

A workforce in jeopardy - identifying the challenges of ensuring a sustainable advanced HIV nursing workforce.

PIERCY, Hilary <<http://orcid.org/0000-0002-7663-8858>>, BELL, Gill, HUGHES, Charlie, NAYLOR, Simone and BOWMAN, Christine

Available from Sheffield Hallam University Research Archive (SHURA) at:

<http://shura.shu.ac.uk/18753/>

This document is the author deposited version. You are advised to consult the publisher's version if you wish to cite from it.

Published version

PIERCY, Hilary, BELL, Gill, HUGHES, Charlie, NAYLOR, Simone and BOWMAN, Christine (2018). A workforce in jeopardy - identifying the challenges of ensuring a sustainable advanced HIV nursing workforce. *Journal of Research in Nursing*, 23 (8), 646-656.

Copyright and re-use policy

See <http://shura.shu.ac.uk/information.html>

Title: A workforce in jeopardy - identifying the challenges of ensuring a sustainable advanced HIV nursing workforce.

Authors:

Piercy, Hilary. PhD, MA, BSc, SFHEA, RGN, RM. Principal Lecturer, Department of Nursing & Midwifery, Sheffield Hallam University. h.piercy@shu.ac.uk

Bell, Gill. MA, BA, RGN. Nurse Consultant Sexual Health Adviser, Sheffield Teaching Hospitals NHS Foundation Trust. gill.bell@sth.nhs.uk

Hughes, Charlie. MSc Clinical Research, BA (hons) Health and Social Practice, RGN. Clinical Nurse Specialist, Sheffield Teaching Hospitals NHS Foundation Trust. Charlie.hughes@sth.nhs.uk

Naylor, Simone. BSc, RGN. Clinical Nurse Specialist, Sheffield Teaching Hospitals NHS Foundation Trust. Simone.naylor@sth.nhs.uk

Bowman, Christine A. MA, FRCP Consultant Physician (retired), Sheffield Teaching

Abstract

Introduction

HIV services in England face substantial challenges arising from financial pressures and changes to commissioning. A sustainable HIV specialist nursing workforce will be vital to enable them to respond to those challenges. This paper examines the current workforce situation in HIV services across the country.

Methods

This mixed method study involved semi-structured interviews with 19 key stakeholders and with 44 nurses / physicians from 21 purposively selected HIV services across England. Data were interpreted using a framework analysis approach.

Findings

'Building a career in HIV nursing' identified problems associated with retention and recruitment. Changes in commissioning are disrupting common career routes from sexual health to HIV nursing and a perceived lack of clear career pathway was seen as a barrier to recruitment. 'Developing a specialist workforce' explored professional development of the current workforce which was hampered by poor access to funding or study time for advanced study, and the absence of an HIV-specific advanced nursing qualification.

Conclusion

The HIV nursing workforce, which provides an increasing proportion of HIV care, is facing serious recruitment and retention challenges. A strategic approach to workforce

development and training is essential to overcome systemic barriers and secure the next generation of skilled practitioners.

Key messages

- The role of the HIV specialist nurse needs to develop and expand to deliver advanced community based HIV care
- The separation of commissioning for sexual health and HIV threatens the main career pathway for specialist HIV nursing.
- A more robust training programme is needed to prepare HIV nurses to deliver advanced specialist care across settings
- A strategic approach to workforce development is needed to ensure a sustainable workforce, capable of delivering high quality care.

Introduction

HIV services are facing substantial challenges. The numbers living with Human Immunodeficiency Virus (HIV) and the proportion of those with infection taking antiretroviral therapy are both increasing resulting in escalating care costs. Parliamentary and national reports have identified the urgent need for fundamental changes in the way services are organised (House of Lords 2011, Skingsley et al. 2015). Services in England face additional challenges arising from major healthcare reforms introduced within the Health and Social Care Act 2012 which resulted in changes to commissioning arrangements for HIV and sexual health services. HIV treatment and care services are now commissioned as a specialist service by NHS England whilst public health aspects of HIV work including HIV testing and prevention activities are commissioned separately by local authorities. Sexual health services, which are commonly co-located with HIV services, sharing resources and workforce, are now commissioned by local authorities (Public Health England 2015) and subject to tendering arrangements which may result in transfer of the contract to another NHS or a non-NHS provider. The impact of separate funding arrangements on the quality of care provision for both sexual health and HIV services has been identified as a major concern (White 2016, Kirby, Thornber-Dunwell 2014, Lucas 2015, All Party Parliamentary Group on HIV 2015).

The contribution of nursing to high quality HIV care in many parts of the world is well established (Tunncliff et al. 2013, Wilson et al. 2005). In England, HIV services are largely situated within secondary care and specialist HIV nursing roles are an essential part of the multidisciplinary team delivering those services (Tunncliff et al. 2013). The Select Commons Committee report (House of Lords 2011) highlighted the importance of increasing the

nursing contribution as well as a shift towards community based care as part of fundamental changes to service organisation. In England, specialist HIV nursing roles vary substantially across the country. In some services, roles have developed and expanded to deliver an increasing proportion of treatment and care, largely in response to capacity demands and funding constraints but there is considerable scope for development in many areas of the country (House of Lords 2011, Piercy et al, 2017).

A specialist nursing workforce with the necessary knowledge and skills will be essential to enable the continued delivery of high quality HIV care within this challenging environment. In this article we report on the current specialist nursing workforce and explore the challenges associated with workforce development and sustainability of the role. These findings arose from a national study examining the contribution of advanced nursing to HIV services in England.

Methods

In this two-stage multi-method qualitative study, we adopted a sequential approach throughout in which the sampling, data collection and analysis processes for each stage were informed by the stages that preceded them. Data collection took place from April 2014 to May 2015.

Stage one involved a purposive sample of representatives from key stakeholder groups: service providers, service commissioners and service users. Participants were identified in conjunction with the project advisory group. We undertook semi-structured interviews which detailed current provision, challenges and opportunities for service delivery and the advanced nursing contribution.

In stage two we conducted semi-structured interviews with nurse/physician pairs from HIV services across the country to understand the range of ways in which services are organized and the nursing contribution. We used a purposive sampling approach to site selection in order to capture maximum variability in terms of demographic factors and types of HIV services and to include sites recognised for excellent and innovative nursing practice. We drew on national data sources, and consulted with the project advisory group to draw up a list of potential sites which we then contacted and screened to determine eligibility. In each of the selected sites, we interviewed the most senior clinical nurse and the consultant physician they worked most closely with.

For all stages, interviews were conducted by telephone or face-to-face and used a topic guide designed for the specific project stage. Interviews lasted 15 - 70 minutes with a mean of 40 minutes. They were recorded and fully transcribed. Study information sheets were

provided at recruitment. Informed consent was obtained prior to the interview, either written or verbally and recorded.

Data were analysed using framework analysis (Spencer et al. 2014), a pragmatic approach to qualitative data analysis. It follows a systematic five stage analytic process to allow the integration of a priori issues and emerging themes, and provide a clearly defined analytical structure that contributed to the transparency and validity of the results. Analysis was undertaken collaboratively by the project team (HP,GB, CH & SN) with regular 'time out' days to support the process. To ensure rigour, interviews were coded by two members of the team and key analytic decisions such as the preliminary thematic framework were agreed collectively.

Ethical approval of the study was granted by a University Faculty Ethics Committee (February 2014, Ref: 2013-4/HWB/HSC/STAFF/9).

Governance approvals were secured from all study sites.

All data was managed in accordance with information governance requirements.

Findings

Overview of participants

In stage one, we interviewed 19 participants representing five stakeholder groups, namely service users (2), senior medical consultants in national leadership roles, (8), nurse consultants and service leaders (5) service manager (1) service commissioner (1).

In stage 2, we conducted 44 interviews with specialist nurse-consultant physician pairs from twenty one services across England (13% of total). In 19 services, we conducted two interviews and in two services, where the role was differently configured, we conducted three interviews.

The specialist nurses worked in HIV services located in high and low prevalence areas (7 and 14 respectively), semi-rural, urban and metropolitan areas (6, 11 and 4 respectively) with cohorts ranging from 80 to 6,000. They worked in a range of service settings: standalone HIV services (4), Sexual health/GUM services (14) Infectious diseases unit (2) and Infectious diseases/sexual health combined (1). The majority of HIV services (13/21) employed one or two specialist nurses.

Findings

Two major themes, each with three subthemes were identified in the data. 'Building a career in HIV nursing' contained the subthemes 1) Maintaining an experienced workforce, 2) Having a clear career path 3) Routes into specialist HIV nursing. 'Developing a skilled

workforce' contained the subthemes 1) Advanced level training 2) HIV specific training 3) Ongoing professional development requirements

1. Building a career in HIV nursing

This theme explored how an HIV career is currently understood and facilitated and the challenges arising from the changed commissioning landscape.

1) Maintaining an experienced workforce.

A large proportion of the respondents expressed considerable reservations about the current ability of services to maintain an experienced nursing workforce. Different sets of problems were affecting services across the country. Those working in large services in metropolitan areas, where there are greater employment opportunities, identified problems with staff recruitment and retention.

A major concern for smaller urban services, where the workforce was more stable, was the impending challenge of replacing practitioners approaching retirement. The majority of participants from those services had been working in HIV for over ten years and many had been in post for over twenty years, pioneering HIV nursing roles from the earliest days of the epidemic and now *'growing older with our patients.'* (Stage 1, N 4) Several expected to retire within five years and the majority within ten years. In some services, this was the situation for their entire specialist nursing workforce. Key stakeholders expressed anxieties about the loss of expertise and the implications for services:

'They [the specialist nurses] will be retiring soon and it is a concern about what the future is. Probably [sexual health] nurses will take over but we will lose the experience, [it will be] very difficult to replace that.' (stage 2, Ph 21)

2) Having clear career pathways

Participants identified the importance of clarifying what an HIV nursing career offered in order that *'people see it as a career option.'* (Stage 1, N 2). They considered that currently *'those with the same title are doing very different things around the country'* and that this situation had arisen because roles had *'evolved more through capacity than through "I think we need to have a nurse to do this job"'* (Stage 1, N4).

Recruitment and retention problems were largely attributed to the perceived lack of a career pathway. One participant reported that *'people aren't interested in coming to HIV in the way that they used to be, [perhaps because] the fact that it is supposedly such a manageable condition, what are the long-term options career-wise?'* (stage 2, N 6). Another highlighted the importance of adequate career progression opportunities for staff retention and maintenance of quality services.

'People [who] are doing it for two or three years [think] I'd better get out now before I get stuck in the speciality for too long and there aren't any other jobs ... having that carrot that you can progress, become a specialist nurse or an advanced prescriber, means that you retain staff for four or five years in post and that offers a better service to patients, (stage 1, Ph 8)

As part of clarifying the HIV nursing career pathway, participants emphasised the need to engage with a longer term perspective that acknowledged three specific challenges facing HIV services. Firstly, the continuing sexual health needs of this population which are complicated by recent trends in sexual behaviour among men who have sex with men (MSM) of all ages and backgrounds involving 'club drugs' to enhance sexual performance and pleasure ('chemsex') which is increasingly common in some areas of the country. Secondly, the increasing numbers who are growing old with HIV and acquiring complex co-morbidities associated with aging. Thirdly the trend towards community delivered care. A skilled nursing workforce, capable of engaging with these three agendas, with the capability to work across different care settings was identified as a key requirement. Participants proposed the need for an HIV specialist nursing workforce that can *'flow between inpatient and outpatients in the community'* (stage 1, N 4), one in which *'advanced nursing practice and community nursing practice are aligned'* in a workforce with *'the skills and the knowledge to manage patients in the community'* (Stage 1, N 3).

3) Entries into HIV nursing

Participants identified the importance of taking a long term approach to developing new staff recognising the time required for knowledge and skills acquisition

'In order to hand over what we've developed to other people, they need to be in post a length of time in order to develop the skillset and also the knowledge base and the attitude as well to dealing with patients.' (stage 2, N 4)

In areas where sexual health services and HIV services were co-located, it was common practice for part of the sexual health nursing workforce to be involved in delivering the HIV service and to gain HIV specific expertise. Most nurse participants' career pathway had taken them into HIV services from either sexual health or health advisor roles and some, who were working with small HIV cohorts in services co-located with sexual health, continued to have combined roles across both specialties. These well-established arrangements offered opportunity for role progression and entry into HIV nursing and several participants described working with enthusiastic junior staff to support their development.

Separate commissioning of HIV and sexual health services was seen as a significant threat to this arrangement. Tendering for sexual health services was anticipated or underway in several services and the impact on HIV services and the nursing role was a matter of considerable concern. In one service, these concerns had been realised. Following the tendering process, the sexual health contract had been awarded to a neighbouring NHS Trust resulting in transfer of the sexual health staff. The HIV nursing infrastructure had collapsed and opportunities to develop HIV roles in this way had disappeared:

'All the other nurses who used to do some HIV care as part of their job no longer do that because they've been transferred.' (Stage 1, Ph 1)

2. Developing a skilled workforce

This theme explored the educational and training needs of a skilled HIV nursing workforce and the challenges associated with meeting those needs.

1) Access to advanced level training

There was consensus agreement that advanced level training was essential for developing an advanced level workforce with the required clinical and academic capabilities. A chronic lack of funding, restricting access to such training, presented a significant barrier to development of the workforce.

'Nursing education has a very poor budget and so it's really difficult for people to look at expanding their skill base.' (Stage 1, P7)

Just over one third (8/21) of the stage 2 nurses were qualified to masters level with the most recently qualified completing a generic Master's degree in Advanced Nursing Practice. They reported a variable degree of organisational level support with funding and study time. Difficulties in securing study time had reduced the inclination of the nurses to invest in their own education where funding was not available and to embark on a programme when funding was available. It had also impacted adversely on timely completion. One participant had received funding but no study time other than the taught days for the programme requiring them *'to work for really long days to try and get a day off [for study].'* (Stage 2, N16) She took five years to complete the master's programme. Another reported that even when funding had been secured and study time was nominally available, sickness within the small nursing team had prevented them enrolling on the programme.

Organisational support and funding was most readily available for individual clinical skills modules, most commonly non-medical prescribing. This had enabled over half of the stage 2

participants, and two thirds (13/19) of those working in hospital-based HIV services to qualify as non-medical prescribers.

2) HIV specific training

The majority of the nurse participants had completed some HIV specific education, in most cases over 15 years ago when specific programmes in HIV nursing were widely available. The current situation in which *'there are not even modules anywhere that you can do, or even if you've got a module it doesn't give you a qualification in HIV.'* (stage 1, N 3) was a major concern. Participants considered that HIV specific educational provision was essential for those coming into and progressing through HIV nursing roles and they struggled to meet the training needs of junior staff in the absence of such provision.

The difficulty is we need to upskill all the nurses but how do we do that without the qualifications that back it up?' (stage 2, N 3)

They also identified the importance of more advanced HIV educational opportunities in addition to generic advanced nursing programmes. The availability of a HIV specific nationally recognised qualification was considered essential in enabling specialist practitioners to acquire and demonstrate a higher level of HIV specific knowledge that was important for clinical credibility and professional recognition as an advanced level practitioner.

There are advanced practice courses in nursing, but not in HIV, and so it's very generalist and you don't get taught the advanced practice nurse HIV knowledge.... You need to have an advanced practice nursing course ... but also having the knowledge of your specialist area, that you can show you have the knowledge of your specialist area (stage 1, N3)

3) Ongoing professional development

Most professional development took place in practice, through a range of clinical opportunities. Much of this was provided through informal means, through individual support, working within a multidisciplinary team, and attending clinical seminars. In most cases and particularly in the larger services, there were well established clinical supervision arrangements with senior medical colleagues and formalised mechanisms had been integrated into service structures. These were particularly valuable for development of clinical expertise and confidence.

Local clinical networks involving groups of HIV services played a key role in supporting clinical practice and professional development particularly for those working in smaller and more professionally isolated settings. Regular network meetings operated in most areas and

were highly valued although workload demands and a lack of organisational support for the nurses to attend reduced their effectiveness in some areas.

The groups that were most desperate to get the regional network up and running were actually the CNSs because they were working in isolation so much. And although they were coming to some regional meetings, their workload and their timetables and permissions [meant] they were not always able to get away. (stage 1, Ph 7)

A similar picture emerged with regards to attendance at conferences and academic outputs. The majority reported regularly attending and several contributed to national and international conferences. Some had also published academic papers and supported junior colleagues to produce outputs. Organisational funding and support for conference attendance was available to a variable degree. A lack of funding represented a major barrier to conference attendance and other professional development events that incurred costs.

Strengths and limitations.

The multi-method sequential study design enabled us to capture multiple perspectives and to examine the current workforce situation across the country. The purposive sampling approach and scale of the study increases the reliability of the data. However, given the substantial diversity between services, we may not have adequately reflected the challenges faced by some services.

Discussion

The workforce challenges which are impacting on the services in this study reflect wider concerns affecting health services around the world. Global concerns about the increasing scarcity of the nursing workforce were highlighted over a decade ago (Buchan 2002) and the loss of collective expertise of the generation of nurses who pioneered advanced and specialist roles (Jackson 2008) is particularly pertinent to HIV services. However, they are likely to be compounded by the new commissioning arrangements and consequent separation of HIV and sexual health provision. This separation reduces the staff development opportunities available to a shared workforce and undermines the main career pathway from sexual health into HIV nursing, placing increased reliance on recruitment of staff from other areas of practice. Effective recruitment is therefore likely to become increasingly dependent on adequate promotion of HIV nursing roles and clear articulation of possible entry routes and career progression opportunities.

The nursing workforce play a key role in addressing the sexual health needs of HIV patients and in England, they commonly have specific responsibilities associated with annual sexual health screens and risk reduction interventions (Piercy et al. 2016). A substantial proportion of people living with HIV continue to engage in transmission-risk behaviours (Fox et al. 2009, Danta et al. 2007) and new and emerging sexual practices, for example the use of 'chemsex' are presenting a fresh set of challenges (McCall et al. 2015). Almost one third (29%) of sexually active HIV positive MSM reported engaging in 'chemsex' in the past year (Pufall et al. 2016). In view of these challenges, a nursing workforce with the requisite knowledge, skills, attitudes, and values required for high quality sexual health care will continue to be essential for HIV services. If there is a reduction in the recruitment of staff with sexual health expertise, the training requirements will need to be adequately addressed as part of the wider concerns about HIV educational qualifications and training identified in this study.

The lack of availability of HIV specific education and accreditation processes that acknowledge levels of competency was identified as a substantial barrier to workforce development and career progression. Although HIV nursing competencies which have been developed by the National HIV Nursing Association (NHIVNA) are well established and provide a framework for those working at all levels in the UK (National HIV Nurses Association 2013), they do not offer a route to assessment and accreditation. This contrasts with the assessment and certification processes for nurses specialising in HIV care that operate in the USA and Canada (Relf, Harmon 2016, Relf et al. 2011) which have recently benefitted from substantial work to develop HIV specific education for nurse practitioners at both entry and advanced level (Relf, Harmon 2016). A recent initiative in the UK undertaken collaboratively between NHIVNA and the British Association of Sexual Health and HIV (BASHH) will address the current gap in educational provision. Two assessment programmes, (one core and one advanced level) which map to the existing competency framework and lead to nationally validated nursing qualifications in HIV care have been developed and were introduced as pilot programmes in 2016 (NHIVNA 2016).

Buchan & Aiken (Buchan, Aiken 2008) identify the need for long term and sustainable solutions to addressing staff shortages. The extent to which this was achievable at an individual level by the services involved in this study was limited and the organisational constraints they faced served as substantial barriers. It seems highly likely that separate commissioning of sexual health and HIV which was starting to impact on individual services will create a more profound set of problems across the country. In the light of these problems, a strategic approach to workforce planning is urgently required. To support and inform this process, those commissioning and providing HIV services need to have a clear

understanding of HIV nursing and particularly of advanced HIV nursing roles, the contribution they can offer to HIV services and the development and support requirements that need to be in place to maximise that contribution. The recent publication 'Guidelines on Advanced Practice in HIV Nursing' (NHIVNA 2016) which has been developed for clinical and managerial staff, provider organisations and commissioners, provides the detailed information that is required. The document situates advanced HIV nursing practice within the wider HIV care context and is structured around four components: the core elements and competency requirements of advanced HIV nursing roles, and guidance on implementing and commissioning those roles. Collectively these components offer a framework within which to develop and deliver high quality advanced HIV nursing practice across acute and community sectors which will be essential to the continued provision of HIV services.

Conclusion

Future high quality, affordable HIV provision requires further development of the HIV specialist nursing workforce. This study identifies a number of significant threats to the role and sustainability of this workforce. Urgent action including a strategic approach to HIV nursing workforce planning is essential to mitigate those threats and ensure that those living with HIV continue to benefit from HIV nursing skills and expertise.

References

- All Party Parliamentary Group on HIV 2015, *The HIV puzzle: piecing together HIV care since the Health and Social Care Act*, House of Commons, London.
- Buchan, J. 2002, "Global nursing shortages", *British Medical Journal*, vol. 324, no. 7340, pp. 751-752.
- Buchan, J. & Aiken, L. 2008, "Solving nursing shortages: a common priority", *Journal of Clinical Nursing*, vol. 17, no. 24, pp. 3262-3268.
- Danta, M., Brown, D., Bhagani, S., Pybus, O.G., Sabin, C.A., Nelson, M., Fisher, M., Johnson, A.M., Dusheiko, G.M. & HIV and Acute HCV (HAAC) group 2007, "Recent epidemic of acute hepatitis C virus in HIV-positive men who have sex with men linked to high-risk sexual behaviours", *AIDS (London, England)*, vol. 21, no. 8, pp. 983-991.
- Fox, J., White, P.J., Macdonald, N., Weber, J., McClure, M., Fidler, S. & Ward, H. 2009, "Reductions in HIV transmission risk behaviour following diagnosis of primary HIV infection: a cohort of high - risk men who have sex with men", *HIV medicine*, vol. 10, no. 7, pp. 432-438.
- House of Lords 2011, *Select Committee on HIV and AIDS in the United Kingdom. First report: No vaccine, no cure. HIV and AIDS in the United Kingdom*, House of Lords, London.
- Jackson, D. 2008, "The ageing nursing workforce: how can we avoid a retirement brain drain?", *Journal of Clinical Nursing*, vol. Vol.17, no. 22, pp. p.2949-2950.

- Kirby, T. & Thornber-Dunwell, M. 2014, "England's HIV services face complex new environment", *Lancet (London, England)*, vol. 383, no. 9911, pp. 17-18.
- Lucas, S. 2015, *Unprotected nation: an update of the financial and economic impacts of restricted contraceptive and sexual health services*, Family Planning Association, London.
- McCall, H., Adams, N., Mason, D. & Willis, J. 2015, "What is chemsex and why does it matter?", *BMJ (Clinical research ed.)*, vol. 351, pp. h5790.
- National HIV Nurses Association 2013, *National HIV Nursing Competencies*, Mediscript, London.
- NHIVNA 2016. *Advanced Nursing Practice in HIV care: guidelines for doctors, nurses, service providers and commissioners*. Available: <http://www.nhivna.org/AdvancedPractice.aspx>.
- Piercy, H., Bell, G., Hughes, C., Naylor, S. & Bowman, C.A. 2016, "How does specialist nursing contribute to HIV service delivery across England?", *International Journal of STD & AIDS*, vol. 28, no. 8, pp. 808-813.
- Public Health England 2015, *Making it work: A guide to whole system commissioning for sexual health, reproductive health and HIV. Part 1: Main guide*, Department of Health, London.
- Pufall, E., Kall, M., Shahmanesh, M., Nardone, A., Gilson, R. & Delpech, V. 2016, "Chemsex and high-risk sexual behaviours in HIV-positive men who have sex with men", *Conference on retroviruses and opportunistic infections (p. abstract 913)*, 22 - 25th February, 2016.
- Relf, M.V. & Harmon, J.L. 2016, "Entry-level competencies required of primary care nurse practitioners providing HIV specialty care: A national practice validation study", *Journal of the Association of Nurses in AIDS Care*, vol. 27, no. 3, pp. 203-213.
- Relf, M.V., Mekwa, J., Chasokela, C., Booth, C., Deng, L., Mallinson, R.K., Ramantele, K., Letsie, E., Mtengezo, J. & Nhlengethwa, W. 2011, "Essential core competencies related to HIV and AIDS are critically needed in nursing", *Journal of the Association of Nurses in AIDS Care*, vol. 22, no. 1, pp. S2-S8.
- Skingsley, A., Yin, Z., Kirwan, P., Croxford, S., Chau, C., Conti, S., Presanis, A., Nardone, A., Were, J., Ogaz, D., Furegato, M., Hibbert, M., Aghaizu, A., Murphy, G., Tosswill, J., Hughes, G., Anderson, J., Gill, O., Delpech, V. & contributors. 2015, *HIV in the UK – Situation Report 2015: data to end 2014. November 2015.*, Public Health England, London.
- Spencer, L., Ritchie, J., O'Connor, W., Morrell, G. & Ormston, R. 2014, "Analysis in Practice" in *Qualitative research Practice*, eds. J. Ritchie, J. Lewis, C. McNaughton Nicholls & R. Ormston, 2nd edn, Sage, Thousand Oaks, pp. 295 -346.
- Tunncliff, S.A., Piercy, H., Bowman, C.A., Hughes, C. & Goyder, E.C. 2013, "The contribution of the HIV specialist nurse to HIV care: a scoping review", *Journal of Clinical Nursing*, vol. 22, no. 23-24, pp. 3349-3360.
- White, C. 2016, "Sexual health services: divided and unprotected", *BMJ (Clinical research ed.)*, vol. 532, pp. i309.

Wilson, I.B., Landon, B.E., Hirschhorn, L.R., McInnes, K., Ding, L., Marsden, P.V. & Cleary, P.D. 2005, "Quality of HIV care provided by nurse practitioners, physician assistants, and physicians", *Annals of Internal Medicine*, vol. 143, no. 10, pp. 729-736.

Authors' contributions

HP and CB conceived and designed the project. All authors were involved in all stages of the project and contributed to the paper.

Declaration of conflicting interests

None

Funding

This study was funded by an unrestricted education grant from ViiV healthcare Ltd, UK

Access to underlying research materials

The project data reported in this article has been archived and is available at:

<http://shurda.shu.ac.uk/>