The Accuracy of Recalled versus Measured Pre-Pregnancy Weight for the Calculation of Pre-Pregnancy Body Mass Index

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The Accuracy of Recalled versus Measured Pre-Pregnancy Weight for the Calculation of Pre-Pregnancy Body Mass Index

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Keywords
Gestational weight gain, Prepregnancy weight, Body Mass Index (BMI)

Comments
Poster presented on Senior Scholars Program Poster Presentation Day at the University of Massachusetts Medical School, Worcester, MA, on April 30, 2014. Medical students Jessica V. Masiero and Julie M. Tabroff participated in this study as part of the Senior Scholars research program at the University of Massachusetts Medical School.

This poster earned a 2014 Senior Scholars Poster Award.

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**Objective**
To examine differences in recalled versus measured pre-pregnancy weight and to examine factors associated with accuracy of recalled weights.

**Methods**
Medical record review of 1,998 randomly selected pregnancies. Eligible Women: (1) Prenatal care received in UMMHC faculty and resident clinics, (2) delivered between 01/07-12/12, and (3) had available both: (a) a measured weight within one year of conception & (b) a pre-pregnancy weight self-reported at first prenatal visit. Data from UMMHC paper or electronic prenatal record and the Allscripts EMR. Difference in weights = recalled pre-pregnancy weight – most recent measured weight within one year of conception. Subjects excluded if care received at non-faculty or resident practice, charts not available after 3 retrieval attempts, both weights of interest not available, or if measured weight was at prior pregnancy PNV.

**Background**
2009: IOM published gestational weight gain guidelines (GWG) with goal of optimizing maternal & fetal outcomes. GWG recommendations specific to pre-pregnancy body mass index (BMI): 28-40 lbs for underweight (UW; BMI<18.5 kg/m²), 25-35 lbs for normal weight (NW; 18.5≤BMI<25 kg/m²), 15-25 lbs for overweight (OW; 25 ≤BMI<30 kg/m²), and 11-20 lbs for obese (OB; BMI≥30 kg/m²) women. Measured pre-pregnancy weight is often unavailable in clinical and research settings as >50% of pregnancies in the U.S. are unplanned.

**Recalled vs Measured Weight by Weeks to Conception**

**Results**
Of 1,998 charts reviewed, 400 were eligible and included in this analysis. Women mean age 29.7 (SD: 6.2) years, 69.3% multigravida, 64.4% non-Hispanic white, and 65.2% married. 63% received care in the faculty obstetric clinic. By recalled weight, 3.3% were UW, 46.6% were NW, 25.9% were OW, & 24.2% were OB. Measured pre-pregnancy weight is often unavailable in clinical and research settings as >50% of pregnancies in the U.S. are unplanned.

**Conclusion**
Prenatal care providers may calculate pre-pregnancy BMIs using recalled pre-pregnancy weights early in prenatal care. These calculated BMIs can be used to accurately provide gestational weight gain recommendations regardless of demographic variables, gravity, or location of care.