

Institution: University of Nottingham
Unit of Assessment: UOA3 (Pharmacy)
Title of case study: Delivering public health services through community pharmacy
1. Summary of the impact Research by the School of Pharmacy has been used by the UK Government in their drive to improve the nation's public health. Our evidence base was used to inform the 2008 White Paper "Pharmacy in England: Building on Strengths – Delivering the Future". Healthy Living Pharmacies, recommended by the White Paper, have been piloted leading to improved engagement with local commissioners, further training for pharmacy staff, more cost-effective delivery of public health services, and an increase in public awareness and access to these services. In addition, the Government backed Pharmacy and Public Health Forum is utilising our research in its remit to develop, implement and evaluate public health practice in pharmacy.
2. Underpinning research The role of the pharmacist has been going through a process of change, from someone who dispenses medicines to patients, to someone who can also provide health and wellbeing services helping people stay healthy and tackling local public health challenges. In the late 1990s, the UK Government set up Health Action Zones (HAZ) to address health inequalities and deliver improved services in areas of deprivation and poor health. Community pharmacies were seen as ideal places to pilot healthcare services associated with these HAZ and subsequent evaluations helped to provide an evidence base to support further roll out of public health services through pharmacies. The supply of Emergency Hormonal Contraception (EHC) through group prescribing protocols was piloted in Lambeth, Southwark and Lewisham (LSL) HAZ and Manchester, Salford and Trafford (MST) HAZ in 2000-2001. Claire Anderson (Professor of Social Pharmacy, University of Nottingham 1999-present) and Paul Bissell (Lecturer in Social Pharmacy, University of Nottingham 2001-2006) undertook evaluations of these studies, funded by the respective local Health Authorities (7,8). Research was undertaken to ascertain women's knowledge, attitudes and experiences of obtaining emergency hormonal contraception from a pharmacy. In addition, within the MST HAZ, the evaluation included experiences and views of the Pharmacist's involved. Results showed that community pharmacies were being extensively utilised to provide EHC and that women found the availability and accessibility of the service to be beneficial (1,2). Pharmacists noted that the scheme may have enhanced the status of their profession and started to change the public's perception of their role (1). Recommendations made included better promotion of this service to increase awareness, the need for appropriate staff training and the requirement that Pharmacists offer information on sexually transmitted infections (STIs) and long term contraception as part of the service (2). In 2000, Anderson undertook an evaluation of the Boots Pro-Change Adult Smokers Program pilot in Northumberland HAZ, funded by the Department of Health (DH) and Boots (9). The Pro-change pilot consisted of a new computer-based smoking cessation system, accessed in primary care settings. A key objective of the pilot was to widen access to support for smoking cessation and in particular to engage low income and unemployed smokers in attempts to stop smoking. The evaluation showed that siting Pro-Change computers in pharmacies reached more of the target audience than siting them in GP surgeries (3), supporting the growing evidence base that pharmacies serve a greater proportion of the population than other healthcare providers. Quit rates were comparable to other smoking cessation studies. With a growing reputation in evaluating health promotion via community pharmacy, Anderson was commissioned, in 2002, (alongside Prof Alison Blenkinsopp, University of Keele, now at Bradford) by PharmacyHealthLink (a charity previously run via the DH and Royal Pharmaceutical Society of Great Britain) to undertake a series of systematic reviews to look at the contribution of community pharmacy to improving the public's health during the period 1990-2001 (4). These systematic reviews covered a number of health topics, and concluded that pharmacists clearly have the potential to contribute to health promotion. Additional training and co-ordination with other local service providers were shown to be beneficial when providing such initiatives. In 2007 the DH commissioned an update of these systematic reviews to cover data from 2001-2007 (4),

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specifically to inform future policy on pharmacy. The updates showed that the strongest evidence of effectiveness was for initiatives related to health promotion in smoking cessation, EHC, flu immunisation, diabetes and drug misuse. The evidence also showed that making training available to all pharmacy staff is key to ensuring effective public health interventions are delivered. These findings have been presented at public health conferences, and disseminated via several peer reviewed papers (e.g. 5,6) and two book chapters.

3. References to the research

Key Papers (School of Pharmacy researchers in bold):

1. **Bissell P, Anderson C.** 2003. Supplying emergency contraception via community pharmacies in the UK: reflections on the experiences of users and providers. *Social Science & Medicine* 57, 2367–2378. DOI: 10.1016/S0277-9536(03)00129-1
2. **Anderson C, Bissell P,** Sharma S, Sharma R. 2001. An evaluation of service users' views on accessing Emergency Hormonal Contraception through accredited community pharmacies using a patient group direction. A report for Lambeth, Southwark and Lewisham Health Action Zone. URL (Accessed 25/06/13 also on file): http://www.lho.org.uk/Download/Public/9665/1/emergency_contraception_user_4.pdf
3. **Anderson C, Mair A.** 2002. Pro-change Adult Smokers Program: Northumberland Pilot. *International Journal of Pharmacy Practice* 10, 281-287. DOI: 10.1211/096176702776868406
4. A series of 7 systematic reviews were undertaken with the 7th in the series providing an overall summary: **Anderson C,** Blenkinsopp A, Armstrong M. 2009. The contribution of community pharmacy to improving the public's health: Summary report of the literature review 1990–2007. URL: <http://eprints.nottingham.ac.uk/1576/> (Accessed 31/07/13 also on file)
5. **Anderson C,** Blenkinsopp A, Armstrong M. 2004. Feedback from community pharmacy users on the contribution of community pharmacy to improving the public's health: a systematic review of the peer reviewed and non-peer reviewed literature 1990–2002. *Health Expectations* 7, 191–202. DOI: 10.1111/j.1369-7625.2004.00274.x
6. **Anderson C,** Blenkinsopp A. 2006. Community pharmacy supply of emergency hormonal contraception: a structured literature review of international evidence. *Human Reproduction* 21, 272–284. DOI: 10.1093/humrep/dei287

Grant funding:

7. Anderson C. Evaluation of a Pilot Scheme in LSL to Allow Community Pharmacists to Supply Emergency Contraception Under Protocol. Lambeth, Southwark and Lewisham Health Authority 2000-2001; £11,000
8. Anderson C. Emergency Contraception Evaluation. Manchester, Salford and Trafford Health Authority 2000-2001; £25,750
9. Anderson C. Evaluation of Boots Pro-change Pilot. Department of Health and Boots Company plc 1999-2001; £30,000

4. Details of the impact

The role of the Community Pharmacist has been reformed with an increasing role in the public's health and wellbeing. Anderson's research has played an important part in this reform, providing evidence for the 2008 Pharmacy White Paper. Subsequent changes in pharmacy practice have been piloted and have shown benefits to commissioners, pharmacy staff, contractors and the public in relation to the delivery and outcomes of public health services, as evidenced below.

The DH commissioned Anderson's updated systematic reviews (4) specifically to provide evidence for the 2008 White Paper: 'Pharmacy in England: Building on strengths delivering the future' (a). This White Paper set out how pharmacists would work to complement GPs in promoting health, preventing ill health and providing care that is more responsive to individual needs. The DH confirmed that "*The updated evidence base [provided by Anderson] was used within the White Paper wherever relevant, with the greatest input represented in Chapters 4 (More pharmacy services supporting healthy living and better care), 5 (Communications and relationships), 6 (Research and innovation in practice) and 8 (Structural enablers and levers)*" (b). Chapter 4 of the White Paper proposed the launch of 'healthy living centres' a repositioning of pharmacies so that they are recognised as healthy living and health-promoting centres, commissioning services relevant to their local communities - highlighting outcomes from Anderson's research (4).

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Sections of the White Paper, specifically Chapter 4, were used by the DH to inform the Healthy Living Pharmacy (HLP) initiative set up with NHS Portsmouth in 2009 (b). NHS Portsmouth were looking to increase access to public health services through pharmacies, to meet the needs of their local deprived population. A HLP framework was developed with a remit to deliver consistent high quality public health services, flexible enough to meet local needs. To be accredited as a HLP a series of quality standards were set (c: p16), including: development of the pharmacy public health workforce with at least one member of non-pharmacist staff trained as a Health Champion (via Royal Society of Public Health Level 2 Health Improvement Award); appropriate premises with a consultation room and health promoting area; and engagement with local healthcare professionals and commissioners to ensure appropriate services were offered. An interim report of the HLP pilot in 2010 (d) showed improvements in service delivery and improved public awareness of the services available in pharmacies. There was a 140% increase in smoking quits via community pharmacy from pre-HLP levels. During the 5 month evaluation period the average numbers of quits were: 25.1 for a HLP; 13.2 for a pharmacy with a Health Champion; and 3.7 for a pharmacy with no Health Champion (d). HLPs also supplied a significantly higher proportion of EHC than non-HLPs ($X(\text{Chi})^2$, $p < 0.001$) (c: p18).

The success of the pilot attracted the attention of the new Coalition government who cited HLPs as an example of good practice in the 2010 White Paper 'Healthy Lives Healthy People: our strategy for public health in England' (e: p42). The Health Minister Lord Howe commented "*Visiting Portsmouth has demonstrated exactly why pharmacy is embedded within our strategy for the public health service. Portsmouth's experience with HLPs shows that the public does want more healthy living advice and can benefit greatly from the expertise of pharmacists and their teams who are a part of the community. It displays just how successful pharmacy can be at delivering commissioned services*" (f). In 2011 a series of 20 HLP pathfinder sites were rolled out across England with an initial target of 100 HLPs by April 2012. This figure was exceeded (199) and the latest figures show around 500 pharmacies now have accredited HLP status with many outside the pathfinder sites (c: p19-21), demonstrating buy-in from pharmacy contractors and commissioners.

In 2013 the evaluation of these pathfinder sites confirmed the HLP concept could be replicated in differing areas, with improved service activity and outcomes in HLPs. The report states "*The strength of the improvements seen was notable [...], gains were seen across different services, with different specifications, in geographically varied areas with different levels of health need and deprivation*" (c: p29). Smoking cessation and supply of EHC were the services most commissioned across the pathfinder sites, with Plymouth commissioning smoking cessation through pharmacies for the first time (c: p32). Differing reporting styles limit detailed analysis, however 8 out of 9 pathfinder sites who evaluated smoking cessation reported higher numbers of quits in HLPs than non-HLPs (>50% more quits in most areas) (c: p32-5) and for EHC 4 out of 5 sites noted increased consultations and/or supply in HLPs than non-HLPs (c: p37-9). Associated increases in Chlamydia screening and condom supply were also reported by some pathfinder sites.

The evaluation detailed benefits for the public, contractors, staff and commissioners:

Public: Feedback from 1034 service user questionnaires showed that the public welcome the HLP concept with 98% of respondents agreeing they would recommend the service and 81% rating the quality of service as 'excellent' (a 'good' rating received a further 17%) (c: p96-7). These figures indicate public approval for the delivery of public health services via community pharmacy. HLPs are also reaching people who would not otherwise have taken steps to improve their health - 1 in 5 respondents stated that if the service received was not offered in a pharmacy, they would have done nothing; a further 3 in 5 respondents would have visited their GP to receive the service (c: p98), demonstrating a shift in behaviour towards accessing public health services via pharmacies.

Contractors: Analysis of 106 contractor surveys related to service delivery indicated that the full range of pharmacy staff was being used to provide HLP services (c:p 64-7). Where appropriate, use of Health Champions leads to a reduction in service delivery costs of up to 70%. Estimates from the survey show that a trained pharmacy technician delivers an effective stop smoking service for £40 per smoking quit, compared to £135 if delivered by a pharmacist (c: p87). A second survey

looked at the benefits of becoming a HLP; of the 153 responses analysed: 43% reported an increase in their NHS income related to public health services (1 in 4 reported >25% increase); 33% stated prescription volume had gone up (61% stayed the same); and 62% reported an increase in demand for public health services since becoming a HLP (37% no change) (c: p106-9).

Staff: 80% of contractors surveyed had seen an increase in productivity of staff with 92% suggesting that becoming a HLP has been worthwhile in terms of staff development. Recurring themes from the survey showed that staff felt they had more professional recognition and greater professional satisfaction, since their pharmacy became a HLP (c: p109-11).

Commissioners: Commissioners views on HLPs were very positive. They had confidence from the Portsmouth trial results to use the HLP quality mark as an assurance of consistent, cost effective service delivery, with a Commissioner from Birmingham stating that “*becoming a HLP will display to commissioners’ pharmacy’s commitment to delivering cost effective and high quality services*” (c: p103). In Portsmouth their commissioner remarked “*future commissioning can be targeted and offered to those pharmacies that we know will deliver. So this has become a great organisational tool to target commissioning more cost effectively*” (c: p103).

In addition to impact via HLPs, Anderson’s research (1,4,6) was cited by the Royal Pharmaceutical Society (RPS) in their consultation response (g) to the 2010 White Paper ‘Healthy Lives, Healthy People: our strategy for public health in England’ (e). The RPS believe that their response had an influence on the initiation of the government backed Pharmacy and Public Health Forum (PPHF) in 2011 (h), which was set up as part of the NHS reforms with a remit to drive the development of public health services in Pharmacy. The PPHF provided the 2013 evaluation of HLPs and is working on their future roll out. The Forum is building an evidence base for Pharmacy’s role in public health, with Anderson’s research (4,5,6) cited in their 2013 report (i). The RPS is devising a set of professional standards for the PPHF and has confirmed the use of Anderson’s research (4) in their scoping studies (h). Released for consultation in August 2013, the ‘Professional Standards for Public Health Practice in Pharmacy’ are designed to provide a framework for pharmacy teams across the UK to design, implement, deliver and monitor high quality public health services.

5. Sources to corroborate the impact

- a. Pharmacy in England: Building on strengths – delivering the future. HM Government, Department of Health, 2008. URL: <http://www.official-documents.gov.uk/document/cm73/7341/7341.pdf> (Accessed 18/07/13 - also on file).
- b. Corroborative Statement from the Department of Health (on file).
- c. Evaluation of the Healthy Living Pharmacy Pathfinder Work Programme 2011-2012. RPS, CCA, PSNC and NPA, 2013. URL: <http://www.npa.co.uk/Documents/Docstore/Representing-you/Evaluation.pdf> (Accessed 18/07/13 - also on file).
- d. An interim report on the outcomes from the Portsmouth Health Living Pharmacy initiative, 2010. NHS Portsmouth. URL (Accessed 05/08/13 – also on file): <http://www.hantslpc.org.uk/uploads/Portsmouth%20HLP%20interim%20outcomes.pdf>
- e. Healthy Lives Healthy People: Our strategy for public health in England. HM Government, Department of Health, 2010. URL: <http://www.official-documents.gov.uk/document/cm79/7985/7985.pdf> (Accessed 18/07/13 - also on file).
- f. Portsmouth NHS news article from 14/12/10 “Portsmouth welcomes pharmacy minister’s healthy living praise”. URL: <http://www.portsmouth.nhs.uk/Default.aspx?LocID-01pnew02e.RefLocID-01p009.Lang-EN.htm> (Accessed 18/07/13 - also on file).
- g. Healthy Lives, Healthy People: Our strategy for public health in England - RPS response to the consultation. RPS, 2011. URL: <http://www.rpharms.com/final-consultation-responses/hlhpfinalresponse.pdf> (Accessed 18/07/13 - also on file).
- h. Corroborative statement from the Royal Pharmaceutical Society (on file).
- i. F Fajemisin. Community Pharmacy and Public Health. Solutions for Public Health, 2013. URL: [http://www.sph.nhs.uk/sph-documents/community-pharmacy-and-public-health-final-report/?searchterm=community pharmacy](http://www.sph.nhs.uk/sph-documents/community-pharmacy-and-public-health-final-report/?searchterm=community%20pharmacy) (Accessed 18/07/13 – also on file).