



# Are IOM Pregnancy Weight Gain Ranges Optimal?

Data from the Pilot

Los Angeles Mommy and Baby (LAMB) Survey

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## Background

IOM Recommendations for Pregnancy Weight Gain<sup>1</sup>

Pre-pregnancy BMI*	IOM Weight Gain Recommendation (lbs)
Low (<19.8)	28-40
Normal (19.8-26.0)	25-35
High (26.0-29.0)	15-25
Very high (>29.0)	>15

\*BMI is weight in kilos / (height in meters)<sup>2</sup>

- The accuracy of these ranges in promoting healthy birth outcomes has been questioned.<sup>2</sup>

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## Study Question

- Does weight gain during pregnancy relate to birth outcomes in Los Angeles County?



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## Pilot Los Angeles Mommy and Baby Project

- Antelope Valley – 1 Service Planning Area in Los Angeles County
- October 2004 to April 2005
- Randomly sampled new mothers within 7 months of delivery
- Mail and telephone survey (~CDC PRAMS)

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## Pilot Los Angeles Mommy and Baby Project

- 88 self-report survey questions
  - Independent variable - weight gain below, within, or above IOM ranges using height, pre-pregnancy weight, and delivery weight
- Linked to birth certificate data
  - 4 dependent variables using birthweight, gestational age, and delivery method

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## Participant Characteristics (n=348)

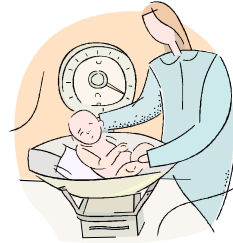
- |                   |                        |
|-------------------|------------------------|
| • Age             | • Race                 |
| – 13% <20 years   | – 30% White            |
| – 27% 20-24 years | – 46% Latina           |
| – 46% 25-34 years | – 18% African American |
| – 14% 35+ years   |                        |



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## Analysis

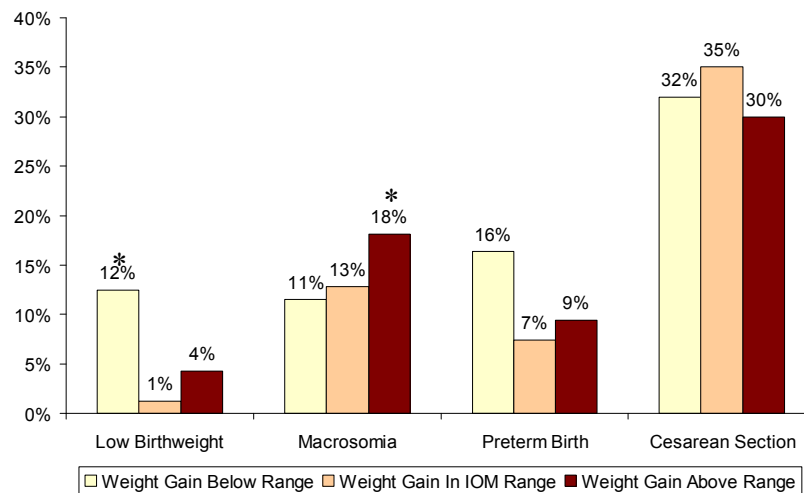
- 4 logistic regressions of:
  - low birthweight (<2500 grams)
  - macrosomia (>4000 grams)
  - preterm birth (<37 weeks)
  - cesarean delivery



on pregnancy weight gain in IOM range  
adjusting for mother's age, race, pre-pregnancy BMI, smoking status, & other health conditions that may be confounders

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## Results – Birth Outcomes by Weight Gain Within IOM Ranges (n=348)



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## Results



- Low birthweight – weight gain <IOM range compared with IOM (OR=7.43, 1.45-38.00)
- Macrosomia – weight gain >IOM range compared with IOM (OR=2.75, 1.06–7.13)
- Preterm birth/Cesarean delivery – no differences based on weight gain

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## Conclusions

- Weight gain above or below the IOM recommended ranges was associated with poor birthweight, but not with preterm birth or cesarean delivery.



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## Next Steps

- Expand LAMB project to all Los Angeles County
- Look at other outcomes
  - Fetal and Infant Mortality - L. A. HOPE
- Revisit IOM recommendations to ensure that they are accurate for each pre-pregnancy BMI category

