Protocol registered in PROSPERO for the Umbrella Review on invitation methods to increase uptake in screening programmes

1. Review title*

Umbrella review of strategies to improve the uptake of screening programmes.

2. Original language title

Not applicable

3. Anticipated or actual start date*

01 April 2019

4. Anticipated completion date*

30 September 2019

5. Stage of review at this time of submission*

	Started	Completed
Preliminary searches	√	√
Piloting of the study selection process	√	√
Formal screening of search results against eligibility criteria		
Data extraction		
Risk of bias (quality) assessment		
Data analysis		
Provide any other relevant information about the stage of review here (e.g. funded proposal, protocol not yet finalised)		

6. Named contact*

Miss Lirije Hyseni

7. Named contact email*

L.hyseni@liverpool.ac.uk

8. Named contact address

University of Liverpool,

Department of Public Health & Policy,

Whelan Building, Quadrangle,

Office 3.09.

LIVERPOOL, L69 3GB

United Kingdom

9. Named contact phone number

+44 (0)151 794 5278

10. Organisational affiliation of the review*

University of Liverpool

11. Review team members' and their organisational affiliations

Dr Angela Boland, Department of Health Services Research, Liverpool Reviews and Implementation Group, University of Liverpool, UK. Dr Chris Kypridemos, Department of Public Health and Policy, University of Liverpool, UK. Dr Brendan Collins, Department of Public Health and Policy, University of Liverpool, UK. Dr Michelle Maden, Department of Health Services Research, Liverpool Reviews and Implementation Group, University of Liverpool, UK. Prof Martin O'Flaherty, Department of Public Health and Policy, University of Liverpool, UK.

12. Funding sources/sponsors*

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13. Conflicts of interest*

The authors declare that they have no known conflicts of interest.

14. Collaborators

15. Review questions*

What type of approaches do high-risk screening intervention programmes use to maximise uptake and how effective are these approaches?

Sub-question:

- How do different strategies to improve the uptake of screening programmes impact on equity using PROGRESS-Plus?

16. Searches*

We will search the following electronic bibliographic databases: MEDLINE, CDSR, CINAHL, Embase, Web of Science, HMIC, Database of promoting health effectiveness reviews (DoPHER) – (EPPI Centre), NIHR Journals Library. Targeted searches will also be conducted in Google Scholar. Reference lists of included articles will also be scanned.

MEDLINE search strategy

1 exp Mass Screening/

2 screening.mp.

3 1 or 2

4 (uptake or non-uptake or sign-up or participation or utilisation or utilization or attend*).mp.

5 ((increase* or improve* or participation or attend* or screening) adj3 (rate or rates)).mp.

6 exp Patient Participation/

7 4 or 5 or 6

8 3 and 7

9 limit 8 to (meta analysis or "systematic review")

10 ("meta analysis" or "systematic review" or "evidence synthesis" or "mixed methods review" or "umbrella review").mp.

11 8 and 10

12 9 or 11

13 limit 12 to yr="1999 - 2019"

There will be no language restrictions in our searches. Studies published between January 1999 and the date the searches will be run will be considered, which should be at the beginning of April 2019.

17. URL to search strategy

18. Condition or domain being studied*

Screening programmes with a focus on programme processes and key performance indicators (not health outcomes).

19. Participants/population*

Include: studies for adult age groups from all populations, from high and middle-income countries. Exclude: primary and secondary school children, pregnant women, and low-income countries.

20. Intervention, exposure(s)*

Include: invitation method interventions aimed at increasing the uptake of screening programmes including but not limited to 1) personalised risk communication, and 2) invitation methods (i.e. letter of invitation, mailed educational material, letter of invitation + phone call, phone call, training activities + direct reminders, reminder letters, physician reminders, telephone reminders, home visits).

Exclude: studies evaluating the screening programme without including invitation method interventions and studies reporting on the effectiveness of different screening tools.

21. Comparators / control*

Include: systematic reviews or meta-analyses where interventions to improve uptake of screening programmes were evaluated or compared.

Exclude: no comparisons of different invitation method interventions to improve uptake of screening programmes presented.

22. Types of study to be included initially*

Systematic reviews or meta-analyses reporting a quantitative or qualitative assessment of the effects of invitation methods to improve uptake of screening programmes.

Include: Systematic Reviews (SRs) and meta-analyses of studies with the following study design: RCTs, qualitative studies, empirical observational studies, natural experiments, modelling studies, secondary analysis, and before vs after interventions.

23. Context

24. Primary outcome*

The main outcome of this review is the uptake of screening programmes (I.e. participation rate).

25. Secondary outcomes*

Secondary outcomes are only considered if studies include the primary outcome. Secondary outcomes include outcomes related programme processes and key performance indicators such as but not limited to measures of informed decision, risk perception, patient acceptability/satisfaction of the intervention, cost of the intervention, cost-effectiveness (ICERs, QALYs, DALYs, LYG) of the intervention, and incidence and prevalence of the disease screened.

26. Data extraction (selection and coding).

LH and a second reviewer will independently screen titles and abstracts of all items retrieved to identify potentially eligible studies based on the inclusion/exclusion criteria. All articles deemed potentially eligible will be retrieved in full text. Full-text articles will be screened for inclusion by LH and a second reviewer based on the inclusion/exclusion criteria, above. Disagreement will be resolved by discussion or referral to a third party (MOF).

Data will be extracted into pre-designed and pre-piloted forms [Aromataris et al. 2015] by LH and a second researcher independently. Data to be extracted include:

(1) Citation details

(2) Objectives of the included review

(3) Type of review

(4) Participant details

(5) Setting and context

(6) Number of databases sourced and searched

(7) Date range of database searching

(8) Publication date range of studies included in the review that inform each outcome of interest

(9) Number of studies, types of studies and country of origin of studies included in each review

(10) Instrument used to appraise the primary studies and the rating of their quality

(11) Outcomes reported that are relevant to the umbrella review question

(12) Method of synthesis/analysis employed to synthesize the evidence and

(13) Comments or notes the umbrella review authors may have regarding any included study

We may contact study authors for unclear, missing or additional data.

27. Risk of bias (quality assessment)*

Two independent reviews will assess the quality of each included study using the ROBIS tool. Risk of bias will be assessed across four domains; study eligibility criteria, identification and selection of studies, data collection and study appraisal, and synthesis and findings. Disagreement will be resolved by discussion or referral to a third party (MOF).

28. Strategy for data synthesis*

The data from included studies will be synthesised as a narrative review. Data will be analysed thematically.

- Data will be organised by invitation method, type of screening programme and strength of evidence.
- Reasons for contradictory findings will be explored.
- Data will be presented narratively, with tables and graphical displays (where appropriate).

29. Analysis of subgroups or subsets*

If the necessary data is available at the systematic review level, the impact of strategies to improve the uptake of screening programmes on equity will be synthesized using PROGRESS-Plus.

30. Type of review*

Review of Reviews

Health area of review

Cancer

Cardiovascular

31. Language

English

32. Country

England

33. Other registration details

Not applicable

34. Reference and / or URL for published protocol

Not applicable

35. Dissemination plans

The results of the review will be disseminated via conferences, websites, abstracts, and peer-reviewed papers.

36. Keywords

Umbrella review, screening programme, uptake, invitation methods, equity

37. Details of any existing review of the same topic by the same author

Not applicable

38. Current review status*

Ongoing