



THE ORAL HEALTH OF THE AI/AN POPULATION

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**ORAL HEALTH
FROM A
NATIONAL
PERSPECTIVE
(ALL RACES)**

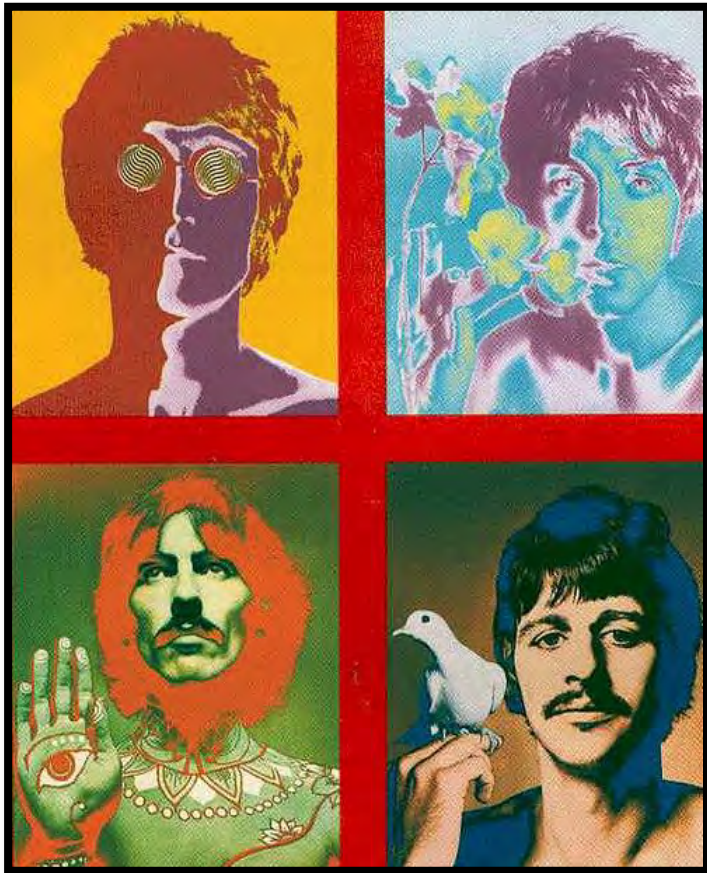
A TALE OF TWO GENERATIONS



GENERATION #1: CHILDREN BORN 1949-58 (BABY BOOMERS)

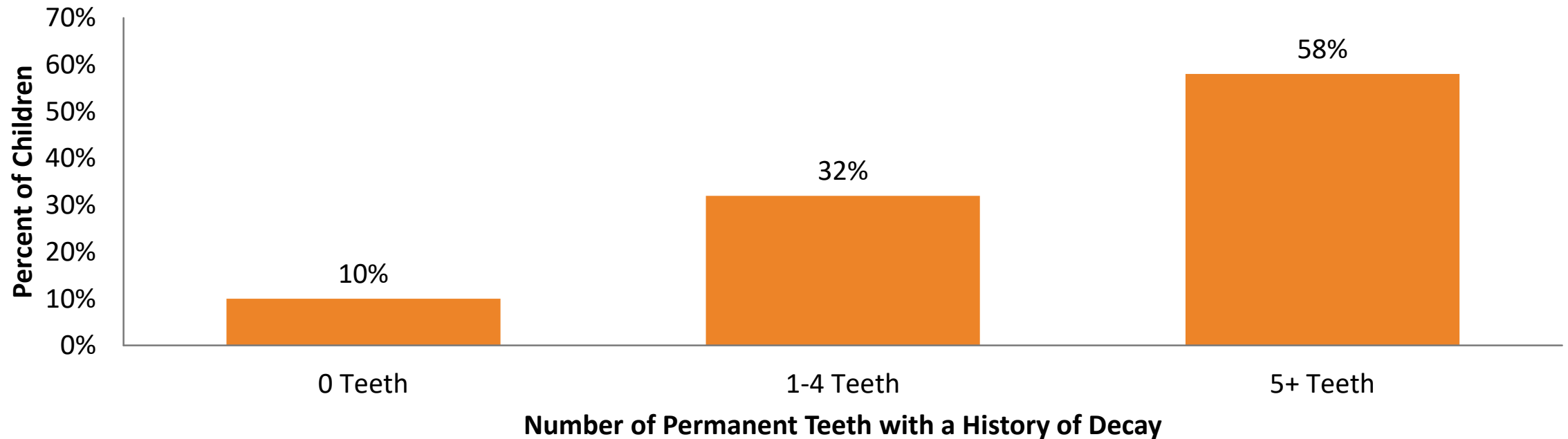


ORAL HEALTH OF BOOMERS IN 1966-70



U.S. ORAL HEALTH SURVEY: 1966-1970

Oral Health of Children Born 1949-1958 at 12-17 Years of Age



AMERICA IN TRANSITION

Economic/Social Changes

- Higher standard of living
- More universal education
- Improved housing
- Medicaid
- Urbanization
- Unionization

The War on
POVERTY

50 years ago, Lyndon Johnson declared war on poverty, prompting the creation of dozens of federal programs aimed alleviating poverty and striking at its roots. Today, just how much progress has been made?

IN 1960
22.1%
OF AMERICANS WERE
LIVING IN POVERTY

In 1964, President Johnson responded to the crisis

This administration today, here and now, declares unconditional war on poverty in America.

-Lyndon B. Johnson, State of the Union Address, January 8th, 1964

The infographic features a line graph with a red line showing a downward trend, ending in a red arrow pointing down. A pie chart with a red slice is also present. A portrait of Lyndon B. Johnson is shown in the bottom left corner.

AMERICA IN TRANSITION

Oral Health Specific Changes

- Water fluoridation
 - 1950s & 1960s
- Fluoride toothpaste
 - 1960s
- Other topical fluorides



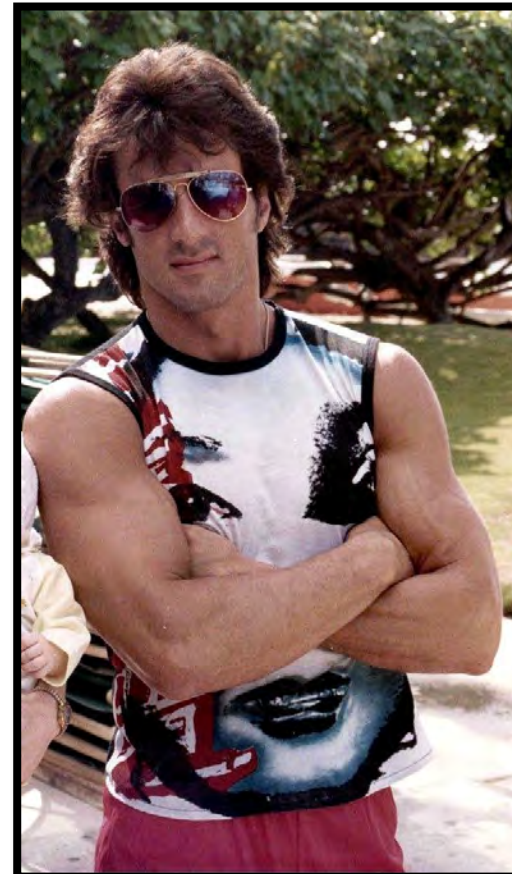
AMERICA IN TRANSITION

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)



GENERATION #2: CHILDREN BORN 1982-1988 (ECHO BOOMERS)

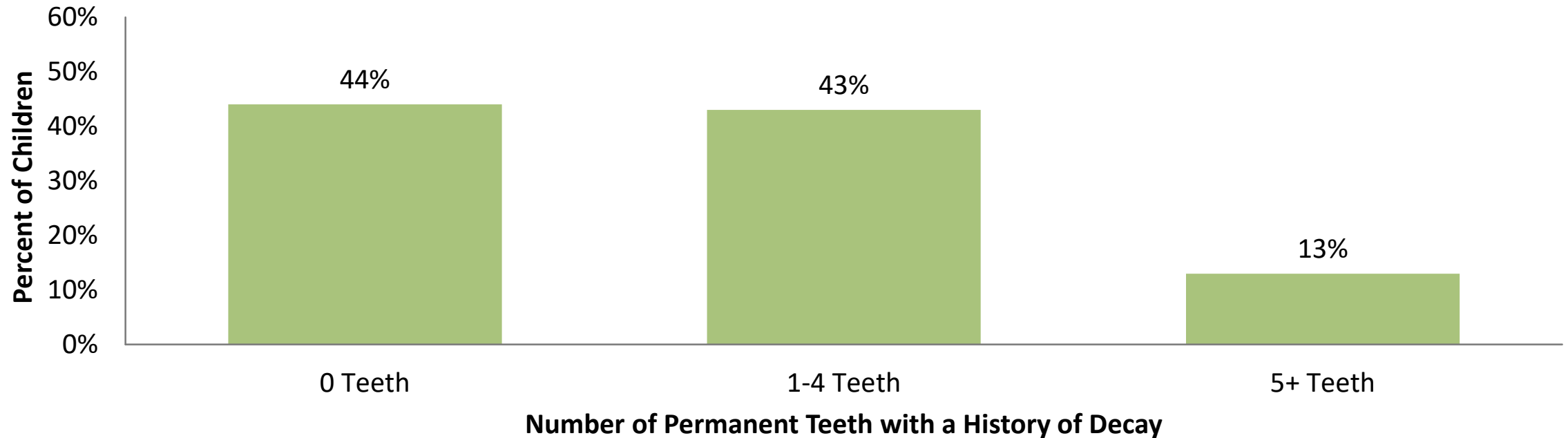


ORAL HEALTH OF ECHO BOOMERS IN 1999-2000



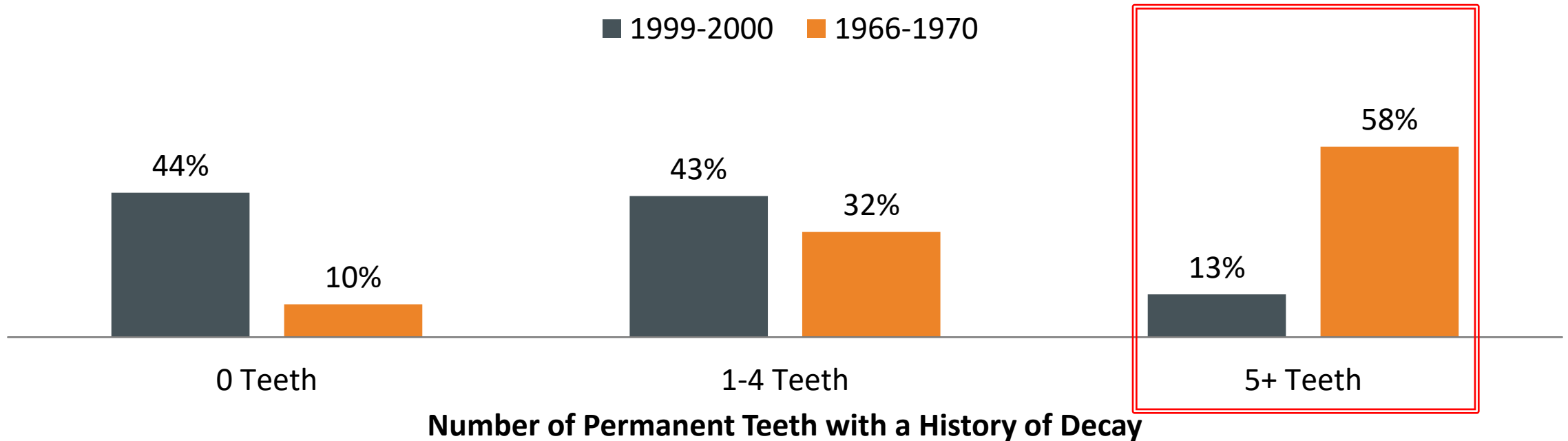
U.S. ORAL HEALTH SURVEY: 1999-2000

Oral Health of Children Born 1982-1988 at 12-17 Years of Age



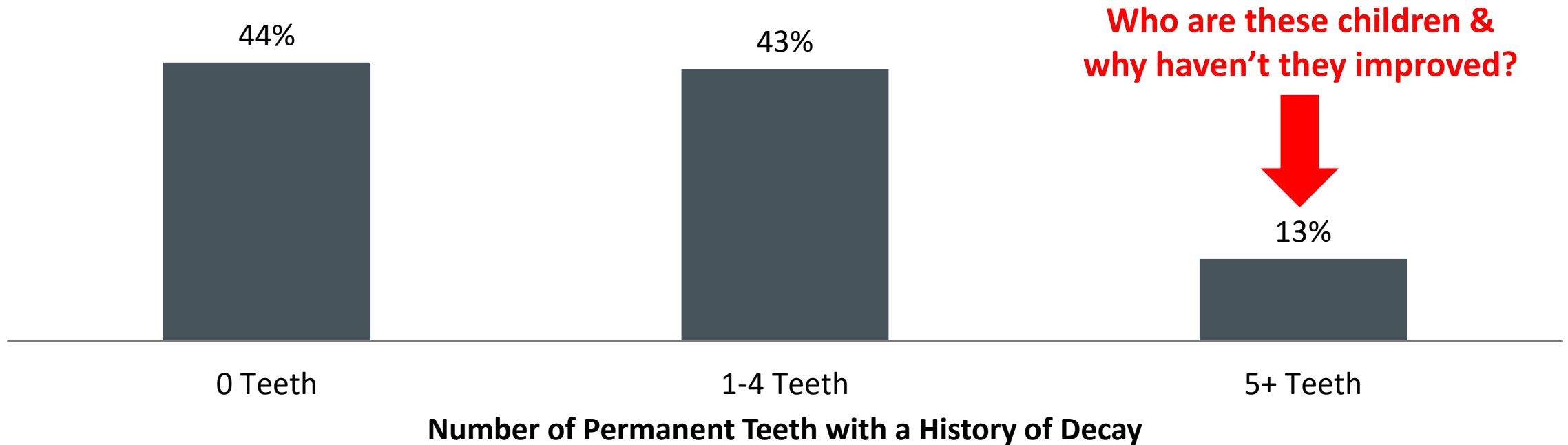
SIGNIFICANT REDUCTION IN SEVERE DECAY

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



ECHO BOOMERS BORN 1982-1988

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



CHILDREN AT HIGH-RISK OF DECAY

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



ORAL HEALTH OF THE AI/AN POPULATION



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

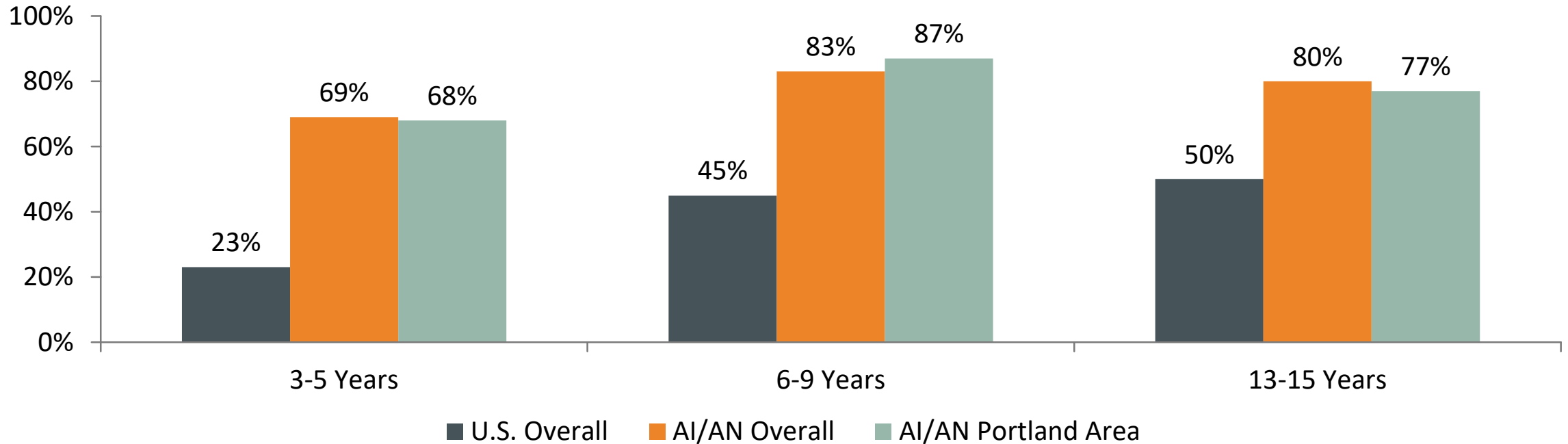


OVERALL SUMMARY

- 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 POPULATIONS

Percent of Children & Adolescents with Decay Experience

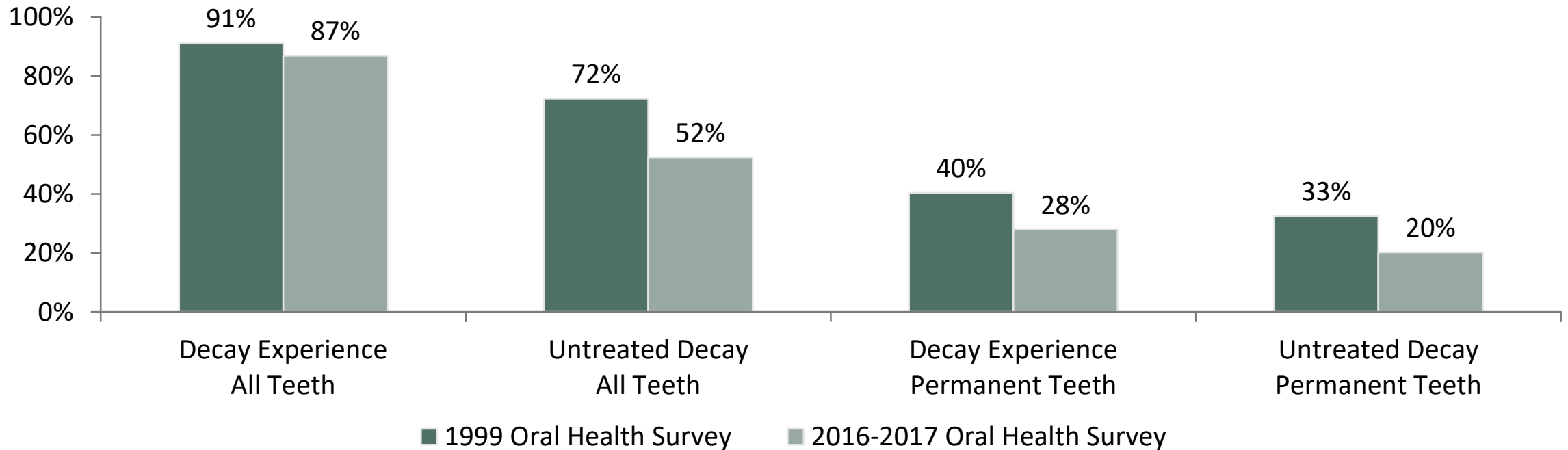


POTENTIAL REASONS FOR HIGH DISEASE RATES

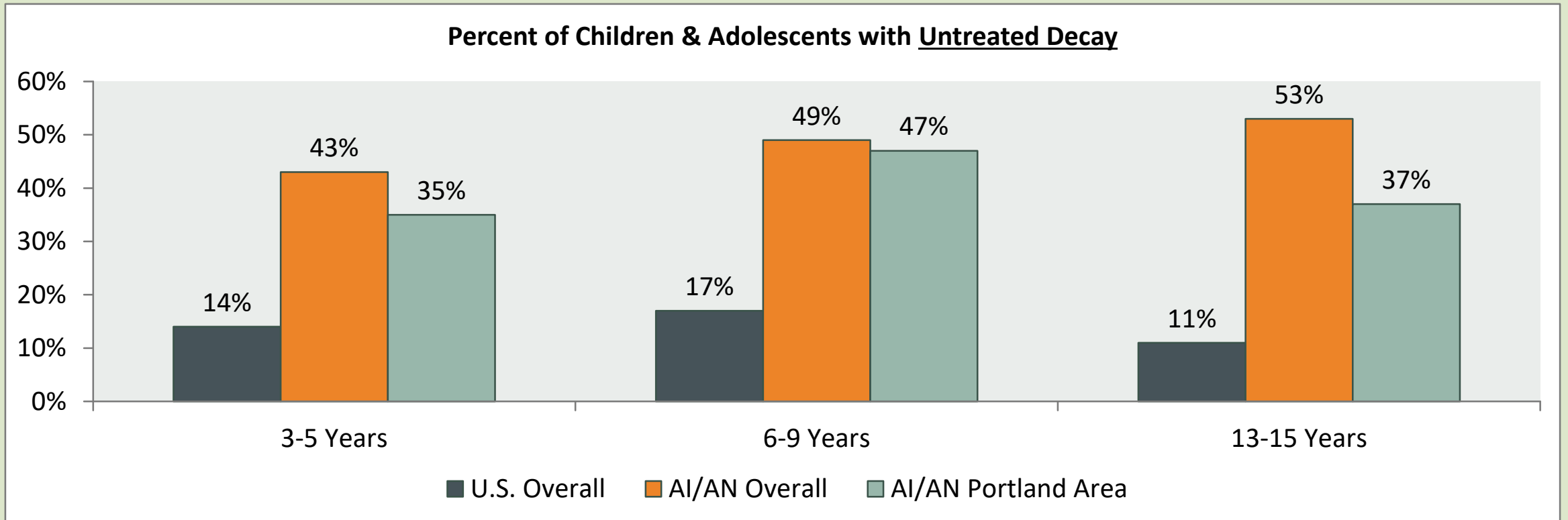
- AI/AN children ...
 - Erupt earlier than other populations
 - Acquire oral bacteria earlier than other populations
 - Have a higher prevalence of developmental enamel defects
- Social inequities ...
 - Disparities in power and wealth, often accompanied by discrimination, social exclusion, poverty and 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

Percent of AI/AN dental clinic patients aged 6-8 years with decay experience and untreated decay, 1999 vs. 2016-2017



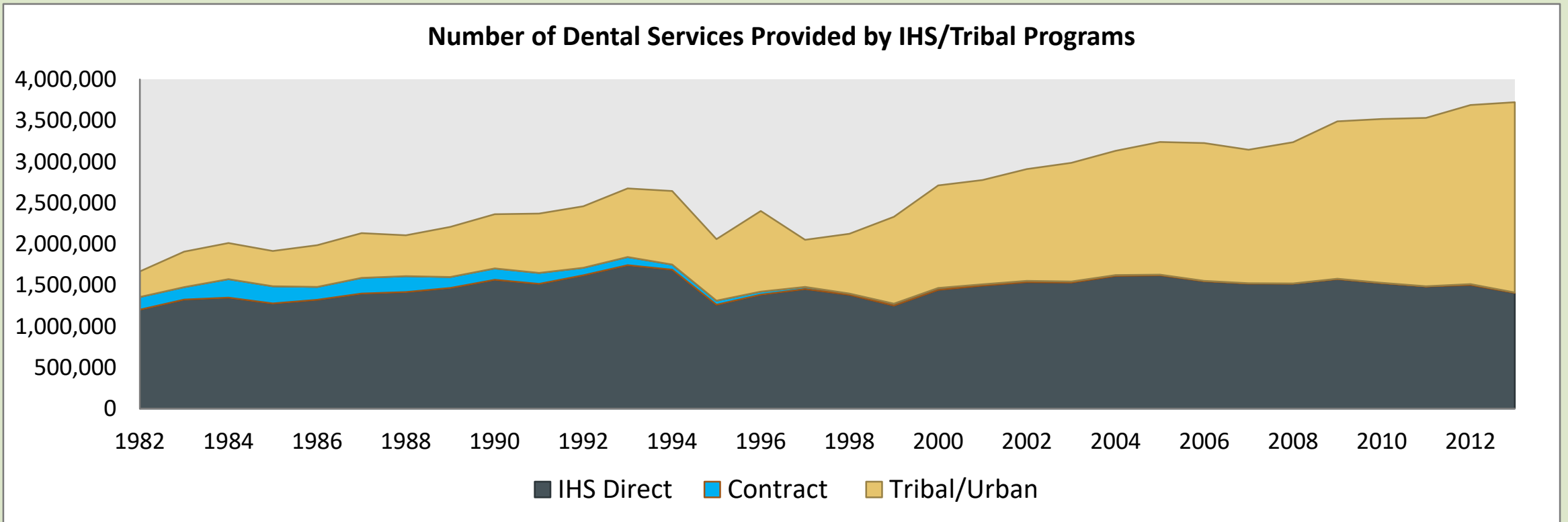
AI/AN CHILDREN HAVE LESS ACCESS TO CARE THAN OTHER POPULATION GROUPS



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.

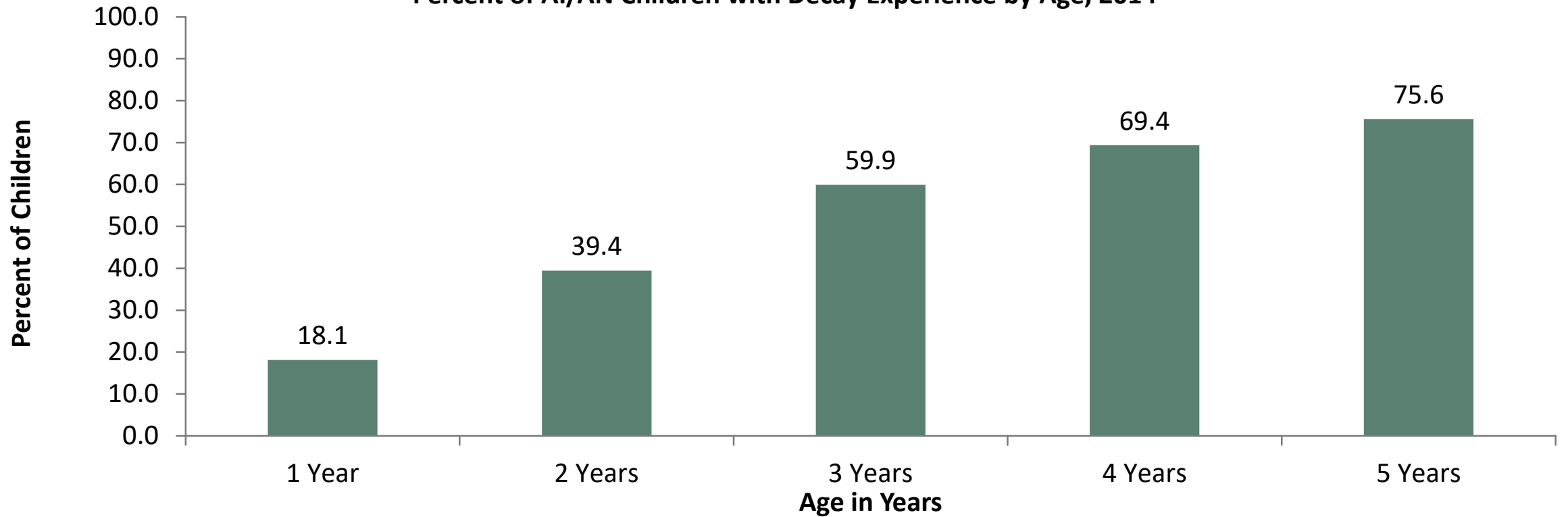
Percent with a dental visit increased from 25% in 2008 to 29% in 2015.



**EARLY PREVENTION IS ESSENTIAL
TWO IS TOO LATE**

EARLY PREVENTION IS ESSENTIAL “TWO IS TOO LATE”

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



CARIES PATTERNS & SEALANTS PRIMARY TEETH



Which primary teeth are at highest risk of decay?

CARIES PATTERNS & SEALANTS PRIMARY TEETH

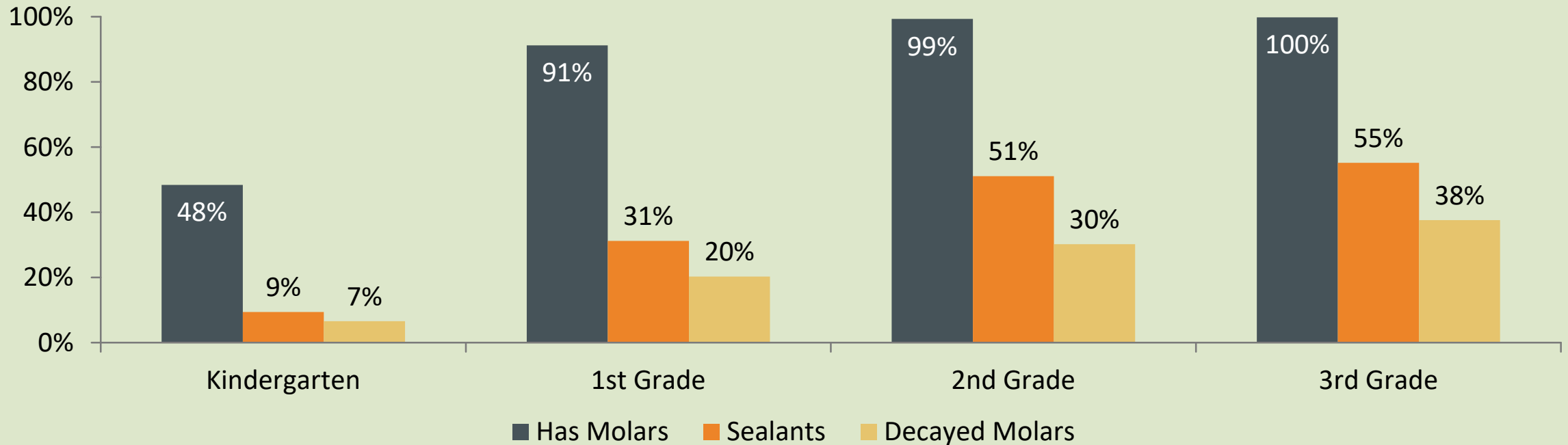
- Teeth at highest risk in children 1-5 years
 - Mandibular 1st molars
 - Maxillary central incisors
 - Mandibular 2nd molars
 - Maxillary 1st molars
 - Maxillary 2nd molars
- Primary molar sealants must be in prevention “package”

CHILDREN 6-9 YEARS OF AGE



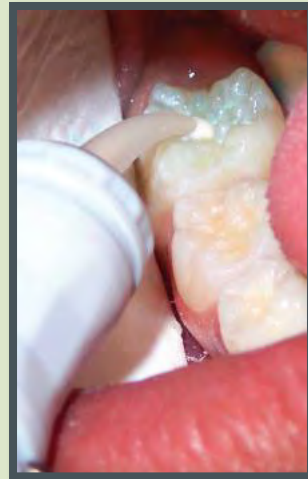
CARIES PATTERNS & SEALANTS PERMANENT 1ST MOLARS

Percent with 1st Molars, Dental Sealants and 1st Molar Decay Experience



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

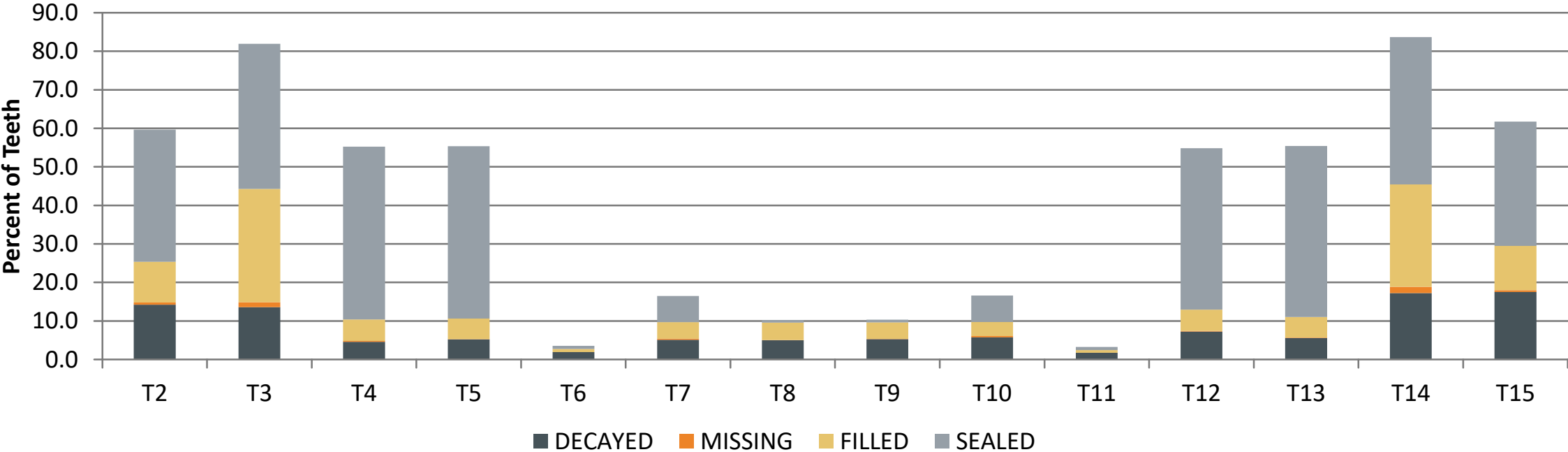


ADOLESCENTS 13-15 YEARS



CARIES PATTERNS & DENTAL SEALANTS

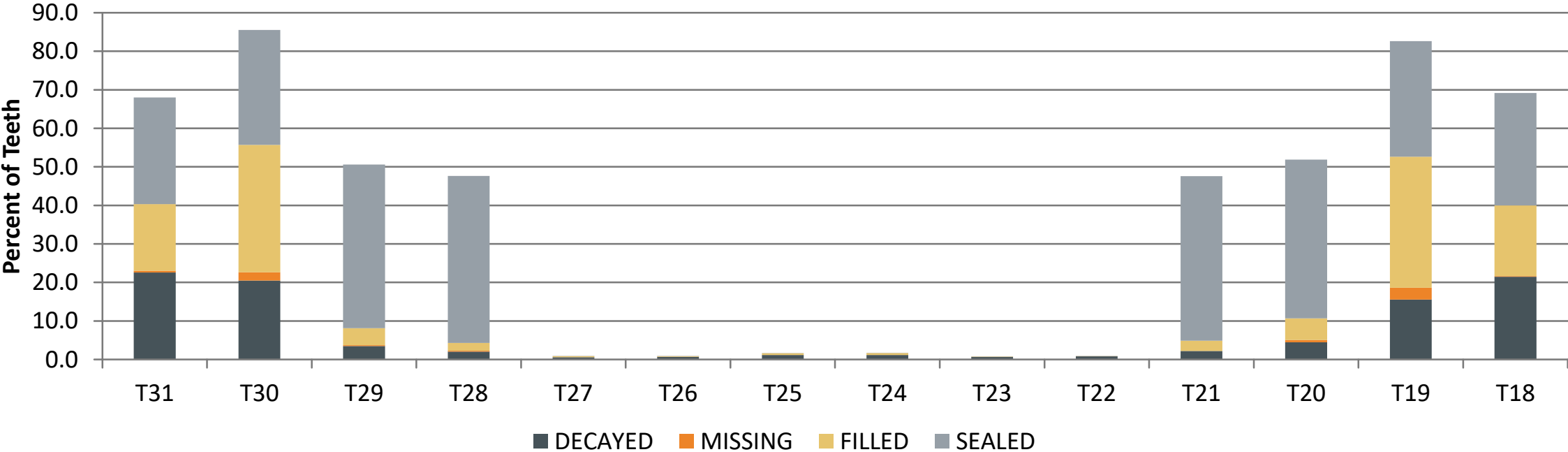
Status of Maxillary Permanent Teeth



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

CARIES PATTERNS & DENTAL SEALANTS

Status of Mandibular Permanent Teeth



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 effect to seal premolars?

ANY QUESTIONS?

