Preterm birth, defined as a live-born infant delivered at less than 37 completed weeks’ gestation, is an important cause of morbidity and mortality. It is the leading cause of neonatal deaths in the world and can result in lifelong disability among survivors. Key to measuring its frequency is an accurate determination of gestational age and completeness in accounting for births. A variety of measurements are used around the world to assist with determination of gestational age, the common being the start date of a woman’s most recent prior menstrual period, and the most accurate being fetal anthropometry early in pregnancy conducted through an ultrasound examination. The lack of adequate vital records systems and varying quality in the measurement of gestational age in most countries makes estimation of the incidence of preterm birth difficult. Recently, Blencowe et al. [1] have published estimates of preterm birth incidence for most countries and regions of the world. Globally, they estimate a preterm birth rate of 11.1 per 100 live births. This translates into almost 15 million preterm births annually. As expected, the incidence is not uniform, rates range from 5% in some northern European countries to greater than 15% in areas of sub-Saharan Africa and southern Asia (fig. 1). While this variation between countries is large, it is significantly smaller than observed for other reproductive outcomes such as small for gestational age. This fact together with a lack of significant impact of interventions in the prenatal period suggests that a uniform set of interventions in pregnancy will not affect preterm births like they may for other outcomes of pregnancy.

In many countries, the incidence of preterm birth has been increasing over the past decade, but this is not uniform across countries. In the US, preterm birth rates rose from the early 1980s until a peak in 2006 (fig. 2) [2, 3]. They have declined every year since, most likely due to changing indications for medically induced early delivery. Preterm birth has a multifactorial and heterogeneous etiology that will require a package of interventions that address a number of aspects of this complex syndrome.
Fig. 1. Estimated rates of preterm birth by country, 2010. Taken from Blencowe et al. [1].

Fig. 2. Preterm birth rates per 100, US, 1981–2012. Data from Martin et al. [2] and Hamilton et al. [3].

References

