Reviewer’s report

Title: Novel approaches to estimating abortion incidence

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Reviewer: Heidi Bart Johnston

Reviewer’s report:

Bravo to Sedgh and Keogh for starting this review. It’s been 15 years since Rossier (2003) published her review of methods for measuring induced abortion, and as Sedgh and Keogh state, multiple new approaches have been developed, explored and tested since then. Sedgh and Keogh discuss three approaches (five methodologies) for abortion estimation, presenting assumptions, strengths and weaknesses of each, and validation strategies.

The effort is timely and has promise, but as the field is ripe to benefit from a more rigorous analysis, their review should go beyond the format of a discussion and presentation. Sedgh and Keogh’s description of methods should include more detail to describe how the estimation methodologies reviewed were selected for inclusion, and which ones were considered and excluded, and what set of inclusion and exclusion criteria was used.

Sedgh and Keogh consider the strengths and weaknesses of each of the 5 included methodologies. The authors present relevant and thoughtful information. As a reader I am interested in seeing what a more structured and detailed presentation and analysis would yield. What could be gained from systematically including in table format the multiple strengths and weaknesses of each approach used for abortion estimation? Would additional analyses that could push the field forward present themselves? The discussion and conclusions resulting from a more systematic and detailed analysis may differ from those presented in the current manuscript.

The conclusion recommends use of multiple methods, or triangulation, to increase the validity of abortion estimation in the absence of a gold standard. Triangulation in the field of abortion estimation is worthwhile, but not new. A systematic presentation of abortion estimates for the same populations and time periods but using different estimation methodologies could support the development of additional insights about the different abortion estimation techniques examined.

Before publication I recommend the authors detail the methods that are used for inclusion and exclusion of the different estimation methodologies. I further recommend using a more detailed and systematic approach to analyzing the included methodologies. An analysis of use of triangulation for abortion estimation could yield further insights. In the end, I think this restructured analysis could be an exciting contribution to the field.

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