



Public Health
England

Consolidating and developing the evidence base and research for community pharmacy's contribution to public health: a progress report from Task Group 3 of the Pharmacy and Public Health Forum

Consolidating and developing the evidence base and research for community pharmacy's contribution to public health: a progress report from Task Group 3 of the Pharmacy and Public Health Forum

About Public Health England

Public Health England's mission is to protect and improve the nation's health and to address inequalities through working with national and local government, the NHS, industry and the voluntary and community sector. PHE is an operationally autonomous executive agency of the Department of Health.

Public Health England
133-155 Waterloo Road
Wellington House
London SE1 8UG
Tel: 020 7654 8000
<http://www.gov.uk/phe>
Twitter: @PHE_uk

Prepared by: John Newton, Chief Knowledge Officer, on behalf of Task Group 3 of the Pharmacy and Public Health Forum, December 2013.

For queries relating to this document, please contact: henry.jamieson@phe.gov.uk

© Crown copyright 2013

You may re-use this information (excluding logos) free of charge in any format or medium, under the terms of the Open Government Licence v2.0. To view this licence, visit OGL or email psi@nationalarchives.gsi.gov.uk. Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned. Any enquiries regarding this publication should be sent to [insert email address].

You can download this publication from www.gov.uk/phe

Published January 2014

PHE publications gateway number: 2013404

Contents

About Public Health England	2
Contents	3
Executive summary	4
1. Context: the pharmacy setting as a location for the delivery of public health services	6
2. What do commissioners want to know about pharmacy and public health?	9
3. Evidence base review	10
4. What does the Solutions for Public Health (SPH) review tell us?	11
5. Key findings of the review	12
6. Conclusions of the SPH review	14
7. Evaluation of the Healthy Living Pharmacy (HLP) pathfinder work programme	15
8. General conclusions	17
9. Next steps	18

Executive summary

In July 2011, in response to proposals from the Chief Pharmaceutical Officer and professional leaders in public health and pharmacy, Ministers established the Pharmacy and Public Health Forum to bring together pharmacy and public health interests. The Forum is intended to lead the development of the contribution that pharmacies make to public health and is chaired by Professor Richard Parish, who was at the time the Chief Executive of the Royal Society for Public Health.

One of the initial priorities for the Forum, identified by Ministers, was to evaluate and strengthen the evidence base for community pharmacy's potential contribution to public health. To deliver the work programme required, it was agreed at its inaugural meeting that the forum would achieve its aims primarily through the establishment of six task groups. Group 3 was given responsibility for the forum's work on consolidating and developing the evidence base and research for pharmacy's contribution to public health. Professor John Newton, formerly Regional Director of Public Health, South Central Strategic Health Authority and now Chief Knowledge Officer, PHE was asked to chair this task group.

The task group was given the following remit:

- a. To describe those aspects of delivering public health in a pharmacy setting that may be subject to research or evaluation.
- b. To advise the forum on the current state of the evidence base in relation to the role of pharmacies in public health by undertaking or commissioning
 - i. an appropriate high level scoping exercise of existing summaries or reviews of relevant evidence (including in the grey literature and including international experience),
 - ii. identification of informative examples of research or evaluation which could help guide policy and practice, and
 - iii. if indicated, commissioning a review of primary research and evaluation on specific questions.
- c. To identify as far as possible what relevant research or evaluation is in progress but not yet reported.
- d. Based on the above, to advise the forum on potential gaps in the evidence base that would be amenable to research, with a view to informing research commissioning undertaken by the National Institute for Health Research (NIHR).
- e. To work with other task groups, for example on the roll out of the Healthy Living Pharmacy Initiative, to ensure that opportunities for evaluation and research are maximised.

Consolidating and developing the evidence base and research for community pharmacy's contribution to public health: a progress report from Task Group 3 of the Pharmacy and Public Health Forum

- f. To identify significant themes from the general literature where knowledge may be available to contribute to the evidence base on further development of the role of pharmacy.

The membership of the task group was as follows: John Newton, Regional Director of Public Health (Chair); Gul Root, Principal Pharmaceutical Officer, DH and Pharmaceutical Public Health Adviser, PHE; Mike Kelly, National Institute for Health and Care Excellence; Richard Parish, Chief Executive the Royal Society for Public Health; Jon Nicholl, National Institute for Health Research (NIHR) School of Public Health; Marjorie Weiss, Professor of Pharmacy Practice, University of Bath; John Morrison, Chief Pharmacist PCT Cluster; Dr Howard Stoate, Chair of NHS Bexley Clinical Commissioning Group and was Labour MP for Dartford from 1997 to 2010; David Taylor, Professor of Pharmaceutical and Public Health Policy, UCL School of Pharmacy.

Partly because of the very significant changes currently going on across the health and care system, it has proved challenging to operate the task group as originally envisaged. Following an early meeting, the group was able to establish a clear direction for the work. Unfortunately, it has not yet been possible to identify specific resources to support the work of the task group in terms of staff or budget and that has been a handicap. This report provides an update on progress made particularly in relation to items (a), (b) and (d) of our remit above. Clearly there is more to be done on this topic.

1. Context: the pharmacy setting as a location for the delivery of PH services

There is increasing recognition that community pharmacy can make a significant contribution to improving the public's health. The Healthy Living Pharmacy (HLP) model is the best known but by no means the only model for delivery of public health and prevention in a pharmacy setting. It was developed in Portsmouth and has the benefit of being a standardised approach that supports formal quality assurance and aids systematic roll-out.

The main pharmacy representative organisations,¹ working with the Department of Health in 2011 and 2012, supported so-called 'HLP pathfinder sites' in 30 NHS primary care trusts across the country. The aim was to broadly replicate the essential elements of the HLP concept in settings outside Portsmouth. The pathfinder sites have been evaluated and a report of this evaluation was published on 22 April 2013. Data collection was relatively limited but nevertheless the relatively successful experience of rolling out the model to different parts of the country has been informative.

There are now over 700 HLPs in the country (as at September 2013 and out of a total of 11,236 community pharmacies), with around 2,100 trained health champions working in them to promote health and wellbeing. There are also a large but unknown number of non-HLP community pharmacies delivering a variety of public health interventions. The adoption of public health activity in pharmacy in England would seem to be following the characteristic general pattern of "diffusion of an innovation" described in the literature for example with the introduction of medical technologies such as CT scanners or drugs such as a new antibiotic.²³ Recognition of this pattern of adoption may help predict future behaviour and guide policy interventions.

According to this model, delivery of integrated public health services through community pharmacy (ie the HLP model or equivalent) seems to be at the "early adopter" stage with still only a minority of pharmacies adopting the model in full. However, it seems likely that for some services, such as smoking cessation, adoption is further advanced and it is possible that the majority of pharmacies are now offering some service in this area. Clearly it would be useful to have reliable data to track this adoption. The model would predict rapid uptake in the next phase of diffusion if uptake spreads beyond the early adopter community. The danger is that this general spread will happen without the benefit of the results of robust research and evaluation to ensure that the approach adopted is in fact the most effective and cost-effective option. It is important therefore to try to undertake as much evaluation as possible in the early adopter phase.

¹ Company Chemist Association, National Pharmacy Association, Pharmaceutical Services Negotiating Committee, Royal Pharmaceutical Society with support from Centre for Pharmacy Postgraduate Education, and Department of Health

² Coleman, James, Elihu Katz, & Herbert Menzel 1957 "The diffusion of innovation among physicians." *Sociometry*, 20: 253-270. [^apdf]

³ Rogers, E.M. (1995). *Diffusion of innovations* (4th ed.). New York: Free Press.

Consolidating and developing the evidence base and research for community pharmacy's contribution to public health: a progress report from Task Group 3 of the Pharmacy and Public Health Forum

In terms of evaluating the role of “community pharmacy” in public health it is important to recognise that what is being considered is often an amalgam of a number of components each of which may need to be considered separately or at least specified in any model as important contributing factors. These factors could include: the workforce (pharmacists, health trainers, generic staff); the physical environment (availability of private rooms etc); the “culture” of pharmacy compared with other healthcare settings; the brand of the HLP or an alternative approach; the processes conducted (for example health checks, smoking cessation, weight management or medicine reviews).

One of the difficulties of any evaluation is that it may not be clear which of these elements is determining the outcome or whether it is the interplay of the different elements rather than any one factor which is being evaluated. For example, following a visit to Portsmouth, Lord Howe asked if the results obtained in Portsmouth Healthy Living Pharmacies could be replicated in other parts of the country with different population characteristics. The answer requires direct evaluation as it is difficult to predict. We just do not know for sure if it will work elsewhere until we try it. The published evaluation of the Healthy Living Pharmacy Pathfinder work programme suggests that the model can be replicated in other parts of the country although data on outcomes are sparse and more robust research will be needed to confirm this.⁴

While it is important to be sceptical of any proposed development that requires substantial investment, there is also good reason to expect community pharmacy to be an effective setting for promoting health and wellbeing messages and for the delivery of public health services.

The community pharmacy setting offers:

- easy accessibility including for people from deprived communities, who cannot or do not wish to access other conventional NHS services
- long opening hours and convenience
- a health resource on the high street, in supermarkets, in every shopping centre
- anonymity, where appropriate
- flexible setting within an informal environment
- local businesses well connected to their local communities
- pharmacy staff tend to reflect the social and ethnic backgrounds of the populations they serve

The relationship between community pharmacy and general practice needs to be considered carefully. This is especially important as Clinical Commissioning Groups start to get to grips with their new role. Unlike general practice, although community pharmacy is part of a broad concept of primary care (along with dentistry and optometry), pharmacy has no defined population role. There is no registered population equivalent for pharmacy. At the moment there is also a problem because community pharmacy lacks direct access to NHS information systems that could allow it to adopt a population role. On the other hand, the advantages of

⁴ www.npa.co.uk/Documents/Docstore/Representing-you/Evaluation.pdf

Consolidating and developing the evidence base and research for community pharmacy's contribution to public health: a progress report from Task Group 3 of the Pharmacy and Public Health Forum

community pharmacy are that it has a distinct and accessible culture as well as capacity to adapt and absorb a substantial workload.

One reason that some general practitioners are reluctant to increase the scope of prevention activity undertaken in their own practices is fear that prevention and wellbeing interventions could potentially swamp the limited resources available in general practice. Additional use of community pharmacy capacity offers one possible solution to this problem. The current policy of implementing NHS Health Checks is one example of an initiative that will generate considerable demand for lifestyle interventions. The additional capacity available in community pharmacy may be required if this demand is to be met.

The key therefore to effective planning is to consider community pharmacy as an important service, rooted in the communities served and staffed by trained professionals, that is complementary to general practice and not one that is in competition with it.

2. What do commissioners want to know about pharmacy and public health?

Our discussions both at forum meetings and in consultation meetings held around the country, suggest that the main question at issue is whether familiar public health interventions can be delivered in a pharmacy setting. Commissioners want to know whether interventions such as smoking cessation and sexual health services that are currently being commissioned could be delivered from community pharmacy. This question itself has a number of elements: can the interventions be delivered in pharmacy, if they are delivered in pharmacy are they effective; and finally is it cost-effective to deliver them in pharmacy?

There is another question in relation to the HLP model and that is whether that model is generalisable to a wide variety of settings and populations. It would also be useful to know whether the HLP model is measurably better than other models for delivering public health in community pharmacy.

3. Evidence base review

These questions are demanding in terms of the evidence required and probably need research studies specifically set up with the intention of addressing them. As a first step the task group needed a high level view of the available evidence. With this in mind the chair, in his role as a Regional Director of Public Health, commissioned Solutions for Public Health (SPH), a not-for-profit NHS public health organisation, to carry out a review of existing summaries or reviews of relevant evidence (including in the grey literature and including international experience). The SPH review team was asked:

- to identify informative examples of research or evaluation which could help guide policy and practice
- to write a brief report on the current state of the evidence base in relation to the role of pharmacy in public health
- based on the above, to advise the Forum on potential gaps in the evidence base that would be amenable to research, with a view to informing research undertaken by NIHR
- to identify significant themes from the general literature, where knowledge may be available to contribute to the evidence base on further development of the role of pharmacy

Of particular interest was evidence relevant to the Healthy Living Pharmacy concept, in which health champions based in community pharmacies support or deliver lifestyle interventions in a pharmacy or community setting, with premises fit for purpose for delivering health and wellbeing messages and with local stakeholder engagement. This function is related to, but distinct from, traditional pharmacy skills of dispensing and advising on medicines use.

A draft report was circulated to members of the task group and following their comments was published in final form on the [SPH website](#) at the end of February 2013. It was also presented to the Forum at its meeting in June 2013.

4. What does the Solutions for PH review tell us?

A systematic search was carried out of electronic databases in the period from August 2002 and August 2012, restricted to the English language. The search focused on reviews rather than individual or primary studies. It is important to note that the fact that there is no evidence does not mean that the intervention does not work. The grey literature was also searched, including websites such as Department of Health, Royal Pharmaceutical Society, Pharmaceutical Services Negotiating Committee, General Pharmaceutical Council and contributions from the Pharmacy and Public Health Forum.

The report summarises the findings of a review of the literature, including published and unpublished evidence on the effectiveness and cost effectiveness of the contribution of community pharmacy teams to improving the public's health. It identifies some key themes emerging from the evidence and some of the gaps in the evidence base.

5. Key findings of the review

Twenty relevant review papers were identified, which is a good number considering the relatively new interest in this topic. Seven key themes of pharmacy's involvement in public health services were examined: stop smoking services (five reviews); provision of emergency hormonal contraception services (four reviews); prevention and management of drug abuse, misuse and addiction (six reviews); healthy eating and lifestyle advice (four reviews); chronic disease management (ten reviews); infection control and prevention (four reviews); and minor ailment schemes (one review).

The report also included unpublished reports of successes in the provision of public health services through community pharmacies. The findings are briefly described below under the seven headings with some highlights from the evidence base.

Stop smoking services

All the reviews indicated that community pharmacy based stop smoking services provided by trained pharmacy staff were effective and cost effective in helping smokers quit smoking. Evaluation of the HLP pathfinder work programme is demonstrating similar outcomes. The studies included in the reviews were rated as high level evidence (randomised controlled trials).

- the 2008–2009 smoking quit rate for the Sheffield Stop Smoking Service was 55% for community pharmacies (CPs) compared to 42% for GPs. The national average is around 49%
- in Hereford between 2004 and 2010, the average quit rate was 48% for CPs (n=2950) compared to 43% for GPs (N=4174)
- for NHS North Yorkshire, the average quit rate for clients who had set a quit date in 2009-2010 was 48% (n=721) for CPs compared to 46% for GP surgeries

Emergency hormonal contraception (EHC) services

There is good evidence that community pharmacy based EHC services provide timely access to treatment and are highly rated by women who use them. However, currently there does not appear to be any hard evidence about outcome, ie reduction of rates of teenage pregnancy as a result of access to EHC services from community pharmacy, although it would seem to be a reasonable assumption.

Healthy eating

Consolidating and developing the evidence base and research for community pharmacy's contribution to public health: a progress report from Task Group 3 of the Pharmacy and Public Health Forum

All the evidence in the reviews points to the fact that although community pharmacy based weight management reduction programmes appear to show promise, there is insufficient evidence currently to support investment in the provision of weight management services through community pharmacy. Some evidence for the value of weight management services in pharmacy is beginning to be available through the HLP work programme. However, it is essential to improve available data on this work to allow robust evaluation.

Drug and alcohol misuse

There was little empirical evidence in the reviews of effectiveness of community pharmacy based services for alcohol misuse. However, there is some evidence of success on a small scale from local initiatives. Again anecdotal evidence for successful alcohol intervention programmes is beginning to grow from the HLP work programme. As for weight management services, there is a need for data collection, robust evaluation and publication of results for the alcohol services.

There was moderate quality evidence that there is high attendance at community pharmacy based supervised methadone administration services and that this service is acceptable to users. Community pharmacy based needle exchange schemes were found to achieve high rates of returned injecting equipment and are cost effective. However, the evidence is based on descriptive studies.

Infection control and prevention

The review did not identify any UK papers on immunisation and vaccination, although there is unpublished data indicating that UK community pharmacists are providing services in this area. Recent evidence on this suggests inclusion of trained community pharmacists in the care of intravenous drug users attending to obtain methadone substitution treatment, improved testing and subsequent uptake of hepatitis vaccination.

Chronic disease management and prevention

There was good quality evidence from eight of the ten reviews to support community pharmacy input into chronic disease management. There was strong evidence of improvements in lipid levels that were sustained for at least one year in both primary and secondary prevention of coronary heart disease. Community pharmacists can make an important contribution to the management of people with diabetes for screening, improved adherence with medicines and reduced blood glucose levels or HbA1c.

6. Conclusions of the SPH review

Although as we suspected the research base turns out to be very incomplete for our purposes it is possible to draw some useful conclusions.

- the evidence supporting the role of community pharmacy is strong for certain specific services such as: stopping smoking, cardiovascular disease prevention, blood pressure management, management of diabetes and possibly asthma and heart failure
- evidence is less strong in areas such as COPD management, infection control, substance abuse, weight management, minor ailment schemes and EHC supply outcomes, although there are anecdotal reports of successes in the provision of these services
- there is a clear requirement for new good quality studies in the areas where the evidence is less strong in order to evaluate the potential contribution of community pharmacy in these areas
- there is insufficient evidence to demonstrate the relative effectiveness of different models of delivering public health in community pharmacy

7. Evaluation of the HLP pathfinder work programme

An **evaluation report** of the HLP pathfinder work programme was published on 22 April 2013. It was especially difficult to undertake this work as the commissioners were going through significant change at the time, with the abolition of Primary Care Trusts. Although a good deal of commendable work has gone into this evaluation exercise, the report is not that helpful to the task group, mainly because data collection only covered part of the work of the HLPs and was incomplete even in those areas. However, the findings no doubt have value and certainly help to demonstrate the feasibility of delivery of public health services in community pharmacy across a wide national context. The evaluation report therefore adds to our level of confidence that this is an area of practice with potential practical application at scale for public health.

Some of the findings are summarised below under three headings, namely: public reported experiences; benefits to commissioners and community pharmacy contractors; effectiveness and potential cost effectiveness of delivered services.

Public reported experiences

The pathfinder sites used a variety of methods to distribute questionnaires of which 1,034 were returned by users. The results were very positive with almost all users who returned questionnaires (98.3%) saying they would recommend the service to others, although this is clearly a selected group. It is of interest that about 1 in 5 said they would not have gone anywhere else for the health and wellbeing support they received in community pharmacy. Most of the others said they would have gone to GPs suggesting that use of pharmacy is likely to lead to transfer of workload from general practice and would not merely be additive.

Benefits to commissioners and community pharmacy contractors

The evaluation collated views from commissioners and undertook some qualitative analysis. The commissioners were very positive and of those that were responding 81% said the service was excellent. Commissioners valued the standards implicit in the HLP model, as it was much easier for them to specify their requirement. Of the contractors delivering HLPs, 91% said that becoming an HLP was a worthwhile investment, 80% said their staff were more productive as a result, 61% said the public were asking for more public health services. Also, 76% of contractors said they had up to a 25% increase in income as a result of becoming a HLP.

Effectiveness and potential cost effectiveness of delivered services

For stop smoking services the self-reported, four-week quit rate was similar to the national average and in some cases well above the national average. Stop smoking services delivered by non-pharmacist staff in the HLPs performed at least as well as those delivered by a pharmacist. A high proportion of individuals receiving a chlamydia screening service or

Consolidating and developing the evidence base and research for community pharmacy's contribution to public health: a progress report from Task Group 3 of the Pharmacy and Public Health Forum

emergency hormonal contraception were also being provided with additional relevant information such as advice on safe sex and use of condoms. Staff providing the alcohol service felt they were well equipped to open further dialogue on alcohol consumption and were able to sign post people to further services. Non pharmacist staff generally make an important contribution to the delivery of public health services in HLPs.

8. General conclusions

There would seem to be enough good quality evidence of successful delivery of public health services through community pharmacies to confirm the potential value of this setting, as one component of a set of public health services commissioned to meet the needs of populations. Whilst the evidence may not all come from randomised controlled trials (RCTs), there is enough information from RCTs and good quality descriptive studies to underpin the evidence base.

The anecdotal reports from the HLP roll-out also confirm the widespread support for pharmacy as a setting for public health and prevention. The community pharmacy setting seems to have some unique qualities that make pharmacies an important alternative setting for delivering lifestyle messages and services, for reasons that are becoming clearer as the model is further developed. In addition, the evaluation shows the potential to provide this activity at scale across the country.

Other general points are as follows:

- the evidence is not universally supportive and it is important to be specific when considering which interventions work well in a pharmacy setting and which might not
- there are many areas where evidence is absent and further research is needed. Of course, it should not be assumed that the lack of evidence means the intervention is not effective but caution is required in these areas
- acceptability of community pharmacy based public health services with the public would seem to be high
- the training of staff and quality assurance of relevant processes are both important if the results of research studies are to be replicated in routine practice

The evidence, as it stands, should encourage commissioners, including local authorities and Clinical Commissioning Groups to seriously consider pharmacy as an effective delivery mechanism for public health services. However, commissioners will want to make their own judgment as to the contribution that pharmacy may be able to make in their area.

It is important for commissioners to consider pharmacy as part of an integrated approach to delivery of public health interventions by a range of different providers each of whom may have a specific contribution to make. In evidence terms, it is probably unrealistic to expect to be able to evaluate the contribution of pharmacy alone without considering the overall design of the public health system in which it is operating. Well-functioning systems are effective, poorly functioning ones are not.

9. Next steps

The Forum is asked to consider this interim report and reflect on the messages in it about the current state of the evidence base and how it should influence the work of the other task groups.

The remit of this task group has only partially been fulfilled and a mechanism for taking forward the rest of the remit is required.

Finally, a proposal was made by the chair of the task group, supported by Public Health England, to the Department of Health Policy Research Programme in relation to the need for further research on this topic. The proposal was well received. The NIHR has recently issued a relevant call for proposals for research on the role of pharmacy in public health.