

# Quality Improvement Project for Pregnancy Weight Management

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## Background

Nearly 60% of women in the US enter pregnancy above a healthy weight (CDC, 2012). Elevated BMI's place women at risk for adverse outcomes. These risks increase as pre-pregnancy BMI categories increase, and rise further with more weight gain (ACOG, 2013).

### Risks of obesity and pregnancy:

- Miscarriage
- Fetal anomalies
- Gestational Diabetes
- Labor dystocia
- Cesarean Section
- Post-partum Hemorrhage
- Thrombosis
- Preterm Labor
- Pre-eclampsia

Despite guidelines based on pre-pregnancy BMI set by the IOM, only 30% of women stay within recommended weight gain during pregnancy (CDC, 2012). Gaining weight above recommendations increases risk of adverse outcomes (ACOG, 2013).

### Long-Term Risks of Excessive Gestational Weight Gain

- Higher postpartum weight retention
- Weight retention at one year
- Weight retention potentially increasing the risk of entering the next pregnancy at a higher BMI and increasing the risk of long-term obesity
- Maternal obesity increases the risk of childhood and adulthood obesity in children

(Leddy, Power, & Schulkin, 2008; Nehring, Schmoll, Beyerlein, Hauner, & Kries, 2011; Rooney & Schauburger, 2002).

## Aims

- Examine evidenced based literature on pregnancy weight management interventions
- Describe present patient population of a midwifery practice
- Describe CNM's and their resources
- Make recommendations for improving weight gain in pregnancy in a small midwifery practice

## Methods

Data collection for this project included two parts: retrospective longitudinal chart review of electronic health records from a midwifery practice deliveries in July 2013 and a cross sectional survey of 9 CNM's employed at the midwifery practice.

## Results

### Literature Review:

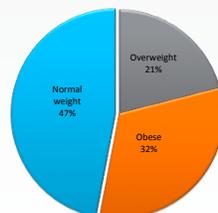
Overall, intervention groups of all BMI categories gained less weight than controls

Diet had the highest effectiveness, followed by physical activity, then behavioral therapy	Limitations: diverse interventions, intensity, duration / Study overlap	Identified low cost strategies Increased 1:1 attention with OW/OB women
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### Electronic Health Record Review:

Of the 67 women delivering during July 2013, 38 women met inclusion criteria and were included in this analysis.

Over 50% Entered Pregnancy above a Healthy Weight

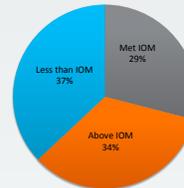


## Results Cont'd

### Practice Weight Gain by BMI Category:

Weight groups	Mean Lbs	Median	SD	Range
Normal weight (n=18)	25.56	27	7.86	12-42
Over-weight (n=8)	29.88	33.5	16.63	10-57
Obese (n=12)	23.08	21	10.84	6-36

34% of women gained excessive weight during pregnancy:



### Significant practice findings:

- Younger women (<28 years) were more likely to gain weight above the IOM recommendations.
- Women with higher pre-pregnancy BMIs (≥25) were more likely to gain weight above IOM guidelines.

### CNM Survey Results:

Increased Dietitian	1:1 counsel / all	Counsel all on risks / long term effects
Centering resources / all	Goal setting with feedback	Support group
Weight graph / Food diary	Better written material / office video	Improved WIC resources

## Practice Recommendations



Computer prompts and automatic BMI calculation at initial visit	CNM's to review IOM's guidelines and use with patient counseling each visit	Weight graph on EMR for each patient every visit to monitor weight gain based on IOM's recommendations based on pre-pregnancy BMI
Bilingual written material available from Centering to use with all patients	Bilingual written information from scholarly sources on healthy eating, physical activity, and behavioral therapy to use with all patients	Provide every patient a food diary and review each visit
Refer to Dietitian	Individualize a plan and consider 1:1 counseling with women that are OW or OB	CNM's to share and discuss information at meetings for cohesive and consistent information for patients

## References

