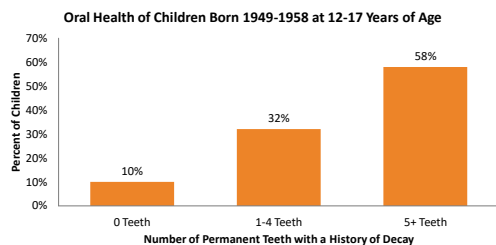




THE ORAL HEALTH OF THE AI/AN POPULATION

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August 8, 2017

U.S. ORAL HEALTH SURVEY: 1966-1970



Data Source: National Health Survey, 1966-1970, www.cdc.gov/nchs/data/series/sr_11/sr11_144acc.pdf

AMERICA IN TRANSITION

- Economic/Social Changes
 - Higher standard of living
 - More universal education
 - Improved housing
 - Medicaid
 - Urbanization
 - Unionization

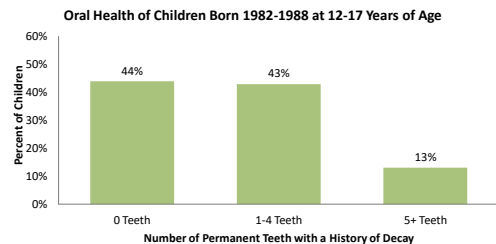
AMERICA IN TRANSITION

- Oral Health Specific Changes
 - Water fluoridation
 - 1950s & 1960s
 - Fluoride toothpaste
 - 1960s
 - Other topical fluorides

AMERICA IN TRANSITION

- Oral Health Specific Changes
 - Higher quality dentistry
 - "Pain-free" dentistry
 - Increased access to care
 - Employee benefits (1954)
 - Delta Dental - CA, OR, WA
 - Pilot program for children of longshoremen
 - Medicaid (1965)

U.S. ORAL HEALTH SURVEY: 1999-2000

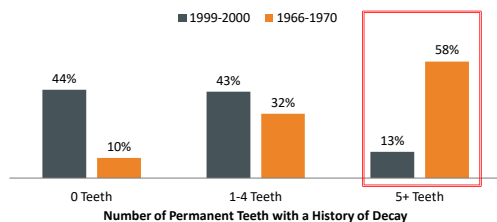


Data Source: National Health & Nutrition Examination Survey, 1999-2000

SIGNIFICANT REDUCTION IN SEVERE DECAY

Oral Health of 12-17 Year Olds in 1999-2000 vs. 1966-1970

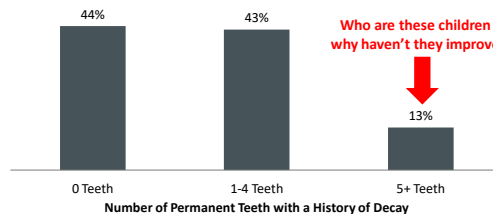
■ 1999-2000 ■ 1966-1970



ECHO BOOMERS BORN 1982-1988

Oral Health of 12-17 Year Olds in 1999-2000

Who are these children & why haven't they improved?



Data Source: National Health & Nutrition Examination Survey, 1999-2000

CHILDREN AT HIGH-RISK OF DECAY

- Low-income
- Low parental education
- Racial/ethnic minorities
- Recent immigrants

HOW ORAL HEALTH IS MONITORED

- IHS coordinates periodic oral health surveys
 - Use standardized screening protocols similar to state/national surveys
 - "Basic Screening Survey" protocols
 - Clinics are randomly selected to participate
 - All Portland Area clinics are encouraged to participate
 - Clinic specific data can be used for program planning, program evaluation, advocacy, and grant writing

HOW ORAL HEALTH IS MONITORED

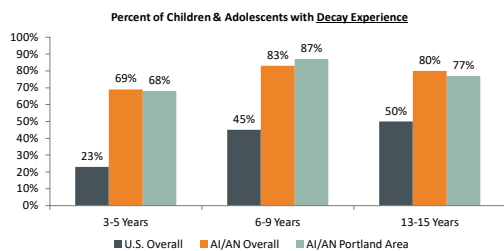
- Survey populations to date
 - Children – community based samples
 - Adolescents and adults – clinic based sample
- Having **community based samples is very important** because the oral health of clinic users may be different from the community as a whole
- Survey timeline



OVERALL SUMMARY

- Regardless of age, AI/ANs have more dental disease and less access to care than other populations in the United States
 - Dental caries is a significant health problem for AI/ANs
 - Periodontal disease is a significant health problem for AI/AN adults
 - Many AI/ANs are not getting the dental care they need
 - Portland Area has less untreated decay than IHS overall
- Early prevention, before the age of two, is essential to reduce the prevalence of dental caries in AI/AN children
- Dental sealants are an essential preventive strategy but the appropriate children and teeth need to be targeted

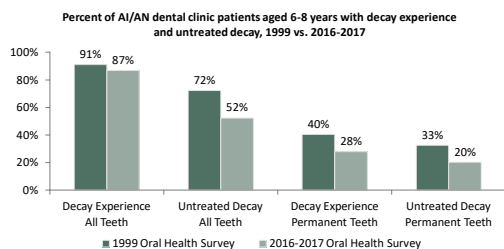
AI/AN CHILDREN HAVE MORE DISEASE THAN OTHER POPULATION GROUPS



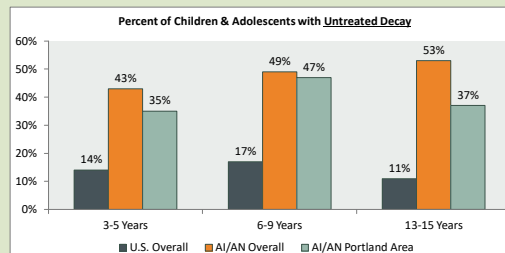
POTENTIAL REASONS FOR HIGH DISEASE RATES

- AI/AN children ...
 - Erupt earlier than other populations
 - Acquire oral bacteria earlier than other populations
 - Have a higher prevalence of developmental enamel defects
- Social inequities ...
 - Disparities in power and wealth, often accompanied by discrimination, social exclusion, poverty and low wages, lack of affordable housing, exposure to hazards and community social decay
 - Percent living in poverty: 28% for AI/ANs, 16% for the U.S. Overall
 - Oglala Lakota County, SD: 53% live in poverty

ORAL HEALTH IS IMPROVING



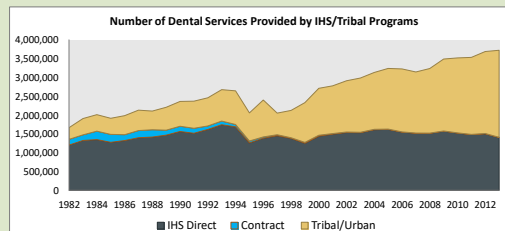
AI/AN CHILDREN HAVE LESS ACCESS TO CARE THAN OTHER POPULATION GROUPS



POTENTIAL REASONS FOR LOW ACCESS

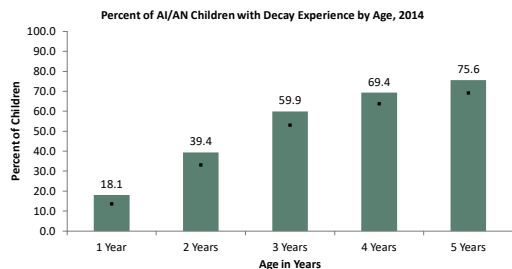
- IHS/tribal programs are under funded
 - General U.S. Population: \$291/person in 2013
 - Population served by IHS/tribes: \$99 per person in 2011
- IHS/tribal programs have fewer dentists per person
 - General U.S. population: 1,525 people per dentist
 - Population served by IHS/tribes: 2,800 AI/AN patients per dentist
- People may not seek dental care
 - General U.S. population: 42% had dental visit in past year
 - Population served by IHS/tribes: 29% had dental visit in 2015

ACCESS IS IMPROVING



Number of dental services doubled since 1980s.
Percent with a dental visit increased from 25% in 2008 to 29% in 2015.

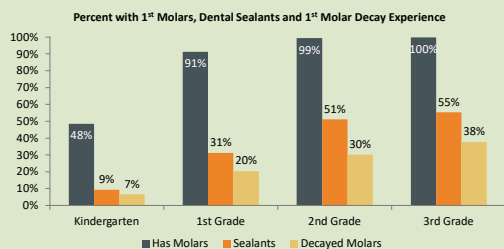
EARLY PREVENTION IS ESSENTIAL "TWO IS TOO LATE"



CARIES PATTERNS & PRIMARY MOLAR SEALANTS

- Teeth at highest risk in children 1-5 years
 - Mandibular 1st molars**
 - Maxillary central incisors
 - Mandibular 2nd molars
 - Maxillary 1st molars
 - Maxillary 2nd molars
- Primary molar sealants must be in prevention "package"

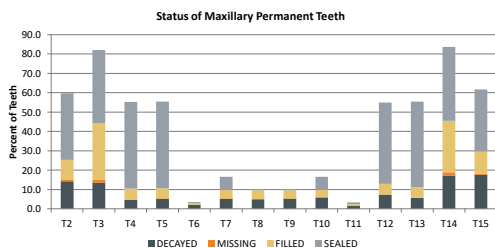
CARIES PATTERNS & PERMANENT 1ST MOLAR SEALANTS



DENTAL SEALANTS

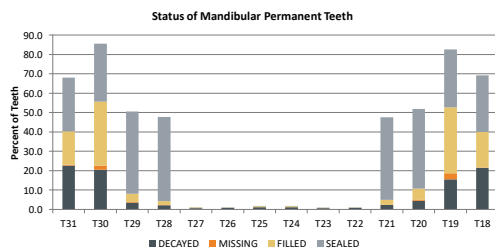
- AI/AN children erupt earlier than other populations
- School programs should target K, 1st and 2nd grade with follow-up in 3rd grade
 - Use glass ionomer sealants on partially erupted molars

CARIES PATTERNS & DENTAL SEALANTS



Premolars were less likely to have decay but substantially more likely to have sealants.

CARIES PATTERNS & DENTAL SEALANTS



Premolars were less likely to have decay but substantially more likely to have sealants.

CARIES PATTERNS & DENTAL SEALANTS

- Focus additional efforts on sealing permanent molars
- Question to consider ...
 - Is it cost effective to seal premolars?