Pre-pregnancy body mass index in relation to infant birth weight and offspring overweight/obesity: a systematic review and meta-analysis

The burden of overweight and obesity among women of childbearing age is increasingly becoming a concern for public health professionals. Not only does it affect the pregnancy outcomes but also has repercussions down the line for the neonate. The objective of this systematic review was to determine if pre-pregnancy body mass index is related to the birth weight of infants and overweight/obesity in the offspring.

The forty-five studies included in this review highlighted inconsistent results regarding the association between pre-pregnancy underweight and offspring overweight/obesity. While it did seem to suggest that mothers with higher body mass index are at an increased risk of complications, the review also highlighted that other factors may potentially mediate these associations. The present study therefore cannot confirm an association between pre-pregnancy body weight and offspring overweight/obesity.