Why is Oral Health Important?
Why is Oral Health Important?

• 51 million school hours lost per year  
  • (Gift HC 1997)

• Failure to thrive, impaired speech development, inability to concentrate in school and reduced self-esteem. 
  • (Office of Disease Prevention and Health Promotion 2000)

• Decreased school performance, poor social relationships, and less success later in life  
  • (US General Accounting Office 2000)

Why is Oral Health Important?

• Tooth decay is a chronic, infectious disease
• Early tooth decay is a predictor of a life-time of oral disease
• Dental care is the most common unmet health need in children
• Cannot be cured, only mitigated
Why is Oral Health Important?

- Dental diseases linked with other health problems
  - Premature/Low-birth weight infants
  - Failure to Thrive
  - Diabetes
  - Cardiovascular diseases
  - Stroke

“You’re not healthy without good oral health.”
(C. Everett Koop)

Why is Oral Health Important?

<table>
<thead>
<tr>
<th>Condition</th>
<th>Percent of Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tooth Decay</td>
<td>59</td>
</tr>
<tr>
<td>Asthma</td>
<td>11</td>
</tr>
<tr>
<td>Hay Fever</td>
<td>8</td>
</tr>
<tr>
<td>Bronchitis</td>
<td>4</td>
</tr>
</tbody>
</table>

Children & Adolescents ages 5-17

NAHNES III 1996
Oral Health Disparities in Arizona American Indian Children

Data Sources:
- Oral Health Survey of Arizona Preschool Children 2009
- Arizona Healthy Bodies, Healthy Smiles Survey 2010

Arizona Oral Health Surveys

- Open mouth survey- calibrated survey teams
- CDC provided technical advice on:
  - Survey design, sampling and analyses
- Standardized survey instrument:
  - ASTDD Basic Screening Survey
  - can generalize information to the population
  - can make comparisons to other states
Prevalence of Early Childhood Tooth Decay

- One in ten children have early childhood tooth decay; a severe and aggressive form of tooth decay.

![Image of tooth decay](image1)

Prevalence of Untreated Decay

- For American Indian children, the average number of teeth with untreated tooth decay was about 4¼ teeth per child. This average is significantly greater than the average for non-American Indian children, at 2½ teeth per child. ($P<0.05$)

![Image of untreated teeth](image2)
Prevalence of Treated Decay

- Significantly more American Indian children were observed to have one or more teeth with treated decay, compared to non-American Indian children. ($P<0.05$)
- Among the children with treated decay, the average number of teeth affected was about the same for both American Indian (4½ teeth) and non-American Indian children (4 teeth).

Oral Health Disparities in Arizona American Indian Children

- Arizona Healthy Bodies, Healthy Smiles Survey of 3rd Grade Children 2010
Dental Insurance Coverage

Similar percentages of American Indian children and non-American Indian children are covered by some form of dental insurance. (The difference between 20% and 25% is not large enough to be statistically significant.)

![Dental Insurance Coverage Chart](image1)

Dental Visits in the Past Year

American Indian children were significantly less likely to have seen a dentist during the year before their screening, compared to non-American Indian children. (P<0.05)

![Dental Visits in the Past Year Chart](image2)
Tooth Decay Experience

- Significantly more American Indian children had tooth decay experience compared to non-American Indian children. ($P<0.05$)

Tooth Decay Experience Trends

- American Indian children have seen an increase in the prevalence of tooth decay experience in the last ten years, moving away from the Healthy People 2010 target of 42%.
Arizona American Indian Children: Comparison to Healthy People 2020

Healthy People 2020 Target: Reduce the proportion of children aged 6-9 years with tooth decay experience to 49 percent.

If this goal is to be met in the American Indian population, significant improvements in their oral health status must be accomplished in the next nine years.

Untreated Tooth Decay

• Significantly more American Indian children were observed to have one or more teeth with untreated decay, compared to non-American Indian children. ($P<0.05$)

• For children with untreated decay, the average number of teeth affected was 2½ teeth per child. This average was the same for both American Indian and non-American Indian children.
Arizona American Indian Children Comparison to Healthy People 2020

Healthy People 2020 Target: Reduce the proportion of children aged 6-9 years with untreated tooth decay to 26 percent.

If this goal is to be met in the American Indian population, significant improvements in their oral health status must be accomplished in the next 10 years.

Severity of Untreated Decay

Among children who had at least one tooth with untreated decay, American Indian and non-American Indian children did not differ on the severity of treatment needs for tooth decay.
Prevalence of Treated Decay

- Significantly more American Indian children were observed to have one or more teeth with treated decay, compared to non-American Indian children. (P<0.05)
- For children with treated decay, the average number of teeth affected was about 4 teeth per child. This average was the same for both groups.

Prevalence of Sealants

- American Indian children and the non-American Indian children were about equally likely to have one or more permanent molar teeth which had a sealant.
- The Healthy People 2010 target for this objective is 50%.
Children Needing Sealants

- American Indian children were significantly less likely than the non-American Indian children to have one or more teeth which needed to be treated with a sealant. ($P<0.05$)

![Bar Chart: Arizona 3rd Graders](chart1.png)

Untreated Decay, by Recent Dental Visit

- For the non-American Indian children, untreated decay was much less prevalent among those who had a dental visit in the past year (36%), compared to those who had not had a dental visit (55%).

- But for the American Indian children, the disparity between those who had and had not seen a dentist recently was much smaller, 57 and 67 percent, respectively.

![Bar Chart: Untreated Decay by Recent Dental Visit](chart2.png)
Summary Findings

• Tooth Decay in American Indian children starts early and progresses into childhood.

• American Indian children were significantly less likely to have seen a dentist during the past year, compared to non-American Indian children.

• Significantly more American Indian children had tooth decay experience compared to non-American Indian children.

Summary Findings (continued)

• Only 45% of American Indian Children had dental sealants falling below the Healthy People 2010 target of 50%.

• American Indian children have seen an increase in the prevalence of tooth decay experience in the last ten years, moving away from the Healthy People 2010 target of 42%.
Enhanced Dental Teams
Grant

Developing Dental Care Access
for Underserved Communities and Families

Arizona Department of Health Services
Office of Oral Health

Enhanced Dental Teams
Grant

Three Year Teledentistry Grant

Multiple demonstration models throughout Arizona. Some examples are:

• **Hopi Health Care Dental Clinic**
  model: remote school location

• **Northern Arizona University**
  model: training dental hygiene students

• **Northern Arizona Council of Governments**
  model: Head Start

• **Inter Tribal Council of Arizona, Inc**
  Identification of additional Tribal models
Grant Regions

Regional Oral Health Coordinators are located in:

- Northern Arizona Region - Coconino/Yavapai
- Southern Arizona Region - Pima/Cochise/Santa Cruz
- Western Arizona Region - Mohave/La Paz

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Bureau of Women and Children’s Health
Office of Oral Health
http://www.azdhs.gov/cfhs/ooh/

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Suggested citation when using these data: Office of Oral Health, Arizona Department of Health Services, Arizona Oral Health Survey of Preschool Children 2009©; Arizona Healthy Bodies, Healthy Smiles Survey 2010©