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BMI, Gestational Weight Gain and Angiogenic Biomarker Profiles for Preeclampsia Risk

Tiffany A. Moore Simas  
*University of Massachusetts Medical School*

Sharon E. Maynard  
*George Washington University*

Xun Liao  
*University of Massachusetts Medical School*

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**Abstract**

In May 2009, after considering short- and long-term methodologic outcomes, the Institute of Medicine (IOM) revised recommendations for gestational weight gain (GWG) to a BMI-specific approach (1990 IOM recommendations). Within women categories and then exponentiating on ln scale (i.e., geometric means). T-test compared means in 3 windows.

**Results**

- Mean ratio [(sFlt1+sEng):PlGF] trended higher in OW-OB compared to U-N
- Mean sFlt1 lower in all windows in OW-OB compared to U-N (Figure 1)
- Mean PlGF lower in all windows in OW-OB compared to U-N 
- Mean PlGF lower in all windows in OW-OB compared to U-N (Figure 4–6)

**Conclusion**

- Small sample size required collapsing of BMI and GWG categories, thus unable to make any comparisons within each BMI category
- Secondary analysis not powered for this exploratory analysis
- Only had total GWG at end of pregnancy

**Limitations**

- Finding suggests trends that OW-OB BMI and excessive GWG associated with angiogenic biomarker profiles consistent with higher preeclampsia risk by end of gestation.
- BMI and GWG as potentially modifiable factors merit further investigation for preeclampsia risk attenuation.

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