

PROTOCOL

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# Exploring barriers and facilitators of providing maternal healthcare in Africa: systematic review protocol

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## Abstract

**Introduction** Maternal health remains a critically neglected issue in low-resource countries and represents a significant public health concern. Maternal mortality in these regions is ten times higher than in high-income countries. Sub-Saharan Africa bears the highest maternal mortality ratio globally. The persistently high maternal mortality rate is attributed to the myriad professional, social, and economic challenges healthcare providers face, which impede their ability to deliver optimal maternal healthcare. Given the central role of healthcare professionals in maternal health, understanding the barriers and facilitators they encounter is essential to improving maternal health outcomes. This systematic review aims to synthesise the existing literature on the challenges and enablers of providing maternal healthcare in Africa.

**Method** The review will involve a comprehensive search using databases such as MEDLINE, CINAHL, Google Scholar, and PubMed, accessed through the City St. George's University library. The search strategy will be refined with input from the school librarian to ensure thoroughness. Search terms will include Medical Subject Headings (MeSH) terms like "Barriers OR challenges," "Facilitators OR Enablers," "maternal health," and "Africa," alongside relevant keywords. Boolean operators "AND" and "OR" will expand the search scope, with inclusion criteria limited to English-language articles published between 2010 and 2025 with available abstracts, studies conducted in African countries, and qualitative articles addressing barriers and/or facilitators of maternal healthcare. The SPIDER framework will guide the research question, adhering to PRISMA guidelines for systematic reviews, while STARLITE principles will report on the literature search process. The selected studies will be appraised using the Critical Appraisal Skills Programme (CASP) checklist for qualitative studies.

**Result** Data will be analysed thematically following the approach outlined by Thomas and Harden (2008), presenting findings as an interpretive summary.

**Conclusion** This review will enhance the existing evidence on the challenges and opportunities faced by maternal healthcare providers in delivering better services across Africa.

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**Ethics and dissemination** No formal ethical approval is necessary since this study does not involve collecting primary data. The findings will be shared via a peer-reviewed journal article and presented at conferences.

**Systematic review registration** (PROSPERO) CRD42025634335.

**Keywords** Maternal health, Barriers, Facilitators, Africa, Healthcare providers

## Strengths and limitations

- The review will follow established guidelines, including PRISMA, SPIDER, and STARLITE, ensuring a structured and transparent approach. The study will utilise multiple databases and optimise searches with MeSH terms, Boolean operators, and keywords to enhance the retrieval of relevant literature. The use of the Critical Appraisal Skills Programme (CASP) will ensure a robust evaluation of study quality.
- Several potential limitations are anticipated in this review. First, because the search will be limited to studies published in English, relevant evidence in other languages may be missed. To mitigate this, the search will include a wide range of international databases and grey literature sources to maximise coverage. Second, database restrictions may influence the breadth of retrieved studies; therefore, multiple biomedical and interdisciplinary databases will be searched, and reference lists of included articles will be hand-searched to capture additional studies not indexed in major sources. Finally, publication bias is a concern, particularly where non-significant or context-specific findings remain unpublished. To minimise this, conference abstracts, reports, and theses will be considered where methodological details are sufficient for inclusion.

## Introduction

Maternal health has been one of the World Health Organisation (WHO)'s key priorities for decades. Maternal health is a major neglected issue in low-resource countries and a major public health concern, as maternal mortality in these countries is 10 fold more than in advanced countries [1–3]. It is well recognised in the Sustainable Development Goals (SDGs 3.1) to lower maternal mortality to fewer than 70 deaths per 100,000 live births [4, 5].

Maternal mortality (MM) refers to the deaths of women occurring during pregnancy or within 42 days of the end of pregnancy [6]. The maternal mortality ratio (MMR) is a measure used to estimate maternal deaths, defined as the number of maternal deaths per 100,000 live births within a given time frame. This ratio indicates the quality

of healthcare services and maternal health in a country [7]. In 2020, sub-Saharan Africa (SSA) reported the world's highest MMR with approximately 545 maternal deaths per 100,000 live births. SSA alone contributed to roughly 70% of entirely maternal mortality worldwide [8]. Maternal mortality rates in some African countries, such as Tanzania, have decreased over the past decades [9]; however, most sub-Saharan African countries have greater maternal mortality ratios [10]. Women in SSA are estimated to face a 100 times greater risk of death from pregnancy and childbirth compared to those in high-income countries [11]. The disparities in maternal mortality rates in Africa disproportionately affect mostly women living in rural areas [12, 13]. These countries have high maternal mortality rates, with high prevalence in rural areas; for example, Ghana has a rate of 310 deaths per 100,000 births for maternal mortality [14, 15]. The Democratic Republic of Congo experiences a maternal mortality ratio of 846 deaths per 100,000 live births, with significant variations across the country. In certain rural regions in Africa, the rate exceeds 1,000 maternal deaths per 100,000 live births [16].

The high maternal mortality rate occurs because maternal healthcare providers in Africa encounter numerous professional, social, and economic challenges that hinder their capacity to deliver high-quality care to women [17]. In addition, financial, cultural, geographical, and systemic barriers faced by women can limit their access to timely and quality maternal healthcare, which in turn places additional strain on healthcare providers and may compromise the delivery of effective services [18–20]. To reduce the incidence of maternal mortality and morbidity, there is a need to improve maternal health services.

Consequently, healthcare providers are instrumental in addressing maternal mortality [17]. However, healthcare providers in Africa work in a demanding environment overwhelmed by ongoing shortages of personnel [9, 11, 21, 22]. These challenges are in turn linked to negative attitudes towards patients [23, 24] and demoralised healthcare providers from working in rural areas [9], negatively affecting their retention [25].

Since healthcare professionals are essential in maternal healthcare in Africa, a better understanding of their challenges and opportunities and how they affect healthcare delivery is needed to address their needs better [26]. Despite the importance of such information, details on

the scale of the crisis at both global and national levels, as well as detailed insights into the specific challenges, are often lacking, especially in African nations. This systematic review, therefore, aims to explore the existing literature on the barriers and facilitators to providing maternal healthcare in Africa from healthcare providers' perspectives.

## Material and methods

### Population

The systematic review will focus on healthcare providers who provide direct maternal healthcare, such as midwives, nurses, nurse-midwives, doctors, obstetricians, gynaecologists, enrolled nurses, health extension workers, and community health workers.

### Study design

This systematic review will consider qualitative studies. The SPIDER framework will guide the search strategy for this review, as it simplifies the process of identifying qualitative studies suitable for meta-synthesis [27]. This review will adhere to the PRISMA guidelines.

### Search strategy

A literature search will assess existing research regarding barriers and facilitators of providing maternal healthcare in Africa. The search will be conducted through the University of City St. George's library using the MEDLINE, CINAHL, PubMed, and Google Scholar databases. City St. George's librarian will review the search strategy to ensure a complete and appropriate one. Both databases will facilitate search optimisation using Medical Subject Headings (MeSH) terms and keywords. Employed MeSH terms included 'Barriers OR challenges', 'Facilitators OR Enablers', 'maternal health', 'Africa', and the keywords which were various iterations of these terms. The Boolean operators 'AND' and 'OR' will be incorporated alongside these MeSH and keyword terms to broaden the search scope. The search parameters will be adjusted to include only recent articles published from 2010 to 2025, published in English, and with abstracts available see S1.

### Inclusion and exclusion criteria

This review will include peer-reviewed journal articles published in English between 2010 and 2025, focusing specifically on studies conducted in African countries. Studies from 2010–2025 were included to extricate the most recent relevant studies. Eligible studies employed qualitative methodologies to explore the barriers and/or facilitators influencing maternal healthcare provision. To ensure relevance to the research aim, studies conducted outside the African context were excluded, as were articles that centred solely on child healthcare without a

direct focus on maternal health and studies that recruited non-frontline workers such as community leaders, religious leaders, health service administrators, and allied health professionals.

### Study selection

The study selection process will be reported using the four stages of the PRISMA flowchart, and three reviewers (E.S, G.S, and M.O) will independently assess the articles using Covidence software. STARLITE principles [28] will be used to report the literature search. Any disagreements with the reviewer will be resolved through group discussion and analysis to reach a consensus. Similarly, discussion and consensus meetings resolve any uncertainties or differences in interpreting the extracted information.

### Quality assessment

The Critical Appraisal Skills Programme—qualitative studies checklist (CASPS) will be used to assess the quality of included studies [29]. This tool consists of 10 items with three options (Yes, No, Cannot tell) and areas for remarks. However, the last question on the checklist was assigned as valuable or not valuable, as it was open-ended. Characteristics such as there being a clear statement of the aim, appropriate methodology, ethical issues taken into consideration, rigorous data analysis, a clear statement of findings, and valuable findings will be assessed. Three reviewers (E.S., G.S., and M.O.) will independently review the articles. Any disagreements with the reviewers will be resolved through group discussion and analysis to reach a consensus.

### Data extraction

Detailed characteristics of these studies will be extracted and categorised using NVivo, through a predefined template. The data will be extracted between 1st June and 30th June 2025. The characteristics extracted from the studies will include authors, study aim, design, sample, data collection limitations, and findings related to barriers and facilitators of providing maternal health. Three reviewers (E.S., G.S., and M.O.) will independently assess the articles. Any disagreements will be resolved through group discussion and analysis to reach a consensus among reviewers on any uncertainties or differences in interpreting the extracted information. For this study, barriers and facilitators regarding maternal health will be extracted.

### Outcomes

The primary outcome assessed will be barriers and enablers to the provision of maternal healthcare. Various studies have documented factors such as barriers and

facilitators that affect the delivery of maternal health outcomes, which will be systematically reported. Thus, it will help policymakers and stakeholders to design specific policies on maternal healthcare services in Africa to reduce maternal mortality and morbidity.

### Data analysis

The thematic synthesis delineated by Thomas and Harden, [30] will be used in this study. This approach enables the exploration of people's perspectives and experiences [30]. It involves three phases: the line-by-line coding of the results of included studies; the development of descriptive themes; and the generation of analytical themes [30]. Analytical themes will be constructed by systematically interpreting the descriptive themes with the primary research question.

### Ethics and dissemination

No formal ethical approval is necessary since this study does not involve the collection of primary data. The findings will be shared via a peer-reviewed journal article and presented at conferences.

### Patient and public involvement

Patients or the public were not involved in the design, conduct, reporting, or dissemination plans of our research.

### Results

The final review will present an interpretive summary of the findings from the selected studies, integrating qualitative evidence through a comprehensive discussion of various data types. For this review, the researchers will independently identify and extract themes using a thematic approach identified by Thomas and Harden [31].

### Conclusion

This review will contribute to the evidence base regarding maternal health providers' challenges and opportunities in delivering improved services across Africa.

### Abbreviations

CASP	Critical Appraisal Skills Programme
MM	Maternal Mortality
MeSH	Medical Subject Heading
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
SSA	Sub-Saharan Africa
SPIDER	Sample, Phenomenon of interest, Design, Evaluation, research type
STARLITE	Sampling strategy, Type of study, Approaches, Range of years, Limits, Inclusion and exclusions, Terms used, Electronic sources
WHO	World Health Organisation

### Supplementary Information

The online version contains supplementary material available at <https://doi.org/10.1186/s13643-025-03018-4>.

Supplementary Material 1. PRISMA-P (Preferred Reporting Items for Systematic review and Meta-Analysis Protocols) 2015 checklist: recommended items to address in a systematic review protocol.

Supplementary Material 2: Search strategy.

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### Authors' contributions

Conceptualisation; EKS, G.S., and EA. Data curation; EKS, M.O., G.S., and EA. Formal analysis; All authors. Methodology; All authors. Supervision; M.O., E.A. Roles/Writing—original draft; EKS, G.S., EA, M.O. Writing—review and editing; All authors.

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### Data availability

No data available.

### Declarations

#### Ethics approval and consent to participate

Not applicable.

#### Consent for publication

Not applicable.

#### Competing interest

The authors declare that they have no competing interests.

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