

Oral Disease Burden in Alaska:

An overview of oral disease in Alaska, workforce
issues and dental access –
Healthy Alaskans 2010 mid-course review

Alaska Oral Health Work Group
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What we are going to try to accomplish!



ORAL DISEASE BURDEN

- Tooth decay (caries) and periodontal disease (pyrea)
- Oral Cancer – benign tumors
- Temporomandibular Joint Disorder – myofacial pain
- Injuries
- Congenital - cleft lip/palate

Risk Factors: Diet (e.g., soda); Tobacco and alcohol use
Chemo/radiotherapy; medications that
decrease saliva flow

Preventive Approaches: Water Fluoridation and Sealants

Dental Access Issues

Workforce Issues

Dental Decay (Caries) – Significance

Children:

52 million school hours missed nationally

Speech Development

Ability to learn – behavior management

Pain

Cost – Early Childhood Caries

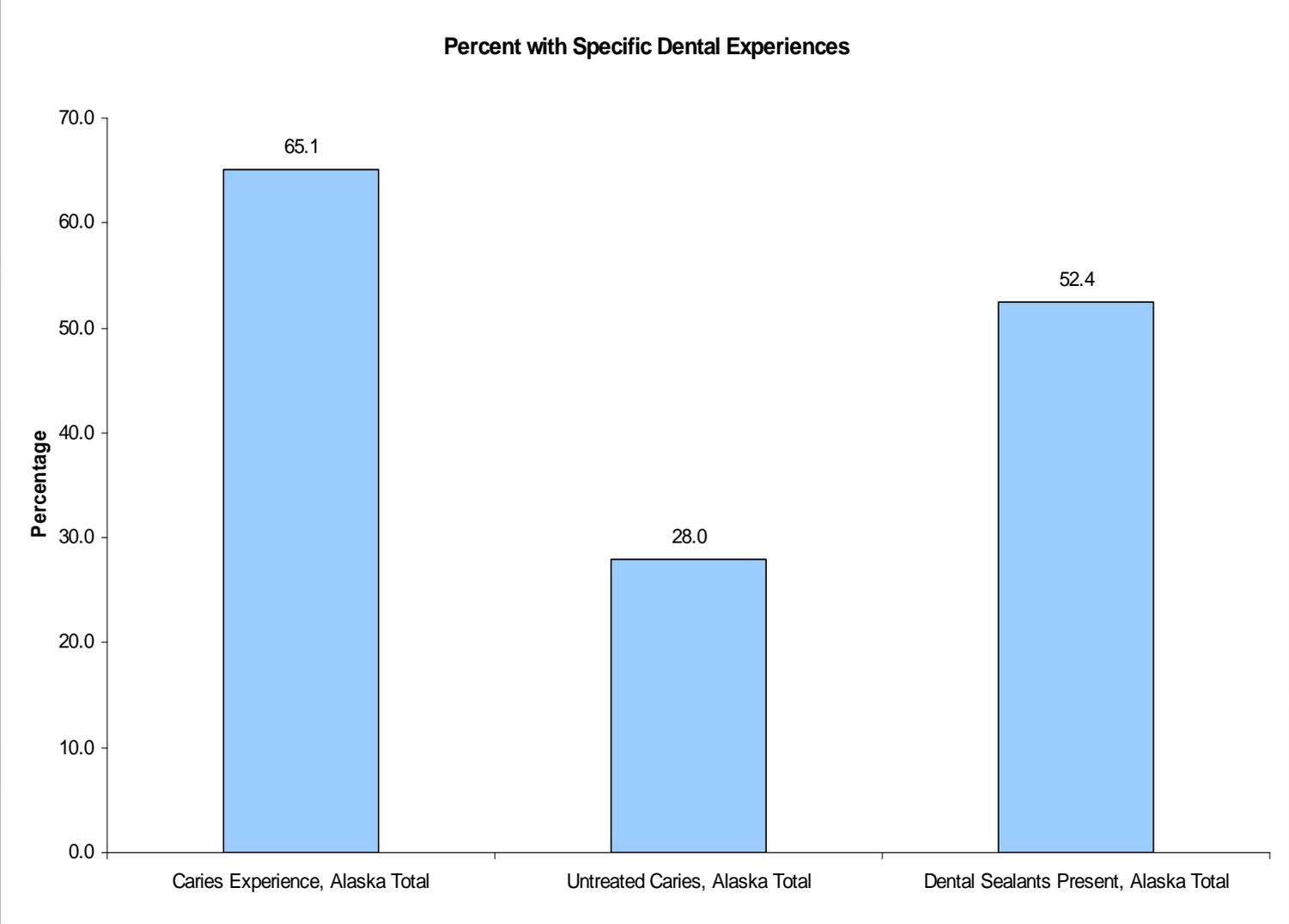
Adults:

Missed work (Pain and Infection)

Employability and employment advancement

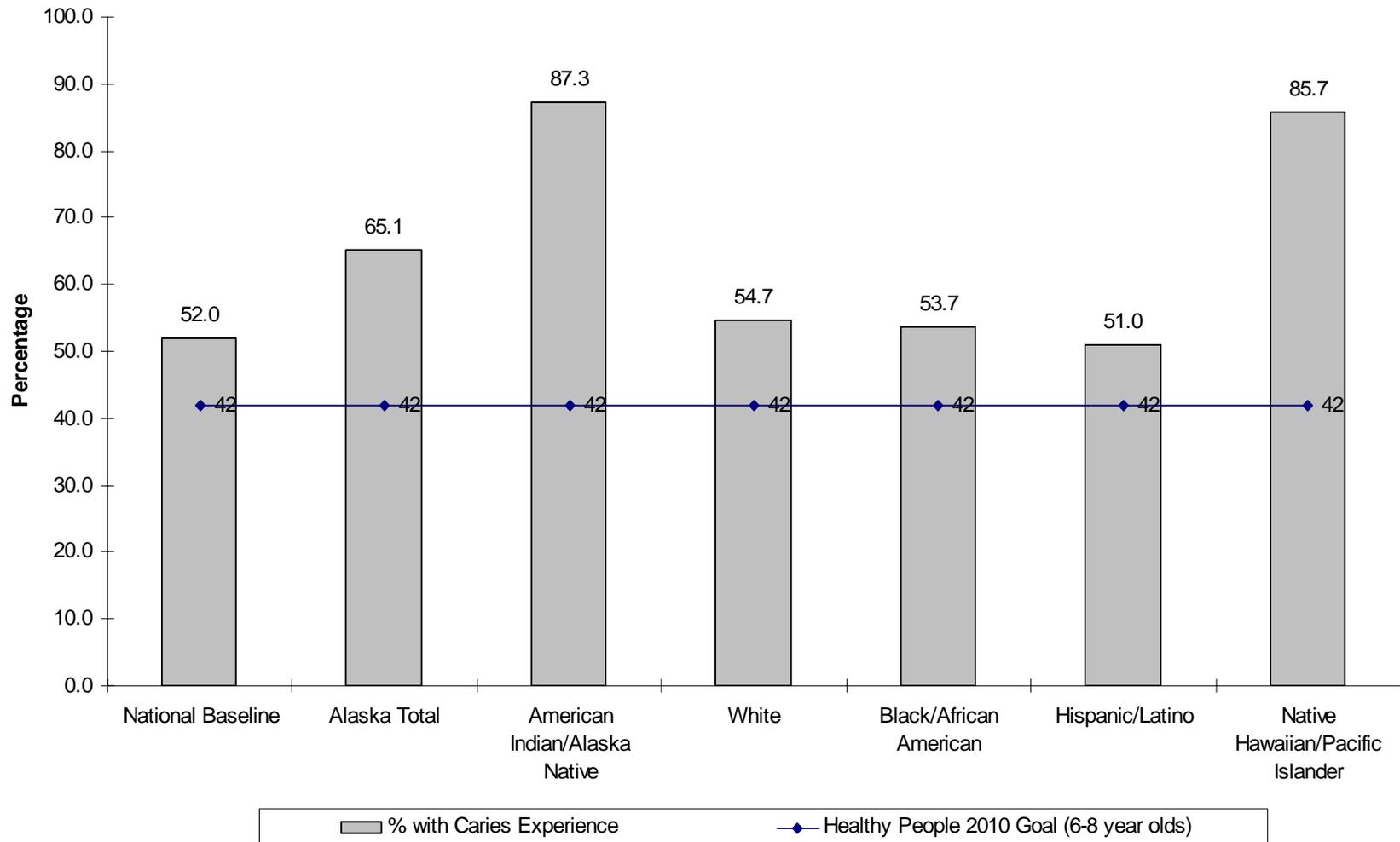
Coverage Issues

Third Graders – Summary Results



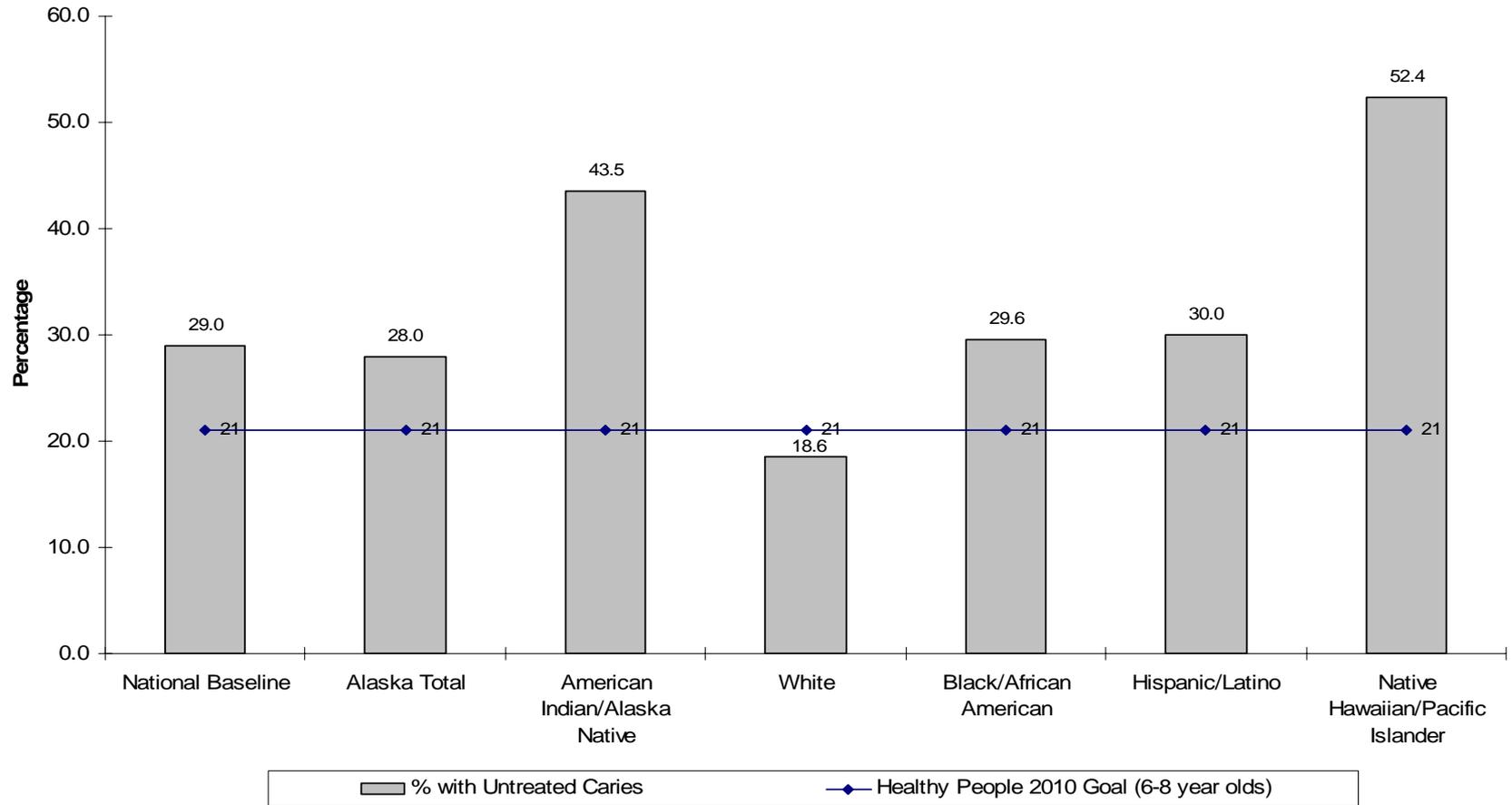
Third Graders – Caries Experience

Percent with Caries Experience by Race/Ethnicity

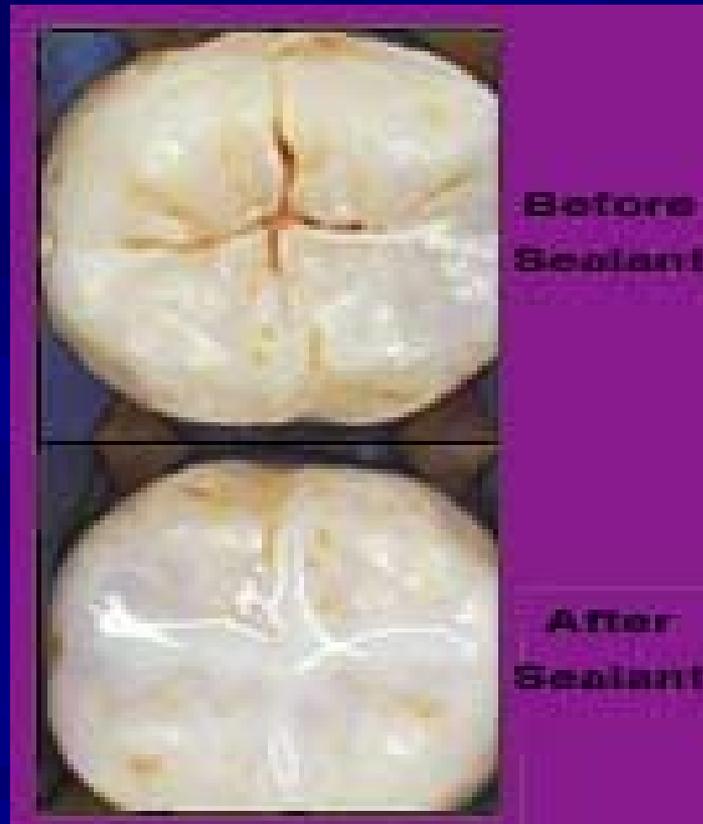


Third Graders – Untreated Caries

Percent with Untreated Caries by Race/Ethnicity

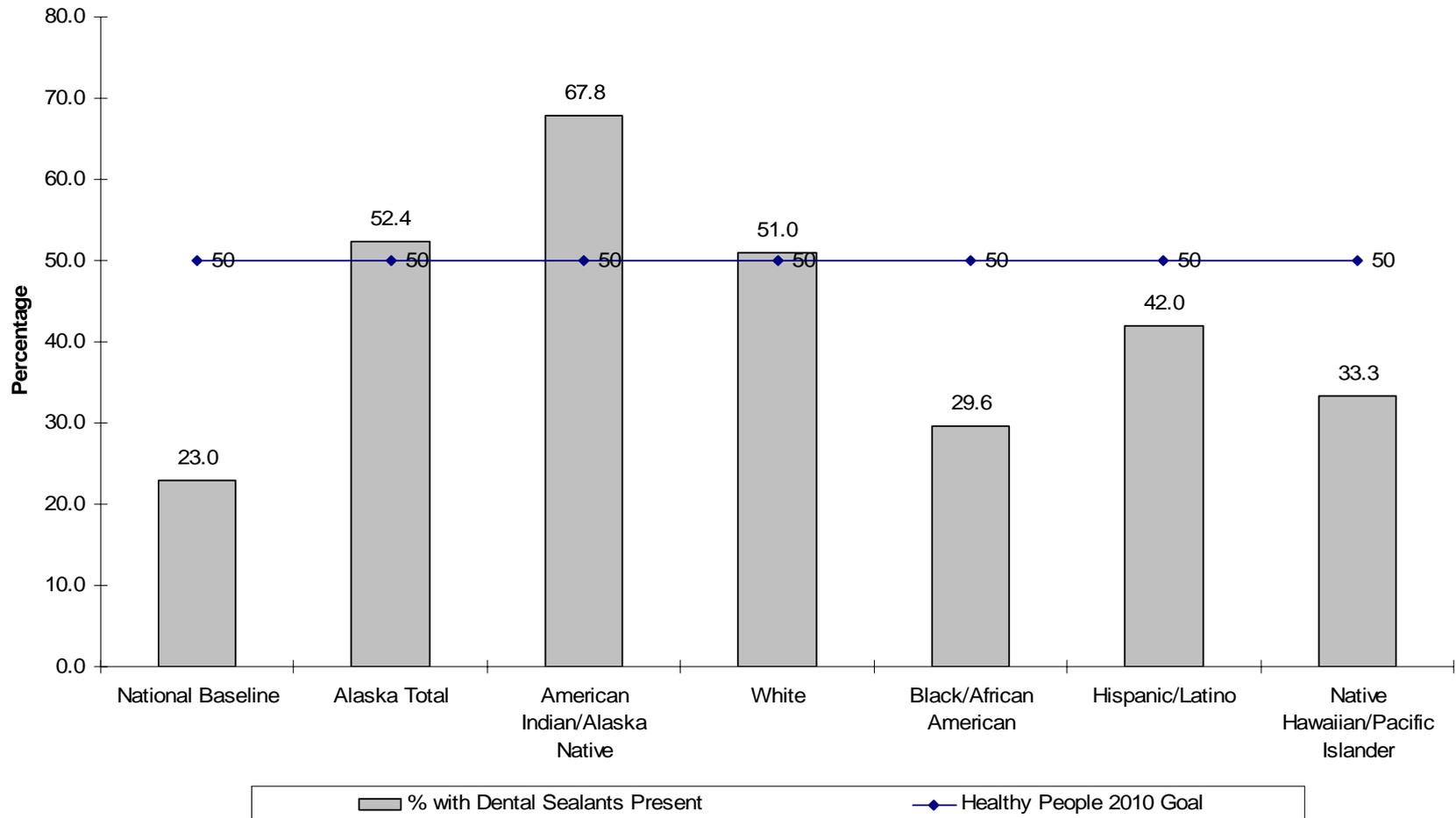


Dental Sealants



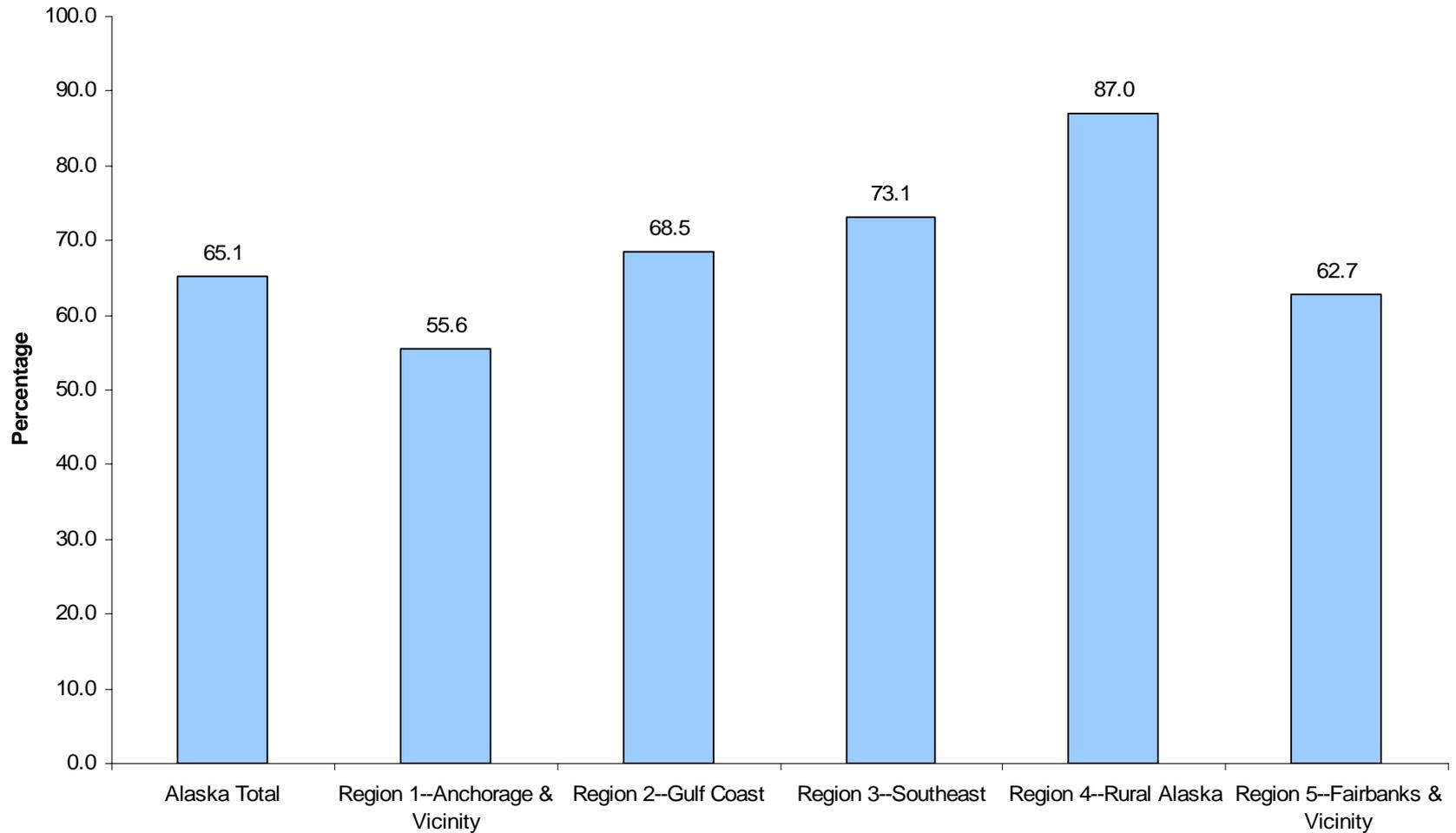
Third Graders – Dental Sealants

Percent with Dental Sealants by Race/Ethnicity



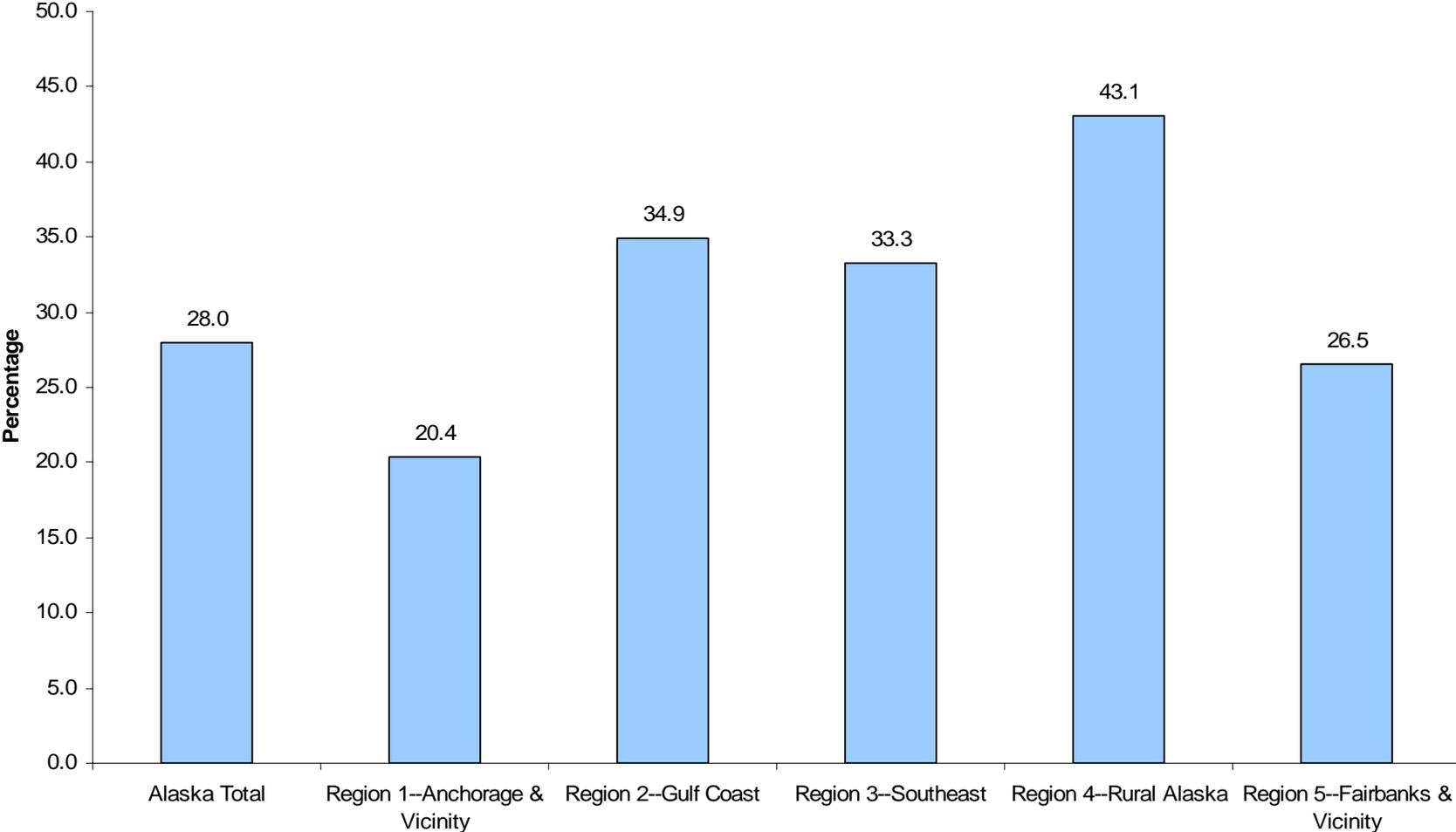
Third Graders – Caries Experience by Regions

Percent with Caries Experience by Region



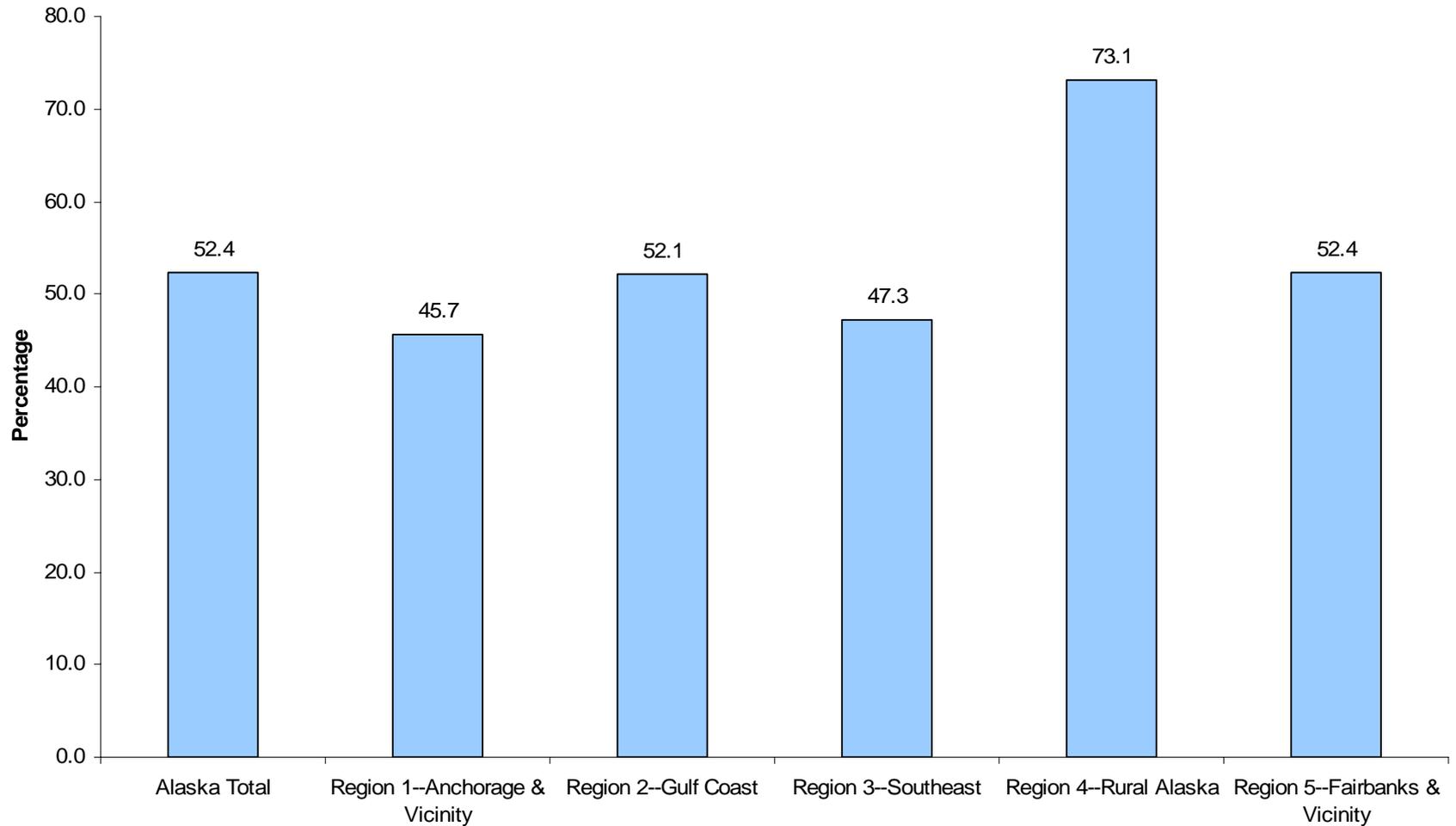
Third Graders: Untreated Caries by Region

Percent with Untreated Caries by Region



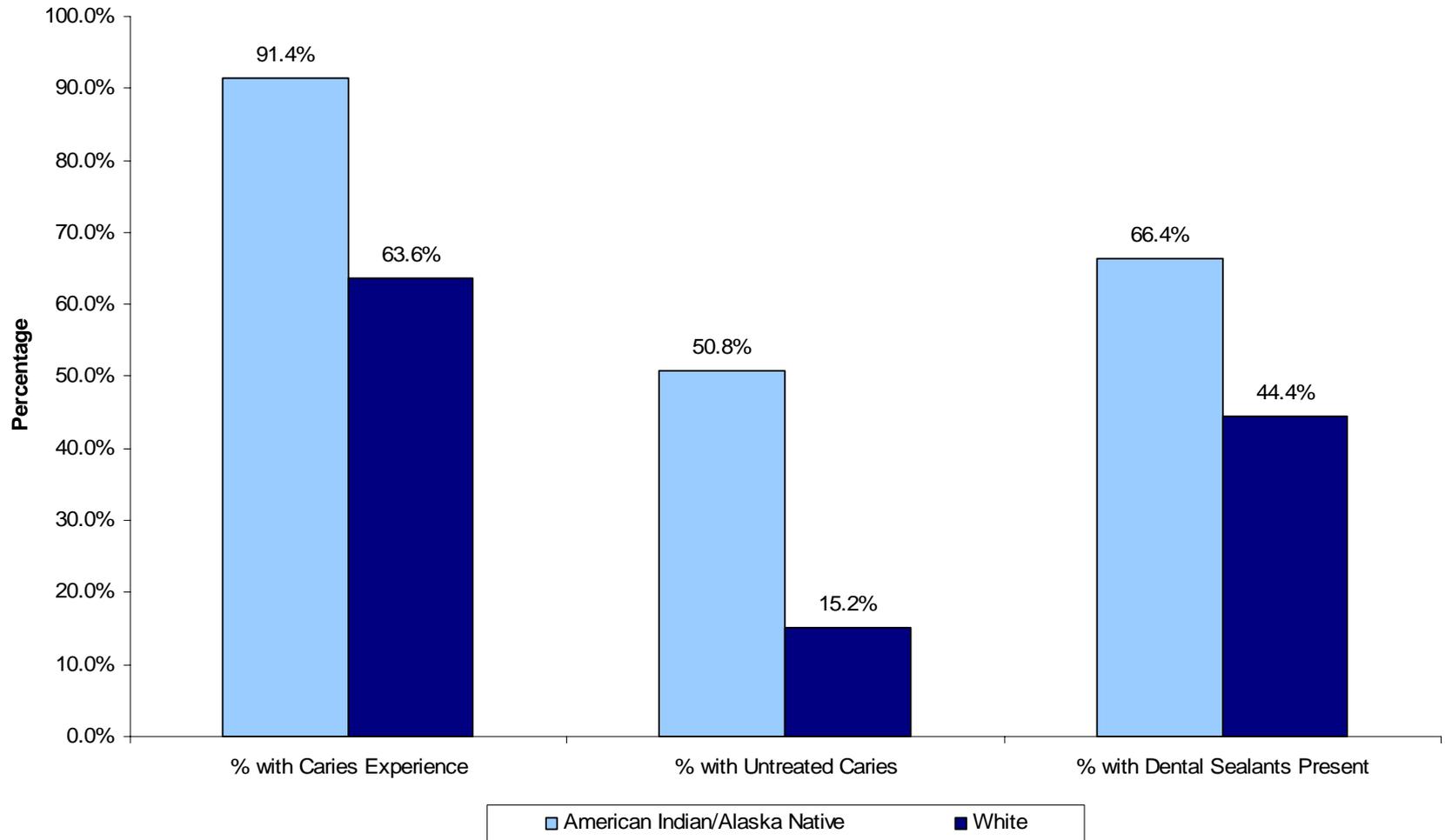
Third Graders – Sealants by Region

Percent with Sealant Utilization by Region



Third Graders: Medicaid/Denali KidCare

Percent of Medicaid/Denali Kid Care Patients with Specific Dental Experiences by Race

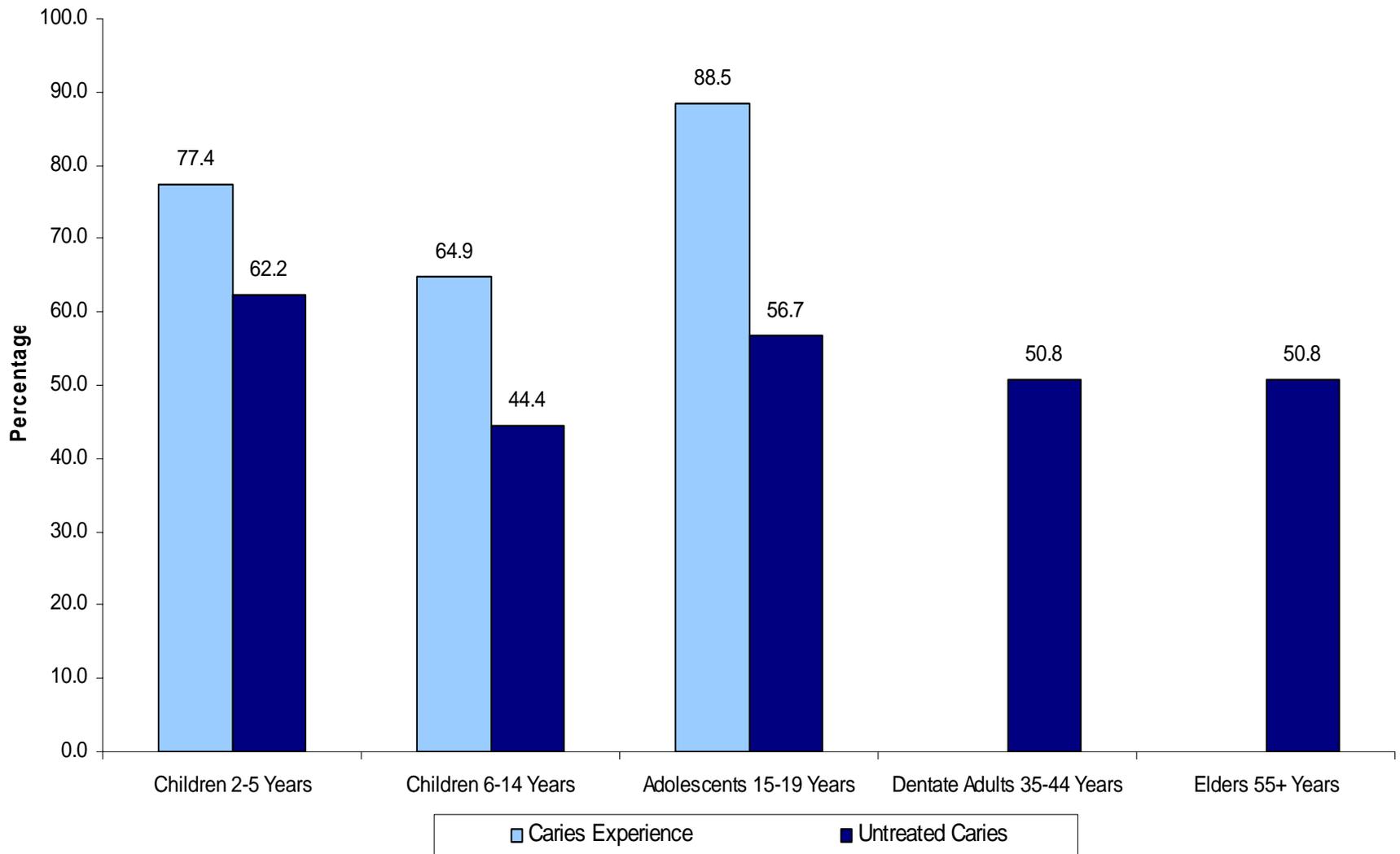


Assessment Follow-Up

- Quadrants with untreated caries
- Sealant evaluation – cost effectiveness
- Increase urban sample size in future assessment(s)
- Current project for kindergarteners and children enrolled in Head Start – early 2006
- Strengths/weakness of surveillance method

IHS Dental Assessment - 1999

Caries Indicators Among Alaska Native Dental Patients by Age



Caries Severity – Alaska Natives

Age:

2-5: 59.7% Severe ECC; dmft 5.17; dmfs 13.27

6-14: dmft 4.50; DMFT 2.60; DMFS 4.56

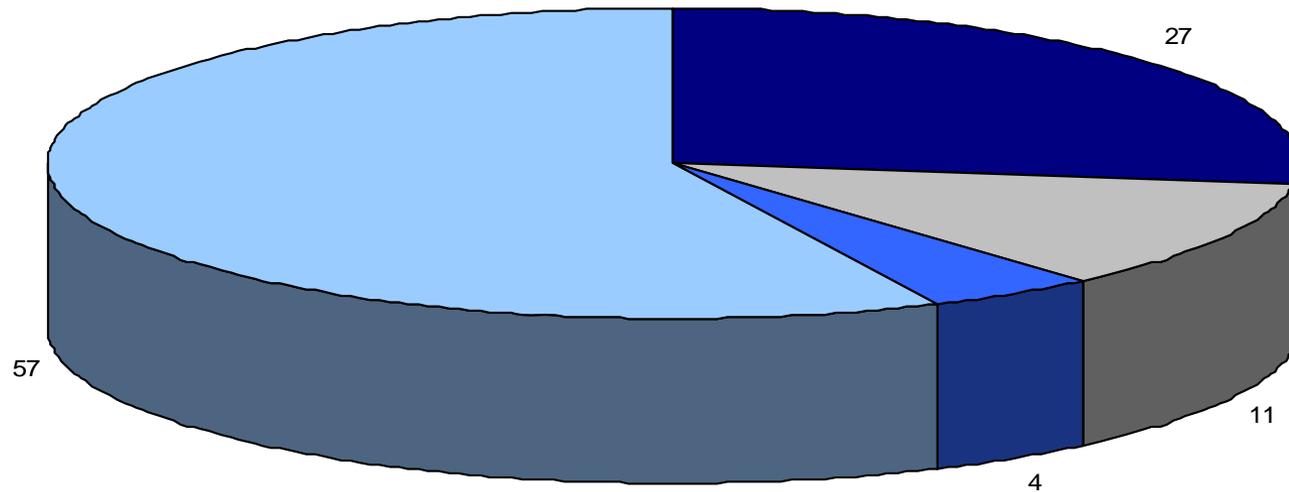
15-19: DMFT 6.63; DMFS 12.44

35-44: DMFT 16.59; DMFS 49.68; 24% have 28 teeth

55 & Older: 1.4% have 28 teeth; 28.4% have 20 teeth;
26.3% have no teeth

Tooth Loss – Adults 18+

Tooth Loss Due to Caries or Periodontal Disease - Adults (BRFSS, 2004)



■ Lost 1 to 5 teeth

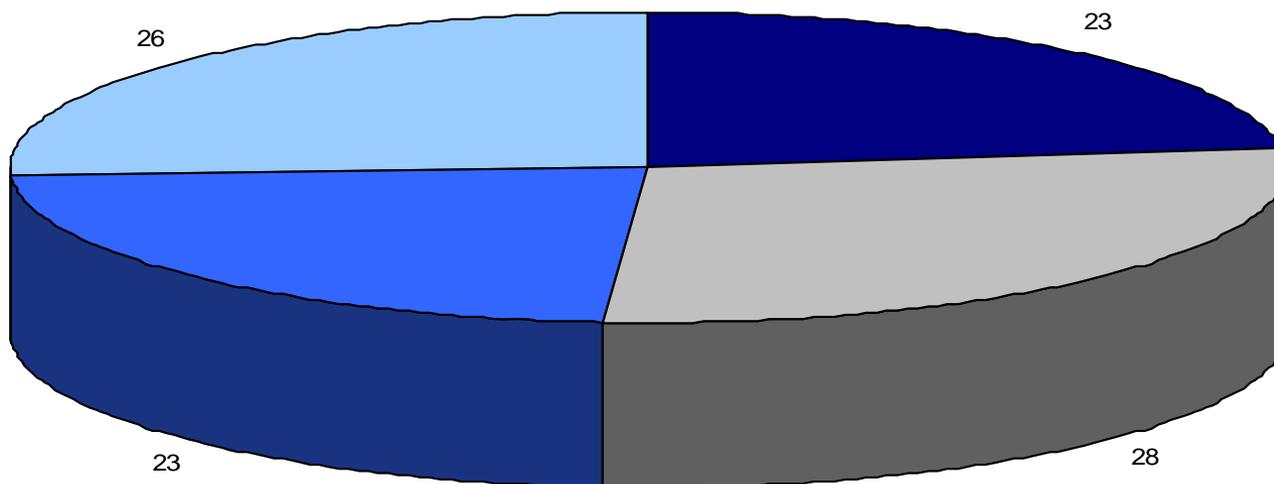
■ Lost 6 or more teeth

■ Lost all teeth

■ Lost no teeth

Tooth Loss – Seniors (65+)

Tooth Loss Due to Caries or Periodontal Disease - Adults Aged 65+ (BRFSS, 2004)



■ Lost 1 to 5 teeth

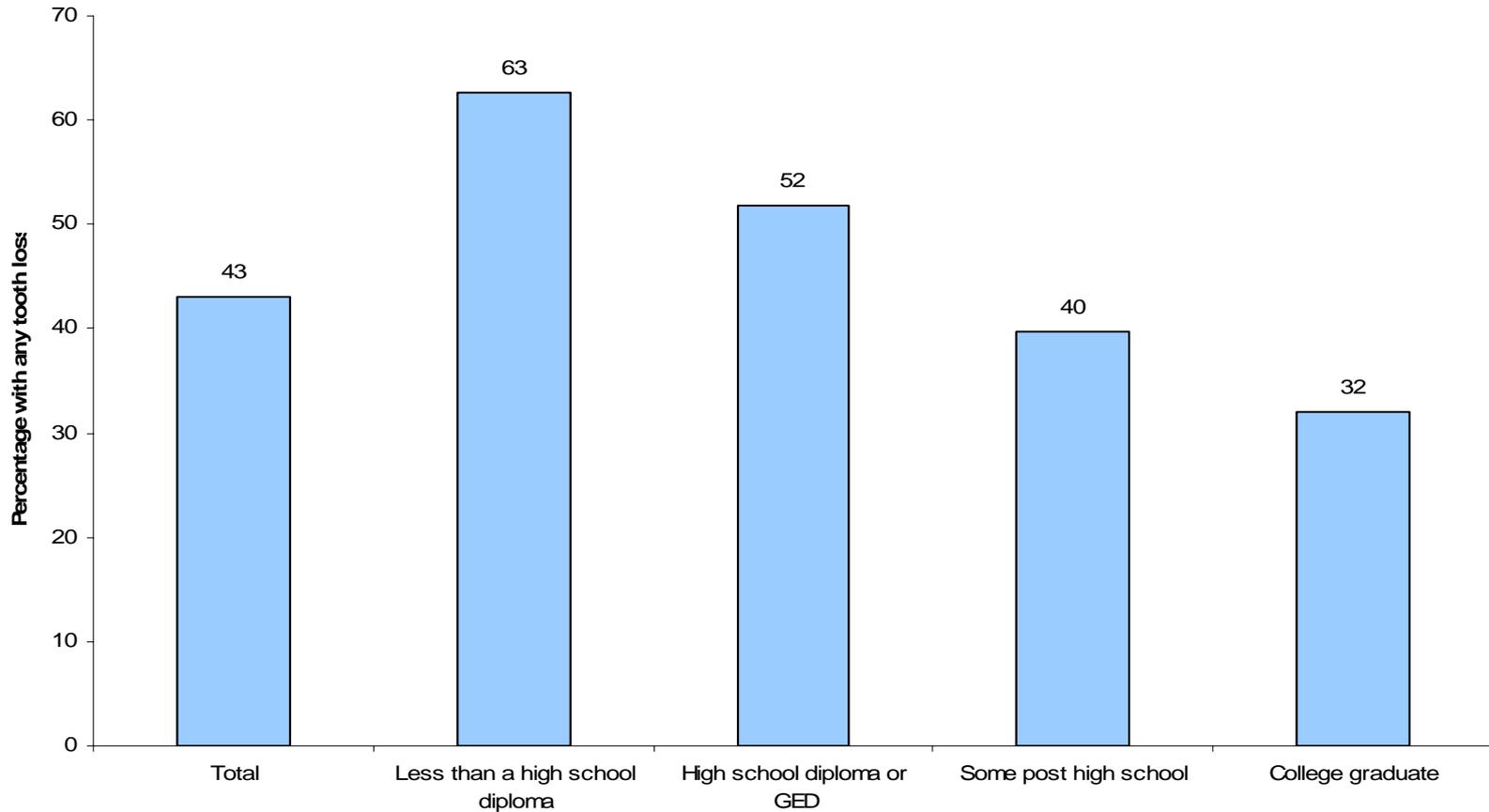
■ Lost 6 or more teeth

■ Lost all teeth

■ Lost no teeth

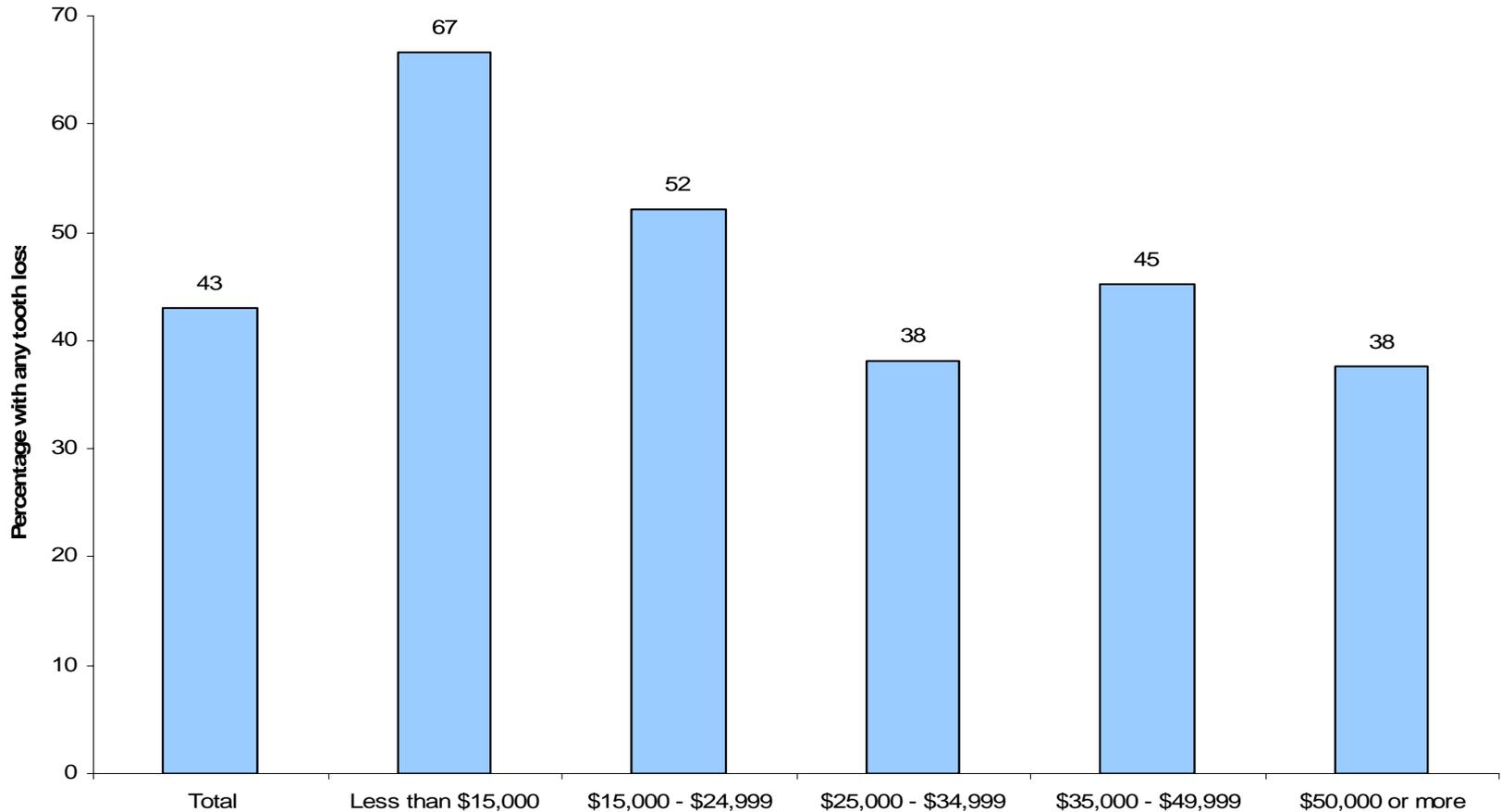
Tooth Loss – Education Level

Tooth Loss Due to Caries or Periodontal Disease by Education Level (BRFSS, 2004)



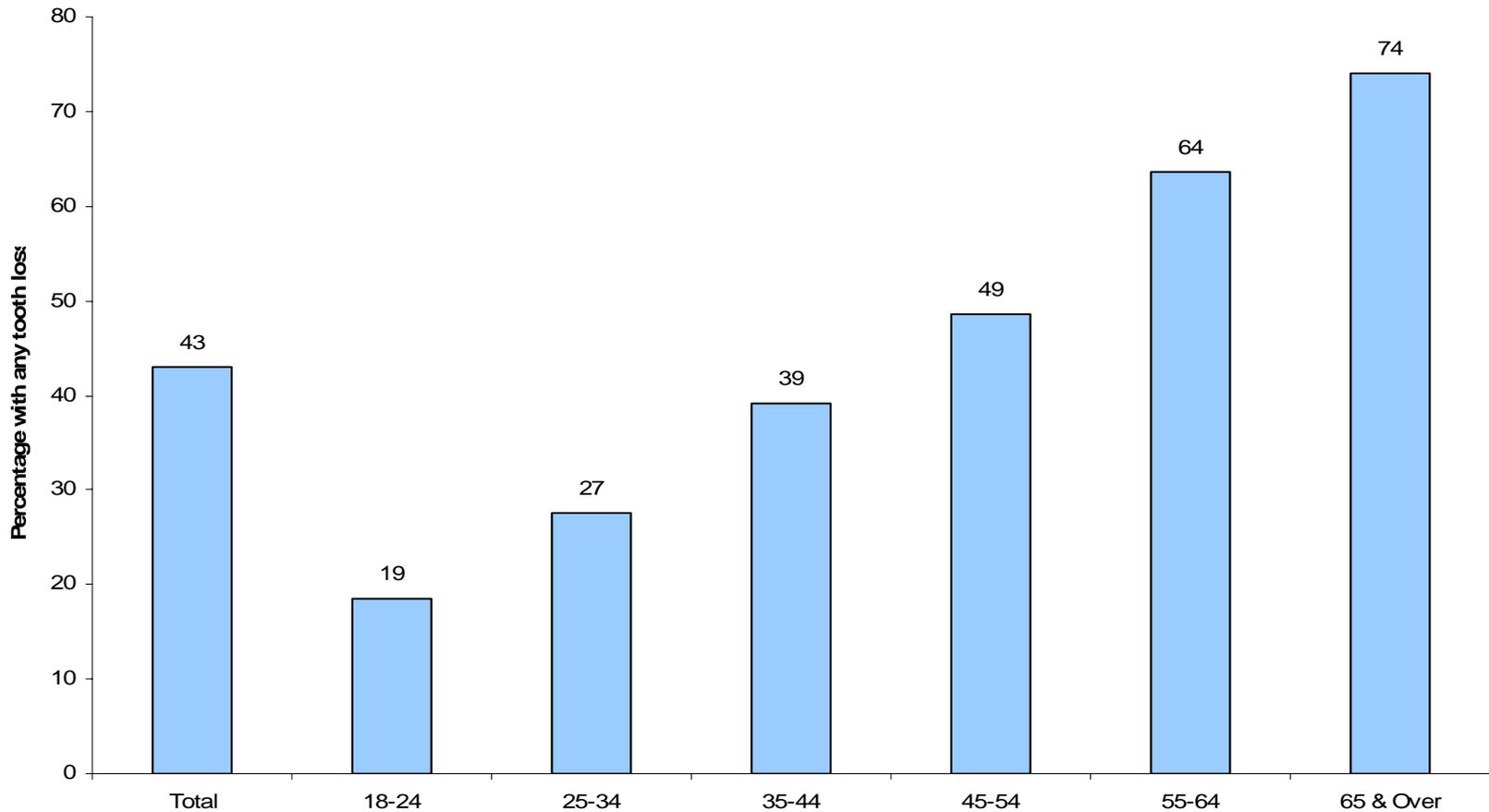
Tooth Loss – Income Level

Tooth Loss Due to Caries or Periodontal Disease by Income Level (BRFSS, 2004)



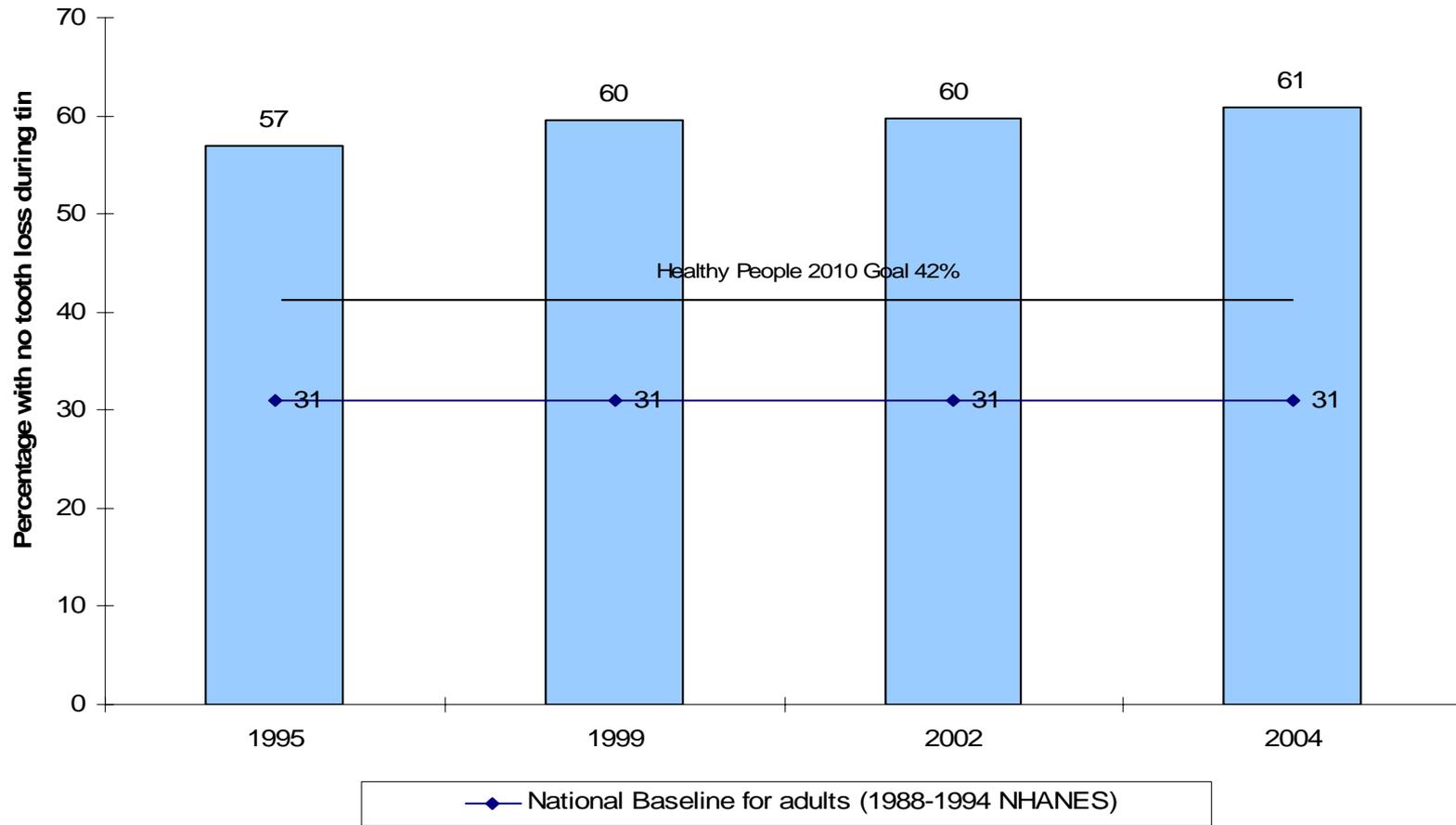
Tooth Loss – Age Group

Tooth Loss Due to Caries or Periodontal Disease by Age Group (BRFSS, 2004)



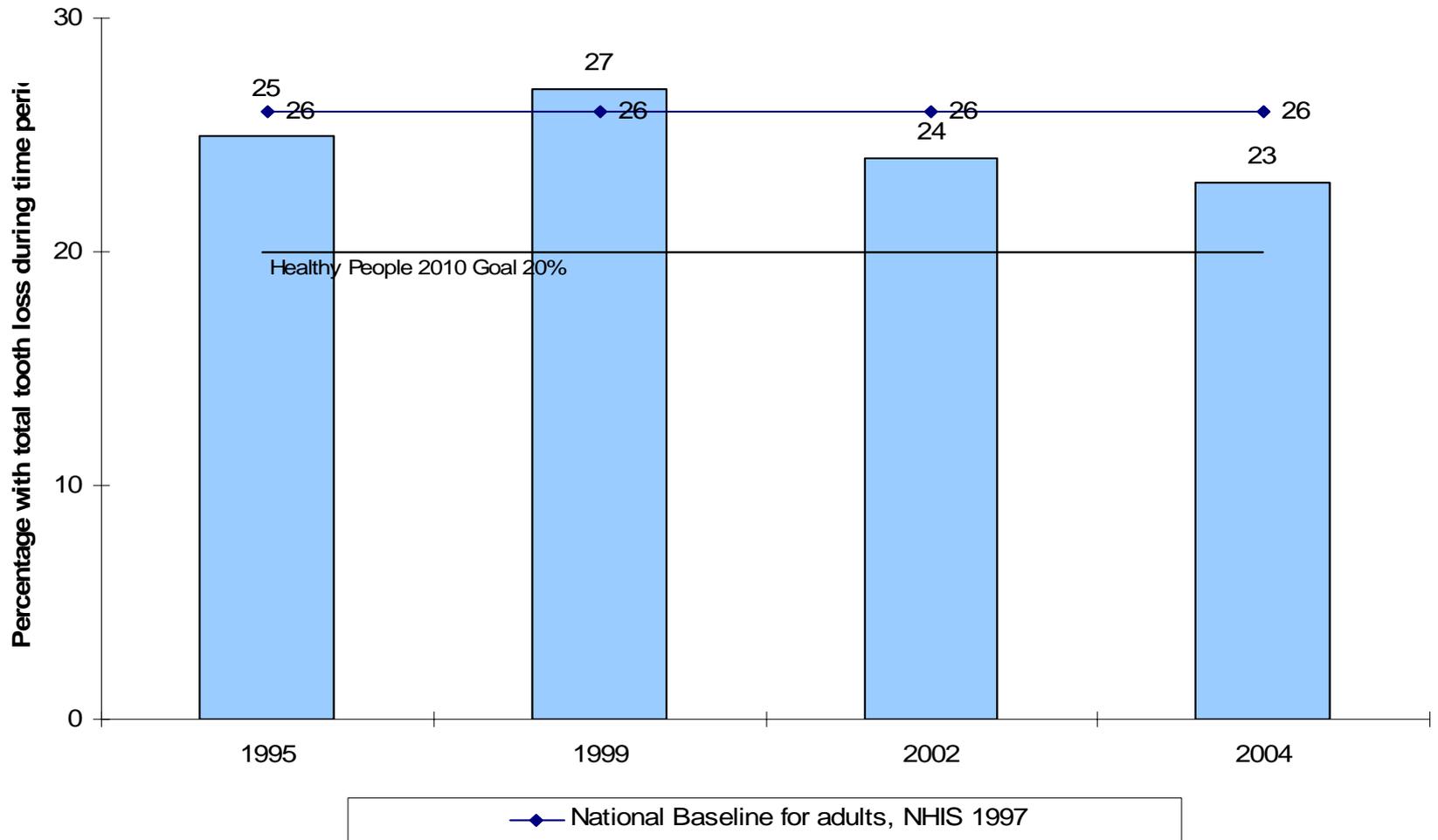
Tooth Loss Due to Caries or Periodontal Disease

Adults Age 35-44 with No Tooth Loss by Year

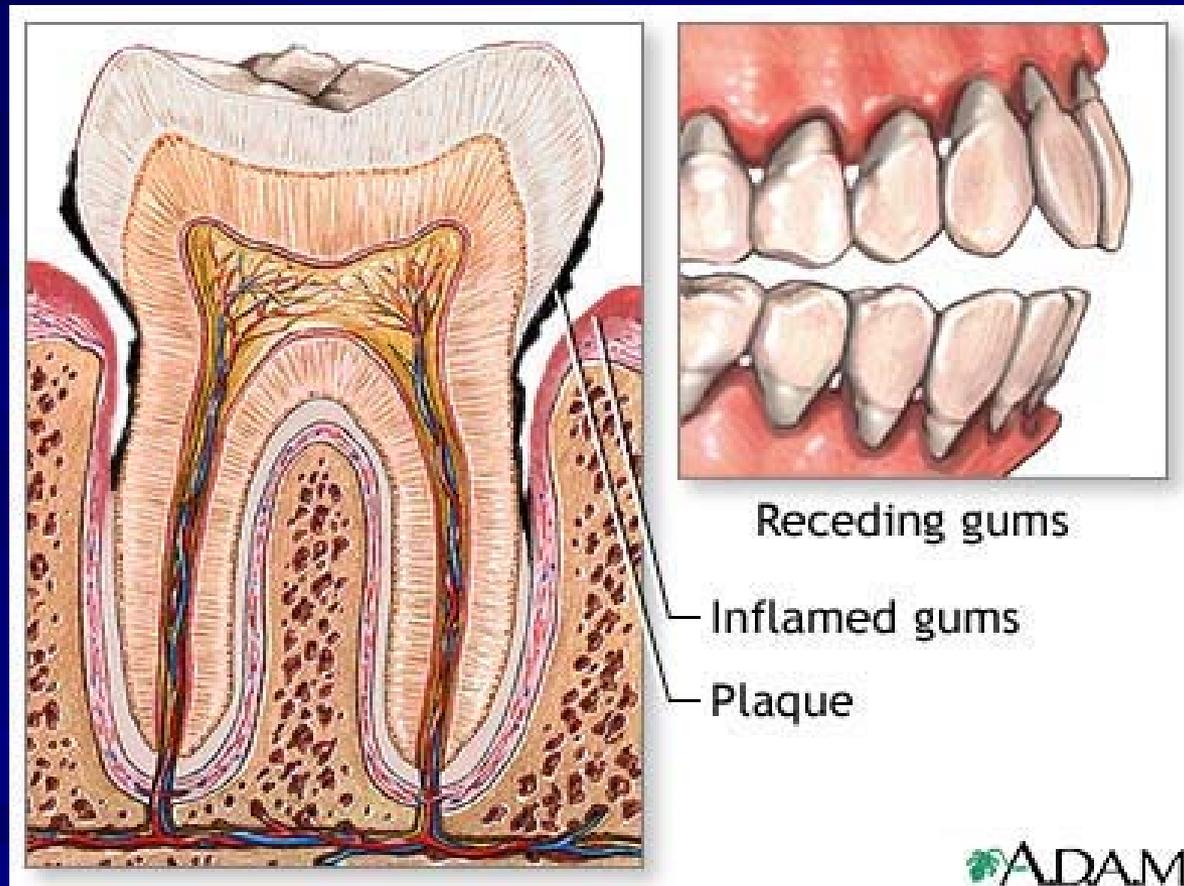


Edentulous Seniors

Edentulous Adults Age 65+ by Year



Periodontal Disease



Periodontal Disease

HP2010: Reduce destructive periodontal disease from 22% (1988-94 NHANES) to 14% (Adults 35-44)

Significance:

Can lead to tooth mobility and eventual tooth loss

Risk factor for aspiration pneumonia in the frail elderly

Links with adverse birth outcomes (e.g., pre-term births)

Links with cardiovascular disease

Tobacco use counts for more than half of all cases

Alaska Native 35-44: 37.4% LOA > 5mm; PPD 6mm 9.2%

55+ : 68.9% LOA > 5mm; PPD 6mm 4.1%

Oral Cancer



Oral Cancer - Leukoplakia

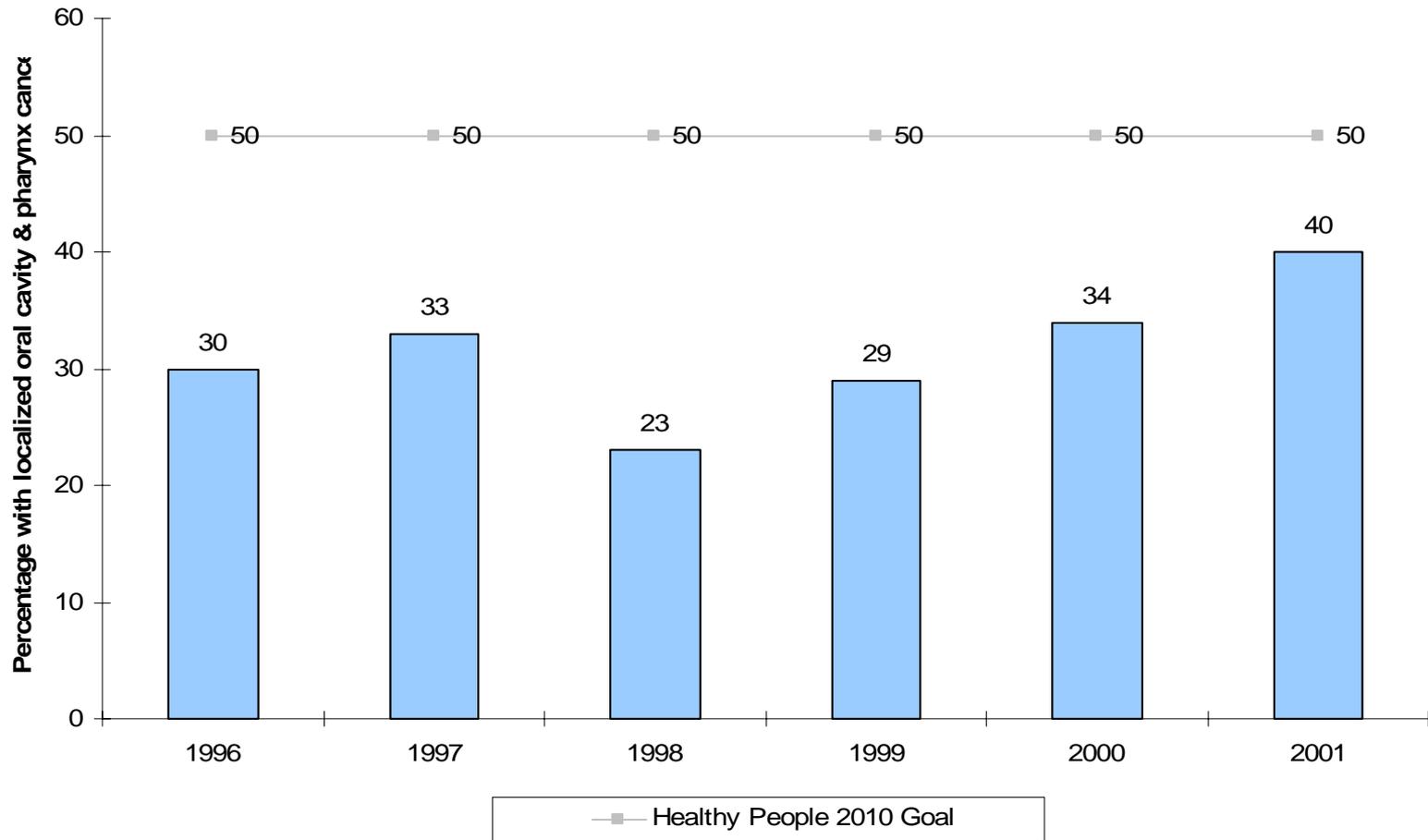


Basal Cell – U/V Exposure



Oral Cancer - Detection

Localized Oral Cavity & Pharynx Cancer for Alaska by Year



Oral Cancer – Incidence (2001)

U.S.	AK Total	White AK	Native AK	Male AK	Female AK
10.3	9.9	9.5	14.9	12.5	7.4

Mortality Rate for Alaska in 2001 was 4.8 per 100,000 (2.7 US, 2001)

Rates are per 100,000 population adjusted to the 2000 standard U.S. population

Source: Alaska Cancer Registry computer records as of November 2004

HP2010: Adults aged 40 & Older that report on oral cancer exam in the past 12 months (2007 or 2008 BRFSS)

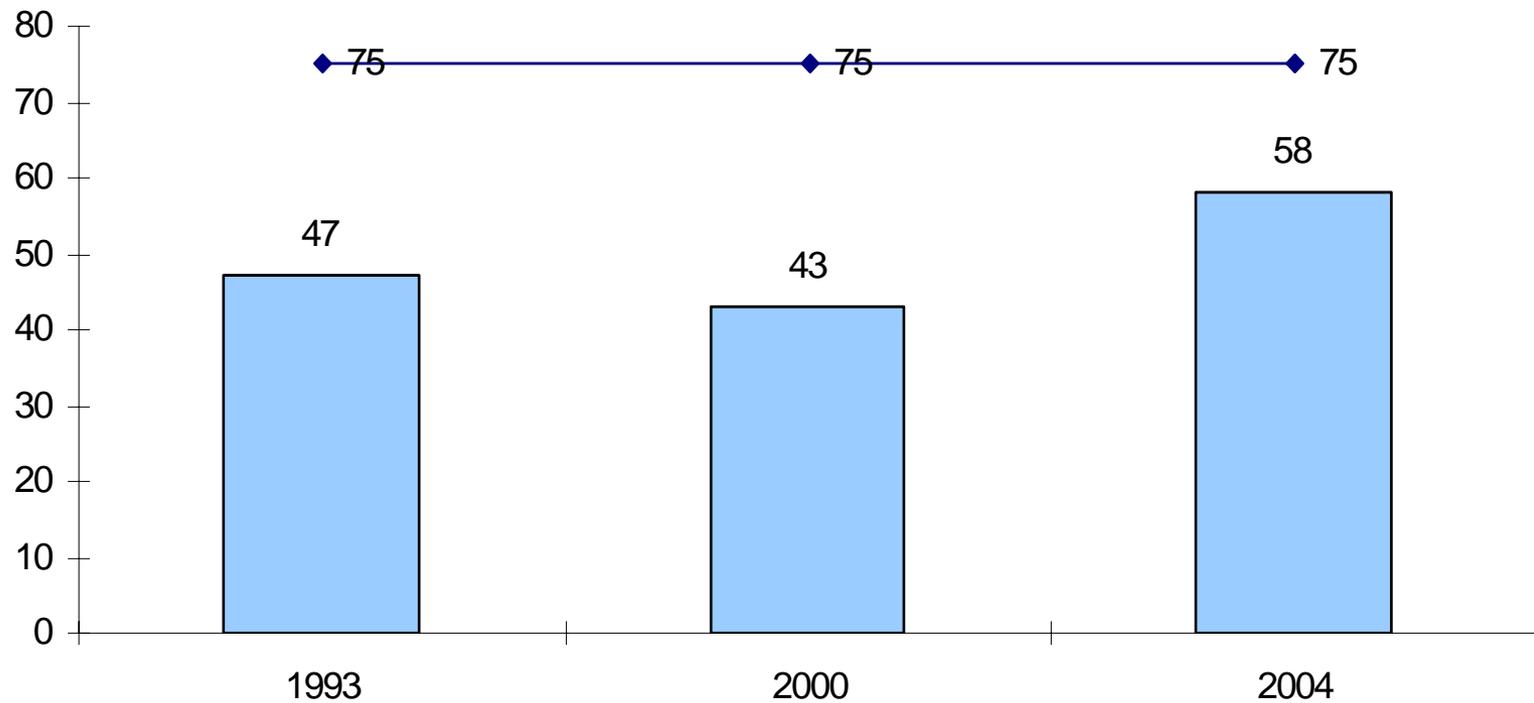
Community Water Fluoridation



6513 © Ernst Schneider,
Alaska Division of Tourism

Community Water Fluoridation

Proportion of Alaskans Served by Community Water Systems with Optimally Fluoridated Water



◆ Healthy People 2000 Goal

Dental Access

Any Dental Service (HP2010 Indicator)

Preventive or Routine Dental Visit (cleaning)

Medicaid Utilization: Children enrolled in
Medicaid/Denali KidCare

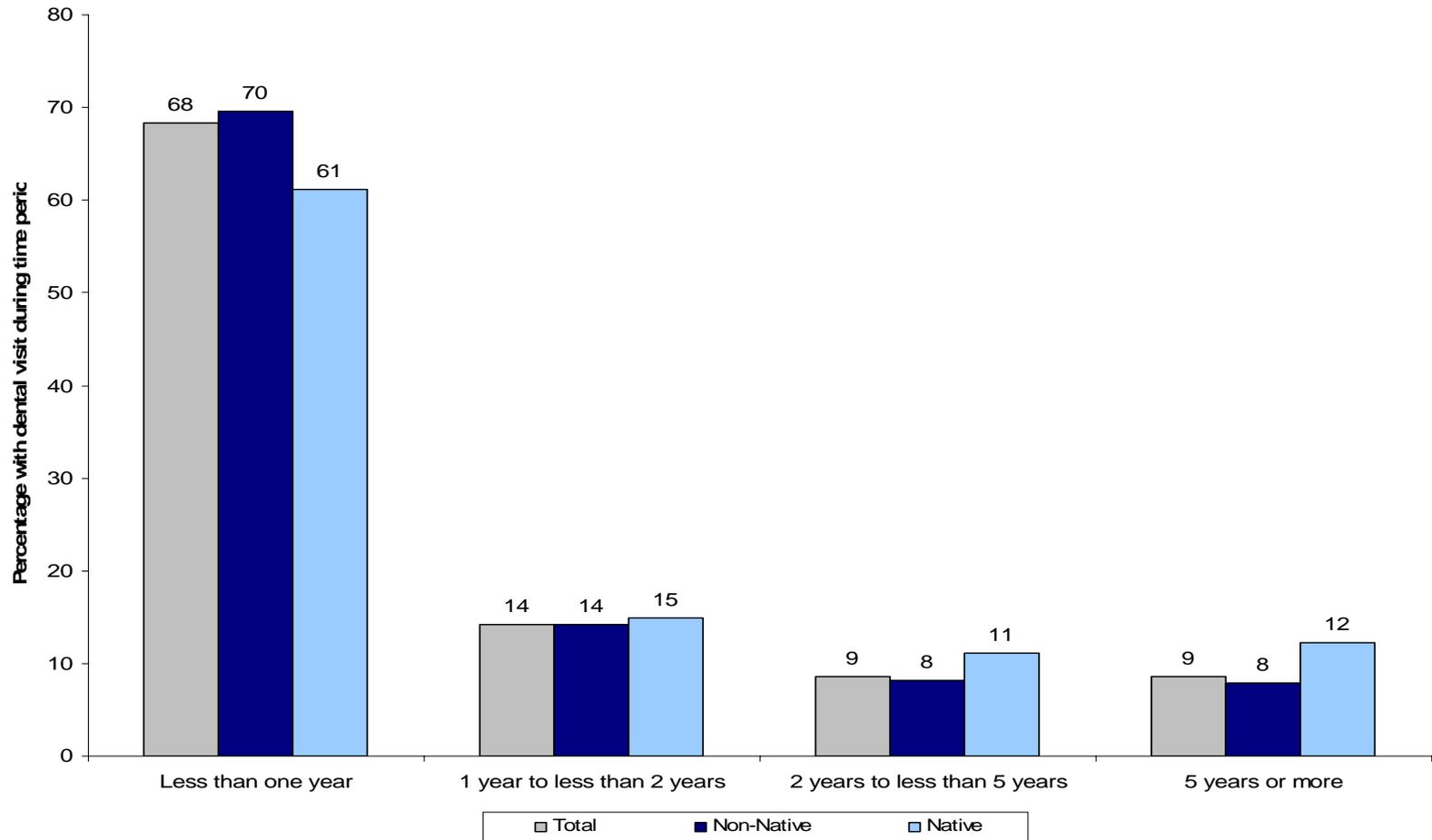
Sources: Adult visits (BRFSS)
Medicaid (CMS 416 Reports)

Note: HP2010 Indicator for LTC Residents (Senior Assessment) – 25%
for Any Dental Visit

Dental Access – Any Dental Service (BRFSS, Adults)

HP2010 Target – 56% in the last year

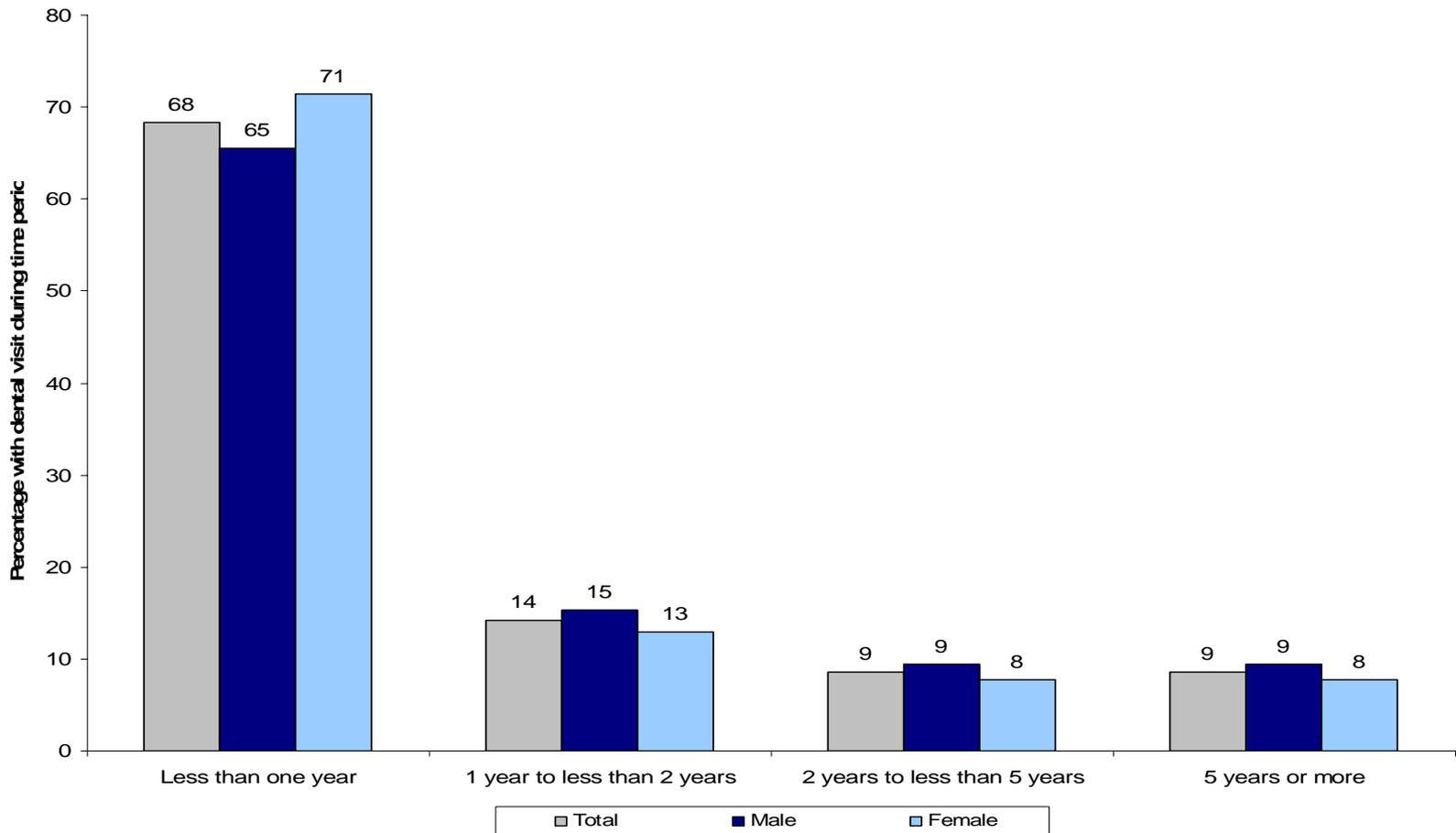
Adult Dental Access – Any Dental Visit by Year and Native Status



Dental Access – Any Dental Service (BRFSS, Adults)

HP2010 Target – 56% in the last year

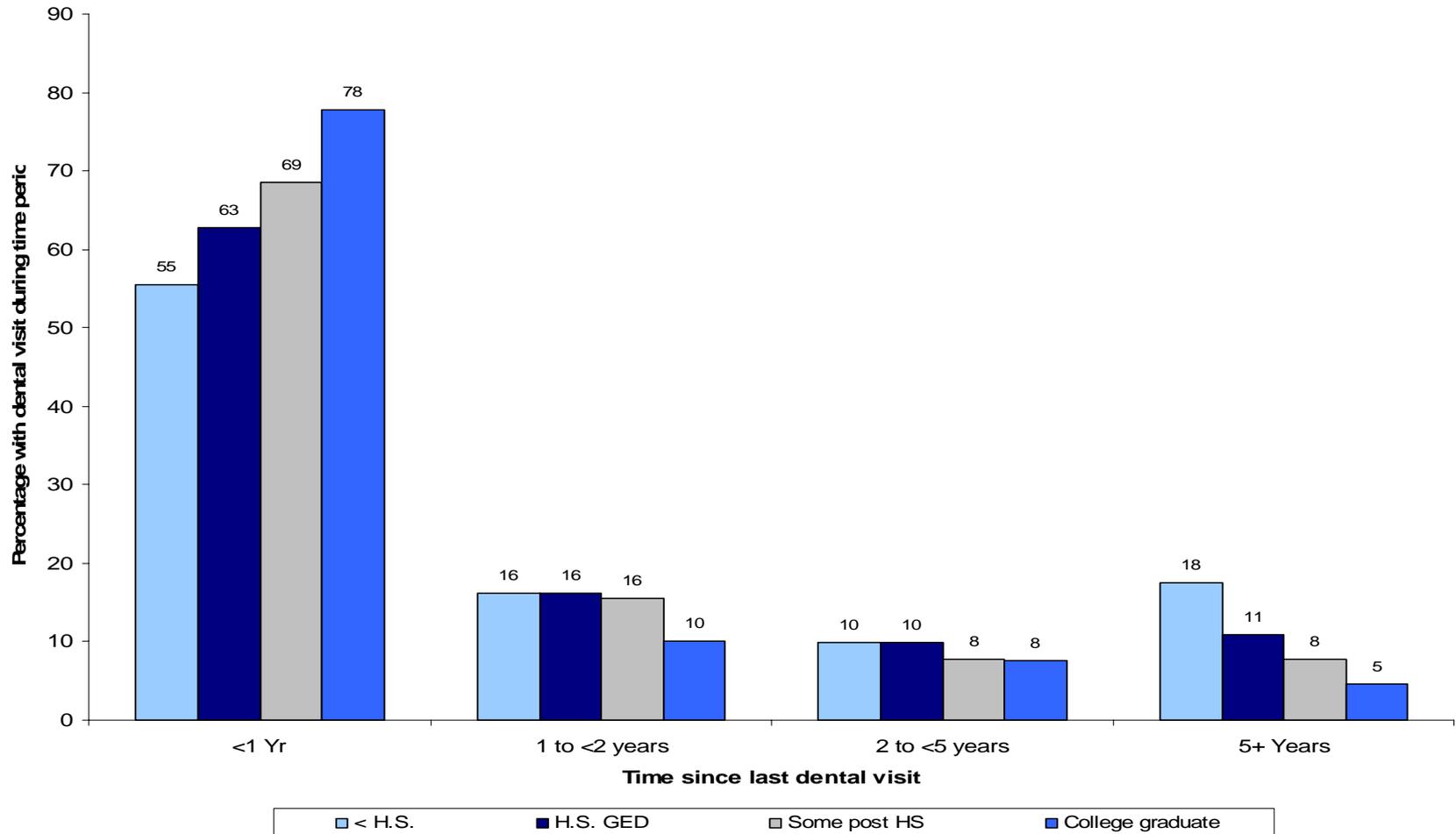
Adult Dental Access – Any Dental Visit by Year and Gender



Dental Access – Any Dental Service (BRFSS, Adults)

HP2010 Target – 56% in the last year

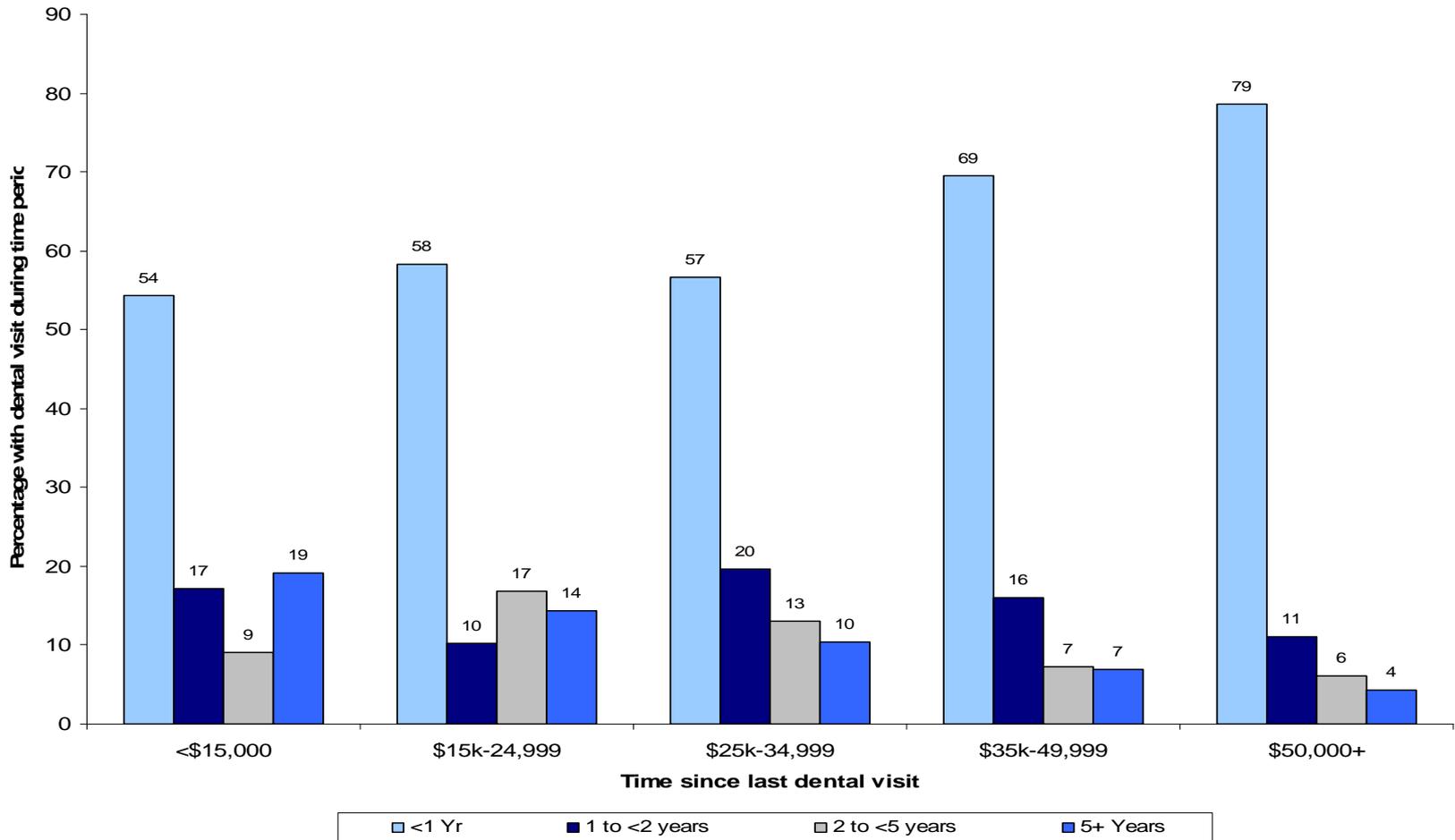
2004 Adult Dental Access – Any Dental Visit by Education Level



Dental Access – Any Dental Service (BRFSS, Adults)

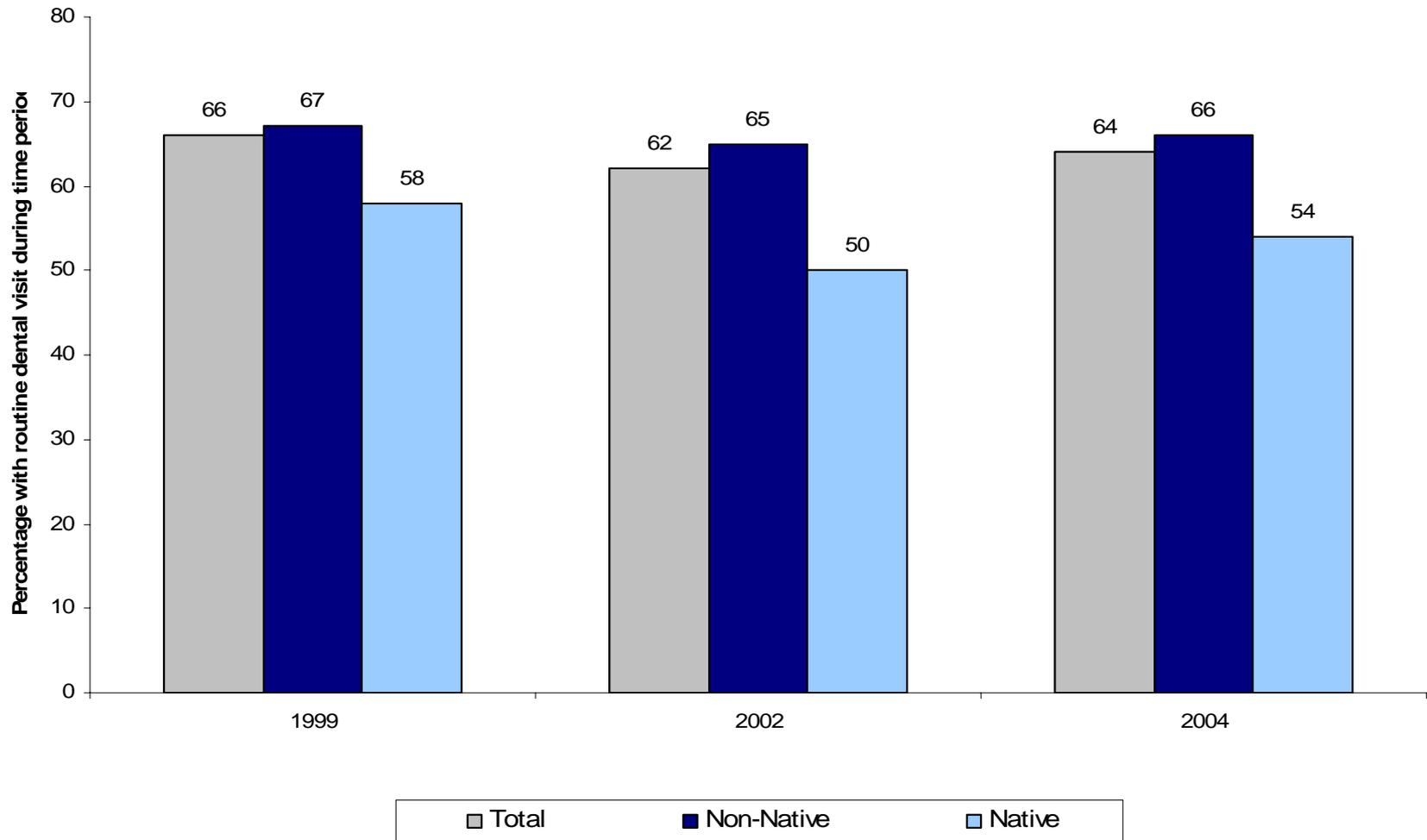
HP2010 Target – 56% in the last year

2004 Adult Dental Access – Any Dental Visit by Income Level



Dental Access – Routine Dental Visit (BRFSS, Adults)

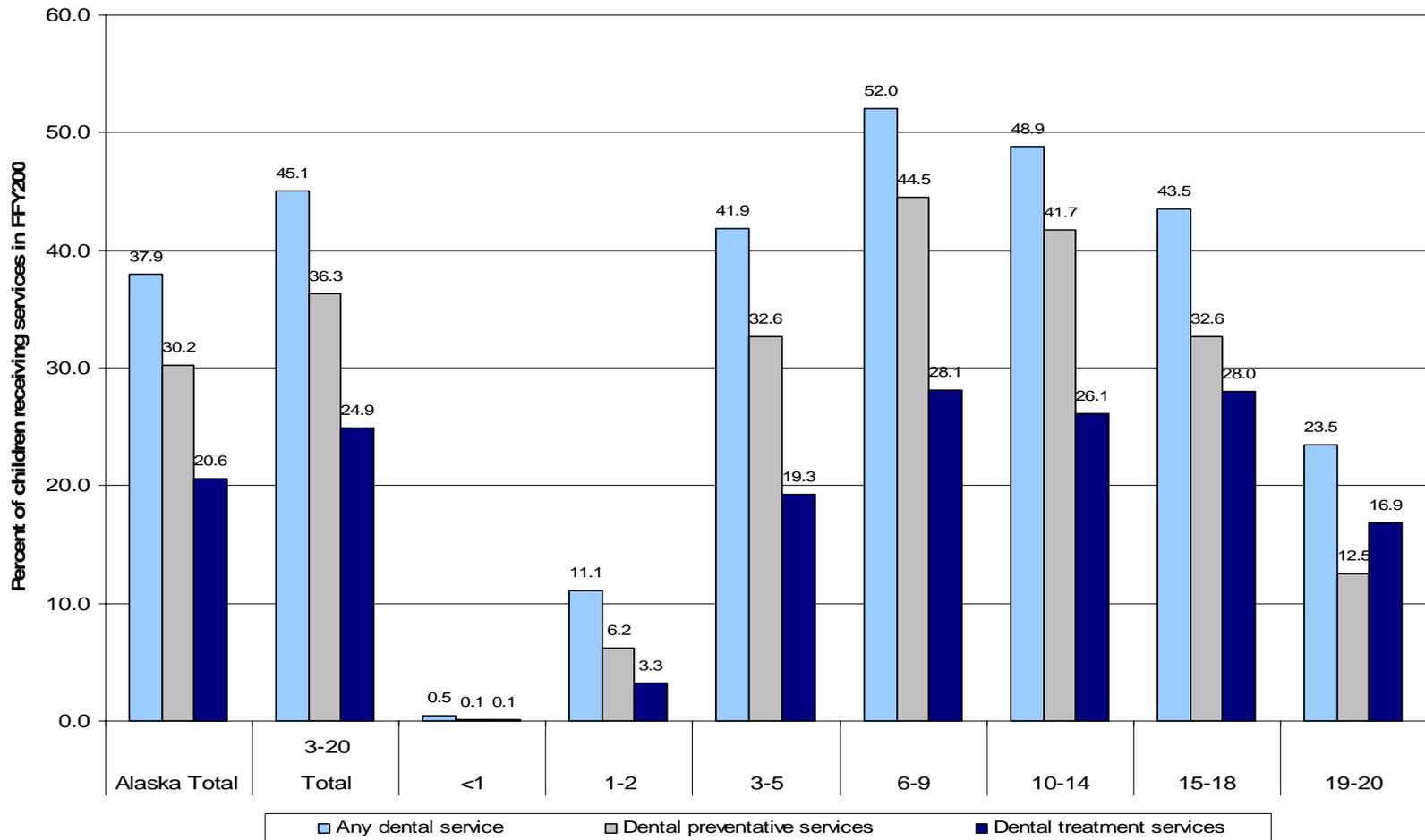
Adult Dental Access – Routine Dental Visit by Year and Native Status



Dental Access – Medicaid (FFY2004)

HP2010 Target for Preventive Visit – 57%

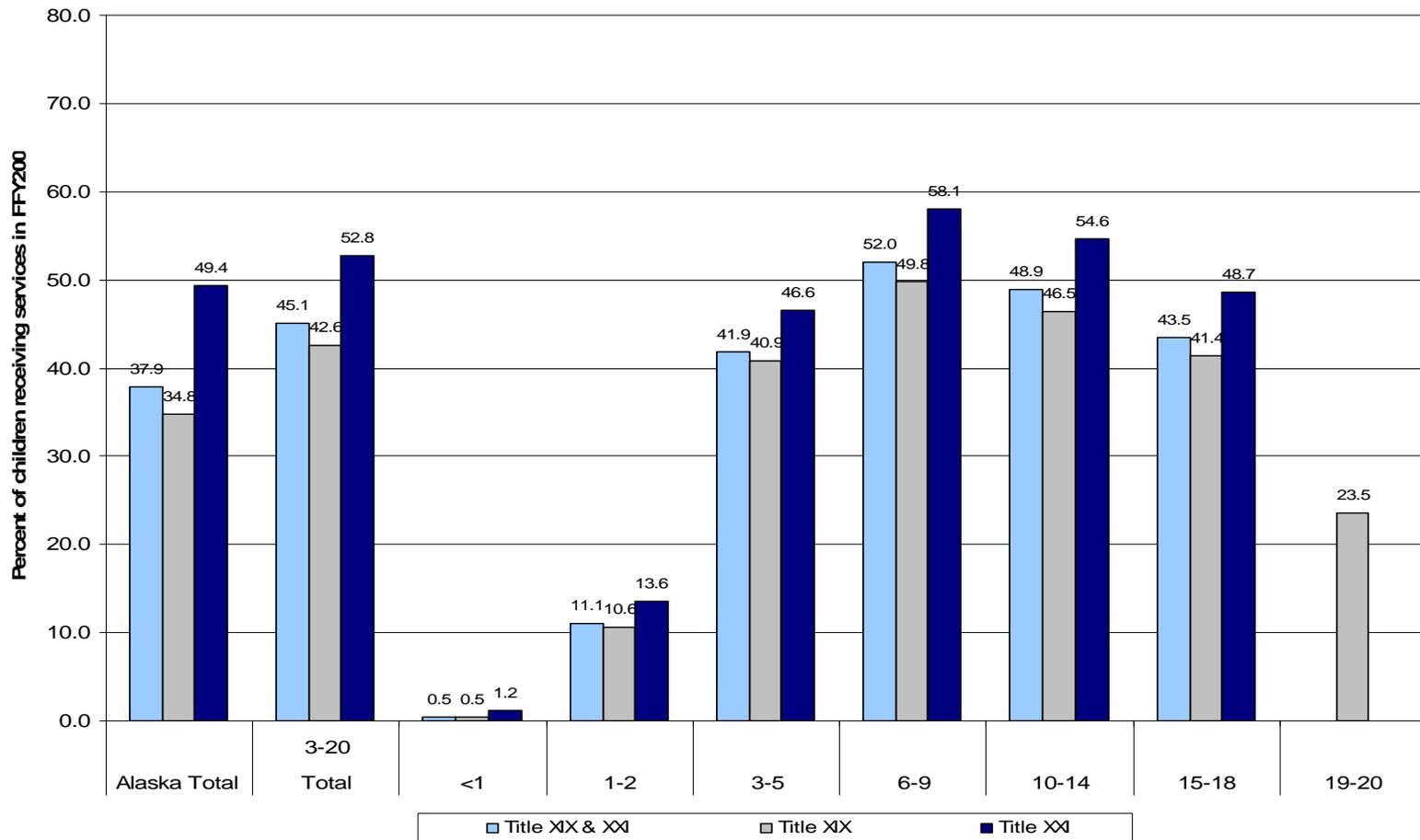
Percent of children receiving dental services by age & type of service



Dental Access – Medicaid (FFY2004)

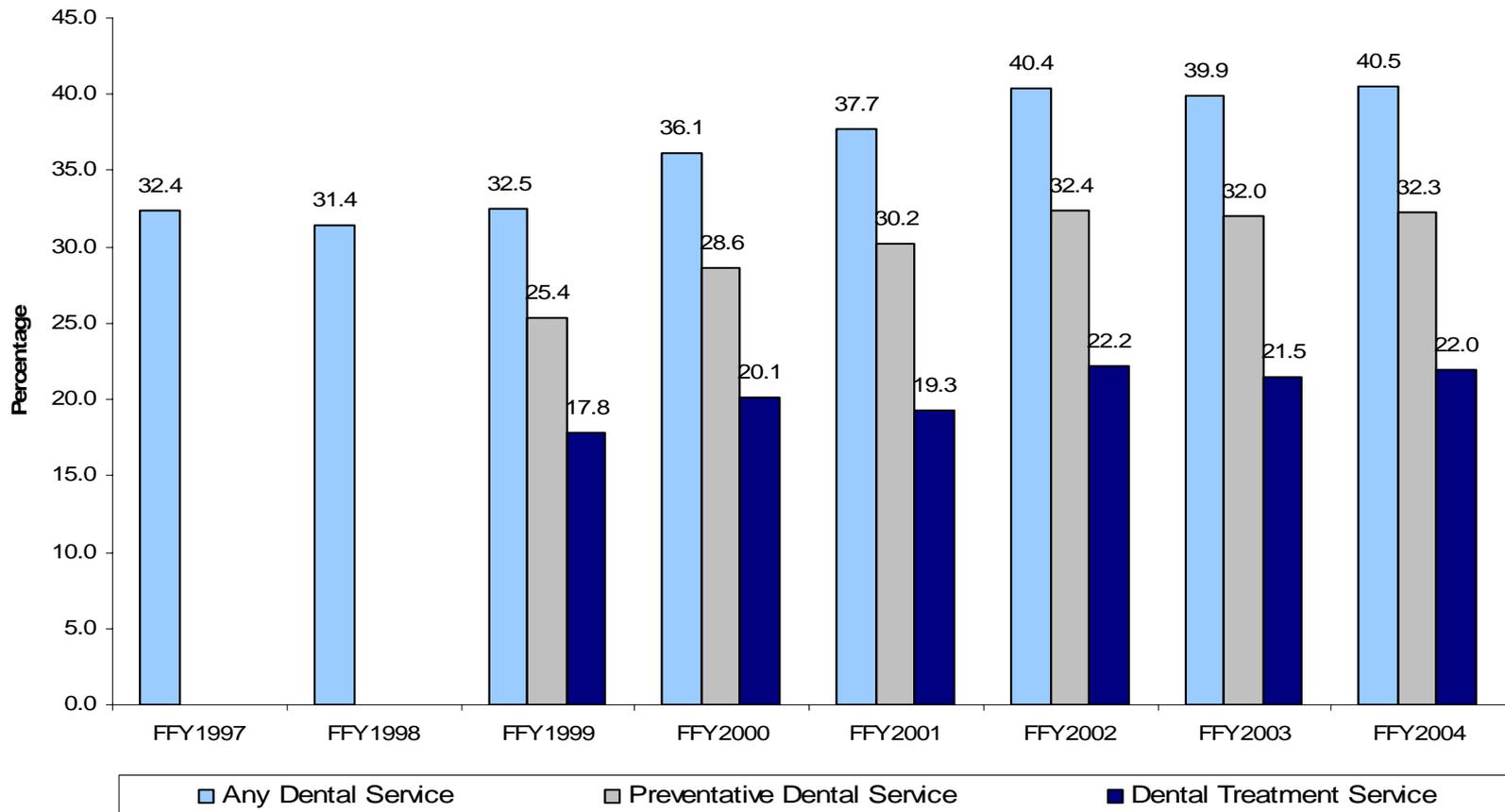
Title XIX v. Title XXI

Percent of children receiving services by age group & Medicaid/SCHIP



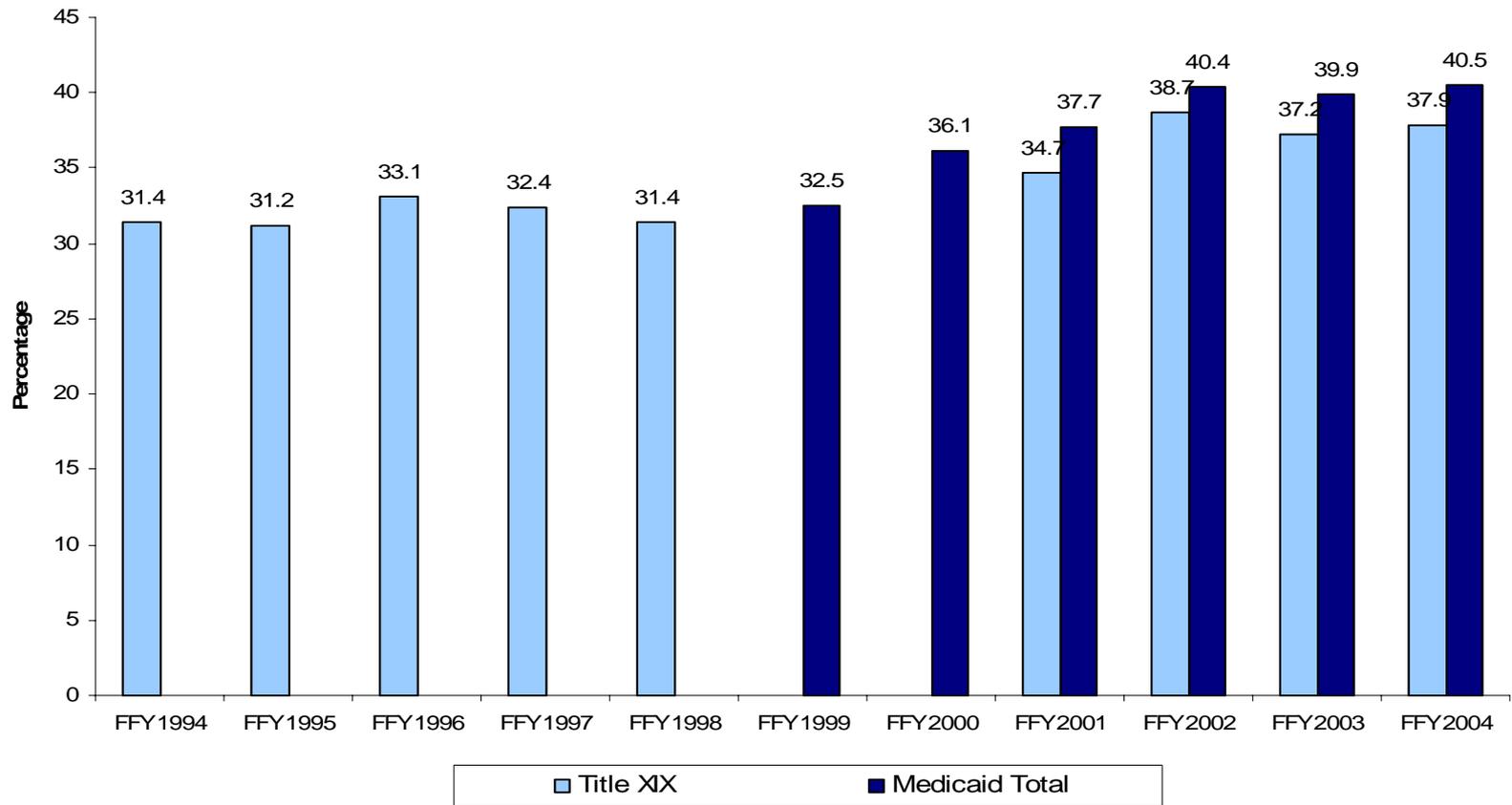
Medicaid Utilization Trends FFY1997 - 2004

Medicaid Dental Utilization, Children Aged 1-20 Enrolled in Medicaid
by Federal Fiscal Year 1999-2004



Medicaid Title XIX Trends

Medicaid Dental Utilization of Any Dental Service,
Children Aged 1-20 Enrolled in Medicaid by Federal Fiscal Year



Infrastructure and Workforce – *Healthy People 2010*

- 21-13: Increase school-based health centers with an oral health component
- 21-14: Increase local and community-based health centers with an oral health component
- 21-15: Increase states with system to record and refer infants with cleft/lip palate and other craniofacial deformities
- 21-16: Increase states with an oral and craniofacial health surveillance system
- 21-17: Increase the number of tribal, state and local health agencies that serve >250,000 that have an effective dental health program w/ a dental professional with public health training

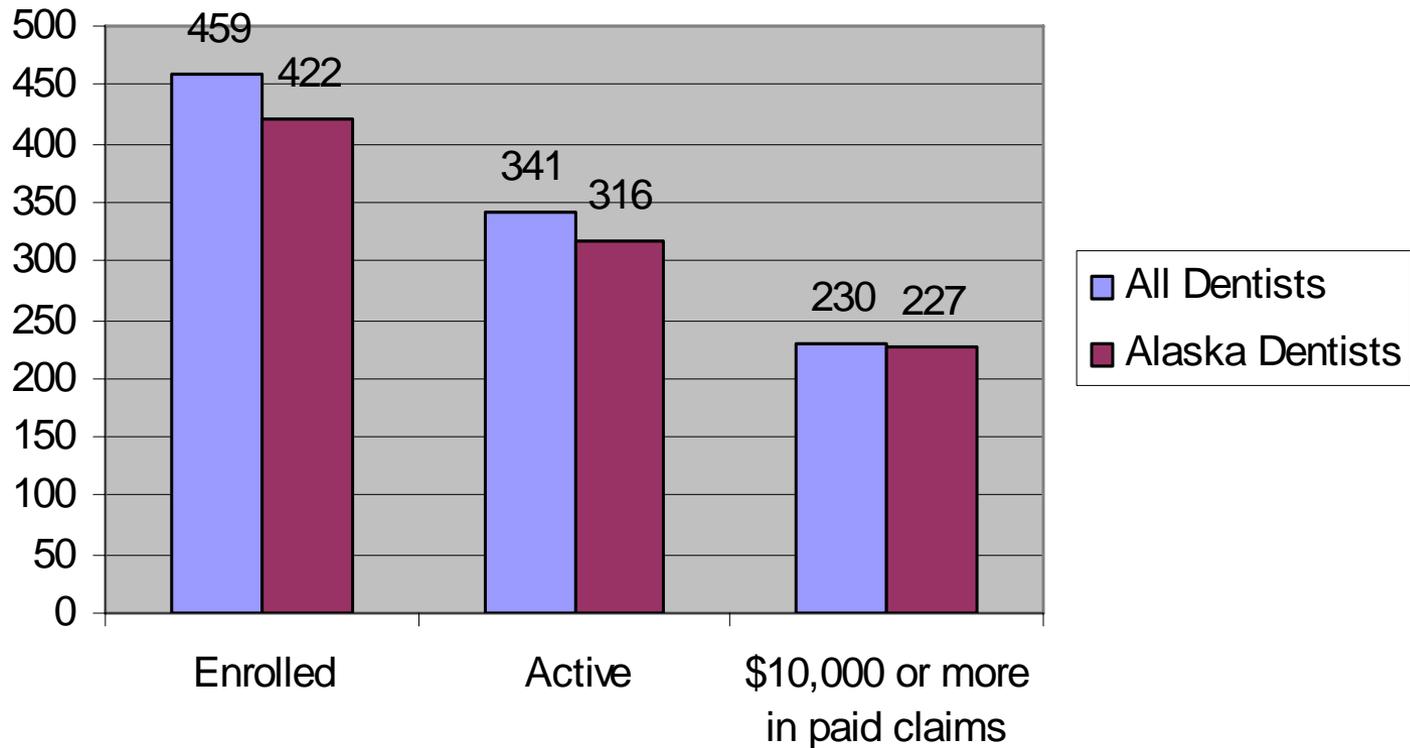
Dental Workforce



Dental Workforce - Alaska

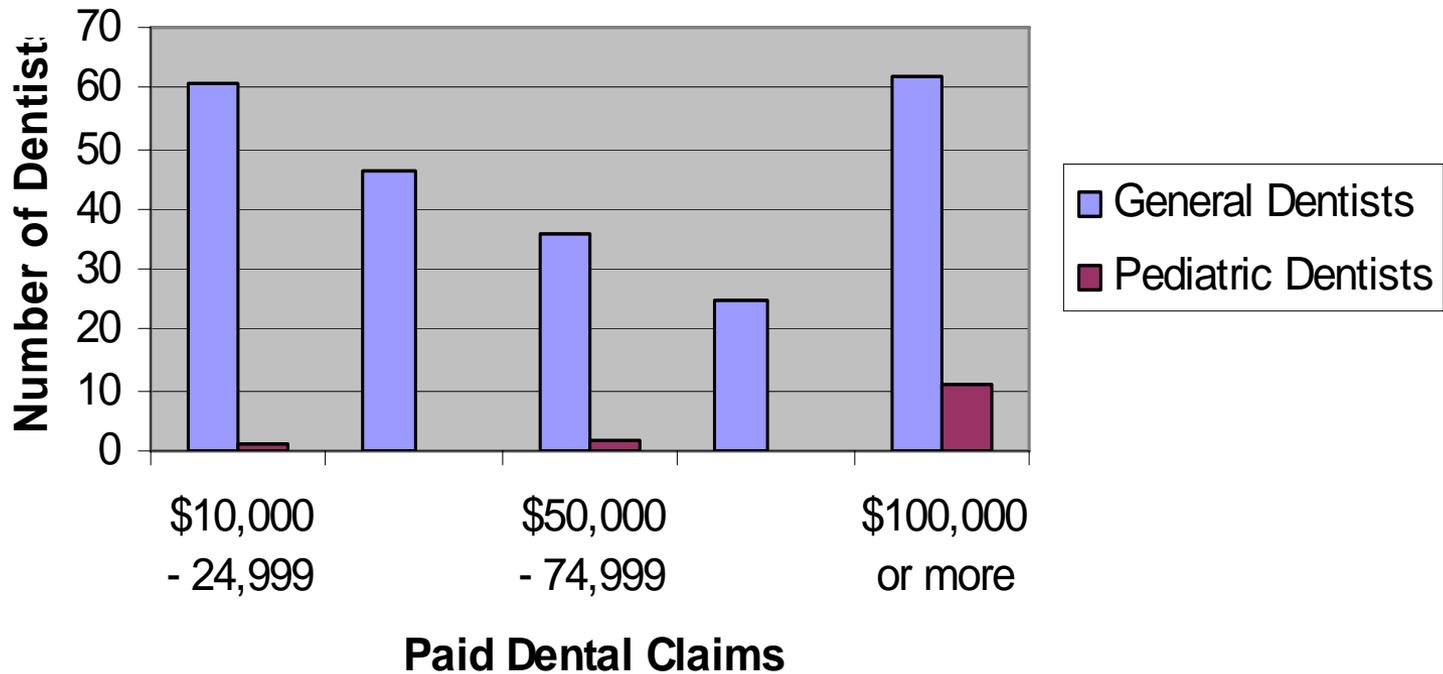
- 1995: 447 Dentists; 381 Dental Hygienists
- 2005: 563 Dentists; 465 Dental Hygienists
- 490 In-state; 425 General Practitioners
- Medicaid (FY2005): 459 enrolled; 341 active; 230 with > \$10,000 in paid claims
- Community Health Centers
- Pediatric residency program (SCF/ANMC)
- Dental Health Aides

Medicaid Dental Participation



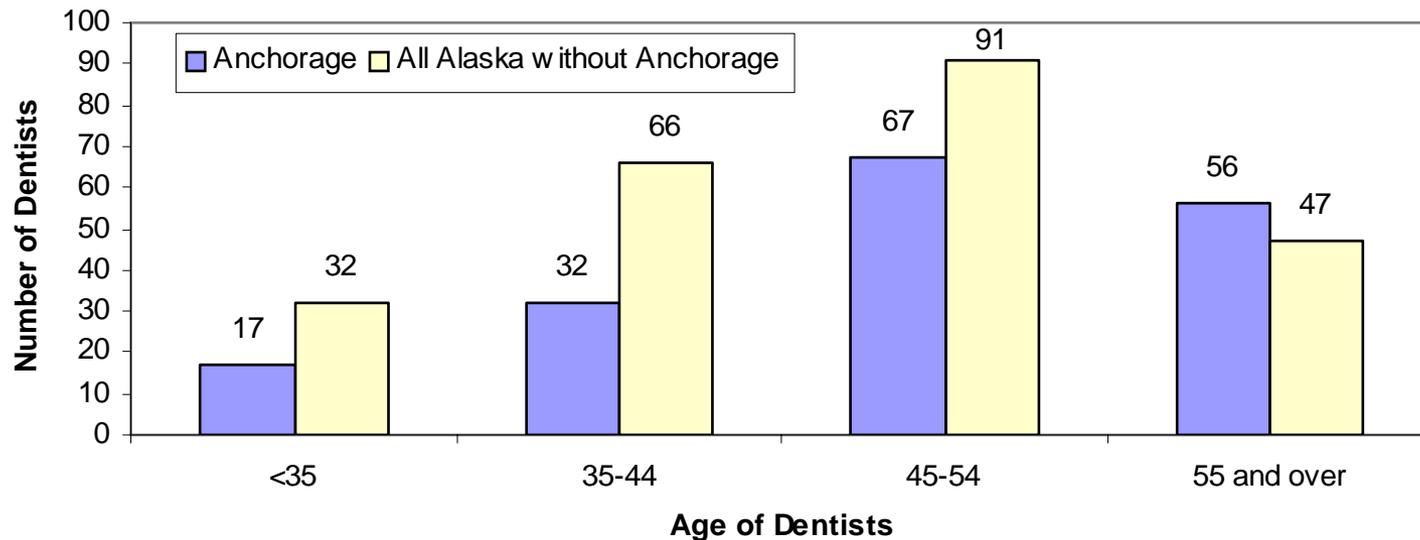
Significant Medicaid Dental Providers

Medicaid - Significant Dental Providers



Dental Workforce - Alaska

Figure 1. Age Distribution of Alaska Dentists* licensed as of March 1, 2001 (active status)



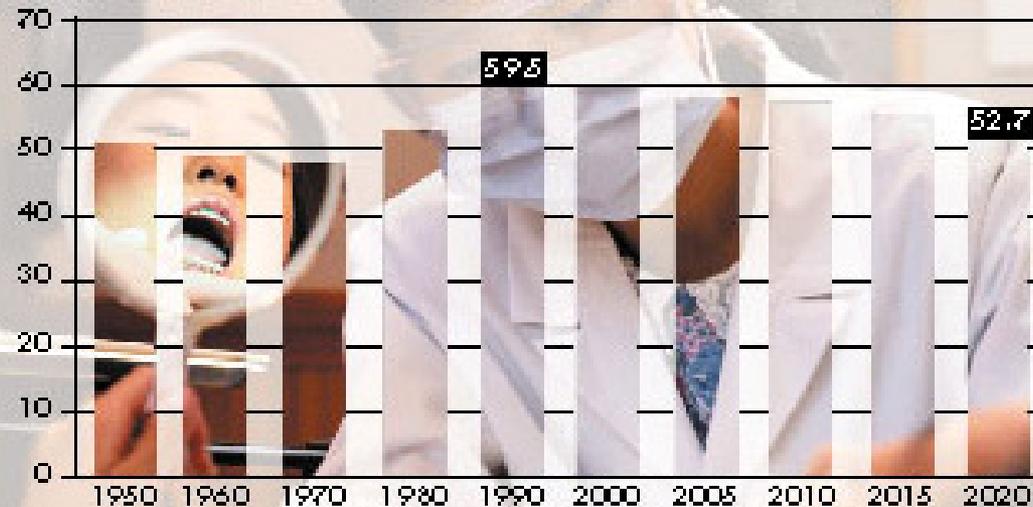
Data Source: Occupational Licensure Database

*Excludes dentists with out of state addresses on licence

Dental Workforce

Table 1.

DENTISTS PER 100,000 U.S. POPULATION 1950-2020



Source: Bureau of Health Professions, Health Resources and Services Administration, Department of Health and Human Services. Data from the 1980 report to Congress 1981 and republication.

Dental Workforce

Other Factors Influencing Workforce

Positive Influence on Access

- Community Health Center expansions
- ANMC/SCF Pediatric Dental Residency Program
- Alternative Providers – DHA/T
- SCHIP (Title XXI) Medicaid Expansion for Children

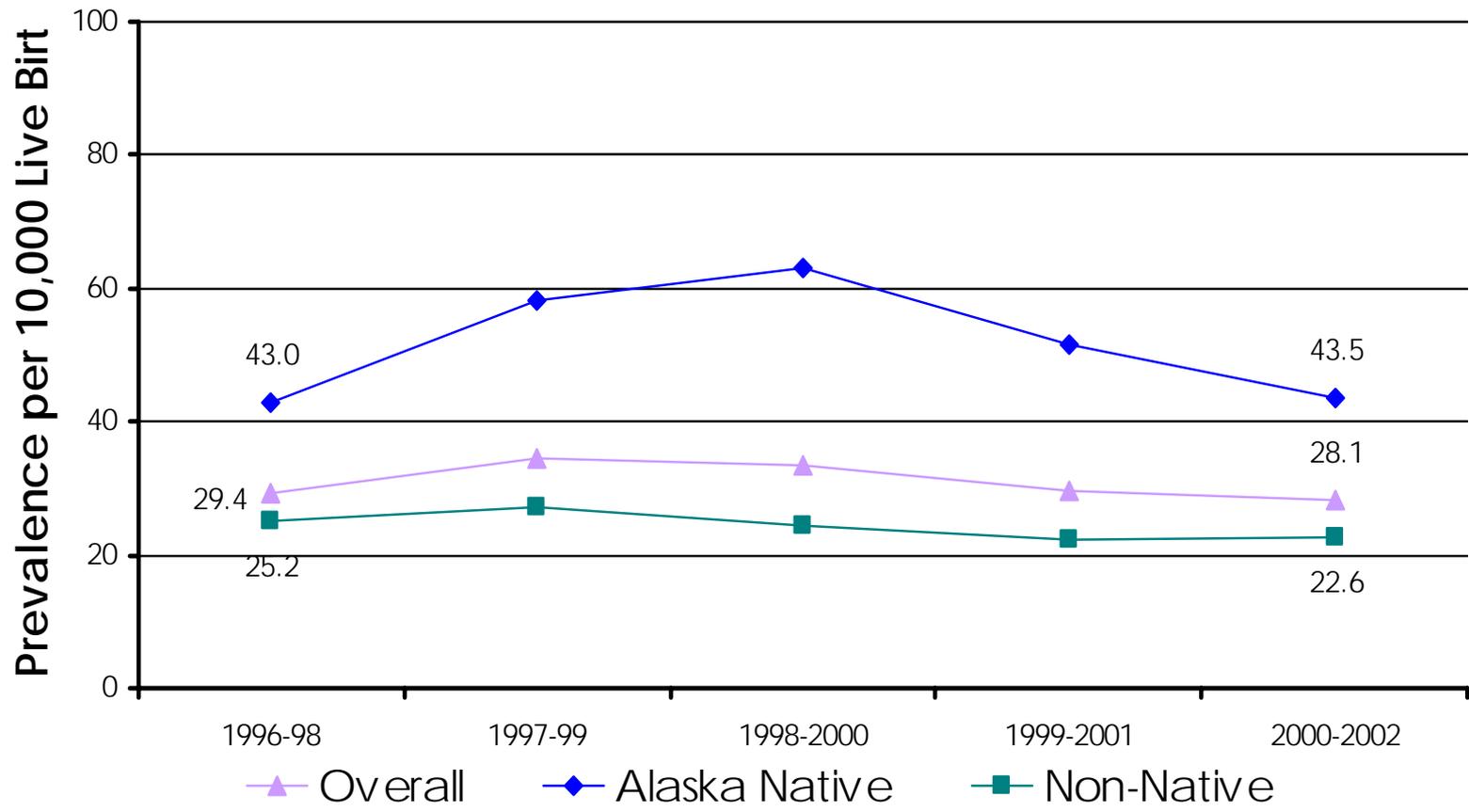
Dental Workforce

Other Factors Influencing Workforce

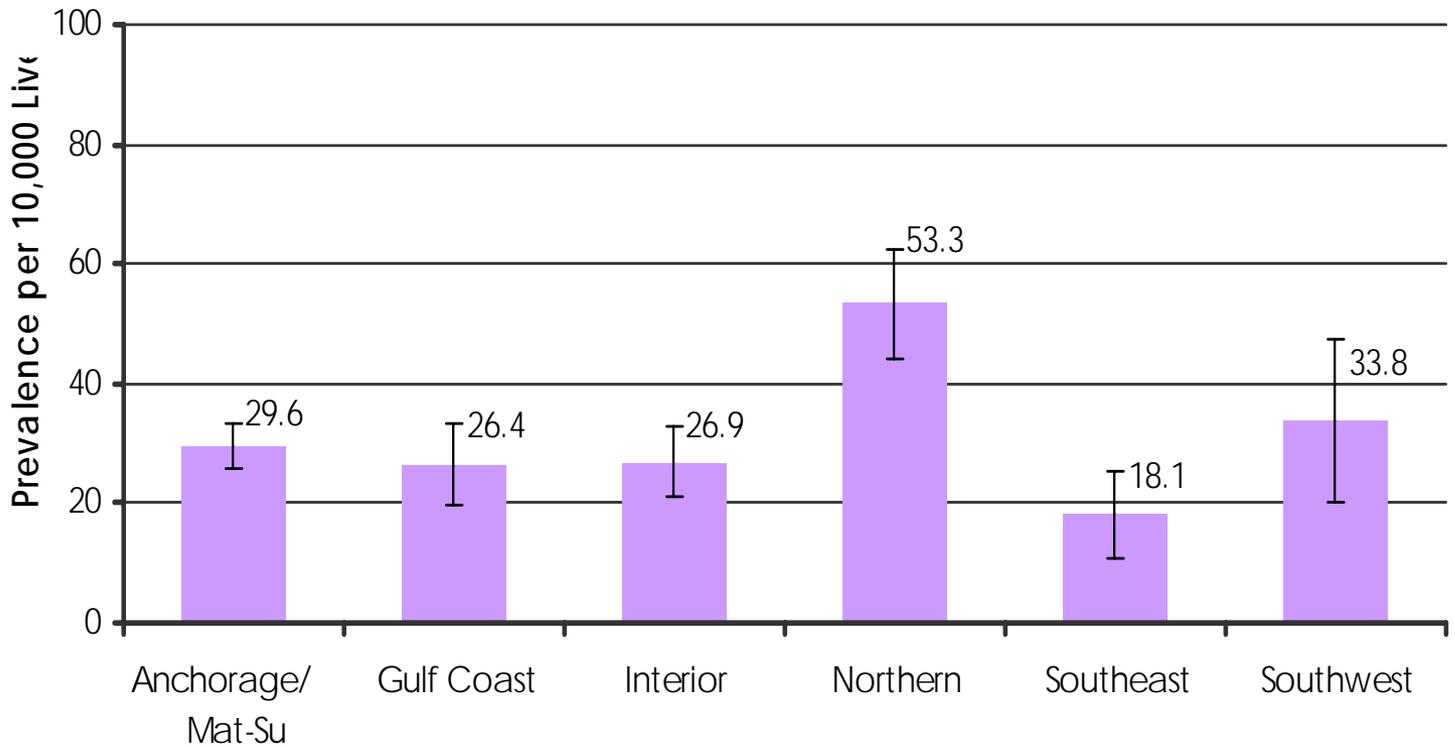
Negative Influence on Access

- Alaska – geography, weather, size of communities, and transportation costs
- Coverage (Medicare – Private Insurance)
- Medicaid Reimbursement – Adult Medicaid
- CHC/Tribal Recruitment/Retention/Sustainability
- Aging workforce – reduced practice hours (3-4 day work-week) & graduation rates not replacing retirees
- Efficiency Issues – expanded duty/group practice
- Cosmetic Dentistry and Related Training Issues
- Medicaid Reform – EPSDT/Dental Coverage

Oral Clefts (cleft lip w/ or w/o cleft palate)



Oral Clefts – By Region



Other Oral Health Issues

- Injuries and mouth-guard use
- Temporomandibular Joint Disorder
- Myofacial Pain Syndrome
- Tobacco Cessation
- Dentistry – Primary Care Provider
- Infectious Disease Model v. Surgical Model

SUMMARY

- At Risk Populations – low income children and adults; racial/ethnic minorities and seniors (CSHCN – Individuals w/ Disabilities)
- Unmet Needs: Untreated caries – missing teeth
- Preventive Approaches: Water fluoridation, fluorides and sealants
- Risk Factors: Diet, oral hygiene, caregiver oral health, tobacco/alcohol use, medication and/or treatment affect on saliva
- Workforce – Age, Availability, Practice Hours, and Health Care Costs
- Next Step: State Oral Health Plan - Wednesday

Questions



Thank You!

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