Applying Fluoride Varnish in Primary Care Settings

Steve Holve, MD
Clinical Consultant in Pediatrics
Indian Health Service
Caries are Increasing in AI/AN Children

Mean Number of Decayed, Missing and Filled Surfaces in the Primary Teeth of Children 3–5 Years from Two IHS Surveys

- **1991 Survey**
  - Decayed Teeth: 6.0
  - Missing Teeth: 1.3
  - Filled Teeth: 3.8

- **1999 Survey**
  - Decayed Teeth: 7.3
  - Missing Teeth: 5.4
  - Filled Teeth: 1.9

1999 IHS Oral Health Survey
Increasing ECC in AI/AN Children

• This increase has occurred despite increased fluoridation of water
• This increase has occurred despite educational efforts
• This increase has occurred despite more dentists

Oral Health Survey of AI/AN dental patients, 1999
What We Did in Tuba City with Fluoride Varnish

- All children seen at well child checks are offered fluoride varnish from 9 months to 30 months
- Providers apply varnish at the conclusion of the visit but before vaccinations
- Oral health examination and education occurs as we apply varnish
- Takes about three minutes
What We Did in Tuba City
Results

- Examined all Head Start Children
- 133 as controls in 2003
- 128 with FV in 2004
- 96 with FV in 2005
- Total N = 357
- Achieved statistically significant 35% reduction of caries for 4+ fluoride treatments versus historical controls
Mean dmfs by Number of Fluoride Varnish Treatments

Number of Fluoride Treatments:
- 2003
- 0-2 Rx
- 3 Rx
- >4 Rx

Mean dmfs:
- 2003: 23
- 0-2 Rx: 25
- 3 Rx: 20
- >4 Rx: 15
Who is Going To Apply Fluoride Varnish?

Figure 3
Proportion of Children with a Preventive Dental Visit in the Past Year, by Poverty Level

Low-Income Children Are Less Likely to Receive Dental Care

**NOTE:** Poor is defined as at or below 100 percent of the Federal poverty line (FPL); near-poor is between 101 percent and 200 percent of the FPL; and middle- to high-income is above 200 percent of the FPL.

Age is also a Barrier

• Most general dentists won’t see children < 5 years
• In the US there is only one pediatric dentist for every 6,000 children < 5 years of age
• For children < 2 years of age only 1 in 40 children see a dentist once in a year whereas most children have 4 visits/year to a doctor
Primary Care for Fluoride Varnish

• Access to dentists is problematic for young children
• Head Start doesn’t begin until age 3 years
• But everyone gets Well Child Care
• Fluoride varnish application is quick and easy