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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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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.

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

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.

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.

Recalled weights were mean 2.4 (SD: 11.1) pounds lower than measured pre-pregnancy weight.

Difference did not vary by age, location of care, pre-pregnancy BMI, marital status, race/ethnicity, language, gravity, education, or time between measured weight & conception.

Calculating pre-pregnancy BMI based on weight measured up to a year prior to conception or based on recalled weight reported at 1st PNV resulted in the same classification of pre-pregnancy BMI for 88.7% of women.

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Conclusions
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.