



The Los Angeles Mommy and Baby Project
Healthy Mommies and Healthy Babies

Perceived Oral Health Needs and Receipt of Services during Pregnancy: Findings from 2014 Los Angeles Mommy and Baby Project (LAMB)

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Outline

🦷 Background

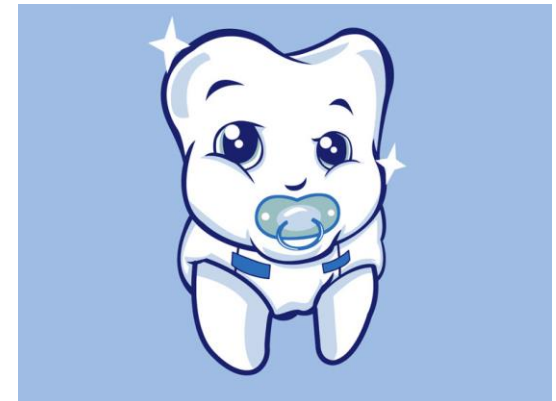
🦷 Methods

🦷 Results

🦷 Conclusions

🦷 Strengths and limitations

🦷 Questions





Dental Care and Pregnancy

- ☞ Poor oral health in pregnant women has been associated with premature births and low birth weight infants.¹⁻³
- ☞ Hormonal changes during pregnancy can increase bacteria in the mouth, and excess stomach acid from morning sickness can break down tooth enamel.⁴
- ☞ In the US, up to 40% of pregnant women have some form of periodontal disease.⁵



Current recommendations

- 🦷 According to the American Congress of Obstetricians and Gynecologists, dental X-rays and teeth cleanings are safe for pregnant women.
- 🦷 Routine oral health assessments at the first prenatal visit are advised.





Need for Current Project

- 🦷 Data on the oral health needs of pregnant women and their access to care is lacking in Los Angeles County.
- 🦷 Los Angeles County is home to 10 million people. In 2014 there were 130,150 live births.
- 🦷 Birth certificate data is very limited and delayed.
- 🦷 Need local data to help the health department and community partners identify at-risk groups and develop programs/policies.



Purpose

- 🦷 Describe the prevalence of dental problems during pregnancy.
- 🦷 Assess racial disparities, and factors associated with, oral health needs and receipt of care.





Methods

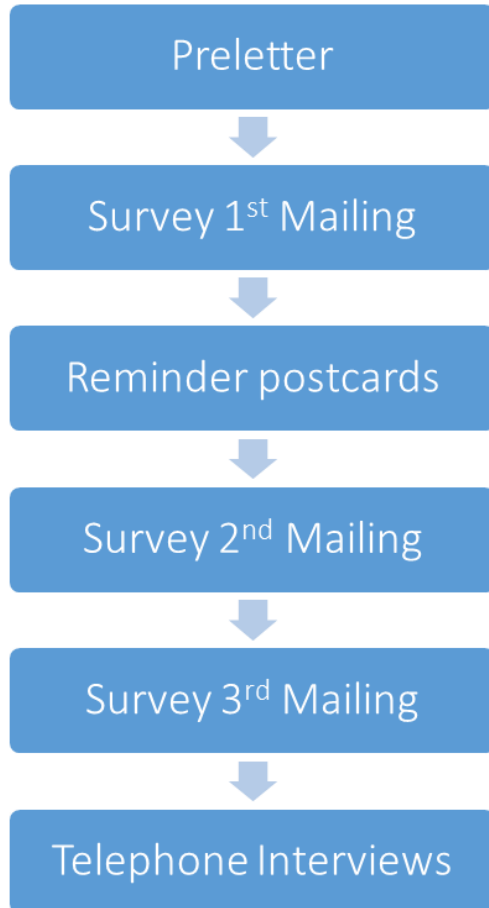
Data Source:

The Los Angeles Mommy and Baby Project (LAMB)

- Population based survey of women who have recently delivered a live birth
- Collects information about factors and events that may influence a woman's pregnancy and birth outcomes



Methods



- Mixed-mode methodology for data collection similar to the CDC Pregnancy Risk Assessment Monitoring System (PRAMS) Project
- Conducted in four waves
- LAMB provides a \$20 Ralphs/Food4Less gift certificate to every participant who completes at least 50% of the survey.

Methods

☞ Mothers were asked the following questions:

- “During your most recent pregnancy, did you need to see a dentist for a problem?”
- “During your most recent pregnancy, did you go to a dentist or dental clinic?”





Methods

🦷 Measures:

🦷 Outcomes:

- 🦷 Report of a dental problem
- 🦷 Receipt of dental care

🦷 Predictors:

- 🦷 Mother's age
- 🦷 Mother's race/ethnicity
- 🦷 Medi-Cal before pregnancy
- 🦷 Insurance status/type during pregnancy
- 🦷 Mother's education
- 🦷 Marital status
- 🦷 Depression during pregnancy
- 🦷 Homelessness during pregnancy
- 🦷 Smoking status during pregnancy
- 🦷 Early PNC





Methods

Statistical Analysis:

- Descriptive analyses using both sampling and non-response weights were performed to estimate the population prevalence of selected factors.
- Racial disparities and factors associated with seeing a dentist during pregnancy among those mothers who reported having a dental problem were analyzed using bivariate and multiple logistic regression techniques.
- All data analyses were conducted using Statistical Analysis Software (SAS) version 9.3 survey procedures to account for the complex sampling scheme.



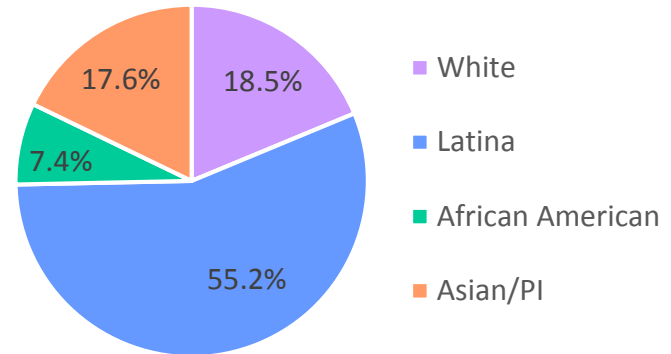
Results



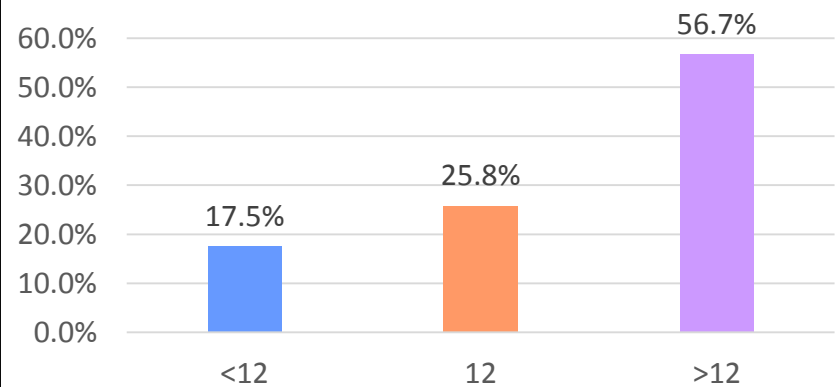
In 2014 LAMB mothers, representing 2014 LAC mothers, were:

- 55% Hispanic
- 18% Asian/PI
- 19% White
- 7% African American
- 56% 25-34 years old
- 5% less than 20 years old
- Nearly 57% had greater than a high school education
- 17.5% had less than a high school education

Mother's Race/Ethnicity
Los Angeles Mommy and Baby Survey 2014

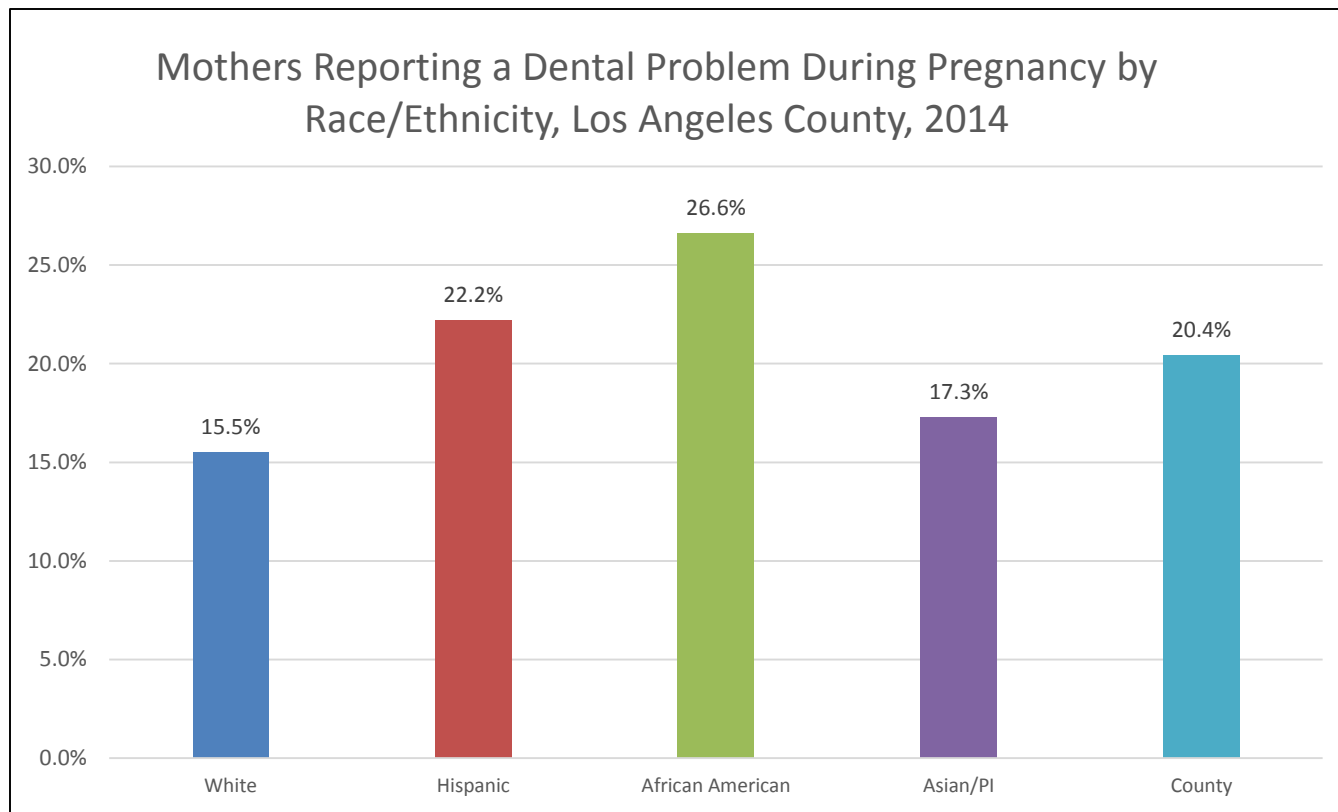


Mother's Education
Los Angeles Mommy and Baby Survey 2014



Results

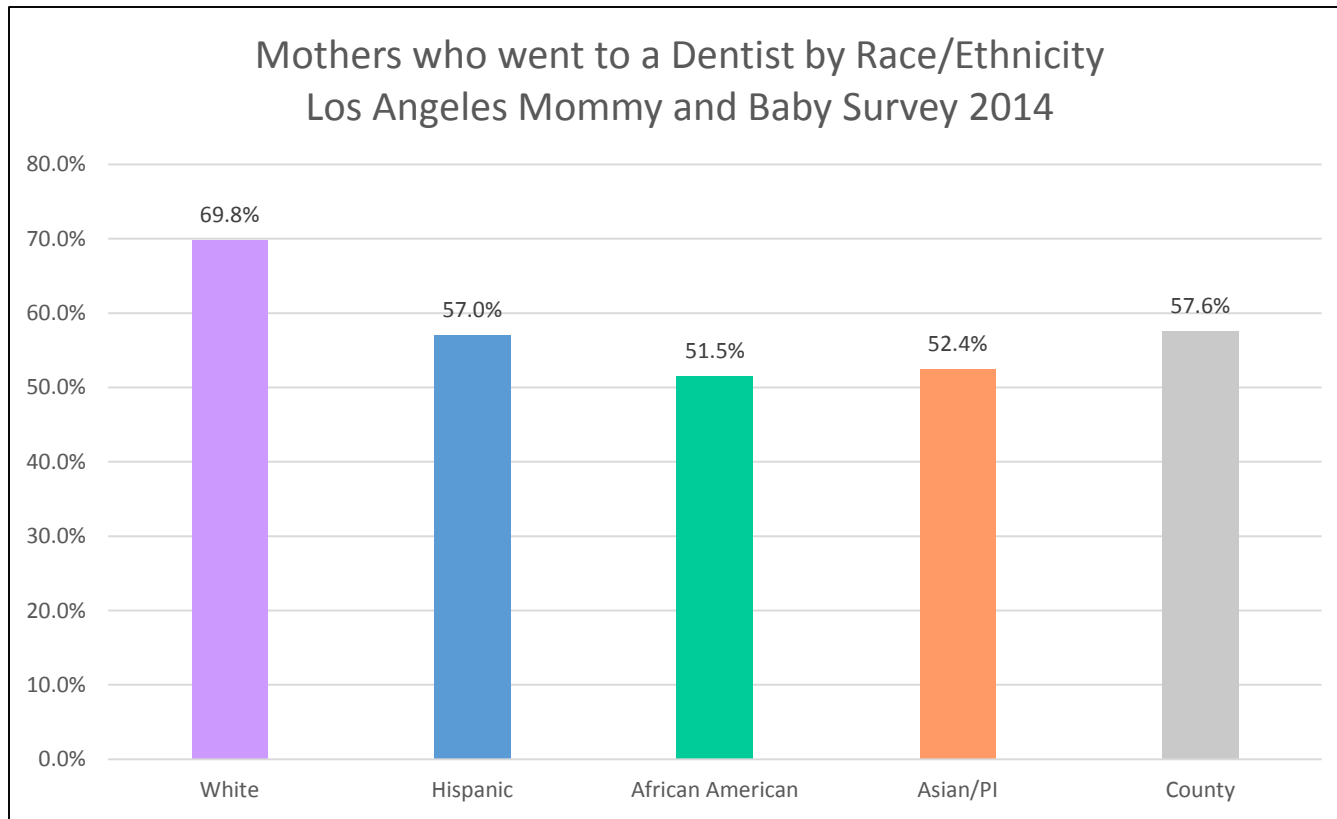
🦷 20% of mothers in Los Angeles County needed to see a dentist for a problem during their last pregnancy.



$p < 0.0001$

Results - Bivariate





🦷 Among mothers with a dental problem, only 58% saw a dentist.



$p=0.0334$

Results - Bivariate

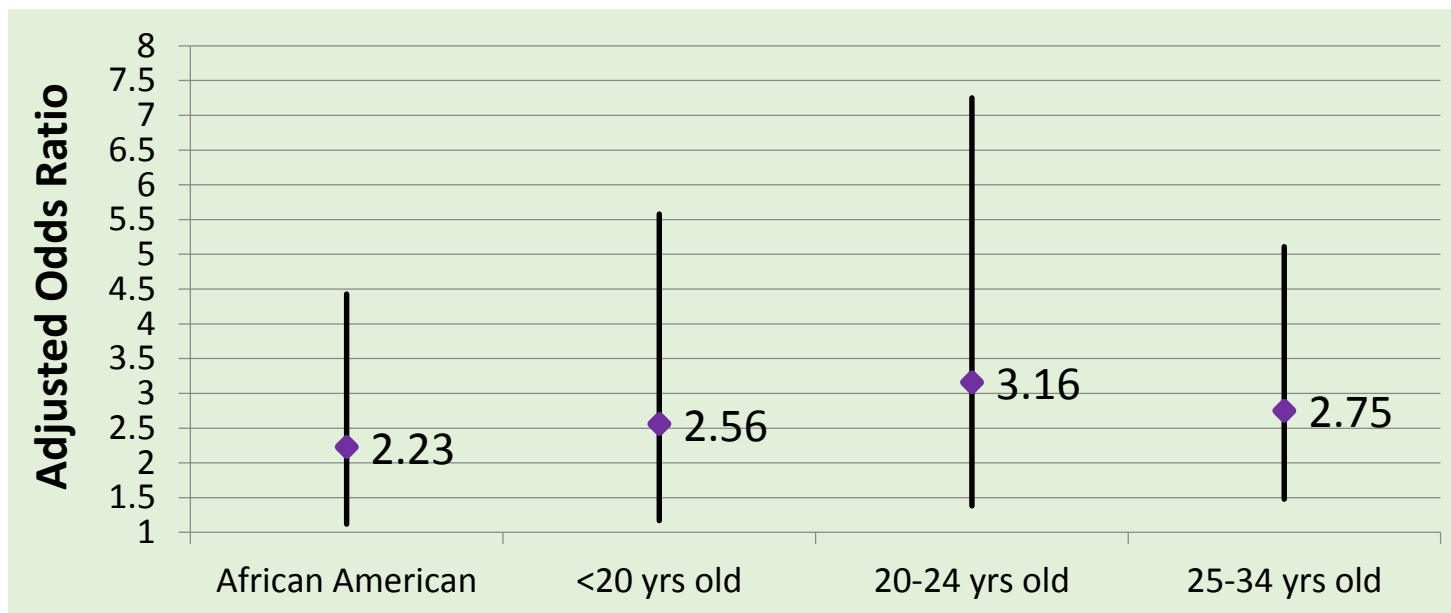
- Mother's education, marital status, and experience of homelessness during pregnancy were not significant predictors of receiving care for a dental problem in the bivariate analyses.

Predictor	Mothers who Saw a Dentist % (CL)	Chi-square P-values
Mother's Age		0.0029
<20 yrs. old	43.2 (34.3-52.2)	
20-24 yrs. old	50.3 (40.5-60.1)	
25-34 yrs. old	56.9 (51.4-62.3)	
35+ yrs. old	69 (60.5-77.5)	
Had Medi-Cal before Pregnancy		<0.0001
Yes	50.2 (42.6-57.8)	
No	72.4 (65.5-79.3)	
PNC Payer Source		0.0007
Private Insurance	70.4 (63.9-76.9)	
Self Pay	60.8 (27.0-94.6)	
Medi-Cal	52.4 (47.2-57.7)	
Other Govern.	40.6 (19.4-61.8)	
Depression during Pregnancy		0.0268
Yes	51.5 (44.6-58.3)	
No	61 (56.1-66.0)	



Results – Multivariate

What are the independent predictors of a mother not receiving care for a reported problem?



Final Model: Modeling the probability of **not** receiving care including significant factors from the bivariate analysis (*Mother's Age, Mother's Race/Ethnicity, Insurance during pregnancy (PNC Payer Source), had Medi-Cal before pregnancy, and Depression during pregnancy*)

Reference Groups: White mothers/mothers 35+

Results – Overview



Bivariate Predictors of receipt of care	Multivariate Predictors of receipt of care	Target Groups for Public Health Interventions
Mother's Age	Mother's Age	Mothers less than 35 years old
Medi-Cal before pregnancy		
PNC Payer Source		
Mother's Race/Ethnicity	Mother's Race/Ethnicity	African American Mothers
Depression during pregnancy		





Conclusions

- 🦷 In 2014, 20% of mothers needed to see a dentist for a problem during their pregnancy.
- 🦷 Among mothers with a dental problem during pregnancy, only 58% went to a dentist or dental clinic.
- 🦷 In multivariate analyses, mother's race/ethnicity and age were significant predictors of receiving dental care for a problem during pregnancy.
 - Public health attention and interventions should focus on helping mothers less than 35 years of age and African American mothers to access/receive needed dental care during pregnancy.





Strengths and Limitations

Limitations

- All information is based on self report and asked 3-7 months after the delivery. Recall bias may present an issue among women and their experiences concerning oral health before and during their pregnancy.
- Oral health issues, like periodontal disease, can also be asymptomatic, which may result in failure to be reported in the survey.

Strengths

- Results are generalizable to women delivering a live infant in Los Angeles County.
- Sample size is large enough to allow subgroup analyses.
- High quality data
 - High response rates
 - Surveys printed in English, Spanish, and Chinese
 - Data is very complete with most variables having <1% missing





Funding and Acknowledgement



- ☞ We would like to thank:
 - All the mothers who participated in the LAMB Survey
 - The dedicated LAMB project team
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- ☞ Data from the 2016 LAMB survey will be available soon.





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Questions?

Thank you!





References

1. Offenbacher S, Katz V, Fertik G, Collins J, Boyd D, Maynor G, et al. Periodontal infection as a possible risk factor for pre-term low birth weight. *J Periodontol* 1996;67:1103–13.
2. Jeffcoat MK, Geurs NC, Reddy MS, Cliver SP, Goldenberg RL, Hauth JC. Periodontal infection and preterm birth: results of a prospective study. *J Am Dent Assoc* 2001;132:875–80.
3. Offenbacher S, Lief S, Boggess KA, Murtha AP, Madianos PN, Champagne CM, et al. Maternal periodontitis and prematurity. Part I: Obstetric outcome of prematurity and growth restriction. *Ann Periodontol* 2001;6:164–74.
4. American College of Nurse-Midwives. Dental Care in Pregnancy. *Journal of Midwifery & Women's Health*. 2014;59(1):109-110. doi:10.1111/jmwh.12108.
5. Acog.org. Dental X-Rays, Teeth Cleanings = Safe During Pregnancy - ACOG. 2015. Available at: <http://www.acog.org/About-ACOG/News-Room/News-Releases/2013/Dental-X-Rays-Teeth-Cleanings-Safe-During-Pregnancy>. Accessed September 2, 2015.



Tips for Prenatal Care Providers and Dental Care Workers

- 🦷 Programs developed to encourage women to see a dentist should target women prior to their child-bearing years.
- 🦷 Recommend and encourage women to go to a dentist or talk to a dental care worker when they are seen for prenatal visits.

