

Research Article

Risk for Surge Maternal Mortality and Morbidity during the Ongoing Corona Virus Pandemic

Birhanu Ayenew^{1*}, Digvijay Pandey², Meseret Yitayew¹, Diriba Etana³, Binay Kumar Pandey⁴, Nidhi Verma⁵ and Yegoraw Gashaw¹

¹Department of Nursing, Health Science College, Assosa University, Ethiopia

²Department of Technical Education, IET, India

³Department of Midwifery, Health Science College, Assosa University, Ethiopia

⁴Department of IT, Govind Ballabh Pant University of Agriculture and Technology, India

⁵Government P.G College for Women, India

Abstract

Background: Attention of government, non-governmental organization and researchers all focuses on rapid spread of corona virus (COVID-19) in the world and its direct effect, but we need attention of every one more than ever at this time for maternal mortality and morbidity form either direct and indirect cause and to archive Sustainable Development Goals of reduce the global Maternal Mortality Ratio (MMR) to fewer than 70 maternal deaths per 100,000 live births by 2030.

Objective: To analysis the risks that escalate maternal mortality and morbidity in the glob during the ongoing coronavirus pandemic worldwide.

Methods: The analysis expressed in this paper are based on current literature reviews, personal experience working on university lecturer and through observation of communities' experience what we are doing during our community service for CORONA-19 prevention and mitigation.

Results: Lockdown and quarantine secondary to COVID-19 pandemic could have serious consequences for women's health more than ever; this pandemic has disrupted ranges from access to sexual and reproductive health and mass media report of gender-based violence services increased. It could also exacerbate existing financial inequality between men and women that make dependent and increase susceptibility of women, Worldwide shortage of blood donors secondary to COVID 19 creates great burden on management of mother's develop postpartum heamor age which is 23% direct cause of maternal mortality. Poor accessibility and low literacy rate to use it is another challenge to implementation telemedicine in developing country. Such problem increased specially in developing countries, related with poor accessibility, so governments and non-governmental organization need to give attention to women's mortality and morbidity parallel not only for COVID-19.

Keywords: Global health; Maternal morbidity; Maternal death; Corona virus; COVID-19; Lockdown

Introduction

Novel Corona virus (2019-nCoV) is an emerging pathogen that was first identified in Wuhan, China in late December 2019 [1]. This virus could be a contagious respiratory disease [2] and accountable for the continuing outbreak [3] that causes severe respiratory illness and pneumonia-like infection in humans [4].

On February 11, 2020, the WHO Director-General, Dr. Tedros Adhanom Ghebreyesus, announced that the disease caused by this new CoV was a "COVID-19," which is that the acronym of "coronavirus disease" 2019 [5].

Due to the increasing number of cases in China and out of doors China, the WHO declared coronavirus as a global health emergency and pandemic disease [6].

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***Corresponding author:** Birhanu Ayenew, Department of Nursing, Health Science College, Assosa University, P.O Box 18, Assosa, Ethiopia, Tel: +251947437698; E-mail: birhanua2015@gmail.com

The International Code of Diseases (ICD-10) definitions maternal death: The death of a woman while pregnant or within 42 days of termination of pregnancy, regardless of the duration and site of the pregnancy, from any cause involving or aggravated by the pregnancy or its management, but not from accidental or incidental causes [7].

Improving maternal health is critical to saving the lives of many thousands of girls who die thanks to complication from pregnancy and childbirth annually [8].

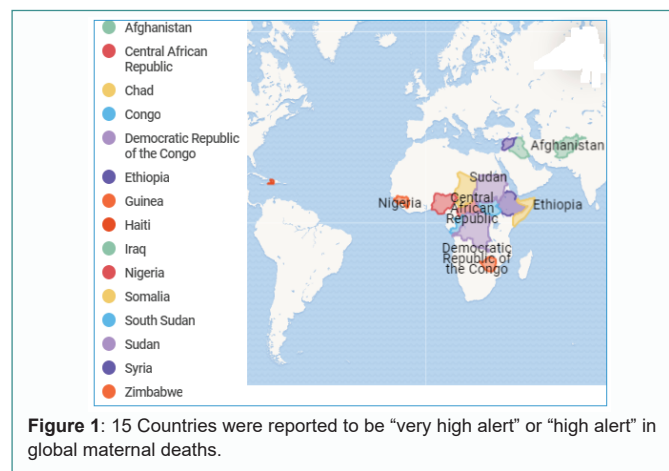
After completion of Millennium Development Goal 5 by 2015, the Sustainable Development Goals offer a renewed opportunity to ascertain improvements in maternal health for all women, altogether countries, under all circumstances according Sustainable Development Goals, the worldwide Target By 2030, reduce the worldwide Maternal Mortality Ratio (MMR) to fewer than 70 maternal deaths per 100,000 live births.

And the National Targets: By 2030, countries should reduce their MMRs by a minimum of two-thirds from their 2010 baseline; countries with the very best maternal mortality burdens will got to achieve even greater reduction. And by 2030, no country should have an MMR greater than 140 maternal deaths per 100,000 live births, variety twice the worldwide target [9].

Despite For this achievement WHO promised to support countries to deliver integrated, evidence-based and cost-effective care for mothers and babies during pregnancy, childbirth and the

postpartum period and our country plan to archive Sustainable Development Goals, 94% of all maternal deaths occur in low and lower middle-income countries.

Among developing countries such as Sub-Saharan Africa and Southern Asia accounted 86% (254000) of the estimated global maternal deaths. Fifteen (15) countries were considered to be “very high alert” or “high alert” being a fragile state (South Sudan, Somalia, Central African Republic, Yemen, Syria, Sudan, the Democratic Republic of the Congo, Chad, Afghanistan, Iraq, Haiti, Guinea, Zimbabwe, Nigeria and Ethiopia), and these 15 countries had MMRs ranging from 31 (Syria) to 1150 (South Sudan) in 2017 (Figure 1).



Even though most maternal deaths are preventable currently worldwide all focus and interventions including resource go on to tackling corona virus pandemic mitigation. But paralleled maternal Health-care access (family planning, ANC, institutional delivery, postnatal visit, and access of blood in case of obstetric haemorrhage) is a big question due to look down and quarantine. So solutions to prevent or manage complications all women need access to high quality care in pregnancy, and during and after childbirth specially as this time coronavirus pandemic, special attention is valuable so, this paper analyse and identifies the possible course risk of maternal mortality and morbidity by reviewing both direct and indirect cause of maternal mortality during the ongoing corona virus pandemic.

Methodology

The analysis expressed in this paper are based on current literature reviews, personal experience working on university lecturer and through observation of communities’ experience what we are doing during our community service for CORONA-19 prevention and mitigation.

Blood donation practice during COVID 19 pandemic

Blood transfusion is a vital therapeutic [10] and nation’s blood supply is essential to our health care security [11]. Typically treating COVID-19 doesn’t require blood transfusions. But blood transfusions are integral parts of major surgeries [12], Women obstetric haemorrhage, car accidents and other trauma [13].

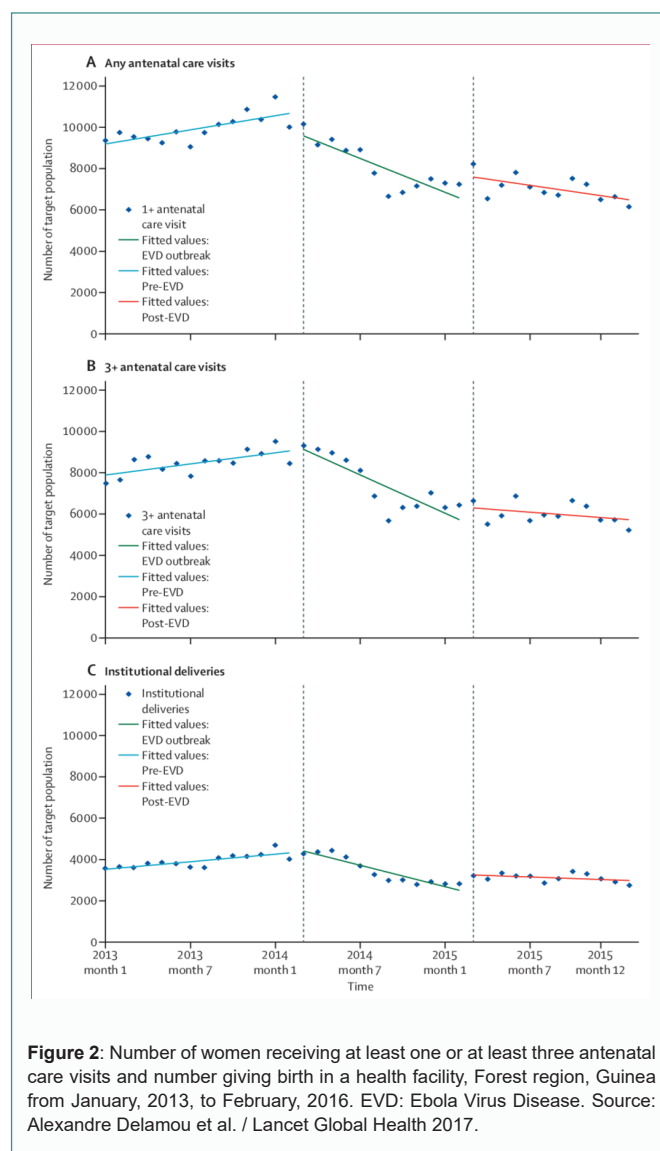
According to American Red Cross spokesperson Greta Gustafson on April 5, blood donations have dropped sharply during the coronavirus pandemic roughly 14,000 blood drives across the country had been cancelled, resulting in at least 425,000 fewer blood donations [14].

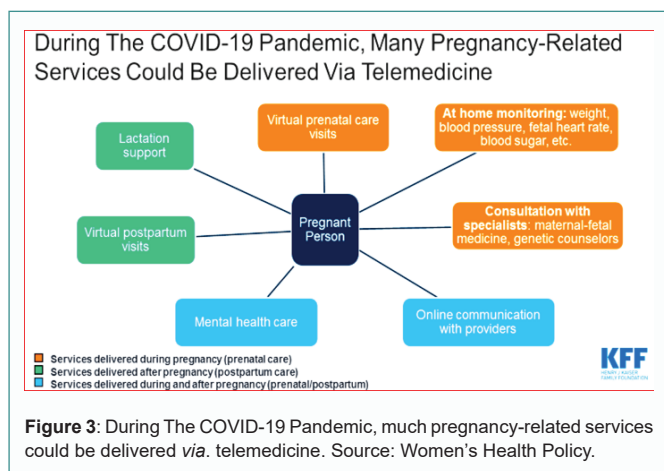
Delphine Denis spokesperson of Canadian Blood Services’ Said “Individual and group cancellations can have a dramatic impact on patients who still need blood products to treat cancers, trauma, and far of surgeries,” and cancellations come due to of fears caused by the coronavirus pandemic [15].

The NHS is urging blood donors to remain their appointments during the coronavirus outbreak. A spokesman said donations were 15% less than expected last week, amid fears donors are feeling unsure about safety and whether sessions are still going ahead [16].

Within media Calls for blood donations also are increasing. However, at the present, there’s less demand for blood from European hospitals thanks to elective surgery being postponed. Blood centres aren’t healthcare providers and thus don’t provide SARS-CoV-2 tests. Blood centers do however screen all donors to form sure they’re healthy and eligible to donate. All donors are screened to make sure they’re feeling well [17].

According Dr. Amita Ranger “Women will still have babies and we need blood for the management of obstetric haemorrhage, car accidents and other trauma are inevitable and we need blood for these situations.”





Worldwide, a massive obstetric haemorrhage is responsible for 25% of the estimated 358,000 maternal deaths each year [18] and greater than 80% of cases occur postpartum, [19] at the same time the only source of blood is human being no one manufactured [20] so where is the source of blood for transfusion to save these women

Prenatal and postnatal service during COVID 19 pandemic.

Maternal mortality as a result of complications during and following pregnancy and childbirth worldwide problem [21]. Complications such as severe bleeding (mostly bleeding after childbirth), infections (usually after childbirth), high blood pressure during pregnancy (pre-eclampsia and eclampsia), and complications from delivery, and unsafe abortion accounts 75% of death and most of these are preventable or treatable [21].

According to Dr. Natalia Kanem, executive director of the UN Population Fund (UNFPA), expiration there is severely disrupted access to Sexual and Reproductive Health (SRH) services and increase Gender-Based Violence (GBV) at a time and [22]. Pandemic could also affect routine health care services, Pregnant women who need antenatal care are among the risk groups identified but Unsure whether to attend a clinic, and trapped at home during the lockdown [22]. Even though data availability on the impact of COVID-19 on pregnant women is currently limited; however, we need to learn drawing lessons from the 2014-16 Ebola outbreak in Liberia [23], Guinea and Sierra Leone [24] which was a huge surge in MMR was recorded during and after the outbreak.

In 2015, the UNFPA projected the outbreak would cause 120,000 preventable maternal deaths, which is more than 10 times the number killed by the disease itself [25]. Women stayed away from medical facilities due to quarantine restrictions or misconceptions about virus transmission, and were forced instead into riskier home births are the major reasons [26].

Séverine Caluwaerts gynaecologist of the Institute of Tropical Medicine generalized the effect of COVID 19 pandemic on maternal mortality he sides collateral damage of the epidemic is higher than the damage caused by the epidemic itself. Clinic appointments are rare in developing countries and people can wait long hours at overcrowded waiting areas to get ANC serve, contraceptive counseling or other reproductive health services all of this increase risk of coronavirus transmission [27].

Deployment of health care professional away from health care

service towards COVID 19 treatment and mitigation increase chance of Cancellation of routine service for women. Those affects women through costs suffer travel for long distances without service and make even not attend for care at all. The good example we need to learn from history is up to 50% of health staff could be away from work due to sick ness during the swine influenza (H1N1) pandemic [28].

Can telemedicine be used to provide more services to pregnant women?

Tele health is the use of ICTs technology to exchange health information among client and health care professional that can able to provide health care services across geographic, time, social, cultural, and political barriers [29].

Use telemedicine is the possible way and recommended one to provide access to prenatal care during coronavirus pandemic and lockdown which enable some pregnant women to stay home but follow prenatal visits over videoconference or the phone, without coming into health center [30]. Where they risk COVID-19 exposure. But pregnant women will still need to be admitted to hospitals or health center for labour and delivery [31], we can see summarize service given under telemedicine on Figure 1.

Major challenge to use telemedicine in developing country is Technology and communications availability- According to International Telecommunications Union data, only 31% of the developing world population use internet, from this 16% in Africa, and 90% of households haven't access Internet in the developing world [32]. Even for those with technology and access, poor general and technological literacy means use is limited; developing country really be expected to own and possess a feature-rich mobile device and sufficient skill and airtime to take and share photographs, record video, receive and comprehend multimedia, or connect to the Internet to make visible telemedicine effectiveness.

Poverty

Despite it reduce the extreme poverty from its 1990 level, still there is significant poverty in all parts of the world, and but not uniform across all countries or regions. In 2010, 5 countries were home of about 66.6% of the world's extreme poor: India (33%), People's Republic of China (13%), Nigeria (9%), Bangladesh (5%), and the Democratic Republic of the Congo (5%) [33].

Sub-Saharan Africa country remains the highest proportion of poor, where 48% of people live on less than \$1.25 a day. Asian countries 20% of the world's poor. From this data we can conclude it is difficult address women's health trough telemedicine currently worldwide [34].

Conclusion

Quarantine and lockdown implemented most of countries worldwide to tackle Coronavirus pandemic, that woes egret consequence on accessibility and utilization on women's health. Despite government focuses on coronavirus mitigation, collateral consequence on maternal mortality and morbidity risk for surg. this service was we can learn from history of Ebola outbreak and we can see media calling on declaration of those service such as Family planning utilization , antenatal care service and postnatal care, institutional delivery and access of appropriate care on health care sitting including ability to get blood transfusion during post part un hemorrhage are direct consequence on maternal mortality and morbidity.

Recommendations

- We recommend institutional delivery especially at this time which is coronavirus pandemic.
- We need recommend increase habitat of use telemedicine for ANC and PNC among reproductive women's in normal situation.
- We recommend reproductive age women to utilize long acting family planning than that of short acting family planning.
- We recommend government to give attention on regular monitoring and supervision their health care accessibility for women's health and its utilization more than ever at this time.
- We recommend in order to expanding the experience of telemedicine towards developing countries.
- We need to give health education to the community who is eligible for blood donation during ongoing corona virus's pandemic.
- Mobile blood bank is more preferable than static at this time so blood bank should be adjusted accordingly towards potential donors' acerbity both time and area.
- We recommend fact sharing and up-to-date information among mass media to reduce rumour and infodemic that increase ANC and PNC follow-up and institutional delivery.

Declaration

Availability of supporting data

Data is available from the corresponding author upon request.

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Authors' Contributions

BA conceptualized the idea and took care of project administration. BA, DP and MY curated the data, performed formal analysis and Investigation. DP, YG, and NV validated, visualized the data. BA, MY, DP, YG, DE, BK, and NV wrote the manuscript, edited and finalized. All authors read and approved the final manuscript.

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