Estimating the Potential Impact of COVID-19 on Mothers and Newborns in Low- and Middle-Income Countries

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As COVID-19 spreads, wealthy countries are struggling with an influx of patients requiring screening, testing, and intensive care. In addition to national calls for social distancing, providers cancelled elective surgeries, shifted to virtual care where possible, and set up temporary hospitals to handle increasing demand. Countries with fewer resources and limited intensive care capacity were quick to implement and enforce stringent

lockdowns in an effort to stop the spread of infection before their health systems become overwhelmed.

The COVID-19 response is impacting the availability of essential health services, especially health services for pregnant women and newborns that cannot be delayed or shifted to other settings. In the United States, some hospitals are converting maternity wards to make space for COVID-19 patients, limiting birth companions in the labor room, and offering induced labor to get women in and out of the hospital as quickly as possible. Neonatal intensive care units are preparing for staff shortages as an increasing number of health workers are being exposed, while midwifery services are overwhelmed by calls from concerned mothers now exploring home birth options.

Mothers in low- and middle-income countries are likely to face additional challenges in accessing quality care

In low- and middle-income countries, the impact of containment and preparedness policies on maternal and newborn health could be more pronounced. Even before the emergence of COVID-19, high-quality and timely maternal healthcare services were unavailable, inaccessible, or unaffordable for millions of women. Now, restrictions on travel and gatherings, health facilities with limited infection prevention supplies and unreliable infection control practices, and disrupted community health worker routines threaten to exacerbate limited access to care and negatively impact women's health.

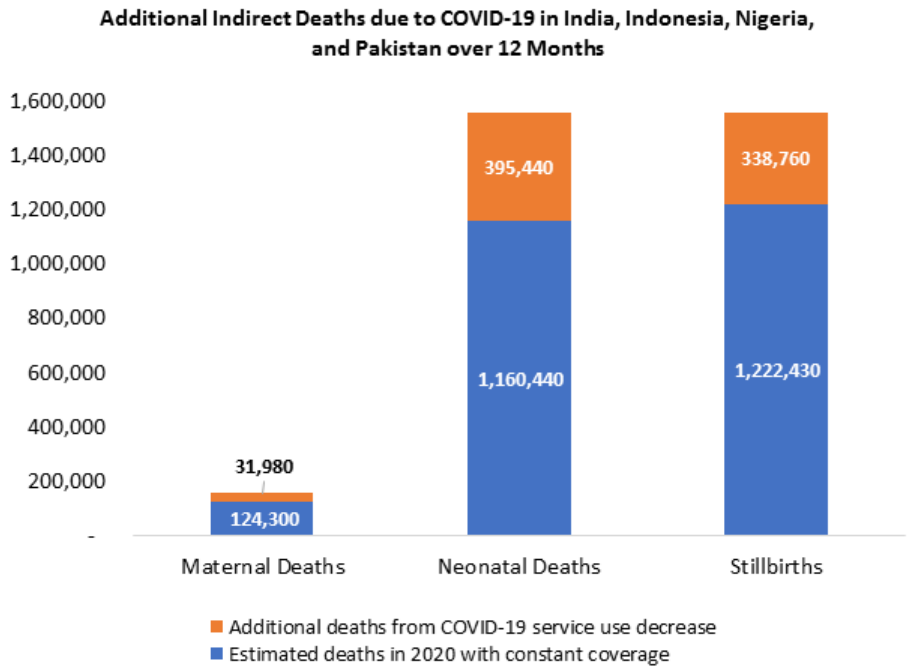
During the Ebola epidemic in West Africa in 2014-2016, the use of reproductive and maternal healthcare services plummeted so much that maternal and neonatal deaths and stillbirths indirectly caused by the epidemic outnumbered direct Ebola-related deaths. Women were unable to access family planning, completed fewer antenatal care visits, and were more likely to give birth at home. Some of these women stopped going to facilities due to fear of infection and increased physical and financial barriers. Others were denied care if they were suspected of having Ebola as many facilities were not equipped to provide maternal healthcare to infected women.

Disrupted maternal healthcare during COVID-19 could lead to significant loss of life

The effect that COVID-19 will have on use of maternal healthcare services is still uncertain; much depends on whether low- and middle-income countries' efforts to prevent further spread of the virus are effective. We can make some estimates, though, based on what we learned after Ebola.

We applied the same relative reductions in family planning use, antenatal care visits, and facility-based delivery seen during the Ebola epidemic to estimate the indirect impact of the COVID-19 pandemic on maternal and newborn health in India, Indonesia, Nigeria, and Pakistan over the next 12 months using the Lives Saved Tool. These four countries are the most populous low- and middle- income countries in the world — accounting for almost one third of the world's population — and continuously struggle with poor maternal and newborn health outcomes.

Significant increases in maternal and newborn deaths and stillbirths would occur across these four countries over the next year if health service use declined compared to what we would see if these countries maintained current use of maternal and reproductive health services. As illustrated, we could see as many as 31,980 additional maternal deaths, 395,440 additional newborn deaths, and 338,760 additional stillbirths. That is a total of 766,180 additional deaths across these four countries alone and corresponds to a 31% increase in mortality.



These results assume the same decline in service use would occur in these four countries as occurred in Sierra Leone during the Ebola epidemic and are in the absence of immediate action, which could help avoid much of the service use decrease and ensure mothers and newborns are protected from indirect impacts of the COVID-19 pandemic.

Countries must act to mitigate the indirect impact of COVID-19 on mothers and newborns

While these estimates suggest a significant impact, countries can learn from and adopt successful examples of maintaining access to high-quality maternal and reproductive healthcare during a large-scale emergency. Ministries of Health and partners need to develop their own, context-specific solutions like the innovative maternity isolation ward at the Princess Christian Maternity Hospital in Freetown, Sierra Leone during the Ebola epidemic. As governments prepare their systems to deal with the influx of COVID-19 patients, they must also act urgently to ensure mothers and newborns are still able to get the routine and emergency care they need.

This includes ensuring funds for the COVID-19 response go toward efforts to ensure continuity of care with adequate funding for infection prevention and control supplies and equipment for healthcare workers. Health services must remain financially and physically accessible for women whose households may lose income or whose normal service delivery provider may no longer be available. Health workers serving on the frontlines to deliver health services to mothers and babies in their communities should be involved in policy response discussions and need to have access to up-to-date, evidence-based information that can be delivered through peer-to-peer networks and messaging applications. Referral pathways and transportation must remain intact to deal with obstetric emergencies and hospitals need to be able to properly screen, isolate, and care for infected pregnant women. Guidance specific to reproductive age and pregnant women needs to be developed and effectively communicated to women in their own languages. Ensuring services are delivered with dignity and respect must also be prioritized during these uncertain and stressful times.

Countries need to act swiftly to ensure essential reproductive, maternal, and newborn health services continue to be available as COVID-19 progresses. The lives of mothers and their babies depend on it.

Maternal Health Covid 19 Health Newborn Healthcare

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