[1] Women's Health Academic Centre, King's College London, London, SE1 7EH, UK

[2] Action on Pre-eclampsia, Evesham, UK

Correspondence to: A H Shennan
andrew.shennan@kcl.ac.uk

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Accurate surveillance of maternal deaths is an international priority

Variations in maternal mortality remain one of the starkest health injustices in the world

Andrew H Shennan, [1] Marcus Green, [2] Alexandra E Ridout[1]

Any death related to pregnancy is devasting. Equally shocking are the avoidable discrepancies in worldwide maternal mortality. Some of the longest audits in the world (since 1952) relate to tracking the causes of maternal death in the United Kingdom,[1 2] and lessons learnt have been effective in reducing mortality. As deaths have become rarer, lessons from individual tragedies continue to guide clinicians' actions.

In a linked paper, Diguisto and colleagues (doi:10.1136/bmj-2022-070621) collated data from eight European countries with dedicated surveillance systems to quantify and compare maternal mortality over three to five years.[3] They found a fourfold difference in maternal deaths per 100 000 live births (maternal mortality ratio) between countries with the highest (Slovakia, 10.9) and lowest (Norway, 2.7) rates. The value of prospective enhanced surveillance was confirmed by discrepancies found between the enhanced approach and routinely collected data, where more than a third of cases were missed. This should encourage other countries to implement similar strategies.

Differences in some countries may have been related to lack of data linkage owing to national privacy laws. Quality of maternal mortality data was linked to the presence or absence of dedicated government funding for data collection and analysis. Such funding should be considered by countries that are currently without it.

Comparisons across countries are a logical tool to maintain the value of these audits, sharing experience and increasing numbers. Diguisto and colleagues' eight country comparison also showed that maternal mortality in Europe is around fourfold higher among women aged 35 or older, compared with those in their 20s. In the UK, nearly one in four mothers were in this older category.[4] These findings provide important information for women and should inform evidence based strategies to improve care provision. Some variability may be explained by differences in data acquisition; international collaborative efforts must be aligned for more accurate comparisons.

The relatively low maternal mortality ratios identified in this study are striking compared with those recorded globally, with many countries still reporting more than 500 maternal deaths per 100 000 live births, despite focused efforts.[5] The overwhelming majority (99%) of preventable maternal deaths occur in low and middle income countries.[6] Although women born abroad or from a minoritised ethnicity were 50% more likely to die in this European cohort, the discrepancy with maternal mortality rates elsewhere is revealing. A woman's lifetime risk of maternal death is defined as the probability that a 15 year old woman will eventually die from a maternal cause. In high resourced areas, lifetime risk is 1 in 5400, but the risk is more than 100 times higher for the same woman born in a low or middle income setting.[7]

Causes of death are relatively consistent across the world, and largely avoidable. Most deaths are due to haemorrhage, sepsis, and hypertensive disorders of pregnancy.[8] Interventions to prevent these deaths are effective and relatively affordable; strategies must include recognition, training, and access to care that is adequately resourced and staffed.

Deaths from pre-eclampsia are particularly avoidable, even in low income settings. Prospectively collected urban data show an eightfold difference in maternal mortality between Zambia and Sierra Leone,[9] where women are 2000 times more likely to die from pre-eclampsia than women in the UK.[10] As one in five babies die in utero in women with pre-eclampsia, timely delivery also has the potential to save many babies lives.[11] Extending accurate collection of maternal mortality data around the world to expose these issues must be a priority for the future.

In Europe, non-obstetric causes of death have become proportionately more common than obstetric causes, including deaths from cardiovascular disease (23%) and suicide (13%); these should be prioritised.[12] In Diguisto and colleagues' study, Finland did not report deaths related to suicide[3]; standardised datasets should be used across countries so that data are comparable. Cardiovascular deaths and associated comorbidities such as metabolic syndrome may partly explain why mortality is higher in older women[13]; strategies to reduce these deaths will include public health education and measures to prevent cardiovascular morbidity. Mental health problems require resources and careful management in pregnancy and are related to the increase in psychosis and other serious mental health challenges that occur in pregnancy.

Ultimately, all countries should have dedicated surveillance systems; meaningful comparisons in absolute numbers of deaths by specific causes will allow strategies and policy makers to direct efforts appropriately. This latest comparison is a valuable start and could lead the way in efforts to align methods of data collection internationally. This is a necessary prerequisite to action that will reduce these preventable deaths everywhere. Currently, maternal mortality remains one of the starkest health injustices in the world.

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