

PROSPERO International prospective register of systematic reviews

The nature, effectiveness and appropriateness of public health service provision by community pharmacies: a systematic review

Gillian Stokes, Rebecca Rees, Claire Stansfield, Kelly Dickson, Meena Khatwa, James Thomas

Citation

Gillian Stokes, Rebecca Rees, Claire Stansfield, Kelly Dickson, Meena Khatwa, James Thomas. The nature, effectiveness and appropriateness of public health service provision by community pharmacies: a systematic review. PROSPERO 2015:CRD42015029919 Available from http://www.crd.york.ac.uk/PROSPERO_REBRANDING/display_record.asp?ID=CRD42015029919

Review question(s)

What empirical research has been conducted, from 2000 onwards, into public health service provision by community pharmacies?

What are the characteristics of studies that investigate public health service provision in community pharmacies (i.e. country, questions addressed, intervention types, health condition, service provision, setting, and study design features - including measures and conceptual frameworks used and additional demographic characteristics)?

What is known about the effectiveness of the different public health service interventions delivered by community pharmacies?

What is known about the appropriateness (e.g. costs, other resources, accessibility/reach, ease of implementation and acceptability) of those interventions given what is known about community pharmacy provision in the UK?

How does the research evidence fit within the current context of community pharmacy practice in the UK?

What are the gaps in research evidence for key public health interventions (i.e. anti-microbial resistance)?

Searches

In order to seek literature from across the clinical disciplines as well as social sciences, we will search the following databases: MEDLINE, EMBASE, AMED, CINAHL, PsycINFO, ASSIA, EconLit, HMIC, Cochrane Library databases, Sociological Abstracts, Social Policy and Practice, and the EPPI Centre's TRoPHI and DoPHER databases. We plan to supplement our searches with a website search, Google Scholar, and a brief search for UK theses.

We will supplement the comprehensive bibliographic database searches for studies with: searches of web-sites, the screening of reference lists of included studies and relevant systematic reviews. The suggested following topic specific websites will be searched:

Royal Pharmaceutical Society (<http://www.rpharms.com/support/our-library.asp>)

General Pharmaceutical Council (<https://www.pharmacyregulation.org/>)

Department of Health (<https://www.gov.uk/government/publications>)

NHS Evidence (<https://www.evidence.nhs.uk/>)

Pharmaceutical Service Negotiating Committee (<http://www.psnc.org.uk>)

Pharmacy Research UK (<http://www.pharmacyresearchuk.org/>)

UK Faculty of Public Health (http://www.fph.org.uk/about_us)

OpenGrey (<http://www.opengrey.edu/>)

British Library EThOS (<http://www.ethos.bl.uk/>)

UK Index to Theses

The following non-UK websites will also be searched:

American Association of Pharmaceutical Scientists (<http://www.aaps.org/>)

American Pharmacist Association (<http://www.pharmacist.com>)

Pharmaceutical Society of Australia (<http://www.psa.org.au>)

Pharmaceutical Society of Western Australia (<http://www.pswa.org.au>)

Pharmaceutical Society of New Zealand (<http://www.psnz.org.nz>)

Pharmacy Council of New Zealand (<http://www.pharmacycouncil.org.nz>)

PSSA: Pharmaceutical Society of South Africa (<http://www.pssa.org.za>)

South African Pharmacy Council (<http://www.pharmcouncil.co.za>)

Website searching will be limited to sites that provide data in the English language due to available time and staff resources.

A date limit of 2000-2015 will be applied to the search. A further limit will be that were possible we will select items that have been published in the English language. The search strategy also excludes some non-OECD countries and developing countries that appeared frequently when we conducted the test search. Studies that are solely indexed as being about animals are also excluded.

Types of study to be included

There are no restrictions on study type at this stage of the review. We will include: randomised controlled trials (RCT), non-randomised controlled trials (NRCT), evaluations of intervention processes and other studies of stakeholder perspectives.

Condition or domain being studied

Community pharmacy public health intervention provision

Participants/ population

Community pharmacy practitioners, general population

Intervention(s), exposure(s)

All public health interventions delivered within the community pharmacy setting to improve health outcomes.

Comparator(s)/ control

Non-exposed group.

Context

Research conducted in OECD countries will be included.

Research conducted in hospital pharmacies will be excluded.

Outcome(s)

Primary outcomes

Change in health behaviour, health status. To be defined after the mapping stage of the review has been conducted.

Secondary outcomes

Not applicable.

Data extraction, (selection and coding)

Reports of studies included in the in-depth review stage will be described using an independent coding frame adapted from those used in previous reviews (e.g. Sutcliffe et al, 2014). The coding will aim to capture but not be limited to: study details (aims and objectives, setting, intervention type, duration of study etc.); study details (incl. design, population, demographics, participant recruitment, theoretical underpinnings etc.); study methods; and outcomes processes, perspective or services (measured). The data coding scheme will be piloted on a sample set of studies. Two reviewers will extract outcomes and process data independently and will then meet to agree a version of the data extraction. If agreement is not reached, a third reviewer will act as arbitrator. The descriptive aspects of studies will be captured in detail by a single reviewer, with a second reviewer checking the accuracy of these data.

Risk of bias (quality) assessment

All studies included in the in-depth review will be assessed for quality using previously developed tools appropriate for this review's two types of research question. We will employ quality assessment tools designed for:

- 1) studies that evaluate intervention outcomes by assessing key biases that might arise that may impact on the results of evaluations (e.g. selection bias, attrition bias, reporting bias);
- 2) studies exploring perspectives, or observing cases of service provision that assess elements of rigour in sampling, data collection, data analysis, the grounding of findings in data, the breadth and/or depth achieved in the findings, and the privileging of stakeholder perspectives.

Pairs of reviewers will independently assess each study and then meet to agree both the quality of the study and its usefulness in helping to answer the questions proposed in the review. A third reviewer will act as arbitrator in instances where agreement cannot be reached. The results of such assessments may result in further studies being excluded from the review, or a form of 'sensitivity analysis' to examine whether research findings differ according to quality.

Strategy for data synthesis

We will conduct an in-depth analysis of research that presents, and where possible synthesise, evidence of effectiveness and appropriateness of the public health services identified by the Advisory Group as the focus of the review. There will be two types of syntheses:

- 1) Effectiveness synthesis. Should there be sufficient data reported that can be argued to be sufficiently similar (e.g. in terms of services, demographics, etc.) and presented in an extractable format, we will combine findings about service delivery and intervention effects in meta-analyses. However, there is a possibility that syntheses of effects will have to be presented in narrative form. Narrative reporting would take the form of a thematic synthesis of outcomes, with findings grouped together by similar types of service or outcome.
- 2) Synthesis of intervention appropriateness. Narrative synthesis will be employed to report findings for the process evaluation again using methods developed in previous reviews.

Analysis of subgroups or subsets

None planned.

Dissemination plans

In addition to the reports produced for the funders which will be made available for free on their website and the EPPI-Centre website. The review team plan to take up opportunities for knowledge exchange through presentation at substantive and methodological conferences, submission of one open access journal article, and any invited presentations originating from Advisory Group members or their networks.

Contact details for further information

Ms Stokes

EPPI-Centre

Social Science Research Unit

Department of Social Science

UCL Institute of Education

University College London

10 Woburn Square

WC1H 0NR

g.stokes@ioe.ac.uk

Organisational affiliation of the review

None

Review team

Ms Gillian Stokes, EPPI-Centre, Social Science Research Unit, University College London
Ms Rebecca Rees, EPPI-Centre, Social Science Research Unit, University College London
Miss Claire Stansfield, EPPI-Centre, Social Science Research Unit, University College London
Miss Kelly Dickson, EPPI-Centre, Social Science Research Unit, University College London
Dr Meena Khatwa, EPPI-Centre, Social Science Research Unit, University College London
Professor James Thomas, EPPI-Centre, Social Science Research Unit, University College London

Anticipated or actual start date

01 November 2015

Anticipated completion date

30 June 2016

Funding sources/sponsors

Department of Health, England

Conflicts of interest

None known

Language

English

Country

England

Subject index terms status

Subject indexing assigned by CRD

Subject index terms

Community Pharmacy Services; Humans; Pharmacies; United States; United States Public Health Service

Stage of review

Ongoing

Date of registration in PROSPERO

17 December 2015

Date of publication of this revision

17 December 2015

Stage of review at time of this submission	Started	Completed
Preliminary searches	No	Yes
Piloting of the study selection process	No	Yes
Formal screening of search results against eligibility criteria	Yes	No
Data extraction	No	No
Risk of bias (quality) assessment	No	No
Data analysis	No	No

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