

29-Sep-2020

BMJ-2020-054910

A framework for re-evaluating established health screening practices

There is increasing awareness of the complexity of early detection, including risks of harm to participants. The authors call for a systematic and transparent approach to re-evaluation of screening practices and suggest a framework to achieve this goal.

Dear Mrs. Ropers,

Thank you for sending us this paper and giving us the chance to consider your work. I must apologise again for the delay with this paper but I'm pleased to get back to you with the news that we would like to encourage a revision of this paper.

We sent it out for external peer review and discussed it at the Analysis manuscript committee meeting (present: Sophie Cook, Peter Doshi, Paul Simpson).

We recognise the importance of this topic and that this is likely to resonate with our readership. However we still think some work is needed to make this into an analysis article. We would be very happy to consider this again if you are willing to take on board the comments of the helpful reviewers and also the comments from the editors.

The reviewers' comments are at the end of this letter.

The editors' comments are listed below:

\*Our analysis papers are 2000 word debates with data that are written in a journalistic style with academic heft. We recognise the importance of the messages in this paper but we feel work is needed to make this a more engaging read for our generalist audience. We appreciate you have already revised this once to improve the style but we still feel there is some way to go in terms of the style of the paper.

\*The piece is currently written as a walk through your reasoning as to why you believe screening programmes need to be evaluated alongside your proposed framework as to how this might happen in practice. We think the introduction needs to clearly outline the problems here, and put forward how you believe these could be addressed. The conclusion must be clearer on the solutions and pave the way forward.

\*The clinical examples you have selected to bring this to life are lacking in detail and are not well utilised to strengthen your arguments. Might you be clearer about why you have chosen these examples and further expand on them to illustrate your points? We also felt better quantification is required in some of these examples, for example you say "new targeted therapies "should" further lower mortality but without more detail despite seeming reasonable it remains quite speculative and more specifics might make this a more powerful tool to support your arguments.

\*The section on the framework outlines very basic approaches to evaluation and could be more succinctly communicated as our readers will have a basic understanding of these principles.

\*The paper would benefit from a stronger focus on the content in box 4 which outlines the options for the final recommendations. This is of interest as it gives readers an idea of the potential solutions to the problems outlined and paves the way forward.

\*We felt that the piece was weak on where the accountability lies here. Who is to be responsible for this? Who will enforce this and what will happen if it is not enforced? Are you arguing this should be built into all screening programmes at a particular time interval? What is the ideal here?

We hope that you will be willing to revise your manuscript and submit it within 4-6 weeks. When submitting your revised manuscript please provide a point by point response to our comments and those of any reviewers. We also ask that you keep the revised manuscript within the word count of 1800-2000 words.

Please note that resubmitting your manuscript does not guarantee eventual acceptance, and that your revision may be sent again for review.

Once you have revised your manuscript, go to <https://mc.manuscriptcentral.com/bmj> and login to your Author Center. Click on "Manuscripts with Decisions," and then click on "Create a Revision" located next to the manuscript number. Then, follow the steps for resubmitting your manuscript.

You may also click the below link to start the resubmission process (or continue the process if you have already started your revision) for your manuscript. If you use the below link you will not be required to login to ScholarOne Manuscripts before completing the submission.

If accepted, your article will be published online at [bmj.com](http://bmj.com), the canonical form of the journal. Please note that only a proportion of accepted analysis articles will also be published in print.

I hope you will find the comments useful. Please don't hesitate to contact me if you wish to discuss this further.

Yours sincerely,

Dr Sophie Cook  
Head of scholarly comment  
[scook@bmj.com](mailto:scook@bmj.com)

\*\*\* PLEASE NOTE: This is a two-step process. After clicking on the link, you will be directed to a webpage to confirm. \*\*\*

[https://mc.manuscriptcentral.com/bmj?URL\\_MASK=056d76de78f54c868e3152a960886763](https://mc.manuscriptcentral.com/bmj?URL_MASK=056d76de78f54c868e3152a960886763)

IMPORTANT: Your original files are available to you when you upload your revised manuscript. Please delete any redundant files before completing the submission.

**\*\*IMPORTANT INFORMATION TO INCLUDE IN A RESUBMISSION\*\***

Instead of returning a signed licence or competing interest form, we require all authors to insert the following statements into the text version of their manuscript:

#### Licence for Publication

The Corresponding Author has the right to grant on behalf of all authors and does grant on behalf of all authors, an exclusive licence (or non exclusive for government employees) on a worldwide basis to the BMJ Publishing Group Ltd to permit this article (if accepted) to be published in BMJ and any other BMJPG products and sublicences such use and exploit all subsidiary rights, as set out in our licence (<http://group.bmj.com/products/journals/instructions-for-authors/licence-forms>).

#### Competing Interest

Please see our policy and the unified Competing Interests form <http://resources.bmj.com/bmj/authors/editorial-policies/competing-interests>. Please state any competing interests if they exist, or make a no competing interests declaration.

Reviewer(s)' Comments to Author:

Reviewer: 1

Recommendation:

Comments:

Thanks for asking me to review. I think it is an incredibly important subject (that of re-examining existing programmes) and it is useful for the readership to be reminded that things change, that harms are important as well as benefits. A systematic approach is to be welcomed and the views of the public important

But I think that the methods by which the evidence is generated and on which discussions take place are treated superficially. It is OK to say examine the cost effectiveness of the programme but (as I have found when asking economists to do such work) the comparator is very difficult to agree. Without agreed alternatives to the programme as is and a method of working out what outcomes each including current screening programme might yield) then this is likely to yield opinions ( of which there are legion ) and not evince.

So...I think the paper is important and should be published. But I think the authors should be asked how such evidence will be generated. They are intentionally best placed to answer

Additional Questions:

The BMJ uses compulsory open peer review. Your name and institution will be included with your comments when they are sent to the authors. If the manuscript is accepted, your review, name and institution will be published alongside the article.

If this manuscript is rejected from The BMJ, it may be transferred to another BMJ journal along with your reviewer comments. If the article is selected for publication in another BMJ journal, depending on the editorial policy of the journal your review may also be published. You will be contacted for your permission before this happens.

For more information, please see our peer review terms and conditions.

Please confirm that you understand and consent to the above terms and conditions.: I consent to the publication of this review

Please enter your name: Anne Mackie

Job Title: x

Institution: UK National Screening

Reimbursement for attending a symposium?:

A fee for speaking?:

A fee for organising education?:

Funds for research?:

Funds for a member of staff?:

Fees for consulting?:

Have you in the past five years been employed by an organisation that may in any way gain or lose financially from the publication of this paper?:

Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this paper?:

If you have any competing interests (please see BMJ policy) please declare them here:

Reviewer: 2

Recommendation:

Comments:

The manuscript presents a framework to reevaluate established health screening practices and thus fills an important gap in this area. It is well written and the presented framework is comprehensive and duly justified. Importantly, the framework is based on similar processes in other settings and at the same time considers important issues unique to the context of screening such as documented biases in clinicians and the general public (e.g., the generally high enthusiasm for screening, positive beliefs etc.), which could play an important role in the evaluation process, along with other important aspects such as conflicts of interest and citizen involvement. My opinion is that the framework is generally well elaborated, will be a useful tool and hence this manuscript should be published.

Below I list several issues that I thought may benefit from some clarification. I hope that the authors will find these comments useful.

Introduction: regarding the four major reasons to reevaluate screening practices. It should be specified whether this is meant to be an exhaustive list of possibilities or this framework could be potentially applied to situations where the need for reevaluation comes due to other unforeseen issues.

In addition, in reason 2, the authors consider change in test performance as one basis for reevaluation. It seems that the availability of new tests should be considered under this heading too but the way that the issue of test performance is currently introduced does not specifically spell it out.

There is perhaps one issue that I found to be inconsistent and where further elaboration may be needed: the citizen involvement and in particular the recommendation for exclusion of citizens who have undergone screening. First, this recommendation directly contradicts the principle mentioned in Box 2 ("Members of a community to provide an inclusive sample of citizens (ensuring no relevant group is systematically excluded)), so the text should be revised to avoid this contradiction. Second, it may be worth reconsidering this recommendation or at least specifying the conditions under which it may be meaningful. My initial hunch was that it makes sense because the public in general is not very knowledgeable of screenings and how they should be evaluated etc, and hence one would think that having participated will only increase some existing biases in favor of screening (e.g., I had the test and it saved my life etc...or the higher tolerance to harms that the authors cite). However, people who have participated are also those who have experienced the perceivable harms of screening, so in fact biases can go both ways. Anyway, this group IS eventually included in the process, in particular in the form of an advisory board to the Steering committee (p. 7), so again the recommendation for their exclusion stands in contradiction to what is mentioned later.

My second concern was that this recommendation (to exclude people with experience with screening) may introduce other biases and/or be unrealistic for some screenings. To give an example, in the context

where I live, it would be difficult to find a woman who has not had cervical screening (because compliance is generally high, the screening has been in place for a long time, and encompasses a wide age range). So citizen representatives could either be women with more abnormal healthcare usage, too young or old to be eligible, or men, which would not make a very meaningful citizen panel. So my recommendation is to reconsider or reformulate this recommendation, so that 1) there are no contradictions in the text, and 2) it is flexible enough to be realistic and/or does not exclude relevant groups.

Proposed framework: Consider adding a brief description of the process followed to elaborate the framework and the field of expertise of those involved in its generation.

Step 1: Establish a Steering Committee: Consider revising and adding more detail to the following recommendation: "we suggest that Steering Committee members should not be directly involved in screening but may have a relevant background in an adjacent field of medicine." I wondered what exactly this would mean, as anyone who possesses relevant expertise regarding screening may be considered as involved in screening somehow. For the tasks performed by the steering committee, such as defining thresholds for acceptable levels of benefits, harms, and their balance, acceptable costs..., it is clear that Steering Committee members need relevant expertise in the context at hand. In that sense, this exclusion criterion should be better specified to avoid conflicts of interest but also allow for the necessary expertise (for instance, specify "not directly involved in the initiation and execution of the program being evaluated" ???).

Step 3: Deliberative engagement with citizens: In some health systems, and for some screening programs, informed decision making is recommended, whereby citizens are first informed about the nature, extent and probability of different benefits and harms of screening, before they decide to participate or not. The process of deliberative engagement with citizens could be used to reevaluate this aspect of screening as well. For instance, the reevaluation of screening practices could necessitate the inclusion of an informed decision making process that did not exist before (e.g., sending a leaflet with information as done by NHS UK for instance). Input from both professionals and citizens, based on the information from the Technical committee, could be used to make recommendations regarding such changes to screening practices. Have the authors considered informed decision making as part of the screening practice? Perhaps this is out of scope of the current framework, but if not, it may be a suggestion worth considering.

"To involve everyday people": sounds awkward. Shouldn't it be "laypersons" for instance?

"Though our proposal involves financial investment": unclear what this means.

#### Additional Questions:

The BMJ uses compulsory open peer review. Your name and institution will be included with your comments when they are sent to the authors. If the manuscript is accepted, your review, name and institution will be published alongside the article.

If this manuscript is rejected from The BMJ, it may be transferred to another BMJ journal along with your reviewer comments. If the article is selected for publication in another BMJ journal, depending on the editorial policy of the journal your review may also be published. You will be contacted for your permission before this happens.

For more information, please see our peer review terms and conditions.

Please confirm that you understand and consent to the above terms and conditions.: I consent to the publication of this review

Please enter your name: Dafina Petrova

Job Title: Postdoctoral researcher

Institution: CIBER of Epidemiology and Public Health (CIBERESP), Andalusican School of Public Health, Instituto IBS.GRANADA. Spain.

Reimbursement for attending a symposium?: No

A fee for speaking?: No

A fee for organising education?: No

Funds for research?: No

Funds for a member of staff?: No

Fees for consulting?: No

Have you in the past five years been employed by an organisation that may in any way gain or lose financially from the publication of this paper?: No

Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this paper?: No

If you have any competing interests (please see BMJ policy) please declare them here: I declare no competing interests