Preventing Preterm Birth and Neonatal Mortality: Exploring the Epidemiology, Causes, and Interventions

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Globally, each year, an estimated 13 million infants are born before 37 completed weeks of gestation. Complications from these preterm births are the leading cause of neonatal mortality. Preterm birth is directly responsible for an estimated one million neonatal deaths annually and is also an important contributor to child and adult morbidities. Low- and middle-income countries are disproportionately affected by preterm birth and carry a greater burden of disease attributed to preterm birth. Causes of preterm birth are multifactorial, vary by gestational age, and likely vary by geographic and ethnic contexts. Although many interventions have been evaluated, few have moderate-to high-quality evidence for decreasing preterm birth: smoking cessation and progesterone treatment in women with a high risk of preterm birth in low- and middle-income countries and cervical cerclage for those in high-income countries. Antepartum and postnatal interventions (eg, antepartum maternal steroid administration, or kangaroo mother care) to improve preterm neonatal survival after birth have been demonstrated to be effective but have not been widely implemented. Further research efforts are urgently needed to better understand context-specific pathways leading to preterm birth; to develop appropriate, efficacious prevention strategies and interventions to improve survival of neonates born prematurely; and to scale-up known efficacious interventions to improve the health of the preterm neonate.

Keywords: prematurity, preterm birth, preterm birth prevention