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## Counting stillbirths and COVID 19—there has never been a more urgent time



We welcome the global stillbirth estimates published by UNICEF and WHO in October, 2020.<sup>1</sup> These data indicate that there are at least 1·9 million stillbirths globally each year. The heavy public health burden of stillbirth has long remained invisible, despite more than a decade of sustained effort to raise it on the global health agenda. Ironically, even the recent *BMJ* collection,<sup>2</sup> highlighting the UN guiding principle “Leave no one behind”, omitted any mention of the 26 million women and families who will experience a stillbirth by 2030. As the first stillbirth estimates to be generated by the UN Inter-Agency Group for Child Mortality Estimation, these data signal a long overdue shift towards global attention on stillbirth prevention.

The new stillbirth report comes at a crucial point in time as we live through the most significant pandemic in over a century. COVID-19 will have a considerable impact on maternal and newborn health globally, directly and indirectly affecting the lives of millions of women and families.<sup>3</sup> The report draws attention to the existing global inequalities, which are likely to be exacerbated by the global pandemic, potentially further increasing the risk of stillbirth.

The direct impact of COVID-19 on mothers and babies is becoming clearer.<sup>4</sup> Pregnant women with COVID-19 have generally had good pregnancy outcomes. However, the indirect impacts of COVID-19 will be substantial, including increased rates of stillbirth.<sup>5,6</sup> Indirect effects of COVID-19 on perinatal outcomes are largely due to pandemic-related disruptions to reproductive, maternal, newborn, and child health care, and the effect of lockdown policies.<sup>2</sup> Restrictions could exacerbate the previously identified risks for stillbirth, including deferred births where women were sent home from the hospital by a health-care worker and asked to come back later to give birth.<sup>7</sup> Supply-side bottlenecks, such as absence of clear guidelines during COVID-19 and sufficient personal protective equipment, have further affected care. Diverting experienced health-care workers, including midwives, to COVID-19 wards exposes them to a greater risk of contracting COVID-19, becoming ill themselves, and decreasing maternity unit staffing.<sup>7</sup> For all these reasons and more, it is likely

that COVID-19 could undo improvements in rates of stillbirths that countries have managed to achieve.<sup>1</sup>

Stillbirth increases might not be uniform or provide a complete picture of what is happening globally. In some countries, this might be because the stillbirths are occurring in the community and are not recorded. Reduced staffing means less time to record stillbirths correctly, hence further adding to the data gaps and invisibility. Modelling analyses for 118 low-income and middle-income countries (LMICs) predicted that disruptions in universal health services and reduced access to care due to the pandemic will be associated with increases in maternal and child deaths,<sup>3</sup> but similar analyses have not been undertaken specifically for stillbirths.

A rise in stillbirth rates might be related to falls in preterm birth rates during the pandemic. Studies from Ireland, Denmark, and The Netherlands reported reductions in preterm births during the COVID-19 lockdown.<sup>9-11</sup> These studies only included livebirths and did not report on stillbirths. It is difficult to explain the reductions in preterm births without the inclusion of stillbirths. There are further challenges for understanding these patterns in LMICs, especially as data for stillbirths are not well documented and availability of gestational age recording is scarce, so it might be difficult to understand the mechanisms.

It is essential that stillbirths are included in all analyses on the global impact of COVID-19. Missed opportunities to include stillbirths in ongoing research and analyses will compromise the crucial need to uncover the drivers of increased stillbirth rates during the COVID 19 pandemic. Although modelled estimates are important, real data for stillbirth rates during and after the pandemic are needed. We support all efforts to develop a minimum perinatal data reporting or core outcome set for stillbirth to ensure inclusion of stillbirth in COVID-19 data monitoring. Using estimates where coverage of routine data systems are low or non-existent will recognise the full impact of COVID-19 on women, families, and communities and facilitate planning and allocation of resources to fight the pandemic. Increasing visibility of the greater burden of stillbirth due to

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COVID-19 can raise awareness at the country level and locally so that preventive measures can be taken and appropriate, respectful clinical and bereavement care can be provided if stillbirth or newborn death occurs.

Reducing preventable stillbirths and newborn deaths must be a global priority. This goal requires not only sustained, universal access to quality maternal and newborn care, it also requires the data to track and guide public health action. COVID-19 control needs to be fully integrated into maternal, child, and newborn health care so that the two can coexist. All outcomes must be counted. Ensuring all women and babies receive the right care, at the right time, from the right people, and that all perinatal outcomes are counted and reported has never been more important than it is now.

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- 1 United Nations Inter-agency Group for Child Mortality Estimation. A neglected tragedy: the global burden of stillbirths. <https://data.unicef.org/resources/a-neglected-tragedy-stillbirth-estimates-report/> (accessed Oct 23, 2020).
- 2 Leisher SH, Kinney M, Blencowe H, et al. Rapid response to: reaching all women, children, and adolescents with essential health interventions by 2030. Leaving no one behind: where are 2.6 million stillbirths? *BMJ* 2020; **368**: l6986.
- 3 Robertson T, Carter ED, Chou VB, et al. Early estimates of the indirect effects of the COVID-19 pandemic on maternal and child mortality in low-income and middle-income countries: a modelling study. *Lancet Glob Health* 2020; **8**: e901–08.
- 4 Khalil A, Kalafat E, Benlioglu C, et al. SARS-CoV-2 infection in pregnancy: a systematic review and meta-analysis of clinical features and pregnancy outcomes. *EClinicalMedicine* 2020; **25**: 100446.
- 5 Khalil A, von Dadelszen P, Draycott T, Ugwumadu A, O'Brien P, Magee L. Change in the incidence of stillbirth and preterm delivery during the COVID-19 pandemic. *JAMA* 2020; **324**: 705.
- 6 Kc A, Gurung R, Kinney MV, et al. Effect of the COVID-19 pandemic response on intrapartum care, stillbirth, and neonatal mortality outcomes in Nepal: a prospective observational study. *Lancet Glob Health* 2020; **8**: e1273–81.
- 7 Dandona R, Kumar GA, Akbar M, Bhattacharya D, Nanda P, Dandona L. Deferred and referred deliveries contribute to stillbirths in the Indian state of Bihar: results from a population-based survey of all births. *BMC Med* 2019; **17**: 28.
- 8 Semaan AT, Audet C, Huysmans E, et al. Voices from the frontline: findings from a thematic analysis of a rapid online global survey of maternal and newborn health professionals facing the COVID-19 pandemic. *BMJ Glob Health* 2020; **5**: e002967.
- 9 Philip R, Purtill H, Reidy E, et al. Unprecedented reduction in births of very low birthweight (VLBW) and extremely low birthweight (ELBW) infants during the COVID-19 lockdown in Ireland: a 'natural experiment' allowing analysis of data from the prior two decades. *BMJ Glob Health* 2020; **5**: e003075.
- 10 Hedermann G, Hedley P, Baekvad-Hansen M, et al. Danish premature birth rates during the COVID-19 lockdown. *Arch Dis Child* 2020; published online Aug 11. DOI:10.1136/archdischild-2020-319990
- 11 Been J, Burgos Ochoa L, Bertens L, Schoenmakers S, Steegers E, Reiss I. Impact of COVID-19 mitigation measures on the incidence of preterm birth: a national quasi-experimental study. *Lancet Public Health* 2020; published online Oct 13. [https://doi.org/10.1016/S2468-2667\(20\)30223-1](https://doi.org/10.1016/S2468-2667(20)30223-1).