Changes in Receipt of Preventive Dental Care among American Indian/Alaska Native Children: The National Survey of Children’s Health 2003 and 2007

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Objectives

- To document the changes in preventive dental care utilization among American Indian/Alaska Native (AI/AN) children between the two survey years, and
- To evaluate the preventive dental care utilization changes by the subgroup of AI/AN children.

Background

- AI/AN children are at the highest risk of getting a rampant and severe type of dental caries.
- Few changes in AI/AN children’s caries level for decades and the remaining disparity with the Healthy People 2010 goals.
- Disparities in access to dental care may explain the disparities in oral health outcomes.
- Subgroups of children who are less likely to be seen by a dentist or receive preventive dental care in previous studies:
  - Children younger than age five
  - Racial/ethnic minorities
  - Rural residents
  - Low socioeconomic status
  - No dental insurance

Methods

- Data source: 2003 and 2007 National Survey of Children’s Health (NSCH)*
  - Survey by the Maternal and Child Health Bureau/HRSA and the National Center for Health Statistics/CDC
  - Survey topics with over 100 indicators
    - child’s health status (physical, emotional, behavioral, and dental)
    - child’s health care utilization
    - child’s school and activities
    - family and neighborhood context
  - Population: Non-institutionalized U.S. children ages 0—17 years
  - Telephone interview survey, one child randomly selected in each household
  - Sample size: 102,353 children nationally, 1,443 AI/AN children nationally, 1,725 AI/AN children (weighted) from the 7 states where AI/AN was the subgroup of AI/AN children.
  - Few changes in AI/AN children’s caries level for decades and the remaining disparity with the Healthy People 2010 goals.
  - Weighted data allow state-to-state comparisons and national estimates

Primary Outcome Variables:

- Preventive dental care visit in the past 12 months ** (dental check-up, screening, cleaning, sealants)
  - ** Two tiered questions in the 2003 survey were simplified in the 2007 survey into one question asking whether or not child had a preventive dental care.
- Socio-demographic Variables:
  - Race, Age, Gender
  - Parent’s employment status
  - Household poverty level
  - Health insurance status
- Data Analysis: SAS® version 9.1.3
  - Surveyfreq procedures
  - Bivariate analysis using the Wald chi-square test

Results

- Parental report of AI/AN children’s preventive dental care visit was increased in 2007 and the improvement is particularly noticeable in children younger than age 5

The changes were also observed in the least advantageous subgroups of AI/AN children.

Discussion

- The gap in receipt of preventive dental care between AI/AN and other children appeared to be reduced over the period of 2003—2007 in the NSCH.
- To determine if the survey outcomes reflected the actual changes in AI/AN children, further research with other source of AI/AN children’s dental utilization is required.
- Consistent and continuous inclusion of the oral health questions in the NSCH is valued to monitor the trends of the oral health components.

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