Reviewer's report

Title: Reducing unnecessary caesarean sections: scoping review of financial and regulatory interventions

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Reviewer: Melissa Amyx

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This scoping review tackles an important subject—the safety and effectiveness of financial, regulatory, and legislative interventions to reduce CS rates—providing relevant and timely information for policies and research related to lowering CS rates. Overall, the introduction/rationale and methods are sound. However, the sheer volume of details of interventions included and their results necessitates careful consideration of how to best organize and present the data and conclusions for readability and comprehension.

Specific comments:

Abstract: if possible within word limits, provide additional details regarding number of studies identified in the search review, review/data extraction process, study population (low risk women), specify that line 54-56 was based on 2 studies

Background:
1. Page 5, line 8-10: this statement (that the majority of CS are medically unnecessary) requires more support/context/justification
2. Provide citations for paragraph page 5, lines 31-37

Methods:
1. Since the review protocol was not pre-registered, it would be helpful to know which aspects were specified a priori or determined post hoc (if applicable)
2. Clarify whether review and data extraction all done independently and in duplicate
3. Were attempts made to contact study authors for missing information (applicable for Tsai 2006 [Table 3]; Keeler 1996 [page 10, lines 37-38])?

Results/Tables/Figures: The Results section and Tables contain an overwhelming volume of information and in the current form are difficult to follow and glean an overall impression of results. Consideration of the following would improve readability:

1. Results
a. Page 10, line 13: the section "c) other interventions" is missing a summarizing sentence (similar to the sentence above for "b) regulatory and legislative interventions", page 10 line 2-3)

b. Effects of interventions (page 10, line 20-page 13, line 51)
   i. It would be helpful to provide more synthesis of evidence across studies for each type of intervention (similar to as presented in abstract, which was more initiative/easy to follow) as opposed to a long list of the effects of each intervention separately
   ii. Limit repetition in text of all information in tables (which can be referred to for details)

2. Figure 1: specify the number of articles from each source (were any articles identified in review of references of included studies?), number of duplicates between databases, breakdown of exclusions for full text review
3. Table 2: For some of the interventions listed on page 25 (copayment, insurance, quality of care) and page 26 (all), it is unclear how the interventions would help to reduce CS.

4. Tables 3-5: lengthy and challenging to follow. The following should be considered to improve readability:
   a. Organize the studies by intervention type (similar to headings used in Table 2 and as written in accompanying text in Results, pages 10-13) so that similar interventions can be compared more easily.
   b. Table 3+4: since interventions are fully detailed in Table 4, simplify Table 3 by removing the "Interventions" column (particularly if row headings are used as in Table 2 to organize studies by type, this would provide sufficient information on the interventions for Table 3).
   c. Table 5: create a figure for quality assessment or reorganize into a single column, include a column to capture solely whether CS rates increased, decreased, or did not change following intervention (with the details provided in a separate column).

Discussion: As in the results, careful consideration of how to best organize and present this information is needed to improve readability and pull the paper together. Specifically, aspects of the different subsections by heading are scattered across other sections and a general interpretation of the results is lacking. Suggestions for revision:

1. Summary of main results
   a. Limit to one concise paragraph
   b. Page 14, lines 5-9: could be moved to limitations
   c. Page 14, lines 13-41: After discussing by intervention type in the abstract and Results, presenting the overall results here by their effects is inconsistent. It also obscures the finding that some intervention types performed better than other. For instance, no differences were found for GBP systems, but were found in both studies of regulatory/legislative interventions. These details could be moved to a separate section (or incorporated into a later section, potentially "Key lessons learned") and better placed in the context of the literature/available evidence regarding which types of interventions may work best, or in comparison to clinical and non-clinical interventions.

2. Certainty of evidence (page 14, lines 46-57): Details of this section referring to in Table 5 can be reported in the Results and overall low quality more briefly mentioned in summary of results/limitations/conclusion.

3. Limitations: address potential for publication bias

4. Key lessons learned
   a. Page 16, lines 5-13 could be moved to Limitations
   b. Page 16, lines 16-35 could be moved to Implications for future research

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