

Institution: Sheffield Hallam University		
Unit of Assessment: UOA3 - Allied Health Professions, Dentistry, Nursing and Pharmacy		
Title of case study: Optimising HIV Nursing Care		
Period when the underpinning research was undertaken: 2013 – 2018		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s): Dr Hilary Piercy	Role(s) (e.g. job title): Associate Professor	Period(s) employed by submitting HEI: 2006 - current
Period when the claimed impact occurred: January 2016 - July 2020		
Is this case study continued from a case study submitted in 2014? No		

1. Summary of the impact

Our research has driven extensive development of the HIV nursing workforce and substantial increases in advanced nursing contributions to HIV healthcare provision. It led to a radical restructuring of one HIV service in a major city, to introduce a new healthcare model that extends provision for vulnerable patients. It contributed to development of: HIV specialist educational programmes; one advanced practice guidance document, which has been used in services across England and Wales; and one clinical practice document, which is leading to improvements in HIV nursing care internationally. These initiatives have influenced workforce development and planning activities in England and addressed specialist training requirements. They have stimulated multiple quality improvement initiatives in HIV services, with system-wide changes that have improved care for many of the 103,800 people living with HIV in the UK, and particularly for those with multiple psychosocial difficulties and complex needs.

2. Underpinning research

In 2012, the House of Lords Select Committee report 'No Vaccine No Cure,' highlighted the challenges facing HIV services. This included the urgent need to review current models of HIV care delivery and adapt them to address the changing health needs of those living with HIV care, within the current financial constraints of the NHS. Widespread access to effective antiretroviral therapy has enabled people living with HIV to achieve near normal life expectancy.

Most of the approximately 103,800 people living with HIV in the UK are on treatment and medically stable. Their health needs are increasingly associated with prevention and management of age-related co-morbidities.

A minority population, often with multiple psychosocial difficulties, struggle to stay engaged with services. This makes them susceptible to opportunistic infections, lengthy hospital admissions and poor health outcomes. Effective care involves addressing their complex health needs and preventing disengagement from treatment and care.

The research, examining HIV nursing roles, responded to the Select Committee report's recommendation that 'maximising the nursing contribution was essential to enable services to respond to those challenges'.

The Sheffield Sexual Health and HIV Research Group is a clinical-academic collaboration between Sheffield Hallam University and the HIV Service at Sheffield Teaching Hospitals NHS Foundation Trust. We completed a review of the literature in 2012, which highlighted a lack of

evidence concerning HIV nursing roles and identified gaps in knowledge (**R1**). We responded to those gaps by securing funding (GBP126,000) for the 'Advanced Nursing Contribution to HIV Services' (ANCHIVS) project, completed in 2015. The project was led by Dr Hilary Piercy from Sheffield Hallam University and Gill Bell from Sheffield Teaching Hospital.

This national study provided the first comprehensive analysis of the HIV nursing workforce in England. We collected detailed data from 21 purposively selected HIV services (13% of the total in England), to determine roles and establish how their contribution to service provision varied between services. We then conducted a series of five in-depth case studies of services, to identify where and how nursing contributions could be maximised (**R2, R3**).

The study findings highlighted substantial variability in the extent to which services were benefiting from a developed nursing workforce and identified substantial opportunity to increase the nursing contribution to high quality care. They demonstrated the major contribution of specialist HIV nurses in relation to two groups of service users: firstly in providing routine outpatient care to the stable majority, which includes interventions to support healthy ageing; and secondly in providing community delivered care to the minority with multiple psychosocial difficulties and complex needs.

The study established the value of community HIV nursing to support those with psychosocial complexities, enabling them to remain engaged in treatment and care. However, it identified substantial geographical variability in that provision. For example, four healthcare models were identified from the research, demonstrating a variability that ranges from areas with no provision, to those with a full-time specialist community HIV nursing team (**R2**).

The study also identified the substantial recruitment and retention challenges facing HIV services, which threaten sustainability of the HIV nursing workforce, and the lack of HIV specific education provision, which is undermining nursing workforce development (**R3**).

3. References to the research

- R1.** Tunnicliff, SA. **Piercy, H.** Bowman, CA. Hughes, C. and Goyder, EC (2013). The Contribution of the HIV Specialist Nurse to HIV Care: A Scoping Review. *Journal of Clinical Nursing*. 22 (23-24), 3349-3360. <https://doi.org/10.1111/jocn.12369>
- R2.** **Piercy, H.** Bell, G. Hughes, C. Naylor, S. and Bowman, C (2017). How Does Specialist Nursing Contribute to HIV Service Delivery across England? *International Journal of STD and AIDS*. 28 (8), 808-813. <https://doi.org/10.1177/0956462416672128>
- R3.** **Piercy, H.** Bell, G. Hughes, C. Naylor, S. and Bowman, C (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. <https://doi.org/10.1177/1744987118780913>

All articles underwent rigorous peer-review and are published in leading journals in the field.

4. Details of the impact

Our research had a direct impact on the Sheffield HIV service through a radical restructuring of the nursing workforce, to introduce a new healthcare model that improves services for those with complex needs. It has impacted on HIV services across England and Wales through initiatives led by the National HIV Nurses Association (NHIVNA), which resulted in the production of two practice guidance documents and the introduction of three HIV and Sexual Health educational programmes. Individually and collectively, these initiatives have enabled substantial development of the nursing workforce and expansion of nursing roles, leading to system-wide changes in the way that care is organised and delivered in HIV services, and substantial service improvements

and reconfigurations. It has impacted internationally, with HIV nurses in Portugal and Spain using one of the practice guidance documents to inform evidence-based interventions and improve patient outcomes.

Sole Evidence Base for National Practice Guidelines

In response to the findings of our research, NHIVNA initiated a programme of activities aimed at developing the nursing workforce: an advanced practice guidance document, an advanced practice training curriculum, and two HIV specialist training programmes - at core and advanced level (E1). It produced 'Advanced Nursing Practice in HIV Care: Guidelines for Nurses, Doctors, Service Providers and Commissioners' (2016). The ANP in HIV document brought together in one place a set of guidelines demonstrating the evidence base and requirements for advanced nursing practice, and situated advanced HIV nursing practice within the wider HIV care context. Piercy was part of the working party that developed the document. Our research provided the sole source of empirical evidence and contributed substantially to the document (E1) (E2 - pp.5, 23, 28-33).

Practice Guidelines Impacts on Remodelling the HIV Workforce and Services

The ANP in HIV document has been used extensively for workforce planning, professional development and service re-design. NHIVNA surveyed attendees at their annual conference in 2019 and established 12 services in England and Wales where it has been used (E1). They included Brighton, one of the largest HIV services in England, where it has been used to shape role objectives, for revalidation and benchmarking across the workforce; to inform workforce development strategies and to develop service specifications and support service commissioning. In the central Manchester service, it informs appraisal and performance discussions and professional development for the nursing workforce. In Bromley Healthcare, whose services cover South London, Kent, and Surrey, it supports professional development and career progression for the whole nursing team and was used to support a service tender document.

Design, Development and Roll-Out of Work-Based Education Programmes

The workforce development initiative also produced three work-based education programmes for nurses working in HIV and sexual health services. Two programmes address the long-term absence of specialist HIV education for nurses by providing nationally accredited training. Nurses are now accessing and completing the core and advanced level programmes (E1). The third is an integrated Sexual Health and HIV specialist curriculum, which is run as a portfolio module by City University and forms part of an Advanced Clinical Practice programme. The curriculum maps the training programme to the ANP in HIV guidelines (E3).

These initiatives have provided a powerful stimulus for HIV nurses to undertake advanced clinical practitioner (ACP) training. Health Education England provided 15 funded places in 2019/20 for nurses working in HIV and sexual health (E4). Those training elsewhere have used the ANP guidelines to help them apply generic ACP training to the HIV service context: *"I was able to look at [the ANP guidelines document] and map that alongside the stuff the university was asking for around the four pillars of our practice and be able to apply that to the HIV nursing role"* (E5). Services are benefitting substantially from the service improvements initiated by those nurses during their ACP training. For example, the trainee ACP from central Manchester HIV service introduced multiple service wide improvements over the course of training. She established new clinics, which have reduced hospital stays and improved access for new and complex patients. She introduced a new hepatitis service for people with HIV, generating major improvements in treatment efficiency and effectiveness: *"The length of time from diagnosis to treatment has dramatically reduced, the number of appointments they have to attend has dramatically reduced and the number of DNAs has also fallen."* (E5). She also formed new health and social care partnerships and secured funding to develop collaborative care provision for vulnerable patients for whom *"health is not their priority. We employed two intensive support workers who work in the community and link them into the clinic. They sit within our social MDT, they do a lot of home visits, they've been fantastic through the covid crisis keeping in touch with people on the phone"* (E5).

Production and Adoption of Clinical Health Review in England and Europe

The 'Annual Health Review of People Living with HIV: A Good Practice Guide' (2017) (AHR GPG) is a clinical guidance document. Intended primarily for use by the nursing workforce, it facilitates improvement in the quality of annual health reviews and assessment of improvement against nine measurable standards. The document arose from our research identifying the role of nurses in relation to AHRs, and national audits indicating the need to improve aspects of the AHR, which is an essential aspect of long-term HIV care. The international group who developed the document included HIV nurses from Australia, Austria, Portugal and the Netherlands, as well as the UK. Piercy was part of that group (E6).

The AHR GPG has been disseminated internationally and nationally. In the UK, a service-wide educational initiative (lunch and learn), facilitated by a team of senior HIV nurses, with sponsorship from Gilead Sciences UK, has resulted in widespread adoption of the document. The document template has been integrated into electronic patient record systems and in Sheffield has led to a new approach, with the development of an electronic patient self-assessment questionnaire, which will feed into the clinical consultation (E7). These initiatives are enabling nursing teams around the country to drive forward major improvements, both in the quality of AHRs and in service-wide developments that extend far beyond the remit of the AHR.

The Liverpool Community Service is nurse-led and provides HIV care for patients with multiple psychosocial difficulties and complex needs, who do not engage with mainstream HIV services. Integrating the AHR GPG into their service enabled them to identify multiple health screening and treatment needs. They responded to these with training and development initiatives to extend their service, and through forging closer working relationships with other community services leading to improved joined-up working: *"The AHR has not only increased the quality of care we have been able to deliver to our patients, it has also increased the really robust working relationship we have with other health professionals"* (E8). In York, the nursing lead used the AHR GPG to successfully navigate major organisational changes, train up a replacement workforce and achieve improvements in service efficiency and effectiveness: *"It enabled us to ensure that the high-quality standard of care that our patients receive has been maintained during our move to a much less experienced nursing workforce, which has resulted in direct cost savings of approximately GBP30,000. It has also made it easier for us to audit activity and ensure that we can continue to ensure those standards are maintained"* (E9). In the central Manchester service, which cares for a cohort of approximately 2,000 people, it has helped to standardise care - with improvements in specific areas, including screening services for women. It has led to development of new care pathways which have streamlined routine care for the entire cohort: *"This has produced major improvements in service efficiency and created a much more seamless delivery model and a better patient experience [and] enabled our service to continue to deliver essential HIV services during the covid-19 pandemic"* (E8).

The AHR GPG has been disseminated across Europe through the European HIV Nurses Network (EHNN) and within national networks, including the Portugal HIV Nurses network. More than 40 Nurses across Portugal and Spain have incorporated it into their everyday clinical practice. The document *"enables us to promote the contribution that we can make to HIV care and articulate the specific skills and expertise we can bring to our role as HIV nurses"* (E10). It provides an evidence-base for nurse-led interventions, which are leading to improved patient outcomes and improved ways of working - based on professional collaborations, patient centred care and shared decision making (E10).

Total Redesign of a Local HIV Service

In response to our findings, the Sheffield HIV service committed to introducing a new healthcare delivery model. This now provides community HIV nursing for those with psychosocial problems and complex needs, who are at risk of disengaging from treatment and care, in order to improve their health outcome and reduce avoidable hospital admissions. It involved a radical restructuring

of the entire HIV nursing workforce, the introduction of system-wide changes to support the new provision, and substantial workforce development which produced “a *step-change in the contribution of our nursing team in terms of an expanded role in clinical care and an increase in clinical responsibilities*” (E7). Nursing influence in the service has increased substantially with the expansion of the nursing team and the improved skill-mix. This has generated overall improvements in service efficiency and effectiveness, and the introduction of nurse-led service improvement initiatives, which benefit all patients (E7).

5. Sources to corroborate the impact

- E1. A programme of work undertaken by NHIVNA to support development of the HIV nursing workforce - testimonial Dr Michelle Croston, (NHIVNA chair 2014-2017)
- E2. 'Advanced Nursing Practice in HIV care: guidelines for nurses, doctors, service providers and commissioners' <https://www.nhivna.org/Advanced-Nursing-practice-in-HIV-care>
- E3. Advanced Clinical Practitioner (ACP) Integrated Sexual Health and HIV Specialist Training Curriculum
- E4. A national approach to increasing advanced clinical practice in sexual health and HIV services - testimonial Dr Matthew Grundy-Bowers.
- E5. The impact of introducing Advanced Nursing Practice into the Manchester HIV service - interview transcript
- E6. 'Annual Health Review for people Living with HIV: a good practice guide (AHR GCP)' <https://www.nhivna.org/file/KQGroTiJRzpuq/HIV-annual-health-review.pdf>
- E7. Stonegrove HIV service Sheffield - testimonial Charlie Hughes (CNS) and Dr Julia Greig (service lead)
- E8. Using the AHR GCP document to develop and improve treatment and care in two HIV services - interview transcripts
- E9. Using the AHR document to introduce major service improvements at York HIV service – testimonial Peter Tovey, Lead Nurse
- E10. Using the ARH document to inform and develop HIV nursing in Europe – testimonial Catarina Esteves (Portugal)