Reviewer's report

Title: Evaluation of clinical quality improvement interventions: Feasibility of an integrated approach

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Reviewer: Dominika Bhatia

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This is an interesting paper that presents a novel program evaluation framework, the Integrated Model of Evaluation (IMoE). The IMoE framework will be applied to assess a quality improvement initiative aimed at improving the uptake of national recommendations for cardiovascular disease (CVD) screening and prevention, which is currently being implemented in a large multidisciplinary primary care practice in Barwon South West region of Victoria, Australia. The IMoE framework seeks to combine the strengths and mend the limitations of traditional before-and-after evaluation and theory-based evaluation approaches. Traditional before-and-after evaluation approaches are frequently criticized for their narrow focus on isolating the effects of the intervention outside of its contextual factors, which are deemed to be "noise". While theory-driven evaluation addresses this limitation by specifying and assessing a program theory of change, including the context the intervention is embedded into, the relevant actors, and the mechanisms of action of the intervention, it involves extended timeframes and large quantities of data. The authors suggest that the IMoE is an optimal compromise between these two approaches, as it specifies a program theory that takes into account contextual factors, integrates stakeholder feedback, and can be undertaken within a reasonable timeframe.

A number of strengths of the present paper should be acknowledged. Firstly, the authors effectively outlined the background of the issue the quality improvement initiative aims to address, particularly the need to improve adherence to guidelines for CVD prevention and the role of primary care may play in this. The description of the IMoE model and its components, namely program theory, context, intervention, change, and outcomes were similarly thorough and clear. The evaluation model is embedded in the intervention and will be implemented in three stages - formative, process, and summative. A dynamic evaluation process that accompanies the intervention, such as the one proposed by the authors, is considered to be superior to a summative intervention alone, as it provides opportunities to amend the program theory and to tailor the intervention activities, that way increasing the intervention's likelihood of success. Finally, the authors emphasize the importance of stakeholder feedback at various stages of the evaluation process - recognizing that complex interventions are open systems that involve active collaboration between multiple groups is also considered to be an important facilitator to complex intervention's success in program evaluation literature.
The paper would also benefit from considering and clarifying the following issues:

1. In what way may the components of the proposed evaluation framework lead to more a timely and feasible process than theory-driven evaluation? The authors state that by "incorporating practical and useful components and leaving out esoteric concepts, the integrated model ensures deployment of this model can be done in realistic time;" however, it is somewhat unclear what kinds of esoteric concepts are bypassed by the IMoE to ensure a more efficient process. Perhaps briefly contrasting the proposed evaluation model with known and widely-applied evaluation approaches, such as the realist framework (which aims to trace the context-mechanism-outcome (CMO) configurations through which the program of interest operates to produce outcomes), would make this point clearer.

2. Who are the relevant program stakeholders and what specific insight will they provide throughout the evaluation process to ensure that "stakeholders gain greatest value from the commissioning of program evaluation"? While the authors mention four groups of stakeholders, namely patients, as well as the strategy group overseeing the implementation of the IMoE model, the co-design group, and the project management group, clarifying the composition of these groups (e.g. patients representing vulnerable sociodemographic groups; types of health professional and administrative staff involved) and their respective roles in the evaluation process would be instructive to possible future evaluators interested in using the IMoE model.

3. What are the specific activities of the quality improvement intervention and how will they be coupled with the embedded monitoring and evaluation process? While the focus of the paper is on the IMoE framework itself, clarifying what the quality improvement activities entail will help the reader's understanding of the proposed program theory, program mechanisms, and how such mechanisms may produce the indicators of interest. In addition, the benefit of using plan-do-study-act (PDSA) cycles in quality improvement initiatives is that they allow to rapidly assess the initiative's performance and to implement iterative changes - however, it is unclear in the paper whether the PDSA cycles will occur independent of or in tandem with the evaluation process.
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