morton 2008). The most commonly reported disabilities were mental health disability and mobility disability reported by 20% and 14% of respondents respectively.

One point of speculation is that where trans people have slow or no access to gender reassignment treatment (see discussion below) they have by definition a longstanding health problem.

11.3.9 [1.2] Poor mental health or wellbeing

These data are not collected by trans status in the English, Scottish and Welsh health surveys.

The limited amount of evidence available suggests that levels of poor mental health may be higher in this population. Whittle et al found high levels of self-harming or suicidal activity which suggests that mental health problems are above average in the transgender community (Whittle, Turner and Al-Alami 2007). In a Scottish survey of 71 transgender individuals, 20% reported mental health disability (Morton 2008). This figure, however, could be distorted by the requirement of a mental health disorder before an individual is included for gender reassignment.

In relation to specific mental health conditions, the 'Count me in too' trans analysis (Browne and Lim 2008) indicates significantly higher levels of the following disorders over the past five years as compared to the non trans population; insomnia (51% vs 33%, $p = 0.025$), fears and phobias (41% vs 13%, $p = 0.0005$) and panic attacks (36% vs 18%, $p = 0.009$). Stress, anxiety, depression and disgust with body parts were all important health issues for the participants in their three small focus groups conducted in Scotland (Laird and Aston 2003).

A specific problem which is likely to contribute to mental ill health in this population was identified in the report 'Transgender experiences in Scotland ' which was conducted on behalf of the Scottish Transgender Alliance (Morton 2008) and surveyed a sample of 71 respondents. The report identifies a lack of understanding and knowledge about transgender issues by general psychiatrists which often results in trans people being given inappropriate treatment which fails to assist them with their gender dysphoria and causes months or years of delay in getting an assessment by an experienced gender specialist.

Process

11.3.10 [3.1] Low perception of treatment with dignity

These data are not collected by trans status in the English, Scottish and Welsh health surveys.

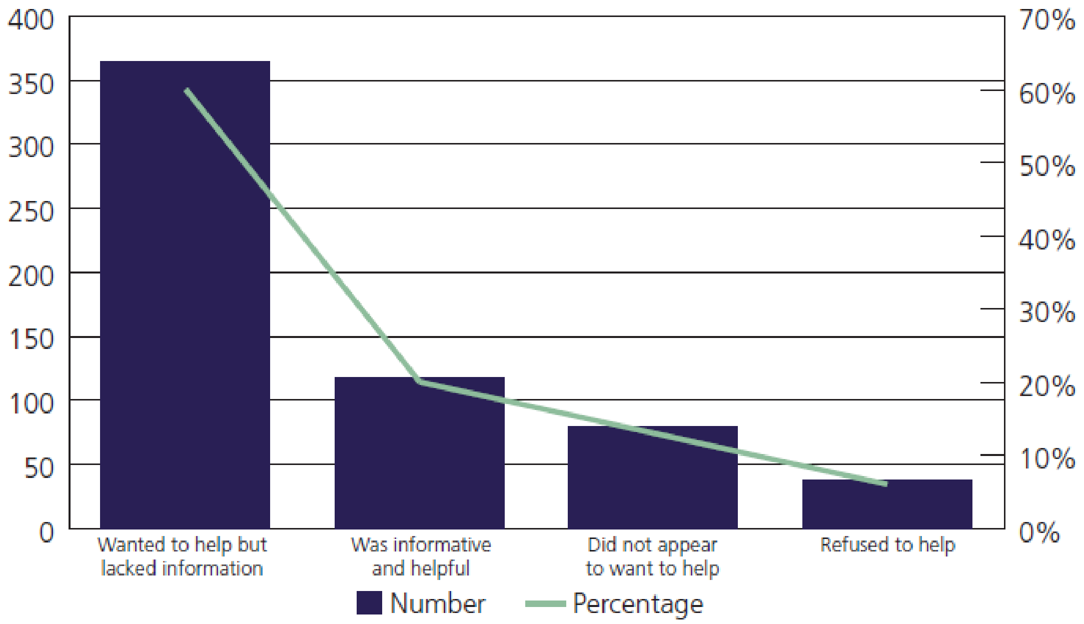
However, data that are available centre round two aspects of health and healthcare provisions for this population; firstly those relating to general aspects of health care provision and secondly those relating directly to gender reassignment. Three important sources of information are firstly the 'Patient Satisfaction with Transgender Services' (Schonfield and Gardner 2008) which surveyed the opinions and experiences of 647 individuals at all stages of treatment/transition, secondly the Whittle et al (2007) study and thirdly the 'Count me in too' trans analysis (2008). As well as providing some indication of inequality issues insofar as they identify issues of access to specific treatments and specialist services, the data may also be used as markers of progress in health care. They indicate areas of concern.

One in seven trans people who responded to the health care section of the satisfaction survey felt that they had been treated adversely by health care professionals because of their trans status (Whittle, Turner and Al-Alami 2007). A number of bad experiences of health care provision are cited, for example being addressed incorrectly, being put on the wrong ward for their acquired gender, or staff allowing their personal feelings about transsexualism to be known by the patient. Trans people appear to commonly encounter ongoing difficulties when accessing routine health care that is non trans related. This appears to be due in part to the fact that health professional can only see their health through the lens of being trans. 22% of respondents to the healthcare section of the satisfaction survey felt that being trans had affected the way that they could access routine treatment that was not related to being trans.

GP support is imperative for those seeking gender reassignment treatment. This may explain in part the finding from the 'Count me in too' trans analysis, that the majority of the sample (88% n = 37) reported that they had disclosed their sexuality and/or gender identity to their GP. A substantial proportion of trans respondents (16% n = 7) thought that the quality of care delivered by their current GP was poor or very poor, while 62% (n. 27) thought it was good or very good. Many trans people experienced difficulties finding a trans-friendly (or non-transphobic) GP.

The GP is the first point of contact and plays a key role in the transition process, from initial referral to involvement in treatments, investigations, support and all other aspects of health care. The data indicate that this support is not available for a substantial proportion of those wishing to pursue this option. Figure 3 below provides information about GP responses when patients sought advice on gender reassignment. The majority of GPs (80%) wanted to help although most of them (60%) were lacking in information. These findings are supported by the experiences of those in the Laird and Aston study (2003) who report experiences of GPs and psychiatrists with little or no knowledge of trans issues and the giving of inappropriate advise. Of concern is the finding that one in five trans people did not find their GP helpful and that for 6.3%, or 38 of 599 respondents, their GP refused to help them access treatment.

Figure 3 How GPs responded when patients sought advice on gender reassignment



Source: Whittle et al 2007

These findings largely concur with those from the patient satisfaction survey. In response to the question, 'Was your GP always adequately helpful and supportive in your decision to seek gender reassignment?' 30% reported always, 23% sometimes and 17% never. Additionally this survey found that in 13% of cases, the GP refused to prescribe hormonal treatment despite recommendation from an endocrinologist (Schonfield and Gardner 2008).

There is some indication that the situation has improved with time both in terms of trans specific and routine care. The evidence for this comes from a comparison between the experiences of those who have transitioned in the past three years and those who transitioned over fifteen years ago. For those who had transitioned over fifteen years ago, 30% found that their GP was unhelpful in enabling them to access gender reassignment services. This figure has declined to 19% for those who transitioned within the past three years (Whittle, Turner and Al-Alami 2007). There is a similar decrease in difficulty reported in terms of access to routine care. 11% of those in the recent transition group as compared to 30% in the long term group reported such difficulties. The basis of this difference is not clear. As the authors of the report identify, whilst it may indicate some improvement, it may also be due to the fact that those who have transitioned more recently have not had as much need of routine health care more recently.

11.3.11 [5.1] A&E attendance/accidents

The main source of data for A&E attendance is provided by the Department of Health. Information on sexual orientation is not routinely collected and these data have not been aggregated by sexual orientation. The effect of injury or death through trans-phobic attacks on the health outcomes of the trans individuals and/or their immediate family/friends' remains largely unexplored.

11.3.12 [3.2] Lack of support for individual nutritional needs during hospital stays

These data are not collected by trans status in the English, Scottish and Welsh health surveys.

Autonomy

11.3.13 [4.1] Healthy lifestyle [Smoking, alcohol and drugs, exercise, diet (fruit and vegetables), obesity, sexual health

These data are not collected by trans status in the English, Scottish and Welsh health surveys.

Additional evidence

SMOKING

No data were found on this topic.

ALCOHOL

The table from the 'Count me in too' survey shown below indicates that people with trans identity were less likely to drink than non-trans.

Table 2 Do you consume alcohol by trans identity

		Trans identity	Not Trans	Total
Yes	No	25	633	658
	%	62.5	86.2	85
No	No	15	101	116
	%	37.5	13.8	15
Total	No	40	734	774
	%	100	100	100

Source: Count me in too 2008

EXERCISE

There are no data on trans individuals and activity levels. However there is some indication of barriers that may impact on activity levels. In the 'Count me in too' trans analysis, 43% (n = 15) of trans respondents indicated that a lack of trans friendly spaces stops them being more physically active (Browne and Lim 2008).

DIET

There are no data on trans individuals and diet

OBESITY

There are no data on trans individuals and obesity

SEXUAL HEALTH

Evidence from the 'Count me in too' trans analysis (Browne and Lim 2008) indicates that there are areas of concern for trans people in relation to the availability of specific information and the provision and uptake of services. Those who are trans are less likely to know where to find help around sex/relationships. Over half (56%) of those who are trans do not know where to find help around sex/relationships compared to 37% of those who are not trans (p.=0.019).

Trans respondents are less likely (25%, n = 6) than non-trans respondents (56%, n = 374) to agree or strongly agree that the information on sexual health is appropriate to their sexual practices (p = .011). They are also more likely to disagree or strongly disagree (25%, n = 6, compared to 15%, n = 97) that such information is appropriate to their sexual practices.

Trans respondents are more likely (24%, n= 10) than non-trans respondents (6%, n = 42) to say that they do not need a sexual health check up (p = .0005). They are also more likely (38%, n. 16) than non-trans respondents (24%, n = 184) to say that they have never had a sexual health check up. 5% (n = 2) of trans respondents had had a sexual health check up in the 6 months prior to the survey, compared to 21% (n. 158) of non-trans respondents.

HEALTH SCREENING

There are specific issues related to health screening in relation to trans people. For some screening programmes, such as breast and cervical screening, GP action is required to ensure invitations to attend are sent. From the satisfaction survey, 33% of respondents reported that their GP had ensured that they were on appropriate screening programmes (Schonfield and Gardner 2008). This suggests that appropriate screening may not be offered in a substantial proportion of cases and also that inappropriate screening may also be being offered. This concurs largely with the suggestion of Fish that FtM are rarely included in breast screening programmes and that MtF are similarly not offered prostate screening (Fish 2007). However this is a complex and under researched area. Fish draws on US data to make her observations. As prostate screening is not routinely offered in the UK, this cannot be considered an inequality. However of greater health concern would be the potential for reduced likelihood of diagnostic investigations in MtF who present with symptoms of prostatic disease. Additionally, as Mitchell & Howarth identify, it is unclear what are the risks to transexual people of breast and prostate cancer (Mitchell and Howarth 2009). For example, we do not know whether the risk of breast cancer is higher or lower in MtF as a result of hormonal treatments.

11.5 Health and life: Trans: Discussion

Trans-gender status is likely to affect health and life-span. However, data to capture this effect in the UK are sparse. Furthermore, some of the issues affecting health for trans individuals are specific, making it hard to judge whether there is inequality. For example, the presence of cervical screening for FtM individuals is not one that can readily be compared to the general population.

There do appear to be specific concerns about the provision of general services for trans people with some indication that negative attitudes of health care providers and a lack of information and understanding of the specific health needs of this group impacts adversely on care provision.

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