Maternal overweight and obesity in early pregnancy and risk of infant mortality: a population-based cohort study in Sweden

Previous research studying the association between maternal body mass index and infant mortality has failed to produce consistent results. Based on a nation-wide cohort, the objective of this study was to investigate associations between maternal overweight and obesity and infant mortality outcomes.

This population based cohort study included 1,095,023 women with 1,857,822 single births from 22 completed gestational weeks from 1992 to 2010. First, it should be noted that during the study period, the prevalence of maternal overweight and obesity increased from 20% and 6% in 1992 to 25% and 13% in 2010 respectively. While infant mortality decreased the same period, infant mortality rates were reported to be positively associated with maternal body mass index and reached 5.8 death per 1,000 live births among women with a body mass index ≥40.0. The incidence of neonatal mortality followed a similar trend. The study therefore highlights that the risk of infant and neonatal mortality increases as maternal body mass index increases.