

Inter Tribal Council of Arizona, Inc.



Oral Health Surveillance among American Indians and Alaska Natives in Arizona, Nevada, and Utah 2013 - 2018

Oral Health Surveillance among American Indians and Alaska Natives in Arizona, Nevada, and Utah

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May 20, 2020

TO: Tribal Leader and Tribal Health Director

FROM: Inter Tribal Council of Arizona, Inc.
Maria Dadgar, MBA, Executive Director

RE: *Oral Health Surveillance among American Indians and Alaska Natives in Arizona, Nevada, and Utah*

On behalf of the Inter Tribal Council of Arizona, Inc. (ITCA) Tribal Epidemiology Center (TEC), ITCA TEC is pleased to present the *Oral Health Surveillance among American Indians and Alaska Natives in Arizona, Nevada, and Utah* Report.

This surveillance report was prepared in response to oral health concerns among Tribal communities within the Phoenix and Tucson Indian Health Service Areas. The ITCA TEC utilized data from the Indian Health Service, Office of Public Health, Division of Epidemiology and Disease Prevention, Epidemiology Data Mart.

This surveillance report highlights various oral health indicators among the American Indian and Alaska Native population within Arizona, Nevada, and Utah.

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GLOSSARY

Alaska Native – a member or descendant of indigenous peoples in Alaska.

American Indian – a member or descendant of indigenous people in the United States; this term is generally used for Native Americans who are members of tribes in all states except Alaska and Hawaii.

Case Definition – a set of uniform criteria used to define a disease for public health surveillance.

Count – the number of disease, events, or other health-related occurrences.

Data – items of information expressed as measurements or statistics used to learn more about a disease or risk factor. Data are used for calculations, support of evidence, assessments, and often for decision making.

Dental Sealants – Thin coatings that are put on back teeth (molars) to prevent cavities.

Diagnostic Services – Dental services that include oral evaluations, x-rays, pulp vitality tests, and diagnostic casts.

Electronic laboratory reporting – is typically the transmission of laboratory findings from the laboratory to public health departments.

Endodontics – Dental services that include pulp caps, pulp removal, pulp therapy, root canals, apexification/recalcify, root end surgery, retrograde fillings, and teeth bleaching.

Ethnicity – relating to cultural factors such as a shared creation narrative, ancestry, language, and beliefs. A social group characterized by ethnic affiliation or distinctiveness. Ethnicity is largely self-identified.

Fixed Prosthodontics – Dental services that include dental implants, retainers, and dental bridges.

Government Performance and Results Act (GPRA) – An act requiring federal agencies to demonstrate effective use of funding; GPRA measures are used for Indian Health Service as clinical care performance measures.

Incidence rate – the rate at which new cases of disease or health condition occur in a population. The incidence rate is calculated by the following formula in public health practice:

$$\text{Incidence rate} = \frac{\text{Number of new cases in specified period}}{\text{Total number of persons at risk during this period}} \times 10^n$$

Indian Health Service (IHS) – U.S. Department for Health and Human Services funded agency responsible for providing health services to American Indians and Alaska Natives. The IHS provides health services for approximately 1.9 million American Indians and Alaska Natives who belong to 567 Federally Recognized Tribes, state recognized Tribes, and California Indians in 35 states. The IHS is divided into 12 geographic “Areas” of the United States: Alaska, Albuquerque, Aberdeen, Bemidji, Billings, California, Nashville, Navajo, Oklahoma, Phoenix, Portland, and Tucson.

Indicator – a characteristic that is measurable and describes the health of a population.

Misclassification – the incorrect assignment of a person, value, or item into a grouping which it should not be assigned to.

National Electronic Disease Surveillance System (NEDSS) - facilitates electronically transferring public health surveillance data from the healthcare system to public health departments. It is a conduit for exchanging information that supports NNDSS.

National Institutes of Health (NIH) – a federal health and research agency that is part of the U.S. Department of Health and Human Services.

National Notifiable Disease Surveillance System (NNDSS) - a public health disease surveillance system that gives public health officials capabilities to monitor the occurrence and spread of diseases.

Oral Surgery – Dental services that include extractions, root removal, biopsies, excisions, removal of cysts, removal of bone, removal of foreign objects, fracture treatments, TMJ manipulation, and frenectomy procedures.

Orthodontics – Dental services that include braces, habit correction appliances, and dental retainers.

Phoenix Service Area – the Phoenix Service Area is one of 12 geographic “Areas” within the Indian Health Service (IHS). The Phoenix Service Area serves the majority of its tri-state “Area” in Arizona, Nevada, and Utah.

Periodontics – Dental services that include removal or reshaping of gums, gingival flap surgery, bone surgery, and removal of excess plaque and tarter.

Prevalence – the proportion of a population that is found to have a specified condition. This measure is often presented as a percentage, a fraction, or the number of cases per 10,000 or 100,000 people.

$$Prevalence = \frac{\text{Number of new and existing cases in specified period}}{\text{Population during the same time period}} \times 10^n$$

Preventative Services – Dental services that include polishing, fluoride treatments, nutritional and tobacco use counseling, sealants, and space maintainers.

Race – a social construct created to categorize human beings into broad and generic groupings that are self-selected.

Rate – a measure of how fast a disease is occurring in the population. Rate is measured by the following formula:

$$Rate = \frac{\text{Number of events in specified period}}{\text{Total population during the same time period}} \times 10^n$$

Removable Prosthodontics – Dental services that include dentures, partial denture clasps, denture repair, and tissue conditioning.

Restorative Dentistry – Dental services that include dental fillings, dental crowns, and dental pin retentions.

Standard population – A set population that is used to standardize age adjusted rates so rates in different populations are comparable.

Statistics – the act of collecting, summarizing, and analyzing data.

Surveillance – systematic (orderly) and continuous collection, analysis and interpretation of data, along with the timely dissemination (distribution) of the results to those who have the right to know so that action can be taken.

Topical Fluoride – Fluoride is a mineral that helps to repair teeth and prevent tooth decay. Topical fluoride is fluoride applied to the tooth, and can be in the form of toothpaste, rinses, and fluoride treatments.

Tucson Service Area – the Tucson Service Area is one of 12 geographic “Areas” within the Indian Health Service (IHS). The Tucson IHS Area provides health care for two Tribes in southern Arizona: the Tohono O’odham Nation and the Pascua Yaqui Tribe.

PURPOSE

The purpose of the *Oral Health Surveillance among American Indians and Alaska Natives in Arizona, Nevada, and Utah* report is to provide information for Tribal health departments in the Phoenix and Tucson Indian Health Service Areas. This report focuses on oral health among American Indians/Alaska Natives (AI/AN). This surveillance report demonstrates the current trends in oral health using data requested from Indian Health Service (IHS) Epi Data Mart.

INTRODUCTION

This is the first publication of the report *Oral Health Surveillance among American Indians and Alaska Natives in Arizona, Nevada, and Utah* by the Inter Tribal Council of Arizona, Inc. (ITCA) Tribal Epidemiology Center (TEC). This oral health report demonstrates the current trends in oral health related conditions using data from IHS Epi Data Mart among American Indians and Alaska Natives (AI/ANs) in Arizona, Nevada, and Utah.

The surveillance data analyzed in this report is extracted from the IHS Epi Data Mart from the Phoenix and Tucson Service Areas across Arizona, Nevada, and Utah. IHS data contains information on patient demographics and services received at any IHS facility within the designated service Area. The purpose of the Epi Data Mart is to make IHS data available to analytical partners.

Oral health data for AI/ANs are used by key Tribal leaders, community health representatives (CHRs), health care providers (e.g., Indian Health Services, and other clinicians and nurses), dental clinicians and staff, and researchers to identify disease trends, focus prevention efforts, plan

programs, allocate resources, and develop public health policies.

The identification and classification of the oral health indicators used in this report are based on case definitions. A case definition is a set of uniform criteria used to define a disease for public health surveillance. Case definitions enable public health to classify and count cases consistently across reporting jurisdictions, and should not be used by healthcare providers to determine how to meet an individual patient's health needs. Oral health indicators used in this report are based off of Government Performance and Results Act (GPRA) Measures. GPRA is a federal law that requires federal agencies to demonstrate they are effectively using funds to meet their mission. A GPRA Measure is a clinical indicator to measure patient care performance. The GPRA Measures for oral health include: access to dental services, topical fluorides, and sealants.

This publication includes percentages and counts for oral health indicators among AI/ANs from Arizona, Nevada, and Utah.

This report is organized into six main sections:

- Purpose
- Introduction
- Executive Summary
- Analysis Highlights
- Action Items
- Technical Notes

The Analysis Highlights include three main sections for a variety of oral health indicators for American Indians reported in each state. The first section focuses on dental access for American Indians and Alaska Natives reported in each state. The second section

focuses on dental sealants. The third section focuses on topical fluoride use. Other dental indicators were not included in this report, but additional analyses can be provided to

ITCA TEC Tribal partners upon special request for additional information by contacting us directly at: TECinfo@itcaonline.com.

EXECUTIVE SUMMARY

This surveillance report demonstrates current trends in oral health utilizing data from Indian Health Service (IHS) among American Indians and Alaska Natives (AI/AN) in Arizona, Nevada, and Utah between 2013 and 2018. Oral health indicators were based on the Government Performance and Results Act (GPRA) measures, which are clinical measures used by IHS. Oral health indicators in this report included overall access to dental services, dental sealant coverage, and topical fluoride coverage. GPRA indicators for access to dental services includes individuals of all ages, dental sealant coverage includes those aged 2-15 years, and topical fluoride coverage includes those aged 1-15 years. The following summary provides brief key findings found within the oral health surveillance report:

Overall, active IHS users in Nevada had an overall higher percentage of individuals that accessed dental services than active IHS users in Arizona and Utah. The percentage of individuals accessing dental services in Arizona, Nevada, and Utah changed very little each year between 2013 and 2018. Individuals aged 2-15 years old that received dental sealants decreased each year between 2013 and 2018 in Arizona, Nevada, and Utah; the percentage of individuals receiving dental sealants was highest in Arizona and lowest in Utah each year between 2013 and 2018. The percentage of active IHS users aged 1-15 years old receiving topical fluoride treatments increased overall in Arizona between 2013 and 2018, while decreasing overall in Nevada and Utah between 2013 and 2018. Access to dental services, dental sealant treatments, and topical fluoride treatments were higher among females, as compared to males, each year between 2013 and 2018 in Arizona, Nevada, and Utah. Access to dental services, dental sealant treatments, and topical fluoride treatments were overall lowest amongst the youngest age groups in Arizona, Nevada, and Utah between 2013 and 2018.

There are many steps individuals, tribal communities, tribal health care providers, public health professionals, and Tribal Leaders can do to improve oral health among community members. Individuals can continue to practice good oral health habits, such as regular brushing and flossing, reduced intake of sugary foods and drinks, and avoidance of commercial tobacco products. Adults and parents of children can adhere to regular dental visits, as recommended by a health care provider. Communities can incorporate oral health education and treatments as community events. Topical fluoride treatments can be professionally administered at day cares and after school events, given parental consent. Health care providers can train dental clinic staff on how to apply topical fluoride treatments. Health care clinics can actively refer patients at high risk for oral health diseases to dental clinics and promote good oral health care habits. Public health entities can establish walk-in clinics to provide dental services and health education and partner with dental support centers for education and funding resources.

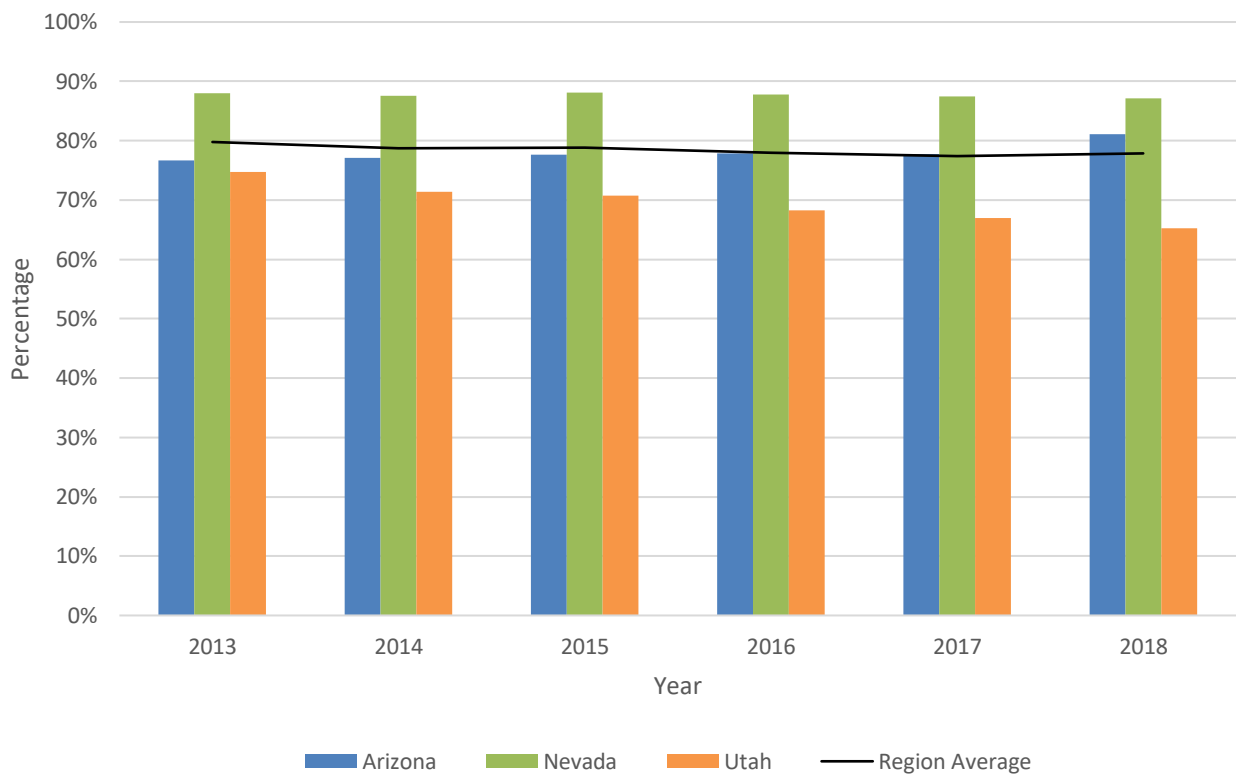
ANALYSIS HIGHLIGHTS

Access to Dental Services

Adequate oral health care is important not only for maintaining a healthy smile and preventing diseases of the mouth, but also in preventing chronic diseases such as heart disease and diabetes. Poor oral health can lead to tooth decay, mouth pain, gum disease, and oral cancer. Consuming sugary foods and drinks and using tobacco products are linked with poor oral health outcomes. The American Dental Association recommends having regular dental visits, as determined by a dentist. Dental services performed at IHS facilities could include up to diagnostic services, preventive services, restorative dentistry, endodontics, periodontics, removable and fixed prosthodontics, oral surgery, orthodontics, and general services. Access to dental services includes patients with at least one documented dental visit at an IHS facility during the reporting period. Only active IHS users (at least one reportable visit in the last 3 years) and individuals recognized by a Tribe and the U.S. Federal Government as American Indian or Alaska Native were included in this report.

Overall, IHS active users in Nevada had the highest percentage of dental encounters compared to those in Arizona, Nevada, and Utah between 2013 and 2018. Between 2013 and 2018, the percentage of individuals accessing dental services in Arizona, Nevada, and Utah remained relatively steady, with no drastic increases or decreases in access. In Arizona, Nevada, and Utah females had a higher percentage of access to dental services as compared to men. In Arizona and Nevada, individuals aged 13-21 years old had the highest access to dental services, as compared to other age groups. In Utah, those aged 22-44 years old had the greatest access to dental services compared to other age groups. In Arizona, dental access remained relatively similar across all groups, except those aged 0-5 years and 75+ years, who had a lower percentage of dental access. In Nevada and Utah, the percentage of individuals who accessed dental services remained similar across all age groups, except those aged 0-5 years, which was much lower than all other age groups.

Figure 1 Dental access encounters among active AI/AN IHS users in Arizona from 2013 - 2018 ^{a,b}



^a U.S. Department of Health and Human Services, Indian Health Service, Epi Data Mart; ^b Fiscal years 2013 – 2018

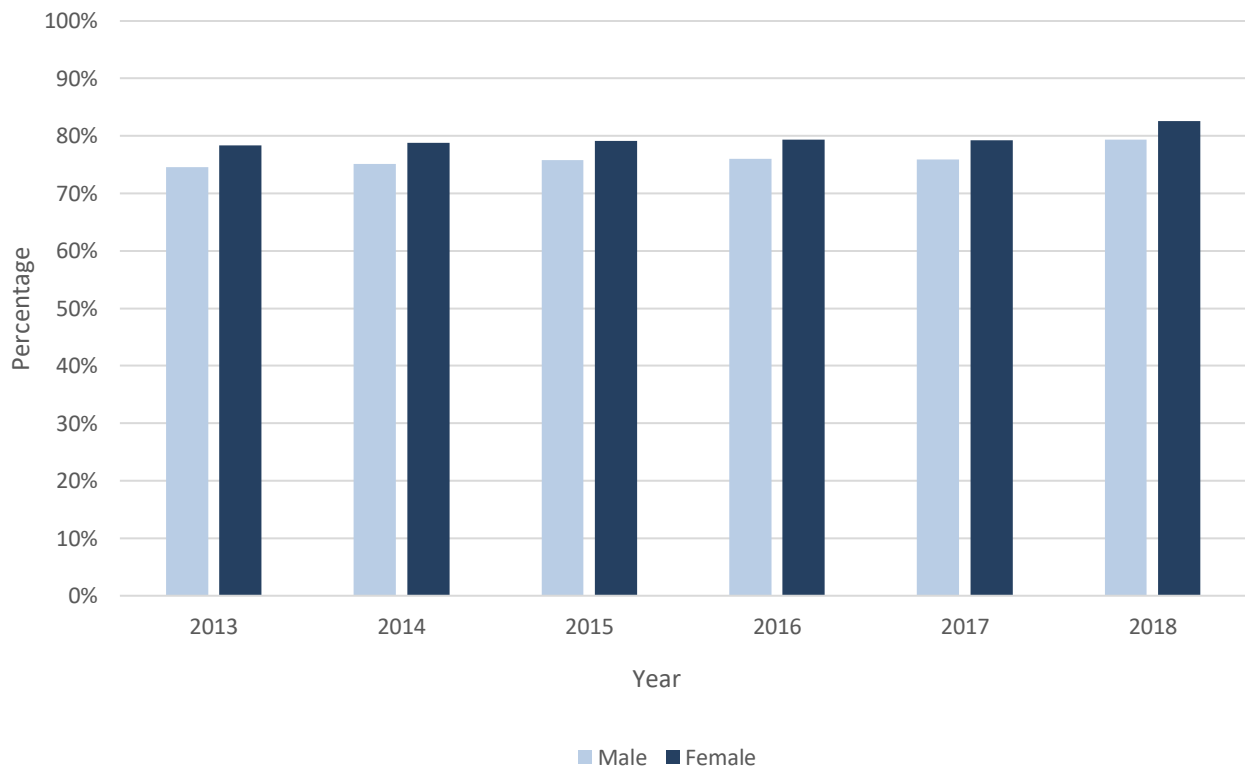
AI/AN = American Indian/Alaska Native

IHS = Indian Health Service

Note: An active IHS user is a patient that has had at least one workload-reportable encounter within the last three fiscal years

Between 2013 and 2018, the percentage of IHS active users who had at least one dental encounter remained relatively steady in patients in Arizona, Nevada, and Utah. Each year between 2013 and 2018, Nevada had the highest percentage of IHS active users with a dental visit, almost 90% each year, compared to users in Arizona and Nevada. Each year between 2013 and 2018, Utah had the lowest percentage of IHS active users with a dental visit compared to Arizona and Nevada. Visits decreased each year in Utah, ranging from 75% of users with a dental visit (2013) to 65% of users with a dental visit (2018).

Figure 2 Dental access encounters among active AI/AN IHS users in Arizona from 2013 - 2018, by sex ^{a,b}



^a U.S. Department of Health and Human Services, Indian Health Service, Epi Data Mart; ^b Fiscal years 2013 – 2018

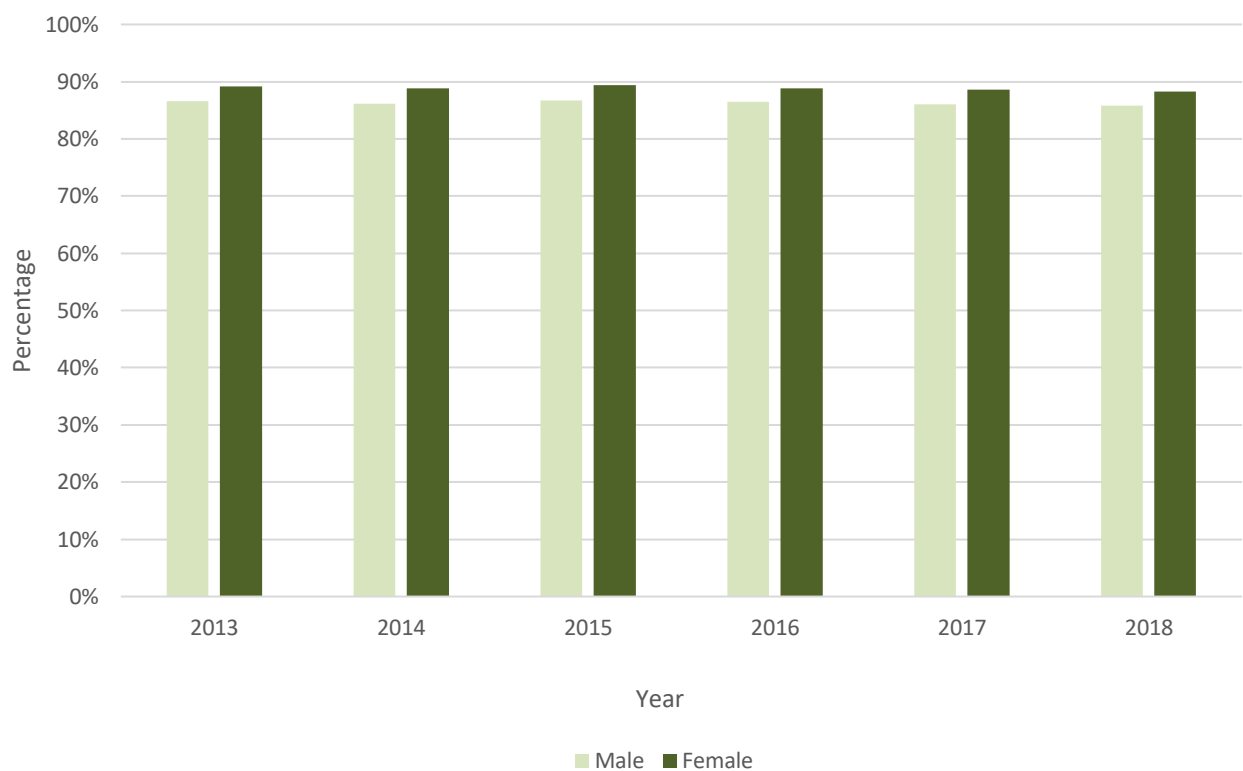
AI/AN = American Indian/Alaska Native

IHS = Indian Health Service

Note: An active IHS user is a patient that has had at least one workload-reportable encounter within the last three fiscal years

In Arizona, between 2013 and 2018, female IHS active users had a higher percentage of dental access encounters each year compared to males. Among females, the percentage of individuals with a dental access encounter increased between 2013 (78%) and 2018 (83%). Among males, the percentage of individuals with a dental access encounter increased between 2013 (75%) and 2018 (79%).

Figure 3 Dental access encounters among active AI/AN IHS users in Nevada from 2013 - 2018, by sex ^{a,b}



^a U.S. Department of Health and Human Services, Indian Health Service, Epi Data Mart; ^b Fiscal years 2013 – 2018

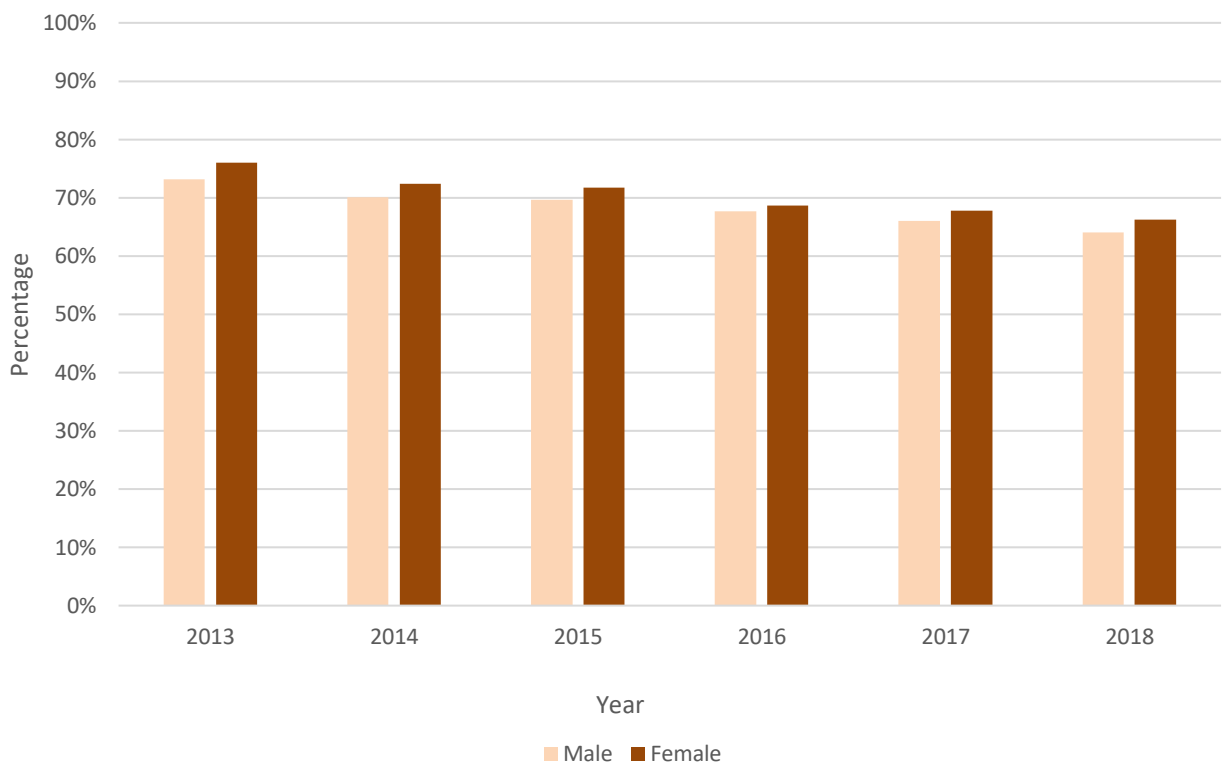
AI/AN = American Indian/Alaska Native

IHS = Indian Health Service

Note: An active IHS user is a patient that has had at least one workload-reportable encounter within the last three fiscal years

In Nevada, between 2013 and 2018, the percentage of IHS active users that had at least one dental encounter remained steady over the five years, with females having a slightly higher percentage of encounters compared to males. The percentage of IHS active users with at least one dental visit decreased slightly among females from 2013 (89%) to 2018 (88%) and males from 2013 (87%) to 2018 (86%).

Figure 4 Dental access encounters among active AI/AN IHS users in Utah from 2013 - 2018, by sex ^{a,b}



^a U.S. Department of Health and Human Services, Indian Health Service, Epi Data Mart; ^b Fiscal years 2013 – 2018

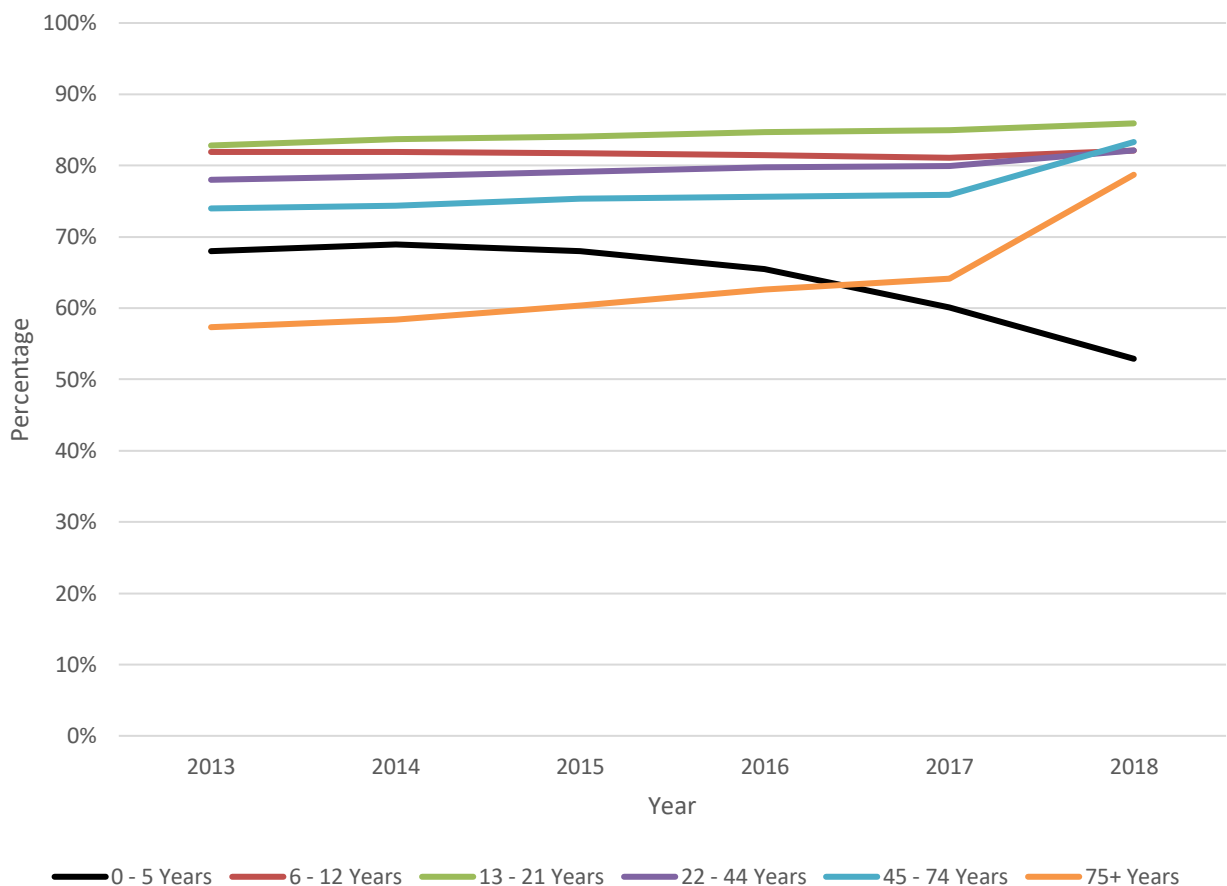
AI/AN = American Indian/Alaska Native

IHS = Indian Health Service

Note: An active IHS user is a patient that has had at least one workload-reportable encounter within the last three fiscal years

In Utah between 2013 and 2018, female IHS active users had a higher percentage of dental access encounters each year compared to males. Among females, the percentage of IHS active users with at least one dental access decreased between 2013 (76%) and 2018 (66%). Among males, the percentage of IHS active users with at least one dental access decreased between 2013 (73%) and 2018 (64%).

Figure 5 Dental access encounters among active AI/AN IHS users in Arizona from 2013 - 2018, by age ^{a,b}



^a U.S. Department of Health and Human Services, Indian Health Service, Epi Data Mart; ^b Fiscal years 2013 – 2018

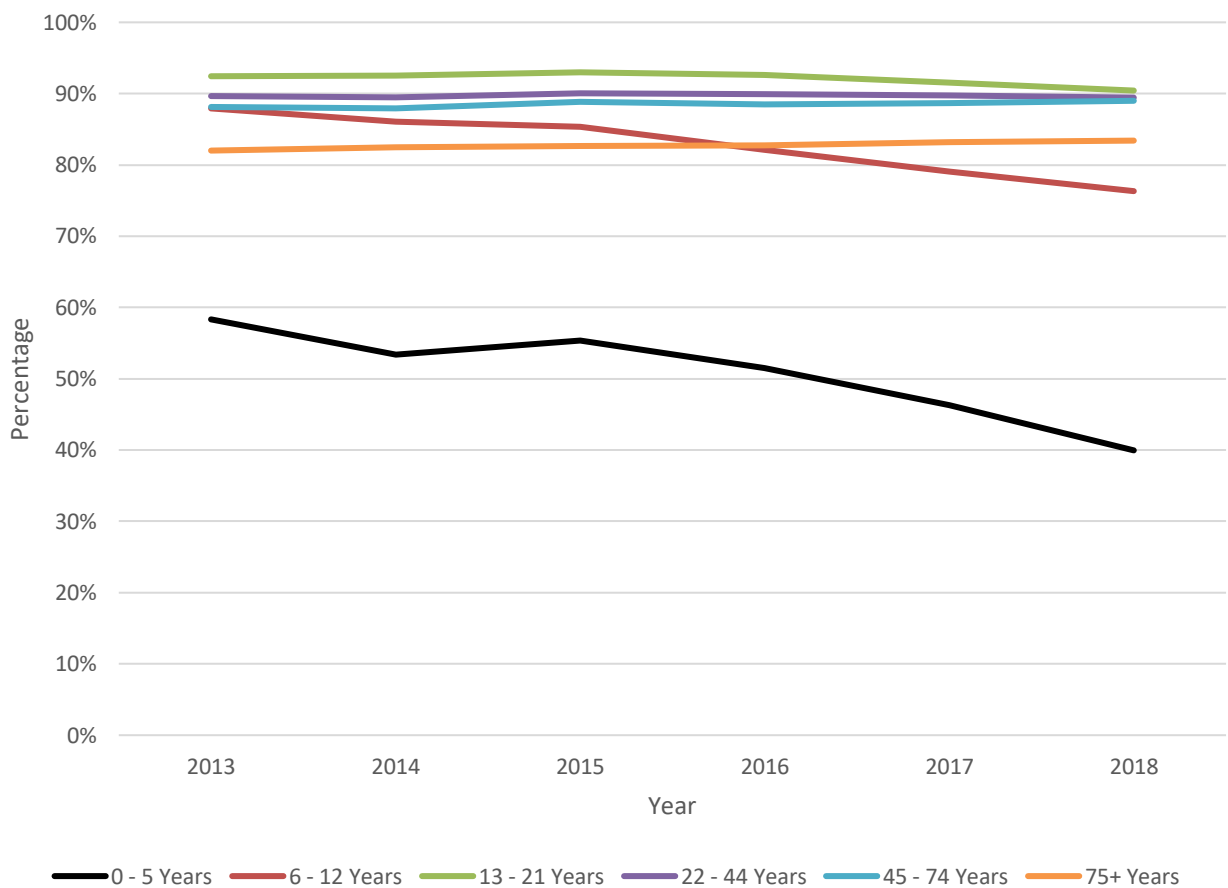
AI/AN = American Indian/Alaska Native

IHS = Indian Health Service

Note: An active IHS user is a patient that has had at least one workload-reportable encounter within the last three fiscal years

Among active IHS users in Arizona, individuals aged 13-21 years had the highest percentage of dental encounters compared to all other age groups. That age group had percentages of dental access visits that ranged from 83% (2013) to 86% (2018). Dental access decreased among those aged 0 – 5 years old between 2013 (68%) and 2018 (53%).

Figure 6 Dental access encounters among active AI/AN IHS users in Nevada from 2013 - 2018, by age ^{a,b}



^a U.S. Department of Health and Human Services, Indian Health Service, Epi Data Mart; ^b Fiscal years 2013 – 2018

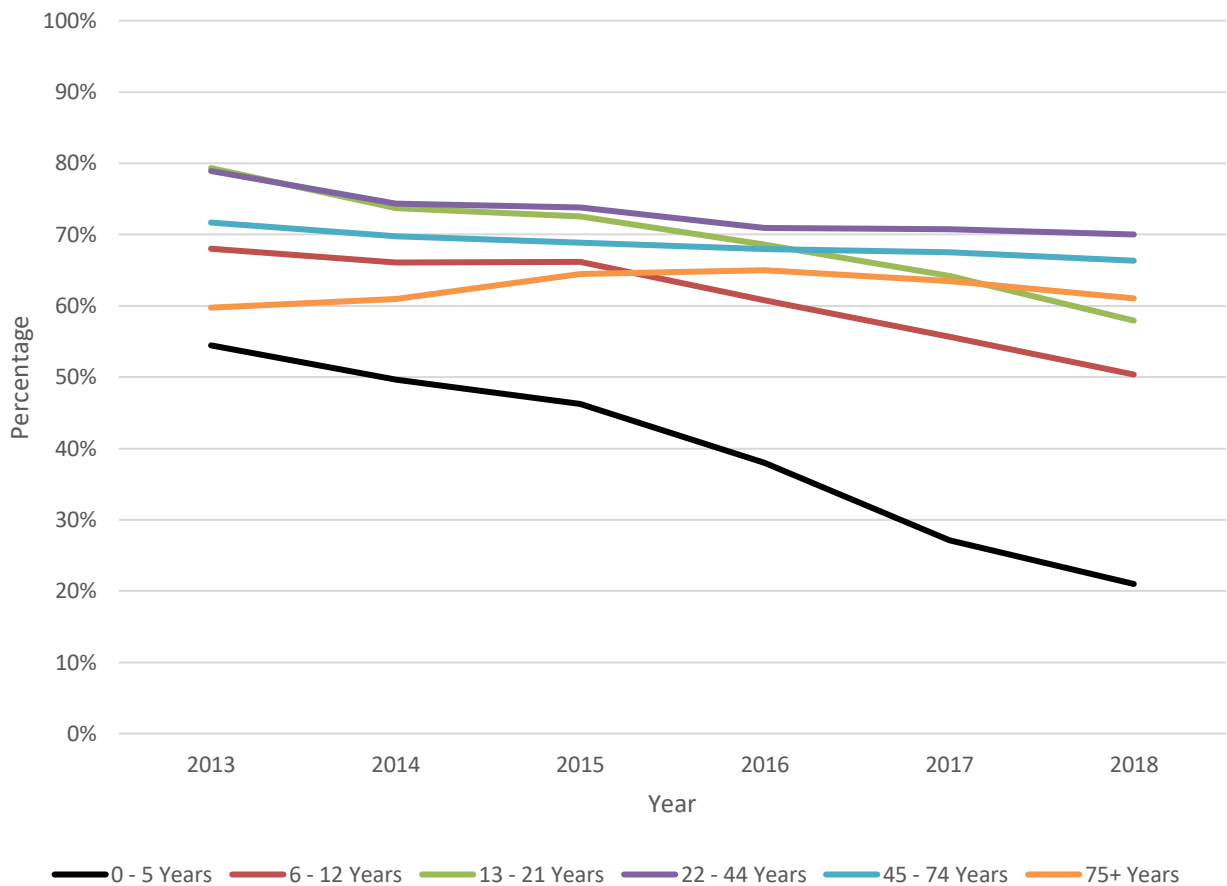
AI/AN = American Indian/Alaska Native

IHS = Indian Health Service

Note: An active IHS user is a patient that has had at least one workload-reportable encounter within the last three fiscal years

Among active IHS users in Nevada, individuals aged 13-21 years had the highest percentage of dental encounters compared to all other age groups. Individuals 6 to 75+ years old had dental access that ranged around 80%-90%. Individuals aged 0 – 5 years old had the lowest percentage of dental encounters compared to all other age groups, ranging from 58% in 2013 to 40% in 2018.

Figure 7 Dental access encounters among active AI/AN IHS users in Utah from 2013 - 2018, by age ^{a,b}



^a U.S. Department of Health and Human Services, Indian Health Service, Epi Data Mart; ^b Fiscal years 2013 – 2018

AI/AN = American Indian/Alaska Native

IHS = Indian Health Service

Note: An active IHS user is a patient that has had at least one workload-reportable encounter within the last three fiscal years

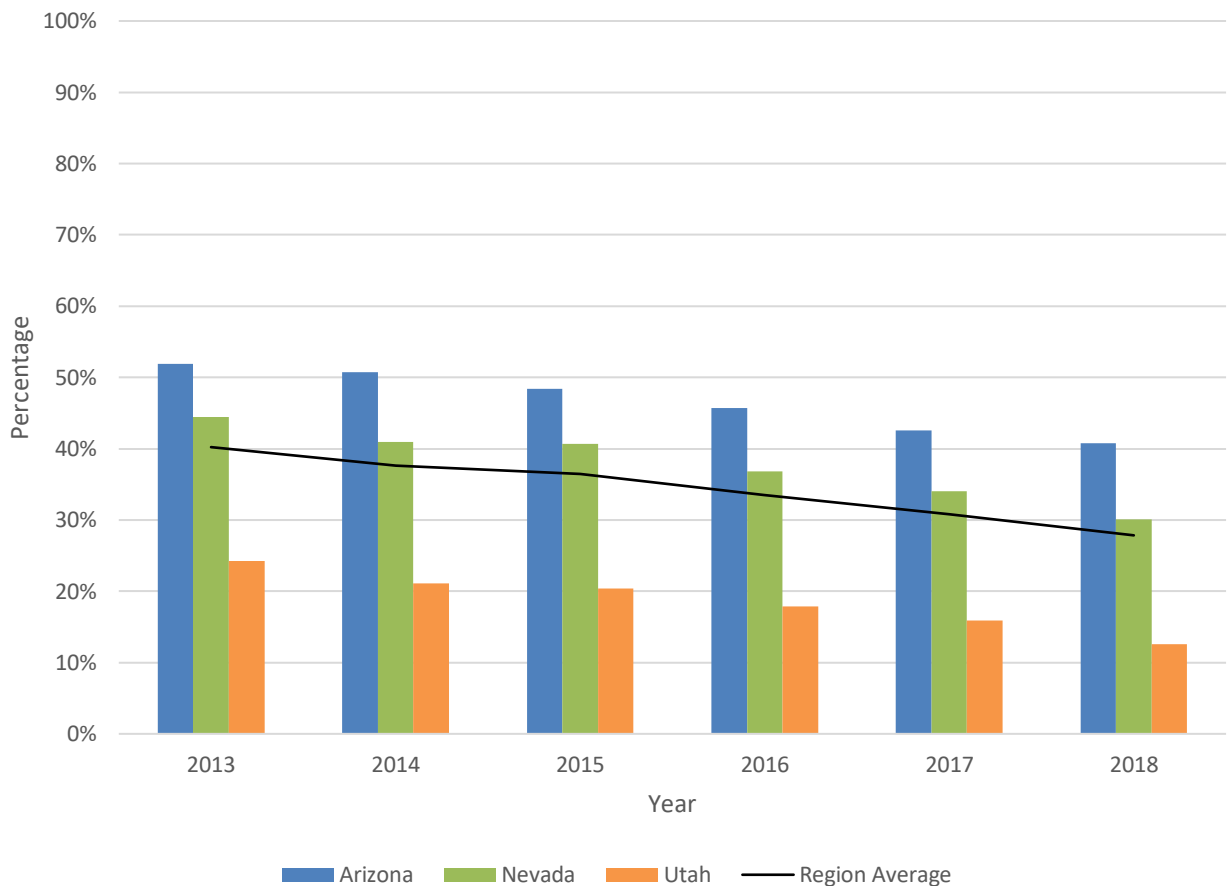
Among active IHS users in Utah, individuals aged 22-44 years had the highest percentage of dental encounters compared to all other age groups. Dental encounters of those in age groups 0-5 years, 6-12 years, 13-21 years, 22-44 years, and 45-74 years decreased from 2013 to 2018. Individuals aged 0 – 5 years old had the lowest percentage of dental encounters compared to all other age groups, ranging from 54% in 2013 to 21% in 2018.

Dental Sealants

Dental sealants are materials placed on the molar's surface to create a physical barrier against food particles that may get caught in the fissures and pits of a tooth. Sealants are effective in preventing and slowing tooth decay and cavities. The American Dental Association recommends dental sealants on both primary and permanent molars in children and adolescents.

Overall, between 2013 and 2018, IHS active users aged 2-15 years old in Arizona had the highest percentage of dental sealant coverage compared to users in Nevada and Utah. Individuals in Utah had the lowest percentage of dental sealant coverage between 2013 and 2018, less than half of the coverage of those in Arizona. In Arizona, Nevada, and Utah dental sealant coverage decreased each year between 2013 and 2018. Each year between 2013 and 2018 in Arizona, Nevada, and Utah females had a higher percentage of dental sealant coverage as compared to males. In Arizona, Nevada, and Utah individuals aged 13-15 years had the greatest percentage of dental sealant coverage as compared to all other age groups. In Arizona, Nevada, and Utah individuals aged 2 years had the lowest percentage of coverage compared to all other age groups. The relative differences in the percentage of individuals that received dental sealants was similar between each age group in Arizona, Nevada, and Utah.

Figure 8 Dental sealant encounters among active AI/AN IHS users 2 - 15 years old from 2013 - 2018 ^{a,b}



^a U.S. Department of Health and Human Services, Indian Health Service, Epi Data Mart; ^b Fiscal years 2013 – 2018

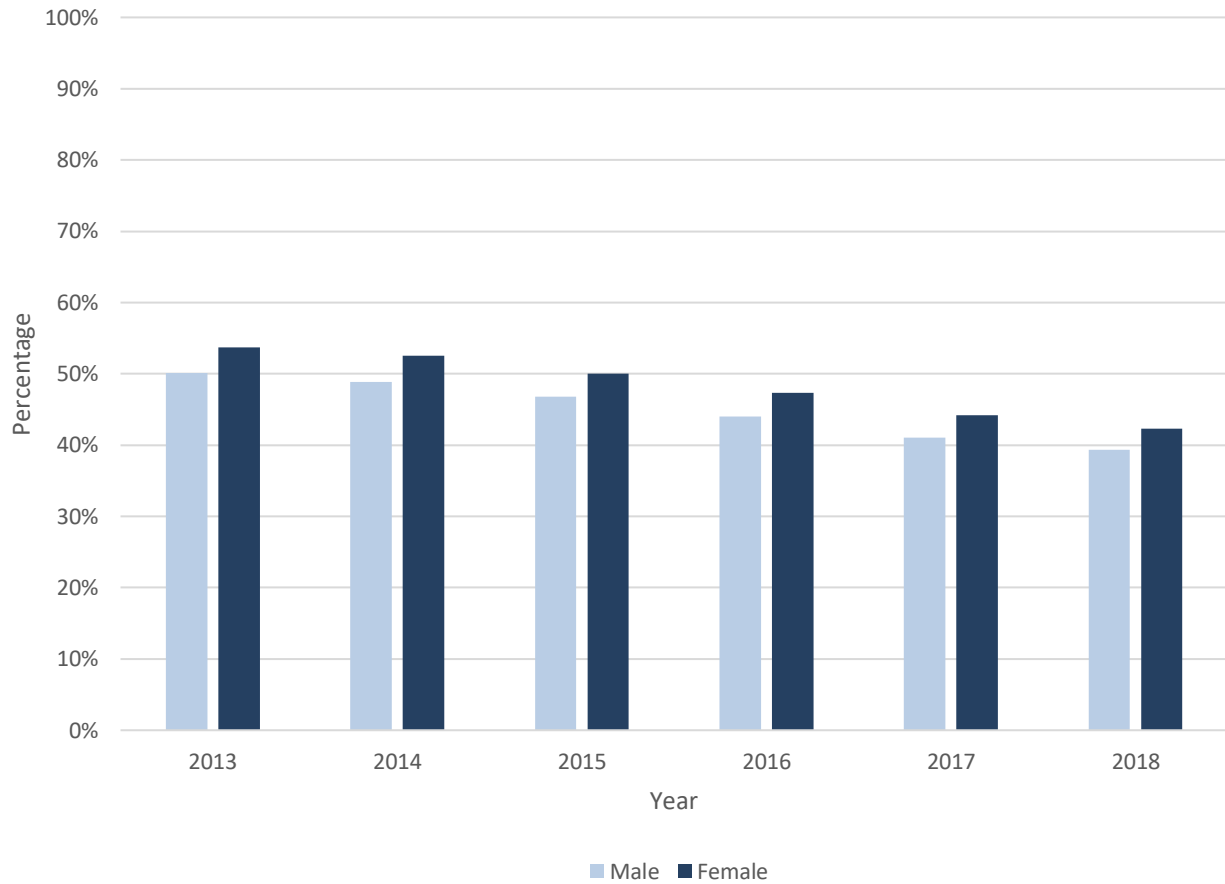
AI/AN = American Indian/Alaska Native

IHS = Indian Health Service

Note: An active IHS user is a patient that has had at least one workload-reportable encounter within the last three fiscal years

Between 2013 and 2018, the percentage of IHS active users aged 2-15 who had at least one dental sealant encounter decreased each year in patients in Arizona, Nevada, and Utah. Each year between 2013 and 2018, Arizona had the highest percentage of IHS active users aged 2-15 with a dental sealant visit, between 40%-50% each year, compared to users in Nevada and Utah. Each year between 2013 and 2018, Utah had the lowest percentage of IHS active users aged 2-15 with a dental sealant visit compared to Arizona and Nevada. Visits decreased each year in Utah, ranging from 24% of users with a dental sealant visit (2013) to 13% of users with a dental sealant visit (2018).

Figure 9 Dental sealant encounters among active AI/AN IHS users 2 - 15 years old in Arizona from 2013 - 2018, by sex ^{a,b}



^a U.S. Department of Health and Human Services, Indian Health Service, Epi Data Mart; ^b Fiscal years 2013 – 2018

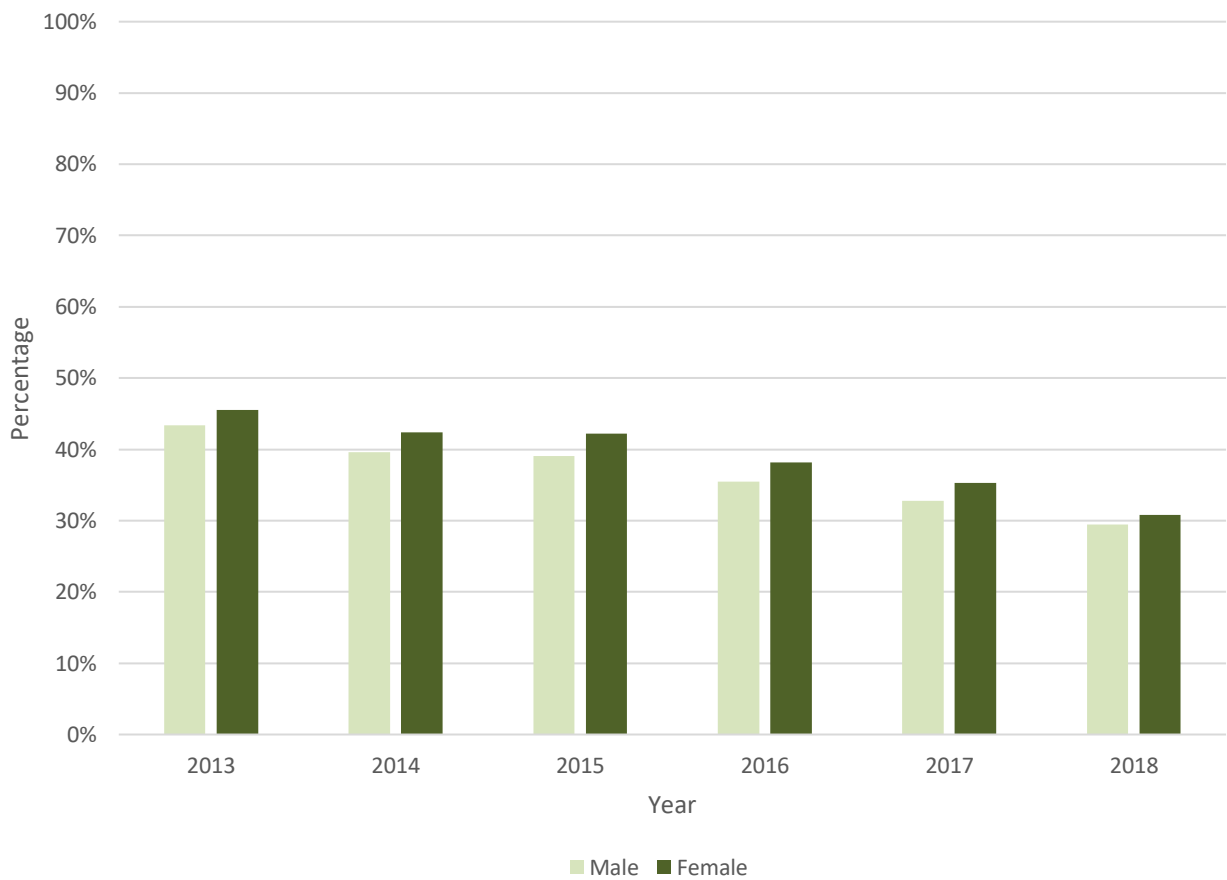
AI/AN = American Indian/Alaska Native

IHS = Indian Health Service

Note: An active IHS user is a patient that has had at least one workload-reportable encounter within the last three fiscal years

In Arizona between 2013 and 2018, female IHS active users aged 2-15 had a higher percentage of dental access encounters each year compared to males. Among females, the percentage of individuals with a dental sealant encounter decreased between 2013 (54%) and 2018 (42%). Among males, the percentage of individuals with a dental sealant encounter decreased between 2013 (50%) and 2018 (39%).

Figure 10 Dental sealant encounters among active AI/AN IHS users 2 - 15 years old in Nevada from 2013 - 2018, by sex ^{a,b}



^a U.S. Department of Health and Human Services, Indian Health Service, Epi Data Mart; ^b Fiscal years 2013 – 2018

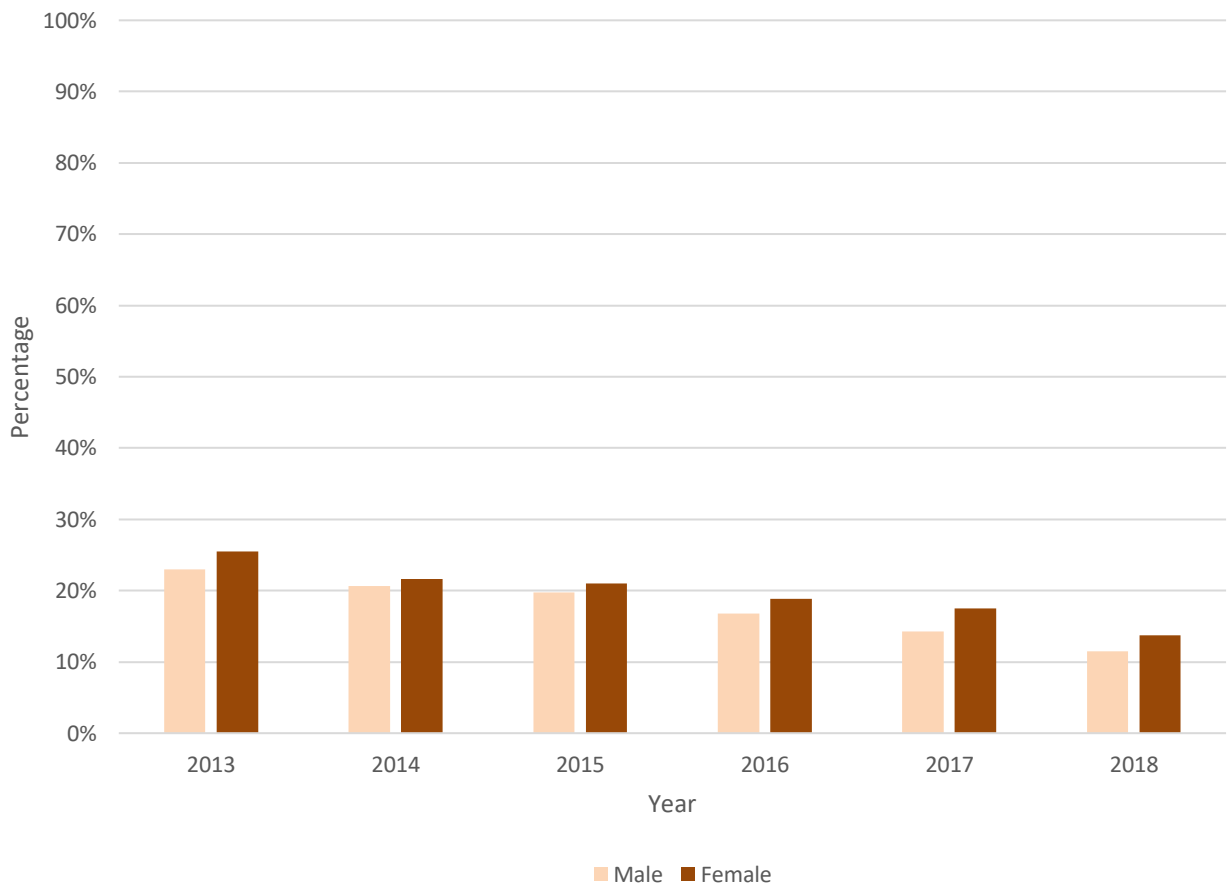
AI/AN = American Indian/Alaska Native

IHS = Indian Health Service

Note: An active IHS user is a patient that has had at least one workload-reportable encounter within the last three fiscal years

In Nevada between 2013 and 2018, female IHS active users aged 2-15 had a higher percentage of dental access encounters each year compared to males. Among females, the percentage of individuals with a dental sealant encounter decreased between 2013 (46%) and 2018 (31%). Among males, the percentage of individuals with a dental sealant encounter decreased between 2013 (43%) and 2018 (30%).

Figure 11 Dental sealant encounters among active AI/AN IHS users 2 - 15 years old in Utah from 2013 - 2018, by sex ^{a,b}



^a U.S. Department of Health and Human Services, Indian Health Service, Epi Data Mart; ^b Fiscal years 2013 – 2018

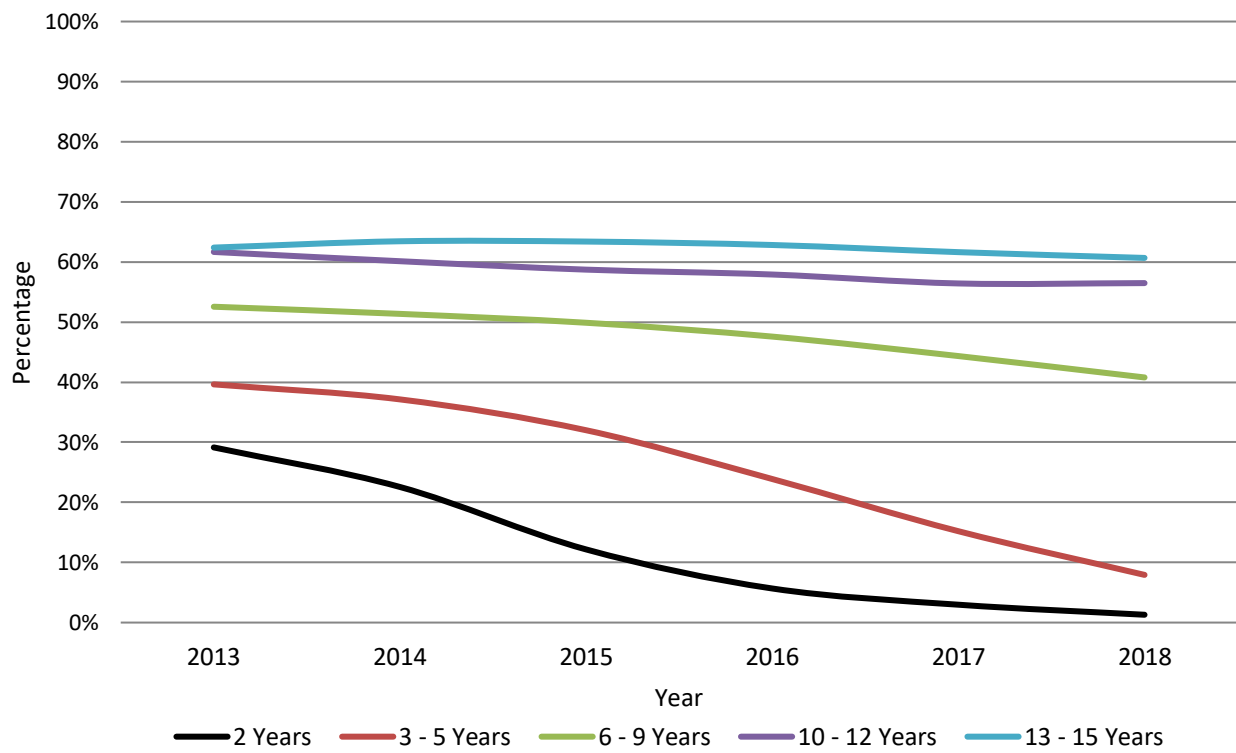
AI/AN = American Indian/Alaska Native

IHS = Indian Health Service

Note: An active IHS user is a patient that has had at least one workload-reportable encounter within the last three fiscal years

In Utah between 2013 and 2018, female IHS active users aged 2-15 had a higher percentage of dental access encounters each year compared to males. Among females, the percentage of individuals with a dental sealant encounter decreased between 2013 (25%) and 2018 (14%). Among males, the percentage of individuals with a dental sealant encounter decreased between 2013 (23%) and 2018 (11%).

Figure 12 Dental sealant encounters among active AI/AN IHS users 2 - 15 years old in Arizona from 2013 - 2018, by age ^{a,b}



^a U.S. Department of Health and Human Services, Indian Health Service, Epi Data Mart; ^b Fiscal years 2013 – 2018

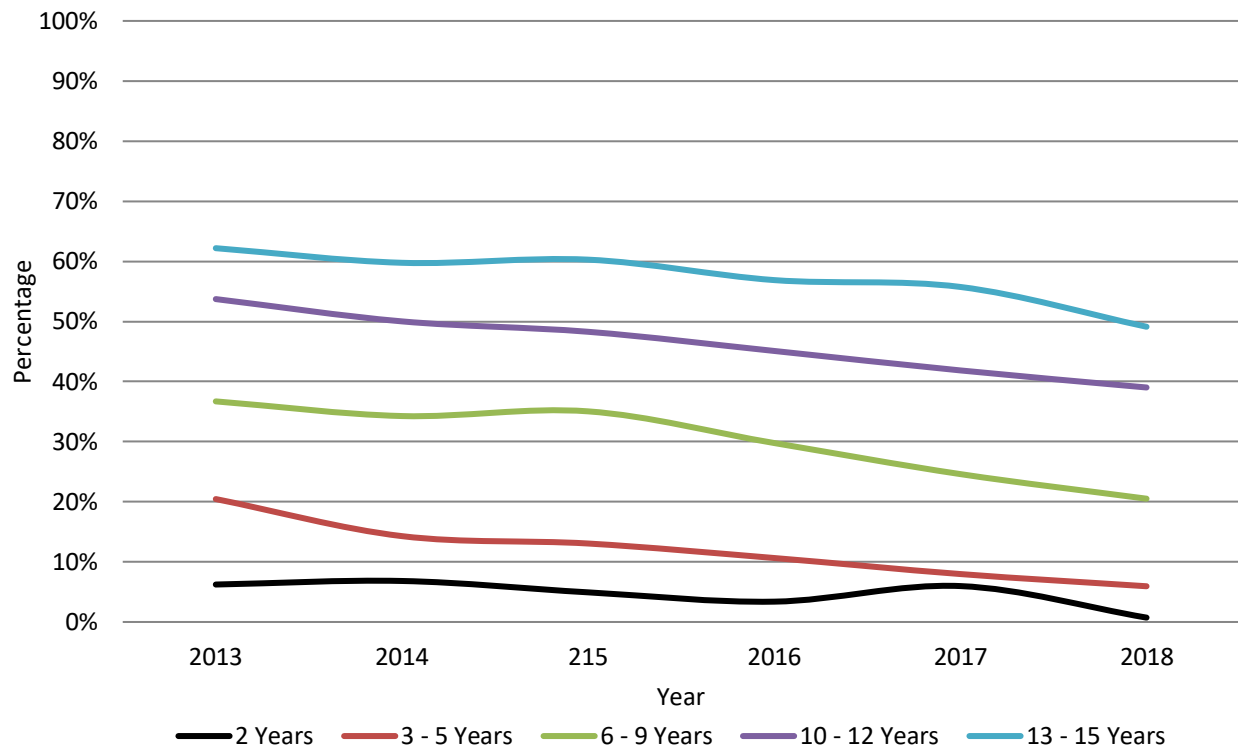
AI/AN = American Indian/Alaska Native

IHS = Indian Health Service

Note: An active IHS user is a patient that has had at least one workload-reportable encounter within the last three fiscal years

Among active IHS users in Arizona aged 2-15, individuals aged 13-15 years had the highest percentage of dental sealant encounters compared to all other age groups. Dental sealant encounters of those in aged 2 years, 3-5 years, 6-9 years, and 10-12 years decreased from 2013 to 2018. Individuals aged 2 years old had the lowest percentage of dental encounters compared to all other age groups, ranging from 23% in 2013 to 1% in 2018.

Figure 13 Dental sealant encounters among active AI/AN IHS users 2 - 15 years old in Nevada from 2013 - 2018, by age ^{a,b}



^a U.S. Department of Health and Human Services, Indian Health Service, Epi Data Mart; ^b Fiscal years 2013 – 2018

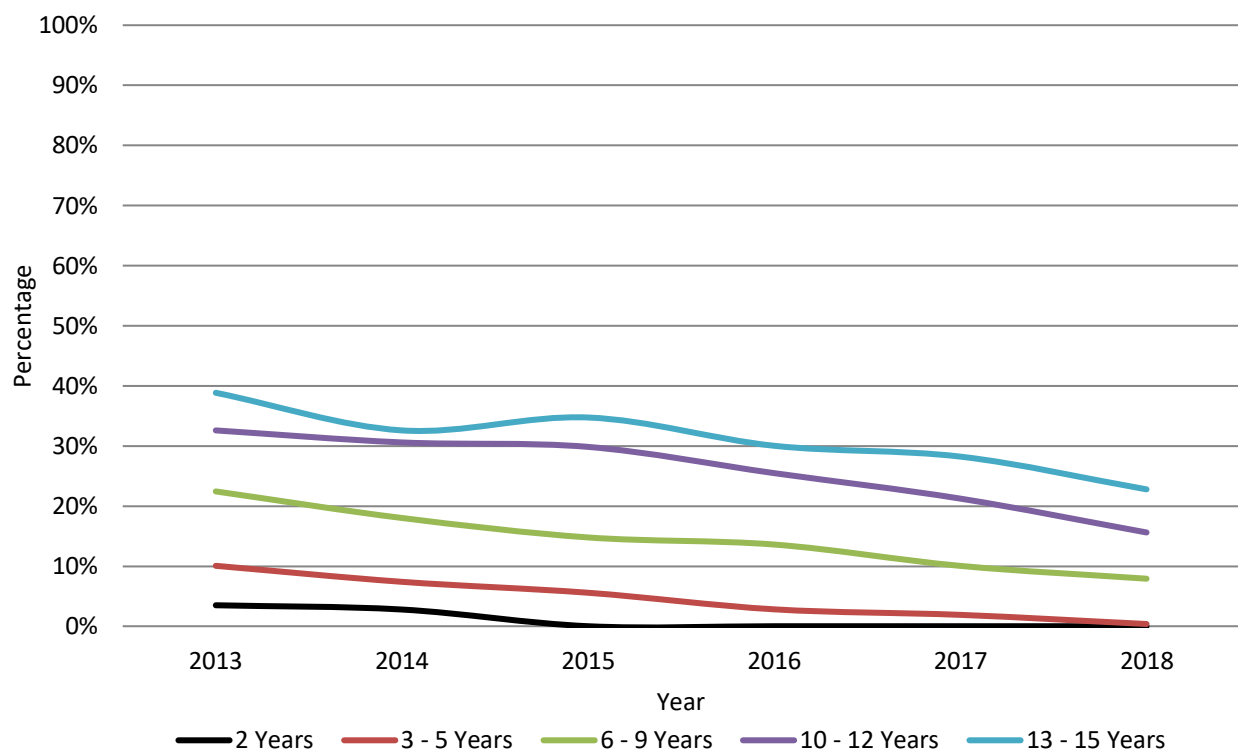
AI/AN = American Indian/Alaska Native

IHS = Indian Health Service

Note: An active IHS user is a patient that has had at least one workload-reportable encounter within the last three fiscal years

Among active IHS users in Nevada aged 2-15, individuals aged 13-15 years had the highest percentage of dental sealant encounters compared to all other age groups. Dental sealant encounters among those in all age groups decreased from 2013 to 2018. Individuals aged 2 years old had the lowest percentage of dental encounters compared to all other age groups, ranging from 6% in 2013 to 1% in 2018.

Figure 14 Dental sealant encounters among active AI/AN IHS users 2 - 15 years old in Utah from 2013 - 2018, by age ^{a,b}



^a U.S. Department of Health and Human Services, Indian Health Service, Epi Data Mart; ^b Fiscal years 2013 – 2018

AI/AN = American Indian/Alaska Native

IHS = Indian Health Service

Note: An active IHS user is a patient that has had at least one workload-reportable encounter within the last three fiscal years

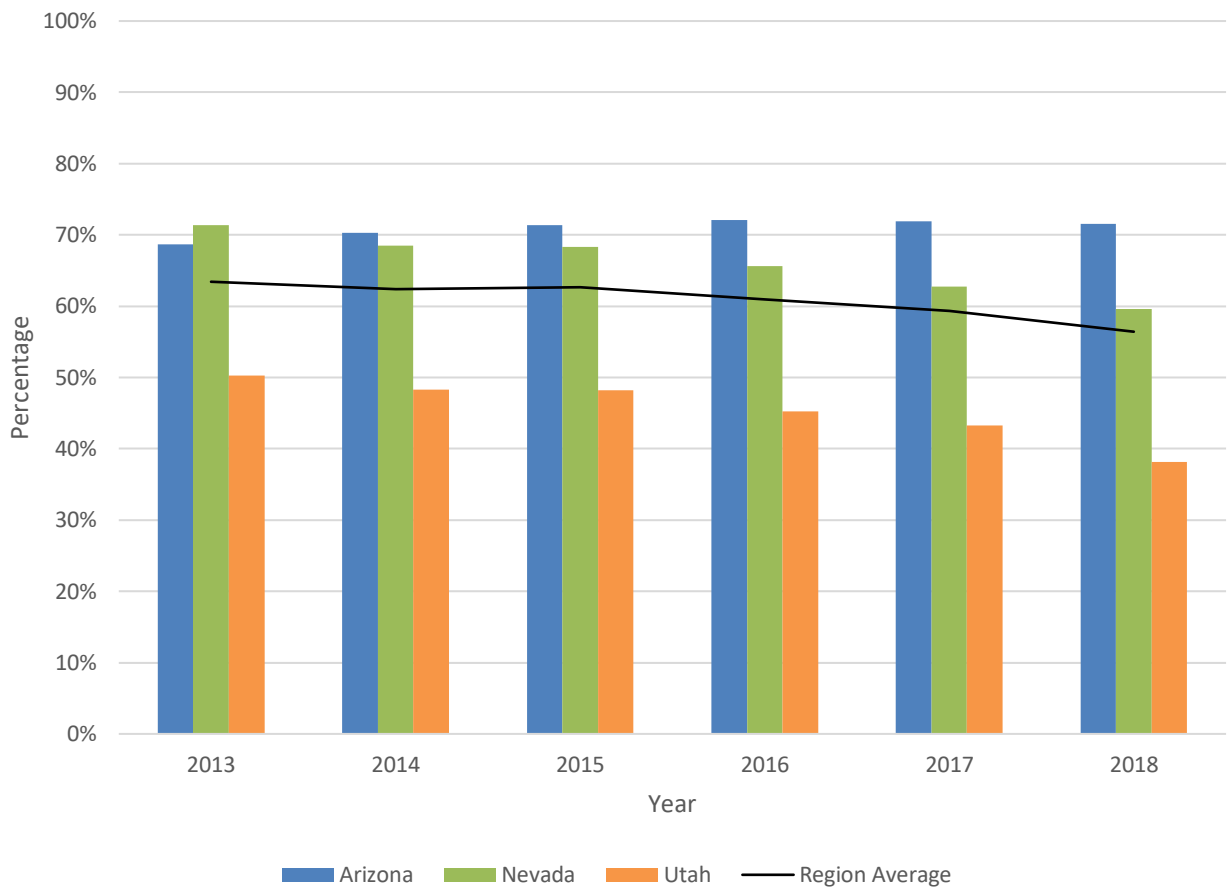
Among active IHS users in Utah aged 2-15, individuals aged 13-15 years had the highest percentage of dental sealant encounters compared to all other age groups. Dental sealant encounters among those in all age groups decreased from 2013 to 2018. Individuals aged 2 years old had the lowest percentage of dental encounters compared to all other age groups, ranging from 3% in 2013 to 0% in 2018.

Topical Fluoride

Fluoride is a naturally occurring mineral found in water and is an effective and safe way to aid in the prevention of tooth decay. Topical fluoride is applied to teeth, both primary and permanent, and helps to make teeth more resistant to tooth decay. Topical fluoride applied by dentists includes fluoride in the form of gels, rinses, and foams. Topical fluoride treatments can benefit both children and adults and it is up to a dental professional to determine an individual's need of a fluoride treatment.

Between 2014 and 2018, active IHS users aged 1-15 years old in Arizona had the highest percentage of users that received a topical fluoride treatment, as compared to individuals in Nevada and Utah. Topical fluoride treatments increased each year between 2013 and 2018 among IHS users in Arizona, while topical fluoride treatments decreased each year among users in Nevada and Utah. In Arizona, Nevada, and Utah females had a higher percentage of topical fluoride treatments compared to males, each year between 2013 and 2018. In Arizona and Utah, the relative difference in topical fluoride treatment between age groups was small, with the exception of those aged 1-2 years, who had much lower percentage of treatment compared to all other age groups. In Nevada, topical fluoride treatment varied greatly by age group; those aged 13-15 had the highest percentage of treatment, while those aged 1-2 years had the lowest percentage of treatment.

Figure 15 Topical fluoride encounters among active AI/AN IHS users 1 - 15 years old from 2013 - 2018 ^{a,b}



^a U.S. Department of Health and Human Services, Indian Health Service, Epi Data Mart; ^b Fiscal years 2013 – 2018

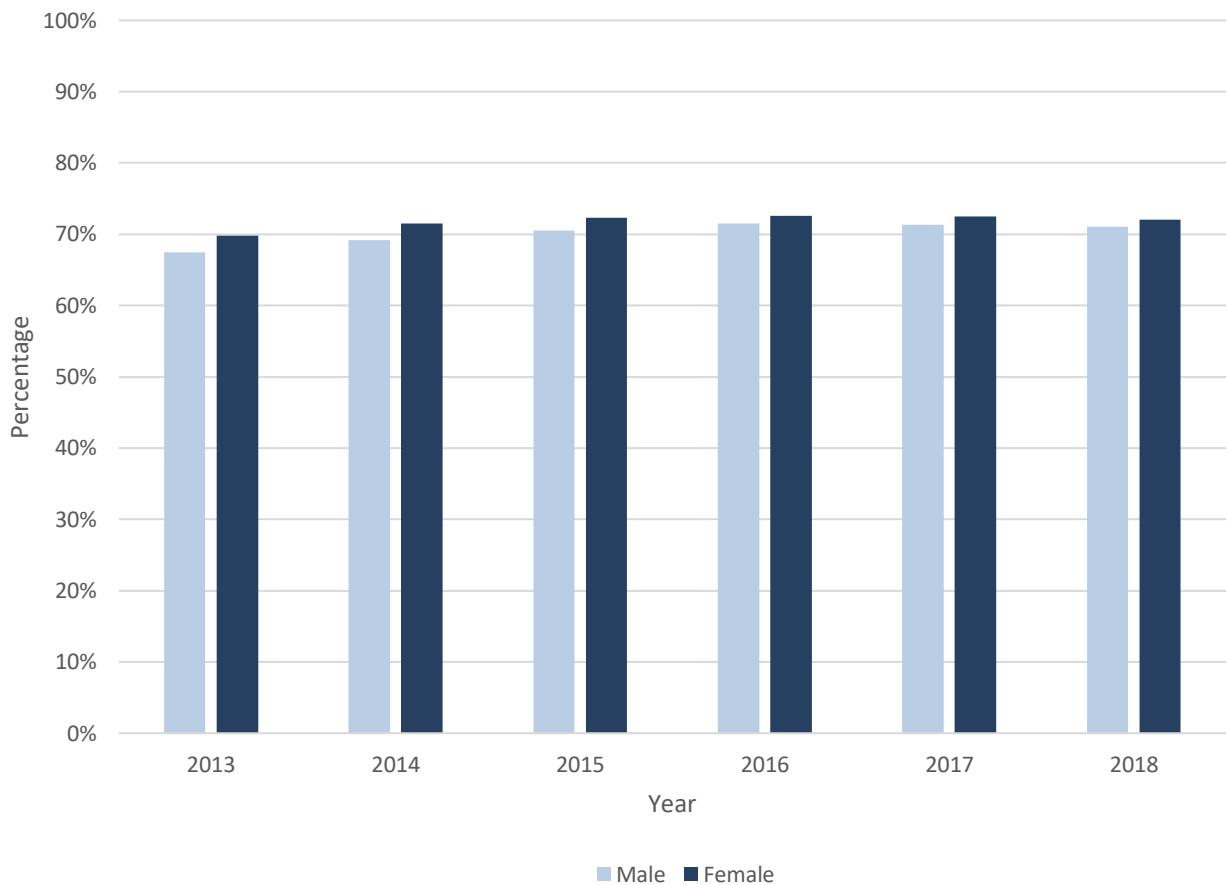
AI/AN = American Indian/Alaska Native

IHS = Indian Health Service

Note: An active IHS user is a patient that has had at least one workload-reportable encounter within the last three fiscal years

Between 2013 and 2018, the percentage of IHS active users aged 1-15 who had at least one topical fluoride encounter increased overall among patients in Arizona, and decreased each year among patients in Nevada, and Utah. Each year between 2013 and 2018, Arizona had the highest percentage of IHS active users aged 1-15 with a topical fluoride encounter, around 70% each year, compared to users in Nevada and Utah. Each year between 2013 and 2018, Utah had the lowest percentage of IHS active users aged 1-15 with a topical fluoride visit compared to Arizona and Nevada. Encounters decreased each year in Utah, ranging from 50% of users with a topical fluoride encounter (2013) to 38% of users with a topical fluoride encounter (2018).

Figure 16 Topical fluoride encounters among active AI/AN IHS users 1 - 15 years old in Arizona from 2013 - 2018, by sex ^{a,b}



^a U.S. Department of Health and Human Services, Indian Health Service, Epi Data Mart; ^b Fiscal years 2013 – 2018

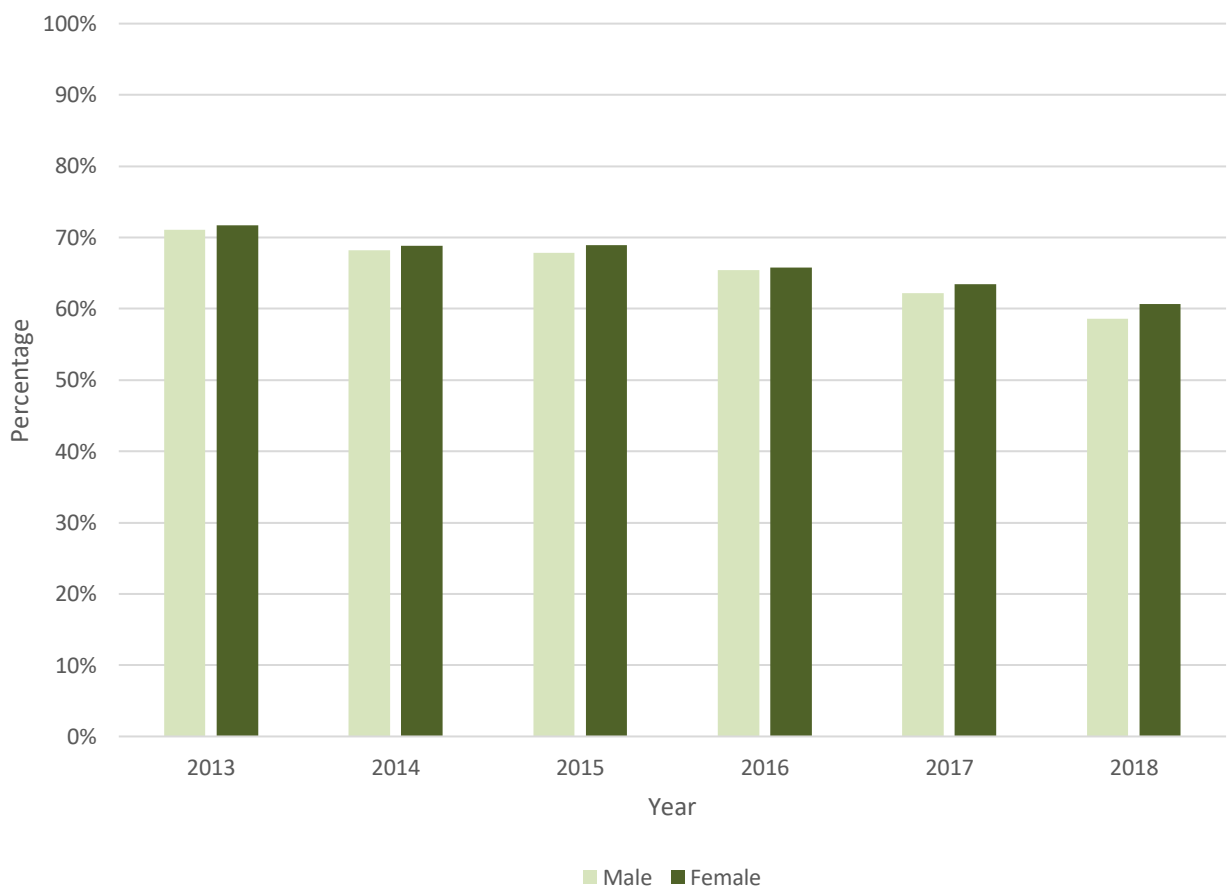
AI/AN = American Indian/Alaska Native

IHS = Indian Health Service

Note: An active IHS user is a patient that has had at least one workload-reportable encounter within the last three fiscal years

In Arizona between 2013 and 2018, female IHS active users aged 1-15 had a higher percentage of topical fluoride encounters each year compared to males. Among females, the percentage of individuals with a topical fluoride encounter increased between 2013 (70%) and 2018 (72%). Among males, the percentage of individuals with a topical fluoride encounter increased between 2013 (68%) and 2018 (71%).

Figure 17 Topical fluoride encounters among active AI/AN IHS users 1 - 15 years old in Nevada from 2013 - 2018, by sex ^{a,b}



^a U.S. Department of Health and Human Services, Indian Health Service, Epi Data Mart; ^b Fiscal years 2013 – 2018

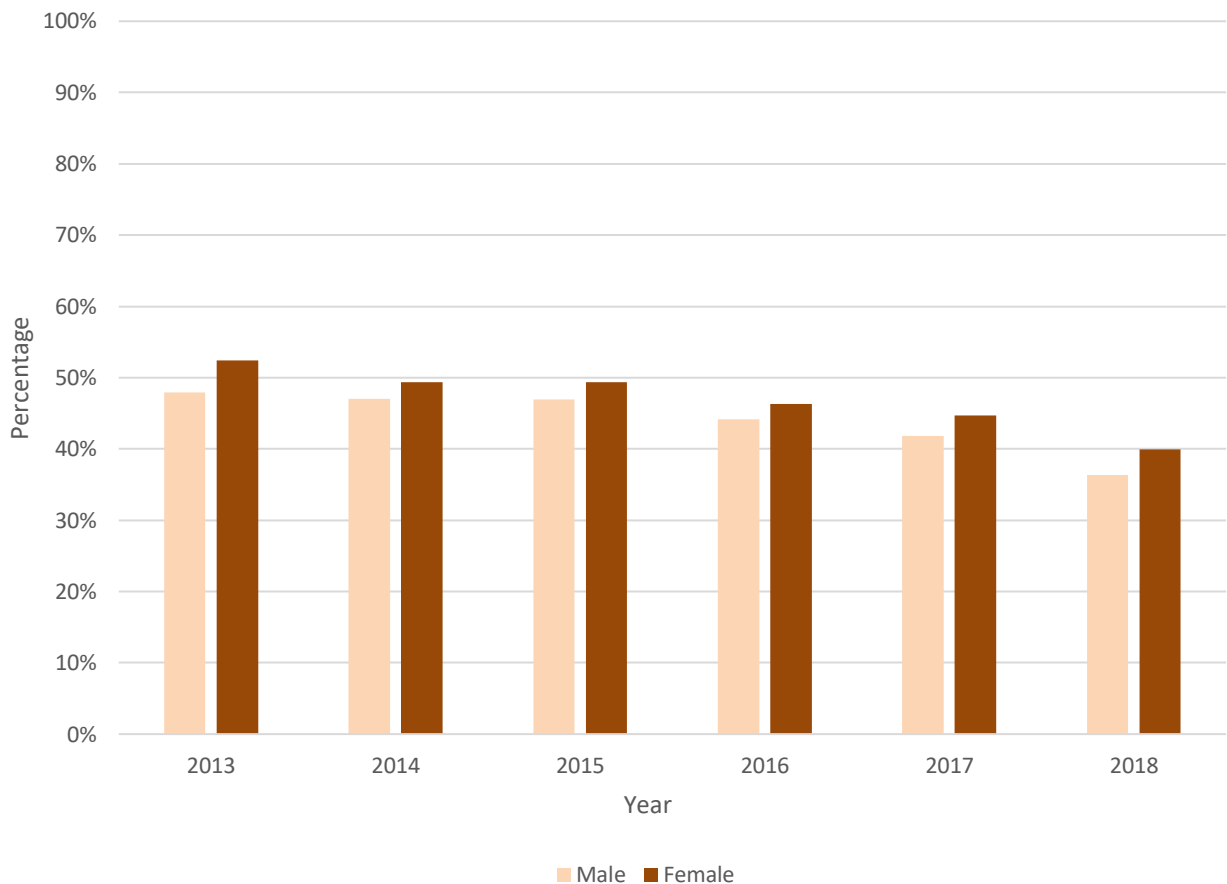
AI/AN = American Indian/Alaska Native

IHS = Indian Health Service

Note: An active IHS user is a patient that has had at least one workload-reportable encounter within the last three fiscal years

In Nevada between 2013 and 2018, female IHS active users aged 1-15 had a higher percentage of topical fluoride encounters each year compared to males. Among females, the percentage of individuals with a topical fluoride encounter decreased between 2013 (72%) and 2018 (61%). Among males, the percentage of individuals with a topical fluoride encounter decreased between 2013 (71%) and 2018 (59%).

Figure 18 Topical fluoride encounters among active AI/AN IHS users 1 - 15 years old in Utah from 2013 - 2018, by sex ^{a,b}



^a U.S. Department of Health and Human Services, Indian Health Service, Epi Data Mart; ^b Fiscal years 2013 – 2018

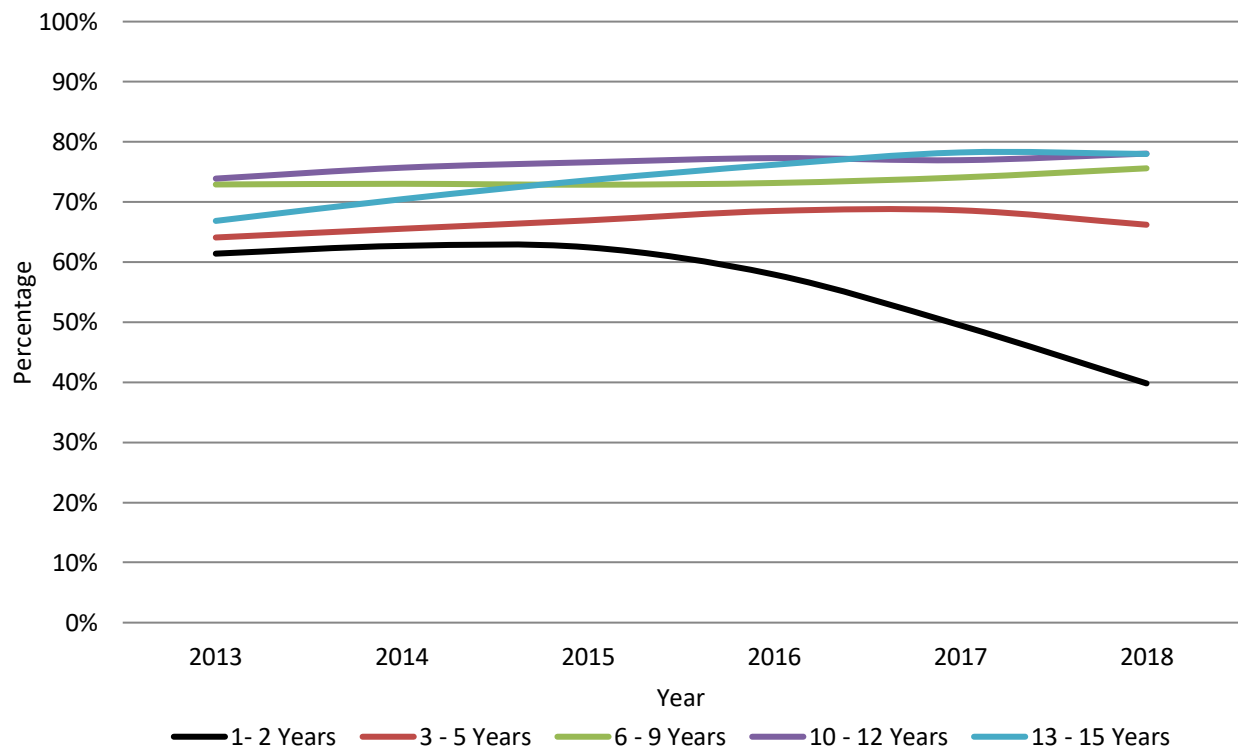
AI/AN = American Indian/Alaska Native

IHS = Indian Health Service

Note: An active IHS user is a patient that has had at least one workload-reportable encounter within the last three fiscal years

In Utah between 2013 and 2018, female IHS active users aged 1-15 had a higher percentage of topical fluoride encounters each year compared to males. Among females, the percentage of individuals with a topical fluoride encounter decreased each year between 2013 (52%) and 2018 (40%). Among males, the percentage of individuals with a topical fluoride encounter decreased each year between 2013 (48%) and 2018 (36%).

Figure 19 Topical fluoride encounters among active AI/AN IHS users 1 - 15 years old in Arizona from 2013 - 2018, by age ^{a,b}



^a U.S. Department of Health and Human Services, Indian Health Service, Epi Data Mart; ^b Fiscal years 2013 – 2018

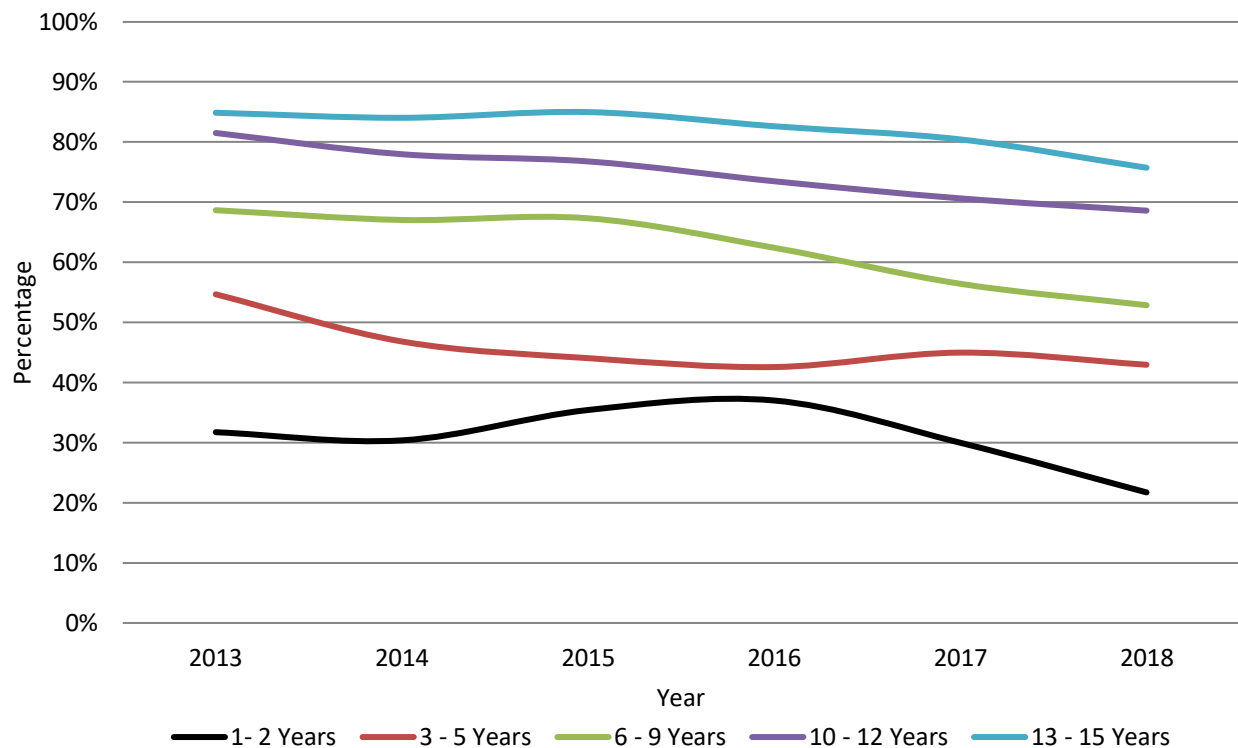
AI/AN = American Indian/Alaska Native

IHS = Indian Health Service

Note: An active IHS user is a patient that has had at least one workload-reportable encounter within the last three fiscal years

Among active IHS users in Arizona aged 1-15, individuals aged 10-12 years had the overall highest percentage of topical fluoride encounters compared to all other age groups. Topical fluoride encounters of all those except aged 1-2 years increased from 2013 to 2018. Individuals aged 1-2 years old had the lowest percentage of topical fluoride compared to all other age groups, ranging from 61% in 2013 to 40% in 2018.

Figure 20 Topical fluoride encounters among active AI/AN IHS users 1 - 15 years old in Nevada from 2013 - 2018, by age ^{a,b}



^a U.S. Department of Health and Human Services, Indian Health Service, Epi Data Mart; ^b Fiscal years 2013 – 2018

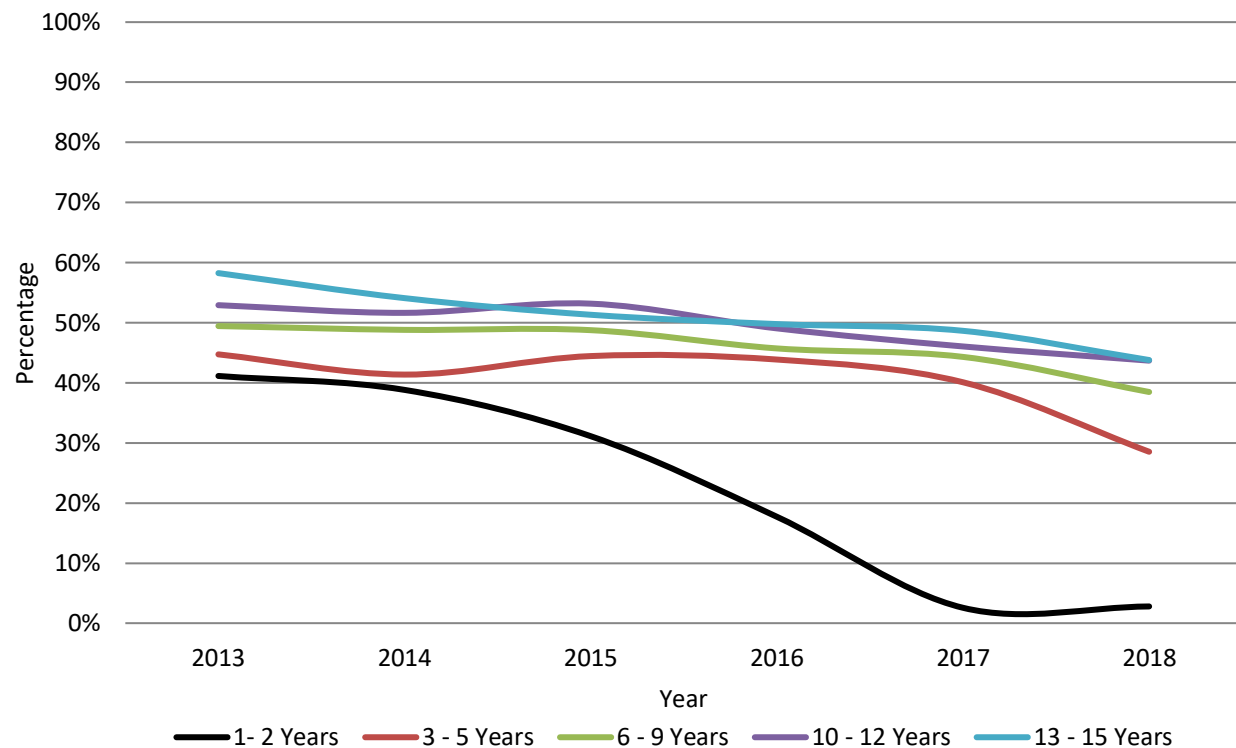
AI/AN = American Indian/Alaska Native

IHS = Indian Health Service

Note: An active IHS user is a patient that has had at least one workload-reportable encounter within the last three fiscal years

Among active IHS users in Nevada aged 1-15, individuals aged 13-15 years had the highest percentage of topical fluoride encounters compared to all other age groups. Topical fluoride encounters of all age groups decreased overall from 2013 to 2018. Individuals aged 1-2 years old had the lowest percentage of topical fluoride compared to all other age groups, ranging from 32% in 2013 to 22% in 2018.

Figure 21 Topical fluoride encounters among active AI/AN IHS users 1 - 15 years old in Utah from 2013 - 2018, by age ^{a,b}



^a U.S. Department of Health and Human Services, Indian Health Service, Epi Data Mart; ^b Fiscal years 2013 – 2018

AI/AN = American Indian/Alaska Native

IHS = Indian Health Service

Note: An active IHS user is a patient that has had at least one workload-reportable encounter within the last three fiscal years

Among active IHS users in Utah aged 1-15, individuals aged 13-15 years had the overall highest percentage of topical fluoride encounters compared to all other age groups. Topical fluoride encounters of all age groups decreased overall from 2013 to 2018. Individuals aged 1-2 years old had the lowest percentage of topical fluoride compared to all other age groups, ranging from 41% in 2013 to 3% in 2018.

ACTION ITEMS

Below are points of action organized by information specifically geared to individuals, tribal communities, tribal health care providers, tribal public health entities, Tribal Leaders, and non-tribal public health entities in an effort to improve oral health. These action items are specific to GPRA measures reported among IHS facilities, but may apply to overall oral health care.

Individuals

- Adults should adhere to routine dental examinations, as directed by their healthcare provider.
- Parents should adhere to routine dental examinations for their children, as recommended by their healthcare provider.
- As recommended by the American Dental Academy, children should have their first dental exam no later than 6 months after a first tooth, but no later than one year old.
- Partake in good oral health habits, such as routine brushing and flossing, avoiding commercial tobacco products, and limiting sugary foods and drinks.

Tribal Communities

- Topical fluoride treatments can be provided at early childhood daycare centers by trained professionals, given parental consent.
- Community events and resources, such as after school events, health fairs, elder centers, and child care centers, offer a great opportunity to promote oral health education, advertise a dental clinic, and provide dental care.

Tribal Health Care Providers

- Train dental clinic staff on how to apply fluoride as this does not need to be applied by dental program personnel.
- Non-dental health care providers can refer patients who may be at an increased risk for oral health diseases (such as smokers or diabetics) to a dental clinic.

Tribal Public Health

- Establish walk-in clinics to screen children, apply fluoride, and provide oral health education. This can exist within an MCH clinic.
- Partner with Dental Support Centers for education resources and funding opportunities aimed at improving access to dental services within a community.

Tribal Leaders

- Promote and support good oral health habits, such as routine dental visits, regular brushing and flossing, avoiding commercial tobacco products, and limiting sugary foods and drinks.

TECHNICAL NOTES

Race/Ethnicity Misclassification

It is known that race/ethnicity, particularly among American Indians is often misclassified, or American Indians are considered a different race/ethnicity group. The race/ethnicity misclassification likely under reports the number of cases among American Indians. The lower number of cases would then lower the incidence rate of among American Indians. At the time of writing, none of the surveillance systems had formally investigated misclassification of race/ethnicity among American Indians.

Indian Health Service Epi Data Mart

The Epi Data Mart (EDM) is a national repository of healthcare information gathered from associated Indian Health Service (IHS), Tribal and Urban healthcare sites and regional administrative offices of the Indian health system. The purpose of the EDM is to provide a snapshot of the broad system for the purpose of public health surveillance and reporting on community health status for constituent Tribes. The information in this report includes records for American Indians that were active IHS users. An active user is defined as “an individual that had at least one workload-reportable encounter within the last three fiscal years”. The purpose of the IHS National Data Warehouse that the EDM is a subset of is primarily administrative. Therefore, data from this source cannot be used to calculate representative population based rates or proportions of health outcomes. This data can be used for IHS clinic planning purposes.

Relationship between Tribes, State, and National Surveillance

Reporting by tribal healthcare providers and facilities to state and local health authorities is dependent on the tribal health codes and the tribal reporting requirements. IHS facilities will report notifiable conditions to state and/or local health departments under the provisions of state statutes, codes and/or regulations to the extent permitted by law. Laboratories that receive specimens from tribal health care facilities are required to report positive tests to the state and/or local health authorities. All cases reported to local and state health departments are reported through National Notifiable Disease Surveillance System (NNDSS).

Case Definitions

A case definition is a set of uniform criteria used to define a disease for public health surveillance. Case definitions enable public health to classify and count cases consistently across reporting jurisdictions, and are not to be used by healthcare providers to determine how to meet an individual patient’s health needs. Therefore, not all clinically diagnosed cases are included. Any disease counts extracted from a surveillance system likely under-estimate the burden of disease in the population.

In this report, IHS Epi Data Mart oral health data was used to present information on oral health access at IHS facilities only. Access to oral health care may be greater, as this report does not include access to oral health care services outside of IHS facilities. Identification of oral health GPRA Measures was gathered from the American Dental Association Current Dental Terminology (ADA CDT) code. The case definitions for the oral health GPRA Measures are presented below.

GPRA Measure	ADA CDT Codes
Access to Dental Services	D0110 – D0390; D0415 – D9952; D9970 – D9974; D9999
Dental Sealants	D1351, D1352, D1353
Topical Fluoride	D1201, D1203, D1204, D1205, D1206, D1208, D5986

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