



## An integrative literature review on the impact of COVID-19 on maternal and child health in Africa

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### Abstract

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Africa has the highest rates of maternal deaths globally which have been linked to poorly functioning health care systems. The pandemic revealed already known weaknesses in the health systems in Africa, such as workforce shortages, lack of equipment and resources. The aim of this paper is to review the published literature on the impact of the COVID-19 pandemic on maternal and child health in Africa. The integrative review process delineated by Whittmore and Knaf (2005) was used to meet the study aims. The literature search of Ovid Medline, CINAHL, PubMed, WHO, Google and Google scholar, Africa journals online, MIDIRS was limited to publications between March 2020 and May 2022. All the studies went through the PRISMA stages, and 179 full text papers screened for eligibility, 36 papers met inclusion criteria. Of the studies, 6 were qualitative, 25 quantitative studies, and 5 mixed methods. Thematic analysis according to the methods of Braun and Clark (2006) were used to synthesize the data. From the

search the six themes that emerged include: effects of lockdown measures, COVID concerns and psychological stress, reduced attendance at antenatal care, childhood vaccination, reduced facility-based births, and increase maternal and child mortality. A review of the literature revealed the following policy issues: The need for government to develop robust response mechanism to public health emergencies that negatively affect maternal and child health issues and devise health policies to mitigate negative effects of lockdown. In times of pandemic there is need to maintain special access for both antenatal care and child delivery services and limit a shift to use of untrained birth attendants to reduce maternal and neonatal deaths. These could be achieved by soliciting investments from various sectors to provide high-quality care that ensures sustainability to all layers of the population.

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## Key messages

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Preparedness and response support to countries with high maternal and child mortality rates will be critical now than ever to reduce the negative impact of the current global pandemic.

Healthcare systems need to be strengthened to prioritize maternal and child health services during and after the COVID-19 pandemic.

This could be achieved by soliciting investments from various sectors to provide quality care that ensures sustainability to all layers of the population.

## Introduction

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The specific effects of SARS-CoV-2 on maternal health include reduced accessibility to health care by women and children because of the competing needs for intensive health care services of corona virus diseases-2019 (COVID-19) patients; health care infrastructures, medical equipment, and deliverables became overstretched and inadequate to meet the needs of all patients with women and children particularly affected.

Throughout history, Africa has often faced epidemics resulting in many deaths, including Lassa fever, polio, measles, tuberculosis and human immunodeficiency virus and Ebola disease [1]. The latter was more notable in West Africa. SARS-CoV-2, commonly known as COVID-19, was first discovered in Wuhan China in December 2019 but spread globally with the first African case reported in Egypt on the 14th of February 2020. By the end of first week of March 2020, other African countries including Algeria, Cameroon, Egypt, Morocco, Nigeria, Senegal, South Africa, Togo, and Tunisia recorded their first cases with most index cases originating from Europe [2]. The World Health Organisation (WHO) declared the virus a global pandemic on the 11th of March 2020. Countries developed various related strategies including lockdowns with stringent rules.

The vulnerability of the health care systems in Africa have been exposed by past pandemics, such as Ebola, Athenian plague, Black death, the Seven-Cholera Pandemic, Justinian plague, HIV/AIDS, and Swine flu. During these pandemics there was a decline in access to healthcare during pregnancy and childbirth leading to increased risk of maternal morbidity and mortality, which further weakened the health systems [3,4,5,6,7]. The global measures implemented by different countries to control the spread of COVID-19 has had adverse effects on citizens. Some studies reported that in Africa the COVID-19 outbreak caused disruption and decline in maternal and child health services such as antenatal care (ANC), delivery, post-natal care (PNC), family planning and vaccinations [8,9,10,11,12,13,14,15] linked to barriers created by lack of personal protective equipment (PPE), shortage of human resources, long waiting times and others. Measures to overcome the situation caused disruptions in routine ANC as accessibility was difficult, lack of transportation, increased poverty as breadwinners were jobless, informal

PRISMA Flow Chart

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Table 1 Details of eligible studies

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Table 2 Emerging Themes

[Full size table](#)

Table 3 Country/regions of eligible studies

[Full size table](#)

## Abbreviations

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**WHO:**

World Health Organisation

**AIDS:**

Acquired Immunodeficiency Syndromes

**ANC:**

Ante-Natal Care

**BCG:**

Bacillus Calmette-Guerin

**COVID-19:**

Corona Virus Diseases-2019

**HIV:**

Human Immunodeficiency Virus

**MHC:**

Maternal Health Care

**OECD:**

Organisation for Economic Co-operation Development

***PNC:***

Post-Natal Care

***PPE:***

Personal Protect

***ive:***

Equipment

***WHO:***

World Health Organisation

***WRA:***

White Ribbon Alliance

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## Availability of data and materials statement

The datasets used and/or analysed during the current study available from the corresponding author on reasonable request.

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### Contributions

Conception and design were done by E.K.S., M.O., E.A. E.K.S, M.O., M.B. D.A., O.E., E.A. wrote the main manuscript text. Analysis and interpretation by E.K.S., M.B. M.O., E.A. Critical revision by D.A., O.E., M.D., R.W., E.A. M.B. M. O,E.K.S. E.K.S. M.O. M.B. prepared fig. [1](#), tables [1–3](#). E.K.S. M.B., M.O., D.A., O.E., M.D., R.W. E.A. approved the final version for publication. All authors read and approved the final manuscript.

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## **Ethics declarations**

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### **Ethics approval and consent to participate**

No approval sought for the study from Ethics Committee or an Institutional Review Board. Hence consent to participate is not applicable to this study.

### **Consent for publication**

No consent needed as the study is a review.

### **Competing interests**

The authors declare no completing interest.

## **Additional information**

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