

Anemia in pregnancy is a substantial public health problem worldwide, with iron deficiency being the primary cause.<sup>1</sup> Maternal anemia and iron deficiency adversely affect cognitive ability and physical work capacity,<sup>2–4</sup> and contribute significantly to maternal morbidity and mortality.<sup>5,6</sup> Anemia and iron deficiency in pregnancy also have well-established causal links with adverse birth outcomes, including low birth weight and perinatal mortality<sup>7–10</sup> and may also have long-term negative implications for infant neurodevelopment (reviewed in Georgieff et al<sup>11</sup>). However, the impact of maternal anemia and iron deficiency during pregnancy on infant hemoglobin and iron stores is unclear. This review provides an overview of the maternal hematological environment and fetal hemoglobin and iron profiles, and then consolidates the epidemiological evidence for the interplay between maternal iron deficiency and/or anemia in pregnancy and infant hemoglobin and ferritin levels, in term infants at birth and over the first postnatal 12 months. A consensus of the literature provides the opportunity to inform interventions for the treatment and prevention of iron deficiency anemia in pregnancy in order to reduce the risk of infant anemia and iron deficiency during the first year of life.