Racial disparities in maternal depression during pregnancy: Final results from the Los Angeles Mommy and Baby (LAMB) Project, 2005.

Higgins C, MPH, Chao SM, PhD, MPH, Donatoni G, PhD, Lau Y, MPH, RD, Harding CA, MPH

Los Angeles County Department of Public Health, Maternal Child, and Adolescent Health Programs

What is the problem?

- Untreated depression during pregnancy is associated with pre-term delivery, increased uterine artery resistance, neonatal growth retardation, high cortisol levels at birth, maternal hypertension and preeclampsia[1]
- Depression during pregnancy is also an important predictor of post partum depression[2]
- Estimates of the prevalence of depression during pregnancy range from 12-37%[2,3,4]

Methods

SURVEY

- ❖ LAMB is a population-based survey that aims to identify factors associated with poor birth outcomes and estimate the prevalence of selected maternal experiences
- ❖ Questions in the LAMB survey were primarily drawn and adapted from previously validated survey instruments
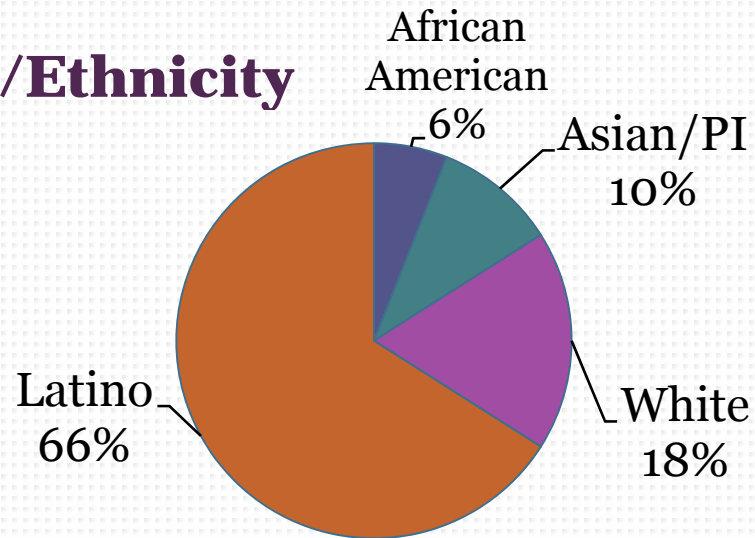- ❖ Participants receive a $20 gift certificate

DATA

- ❖ Population data is obtained from birth certificates
- ❖ Stratified random sample with an over sample of low birth weight/pre-term births as well as African American, Asian/PI and Native American births
- ❖ Mixed-mode methodology for data collection similar to the CDC Pregnancy Risk Assessment Monitoring System (PRAMS) Project

Data Analysis

- Depression Questions:
  - For two weeks or longer during your most recent pregnancy, did you
    - Feel sad, empty or depressed for most of the day?
    - Lose interest in most things like work, hobbies, and other things you enjoyed?
  - During your most recent pregnancy did you have a diagnosed mental health problem (for example depression, schizophrenia, etc)?
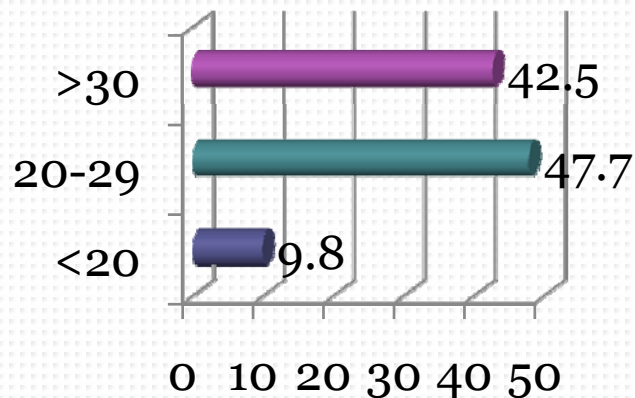
DEMOGRAPHICS

Race/Ethnicity

Race/Ethnicity pie chart:
- African American 6%
- Asian/PI 10%
- White 18%
- Latino 66%

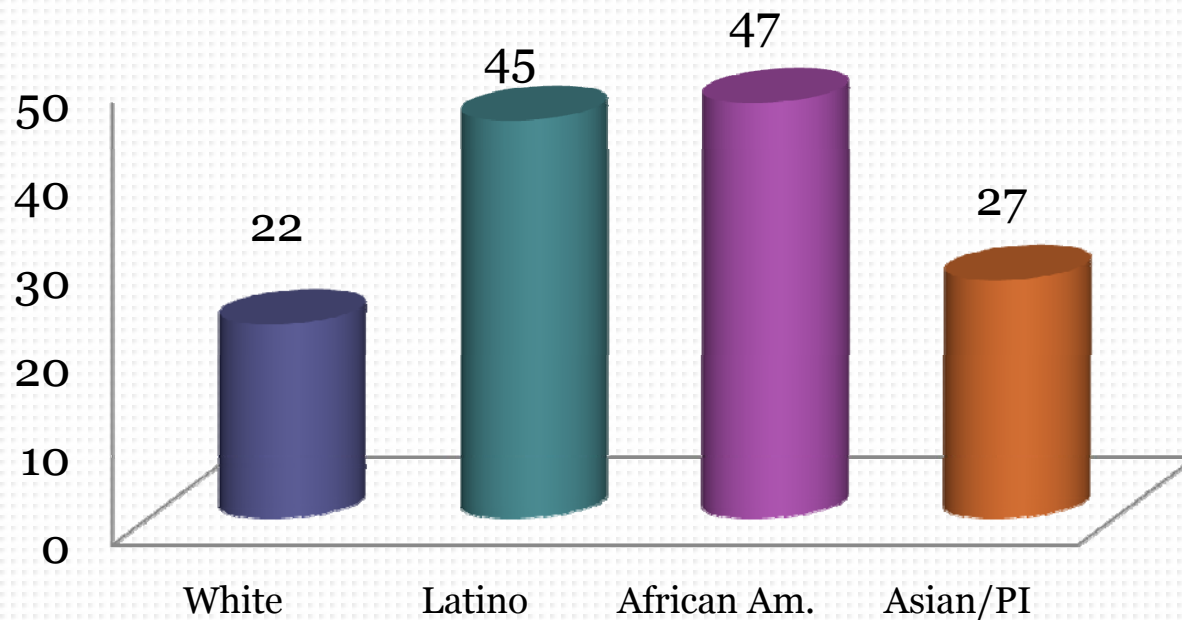**Age**

Age bar chart:
- >30: 42.5
- 20-29: 47.7
- <20: 9.8

♦ 5, 211 women responded to the 2005 LAMB survey

♦ Approximately 1/3 of the participants reported their annual income as >$40,000 and 44% reported less than $20,000

Results

- 39% of women reported depression during their last pregnancy, while only 3% reported having a diagnosed mental health problem
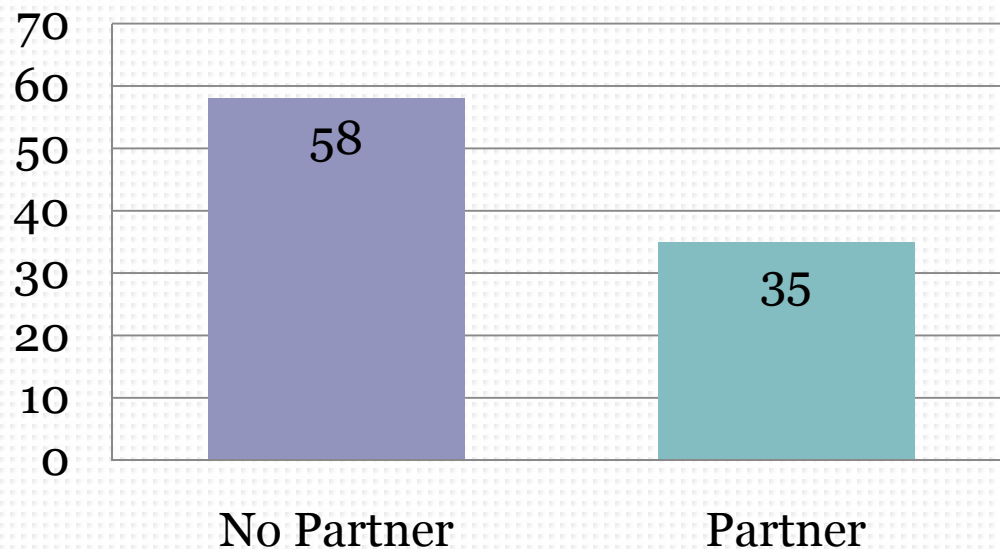

N=4,324 women responded to the questions about depression

P<0.0001

Results

- 18% of women were single, divorced, or widowed at the time of their delivery

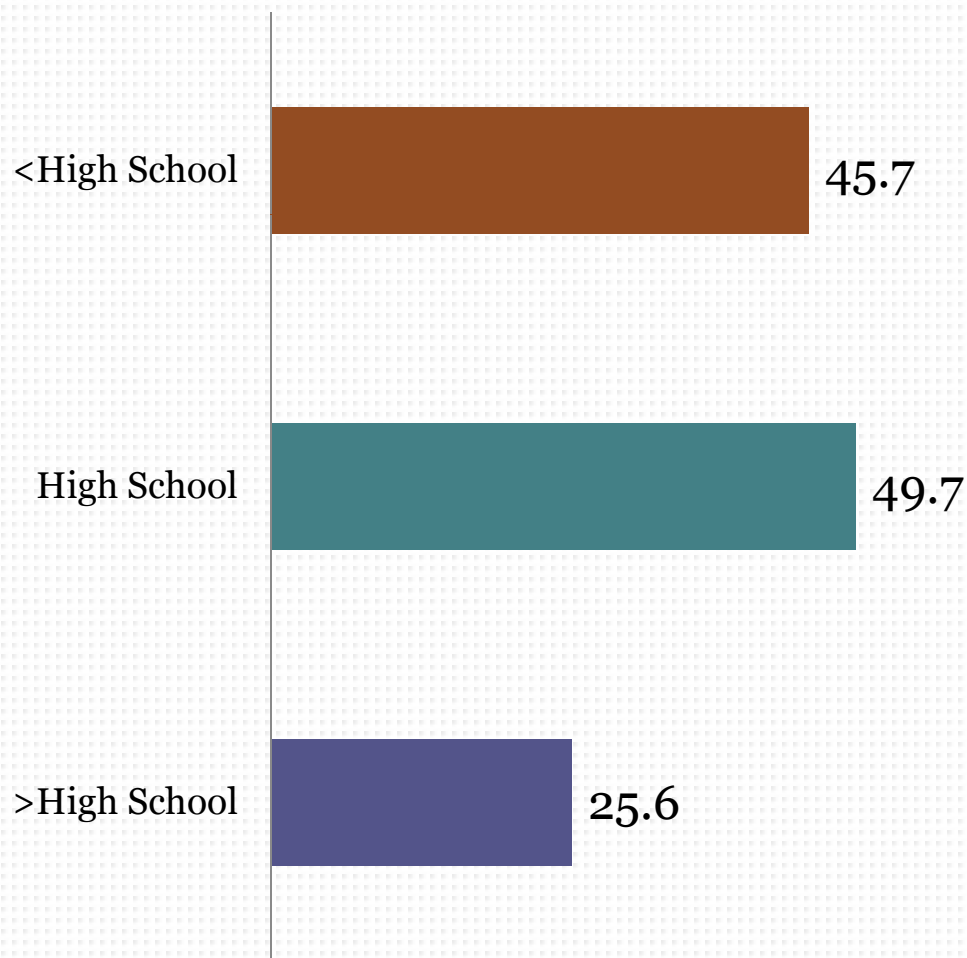**Reported Depression During Pregnancy by Partner Status**

Partner= Married or living with a partner

No Partner= Single, divorced, widowed

$P<0.0001$

Results

Reported Depression During Pregnancy by Education

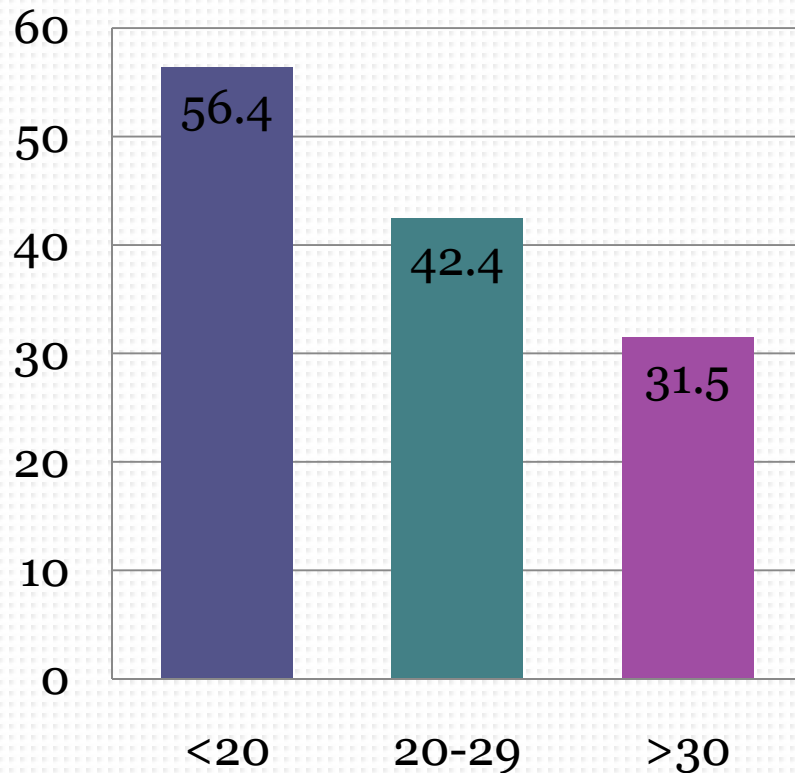| Education	Value
<High School	45.7
High School	49.7
>High School	25.6

Approximately 30% of women had less than a high school diploma, 30% were high school graduates and 40% had more than a high school education
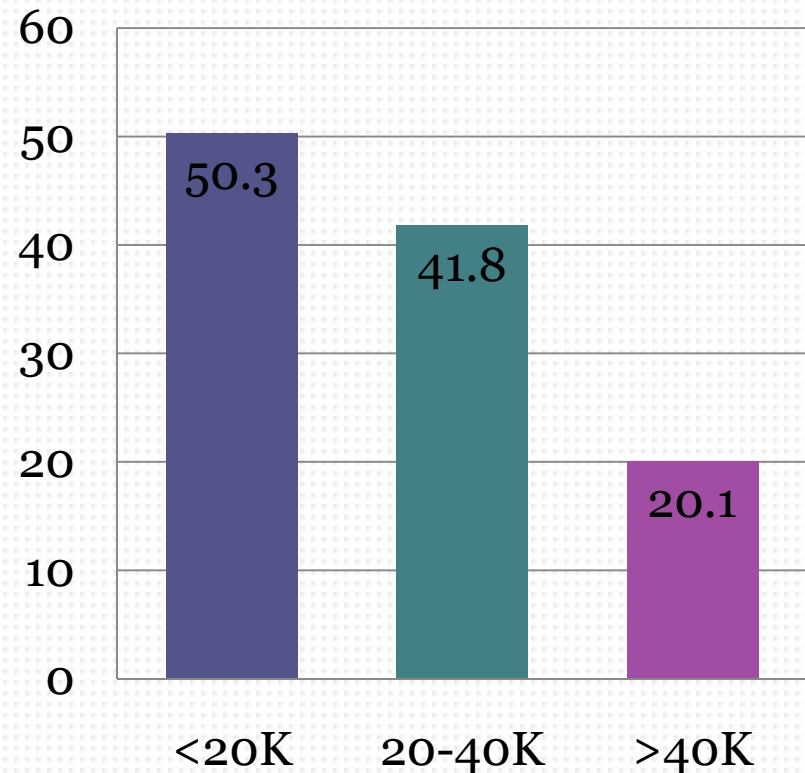
P<0.0001

Results

Reported depression during pregnancy decreased with increasing age and income.

Results

- Several maternal medical conditions were found to be associated with reported depression during pregnancy and were included in multivariate models:
  - Vaginal bleeding
  - High blood pressure
  - Kidney or bladder infection
  - Labor pains more than 3 weeks before due date
  - Problems with the placenta
  - Premature rupture of membranes
  - Sexually transmitted disease
  - Severe nausea or vomiting

Multivariate Model

Adjusted Odds Ratio's and CL for Race/Ethnicity

aOR*
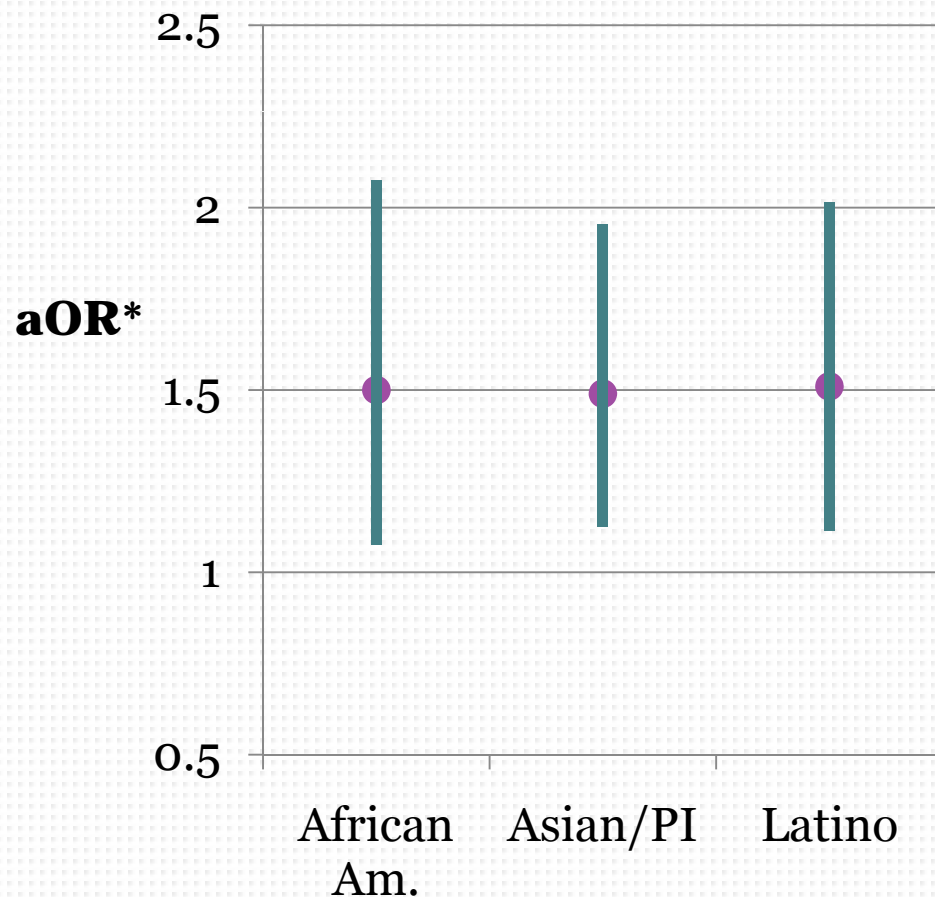
- African American, Latino and Asian/PI were all more likely than White women to report depression during their last pregnancy.

*The multivariate model included maternal medical conditions mentioned previously, mother's education, income, age, and partner status

Multivariate Model

- In addition to mother's race/ethnicity there were several other important factors associated with reported depression during pregnancy.
- Women with lower income were two times as likely to report depression during pregnancy (aOR 2.18 CI 1.57, 3.03)
- Women who were single, divorced or widowed were also more likely to report depression during pregnancy (aOR 1.85 CI 1.36, 2.50)

Conclusions

- Overall 39% of women reported depression during pregnancy.
- African American, Latino and Asian/PI women are at increased risk for depression during pregnancy.
- Younger women and women with lower incomes were also at increased risk for depression during pregnancy

Data to Action

- Findings from LAMB helped to support the formation of the *Los Angeles Perinatal Mental Health Task Force (LAC PMHTC)*
  - Aim is to improve the mental health of women during the perinatal period.
  - Data were used to secure a grant that would address perinatal depression in LAC.

- Local Collaborative Groups
  - LAMB data has been presented to several local Healthy Baby Learning Collaborative groups to help set priority focus areas

- LAMB has received two Model Practice Awards from the National Association of County and City Health Officials

Contact

- For additional LAMB information please visit www.LALamb.org
- Or contact Shin Margaret Chao at schao@ph.lacounty.gov, 213-639-6470

- Presenter Contact Information
  - Chandra Higgins
  - chiggins@ph.lacounty.gov
  - 213-639-6455