

# BMJ Open Evaluation of policies for free maternal healthcare in low/middle-income countries: a scoping review protocol

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## ABSTRACT

**Introduction** Improving maternal health remains a health priority at the global and national levels. As part of the global strategy, many low/middle-income countries (LMICs) have implemented free primary healthcare policies for different service packages including maternal health. Free maternal healthcare policies aim to improve maternal health by removing the financial burden of accessing maternal healthcare services. The objective of this scoping review is to assess evaluations of free maternal healthcare policies and the impact on maternal health in LMICs. This will help identify theoretical and methodological approaches (or gaps if any) for evaluating the impact of free maternal healthcare policies to inform future work. It will also provide an evidence base for policymakers and other stakeholder with an interest in planning, funding and implementing evidence based and effective interventions to improving maternal health outcomes.

**Methods** The scoping review will follow the methodological framework proposed by Arksey and O'Malley and refined by Joanna Briggs Institute. It will involve a literature search of the PubMed, Scopus ScienceDirect, Web of Science and CINAHL databases for peer-reviewed journal articles related to the impact of free maternal health policies in LMICs published from 2000 to the present. Two reviewers will screen and appraise eligible articles using preset criteria based on the 'population-concept-context' framework. A data extraction framework will be used to extract and chart data from the reviewed articles. The results will be analysed using descriptive numerical summary analysis and qualitative thematic analysis.

**Ethics and dissemination** Ethical approval is not required as the scoping review will synthesise information from publicly available materials. Dissemination will be through publication in a peer-reviewed journal and presentation at relevant conferences and workshops.

## BACKGROUND

Improving maternal health remains a health priority at the global<sup>1</sup> and national levels.<sup>2</sup> At the global level, the third of the 17 internationally agreed Sustainable Developments Goals (SDGs) has a particular focus on ensuring healthy lives and promoting well-being for all at all ages. One of the targets within SDG3 is to reduce the global maternal mortality to <70 per 100 000 live births by 2030.<sup>3</sup>

## Strengths and limitations of this study

- This scoping review will update what is currently known about the effectiveness of free maternal healthcare in improving maternal health outcomes in low/middle-income countries.
- It will also examine conceptual frameworks that have been adopted in evaluating free maternal healthcare policies and contextual factors impacting the effectiveness of these policies.
- Its findings will provide key information to policy-makers and other stakeholders with an interest in planning, funding and implementing evidence based and effective interventions to improve maternal health outcomes.
- A limitation is that relevant articles may be excluded due to only including English language publications.

Reducing the maternal mortality rate has been a global priority since the Safe Motherhood Initiative was launched in 1987, and gained a lot of political priority at the national level during the Millennium Development Goal (MDG) era.<sup>3</sup> Along with the SDGs and MDGs, global initiatives to improve maternal health have included the abolition of user fees within the context of universal health coverage.<sup>4</sup> To operationalise these global policy instruments, many low/middle-income countries (LMICs) have implemented free primary healthcare (PHC) policies for different service packages including maternal health as a means to reduce the financial burden of accessing maternal healthcare services.<sup>4</sup>

Evidence from studies relating to user fee exemption has shown mixed results of the policy impact on maternal health outcomes.<sup>5</sup> The summary of an evidence review commissioned by the US Agency for International Development (USAID) on the effects of user fee exemption on maternal and newborn health outcomes, health-care-seeking behaviours and service provision highlighted benefits in terms of an increased use of maternity services as well as risks



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from decreased provider motivation and quality.<sup>6</sup> Some studies have reported an increase in facility-based deliveries, antenatal attendances and reduction of maternal deaths following removal of user fees in countries such as Kenya,<sup>7</sup> Laos,<sup>8</sup> Burkina Faso<sup>9</sup> and Nepal.<sup>10</sup> In contrast, other evidence has indicated insignificant changes in utilisation of maternal health services due to certain health system barriers.<sup>11</sup> A study on the effect of user fee removal for preventive and curative services in rural South Africa showed a statistically insignificant decrease in preventive services when user fees were abolished, potentially due to crowding out by an upswing in demand for curative service.<sup>12</sup> Additionally, a pilot and national roll-out study in Afghanistan showed that, while antenatal visits increased immediately following the elimination of user fees, these effects were temporary, and no effect was found for institutional delivery.<sup>13</sup>

Findings of these studies illustrate the complicated environment in which user fees exist and may hint at underlying causes for the conflicting results. Utilisation of health services is not determined by user fees alone but interacts with numerous cultural and environmental factors, including supply side issues such as access to services, facility capacity and availability of resources,<sup>14</sup> and socio-cultural norms around care seeking.<sup>8</sup> The interaction of fee exemption interventions with such a complex policy environment may make collection of robust data a significant challenge and hence bias the evidence for policy impact. Some have argued that the mixed results could partly reflect the methodological difficulty of establishing the cause and effect relationship in evaluating such large public and social health policies.<sup>15</sup> Furthermore, studies conducted in LMICs to evaluate the introduction of free maternal healthcare have tended to focus narrowly on the policy impact, neglecting the broader context associated with the policy process such as administrative capacity, sociopolitical pressures and national economic conditions.<sup>16</sup>

It is against this background that this scoping review is being conducted. Its aim is to examine how free maternal healthcare policies have been evaluated in LMICs and the impact of these policies on maternal health. The scope of this review will be guided by the following key questions.

1. What conceptual frameworks have been adopted in evaluating free maternal healthcare policies in LMICs?
2. What methods have been adopted in evaluations of free maternal healthcare policies in LMICs?
3. What outcomes have been measured in evaluations of free maternal healthcare policies in LMICs?
4. What have the evaluations found to be the impact of free maternal healthcare policies in LMICs?
5. What contextual factors impact the effectiveness of free maternal healthcare policies in improving maternal health?

While its questions differ to some extent with those addressed in the summary of the evidence review commissioned by the USAID, the review will update the evidence provided regarding whether user fee exemptions are

linked positively or negatively to various maternal health outcomes and contextual factors impacting the effectiveness of user fee exemption policies. Additionally, this review will help identify theoretical and methodological approaches (or gaps) for evaluating the impact of free maternal healthcare policies to inform future work in this area. Findings may also be generalisable to empirical work on evaluating free PHC policies in LMICs in their track to achieving universal access and meeting the SDGs and targets.

## METHODS AND ANALYSIS

This scoping review will use the methodological framework proposed by Arksey and O'Malley<sup>17</sup> and described in the *2017 Guidance for the Conduct of JBI Scoping Reviews*,<sup>18</sup> and its reporting will be compliant with the *PRISMA Extension for Scoping Reviews Checklist*.<sup>19</sup>

### Inclusion criteria

The review will consider studies evaluating the implementation of free maternal healthcare policies in LMICs.

Inclusion criteria will be based on the 'population-concept-context' framework recommended by the Joanna Briggs Institute for scoping reviews.<sup>18</sup> The population of interest is free maternal healthcare policies. The key concept is the evaluation of free maternal healthcare policies, which will include identifying any conceptual frameworks used in designing the evaluations, methods adopted in conducting the evaluations and choice of outcome measures, and evidence about the impact of free maternal healthcare policies. The context is LMICs as defined by the World Bank.<sup>20</sup>

Types of studies to be considered include peer-reviewed articles that present primary research evaluating the impact of free PHC policies for maternal health. Studies conducted in all healthcare settings with a focus on free maternal healthcare policies in LMICs will be considered. Inclusion of studies will not be limited to any specific study designs. Perspective, opinion and commentary pieces as well as conference abstracts and book reviews will be excluded. Documents will be limited to those written in the English language. The summary of the evidence review commissioned by the USAID on the effects of user fee exemption on the provision and use

**Table 1** Concept grid of keywords for initial search

Health outcome terms	Intervention terms	Study objective terms
maternal health	free health*	evaluat*
maternal mortality	user fee*	impact
maternal death	voucher	effect*
childbirth	fee exemption	outcome*
	targeted subsid*	utili?ation

\* represents any group of characters

? represents any single character

of maternal health services included articles published up to 2012. The current review provides an update based on a search for missed articles between 2000 and 2012, and new articles published from 2013 to June 2019. The current review will provide (1) an update based on a search for articles published between 2000 and 2012 either missed by the USAID study or addressing research questions not covered in the earlier review and (2) relevant articles published from 2013 to June 2019. The decision to include articles on free maternal healthcare published since 2000 was based on the adoption of the

United Nations Millennium Declaration in 2000, which identified improving maternal health as one of the eight MDGs.<sup>21</sup>

### Search strategy

An initial search of PubMed and Scopus will be undertaken using keywords shown in the concept grid below (table 1 and online supplementary appendix 1). Relevant articles will be identified based on the title and abstract from retrieved literature. Text words in the titles and abstracts of these articles will be analysed, and index terms

**Table 2** Data extraction framework

Main category	Subcategory	Description	
1. Author		–	
2. Title		–	
3. Journal		–	
4. Year of publication		–	
5. Aim/objectives		Describe the stated aim and objectives	
6. Year of research		–	
7. Location		Indicate the country(ies) where the study was conducted	
8. Study setting		Specify the location of the study sites (eg, district(s) in which study was conducted)	
9. Policy change	Content of policy change	Describe the maternal health policy being evaluated	
	Date of policy change	Note the month/year in which the policy change was implemented	
10. Approach to health policy analysis	Framework and theories	Indicate analytical framework used (if any) to evaluate maternal health policies	
	Scope of analysis	Indicate stages of policy process included (eg, agenda setting, policy development, policy implementation, policy outcomes)	
11. Methodology to evaluate health outcomes	Study design	Specify study design adopted (eg, case study, cross-sectional design, pre–post study design)	
	Population	Describe specific characteristics of target population	
	Data source	Specify data sources (eg, primary, secondary)	
	Sampling strategy	Describe how sampling (if any) was done	
	Data collection	Describe the methods of data collection (none if secondary)	
	Data analysis	Specify how data were analysed	
	No of years of data	Specify period of time of data analysis (prepolicy and postpolicy implementation)	
	Outcome measures	Indicate outcome measures adopted (eg, use of maternal health services, proportion of deliveries attended by skilled health personnel)	
	12. Results	Policy process	Describe findings of analysis of policy process relating to introduction of maternal health policy
		Reported outcomes	Discuss change in selected outcome measures of maternal health
Patient and public perspective		Discuss any reporting of perspectives of patients or the public with regard to the policy, its implementation or its impact	
13. Conclusion	Impact	Indicate conclusion of study regarding overall impact of maternal health policy	
	Facilitators	Describe factors that support implementation of the maternal health policy	
	Barriers	Describe factors that inhibit implementation of the maternal health policy	
14. Limitations		Describe shortcomings of the study	

used to describe articles examined, to identify additional keywords to include in the second search. A second search will be conducted using the modified search strategy in the following databases: PubMed, Scopus, ScienceDirect, Web of Science and CINAHL.

### Study selection

Screening of the studies will be performed by two investigators (RS and DH). The first stage will involve screening the title and abstract. In the second stage, the reviewers will assess the full-text articles, with differences resolved through discussion with a third investigator (JD). Lastly, reference lists of included studies will be searched for identification of any additional studies.

A Preferred Reporting Items for Systematic Reviews and Meta-Analyses flowchart will be used to demonstrate the process of identification and screening of articles to include in the scoping review.<sup>22</sup>

### Extraction of the results

Data extracted from the selected articles will be entered into a Microsoft Excel data extraction sheet (table 2). Based on the preliminary scoping phase, categories to be included in the data extraction sheet will include standard bibliographic information (ie, authors, title, journal and year of publication), aim and objectives, and location(s) and setting(s) where the study was undertaken. For each article, information will be extracted on the policy change being implemented, the approach to health policy analysis (including whether an analytical framework was used and the scope of the analysis), the methodology to evaluate health outcomes, the results of the study and conclusions including contextual factors impacting the effectiveness of free maternal healthcare in improving maternal healthcare and limitations.

### Presentation of the results

Information in the data extraction sheet will be analysed using descriptive numerical summaries and qualitative thematic analysis. The latter will follow the guidelines for conducting thematic analysis outlined by Braun and Clark.<sup>23</sup> The results will be mapped and presented in a form to logically reflect the objectives of the scoping review. Frameworks used in evaluating policies to promote free maternal healthcare in LMICs will be compared, and methodological approaches adopted and outcome measures will be assessed. Findings of the studies in regard to the impact of free maternal healthcare in LMICs will be summarised to provide an overview of the body of research conducted in this area, with facilitators supporting implementation of free maternal health policies, and barriers inhibiting implementation, noted. Knowledge gaps will also be identified and presented.

### Patient and public involvement

Patients and the general public were not involved in the preparation of this protocol. The data reported in the scoping review will be sourced from previously published

studies, with discussion of patient perspective within the literature included in the data extraction.

### Ethics and dissemination

Ethical approval is not required as the scoping review will synthesise information from publicly available materials. Dissemination will be through publication in a peer-reviewed journal and presentation at relevant conferences and workshops. The findings of the review will provide a comprehensiveness overview of the methodological approaches used to evaluate policies for free maternal healthcare in LMICs, the evidence base relating to the effects of free maternal healthcare policies and contextual factors impacting their effectiveness. It will also highlight any research gaps and areas where evidence is mixed or missing. Furthermore, key information will be provided to policymakers and other stakeholders with an interest in planning, funding and implementing evidence based and effective interventions to improving maternal health outcomes including to achieve the target within SDG3 to reduce global maternal mortality.

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