of first-generation DES did—show a benefit with respect to a 12-month clinical endpoint compared with BMS. On the basis of these discrepant findings and the different pathophysiology of SVG and native coronary vessels, the ideal stent type for SVG disease could be hypothesised to be different from that for native vessel disease. However, this conclusion is speculative. Further research comparing the effect of different stent types in SVG disease is warranted.

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Reducing child mortality in high-income countries: where to from here?


Christopher Kimmel/Aurora Photos/Getty Images

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In 2000, the UN envisioned a path of global action to eradicate inequalities and fight the many dimensions of poverty with the Millennium Development Goals (MDGs), which have served as an overarching framework for health, social, and economic development.[1] During the MDG era, the global under-5 child mortality rate declined by an impressive 53%,[2] but still fell short of the targeted two-thirds reduction from 1990 to 2015.[3] Progress in improving child survival has been uneven and inequalities persist across both developing and high-income countries.

In their birth cohort study of under-4 child mortality in Sweden and England, Ania Zylbersztejn and colleagues[4] highlight the disparity in mortality among infants and children under the age of 4 years between these two countries. Among 3 932 886 births in England there were 11 392 deaths, and among 1 013 360 births in Sweden there were 1927 deaths. The unadjusted hazard ratios (HRs) for England versus Sweden were 1·66 (95% CI 1·53–1·81) at 2–27 days, 1·59 (1·47–1·71) at 28–364 days, and 1·27 (1·15–1·40) at 1–4 years. Zylbersztejn and colleagues sought to establish the drivers of these differences. Using adverse birth characteristics (birthweight, gestational age, and congenital anomalies) and sex as proxies for risk factors occurring before birth, and socioeconomic factors (maternal age and socioeconomic status) as measures of risk factors after birth, they report that the most important driver of the excess mortality in England relative to Sweden is the prevalence of adverse birth characteristics. In the first month of life, 77% of the excess risk of death in England compared with Sweden was explained by birth characteristics and a further 3% by socioeconomic

factors. From the second month to the end of the first year of life, 68% of the excess risk was explained by birth characteristics and a further 11% by socioeconomic factors. At 1–4 years, there was no significant difference between countries.[4]

The findings of this study are important because they suggest efforts made to improve maternal health before and during pregnancy offer the most promise for reducing child mortality in England.[4] Such efforts could support chronic disease management and mental health and addiction treatment, improve pre-pregnancy and antenatal nutrition, encourage smoking cessation, and ensure pregnant women receive adequate prenatal care.[5] But although the authors report that prenatal factors have a larger role in child mortality than socioeconomic factors present after birth,[4] the results do not discount the important influence of social factors. The authors point to the extensive literature connecting adverse birth characteristics to socioeconomic factors, highlighting the importance of efforts to reduce poverty. Poverty reduction strategies for women during the prenatal period have shown great promise in reducing adverse birth characteristics[6] and increasing maternal health-care-seeking behaviours during pregnancy.[7]

The authors also emphasise the benefits that efforts to reduce adverse birth characteristics could have for child health and wellbeing, and that these benefits extend far beyond reducing child mortality.[4] A large body of evidence, particularly around low birthweight and preterm birth, shows that adverse birth outcomes can continue to have impacts throughout childhood and into adulthood, including increased risks of poorer physical and mental health,[8–11] lower educational attainment,[8,10,11] and lower income.[8] What this study[4] could not ascertain from the analysis was whether adverse birth characteristics remain the most important driver of suboptimal health and wellbeing for those children who survive. Indeed, other research suggests that social factors operating after birth pose a similar threat to child health and education outcomes as preterm birth and low birthweight; however, because these social factors are far more prevalent, their role in child outcomes at the population level far outweighs the role of adverse birth characteristics.[10,12]

Although is it clear from this study that there is room for improvement in reducing child mortality in high-income countries,[4] more research is needed on other predictors of optimal child health and development. Routinely collected person-level administrative data from multiple sources are useful for conducting population-based studies. Linking electronic health records and data from other sectors at the individual level adds further value for quantifying inequalities, allowing identification of the best periods in which to intervene to find out which risk factors are driving disparities between populations. The methods adopted by Zylbersztejn and colleagues[4] can be used to compare child mortality across countries and to explore other health and wellbeing outcomes, across and within countries. This research aligns with the shift from the MDGs to the Sustainable Development Goals, which consolidate global efforts to end all forms of poverty and fight inequalities, driving the change from improving childhood survival to ensuring that children live, grow, and thrive.[13]

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MB has collaborated and co-authored papers with one of the authors (Ruth Gilbert) of the Article discussed in this Comment. We declare no other competing interests.

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