

Prenatal dental care & subsequent preventive oral health care in urban American Indian/Alaska Native (AI/AN) children



Kristi Linsenmayer, DDS
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Oral Health Disparities

American Indian / Alaska Natives (AI/AN)

- 79 % ages 2-5 have untreated dental caries
- 60 % have severe dental caries

Severe dental caries



Research study proposed questions:

- Is prenatal dental care associated with a child having preventive dental care?
- Is prenatal medical care associated with a child having preventive dental care?
- Is prenatal medical care associated with prenatal dental care?

Methods

- Retrospective cohort
- Inclusion criteria based on mother
 - AI/AN
 - At least 1 pre-natal visit during the calendar years 2003-2005
 - Patient of record at the SIHB

Study Setting

- Urban Indian Health Organization (UIHO)
- Seattle Indian Health Board (SIHB)
 - Co-located Medical and Dental
 - Federally Qualified Health Center

Data source

- Claims data
- Matched mother child data set

Variables

- DOB
- LMP
- Gestation length
- Adequate prenatal care
- # Medical visits
- # Dental visits
- Type dental using CDT codes

Analysis

- Descriptive
- Bivariate analysis
 - Chi-square test
- Multivariable logistic regression

Mothers

- N = 153
- 26.8 % premature birth < 37 weeks
- 71 % adequate prenatal care defined using the modified Kessner index
- 30 % any dental

Kids

- N= 153
- Mean age 2.6 years
 - Feb 9, 2007 (1.1 - 4.1 years)
- Any Medical 73%
- Any Dental 23%

Kids Dental Care

- Age first dental visit
 - 7 months - 2.7 years
- 23 % Preventive dental visit
- 1.3% had a visit by 1 year of age, AAPD recommended first dental visit

Results primary question

Child preventive care and mother preventive dental care

<i>Mother Preventive Dental care</i>	<i>Child Preventive Dental Care</i>			
		Yes	No	Total
	Yes	12	17	29
	No	23	101	124
	Total	35	118	153

RR = 2.23 CI (1.26, 3.94)

P = .008

Results secondary question

Preventive dental care and adequacy of prenatal care for mother

<i>Adequacy of prenatal care</i>	<i>Mothers Preventive Dental Care</i>			
		Yes	No	Total
	Yes	27	82	109
	No	2	42	44
	Total	29	124	153

RR = 5.45 CI (1.35, 21.94)

P = .004

Summary

- 30 % women received dental care
- 23 % children had a preventive dental visit
- Higher likelihood of preventive dental visit for child if mother had a preventive dental visit
- 19.6 % went by age 2
- Adequate prenatal medical care significantly
↑↑ likelihood of child with preventive dental visit

Limitations

- Did those that didn't get medical go somewhere else?
- Claims data
- Restricted # variables
- Cause and effect?
- Characteristics of Mom

Discussion

- Explanation
 - Effect of prenatal dental visit
 - Prevention mind set

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