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


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

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The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

No relationships to disclose
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

• Depression during pregnancy is also an important predictor of post partum depression

• Estimates of the prevalence of depression during pregnancy range from 12-37%
Study Objectives

• We aim to:
  – Describe the occurrence of depression during pregnancy among women who have recently delivered in Los Angeles County
  – Investigate racial and ethnic factors related to maternal depression during pregnancy
Background

• More than 150,000 babies are born in Los Angeles County each year
• In 2006 the fetal – infant mortality rate was 13 per 1000 live births and fetal deaths
• Los Angeles County is one of the most ethnically diverse cities in the world
• Need local data to help health department and community partners identify at-risk groups and develop programs/policies
Methods

• LAMB is the Los Angeles Mommy and Baby Survey

• It 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
Methods

• Eligibility
  – Women who recently gave birth
  – In the case of multiples one baby is sampled

• Data
  – Population data 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
Methods – Study Procedures

LAMB Survey Mailing Schedule

- PreLetter
- Mail 1st Survey Packet
- Reminder Postcard
- Mail 2nd Survey Packet
- 2nd Postcard if necessary (1 week after 2nd mailing)
- Telephone Interview

- Phase 1: 2 weeks
- Phase 2: 2 weeks
- Phase 3: 1 week
- Phase 4: 2 weeks
- Phase 5: 2 months

♦ Mixed-mode methodology for data collection similar to the CDC Pregnancy Risk Assessment Monitoring System (PRAMS) Project

♦ All survey respondents received a $20 Ralph's/Food for Less Gift Certificate
Methods - Data Analysis

• All data analyses were conducted using Statistical Analysis Software (SAS) version 9.1 survey procedures to account for the complex sampling scheme
  – Descriptive analysis using both sampling and non-response weights were done to estimate the population prevalence
  – Bi-variate analyses were done using the Rao-Scott Chi-Square statistic
  – Multivariate analyses were conducted using multiple logistic 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)?
Maternal Medical Conditions

• Women were also asked about medical conditions they may have experienced during their most recent pregnancy.

• Women were asked if they had experienced the following and the responses were Yes or No.
  – 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
  – High blood sugar
  – Incompetent cervix
  – Hurt in a car accident
  – Periodontal disease
  – Bacterial Vaginosis
  – Group B Streptococcus
Demographics

- 5,211 women responded to the 2005 LAMB survey

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

- Income:
  - <$19,999: 44.4%
  - $20,000-$39,999: 47.7%
  - >$40,000: 32.5%

- Age:
  - <20: 9.8%
  - 20-29: 47.7%
  - >30: 42.5%
Results

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

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

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

Depression During Pregnancy by Partner Status

Partner = Married or living with a partner
No Partner = Single, divorced, widowed

P < 0.0001
Results

• 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
Results

- Reported depression during pregnancy also varied by mother’s age and income level.

![Depression During Pregnancy by Mother’s Age](chart1)
P<0.0001

![Depression During Pregnancy by Mother’s Income](chart2)
P<0.0001
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 then 3 weeks before due date
  – Problems with the placenta
  – Premature rupture of membranes
  – Sexually transmitted disease
  – Severe nausea or vomiting
Multivariate Model

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.
• Culturally sensitive strategies for identifying those at risk for depression need to be implemented in the prenatal care setting.
Future Research

• Analysis to assess how often women are being screened for depression in the prenatal care setting.
• Analysis to investigate what role social support plays in the occurrence of depression during pregnancy.
Strengths and Limitations

• Limitations
  – All data is self reported
  – Recall bias

• Strengths
  – Large Sample
  – Population based
References


Acknowledgements

• We would like to thank the entire LAMB team: Marian Eldahaby, Diana Liu, Cathleen Bemis, Carmen Gutierrez, Yvornia Horton, Martha Martinez, and Karen M Coller for making the project possible.

• For additional LAMB information please visit www.LALamb.org