Pregnancy in a pandemic: inequalities in maternal health

The COVID-19 pandemic and the resulting modifications to health services have exacerbated the global number of negative maternal and perinatal outcomes. Using data from electronic health records, a study by Piekos and colleagues showed that mild or moderate SARS-CoV-2 infection early on in pregnancy resulted in increased risk of preterm delivery and stillbirth, emphasising the importance of prioritising pregnant people for COVID-19 vaccination. However, the pandemic has also elucidated social and racial disparities in these outcomes; a rapid report by MBRRACE-UK found that six of the ten women reviewed who died during or after pregnancy from COVID-19 or its complications were from Black or minority ethnic groups.

Such disparities have been previously recognised to play a role in adverse pregnancy outcomes. Using data from 2017 to 2019, results of a maternal deaths and morbidity report by MBRRACE-UK showed persistent inequalities in maternal mortality rates; compared with White women, those who are Asian, of mixed ethnic background, or Black have a higher risk of dying in pregnancy. Likewise in the USA, data from 2014 to 2017 showed that Black, American Indian, and Alaska Native women were more likely to die during or within 1 year after pregnancy than women of other racial and ethnic groups.

Studies have investigated underlying systemic causes, such as socioeconomic status. For example, analyses of data from England from 2015 to 2017 found that 24% of stillbirths, 19% of preterm births, and 31% of births with fetal growth restriction could be attributed to socioeconomic inequality, and adjusting for factors including ethnic group substantially reduced these percentages. Outdated government policies can also have long-standing impacts. In the USA, redlining is a historical discriminatory practice of delineating areas and basing the safety of investments on the racial composition of these areas, negatively impacting people of colour. This practice has been linked to poor health outcomes; within redlined areas, the rate of preterm births is higher in neighbourhoods graded as hazardous compared with better graded neighbourhoods, emphasising the enduring consequences of structural racism.

Digital technologies have been recognised as a potential tool to address racial and ethnic health inequalities. A partnership between the NHS AI Lab and the Health Foundation is funding four artificial intelligence-based projects aiming to tackle this issue, such as developing standards to improve the representativeness of health datasets and using machine learning to investigate factors contributing to harmful outcomes experienced by mothers of different ethnic groups. Given that implicit biases within healthcare systems can affect the care and treatment received, the Irth app was developed to enable expectant people of colour in the USA to search and write reviews of doctors or hospitals to empower others like them to make more informed choices about where and from whom to receive care.

The use of digital tools can also speed up the implementation of system-wide changes. An example of this is the removal of race and ethnicity variables from a calculator used to estimate the likelihood of a successful vaginal birth after caesarean (VBAC), which systematically predicts lower chances of success for people of colour; the updated tool was shown to be accurate, and as it is available online, its dissemination and use could potentially occur more rapidly and provide equitable options for safe delivery.

It is clear that COVID-19 has only served to worsen maternal health inequalities, and addressing them requires a multifaceted approach. It is imperative to ensure equitable access to health care and treatments, including COVID-19 vaccines, to prevent adverse outcomes, and eliminate biases in patient–provider interactions. Acknowledging and addressing the systemic causes of inequalities outside of the health system (such as providing greater education and employment opportunities) would also go some way towards improving health outcomes. Digital health services like telemedicine have proved pivotal for managing health conditions during the pandemic, but more investment is needed to increase the availability of these services to underserved and rural communities. It is also vital to collect globally representative data on maternal and perinatal outcomes to push for accountability at the government level, and drive policy changes to ensure a safe, healthy, and equitable maternal experience for all.