PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (**http://bmjopen.bmj.com/site/about/resources/checklist.pdf**) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	A developmental evaluation to enhance stakeholder engagement in a wide-scale interactive project disseminating quality improvement data: study protocol for a mixed-methods study
AUTHORS	Laycock, Alison; Bailie, Jodie; Matthews, Veronica; Cunningham, Frances; Harvey, Gillian; Percival, Nikki; Bailie, Ross

VERSION 1 - REVIEW

REVIEWER	Sean M. O'Neill, MD, PhD University of California, Los Angeles, USA
REVIEW RETURNED	23-Mar-2017

| GENERAL COMMENTS | I commend the authors for closely examining this process with a priori scientific rigor. As I understand it, they are proposing to use the developmental evaluation approach to both iteratively improve the primary project (the ESP wide-scale CQI data feedback project with indigenous PHCs) and assess the effectiveness of the primary project. They are explicitly breaking out the question of "How did the ESP project go and how could it have gone better?" into a clearly defined separate protocol that will also serve to help make course corrections to the ESP project as it is being implemented. Typically, the results of a study like what this protocol proposes would simply be written up in the discussion section of a manuscript for the primary study. As such, I would like to recognize their efforts to contribute to the science of implementation, and believe this protocol should be published, with a few minor revisions.

Objectives (Lines 142-143): How is this objective (assessing the success of the ESP project) different from the core objective of the ESP project itself? As presented, it seems as if this would be a redundant objective to the primary study.

Methods: Semi-structured interviews (Lines 262-296): The authors should provide a basic interview guide with at least a few sample questions that may be asked. I presume that questions other than those listed in the ESP surveys will be asked; it would be helpful to state a few of them. For the purposes of a semi-structured interview, this provides the initial structure, and helps to clearly delineate the intended scope as well as provide some degree of consistency in questioning across interview subjects, which helps immensely in conducting the interview analysis on the back end.

Methods: Integration of data collection and analysis (Line 316-348): In reading this section on triangulating the data, I think I know what the authors mean, but more specificity would help the reader understand exactly how this process is to be carried out. Will they construct, using the project documents and minutes, a real-time |

	project timeline, with different dimensions of project decisions, stakeholder feedback, events, new ideas, new interventions, and then use that timeline or graph to identify and draw temporally-dependent causal hypotheses? Will they do pile sorts, or grounded analysis? I would like to see more specifics on precisely what process they plan to follow for triangulating the data.

REVIEWER	Laurie Novak Vanderbilt University Nashville, TN, USA
REVIEW RETURNED	03-Apr-2017

GENERAL COMMENTS	Thank you for the opportunity to review this interesting manuscript. It is a valuable contribution to the literature for those interested in understanding and disseminating successful QI activities (and lessons) across health care networks. I admit that I was somewhat confused about whether the paper was reporting on developmental evaluation (DE) of specific QI initiatives or of the overall ESP initiative. I went back to the beginning of the paper twice to ensure I understood this correctly. While Figure one is very informative, I suggest the authors develop a very simplified version of the relationships between specific QI projects, the ESP project, and the DE. This could go in at the beginning of the paper and help the reader get off on the right foot. In the overview of DE, I suggest the authors address whether DE has been used in this "meta" format before, i.e. studying a study of studies. I think it would be a nice addition to the paper to give a bit of the historical context of the DE. How did it come about? Were there any challenges in developing the methodology that the paper reports? What might be some of the limitations of the approach, and were any other methods considered and rejected? The tables and figure were very informative.

VERSION 1 – AUTHOR RESPONSE

Reviewer 1:
Comment: Objectives (Lines 142-143) How is this objective (assessing the success of the ESP project) different from the core objective of the ESP project itself? As presented, it seems as if this would be a redundant objective to the primary study.
Response: This objective has been reframed to better reflect the focus of the DE (lines 153-154). It now reads: 'Assess the overall effectiveness of the interactive dissemination processes used in the ESP project' The corresponding cell in table 2 (at Line 354) has also been revised.

Comment: Methods: Semi-structured interviews (Lines 262-296): The authors should provide a basic interview guide with at least a few sample questions that may be asked. I presume that questions other than those listed in the ESP surveys will be asked; it would be helpful to state a few of them. For the purposes of a semi-structured interview, this provides the initial structure, and helps to clearly delineate the intended scope as well as provide some degree of consistency in questioning across interview subjects, which helps immensely in conducting the interview analysis on the back end.
Response: The interview guide is included as Supplementary file 5.

Comment: Methods: Integration of data collection and analysis (Line 316-348): In reading this section on triangulating the data, I think I know what the authors mean, but more specificity would help the

reader understand exactly how this process is to be carried out. Will they construct, using the project documents and minutes, a real-time project timeline, with different dimensions of project decisions, stakeholder feedback, events, new ideas, new interventions, and then use that timeline or graph to identify and draw temporally-dependent causal hypotheses? Will they do pile sorts, or grounded analysis? I would like to see more specifics on precisely what process they plan to follow for triangulating the data.

Response: (Lines 344-347) We have included information about construction and use of a project timeline to support triangulation and analysis of data. Note that we have made the section heading more concise (now 'Data integration and analysis') and reduced the first paragraph to ensure the manuscript complies with word count requirements.

Reviewer 2:

Comment: I admit that I was somewhat confused about whether the paper was reporting on developmental evaluation (DE) of specific QI initiatives or of the overall ESP initiative. I went back to the beginning of the paper twice to ensure I understood this correctly. While Figure one is very informative, I suggest the authors develop a very simplified version of the relationships between specific QI projects, the ESP project, and the DE. This could go in at the beginning of the paper and help the reader get off on the right foot.

Response: (Lines 98-99) We have adjusted the background section to clarify that the study is a DE of the ESP project rather than a study of local level CQI initiatives.

(Line 102) A sentence has been added explaining how the health centres (specific QI initiatives) contributed their data under a CQI research partnership agreement.

(Line 103) Refers to the new Figure 1, which has been developed to show relationships between the CQI research program, the ESP and the DE.

A new Figure (Fig 1) has been added to the background section of the paper.

The term 'dissemination strategy' has been changed to 'dissemination project' throughout the manuscript to avoid confusion.

Comment: In the overview of DE, I suggest the authors address whether DE has been used in this "meta" format before, i.e. studying a study of studies.

Response and revision: (Lines 135-136) The DE is being applied to one specific CQI project. However, it is studying a high-level CQI study (itself based on disseminating CQI data). We believe the application of DE to be novel in this and other respects and have included a statement to that effect.

Comment: I think it would be a nice addition to the paper to give a bit of the historical context of the DE. How did it come about? Were there any challenges in developing the methodology that the paper reports? What might be some of the limitations of the approach, and were any other methods considered and rejected?

Response: (Lines 136-141) We have included information on how the DE came about - we refer to the challenge of having limited relevant literature to draw upon when developing the methodology and justify our selection of a DE approach. Evaluation challenges are also identified in the 'strengths and limitations' section at the front of the paper (Lines 61-71). Some general challenges associated with DE are listed at (Lines 133-134).

The title has been revised in response to the editorial request and adjusted as follows:
"A developmental evaluation to enhance stakeholder engagement in a wide-scale interactive project disseminating quality improvement data: study protocol for a mixed-methods study."

Thank you for the opportunity to revise the manuscript.

REVIEWER	Laurie Novak
	Vanderbilt University, USA
REVIEW RETURNED	18-May-2017

GENERAL COMMENTS	The authors have adequately addressed my concerns.
	Congratulations on this report of your good work.