ORAL HEALTH OF AI/AN PRESCHOOL CHILDREN

2014 IHS ORAL HEALTH SURVEY
2014 SURVEY METHODS

- Probability sample of Tribal and IHS “Service Units”
- Dentists, hygienists & therapists screened AI/AN children 1-5 years of age in community settings
  - Medical & well child clinics
  - Early Head Start, Head Start & other preschool settings
  - WIC
  - Kindergarten
  - Community events
NUMBER OF SITES AND CHILDREN

- 81 IHS Service Units participated
  - 49% of the 165 IHS Service Units
  - **NOTE:** Some Service Units include multiple Tribal programs
- 11,873 AI/AN children aged 1-5 years were screened
  - 8% of the 2013 estimated user population aged 1-5 years (n=141,339)
  - The majority of the children screened were 3-4 years of age
AI/AN CHILDREN COMPARED TO THE GENERAL POPULATION
AI/AN children have more disease than other population groups.

Mean Number of Decayed and Filled Primary Teeth (dft) Among Children 2-5 Years of Age

- AI/AN, 2014: 1.99 (Decayed Teeth) and 1.96 (Filled Teeth)
- Hispanic*: 1.1 (Decayed Teeth) and 0.6 (Filled Teeth)
- Black*: 0.5 (Decayed Teeth) and 0.7 (Filled Teeth)
- White*: 0.4 (Decayed Teeth) and 0.6 (Filled Teeth)

* Data Source: NHANES 1999-2002
AI/AN children are more likely to have untreated decay.

Percent of Children aged 3-5 Years with Untreated Decay

- AI/AN, 2014: 43%
- Hispanic*: 20%
- Black*: 19%
- White*: 11%

AI/AN children are 4 times more likely to have untreated decay than white children.

* Data Source: NHANES 2009-2010
EARLY PREVENTION IS ESSENTIAL
“TWO IS TOO LATE”

Percent (95% CI) of AI/AN Children with Decay Experience by Age, 2014

Age in Years

Percent of Children

1 Year: 18.1%
2 Years: 39.4%
3 Years: 59.9%
4 Years: 69.4%
5 Years: 75.6%
DISPARITIES AMONG IHS AREAS
DECAY EXPERIENCE

Percent (95% CI) of AI/AN Children 1-5 Years with Decay Experience by Area
SOME CHILDREN ARE AT VERY HIGH RISK

Percent of Teeth with Decay Experience by Age, 2014

<table>
<thead>
<tr>
<th>Age in Years</th>
<th>Percent of Teeth with Decay Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Caries Free</td>
</tr>
<tr>
<td>1</td>
<td>82%</td>
</tr>
<tr>
<td>2</td>
<td>61%</td>
</tr>
<tr>
<td>3</td>
<td>40%</td>
</tr>
<tr>
<td>4</td>
<td>31%</td>
</tr>
<tr>
<td>5</td>
<td>24%</td>
</tr>
</tbody>
</table>

Percent of Children<br>
CARIES PATTERNS
CARIES PATTERNS
PRIMARY TEETH OF CHILDREN 1-5 YEARS

Percent of Maxillary Teeth with Decay Experience, 2014

Maxillary Primary Teeth

Tooth A
Tooth B
Tooth C
Tooth D
Tooth E
Tooth F
Tooth G
Tooth H
Tooth I
Tooth J

Percent of Teeth

0.0
5.0
10.0
15.0
20.0
25.0
30.0
35.0

Decayed
Filled/Crowned
Missing (extracted due to caries)
CARIES PATTERNS
PRIMARY TEETH OF CHILDREN 1-5 YEARS

Percent of Mandibular Teeth with Decay Experience, 2014

Mandibular Primary Teeth

- Tooth K
- Tooth L
- Tooth M
- Tooth N
- Tooth O
- Tooth P
- Tooth Q
- Tooth R
- Tooth S
- Tooth T

Percent of Teeth

- Decayed
- Filled/Crowned
- Missing (extracted due to caries)
CARIES PATTERNS - SUMMARY

- Teeth at highest risk in children 1-5 years
  - Mandibular 1\textsuperscript{st} molars
  - Maxillary central incisors
  - Mandibular 2\textsuperscript{nd} molars
  - Maxillary 1\textsuperscript{st} molars
  - Maxillary 2\textsuperscript{nd} molars
# Caries Patterns

**Primary Teeth of Children**

## Posterior Decay vs. Maxillary Anterior Decay

<table>
<thead>
<tr>
<th></th>
<th>1-2 Year Olds</th>
<th>3-5 Year Olds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posterior Decay</td>
<td>Maxillary Anterior Decay</td>
<td>No</td>
</tr>
<tr>
<td>No</td>
<td>71%</td>
<td>9%</td>
</tr>
<tr>
<td>Yes</td>
<td>7%</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>32%</td>
<td>4%</td>
</tr>
<tr>
<td>Yes</td>
<td>23%</td>
<td>41%</td>
</tr>
</tbody>
</table>

Check your child’s teeth **LIFT the LIP** and look inside.

**Healthy Teeth**
- White lines along the gum line
- Brown or yellow spots that don’t brush off

Talk to your Doctor or Nurse about your child’s teeth.

**Keep your child’s teeth healthy with 3 easy steps**
- Put your baby to bed without a bottle (stop the bottle at around 12 months of age)
- Start drinking from a cup around 6 months of age (best to wean until 12 months of age)
- Start brushing when your baby gets their first tooth (use low fluoride toothpaste from 18 months of age)
1 out of 4 children 3-5 years of age have decay on molars with no decay on anterior teeth
- Lifting the lip may not detect these children
- Encourage parents to look at all teeth
TRENDS IN ORAL HEALTH
2010 COMPARED TO 2014
TRENDS – 2010 COMPARED TO 2014

Percent of AI/AN Children with Decay Experience by Age, 2010 & 2014

59 Service Units participated in both 2010 (n=8,155) and 2014 (n=9,118) – data presented is for those 59 Service Units.
Healthy People 2020 Target – 10% improvement from 2010

<table>
<thead>
<tr>
<th></th>
<th>1 Year</th>
<th>2 Years</th>
<th>3 Years</th>
<th>4 Years</th>
<th>5 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010 Baseline</td>
<td>22.5%</td>
<td>44.5%</td>
<td>61.6%</td>
<td>69.9%</td>
<td>75.6%</td>
</tr>
<tr>
<td>2014</td>
<td>15.3%</td>
<td>37.8%</td>
<td>59.2%</td>
<td>68.6%</td>
<td>74.5%</td>
</tr>
<tr>
<td>Percent Decrease</td>
<td>32%</td>
<td>15%</td>
<td>2%</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Data is from the 59 clinics that participated in both 2010 & 2014

* Encouraging*

* Difference not statistically significant
THINKING BEYOND PRIMARY TEETH

- Primary teeth
  - Last 5-10 years
- Permanent teeth
  - May last 90+ years
- Should also consider preventing decay in permanent teeth of high risk children
DECAY IN PERMANENT TEETH IS ALSO A PROBLEM

Percent (95% CI) of AI/AN Children with Decay in Permanent Teeth

- Kindergarten: 7%
- 1st Grade: 21%
- 2nd Grade: 31%
- 3rd Grade: 39%
- 12 Years: 59%
- 13 Years: 63%
- 14 Years: 65%
- 15 Years: 69%
This child’s problems extend far beyond the primary dentition.
QUESTIONS / COMMENTS / CONCERNS