

Abstract

Birth weight is the single most important risk indicator for neonatal and infant mortality and morbidity, which has led to the idiom that 'every ounce counts'. Birth weight in turn, however, tends to vary widely across populations as a result of differential fetal growth velocity with such demographic factors as ethnicity, maternal and paternal height and altitude of residence. Accordingly, it has been acknowledged that the appraisal of birth weight should rely on its position relative to the birth weight distribution of the background population. This is commonly done by standardizing birth weight through its deviation from the population mean in the given gestational age stratum, as can be obtained from population-customized birth weight nomograms. This issue was recently revisited in 'Human Reproduction' through a plea for reporting birth weight as z-scores. In this article, we argue that adjustment for factors, such as gestational age, which may lie on the causal pathway from exposures present at the time of conception [e.g. single-embryo transfer (SET) versus double-embryo transfer (DET)] to birth weight, may induce bias, regardless of whether the adjustment happens via stratification, regression or through the use of z-scores.