Washington State
Apple Health Dental Program
Facts and Figures
FY 2008 – FY 2017

ARCORA
The Foundation of Delta Dental of Washington

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Overview and Summary

Introduction

Oral Health is a critical component of overall health. Poor oral health can cause pain and impact many aspects of a person's life, including the ability to eat, sleep, learn, and work. Untreated oral disease can exacerbate chronic health conditions, like diabetes, negatively impacting overall health and increasing medical costs.

When people seek and receive oral healthcare early, disease can be prevented and small problems can be treated so that they don't lead to serious and costly health problems.

More than one in four people in Washington receive their healthcare coverage from Apple Health (Washington State Medicaid), which is administered by the Washington State Health Care Authority (HCA) using a managed care model for medical services and a fee for service reimbursement model for dental services. This includes over 850,000 children and more than one million adults. Therefore, the Apple Health dental program is a key factor in the oral health status of a large number of people. Nearly a quarter of the state's population (26%) receive dental care through Apple Health.

The Apple Health dental program is transitioning to a managed care model, which will go into effect on January 1, 2019.

Note: According to Health Care Authority Apple Health Program Enrollment Reports, the number of Washingtonians enrolled in Apple Health in March 2018 was 1,863,363.
Citations are available in the Resources and Appendixes section of the report.

Importance of Dental Care and Oral Health

Untreated dental disease can result in pain, poor nutrition, missed school, lack of employability, and social isolation, which can have a devastating impact on quality of life.

Oral health disparities exist for many racial and ethnic groups, by socioeconomic status, age and geographic location. In Washington, disparities in dental care continued to be evidenced among low-income children, American Indian/Alaska Native children, Hispanic children, and other racial and ethnic minority children. Based on the 2015 Smile Survey, these groups had the highest rates of tooth decay-substantially higher than the Washington statewide average of 52% (Washington combined grade decay experience).

In 2000, the U.S. Surgeon General classified dental disease as a silent epidemic given the lack of attention to this widespread chronic disease.

Oral Health is a Critical Component of Overall Health and Well-Being

- Untreated dental disease can cause intense pain, affecting a person's ability to eat, sleep, learn, and work.
- In 2016, national data revealed that almost 4 out of 10 adults in Washington have lost at least one tooth because of oral disease, while 2 out of 10 reported experiencing pain in the mouth very often or occasionally.
- Based on the 2015 American Dental Association (ADA) Oral Health and Well Being National Survey, 15% of adults in Washington reported experiencing anxiety and 16% reported difficulty sleeping due to the condition of their teeth. Low income adults are most likely to report having problems due to the condition of their mouth and teeth.
- Tooth decay is the most common childhood disease. Children with severe dental problems are more likely to miss school and have difficulty learning.
- Pregnant women are more likely to develop oral health problems due to biological changes in their bodies and, if they have active oral disease, can pass cavity-causing bacteria to their babies after birth through saliva.
- Gum disease is linked to a number of serious health conditions, including diabetes, heart disease, and stroke. Older adults, in particular, are at risk for poor oral health because many medications cause dry mouth, which leads to tooth decay and gum disease.

Importance of Dental Care and Oral Health

Oral health affects overall health and well-being across the lifespan of adults and children.

Periodontal disease and cavities are largely preventable. Early intervention can reduce unnecessary, expensive dental treatment and ensure that infection and inflammation do not cause complications from other chronic diseases.

Overview of WA Apple Health Dental Program: Children's Coverage

- Apple Health for Kids is a comprehensive child health program. The program's focus is on prevention, early diagnosis, and treatment by both medical and dental providers.
- In 2007, with the adoption of the Cover All Kids law, Washington made a commitment to ensure that all children have access to healthcare coverage. Apple Health for Kids consolidates several programs, offering a single streamlined enrollment process and the same comprehensive benefits, including dental care, to all eligible children.
- In 2009, the state renewed its commitment to covering all kids in the face of an unprecedented economic crisis by maintaining investments in children's coverage and outreach to families. It raised the eligibility for Apple Health for Kids to children living in families from 250% of Federal Poverty Level (FPL) to 312% FPL.
- Children through age 20 are now eligible for a complete range of dental services, including preventive and restorative procedures.
- Dental coverage is free for all children in families below 200 percent of the Federal Poverty Level ($40,320 for a family of three in 2016 and $41,560 in 2018). Families between 210 and 312 percent of the Federal Poverty Level pay a small monthly premium. Families do not pay a copay or deductible and there is no "annual maximum" limit to the coverage.

Note: Apple Health for Kids is premium-free for families up to 210% FPL, and with sliding scale premiums between 210 and 312% FPL

Sources:
https://www.hca.wa.gov/free-or-low-cost-health-care/program-administration/health-care-children
https://aspe.hhs.gov/poverty-guidelines

National Picture

States are required by federal law to provide dental coverage to children in low-income families through Medicaid.

Dental Programs & Services Available to WA Apple Health Children Enrollees

- **Access to Baby and Child Dentistry Program (ABCD):** Currently in every county, ABCD connects Apple Health-insured children under age 6 to dentists trained to address oral health in young children. Initiated in 1995, the ABCD program has successfully worked to:
  - identify highest risk children and enroll them by age one;
  - educate families/caregivers on preventing cavities;
  - provide outreach and case management to connect families with dental offices; and
  - train dentists in the best practices for treating young children.
- **Oral health preventive services during well-child checks:** Given primary care medical providers on average see young children 8 or 9 times by the age of 3, well-child medical visits are an opportunity to reach children early, deliver preventive services, assess risk, and refer those in need of care to a dental provider. Primary care medical providers in WA who are trained and certified by Arcora Foundation are reimbursed by Apple Health for delivering oral screenings, providing oral health education, and applying fluoride varnish.

Programs for Young Children Serve as Models

ABCD is nationally recognized for expanding access to care for Apple Health-insured young children. The Pew Charitable Trusts praised ABCD for achieving significant results while "delivering a strong return on taxpayers' investment."

Dental Programs & Services Available to WA Apple Health Children Enrollees

- **ABCD Expansion Children Ages 6-12 with Disabilities:** Legislation passed during the 2018 session expands the ABCD program for children with disabilities, until their 13th birthday. Based on the current ABCD model, ABCD Expansion will include training and certification for dental providers, outreach and support for families, and an enhanced provider reimbursement rate. Services are expected to begin mid to late 2019.

Programs for Young Children Serve as Models

Children with developmental disabilities often have unmet complex healthcare issues. They are more likely to have unmet dental needs than are typically developing children and are considered to be at greater risk of developing dental disease. In addition, children with more severe conditions and from low-income families are particularly at risk with high dental needs and poor access to care. Therefore, developing programs that are focused on eliminating barriers to accessing dental care for these children, and other children with disabilities, is essential to closing the gap and ensuring oral health equity.

Overview of WA Apple Health Dental Program: Adult Coverage

- WA State had adult dental coverage until 2011 when budget cuts went into effect, limiting most adults to emergency services, such as tooth extractions and antibiotics for pain.
- Between 2011 and 2014 comprehensive dental coverage was only available to pregnant women, those in long-term care/nursing homes, and clients eligible under a 1915(c) waiver program (see footnote).
- In January 2014, comprehensive dental coverage was restored to all Apple Health-insured adults, including those covered by the Medicaid Expansion component of the federal Affordable Care Act.
- Dental coverage is free through Apple Health for adults under age 65 up to 138% of the Federal Poverty Level (FPL). Older adults must have lower incomes to qualify for Apple Health.
- Since adult dental coverage was restored in January 2014, Fiscal Year 2014 includes six months of adult dental benefits (January 1, 2014 – June 30, 2014), while Fiscals Years 2015 – 2017 includes full years of adult dental benefits.
- While the state provides a medical benefit for certain adult populations otherwise excluded from Medicaid coverage (adults enrolled in the Medical Care Services program and adult migrants from Compact of Free Association or COFA nations), they do not currently have a dental benefit.

Note: The Centers for Medicare and Medicaid Services 1915(c) waiver program covers certain medically needy and disabled clients.

National Picture

As of January 2018, 16 states (and D.C.) offer comprehensive Medicaid dental benefits to adults, 17 states provide limited benefits, 14 offer only emergency benefits, and 3 states do not provide any dental benefits to adults.

Note: some states offer different levels of dental benefits to their Medicaid expansion and Medicaid base enrollees. The above figures are for the Medicaid base populations.

Overview of WA Apple Health Dental Program: Medicaid Expansion

- The federal Affordable Care Act (ACA) includes a provision for states to expand Medicaid eligibility to all adults under the age of 65 up to 138% of the Federal Poverty Level (about $28,600 for a family of three), regardless of health or disability status. During the first years of expansion, the federal government paid 100% of the cost to provide Medicaid coverage to the newly eligible population. The federal contribution decreased to 95% in 2017 and 94% in 2018, and will stay at 90% in 2020 and beyond.
- While a U.S. Supreme Court decision made Medicaid Expansion optional for states, Washington lawmakers recognized the opportunity to extend healthcare coverage to lower-income residents, and implemented the program. Since 2014, when Medicaid Expansion went into effect, nearly 600,000 Washington adults have enrolled in Apple Health.
- Medicaid Expansion coverage, like Medicaid for other eligibility categories, includes comprehensive adult dental benefits.
- Continued efforts at the federal level to repeal the ACA or limit federal Medicaid spending through converting the program to block grants could impact the Washington Apple Health program, and access to dental care, for adults.

National Picture

Many enrollees eligible through Medicaid Expansion are lower-wage workers, including dental assistants and other healthcare team members, restaurant and retail employees, child care providers, students and recent college graduates.

Oral Health Connections

- The 2017-19 state operating budget includes a proviso authorizing the Oral Health Connections (OHC) pilot. It's a three-year, three-county pilot to apply the ABCD model to increase access to care and improve health outcomes for Apple Health-insured pregnant woman and people with diabetes.
- Studies have shown a link between the oral health status of pregnant women and people with diabetes and overall health outcomes.
- Pilot counties are Spokane, Thurston and Cowlitz. Implementation planning is underway.
- OHC includes provider training and certification, enhanced provider reimbursement rates for a set list of services, and patient and provider outreach and support.
- Pilot services will launch in January 2019, and Arcora Foundation is supporting a robust evaluation.

Enhanced Dental Benefits May Reduce Medical Expenditures

Studies have shown periodontal treatment reduces medical costs for people with chronic conditions.

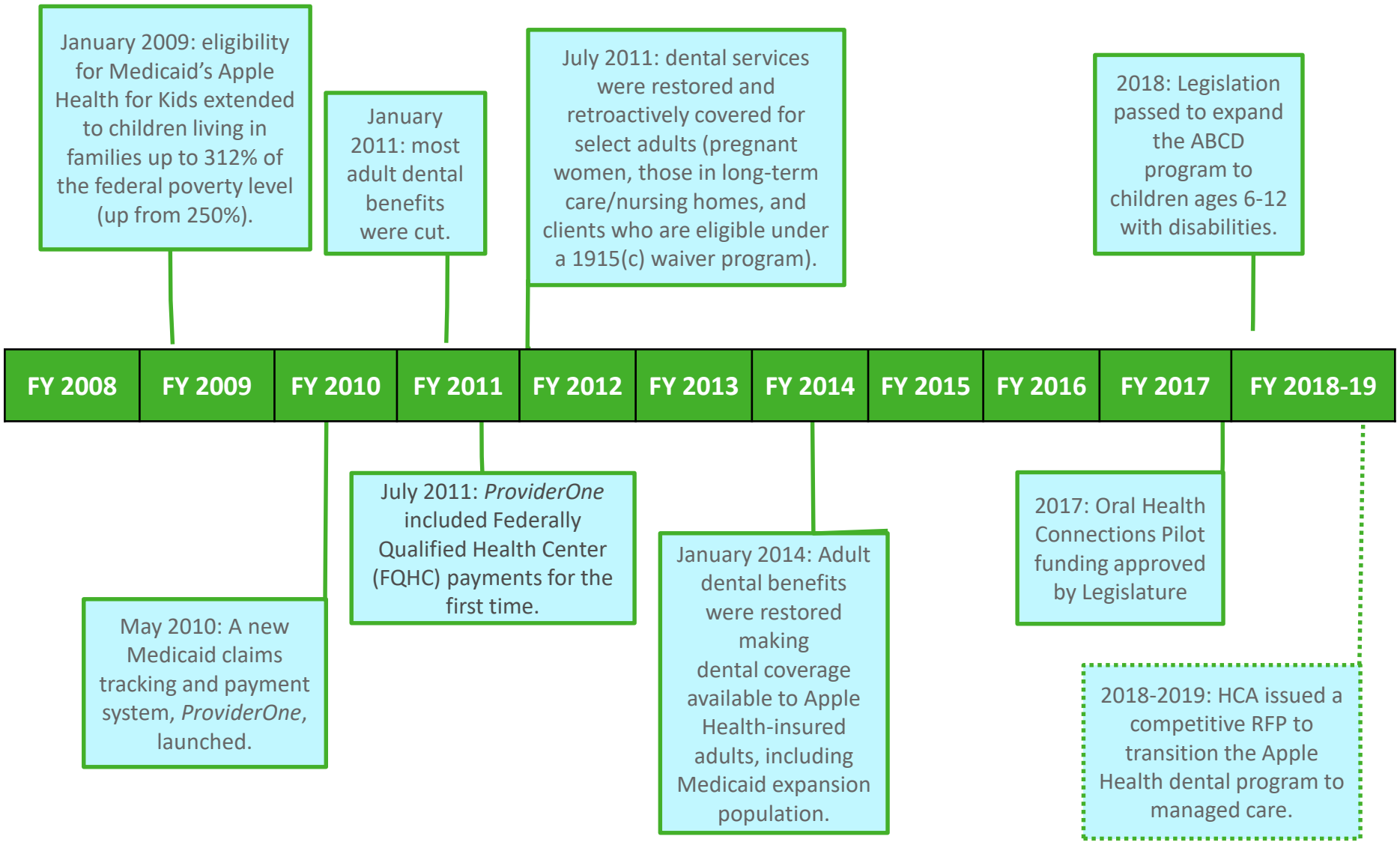
United Concordia's landmark Oral Health Study revealed that annual medical cost savings are possible when individuals with diabetes are treated for gum disease. In addition, other studies showed that significantly lower medical costs and hospitalizations occur in the time period following periodontal treatment in pregnant and diabetic patients when compared to untreated controls.

Oral Health Connection will examine whether enhanced dental benefits result in the reduction of medical expenditures.

Transition to Dental Managed Care

- The 2018 supplemental state operating budget (ESSB 6032) includes a proviso directing the HCA to transition the Apple Health dental program from a state-run fee for service (FFS) program to a managed care carve-out.
- The proviso calls for dental managed care plans to achieve overall program savings (reducing the state expenditure by $6M from FY18 to FY19) while also increasing the provider network, retaining innovative programs like ABCD, reducing dental-related ER visits, coordinating with primary care, protecting FQHC reimbursements, and more.
- Federal rules require beneficiaries to have a choice of at least two plans in a managed care program.
- Nearly all of the Apple Health enrollees will transition to dental managed care, with the exception of American Indian/Alaska Native enrollees, for whom managed care is optional, and smaller state-only programs.
- As of this writing, the HCA has submitted a request for additional funding to implement dental managed care.

Timeline for Changes Affecting WA Apple Health Dental Services and Claims



Note: All years are fiscal years. They run from July 1 of the previous year to June 30 of the mentioned year. FY 2008 runs from July 1, 2007 through June 30, 2008.
ProviderOne is the Medicaid Management Information System that is the State's Medicaid Payment system managed by HCA.

Report Background and Goals

Arcora Foundation commissioned Health Management Associates (HMA) in 2013 to examine dental services' utilization and expenditures for Washington's Apple Health population. HMA completed a report in 2013 that identified oral health status and analyzed five year trends (2008-2012). Subsequent reports have been developed by Arcora Foundation utilizing a similar format and analysis methods.

Arcora Foundation (formally known Washington Dental Service Foundation) is a non-profit founded and funded by Delta Dental of Washington, the leading dental benefits company in Washington state. Arcora Foundation analyzes oral health data and trends to be a resource for policymakers and healthcare leaders and to advocate for the importance of oral health. It has a data sharing agreement with the Health Care Authority (HCA) and receives the Apple Health dental data annually. The Foundation has analyzed the Apple Health dental utilization and expenditures for the last ten years (2008-2017).

The goal of this report is to identify the current status and trends in utilization, services, and costs of the Apple Health dental program in order to understand the impact of policy and plan for the future.

All Washington Apple Health dental program Facts and Figures reports are reviewed and approved by the Health Care Authority prior to publishing.

Report Overview

- The report is divided into three main areas: Dental expenditures and services by age group (all ages, children and adults), oral health providers, and policy implications.
- Expenditure analyses exclude data prior to FY 2011 due to a change in Washington State Department of Social and Health Services (DSHS) system payment processing in 2010. In May 2010, DSHS replaced its Apple Health Management Information System with ProviderOne. Data on Medicaid dental claims for Federally Qualified Health Centers (FQHCs) prior to ProviderOne were not available. Consequently, total dental expenditures that include FQHC data for FY 2008 through FY 2010 are incomplete and therefore excluded from the expenditure data analysis.
- Specific dental procedures for all FQHC dental claims were not available. Therefore, all FQHC based dental care services were classified as "Other" and were not presented in the report in the following slides: 22, 32-35, 49-51, 54, and 75-77.
- Expenditure analyses include dental services paid by both federal and state funds
- The following guide was applied in the analysis completed for this document:
  - Expenditure analysis excluded data for the period FY 2008 through FY 2010
  - Total expenditure data for FY 2011 through FY 2017 includes FQHC expenditures
  - Dental utilization for FY 2008 through FY 2017 includes FQHC data
  - Analysis by procedure group excludes FQHC data for all presented fiscal years

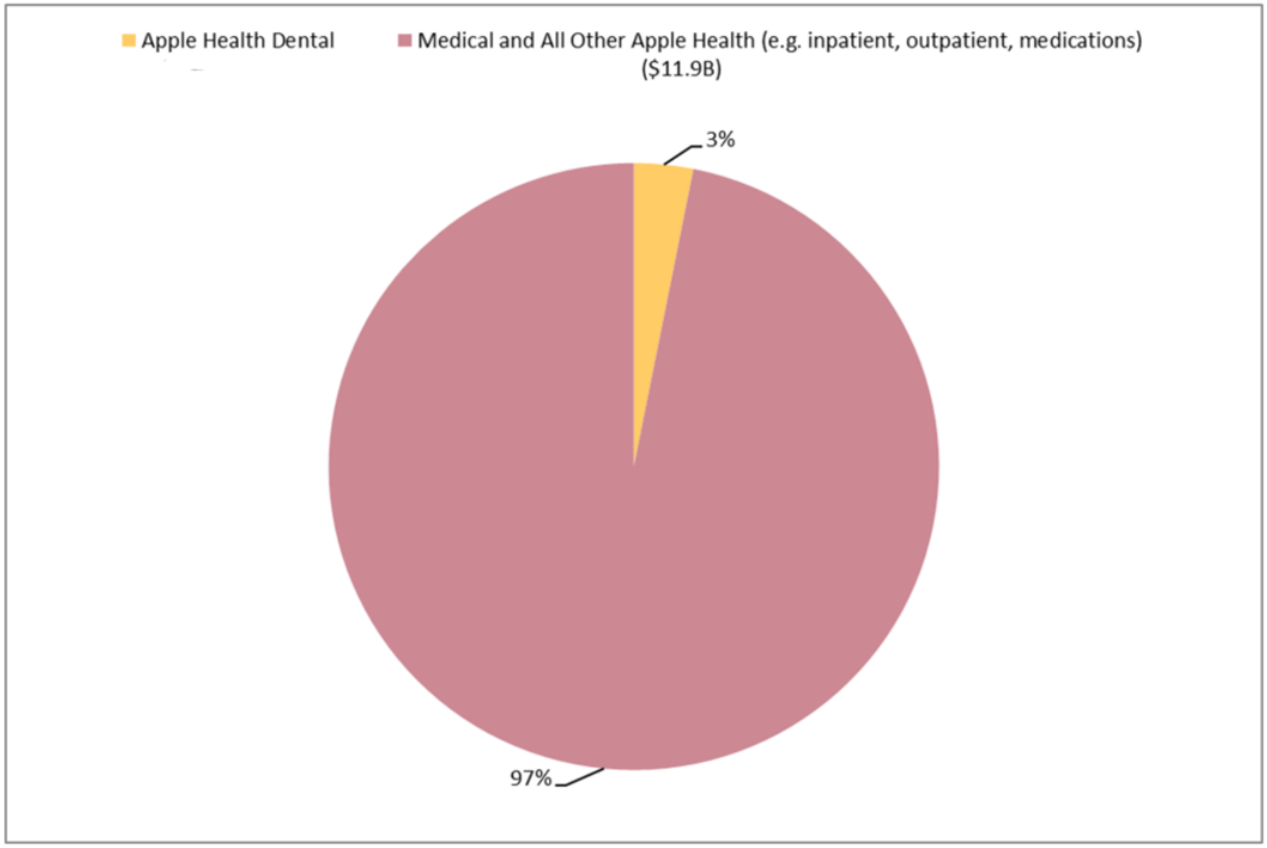
Notes:
The data analysis conducted for this report is similar to the 2016 Apple Health Dental Program Facts and Figures report, but is slightly different than previously published reports (2013-2015). Prior reports excluded FQHC claims data for all years from the expenditure analysis, while the 2018 and 2016 reports included FQHC claims data in the expenditures from 2011 to 2017.
No report was completed in 2017.
For more details on data analysis procedures see methods section on p.114 of the report.

Overall Key Findings

- The percentage of children accessing dental services increased from 45% in FY 2008 to 56% in FY 2017. Moreover, the percentages of those receiving **preventive** dental care increased from 40% in FY 2008 to 52% in FY 2017.
- The number of adults accessing dental services increased since the restoration of adult benefits from 146,375 in FY 2014 to 253,672 in FY 2017. However, 874,239 (78%) adults remain unserved.
- Extractions were among the most common procedures for adults, while preventive services were most common for children.
- Total dental expenditures grew from $244M in FY 2011 to $385M in FY 2017. After adjusting for inflation, this is a 32.5% increase over the 7-year period, which can be attributed to an increase in enrollees (primarily due to Medicaid Expansion) and an increase in children and adults accessing care.
- The portion of spending on adults, compared to children, has increased due to the restoration of adult benefits. In FY 2015 to 2017, two-thirds of spending was on dental services provided to children, down from 79% in FY 2014.
- Nearly 29% of children and 54% of adults receiving care were served by Federally Qualified Health Centers (FQHCs).

Expenditures and Services for All Ages

Washington State Apple Health
Dental Expenditures vs. Medical Expenditures FY 2017



Section: All Ages

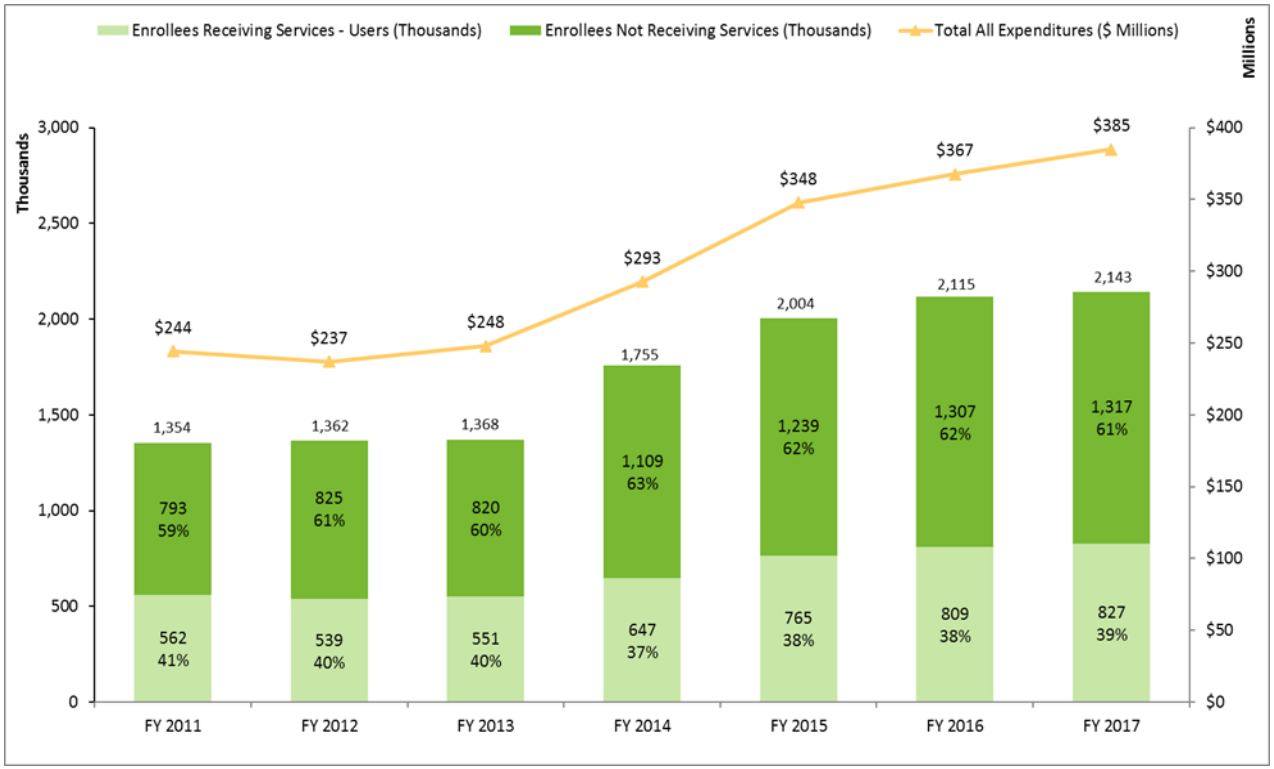
Washington state total government spending in FY 2017 was estimated to be $43 billion ($31B state funds & $12B federal funds), in which healthcare (Apple Health) accounted for 27% of total expenditures.

Washington's FY 2017 total Apple Health expenditure was $11.9B, including federal and state funding.

Dental expenditures were just 3% of the total Apple Health budget. The percentage of dental spending in Washington has been steady in the last few years.

Sources:
Washington State Health Care Authority, Financial Services, Correspondence from 05/16/2018
National Association of State Budget Officers, "Examining Fiscal 2015-2017 State Spending." Available from https://www.nasbo.org/mainsite/reports-data/state-expenditure-report

Apple Health Enrollees, Dental Utilization and Expenditures, FY 2011 – FY 2017



Note: Includes claims with unmatched eligibility data.

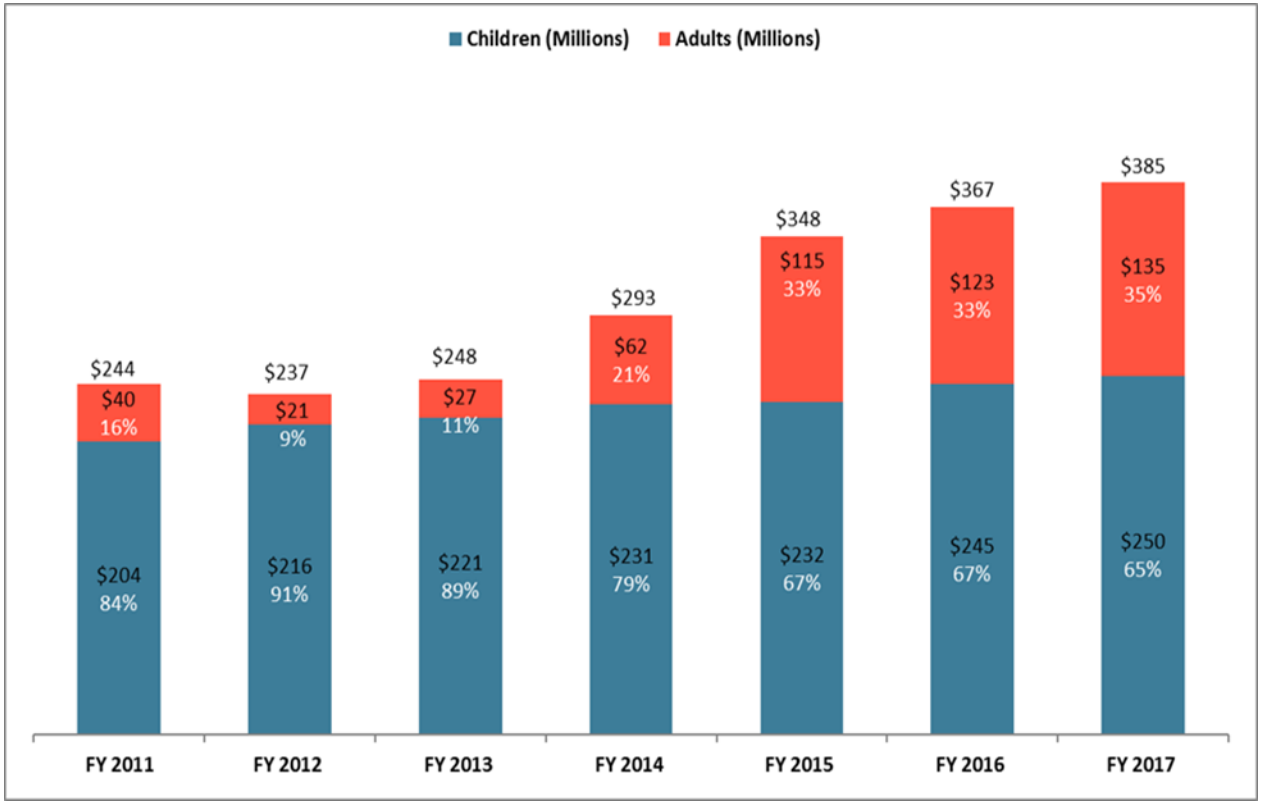
Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: All Ages

The number of Apple Health enrollees has increased by 58% from FY 2011 to FY 2017. The percent of enrollees using services increased by 47%, while total expenditures increased by 33% after adjusting for inflation. The increase in spending can be attributed to more adults receiving dental care (primarily in Federally Qualified Health Centers); however, a growing majority are adults receiving coverage through Medicaid expansion, which drew 95% federal match in 2017.

When accounting for enrollees with at least 11 months of continuous enrollment, the percent of clients accessing dental services in FY 2017 increases from 39% to 47% (see slide 29).

Apple Health Dental Expenditures: Adults and Children, FY 2011 – FY 2017



Note: Children refer to the population from birth through age 20, while adults refer to users age 21 and over. Percentages refer to the proportion of total expenditures by users' age (adult vs. children)

Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

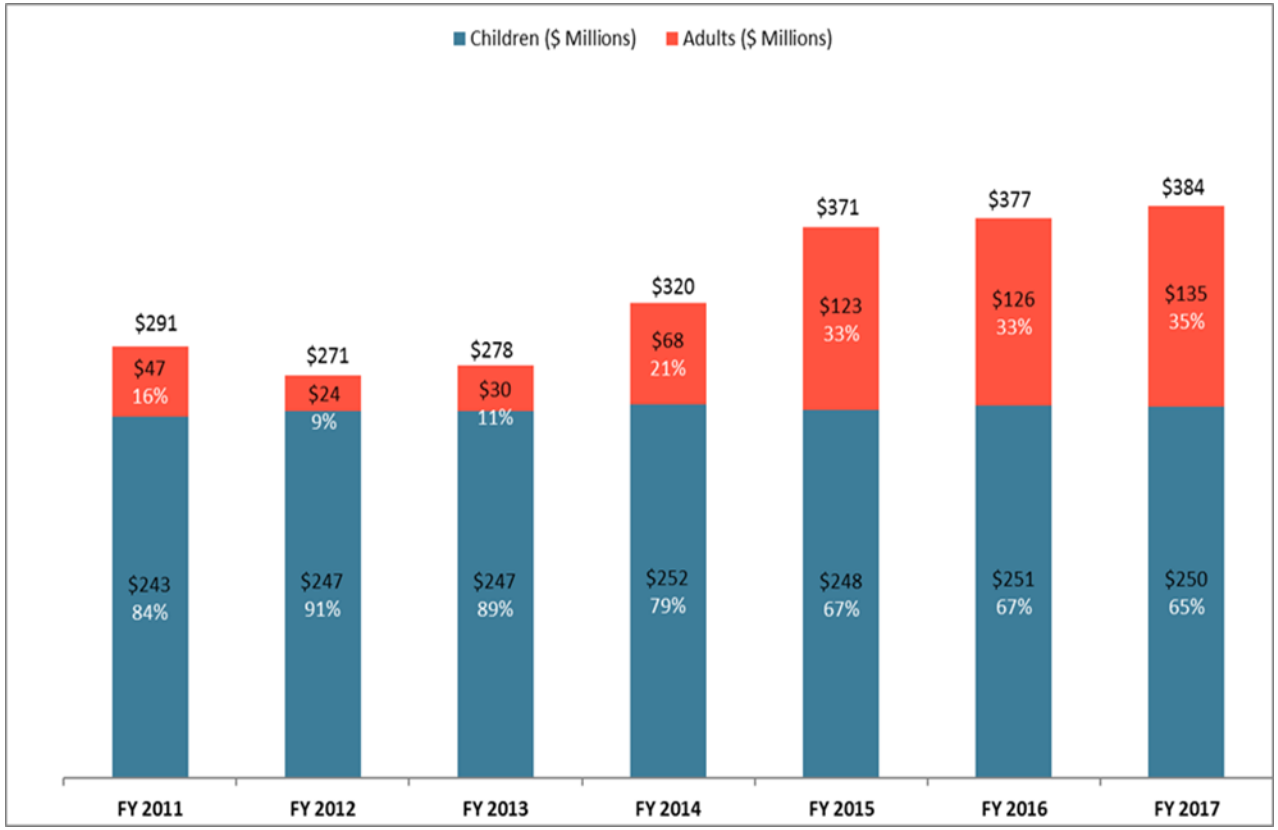
Section: All Ages

Children have historically comprised a much larger proportion of the total dental expenditures than adults – approximately more than three-quarters of expenditures from FY 2011 to FY 2014.

From FY 2015 to FY 2017, after the adult dental restoration, adult expenditures almost doubled, accounting for one-third of all expenditures.

Overall, utilization mirrors expenditures for both adults and children. Children and adults expenditure breakdowns are close to utilization breakdowns. For example, in 2017, adults comprise one third of Apple Health dental expenditures as well as utilization, while children comprise two thirds of both dental utilization and expenditures.

Apple Health Expenditures Adjusted for Inflation: Adults and Children, FY 2011 – FY 2017



Note: Dollars adjusted using Urban Medical Consumer Price Index to 2017 dollars. CPI from July of each year (the beginning of the fiscal year) was used.

Total/percent of expenditures may not add up due to rounding.

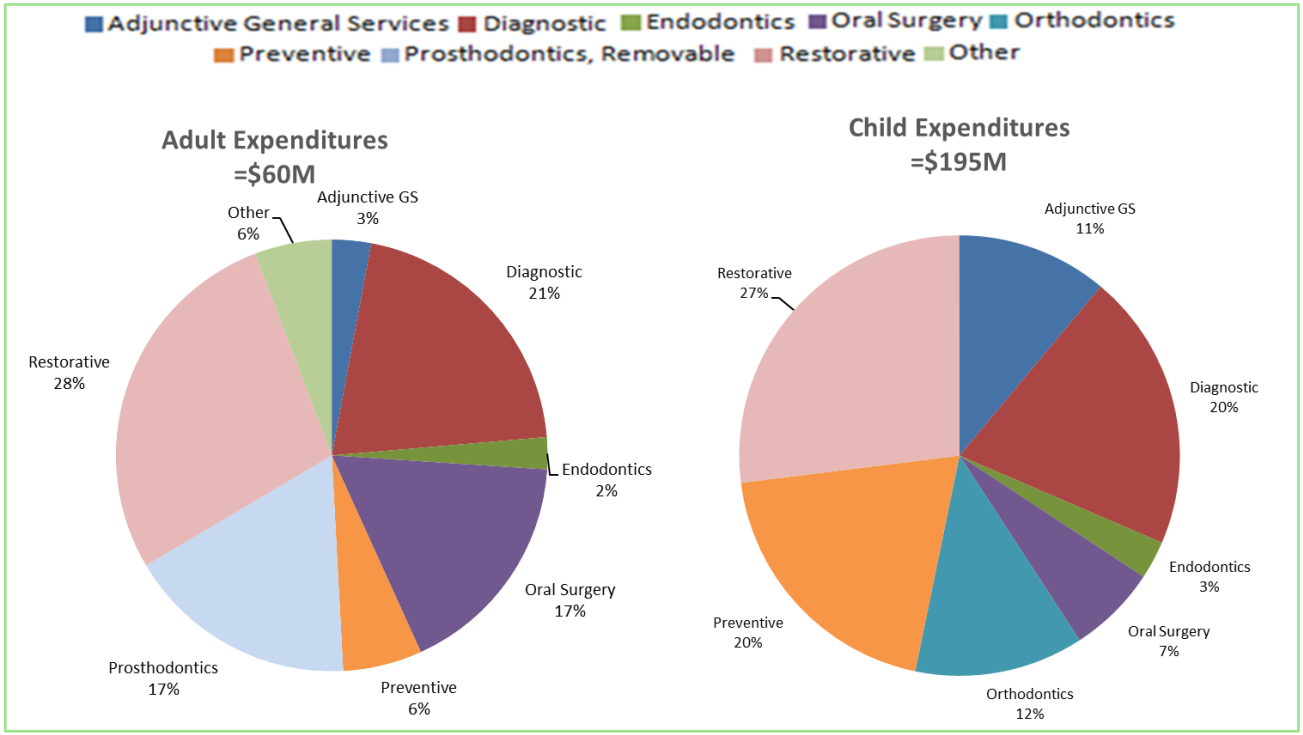
Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: All Ages

While total expenditures have risen 57.6% between FY 2011 and FY 2017, part of the increase is attributable to inflation. After adjusting for inflation, the increase is 32.5%.

Dental Expenditures by Procedure Group, Adults and Children, FY 2017

Expenditures in this slide exclude child and adult claims that occurred in Federally Qualified Health Centers (FQHCs) as the type of dental procedures received in FQHCs cannot be identified.



Note: Excludes FQHC claims and claims with missing values for procedure categories. Other includes Maxillofacial Prosthetics, Prosthodontics Removable and Periodontics. Combined, these categories had 6% of total adult expenditures and less than 1% of total child expenditures in FY 2017. The following are not depicted in the pie charts: For adult expenditures, Orthodontics, which represented only 0.03% of total expenditures. For children expenditures, Periodontics and Prosthodontics Removable, which represented only 0.04% and 0.01% of total expenditures. See Appendix for information on procedure groups.

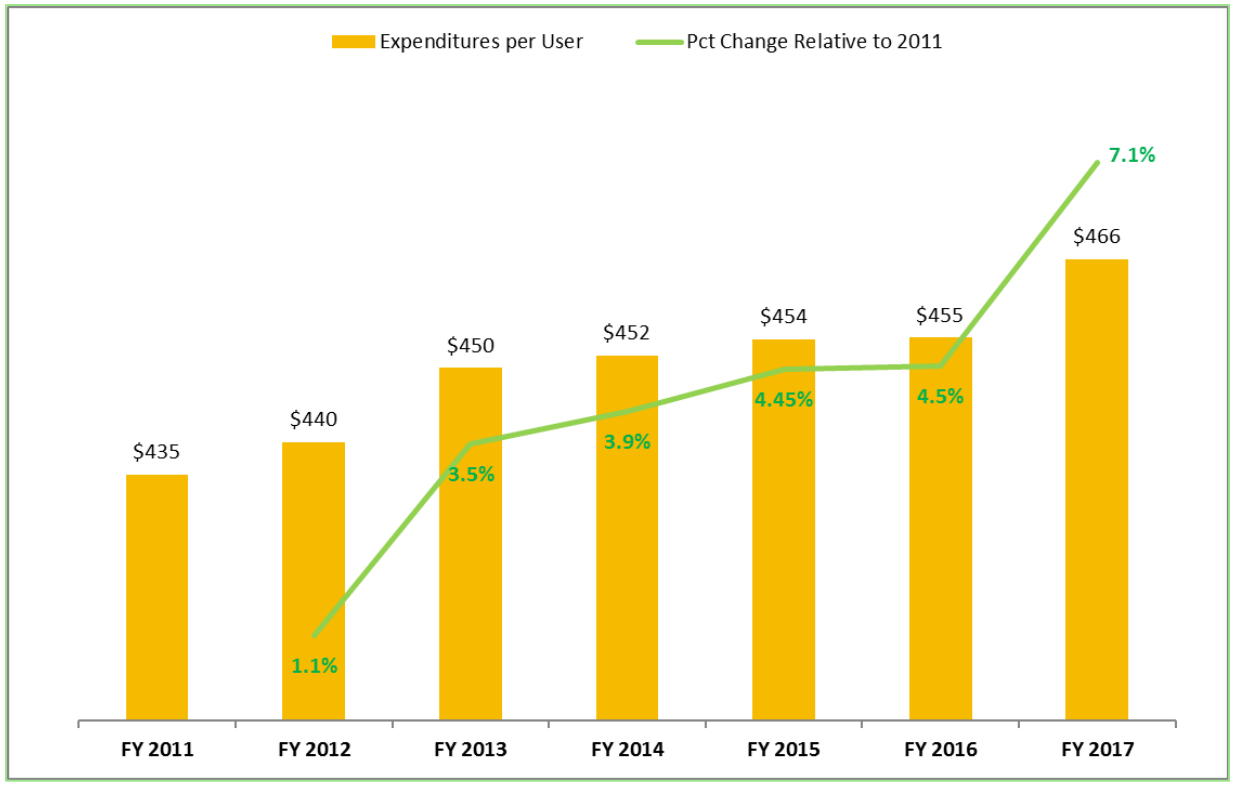
Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: All Ages

In FY 2017, restorative services accounted for the greatest portion of total expenditures (27% for children and 28% for adults).

Extractions, which fall within the oral surgery group (17%), were among the most frequently billed procedures for all adults. On the contrary, Periodic Oral Exam, Cleaning, Fluoride Varnish, and Sealants, which fall within the preventive group (20%) were the most frequently billed procedures for all children in FY 2017.

Average Expenditures per Dental User
FY 2011 – FY 2017

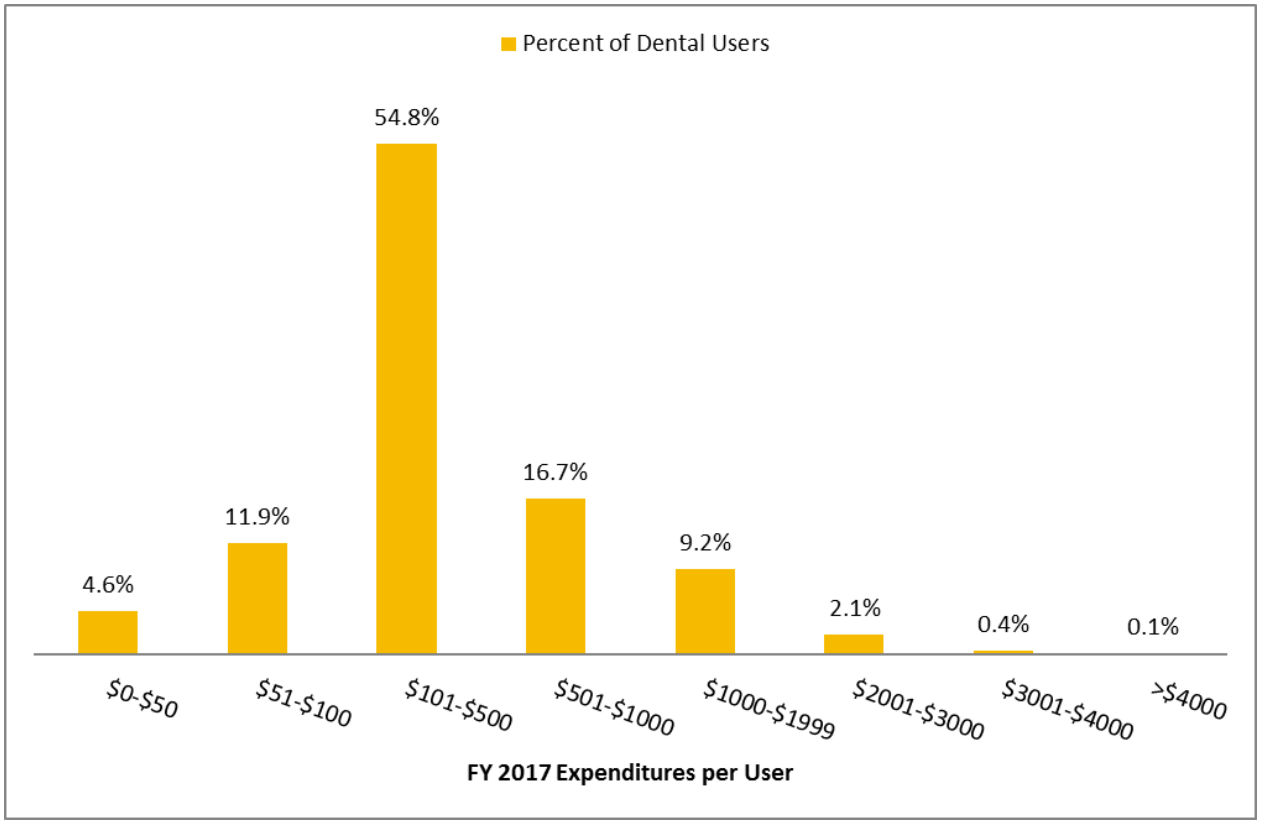


Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: All Ages

Dental expenditures per user rose from $435 in FY 2011 to $466 in FY 2017, a 7.1% increase. This increase may be attributed to the increase in some costly services (orthodontics, general anesthesia, extractions, and miscellaneous restorative procedures) and to the increase in dental services received at Federally Qualified Health Centers.

Total Expenditures per User, FY 2017

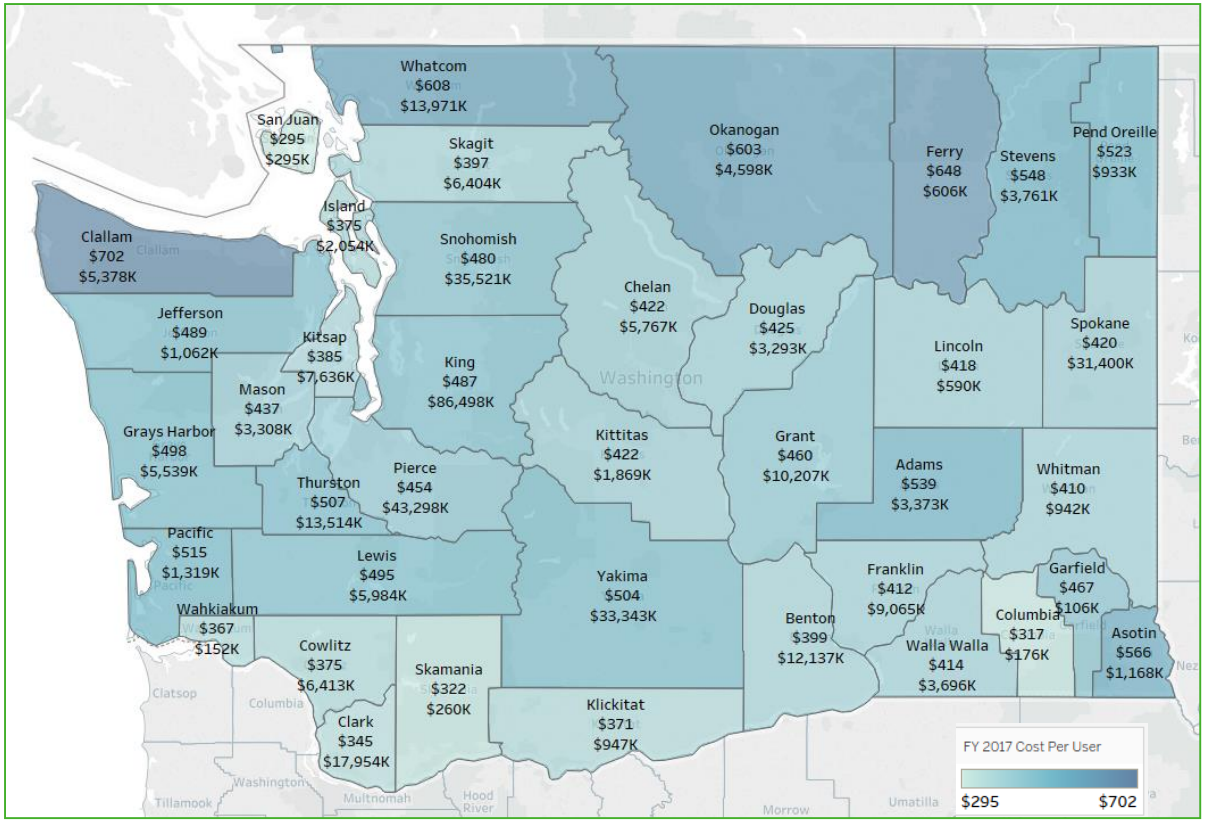


Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: All Ages

Expenditures for most users (55%) were between $101 and $500 in FY 2017. Fewer than 2.6% of users had dental expenditures of more than $2,000.

Dental Expenditures per County, FY 2017



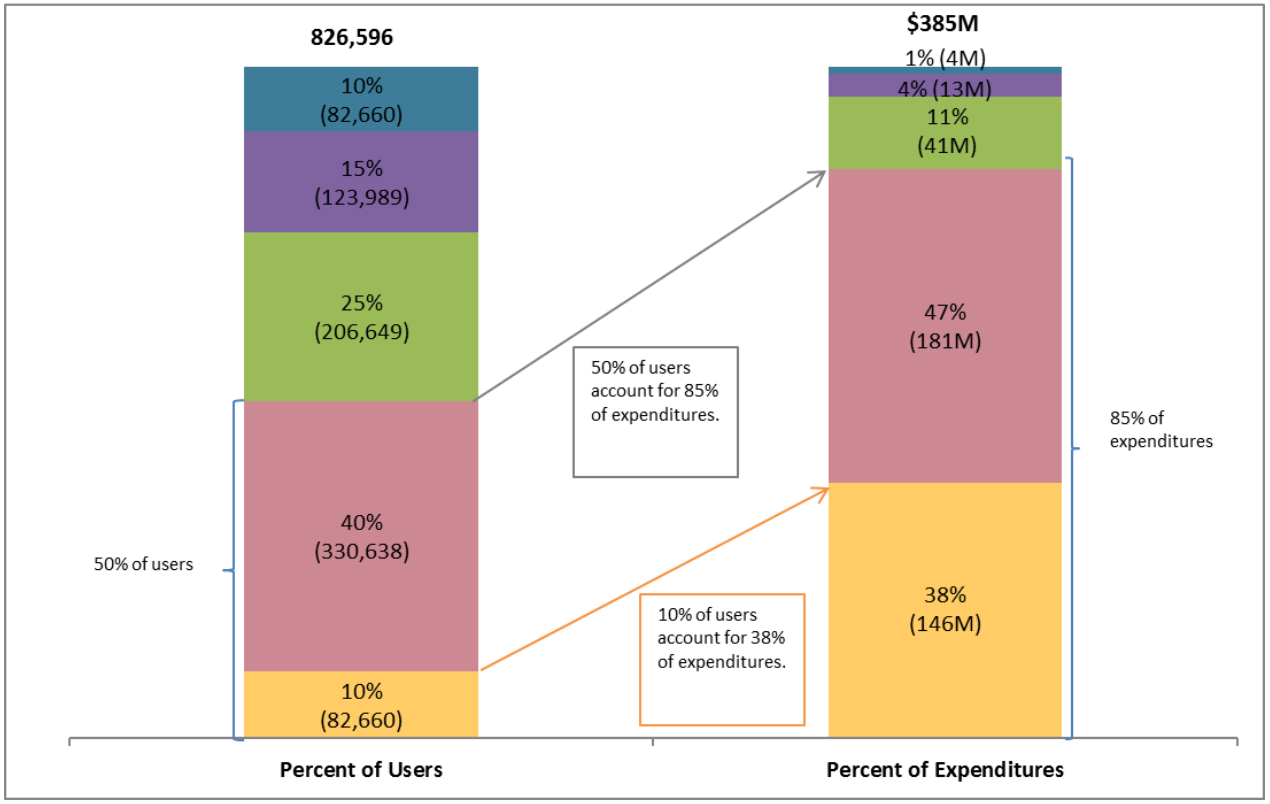
Statewide per Capita Cost $466

Note: Expenditures include FQHC encounter payments

Section: All Ages

There is considerable variation across counties in total expenditures and per capita spending in FY 2017. While average statewide spending per dental user was $466, per county expenditures ranged from $295 to $702.

High Cost Dental Users, FY 2017



Note: Total/percent of expenditures may not add up due to rounding.

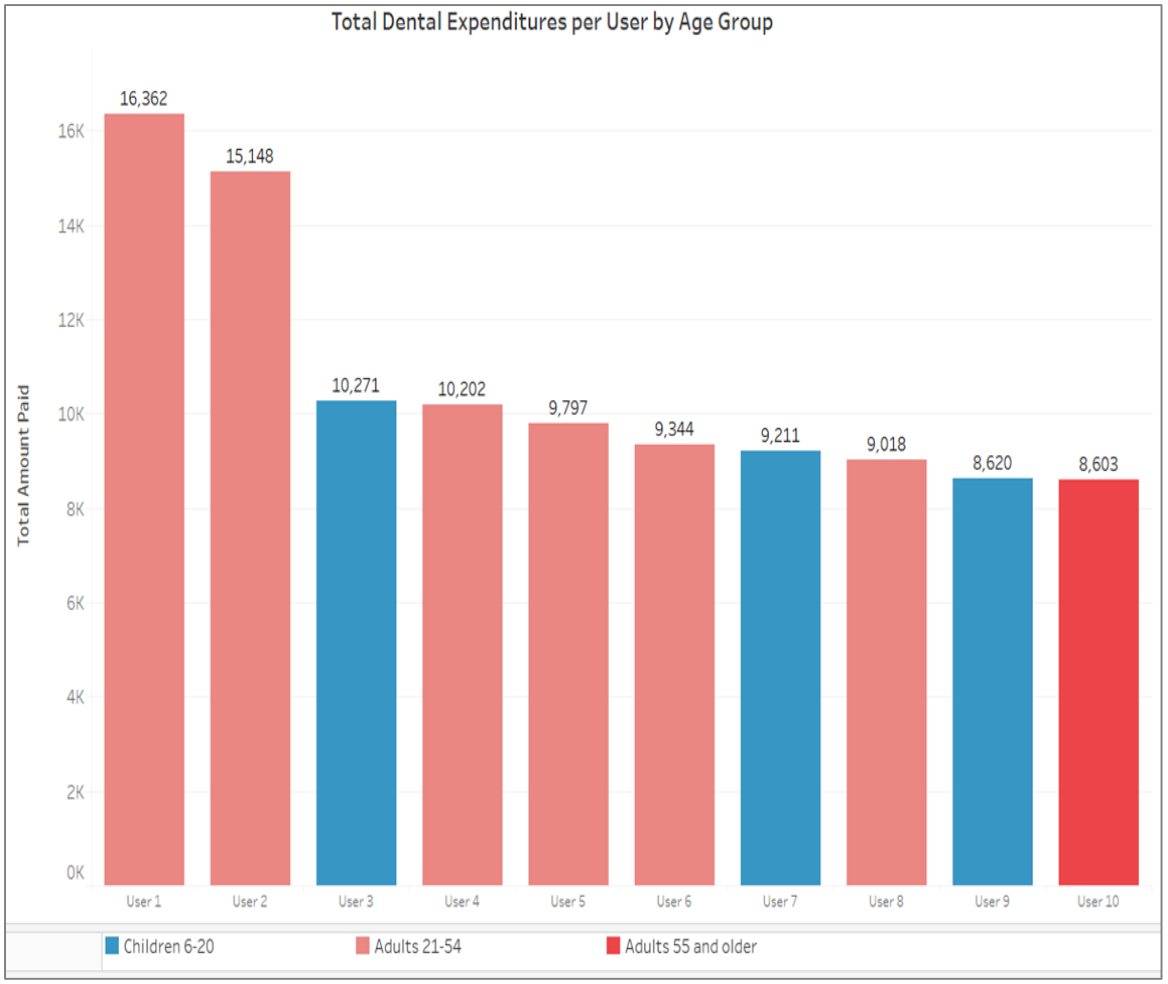
Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: All Ages

About 10% of enrollees account for 38% of the expenditures and 50% of enrollees accounted for 85% of expenditures.

While dental expenditures are concentrated in a disproportionate share of the population, they are not as concentrated as medical expenditures where just 10% of enrollees account for 50% of expenditures.

Top Ten Most Expensive Users, FY 2017



Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

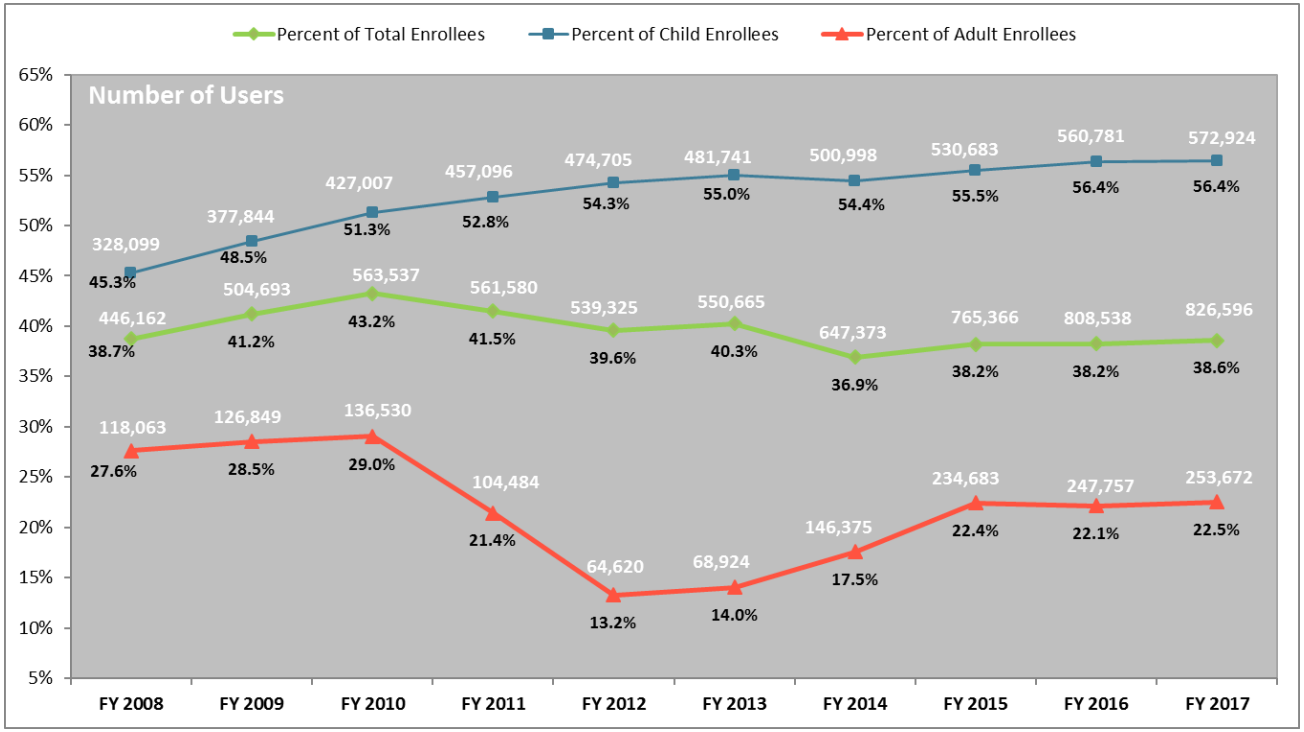
Section: All Ages

Unlike medical expenditures, which can run into hundreds of thousands for high cost beneficiaries, the users with the 10 highest dental costs in FY 2017 each had less than $16,500 in dental expenditures.

Three of the top ten were children who had restorative services (e.g., crowns), endodontic services (e.g., root canals), adjunctive general services (e.g. general anesthesia) and oral surgery (e.g., extractions).

Note: users with high dental expenditures may have additional medical costs not captured here that are connected to treatment of a dental problem (e.g., operating room, or ER costs).

Enrollees with at Least One Dental Service FY 2008 – FY 2017



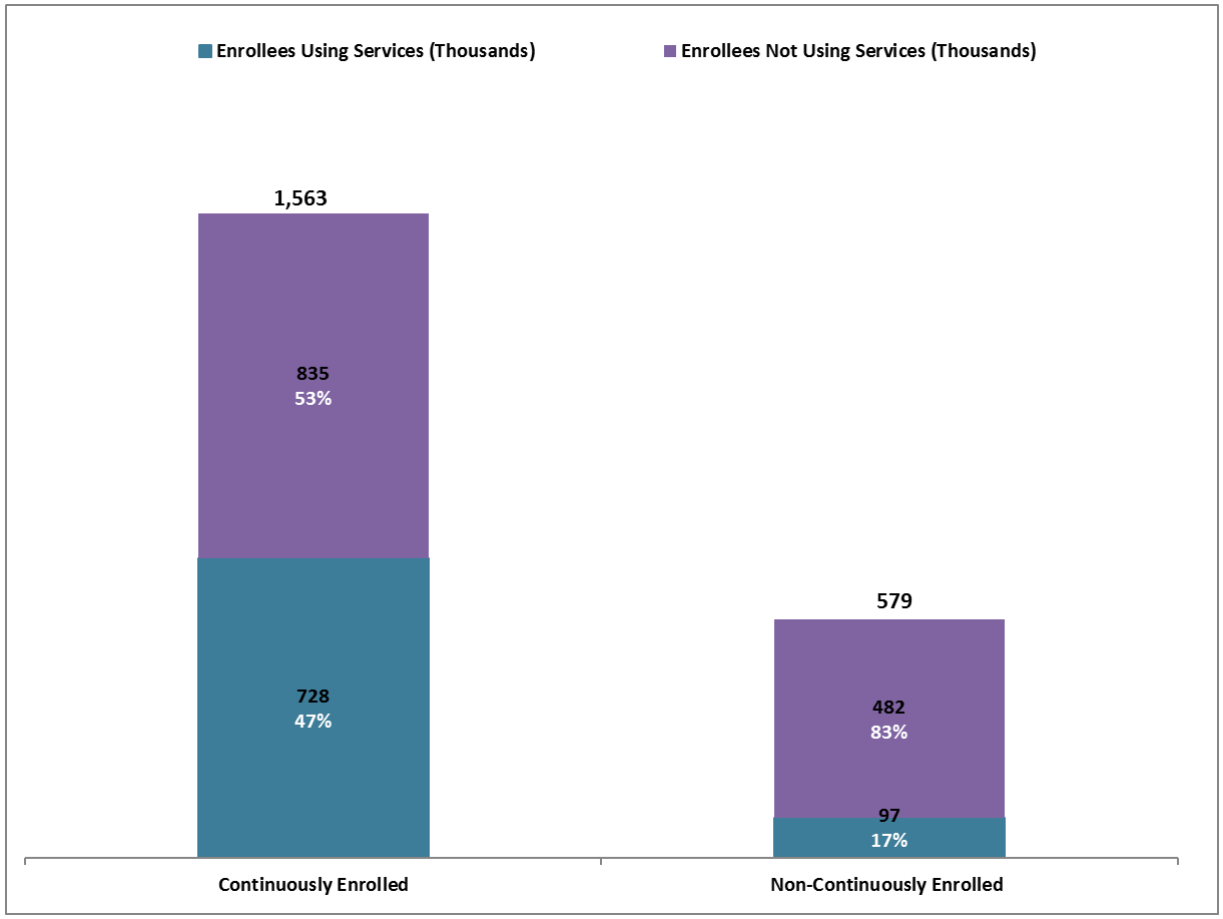
Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: All Ages

The percentage of children using dental services has risen steadily since FY 2008. In FY 2014, the total number of children accessing services increased but due to more enrollees, the percentage of children using dental services decreased slightly by 0.6%. In FY 2017, the utilization rates increased back to 56.4%.

With the restoration of adult dental program, the percent of adult enrollees using dental services increased from 13% in FY 2012 to 22.5% in FY 2017. Although utilization rates for adults is lower than years prior to the adult dental cut, the number of adult users increased by 86% with more than 100,000 additional adults receiving care since 2010.

Enrollees with at Least One Dental Service, Continuously vs. Non-Continuously Enrolled, FY 2017



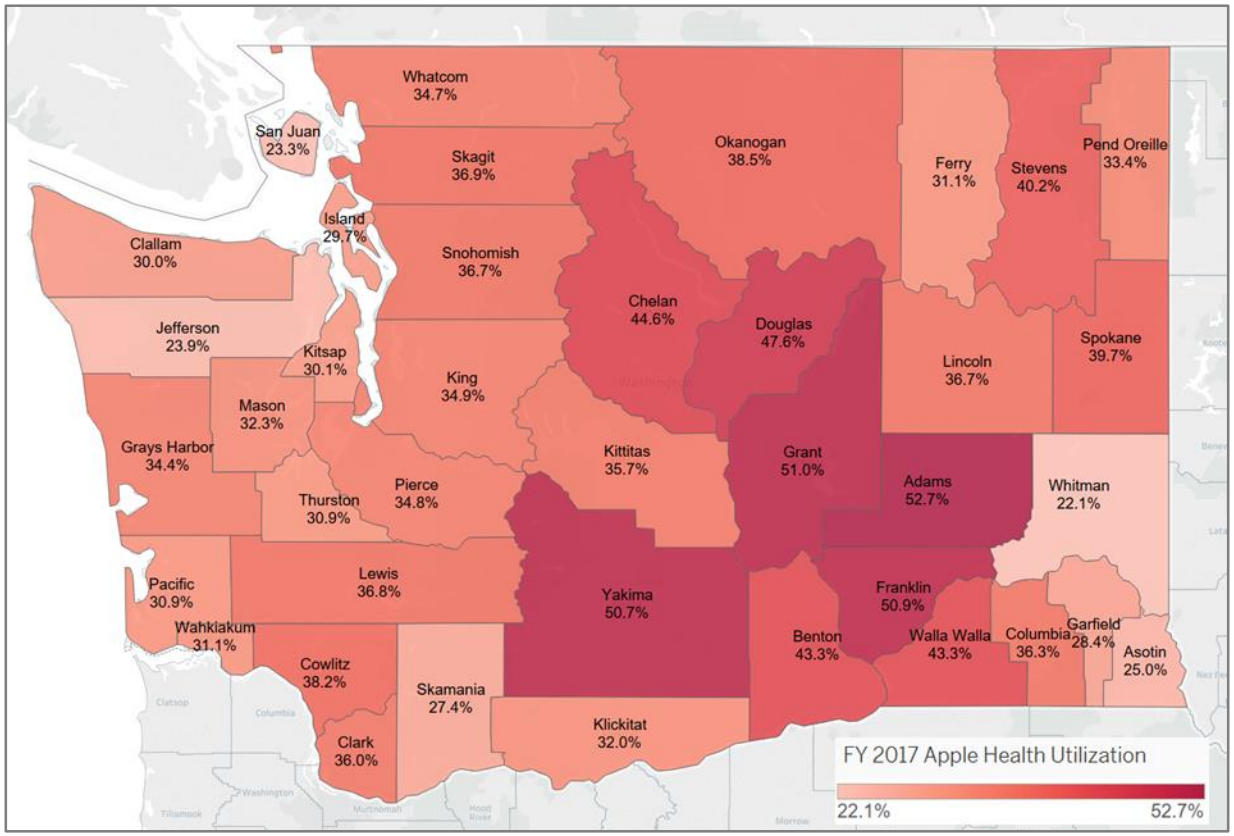
Note: Excludes claims with unmatched eligibility as continuous enrollment cannot be identified.

Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: All Ages

Among enrollees with at least 11 months of continuous enrollment, 47% had at least one dental service in FY 2015, compared to only 17% of those who were not continuously enrolled.

Enrollees with at Least One Dental Service, by County, FY 2017



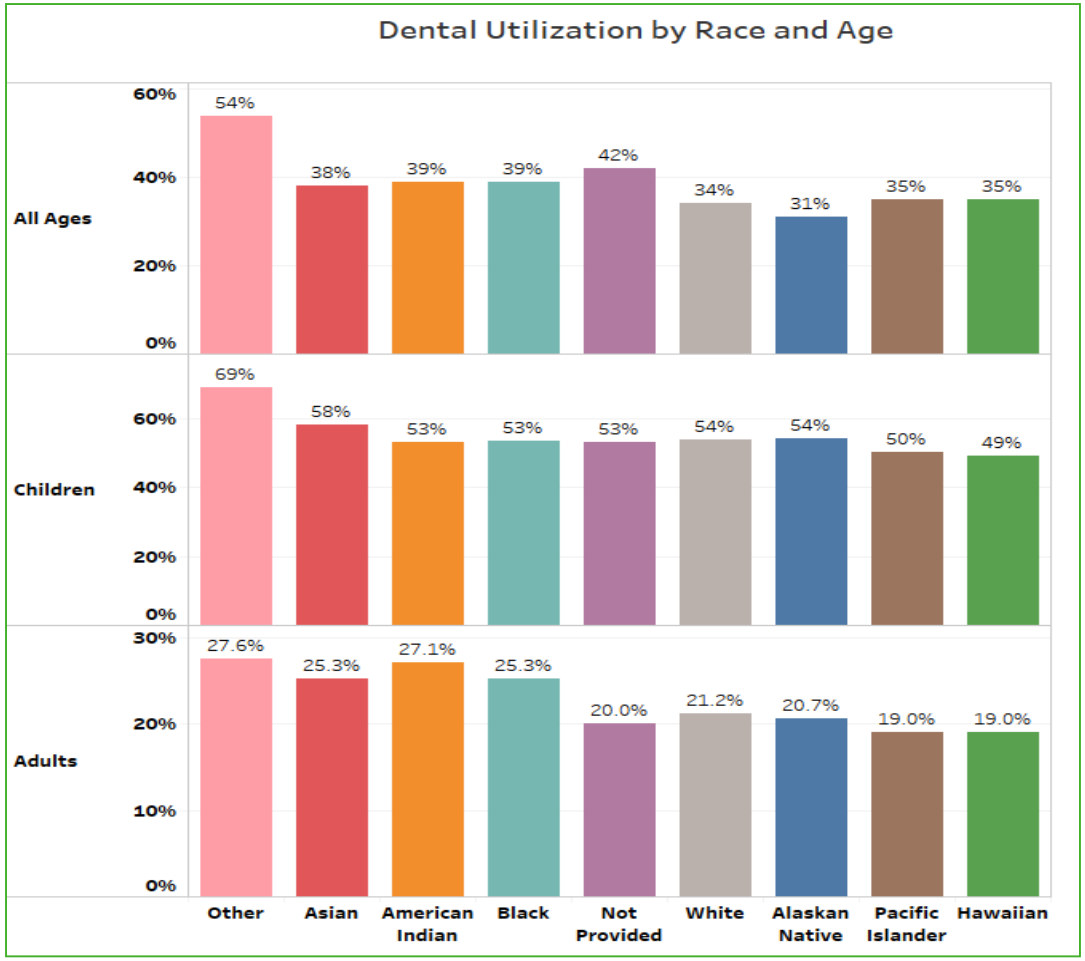
Statewide Utilization Total 38.6%

Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: All Ages

Utilization rates vary by county with a low of 22% in Whitman (indicated by light shading) and a high of 51% in Yakima County (indicated by dark shading). King County, with the largest population in the state, had a rate of 35%.

Percentage of Enrollees Who Received Any Dental Service by Race, FY 2017



Note: Nearly 24% of all enrollees did not report their race (34% of children and 16% of adults)

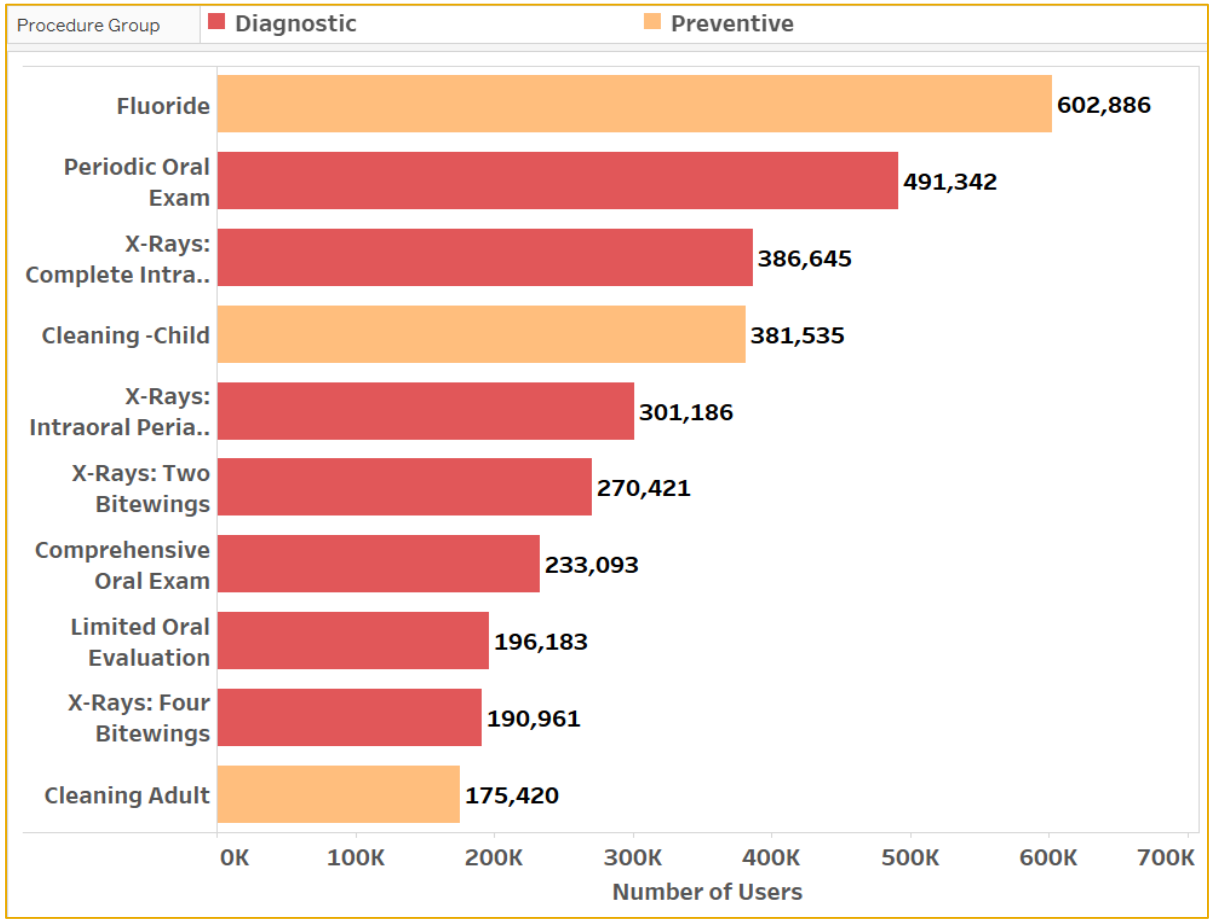
Section: All Ages

The highest dental users among Apple Health enrollees identified their race as "other" or refused to provide their race, while the lowest users identified their race as Alaska Native, Hawaiian, and Pacific Islanders.

The analysis of this data has limitations due to the high number of enrollees with missing information. Nearly 24% of all enrollees and 12% of all users did not report their race. Apple Health eligibility and dental claims data captures information on race on a voluntary basis. Therefore, race data is incomplete and has a high number of missing, other, or not provided information.

In order to address oral health disparities, having accurate data on race and ethnicity is essential to identifying the presence and significance of the problem.

Top Ten Procedures by Number of Users, FY 2017



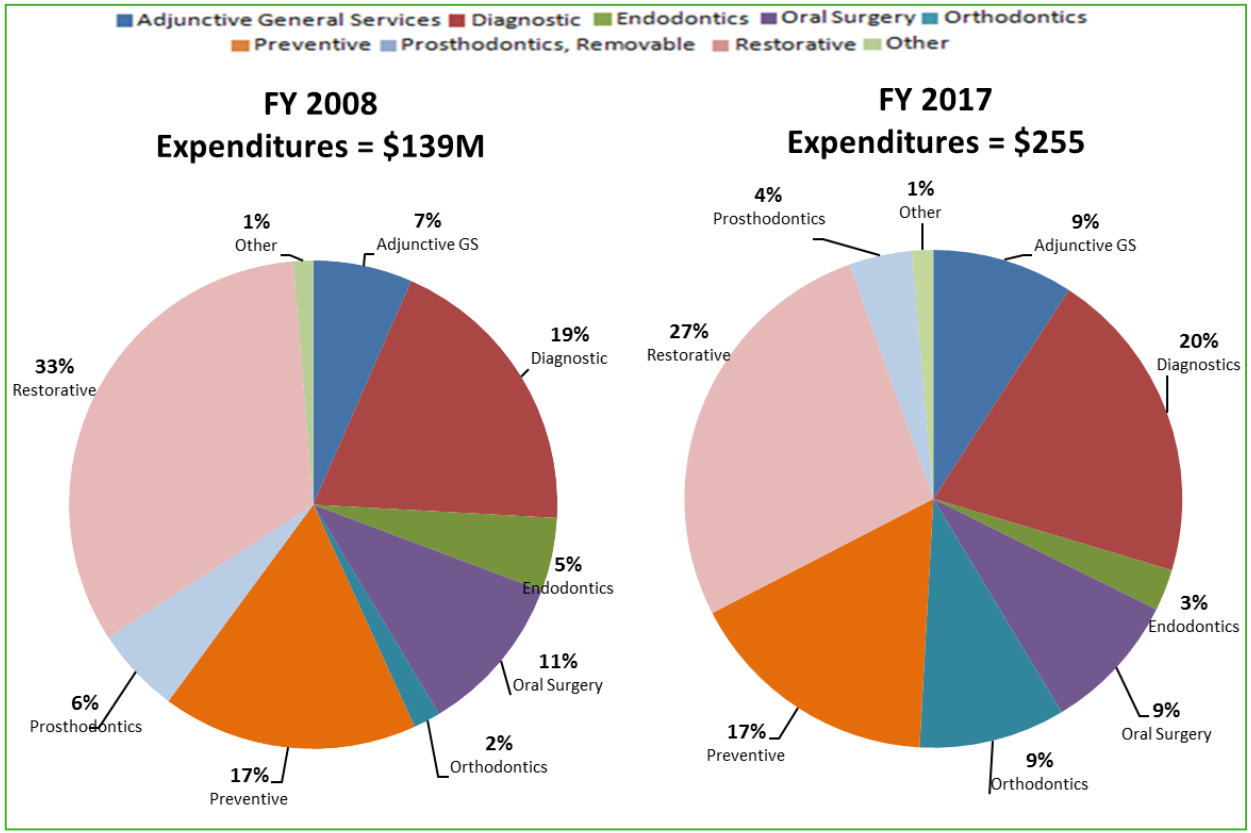
Note: Excludes FQHC claims and claims with missing values for procedure categories. Procedure names are simplified; see methods for details on the procedures.

Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: All Ages

The most frequently accessed services are those that are preventive and diagnostic, such as oral exams and fluoride applications.

Total Expenditures by Procedure Group
FY 2008 vs. FY 2017



Note: Excludes FQHC claims and claims with missing values for procedure categories. "Other" includes Maxillofacial Prosthetics, Fixed Prosthodontics, and Periodontics. Combined, these categories had 1% of total expenditures for FY 2017 and FY 2008. See Appendix for information on procedure groups.

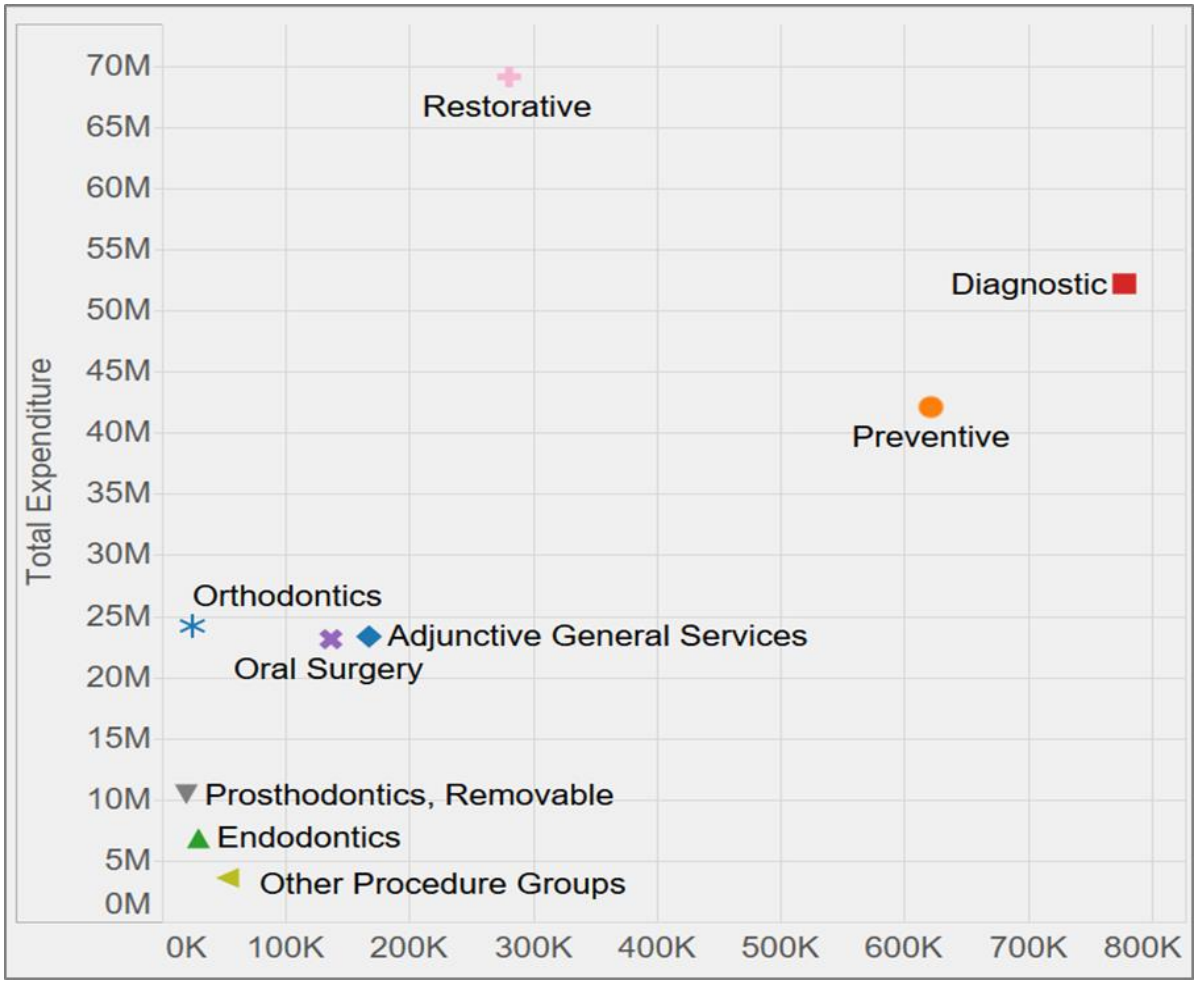
Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: All Ages

Restorative services made up the greatest portion of total expenditures in both FY 2008 and FY 2017. There was a slight decline in the percentage of costs associated with restorative services (from 33% in 2008 to 27% in 2017).

Orthodontics, treatment that commonly includes braces, increased from 2% of total expenditures in 2008 to 9% in 2017. There was a rate increase for orthodontia in 2007, which led to an increase in the number of providers serving Apple Health clients. The number of clinics providing orthodontic treatments to Apple Health-insured children increased from 43 in 2007 to 144 in 2017.

Dental Users and Total Expenditures by Procedure Group, FY 2017



Note: Excludes FQHC claims . Excludes claims with missing values for procedure categories. Implant Services, Prosthodontics Fixed, and Periodontics had less than 47,000 users and $3,400,000 in expenditures. They are included in the graph as "Other Procedure Groups."

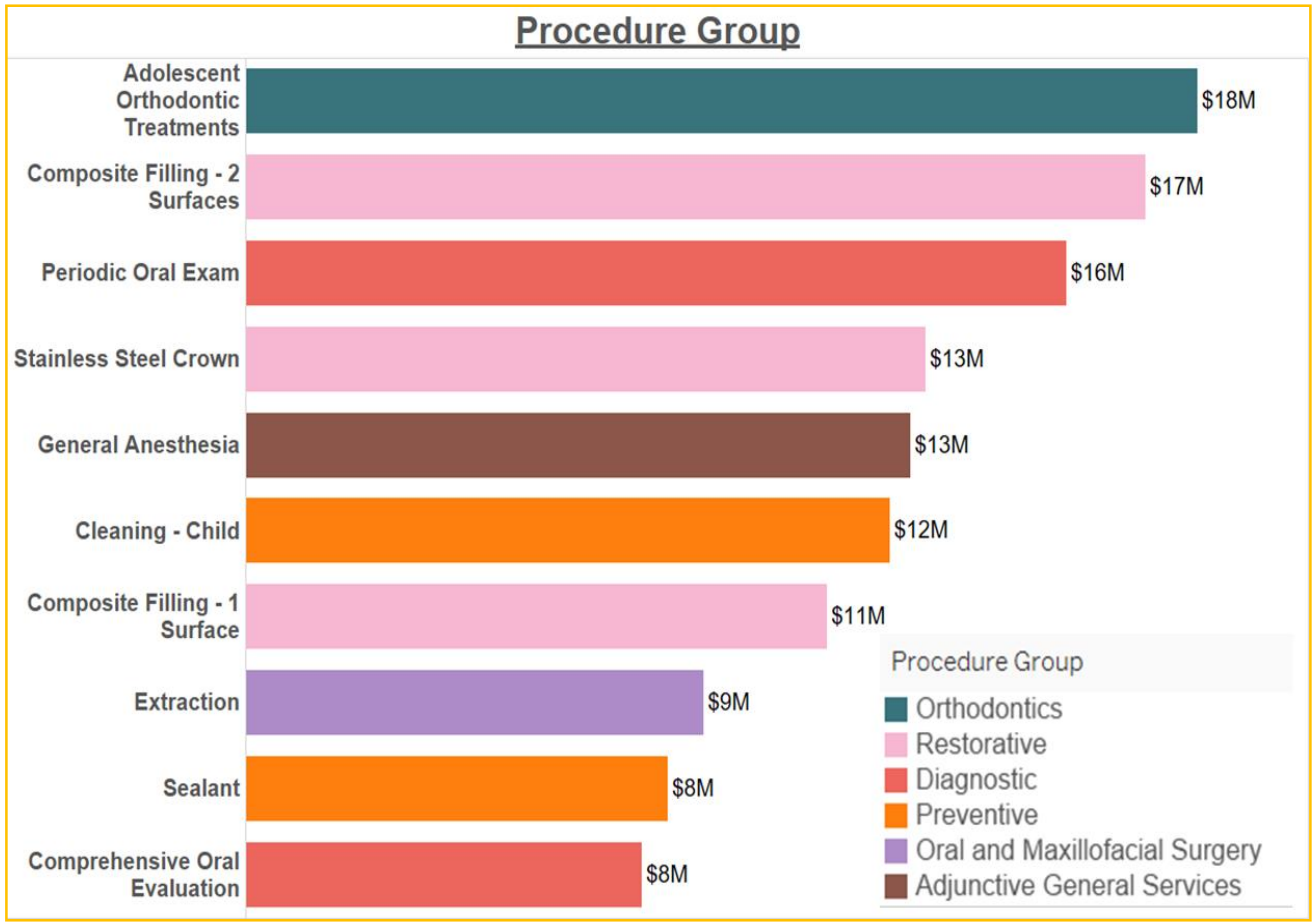
Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: All Ages

While more people use diagnostic and preventive services, restorative services are much more costly.

Orthodontics procedures were the most costly services provided for the lowest number of users.

Top Ten Procedures by Expenditures, FY 2017



Note: Excludes FQHC and claims with missing values for procedure categories. Procedure names are simplified; see methods for details on the procedures.
Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

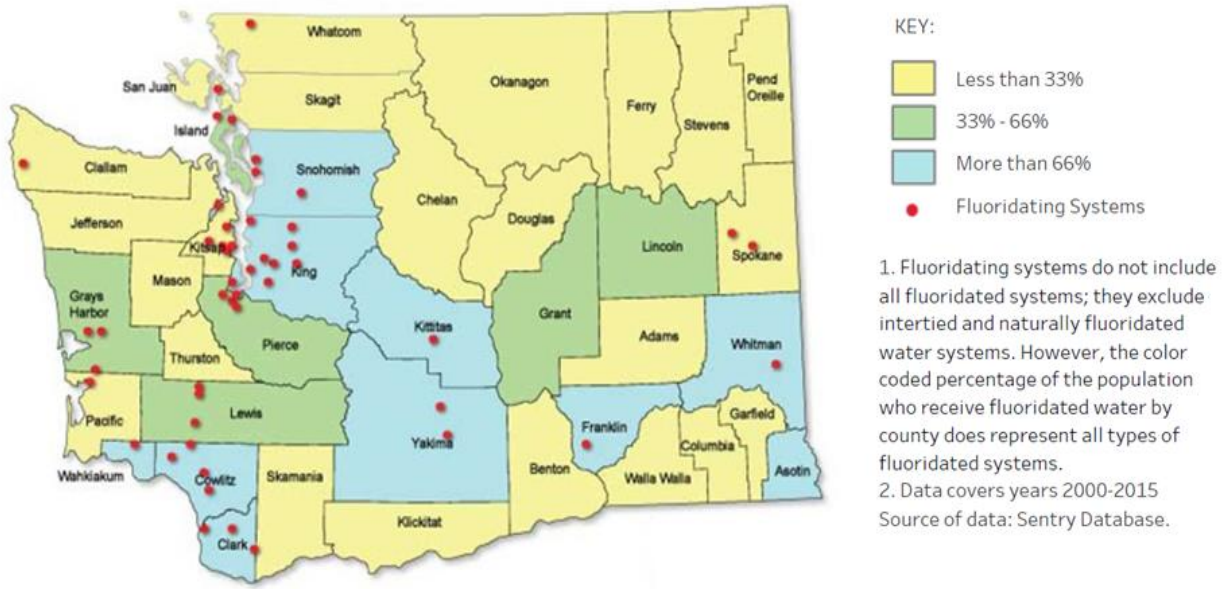
Section: All Ages

The top ten procedures totaled approximately $126 million, about 59% of total dental expenditures in 2017 (excluding Federally Health Qualified Center payments).

Adolescent orthodontic treatment, often involving braces for realignment of teeth, topped the list at $18M.

Fluoridation: An Upstream Prevention Strategy

Public Water System Population Receiving Dentally Significant Fluoride Levels (0.6 - 2.0 mg/L)



Key Water System Fluoridation Concepts

Fluoridated Water
Water that has dentally significant fluoride levels of 0.6 – 2.0 mg/L

Fluoridating Systems
Water Systems whose staff adjust the water to optimal levels for dental health

Intertied Fluoridated Systems
Water systems that purchase water from fluoridating systems

Naturally Fluoridated Systems
Water systems that sell water with 0.6 – 2.0 mg/L of fluoride

Sources:
Washington States Department of Health Office of Drinking Water Data (2013).
Washington State Department of Health

Community Water Fluoridation (CWF) is an upstream prevention strategy recommended by the Centers for Disease Control and Prevention to prevent dental cavities by about 25% in both children and adults. CWF is proven effective for people of all ages, education levels, socioeconomic and insurance statuses and has been shown to reduce oral health inequalities among children.

There are 50 water systems in Washington state that provide community water fluoridation to all their customers. Despite this, only 56% of residents on public water systems have access to water with enough fluoride to prevent tooth decay.

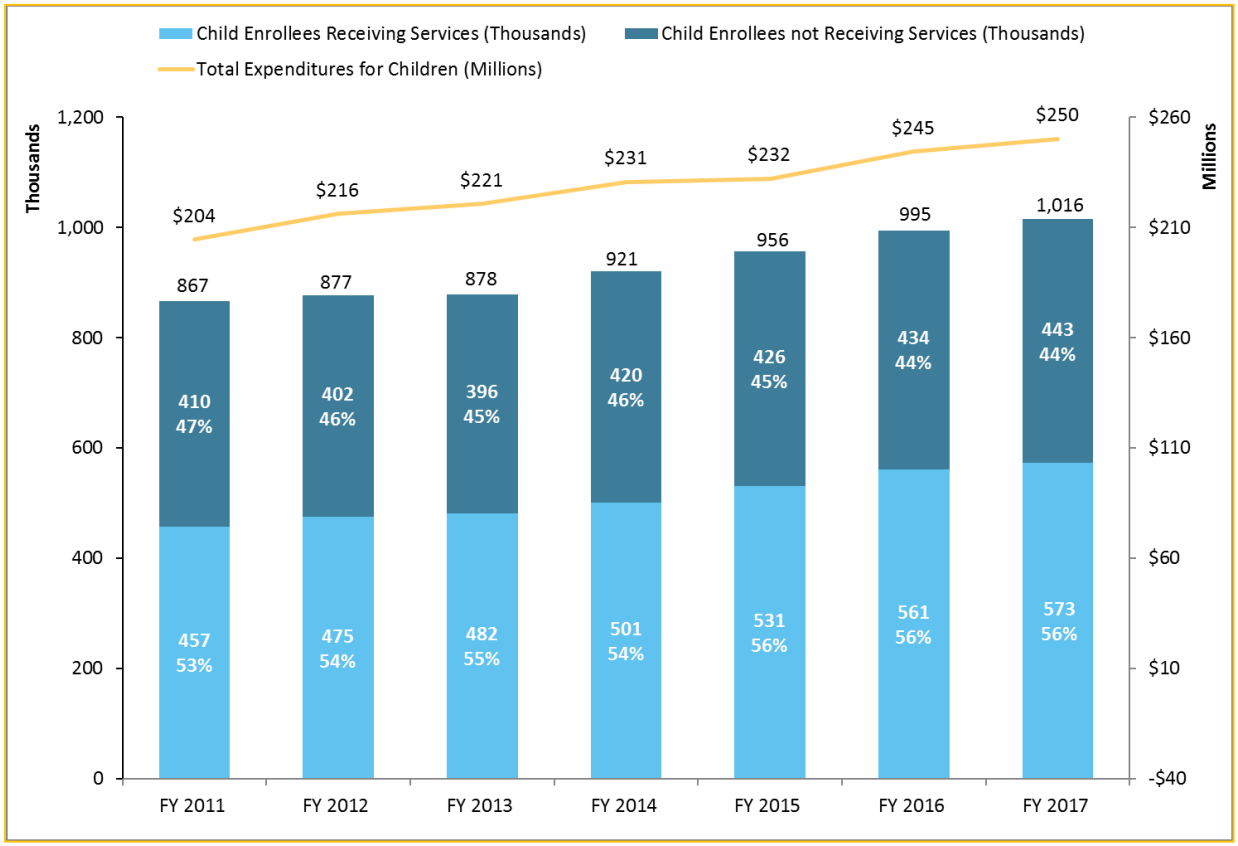
Community Water Fluoridation saves money for community members as well as healthcare systems. In cities with a population of 20,000 or more, fluoridation is estimated to save $38 in dental treatment costs for every $1 spent. Similarly large cost savings are seen when the calculation includes smaller communities ($20 to $1).

Total Expenditures and Services Key Findings (All Ages)

- Total dental expenditures grew by $141M in the last seven years (from $244M to $385M). After adjusting for inflation, this is a 32.5% increase, which can be attributed to an increase in enrollees (primarily due to Medicaid Expansion) and an increase in adults receiving dental care, especially at Federally Qualified Health Centers.
- Diagnostic and preventive services were the services most frequently used, but restorative services contributed to the largest proportion of total expenditures in both FY 2008 and FY 2017.
- Fluoride applications, exams for both adults and children, and cleanings for children were among the most common procedures in FY 2017.
- Utilization of dental services varied widely by county, ranging from 22% to 53% in FY 2017.
- Individuals continuously enrolled in Apple Health for 11 months or more were more likely to use dental services – 47% compared to 17% for non-continuously enrolled, in FY 2017.
- Dental expenditures for most users were under $500 in FY 2017. Fewer than 3% of users had expenditures of more than $2,000.

Expenditures and Services Among Children

Utilization and Expenditures Among Children, FY 2011 – FY 2017



Note: Includes claims with unmatched eligibility data.

Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

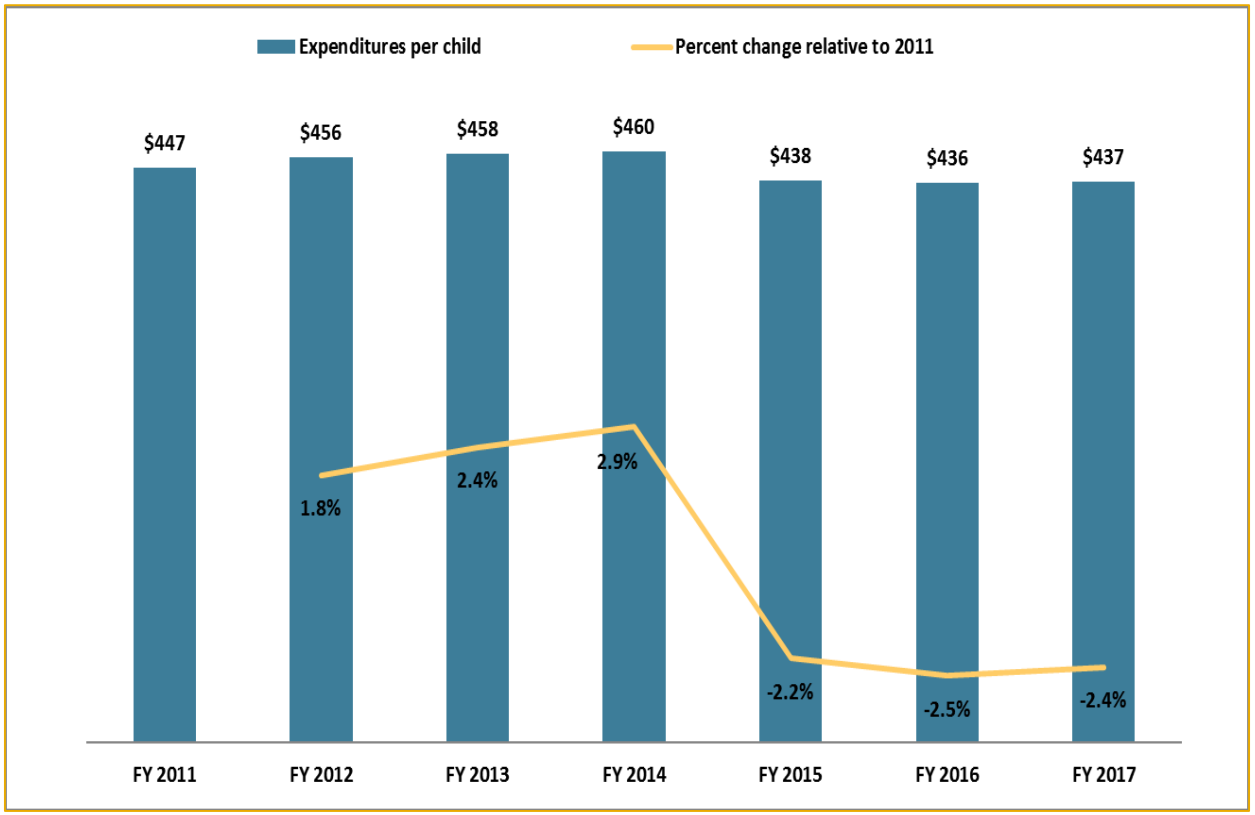
Section: Children

Between FY 2011 and FY 2017, there were increases in the number of children enrolled in Apple Health, and the associated dental expenditures.

Expenditures increased from $204 million in FY 2011 to $250 million in FY 2017, a 2.9% increase when adjusted for inflation.

The increase in spending in the last 7 years was related to the 17% increase in the number of enrolled children and the 25% increase in the number of children accessing dental.

Average Child Dental Expenditures per User FY 2011 - FY 2017



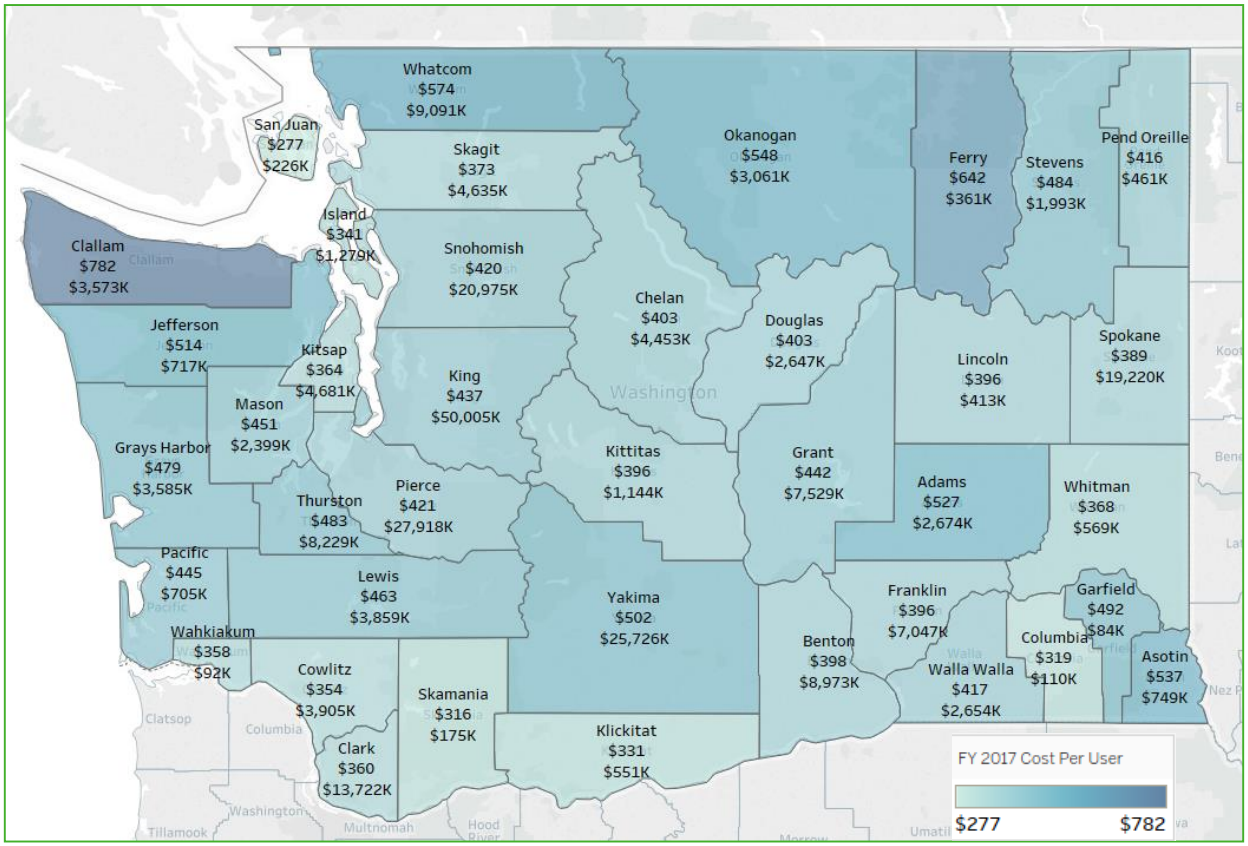
Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: Children

Dental expenditures per child user slightly decreased from $447 in FY 2011 to $437 in FY 2017, a 2% decrease.

In comparison to FY 2014, dental expenditures per child user decreased by 5%. This decrease may be attributed to the decrease in some costly services such as Orthodontics (nearly $7.3M decrease).

Children Dental Expenditures per County, FY 2017



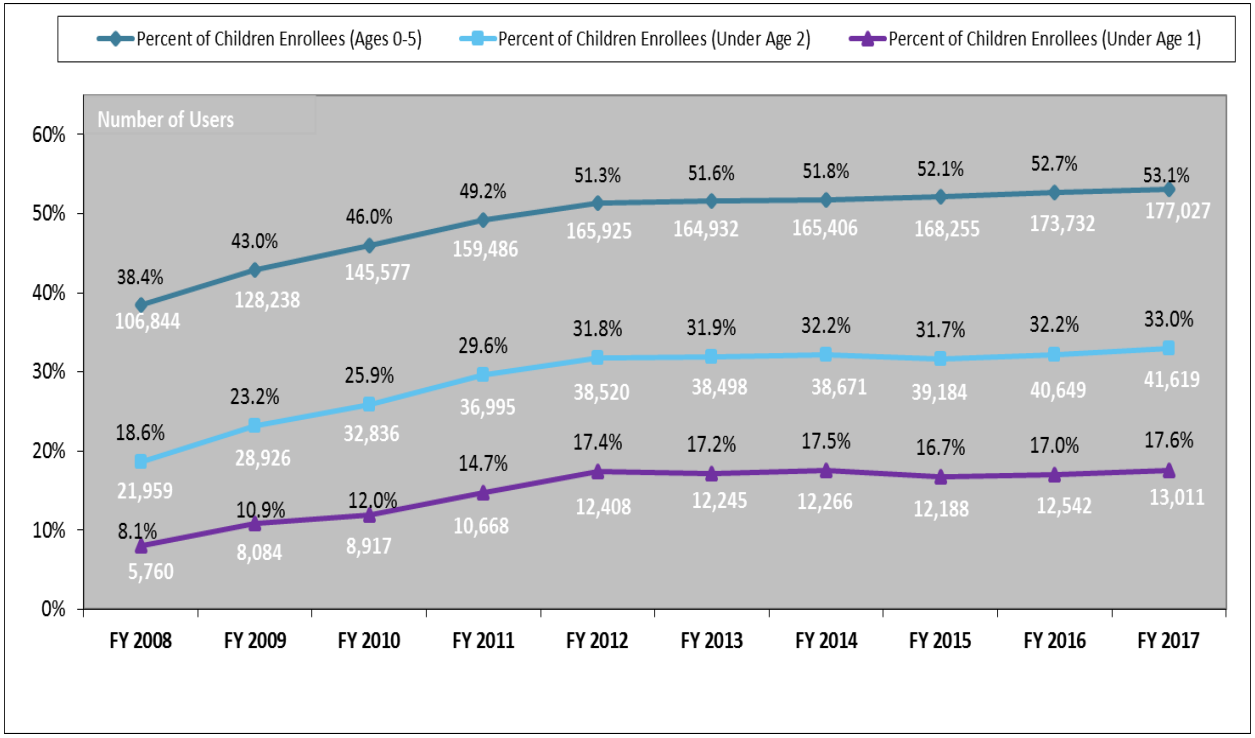
Statewide Children per Capita Dental Cost $437

Note: Expenditures include FQHC encounter payments

Section: Children

There is considerable variation across counties in total expenditures and per capita spending in FY 2017. While average statewide spending per dental user was $437, children's per county dental expenditures ranged from $277 in San Juan Island to $782 in Clallam County.

Children Enrollees under Six with at Least One Dental Service, FY 2008 – FY 2017



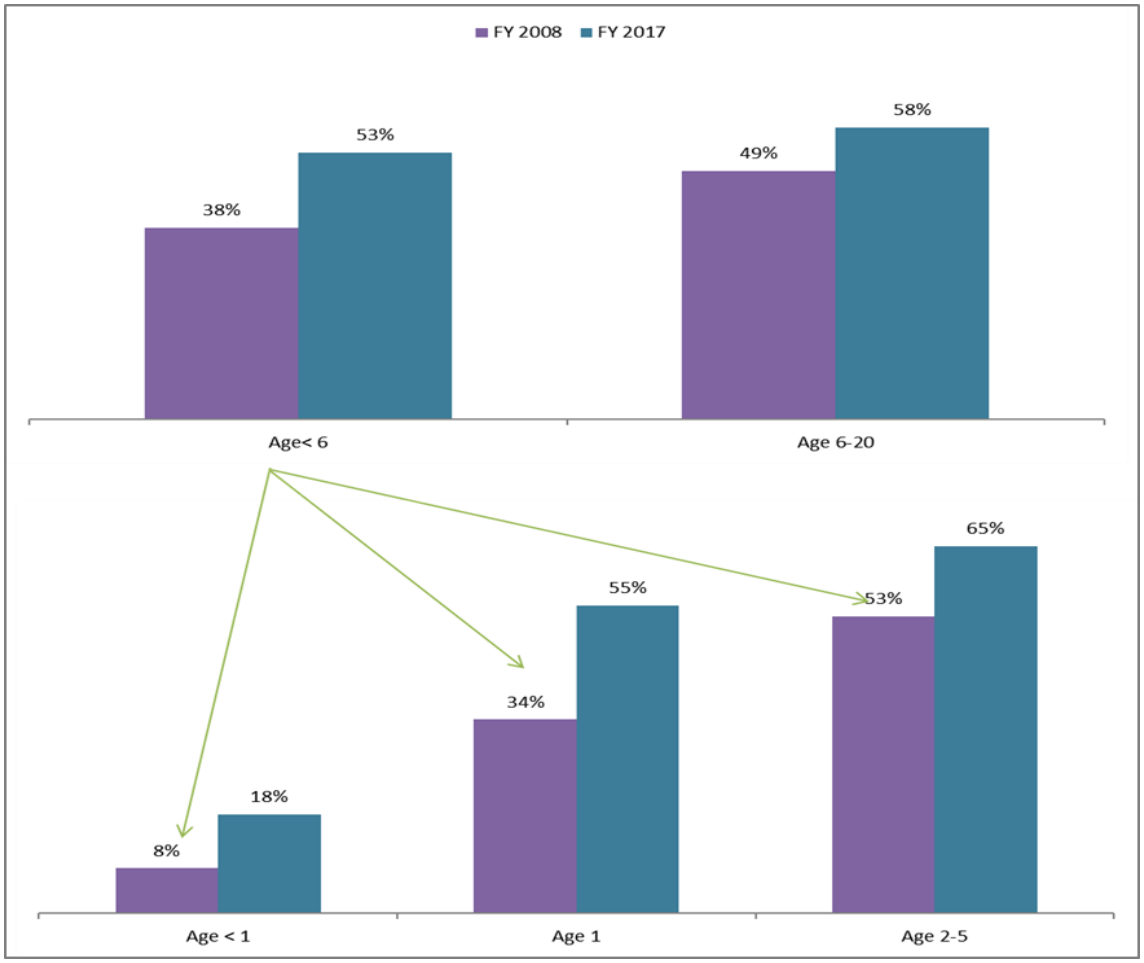
Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: Young Children

The percentage of children under six using dental services has risen steadily from FY 2008 to FY 2017.

In FY 2017, the percentage of children using dental services increased among all age groups, especially among younger children (under age 2 and under age 1).

Percent of Child Enrollees Using at Least One Service, by Age Group, FY 2008 vs. FY 2017



Note: The percent of children using at least one service for all age groups in FY 2008 was 45% and in FY 2017 was 56%.

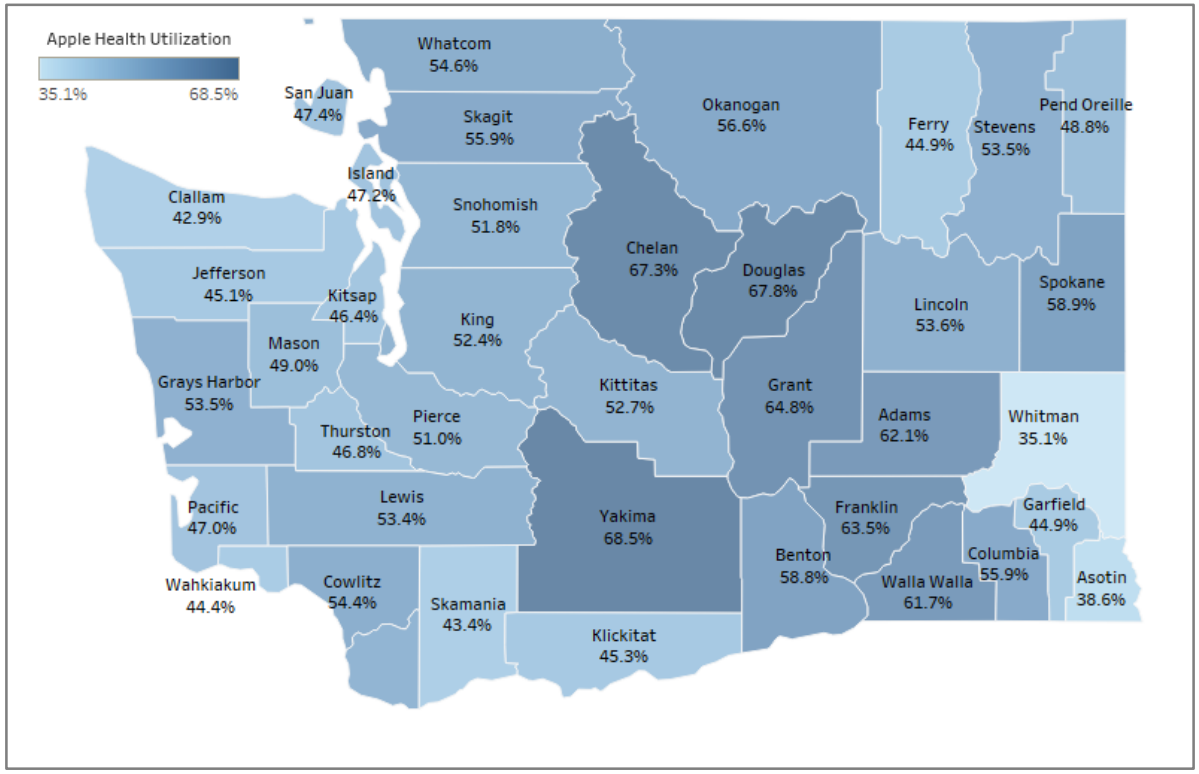
Sources:
Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data
Washington State Health Care Authority, Washington Apple Health 2017 Comparative Analysis Report. Qualis Health.

Section: Children

There have been notable increases since FY 2008 in the percent of children of all age groups that have received dental services. The greatest increase has been among young children. The percentage of children under age one getting dental care more than doubled in the last 9 years. This is a positive sign given that the American Academy of Pediatric Dentistry, the American Academy of Pediatrics, and the American Academy of Family Physicians recommend the first oral health screening by the first birthday by a dentist or physician.

Although the percentage of children under 6 years accessing dental care has increased to 53%, it is still significantly lower than the portion of similarly aged children accessing primary medical care (86%).

Child Enrollees Ages 20 and Under with at Least One Dental Service, by County FY 2017



Statewide Utilization Total 56.4%

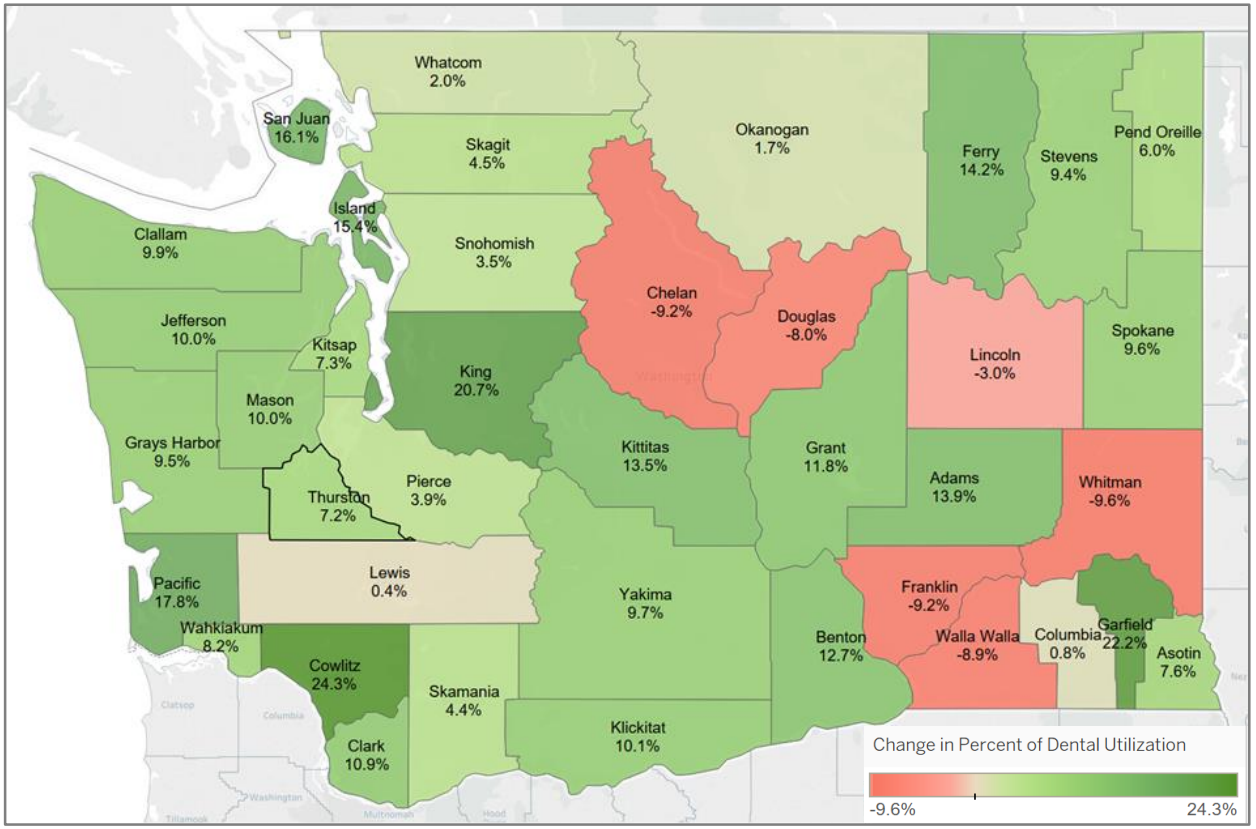
Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: Children

Utilization across the state ranged from 35% to 69%.

Yakima had the largest percentage of children receiving dental services in FY 2017 (indicated by darker shading), while Whitman County had the lowest (indicated by lighter shading).

Change in Utilization for Children Ages 20 and Under by County, FY 2008 vs. FY 2017



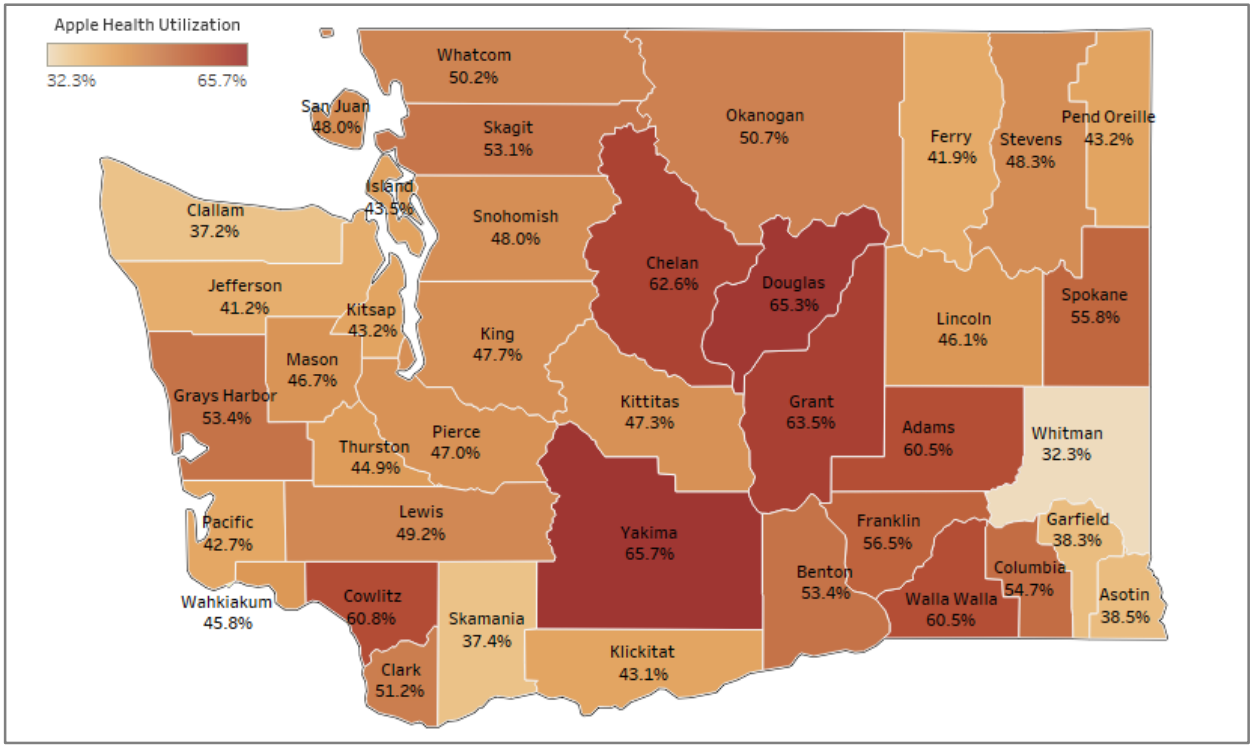
Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: Children

The percent of children age 20 and under enrolled in Apple Health with at least one dental visit increased between FY 2008 and FY 2017 for 33 counties. Twenty-six of the thirty-nine counties had increases of 5% or more.

The drop in utilization since 2008 in some of the counties in the southeast region could be attributed to a decrease in the number of providers seeing Apple Health-insured children in 2017 and/or to the increase in the number of children enrolled in proportion to those accessing dental care.

Child Enrollees under Age Six with at Least One Dental Service, by County FY 2017



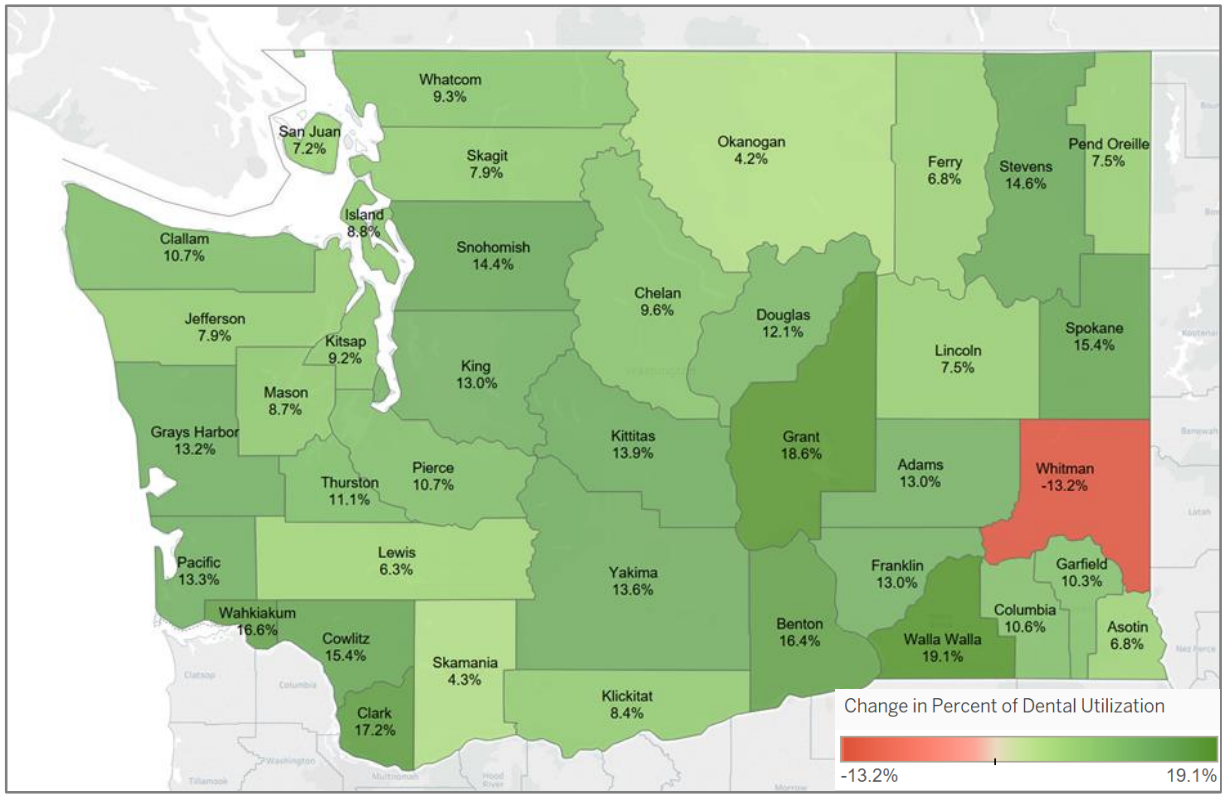
Statewide Utilization Total 53%

Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: Children

Utilization rates vary by county with a low of 32% in Whitman (indicated by light shading) and a high of 66% in Yakima County (indicated by dark shading). King County, with the largest population in the state, had a rate of 48%.

Change in Utilization for Children Under Age Six by County, FY 2008 vs. FY 2017



Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: Children

The percent of children under six enrolled in Apple Health with at least one dental visit increased between FY 2008 and FY 2015 for almost all 39 counties. Thirty-eight of the thirty-nine counties had increases of 4% or more.

Child Enrollees Age 20 and Under with at Least One Dental Service, by Accountable Community of Health, FY 2017

Statewide Utilization Total 53%

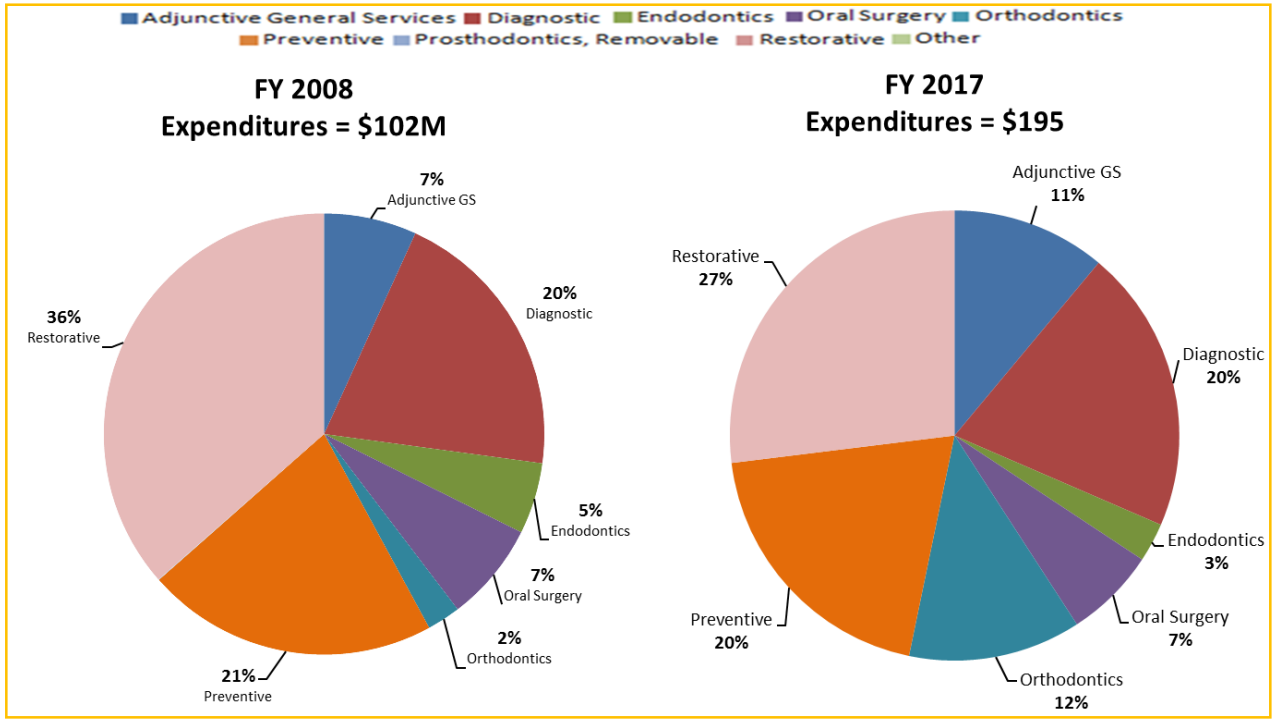
Note: Since 2012, Washington state changed its healthcare delivery to improve health and health equity by aligning resources and bringing leaders from multiple health sectors around the state.

Source: Accountable Community of Health regions from http://www.hca.wa.gov/about-hca/healthier-washington/accountable-communities-health-ach#how-do-achs-align-with-regional-service-areas

Section: Children

There are some regional variations in the percentage of Apple Health enrolled children accessing dental services. While children in North Central (67%) and Greater Columbia (65%) Accountable Communities of Health regions have the highest dental utilization rates, children in Olympic Community of Health region have the lowest (47%).

Total Children Expenditures by Procedure Group FY 2008 vs. FY 2017



Note: Excludes FQHC claims and claims with missing values for procedure categories. See Appendix for information on procedure groups.

Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

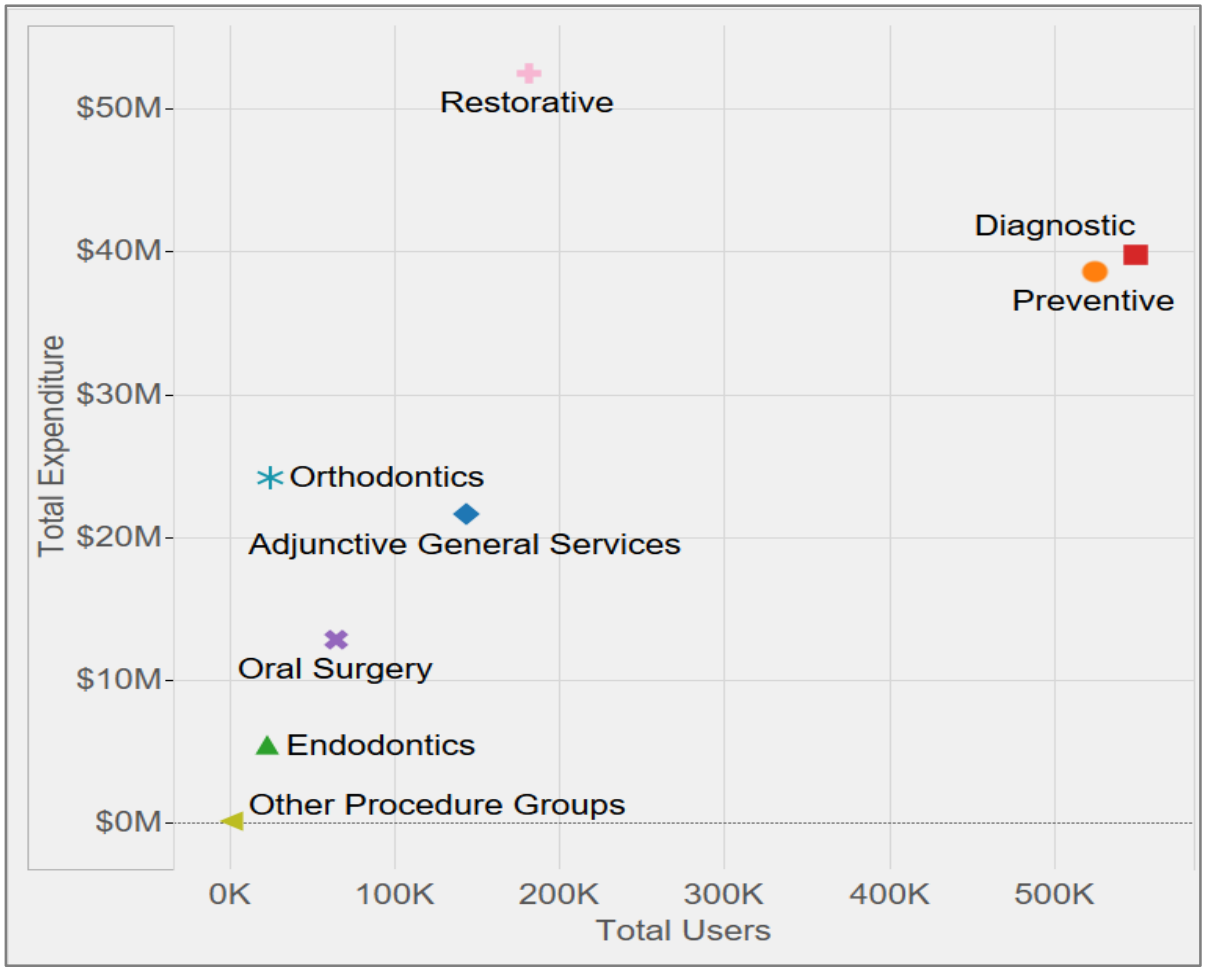
Section: Children

Restorative services made up the greatest portion of total expenditures in both FY 2008 and FY 2017.

The percentage of cost for restorative services for children decreased from 36% in 2008 to 27% in 2017.

Orthodontic services increased dramatically from 2% of total expenditures in 2008 to 12% in 2017. However, they decreased by 10% since the last fiscal year (see slide 51).

Child Dental Users and Total Expenditures by Procedure Group, FY 2017

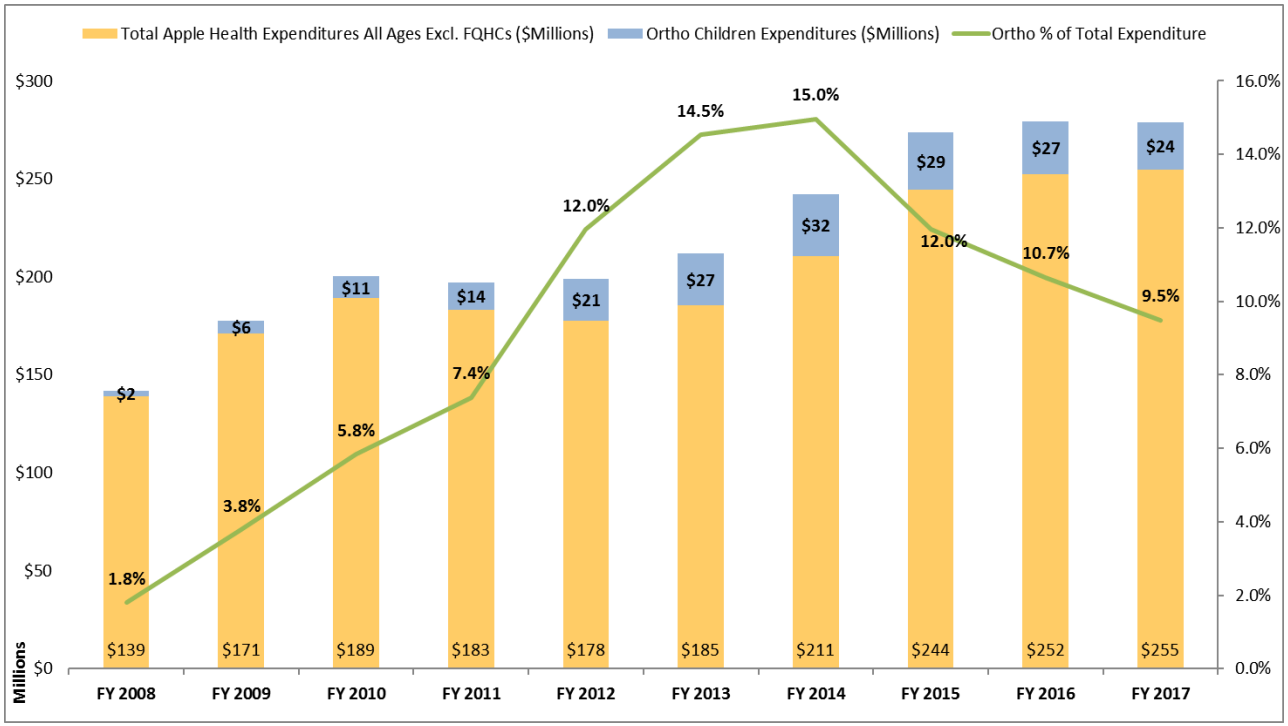


Note: Excludes FQHC claims. Prosthodontics (Removable) and Periodontics had less than 1,200 users and $105,000 in expenditures. They are included in the graph as "Other Procedure Groups."
Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: Children

Children access diagnostic and preventive services (on the far right of graph) more than any other service type, but restorative services (on the top of the graph) were the most costly for the Apple Health program.

Orthodontics Expenditures
FY 2008 – FY 2017



Note: Other craniofacial anomalies include the following medical conditions: Hemifacial macrosomia, craniosynostosis syndromes, cleidocranial dental dysplasia, arthrogryposis, and marfan syndrome. For a detailed description of Apple Health Orthodontic services review Apple Health Orthodontics Services Billing Guide https://www.hca.wa.gov/assets/billers-and-providers/Orthodontic-serv-bi-20170101.pdf

Orthodontics accounted for 9% of total Apple Health FY 2017 expenditures (all ages), and 12% of children expenditures (see slide 33 and slide 49).

All Expenditure analysis excludes FQHC encounter payments except for few clinics that billed fee-for-service using the orthodontics procedure code ($ 2.2M).

Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

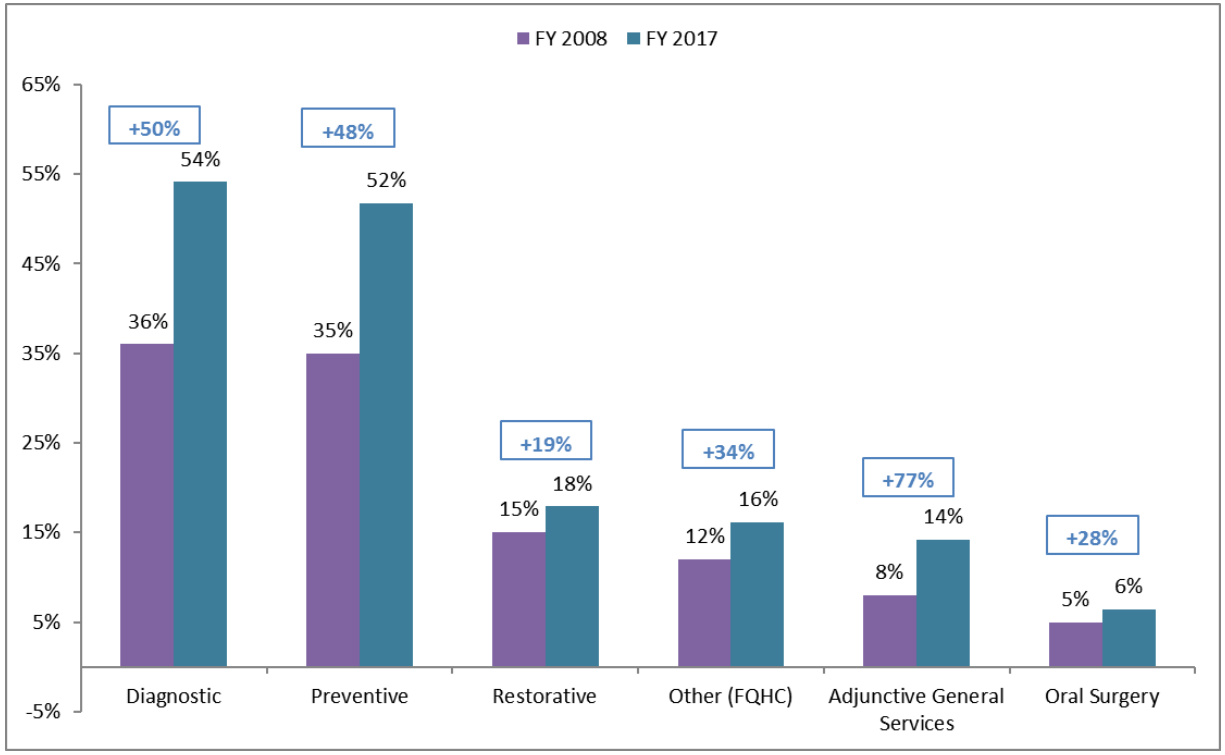
Section: Children

Apple Health covers orthodontic treatment and related services, subject to prior authorization requirements for clients age 21 and younger with cleft lip and palate, and other craniofacial medical conditions.

In FY 2017, orthodontics contributed to a significantly greater percentage of total expenditures than in FY 2008 (10% vs. 2%). There was a rate increase for orthodontia in 2007, which led to an increase in the number of providers serving Apple Health clients.

On September 1, 2014, orthodontic treatment reimbursement rates were reduced by 22%, which lead to the steady decrease in orthodontics expenditures in the last three fiscal years.

Percent of Child Enrollees Using Services, by Procedure Group, FY 2008 vs. FY 2017



Note: The percent of users with Endodontics, Orthodontics, Periodontics, Prosthodontics (Removable), and Maxillofacial Prosthetics was 5% or less for both years.

Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

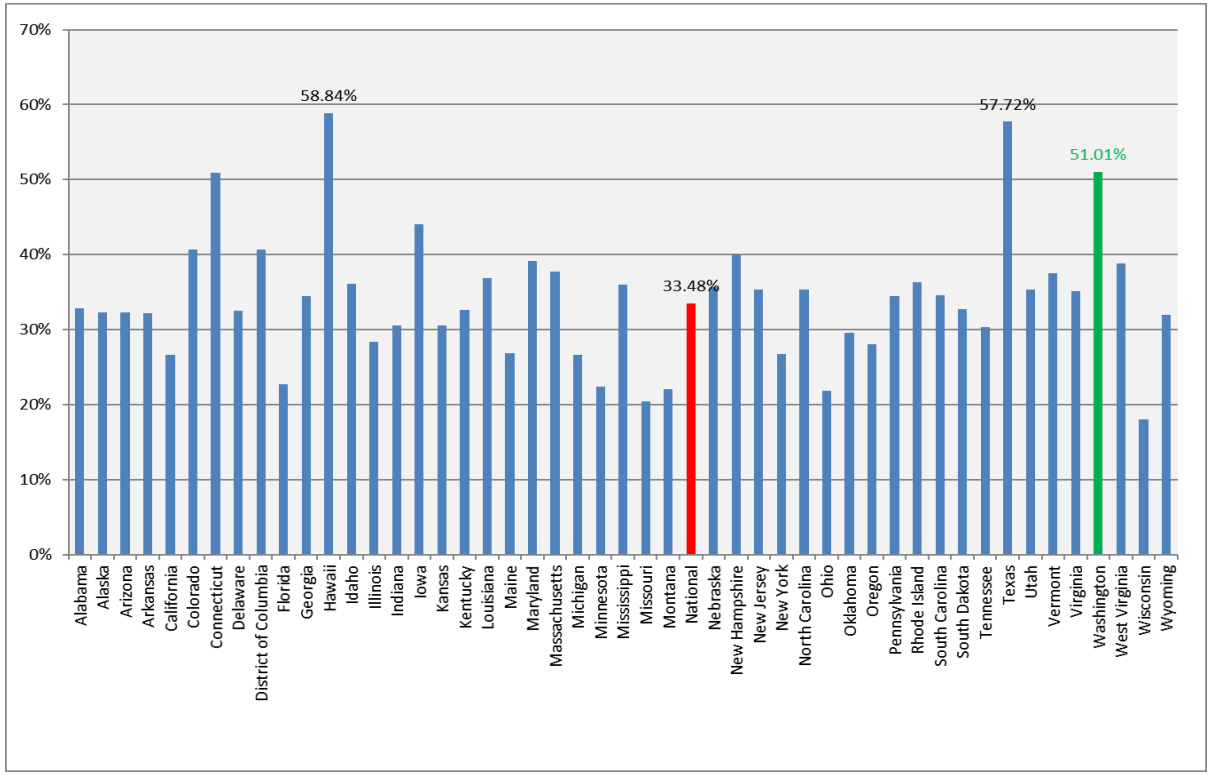
Section: Children

Among children eligible for care, there have been large increases in those that receive preventive and diagnostic services. This suggests that more children are getting the care needed to prevent disease, rather than solely treatment.

Utilization for Young Children Washington vs. Other States

Washington state is one of the leaders in the country in the percentage of Medicaid-insured young children receiving preventive dental care.

Percentage of Children Age 0-5 Enrolled in EPSDT for at Least 90 Continuous Days Receiving **Preventive Dental Services** by or under the Supervision of a Dentist, 2016



Note: Early and Periodic Screening, Diagnostic and Treatment (EPSDT) benefit provides comprehensive and preventive health care services for children under age 21 who are enrolled in Medicaid. EPSDT is key to ensuring that children and adolescents receive appropriate preventive, dental, mental health, and developmental, and specialty services.
Source: 2016 CMS-416 reports, Line 1b and Line 12b (accessed 04/24/2018).

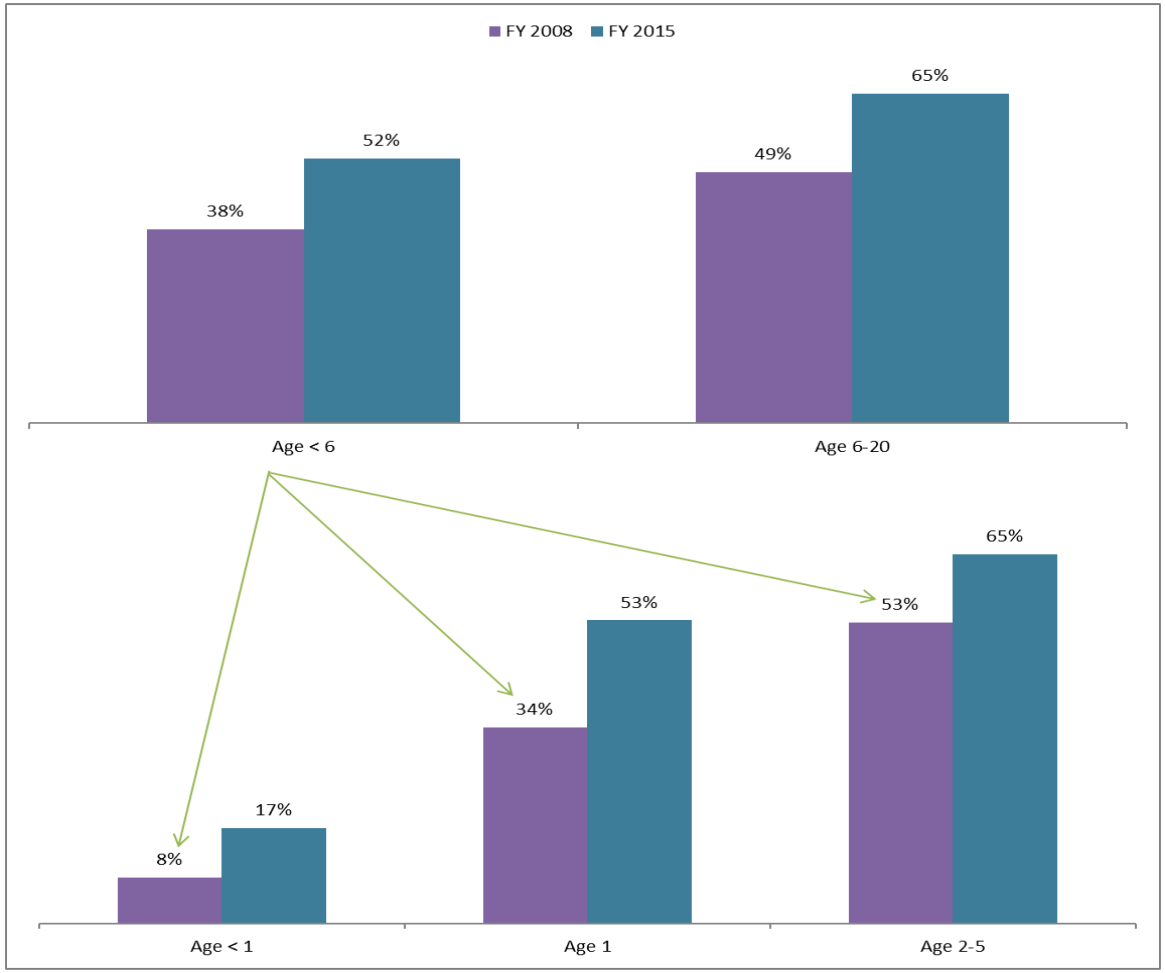
Section: Children

Washington state is one of the states that leads innovative programs to improve access to dental care for young children.

ABCD: Connects Apple Health-insured children under age six to dental care and engages primary care medical providers in delivering preventive services.

Early learning: Head Start and child care providers, as well as home visitors, have been trained to identify children at risk for oral health problems and connect them to community resources.

Percent of Child Enrollees Using Preventive Services, by Age Group, FY 2008 vs. FY 2017



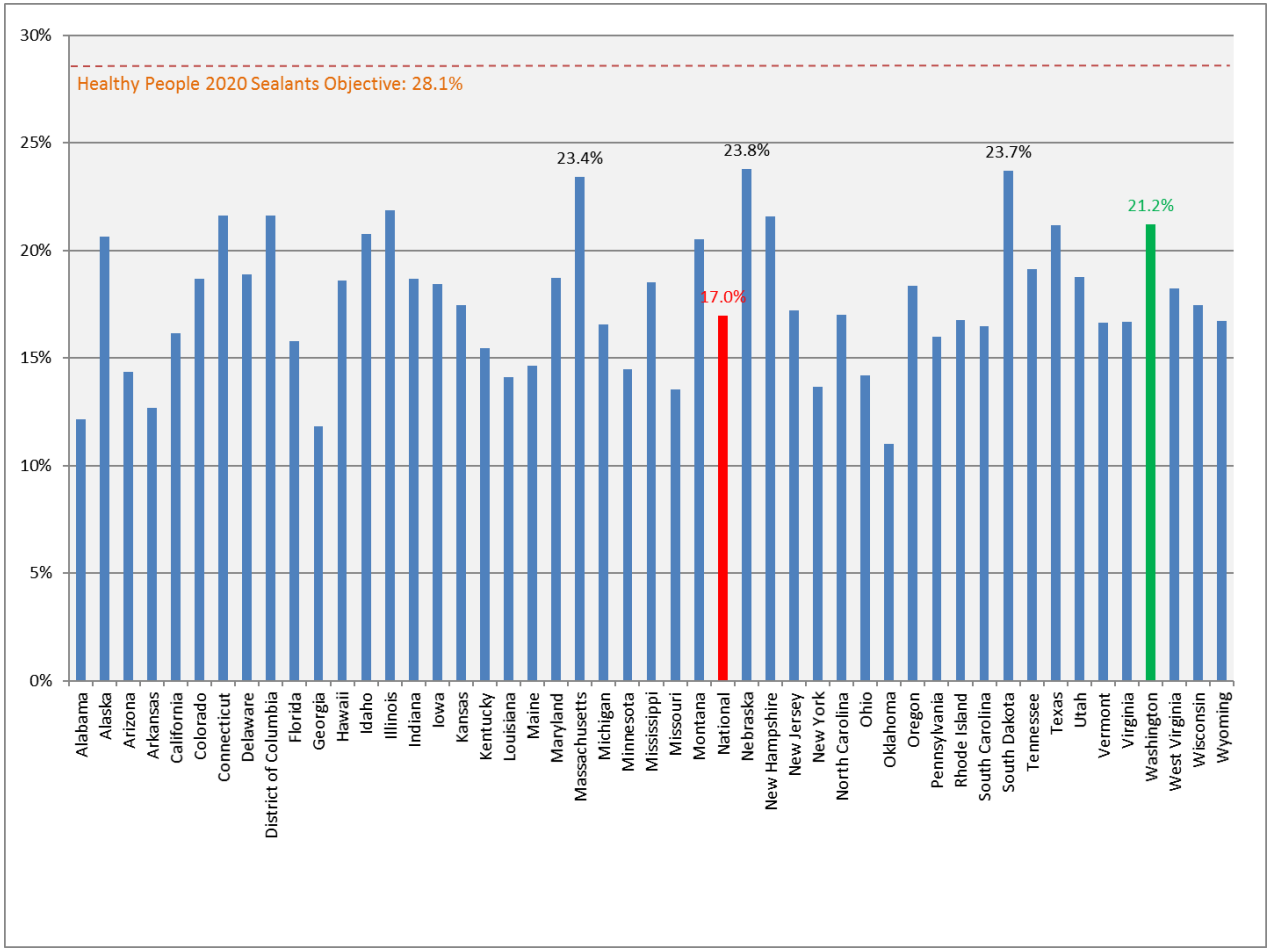
Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data
Note: Excludes FQHC claims.

Section: Children

The percentage of children who received preventive dental care increased for all age groups from FY 2008 to FY 2017. By FY 2017, 65% of children between the ages of 2 and 5 received preventive dental care.

The percent of children using preventive services for all children (age 20 and under) in FY 2008 was 40% and in FY 2017 was 52%.

Percentage of Children Who Receive Sealant on First Permanent Molar Washington vs. Other States



Note: Early and Periodic Screening, Diagnostic and Treatment (EPSDT) benefit provides comprehensive and preventive healthcare services for children under age 21 who are enrolled in Medicaid. EPSDT is key to ensuring that children and adolescents receive appropriate preventive, dental, mental health, and developmental, and specialty services.
Source: 2016 CMS-416 reports, Line 1b and Line 12d (accessed 04/24/2018).

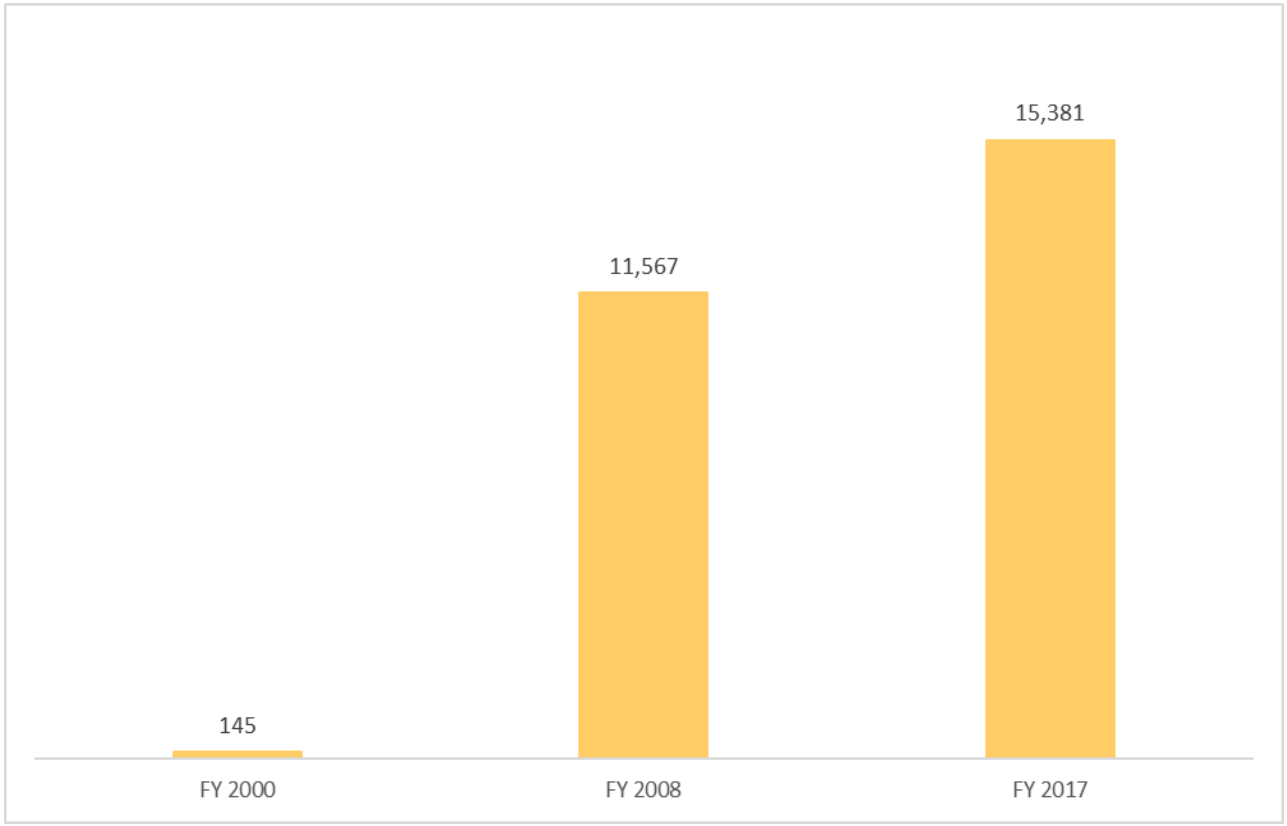
Section: Children Age 6 to 9 years

Sealants are effective and proven methods to prevent caries. They significantly reduce a child's risk of having decay and can even stop decay that has already started.

Washington state is one of the leaders in the country in the percentage of Medicaid-insured children receiving sealant on a first permanent molar in 2016.

More than 21% of Apple Health-insured children age 6-9 years received sealants on their first permanent molar, exceeding the national average of 17%.

Fluoride Varnish Services Provided to Children under Six by Primary Care Medical Providers

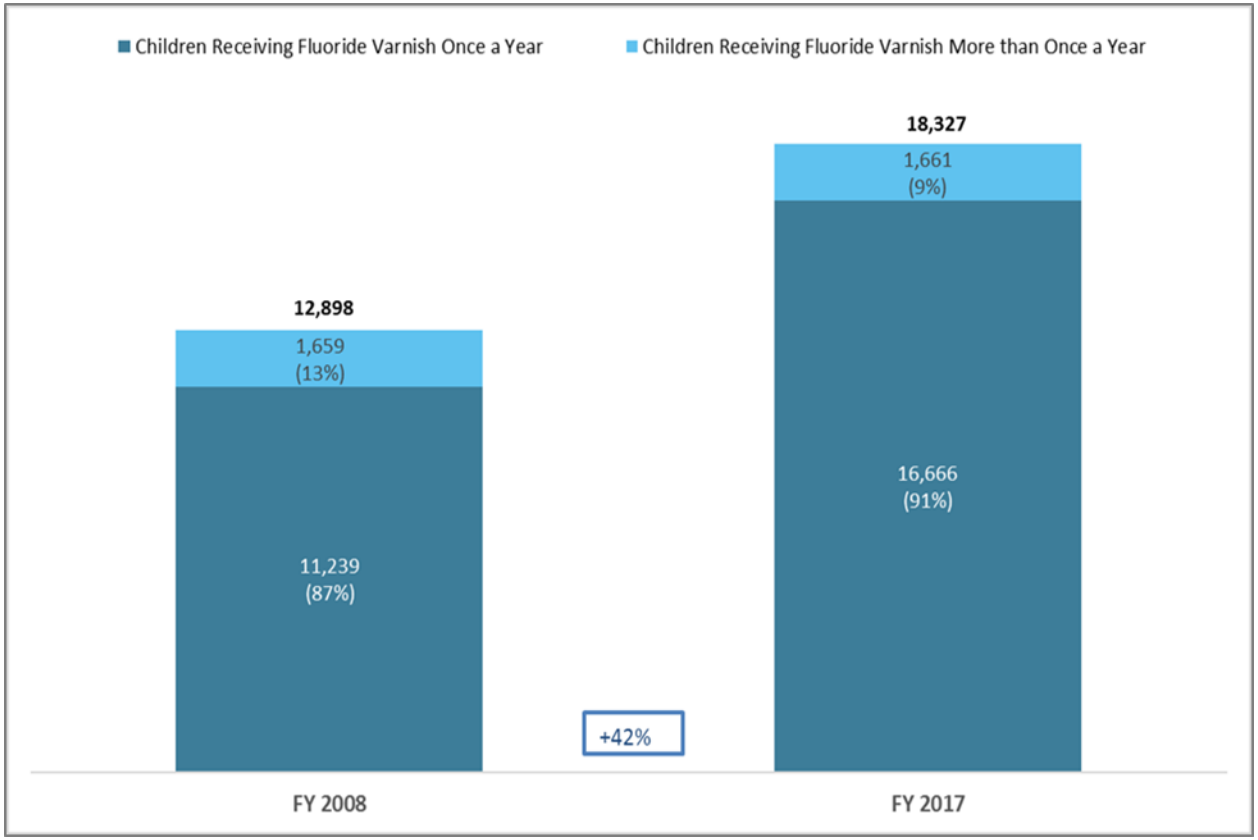


Note: Primary Care Medical Providers include primary care physicians, other physicians who include some primary care services in their practices, and some non-physician providers, such as nurse practitioners and physician's assistants. Primary care medical providers are physicians specifically trained for and skilled in comprehensive first contact and continuing care for persons with any undiagnosed sign, symptom, or health concern .

Washington's Apple Health program was one of the first to reimburse primary care medical providers for applying fluoride varnish on children's teeth.

The number of fluoride varnish applications delivered in medical settings to Apple Health-enrolled children under age six increased from 145 in 2000 to 15,381 in 2017.

Children Who Received Fluoride Varnish Services by Primary Care Medical Providers



Note: Primary Care Medical Providers include primary care physicians, other physicians who include some primary care services in their practices, and some non-physician providers, such as nurse practitioners and physician's assistants. Primary care medical providers are physicians specifically trained for and skilled in comprehensive first contact and continuing care for persons with any undiagnosed sign, symptom, or health concern .

Section: Children

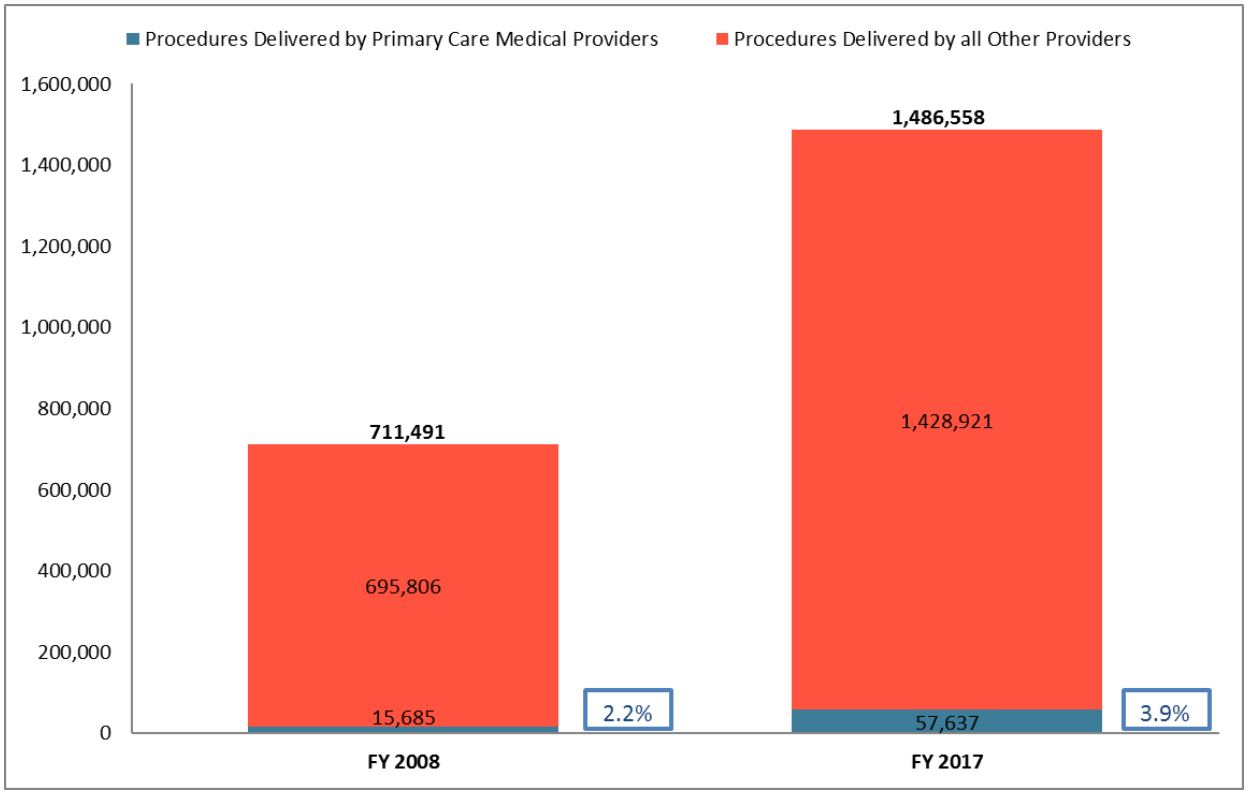
Incorporating Oral Health in the Primary Care Medical Setting

The number of Apple Health-insured children age 19 and under receiving fluoride varnish by primary care medical providers increased by 42% from FY 2008 to FY 2017.

Among children accessing any dental services, 3.4% received fluoride varnish by a primary care medical provider. The majority of these children (91%) received fluoride varnish in the medical setting once a year.

Apple Health reimburses dental and medical providers up to three times for each provider group per patient.

Portion of Preventive Oral Health Services Provided by Primary Care Medical Providers Compared to All Other Providers



Note: Primary Care Medical Providers include primary care physicians, other physicians who include some primary care services in their practices, and some non-physician providers, such as nurse practitioners and physician's assistants. Primary care medical providers are physicians specifically trained for and skilled in comprehensive first contact and continuing care for persons with any undiagnosed sign, symptom, or health concern.

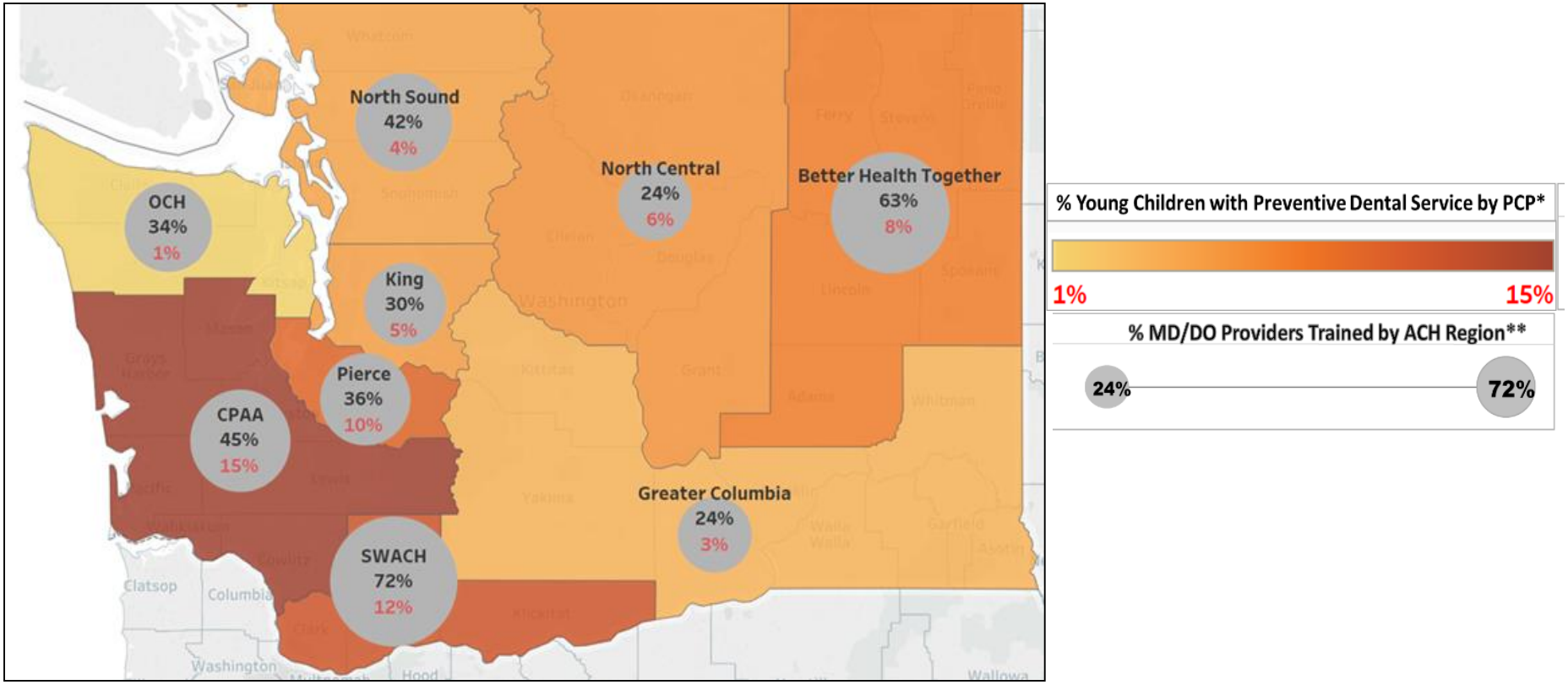
Section: Children

Incorporating Oral Health in the Primary Care Medical Setting

The number of oral health services provided by primary care medical providers to Apple Health-insured children dramatically increased from 2008 to 2017 (267% increase). It is important to note that oral health preventive services provided by primary care providers make up a relatively small portion of dental services delivered.

Delivering oral health preventive care in the primary care medical setting plays an important role in improving oral health. It offers the opportunity to expand access for nearly all patients, particularly high-risk and vulnerable patients who bear the greatest burden of oral disease.

Medical Providers Trained and Percent of Young Apple Health Children with Preventive Dental Service by Primary Care Providers by Accountable Communities of Health

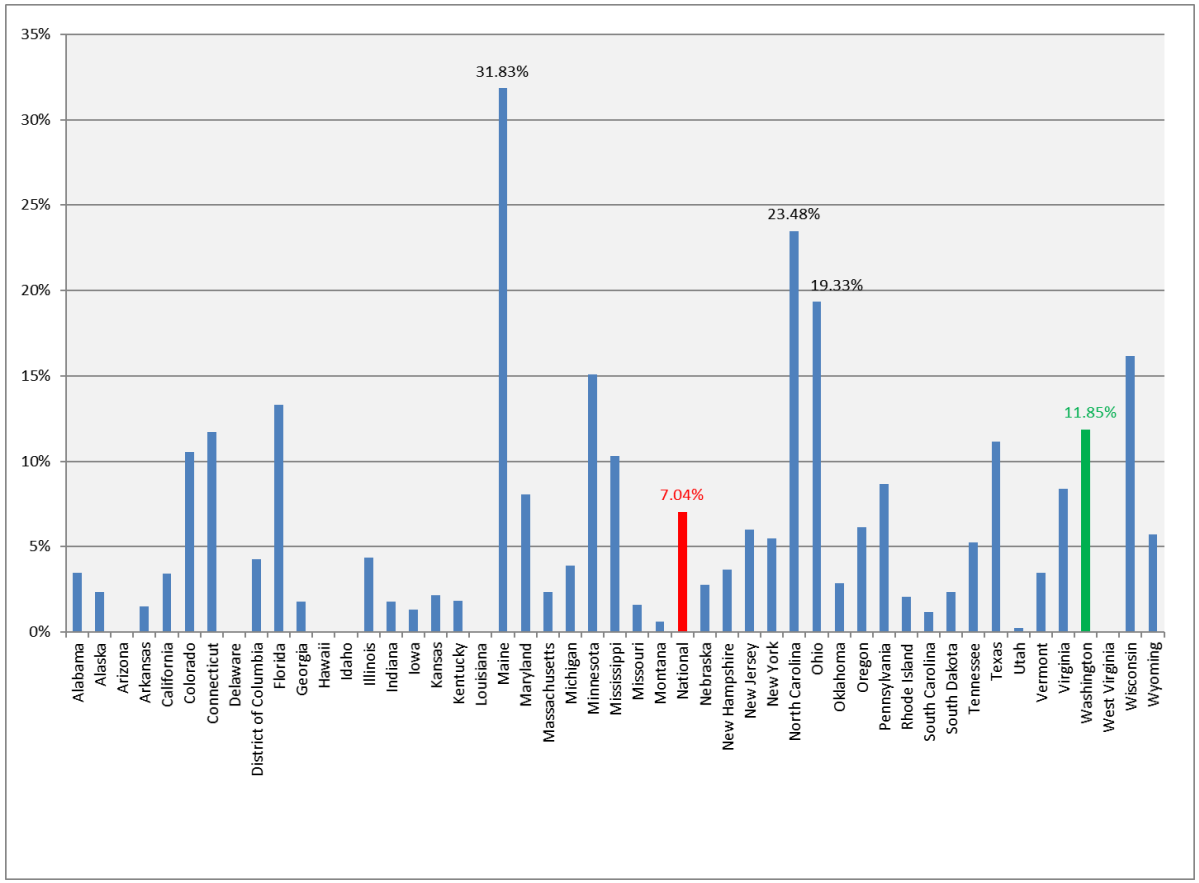


Notes:
*Includes children who accessed primary care and received preventive dental services by primary care provider who billed Medicaid in FY 2017.
** Providers trained include family medicine & pediatric physicians who completed Arcora Foundation's preventive dental services trainings 2005-2017. Data excludes all trained providers operating at Federally Qualified Health Centers, tribal clinics, and health department types of facilities.

Source:
HRSA Area Health Resources Files (AHRF) 2015. Available from https://datawarehouse.hrsa.gov/topics/ahrf.aspx
Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Children Receiving Oral Health Preventive Services by a Non-Dentist Provider

Percentage of Children Age 0-5 Enrolled in EPSDT for at Least 90 Continuous Days Receiving Oral Health Services Provided by a Non-Dentist Provider, 2016



Note: Early and Periodic Screening, Diagnostic and Treatment (EPSDT) benefit provides comprehensive and preventive health care services for children under age 21 who are enrolled in Medicaid.
Non-Dentist Providers include pediatricians, independently practicing dental hygienists, and all other licensed practitioners that are not dentists.
Source: 2016 CMS-416 reports, Line 1b and Line 12f (accessed 4/24/2018)

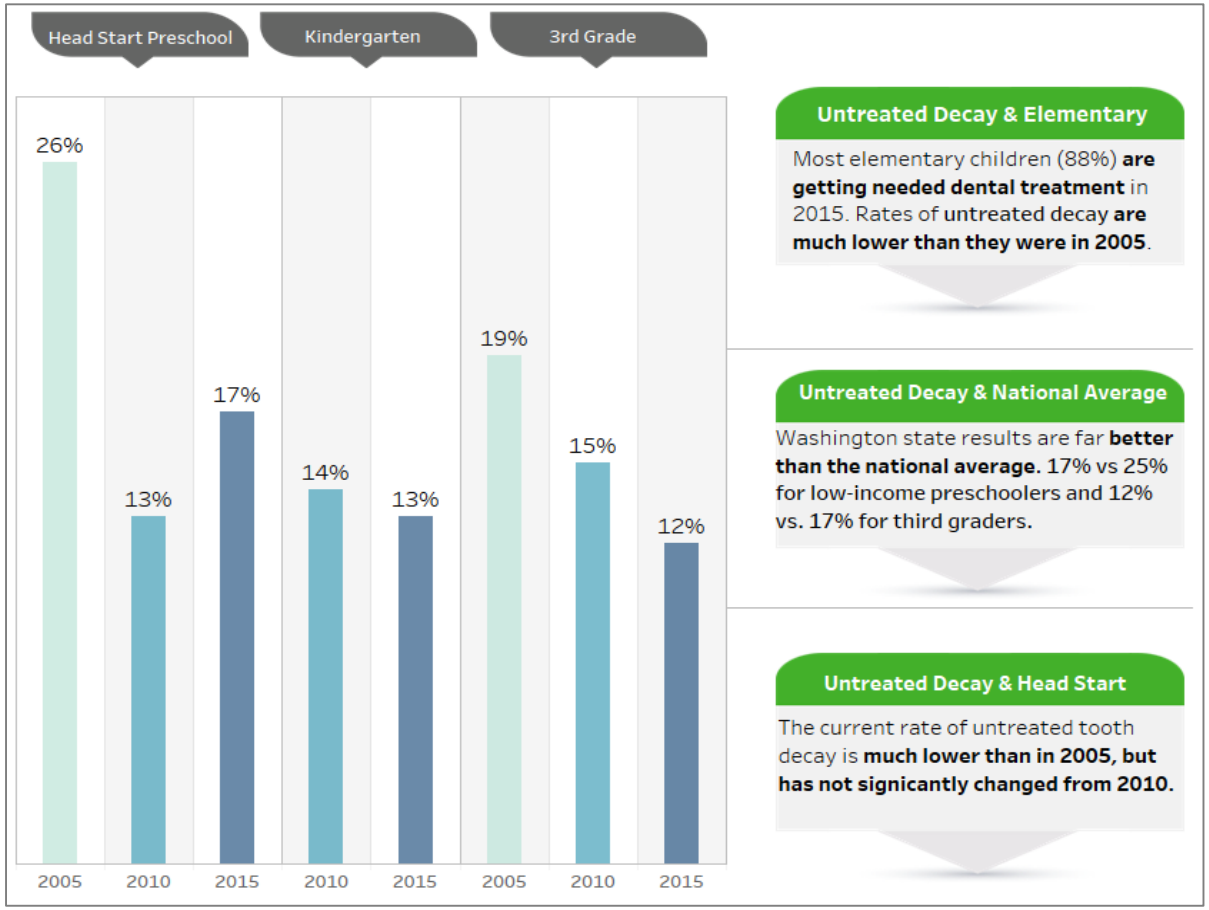
Section: Children

Incorporating Oral Health in the Primary Care Medical Setting

Approximately 12% of Apple Health-insured children under age six received oral health preventive services from a non-dental provider during early and periodic screening visits in 2016.

Washington's Children's Oral Health Status Smile Survey 2015-2016

Rates of Untreated Decay by Age Group



Note: The Smile Survey is a dental screening completed by the Washington State Department of Health every five years to assess the oral health of children throughout the state.

Source: Washington State Department of Health. Smile Survey 2015-2016: The Oral Health of Washington's Children. Olympia, WA, 2017. Available from: https://www.astdd.org/www/docs/wa-smile-survey-report-2016.pdf

Section: Children

Washington's oral health policies and programs have made progress in improving the oral health status of children in some areas. Based on the Smile Survey 2015-2016 results, untreated decay declined significantly among preschoolers and third-graders from low-income households and among all racial and ethnic groups when compared to the 2005 Smile Survey. In addition, treatment of dental caries and access to preventive dental sealants increased among elementary school children.

Washington state is among the top five states in the country for the lowest rates of decay among third graders. Fewer low-income preschoolers have untreated decay compared to the rest of the nation (17% vs. 25%)

Washington's Children's Oral Health Status Smile Survey 2015-2016

Caries Experience - Smile Survey 2015 (combined 2nd and 3rd grade children)

	Pacific Islander	Hispanic	American Indian	Black/African American	Asian	White
Decay Experience	75%	71%	68%	52%	48%	46%
Rampant Decay	33%	29%	37%	14%	15%	15%
Sealants	49%	61%	39%	42%	46%	48%
Untreated	27%	14%	19%	18%	16%	10%

When compared to white children, **Hispanic and American Indian/Alaskan Native children** have about 50% more caries experience and more than twice the rate of rampant decay. **Pacific Islander children** had much higher rates of decay and more than twice the rate of rampant decay. **Black/African American and Asian children** experience disproportionately much higher rates of untreated tooth decay.

Note: The Smile Survey is a dental screening completed by the Washington State Department of Health every five years to assess the oral health of children throughout the state.

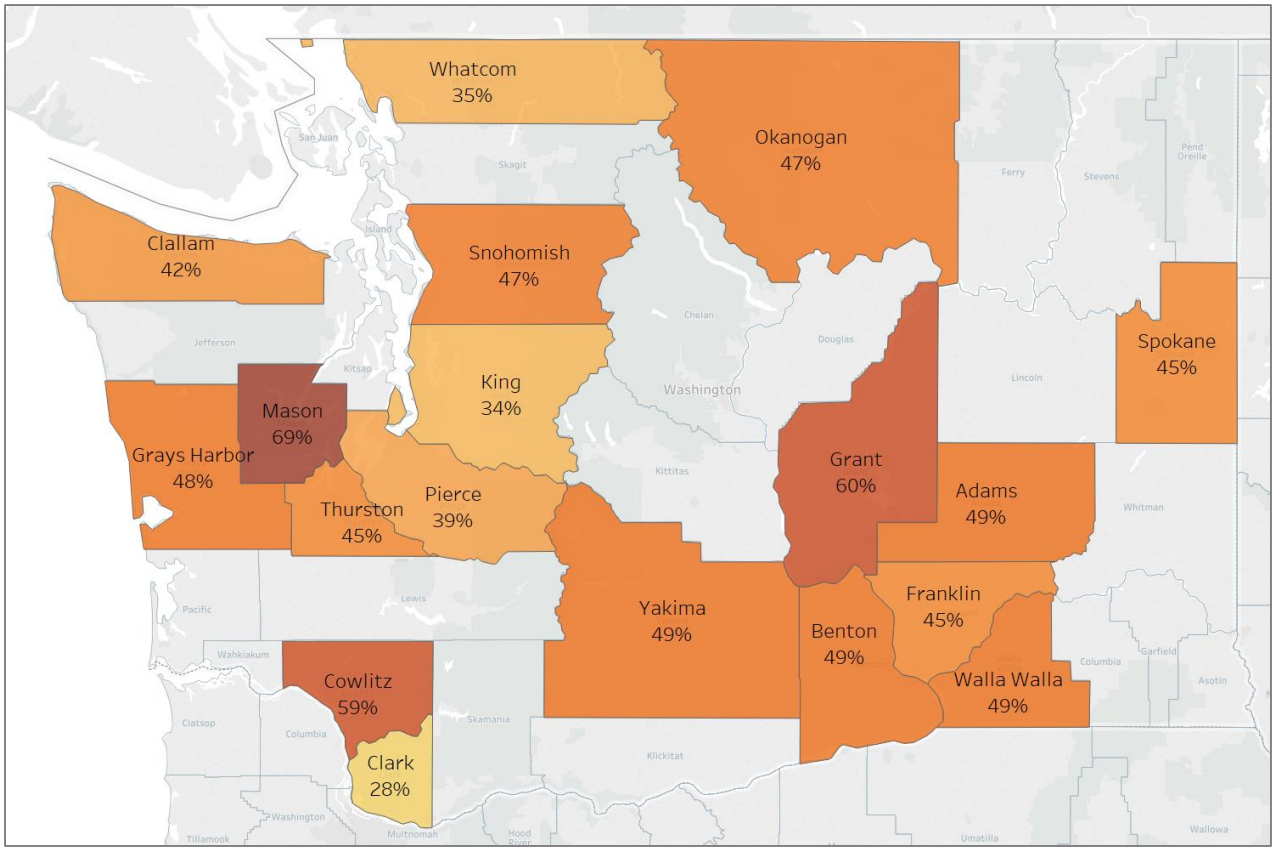
Source: Washington State Department of Health. Smile Survey 2015-2016: The Oral Health of Washington's Children. Olympia, WA, 2017. Available from: https://www.astdd.org/www/docs/wa-smile-survey-report-2016.pdf

Section: Children

Despite improvements in some measures, tooth decay continues to be a major health concern for children in Washington.

More than half of third grade children and about 4 in 10 kindergartners and low income preschoolers in Washington experience tooth decay. In addition, significant disparities exist by income, race, ethnicity, and language spoken at home.

Low-income Preschoolers Decay Experience by County, 2015-2016



Statewide Average 46%

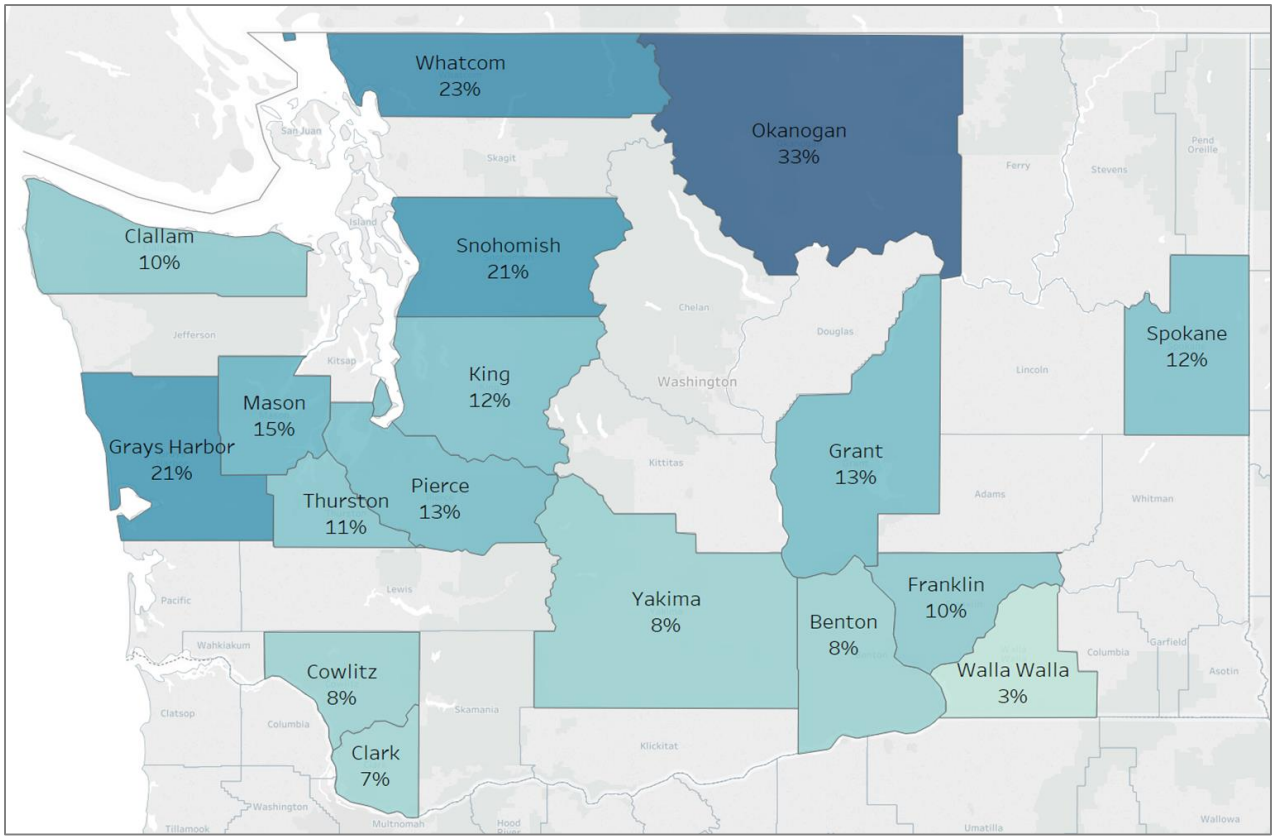
Note: Gray shadings represent counties that did not participate in the 2015 county-level smile survey or did not have enough participants to provide an representative sample

Section: Children

Similar to Apple Health dental utilization, decay rates among low-income preschoolers vary by county.

Among the counties that completed the Smile Survey in 2015-2016, Mason County had the highest untreated decay rates (69%), while Clark had the lowest (28%), significantly lower than the statewide average of 46%.

Low-income Preschoolers Untreated Decay by County, 2015-2016



Statewide Average 17%

Note: Gray shadings represent counties that did not participate in the 2015 county-level smile survey or did not have enough participants to provide an representative sample

Section: Children

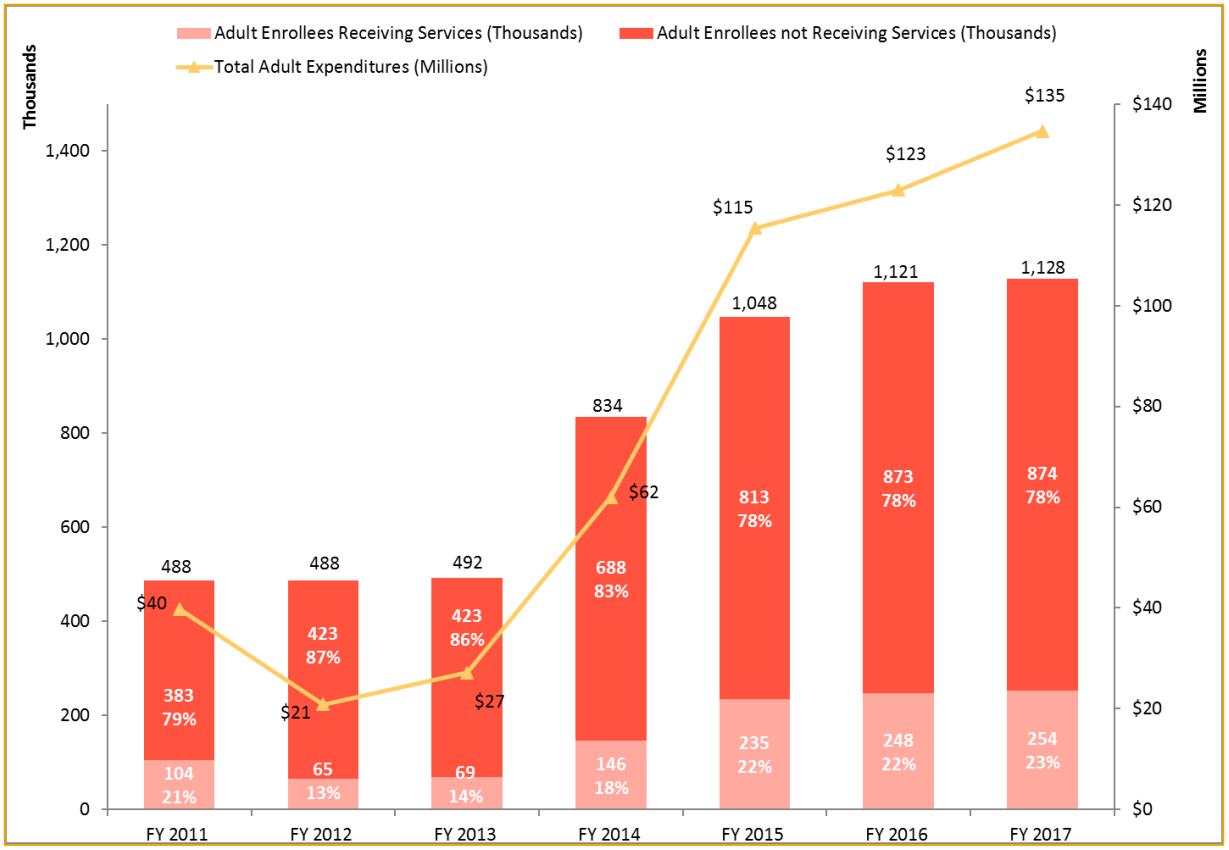
Among the counties that completed the Smile Survey in 2015-2016, Okanogan County had the highest untreated decay rates (33%), while Walla Walla and Clark Counties had the lowest (3%, 7%), significantly lower than the statewide average of 17%.

Total Expenditures and Services Key Findings (Children)

- Washington Apple Health spent $250M on dental services for children in FY 2017, compared to $204M in FY 2011. After adjusting for inflation, this a 3% increase in dental expenditures, which can be attributed to an increases in the number of enrollees and the number of children accessing dental services.
- The percentage of children accessing dental services was 45% in FY 2008, compared to 56% in FY 2017. Children dental utilization rates increased across all age groups between FY 2008 and FY 2017 and was most dramatic among the youngest age groups.
- The percentage of children under age 6 accessing dental services in Washington increased for 38 counties between FY 2008 and FY 2017. However, geographic disparities remain - utilization by county ranged from 32% to 66%, in FY 2017.
- The rate of children accessing preventive services increased, from 40% in FY 2008 to 52% in FY 2017.
- The percentage of expenditures for restorative services for children decreased from 36% in 2008 to 27% in 2017.

Expenditures and Services Among Adults

Trend in Dental Utilization and Expenditures Among Adults 21 and Older, FY 2011 – FY 2017



Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

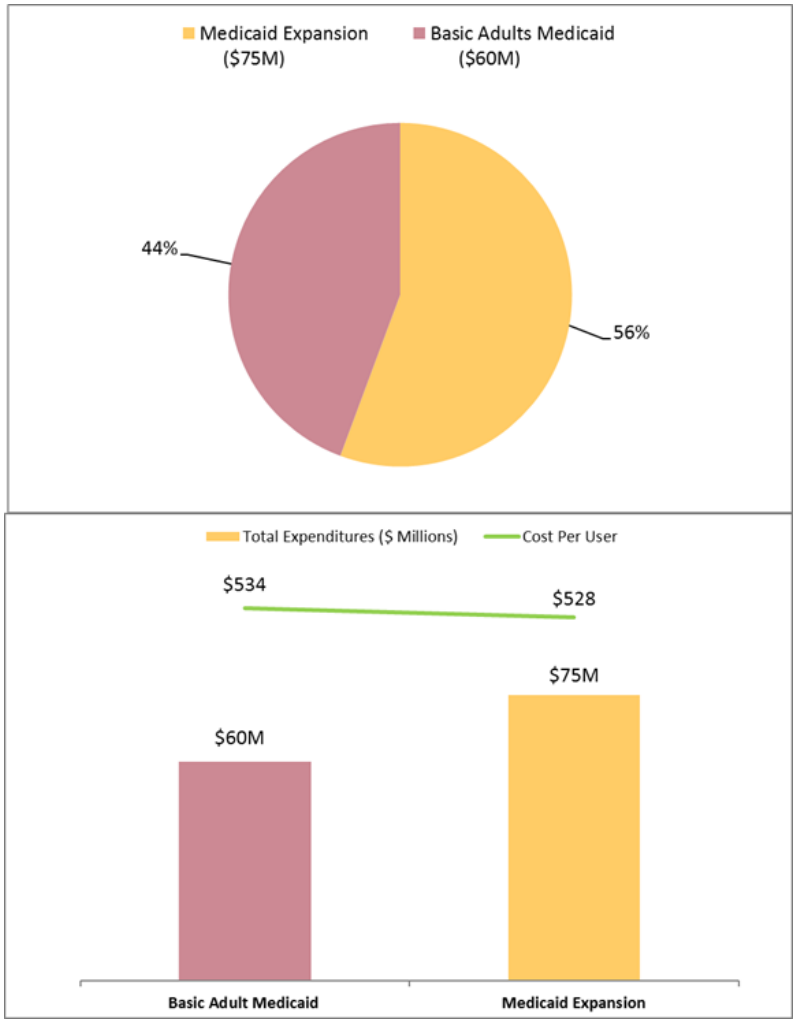
Section: Adults

Total expenditures and utilization fell dramatically after the adult dental cuts went in effect in January of 2011. Expenditures fell from $40M in FY 2011 to $21M in FY 2012. In FY 2015, with the first twelve months of adult dental restoration, expenditures dramatically increased to $115M.

In the last two fiscal years, adult expenditures and utilization steadily increased.

In FY 2017, nearly 23% of adults received services compared to 13% in FY 2012 and 14% FY 2013.

Washington Apple Health Dental Expenditures Basic Adults vs. Medicaid Expansion Adults FY 2017



Note: In 2017 federal match rate was reduced from 100% to 95%. For additional information visit: https://www.macpac.gov/subtopic/state-and-federal-spending-under-the-aca/

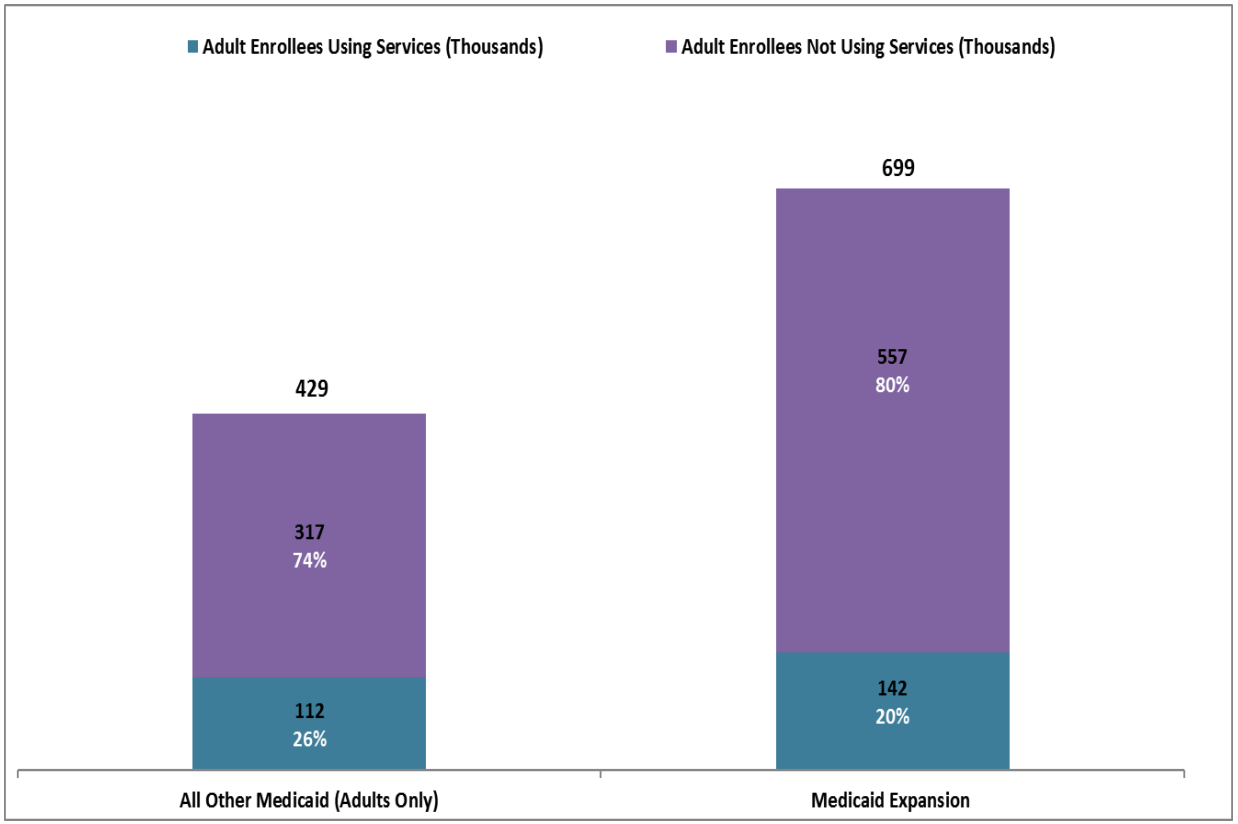
Source: Washington State Health Care Authority, Apple Health Dental Services Utilization and Expenditure Data

Section: Adults

Washington's FY 2017 total Apple Health adult state expenditures were $34M, while the total adult federal expenditures were $101M.

Total Medicaid Expansion dental expenditures were $75M, which represents 56% of total Apple Health adult dental expenditures. This drew 95% federal match in 2017 (estimated $71M).

Enrollees with at Least One Dental Service, Medicaid Expansion Users, FY 2017

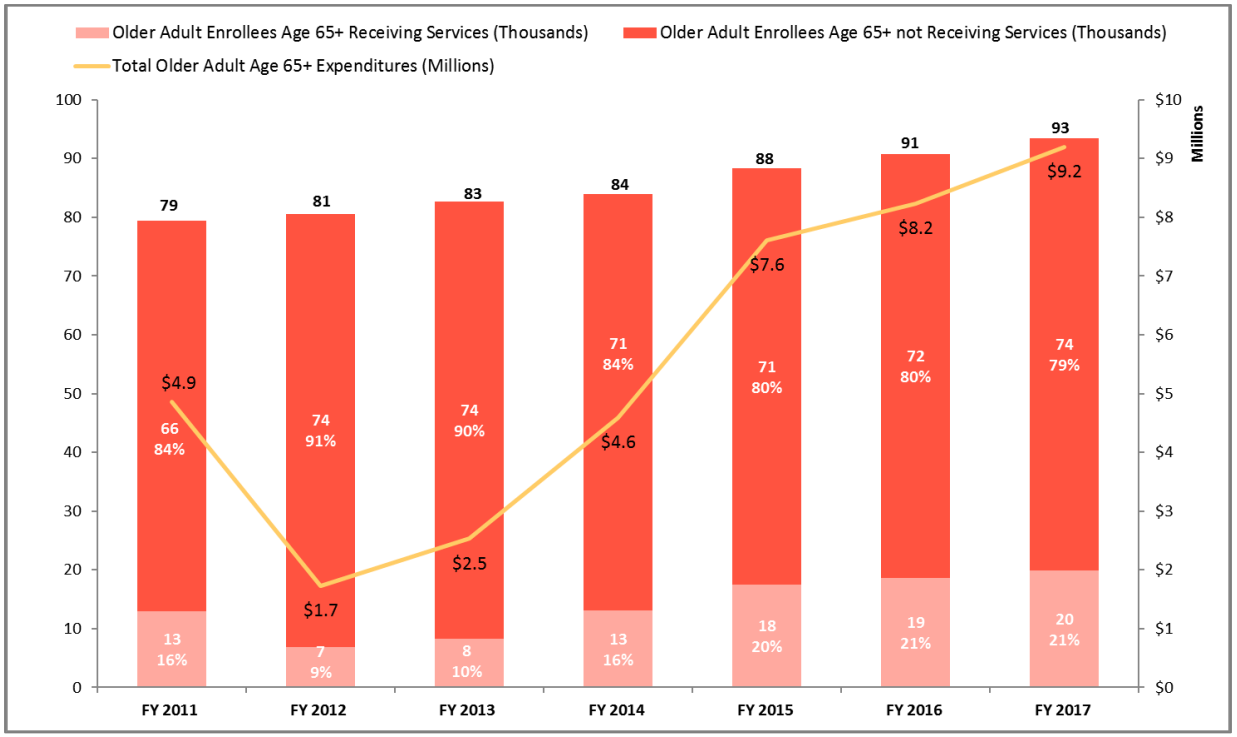


Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: Adults

Among Medicaid Expansion enrollees, 20% had at least one dental service in FY 2017, compared to 26% of all other Medicaid eligible enrollees (Basic Medicaid).

Trend in Dental Utilization and Expenditures Among Older Adults, FY 2011 – FY 2017



Note: Apple Health/Medicaid Expansion is only open to adults under the age of 65. Adults aged 65 and over are eligible for Apple Health if they are very low-income or have significant health issues. In FY 2017, only 10% of adults 65 and older in WA are eligible for Apple Health compared to 25% of adults age 20-64.

Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

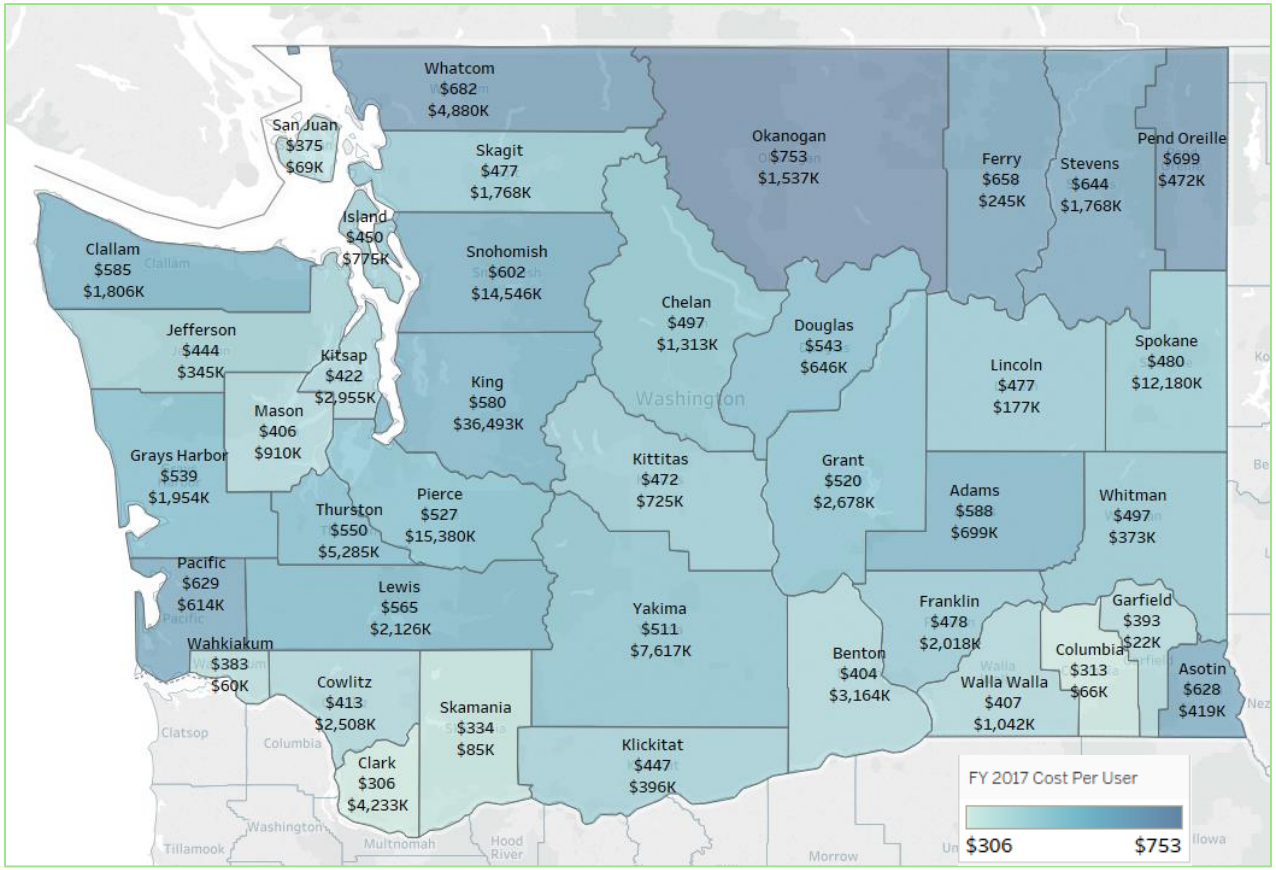
Section: Adults

Total expenditures and utilization for seniors age 65 and older fell after the adult dental cuts went into effect in January of 2011.

Expenditures fell from $5M in FY 2011 to $2M in FY 2012. After one year of adult dental restoration, expenditures increased to $8M and maintained a steady increase of 35% since FY 2011.

In FY 2016 and FY 2017, 21% of older adults received services compared to 9% in FY 2012 and 10% FY 2013.

Adult Dental Expenditures per County, FY 2017



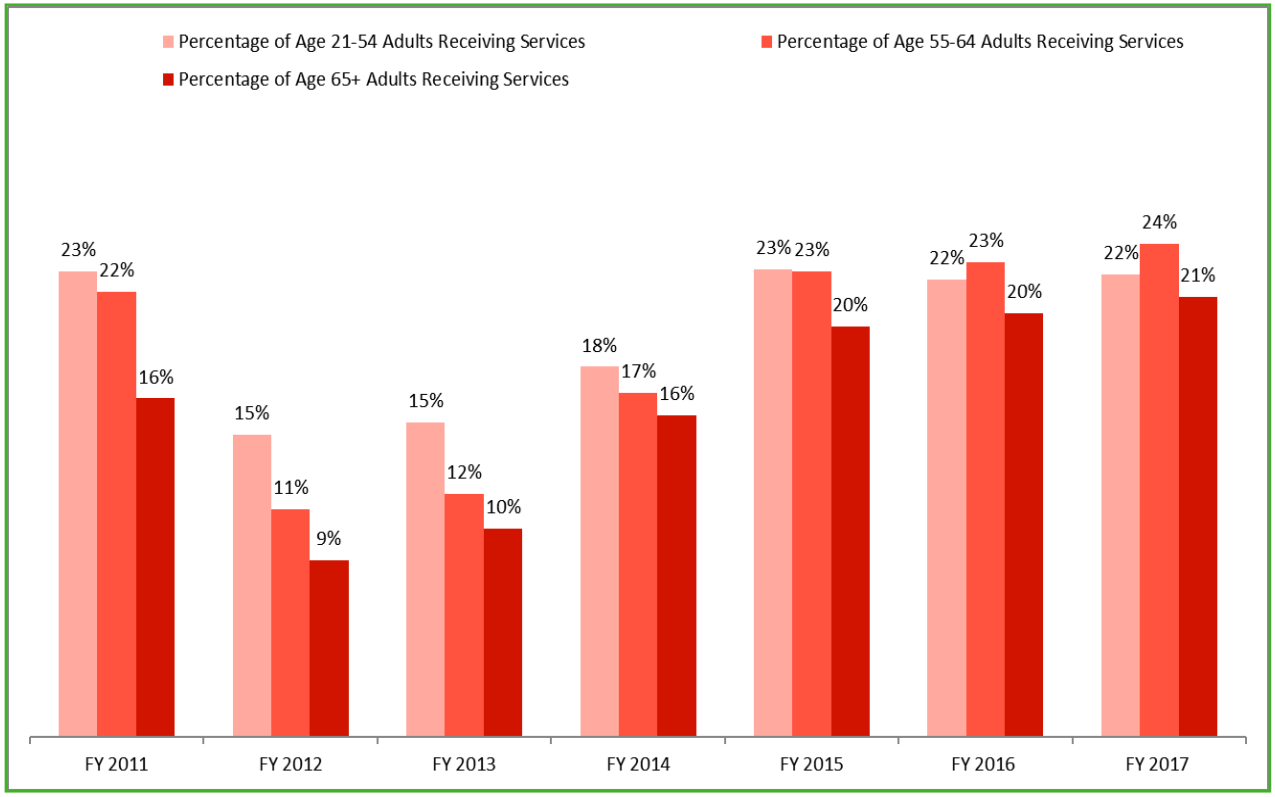
Statewide adult per capita dental cost $531

Note: Expenditures include FQHC encounter payments

Section: Adults

Adult dental expenditures per user vary by county with a low of $306 in Clark and a high of $753 in Okanogan County (indicated by darker shading).

Trend in Dental Utilization Among Adults, Ages 21-54, 55-64 and 65+, FY 2011 – FY 2017

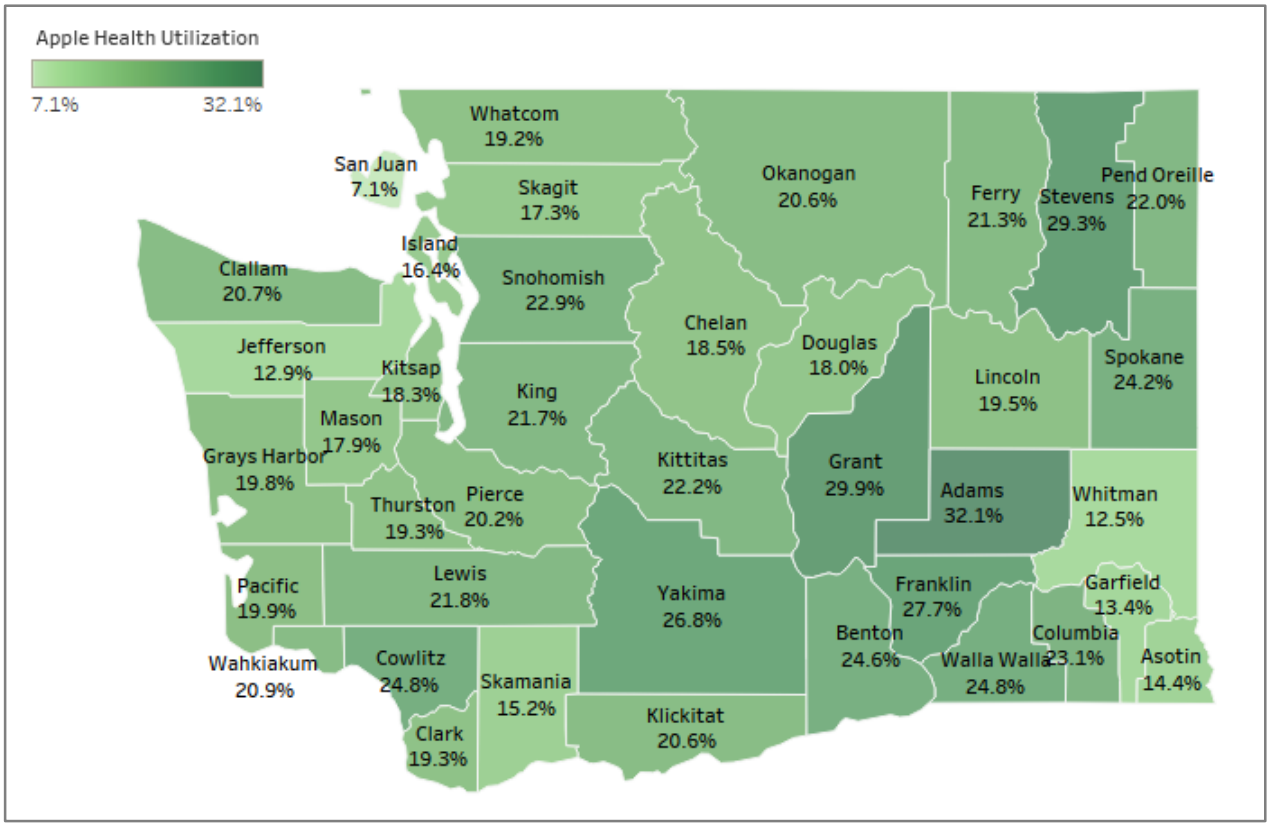


Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: Adults

While enrollees ages 65 and older had lower rates of utilization than younger adults, all age groups experienced declines in use of services between FY 2012 and FY 2014. With the restoration of the adult dental program in January 2014, utilization rates for all groups increased slightly, especially for older adults (age 65+).

Adult Enrollees with at Least One Dental Service, by County, FY 2017



Statewide Utilization Total 22.5%

Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: Adults

Adams County had the largest percentage of Apple Health adult enrollees receiving dental services in FY 2017, 32% (indicated by darker shading), while San Juan County had the lowest at 7% (indicated by lighter shading).

Adult Enrollees with at Least One Dental Service, by Accountable Community of Health, FY 2017

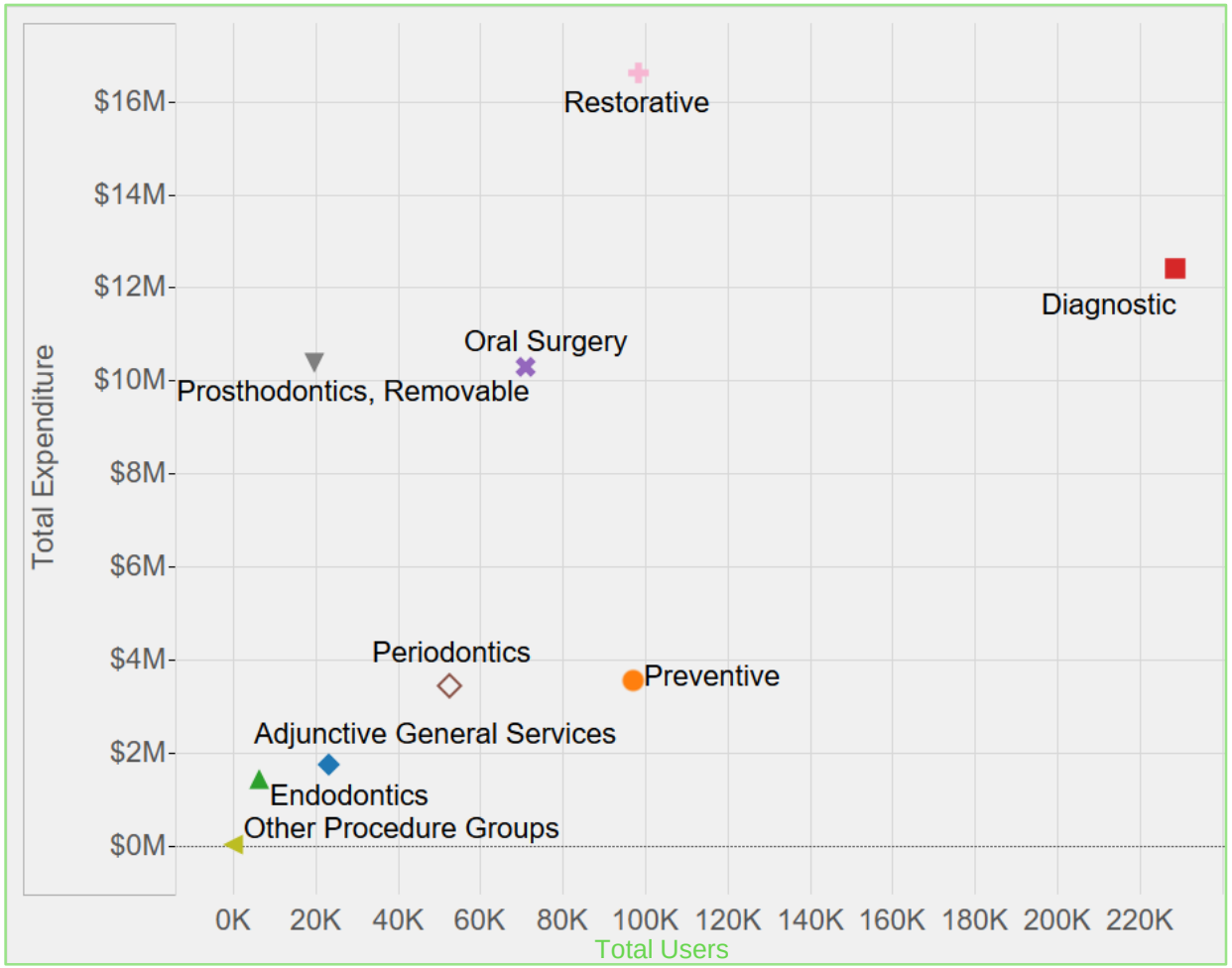
Statewide Utilization Total 22.5%

Section: Adults

Greater Columbia Accountable Community of Health had the largest percentage of Apple Health adult enrollees receiving dental services in FY 2017 (26%), higher than the state average. Olympic Community of Health had the lowest 19%.

There are several key drivers behind variability in regional dental utilization. Among them are the number of providers who accept adult Medicaid, the number of patients each provider serves, travel time/transportation to care, cultural barriers, and patients' knowledge/perception regarding the services offered.

Adult Dental Users and Total Expenditures by Procedure Group, FY 2017



Note: Excludes FQHC claims. Prosthetics (Fixed and Maxillofacial Prosthetics, and Orthodontics had less than 100 users and $20,000 in expenditures. They are included in the graph as "Other Procedure Groups."

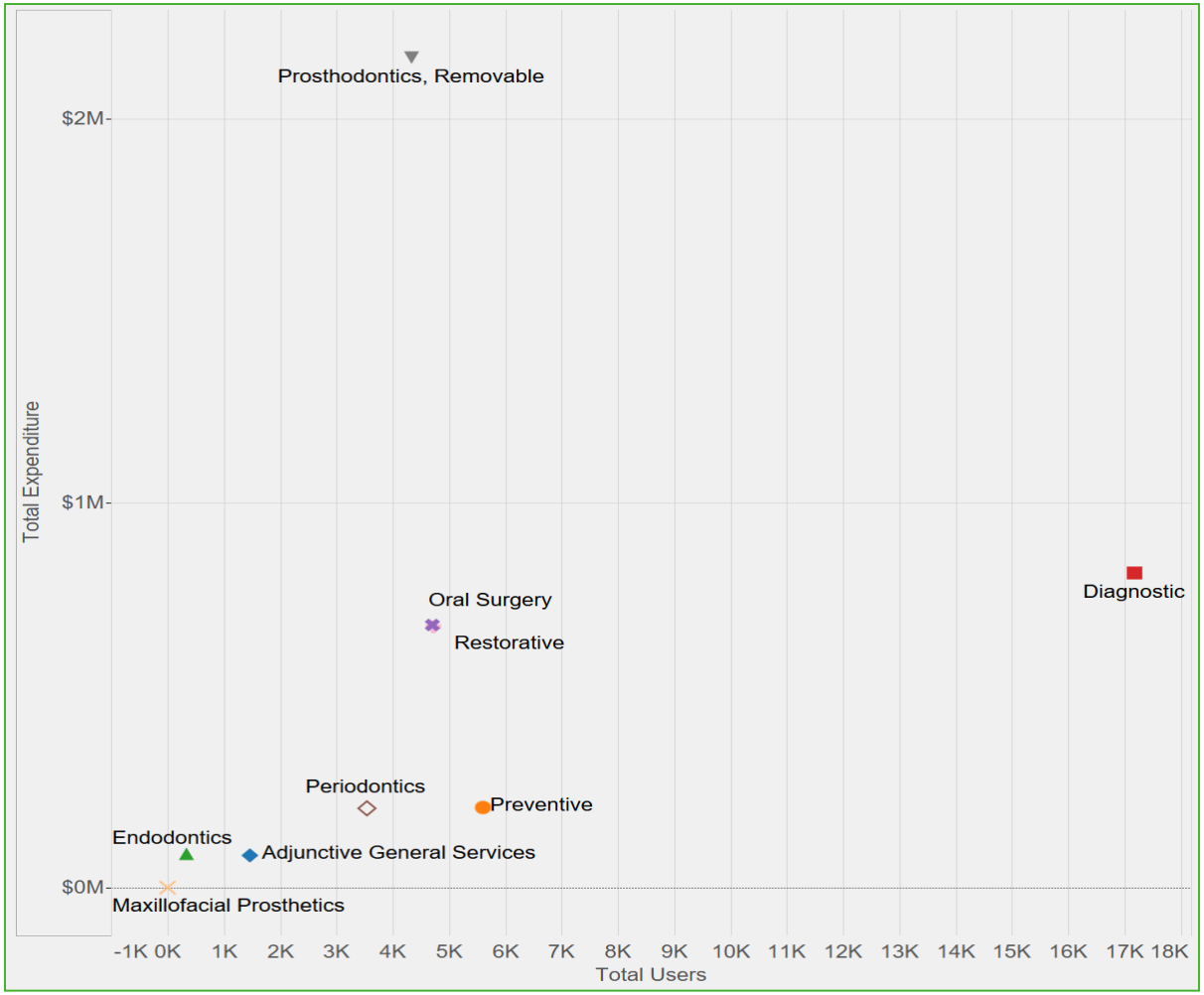
Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: Adults

In FY 2017, with adult dental restoration in effect for three full years, preventive services were used by 97,263 adults (orange dot), which is a 19% increase from the previous fiscal year.

Diagnostic procedures, which had the greatest number of users, were typically done in conjunction with other procedures (e.g., prior to emergency oral surgery). Restorative services (on the top of the graph) were the most costly procedures. Restorative services decreased by 4% since last fiscal year.

Older Adults Dental Users and Total Expenditures by Procedure Group, FY 2017

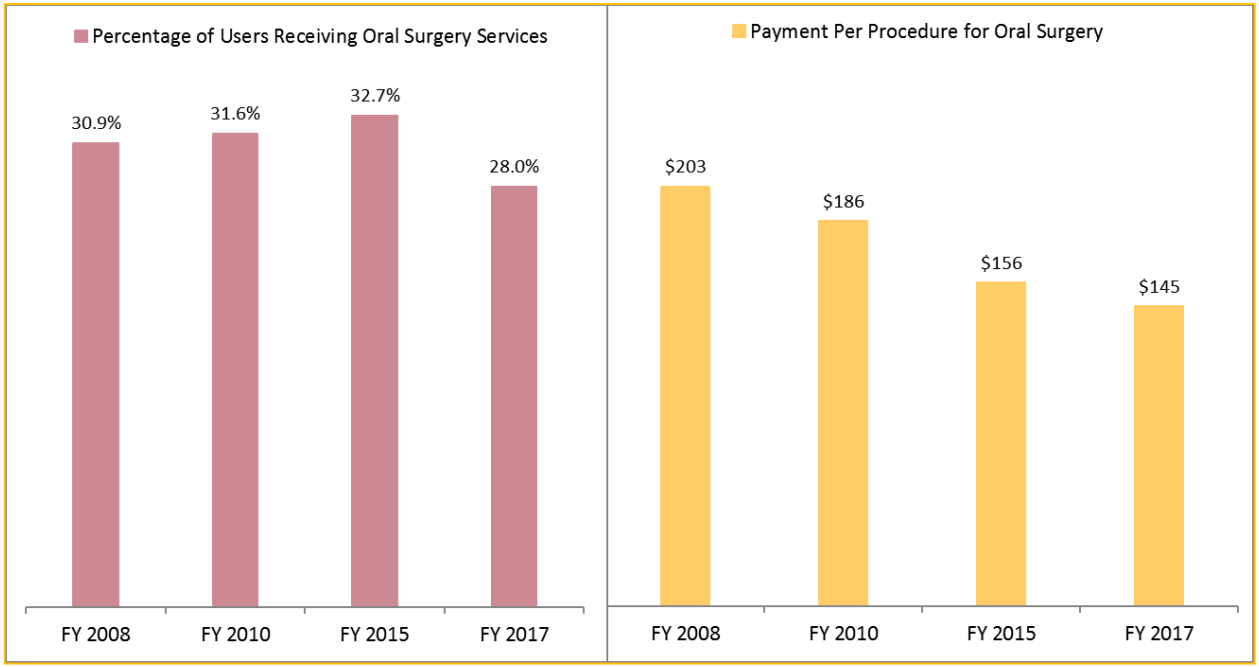


Note: Excludes FQHC claims.
Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: Adults

For older adults ages 65 and over in FY 2017, preventive services were used by 5,600 older adults (orange dot). Diagnostic procedures had the greatest number of users (17,179), while Prosthodontics Removable services (on the top of the graph) were the most costly procedures ($2.2M).

Adult Oral Surgery: Selected Years Use and Expenditures Among Enrollees



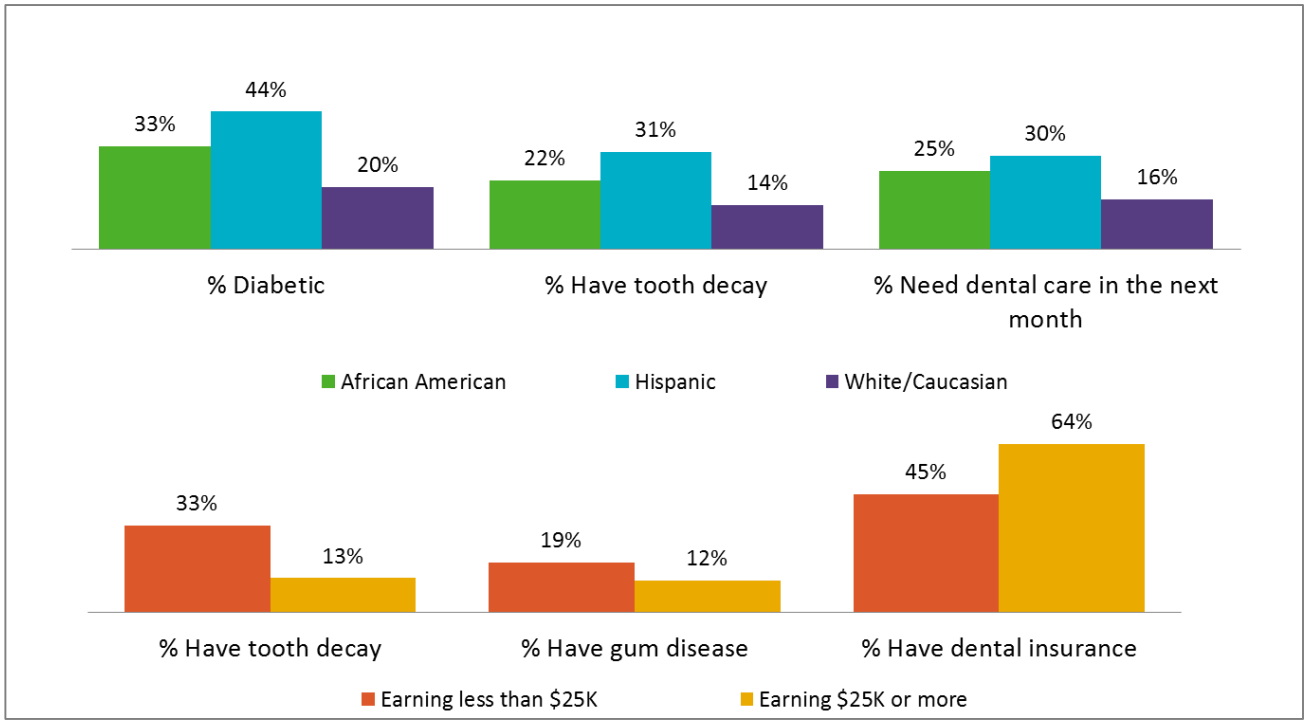
Note: Excludes FQHCs claims as oral surgery procedures received in FQHCs cannot be identified.
Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: Adults

The percentage of adults accessing dental care who had oral surgery decreased by 10% since FY 2008 and by 14% since FY 2015.

Expenditures per oral surgery procedure also decreased by 29% since FY 2008 (from $203 to $145).

Oral Health Disparities among Seniors by Race/Ethnicity and Income

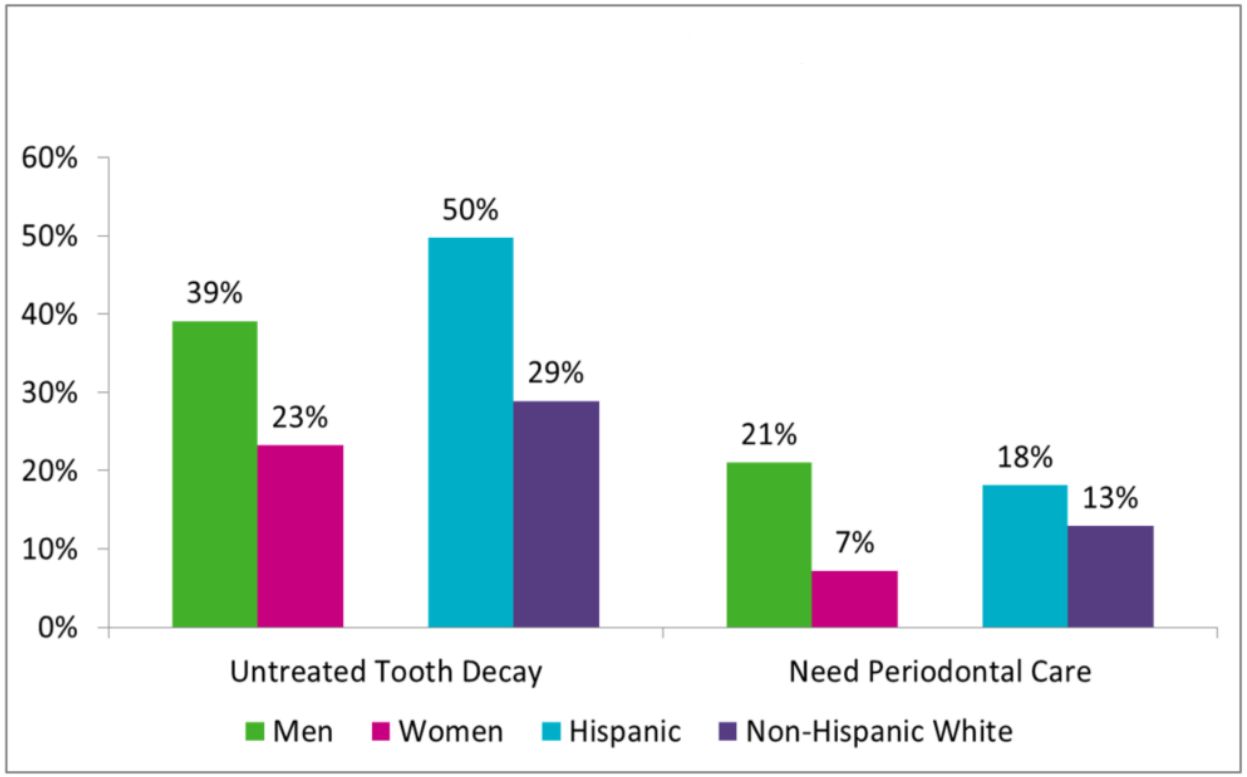


Section: Adults

Although the majority of seniors age 55 and over in Washington state considered their oral health to be important, only about half saw a dentist in the past year. In addition, significant disparities in seniors' oral health exist by income and by race. Seniors living on $25k per year or less had higher rates of tooth decay and gum disease and were much less likely to have dental insurance than those with higher incomes. African American and Hispanic seniors reported poorer oral health than their white/Caucasian counterparts.

Note: The Senior Telephone Survey is a self-reported survey completed by Arcora Foundation every five years to assess the oral health status of seniors age 55 and over throughout the state. To view the full report and methodology, visit https://www.arcorafoundation.org/resources/articles/senior-oral-health-survey

Seniors with Untreated Tooth Decay and Needing Periodontal Care



Note: Washington Elder Smiles survey is a basic screening pilot survey conducted in 2017 to identify the oral health status of older adults age 65 and over in senior centers and congregate meal sites. The survey followed the Association of State and Territorial Dental Directors basic screening guidelines. To view the full report and methodology, visit https://www.arcorafoundation.org/resources/articles/senior-oral-health-survey

Section: Adults

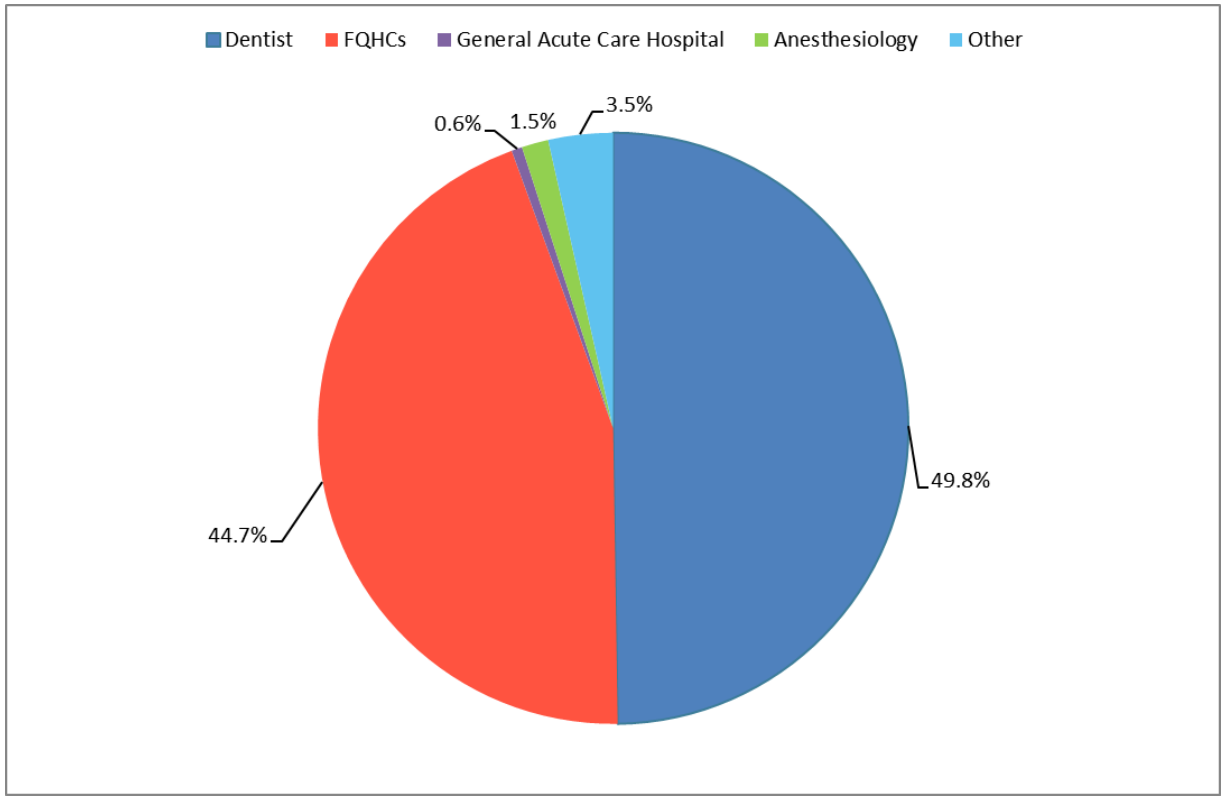
Seniors participating in meal programs at senior centers suffer significantly more from poor oral health than the general population of older adults in Washington state. They were more likely to have diabetes or pre-diabetes, to be edentulous, and to have problems with their mouth.

Total Expenditures and Services Key Findings (Adults)

- Budget cuts largely eliminated the Apple Health adult dental program between 2011 and 2014, except for emergency services and services for select populations (i.e. pregnant women, those in long-term care/nursing homes, and clients who are eligible under a 1915 (c) waiver program). Only small numbers of adults who were exempted from the cuts or who received emergency dental care continued to receive services during that period.
- The state legislature restored the adult dental program and comprehensive services resumed in January 2014. The utilization and expenditure results reflect six months worth of data for FY 2014 and one full year data for FY 2015-FY 2017.
- The state spent $40M on dental services for adults in FY 2011 (both state and federal spending), compared to $135M in FY 2017. After accounting for inflation, adult dental expenditures nearly tripled in the last seven years (increased by 185%).
- The growing majority (60%) of new adults accessing care in FY 2017 were adults receiving coverage through Medicaid expansion, which drew 95% federal match in 2017 (estimated $71M). The remainder of new adults accessing care had classic Medicaid coverage.
- Approximately 253,672 of the adult population received services in FY 2017, compared to 104,484 in FY 2008. Adults over age 65 had lower utilization than other adults, while adults age 55-64 had higher dental utilization than other adults.
- More adults received oral surgery procedures than preventive services, a consistent trend in the last 10 years.
- Adult expenditures are increasing at a much faster rate than utilization due to adult's utilization of more costly services and a higher portion of adults receiving care in Federally Qualified Health Centers. While adult expenditures increased by 10% from FY 2016 to FY 2017, adult utilization rates increased only by 2%. On the other hand, children's expenditures and utilization both increased by 2% since last fiscal year.

Providers of Oral Health Services

Expenditures by Billing Provider Type Specialty, FY 2017



Note: "Other" includes Multi-Specialty, Dental Hygienists, Pediatrics, Denturists, Oral & Maxillofacial Surgery, Nurse Anesthetist (Certified Registered), Single Specialty, Public Health, Family Practice, Nurse Practitioner, Internal Medical, and General Practice.

Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

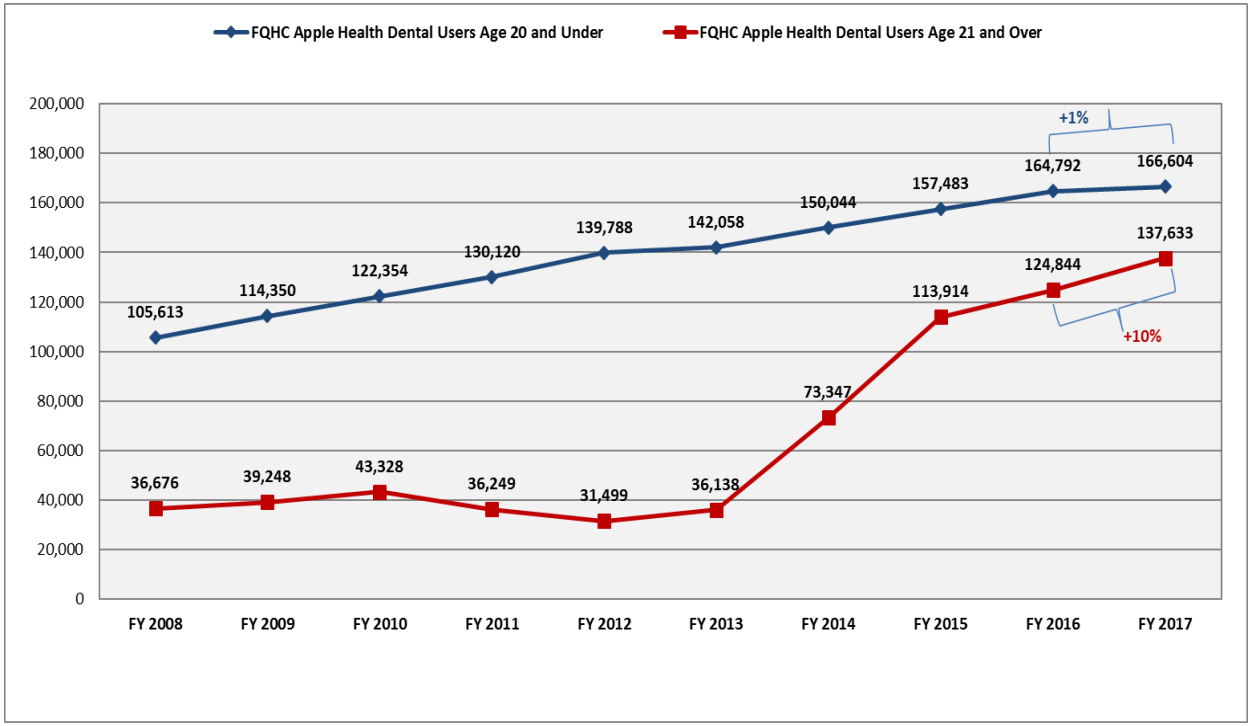
Section: Providers

In FY 2017, ninety-five cents out of every dollar for Apple Health dental services went to dentists or Federally Qualified Health Centers. The remaining 5% went to dental hygienists, anesthesiologists, primary care medical providers, and other dental providers.

Approximately 50% of dental expenditures in FY 2017 were provided by private practice providers (including not-for-profit), while 45% was provided by Federally Qualified Health Centers.

HCA pays dental claims on a fee-for-service basis for private practitioners and not-for-profit providers that aren't federally qualified. Federally Qualified Health Centers are reimbursed a flat fee for most patient visits, regardless of the services performed during that visit, as a way to compensate the FQHCs for their actual cost of care.

Apple Health Dental Users Served by Federally Qualified Health Centers, FY 2008 – FY 2017



Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

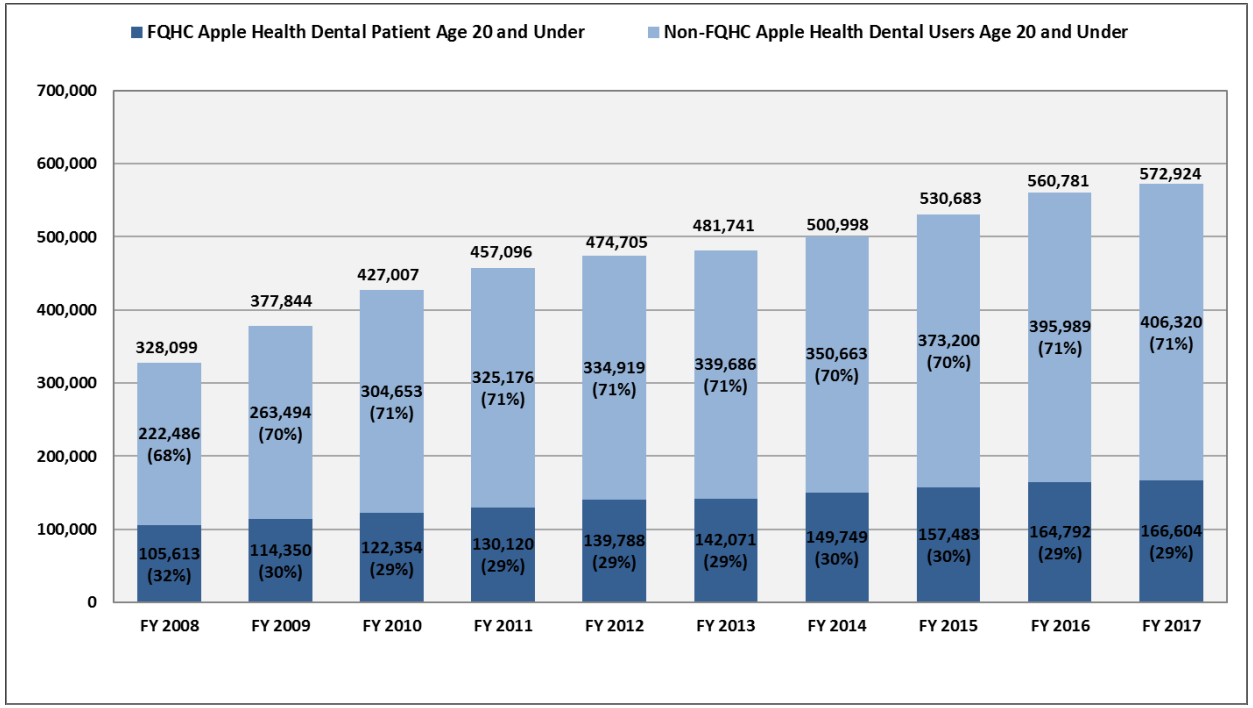
Section: Providers

Overall, many more Apple Health-insured children are served by Federally Qualified Health Centers than adults, as more children use dental services in general.

The number of adults served by Federally Qualified Health Centers declined between 2011 and 2013, when the cuts to Apple Health adult dental benefits went into effect.

Upon the adult dental benefit restoration, the number of adults served by Federally Qualified Health Centers initially increased by 55% in FY 2015 then maintained a 10% increase in subsequent years (FY 2016- FY 2017).

Children Served by Federally Qualified Health Centers as a Portion of Total Child Users FY 2008 – FY 2017



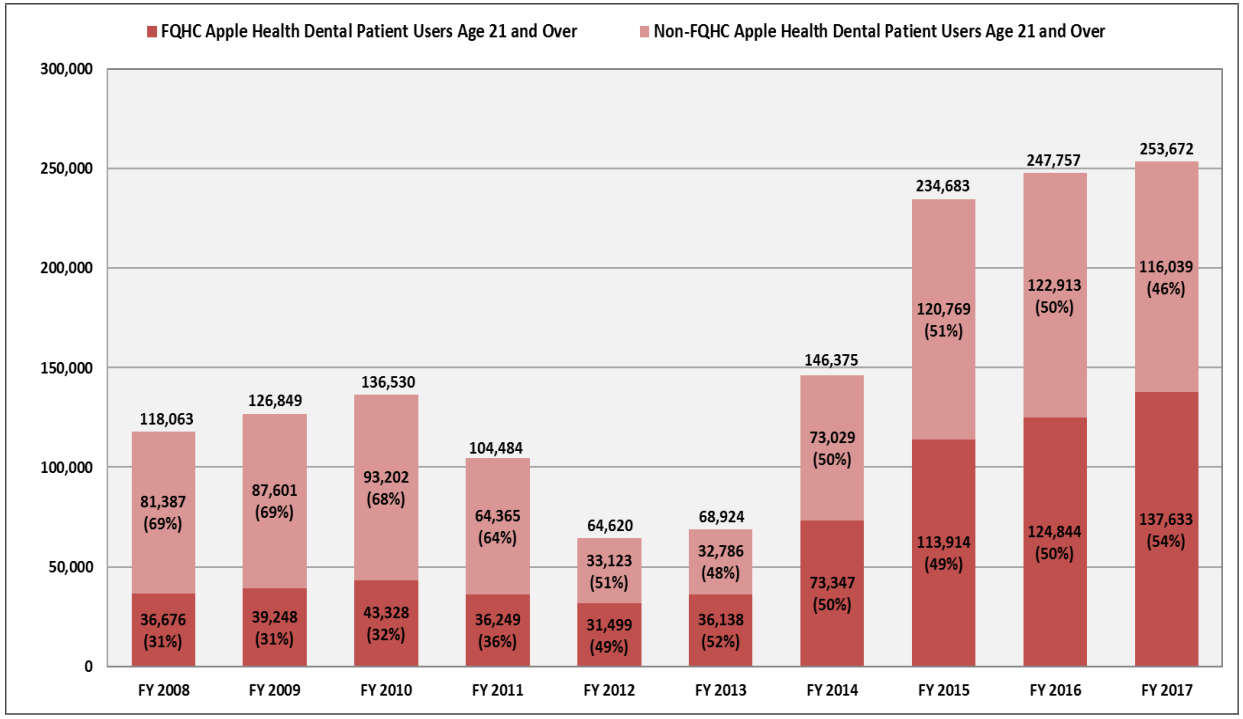
Note: Non-FQHC providers are private practice dentists and not-for-profit dental clinics that are not federally qualified such as UW School of Dentistry. The number of patients accessing Non-FQHCs is underestimated, as some clients may access both types of providers. This group was excluded from the Non-FQHCs users to avoid duplicate count of clients.

Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: Providers

The portion of child dental users served by Federally Qualified Health Centers was consistent from FY 2008 to FY 2017, around 29%.

Adults Served by Federally Qualified Health Centers as a Portion of Total Adult Users FY 2008 – FY 2017



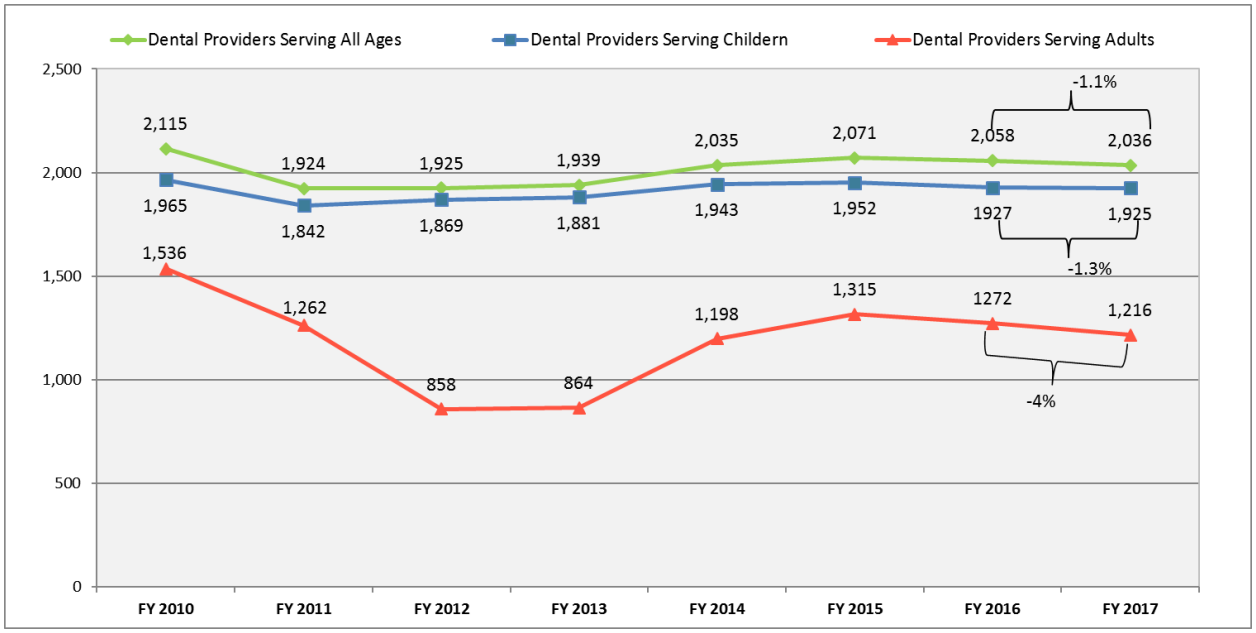
Note: Non-FQHCs that provide services to the remainder of Apple Health-insured adults are private practice dentists and not-for-profit dental clinics that are not federally qualified such as UW School of Dentistry. The number of patients accessing Non-FQHCs is underestimated, as some clients may access both types of providers. This group was excluded from the Non-FQHCs users to avoid duplicate count of clients.

Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: Providers

The portion of adult dental users served by Federally Qualified Health Centers has been on the rise since FY 2011, peaking at 54% in FY 2017.

Non-Federally Qualified Health Center Providers Serving Apple Health-insured Clients FY 2010 – FY 2017



Note: Adult dental benefits were restored in January 2014. FY 2014 data reflects 6 months of services, while FY 2015-FY 2017 data reflect full years of adult dental services.

Non-Federally Qualified Health Center providers include unique individual dentists identified through Service Provider's NPI (dentists may all be working at the same clinic).

Some providers serve adults and children; therefore, the total number of providers serving children and those serving adults do not add up to the overall number of providers serving all ages.

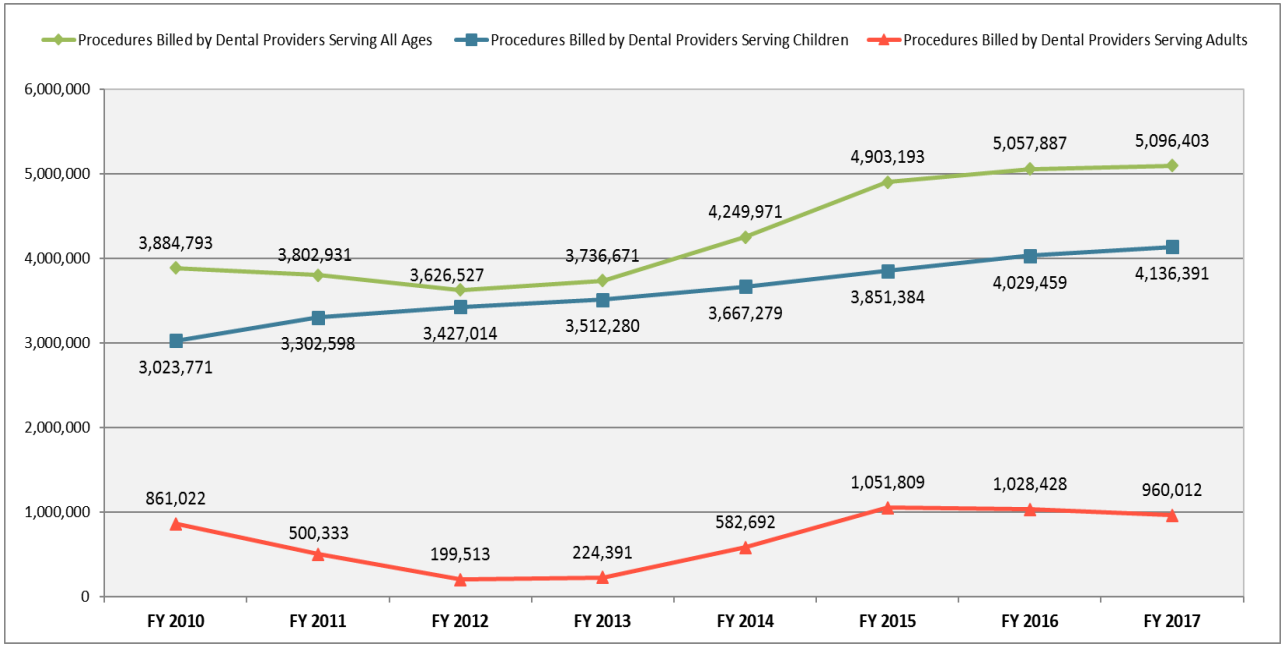
Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: Providers

The total number of Non-FQHC providers serving Apple Health-insured clients increased by 6% since FY 2012, but decreased by 1% since the last fiscal year.

As a result of the adult dental benefit restoration, the total number of Non-FQHC dentists serving adults increased by 42% since FY 2012 and by 2% since FY 2014. The total number of Non-FQHC dentists serving adults decreased by 4% since the last fiscal year.

Total Apple Health Fee-for-Service Dental Procedures, FY 2010 – FY 2017



Note: Adult dental benefits were restored in January 2014. FY 2014 data reflects 6 months of services, while FY 2015-FY 2017 data reflect full years of adult dental services.

Fee-for-Service procedures include all dental services provided by a Non-Federally Qualified Health Center (FQHC).

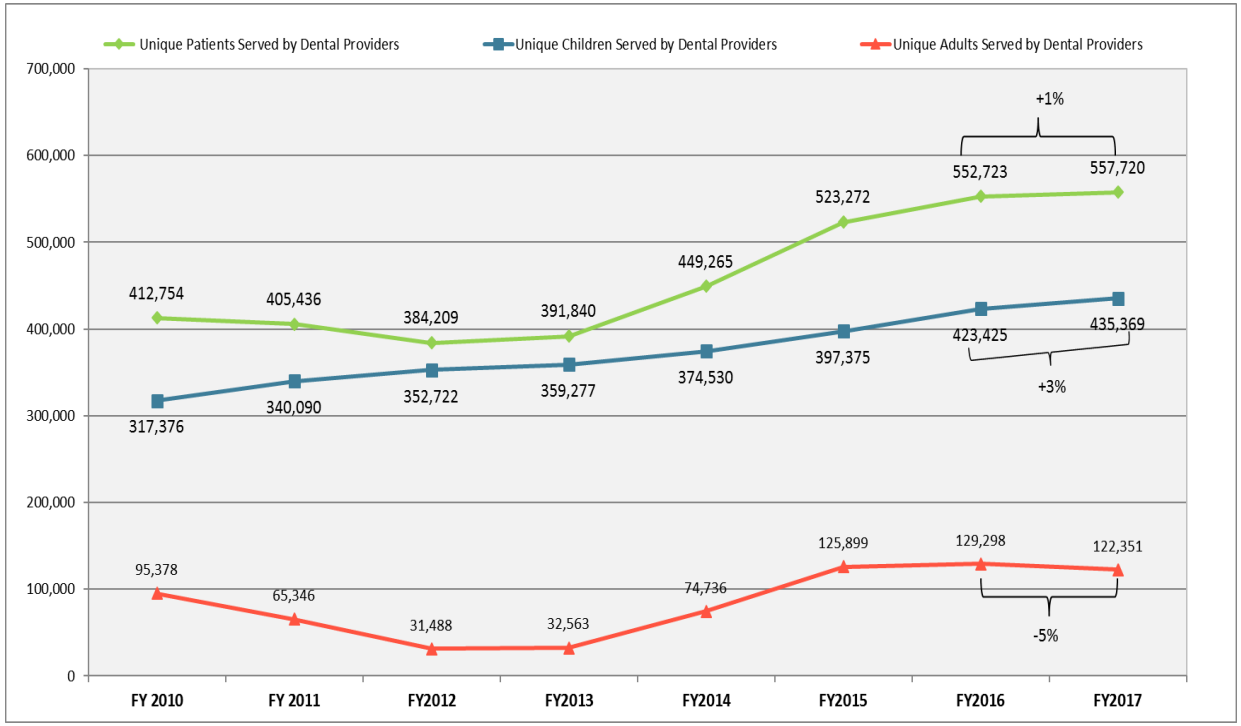
Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: Providers

The total number of Apple Health fee-for-service dental procedures increased by 1% in the last fiscal year.

In FY 2015, the number of Apple Health adult fee-for-service dental procedures billed increased by 81% as a result of the adult dental benefit restoration. However, the number of procedures billed in subsequent years gradually decreased (2% in FY 2016 and 7% in 2017)

Apple Health-insured Patients Served by Non-Federally Qualified Health Center Providers FY 2010 – FY 2017



Note: Adult dental benefits were restored in January 2014. FY 2014 data reflects 6 months of services, while FY 2015-FY 2017 data reflect full years of adult dental services.

Non-FQHC dental providers include unique individual dentists identified through Service Provider's NPI (dentists may all be working at the same clinic)

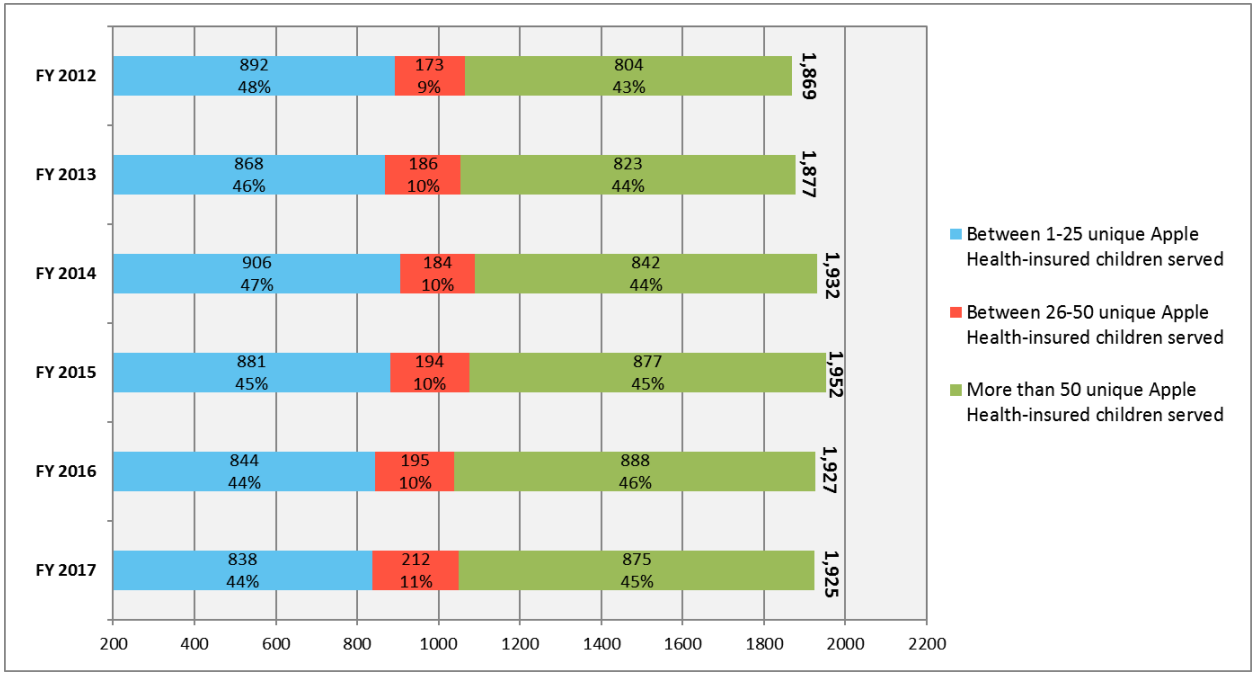
Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: Providers

Overall, many more Apple Health-insured children were served by non-FQHC dentists than adults, as more children use dental services, in general. Children served by non-FQHC dentists increased by 3% since the last fiscal year.

In FY 2015 the total number of Apple Health-insured adults increased by 68%, as a result of the adult dental benefit restoration. In FY 2017, the total number of adults served by non-FQHCs experienced a decrease by 5%.

Non-Federally Qualified Health Center Providers and Number of Apple Health-insured Children Served FY 2012 – FY 2017



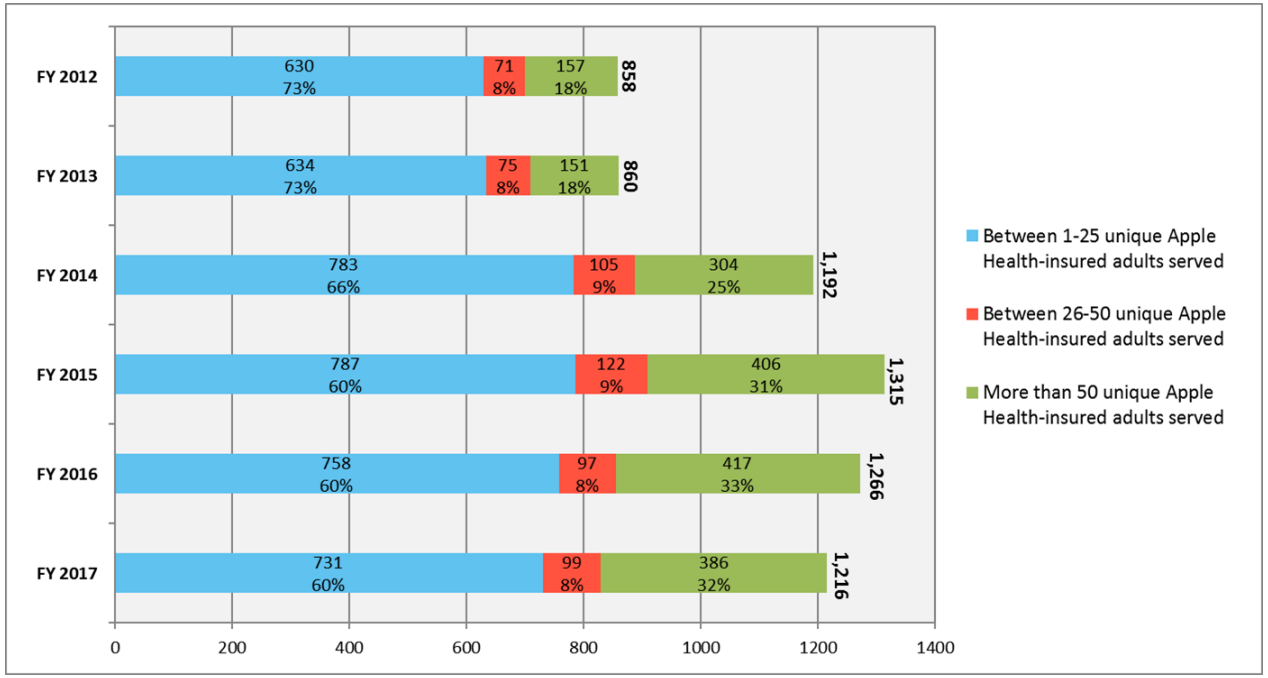
Note: Non-Federally Qualified Health Center providers include unique individual dentists identified through Service Provider's NPI (dentists may all be working at the same clinic)

Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: Providers

Between FY 2012 and FY 2017, slightly more than half of non-FQHC providers served 50 or fewer unique Apple Health-insured children age 20 and under, while the remaining providers (43%-46%) served more than 50 unique Apple Health-insured children.

Non-Federally Qualified Health Center Providers and Number of Apple Health-insured Adults Served FY 2012 – FY 2017



Note: Adult dental benefits were restored in January 2014. FY 2014 data reflects 6 months of services, while FY 2015-FY 2017 data reflect full years of adult dental services.

Non-Federally Qualified Health Center providers include unique individual dentists identified through Service Provider's NPI (dentists may all be working at the same clinic)

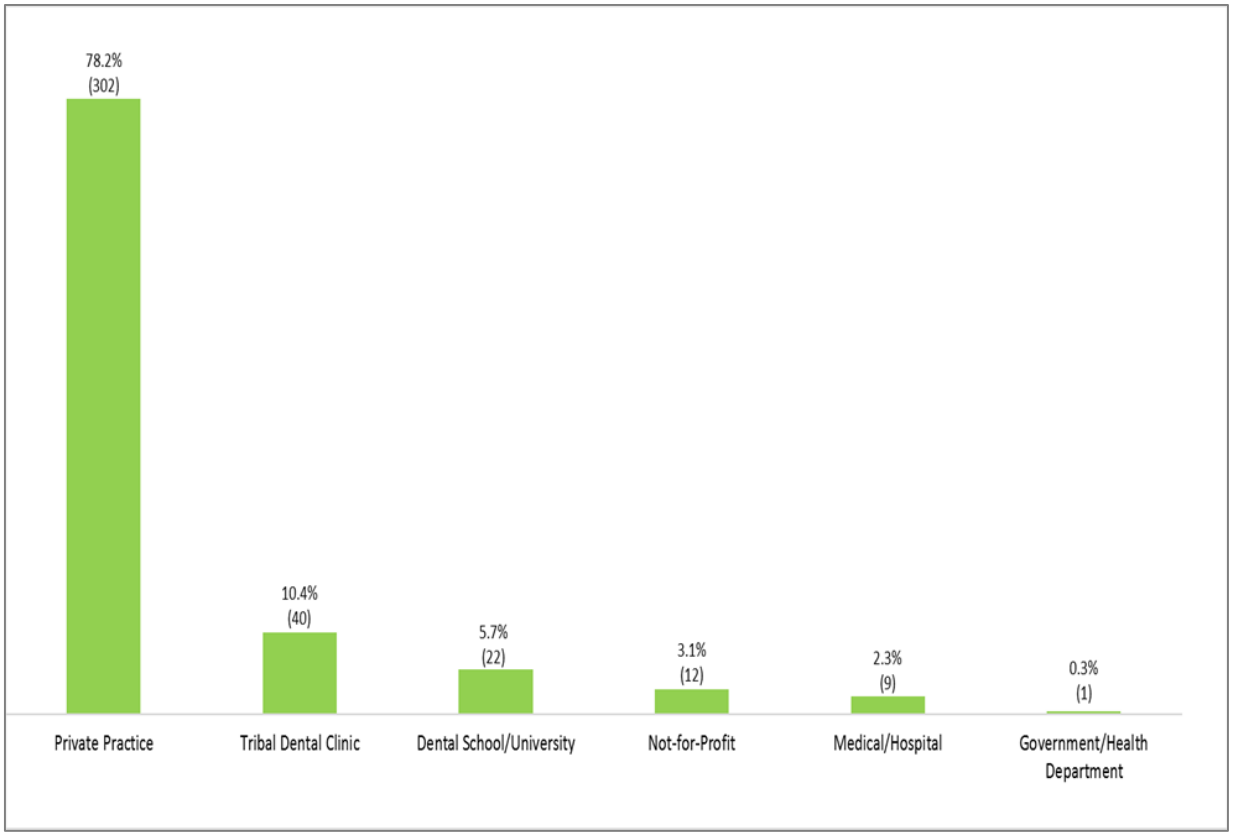
Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: Providers

Between FY 2012 and 2014, the majority (74%-82%) of non-Federally Qualified Health Center providers served 50 or fewer unique Apple Health-insured adults, while the remaining providers (18%-36%) served more than 50 unique Apple Health-insured adults.

After the adult dental restoration, the number of non-FQHC providers who served more than 50 adults increased to nearly one third. More than two thirds of non-FQHC providers served 50 or less adults between FY 2015 and FY 2017.

Non-Federally Qualified Health Center Providers Serving More than 50 Adults in FY 2017



Note: Non-Federally Qualified Health Center providers include unique individual dentists identified through Service Provider's NPI (dentists may all be working at the same clinic)

Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: Providers

The majority (78%) of non-FQHC providers that served more than 50 adults in FY 2017 were private practice dentists.

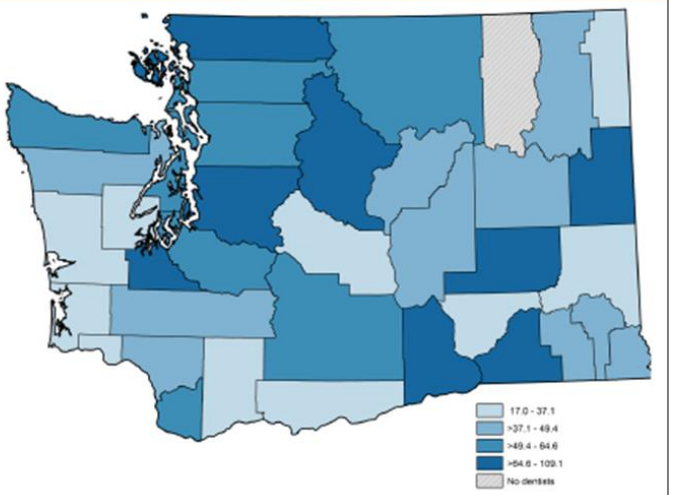
Washington State Dental Workforce, 2016

Dentists with Washington Licenses: Number and Percent by State

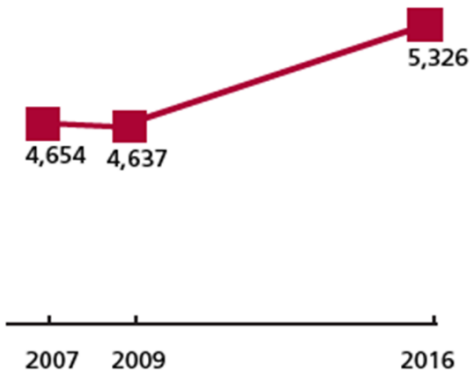
	2007	2009	2016
Total Dentist† licenses* With address in‡:	5,830	5,729	6,325
Washington	4,654 (79.8%)	4,637 (80.9%)	5,326 (84.2%)
Oregon	299 (5.1%)	306 (5.3%)	255 (4.0%)
Idaho	47 (0.8%)	49 (0.9%)	55 (0.9%)
Other	771 (13.2%)	688 (12.0%)	663 (10.4%)
Missing Data	59 (1.0%)	49 (0.9%)	26 (0.4%)

* Accessed from Washington State Department of Health, Health Professions Licensing Data System August 2016, July 2009, and a 2007 survey of Washington dentists.
† Includes dentists through age 75.
‡ Due to rounding, these percentages may not sum to 100.

Licensed Dentists per 100,000 population in Washington Counties, 2016



Number of Dentists with Washington Licenses

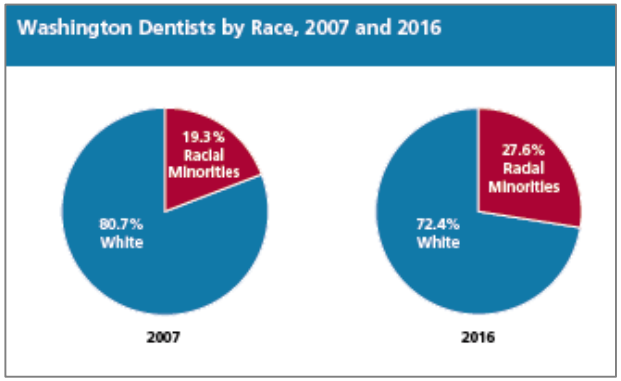


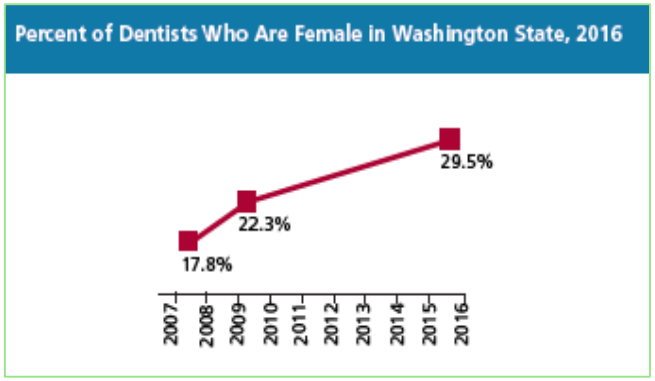
Data Source: Washington State Department of Health, Health Professions Licensing Data System, 2016 (August).

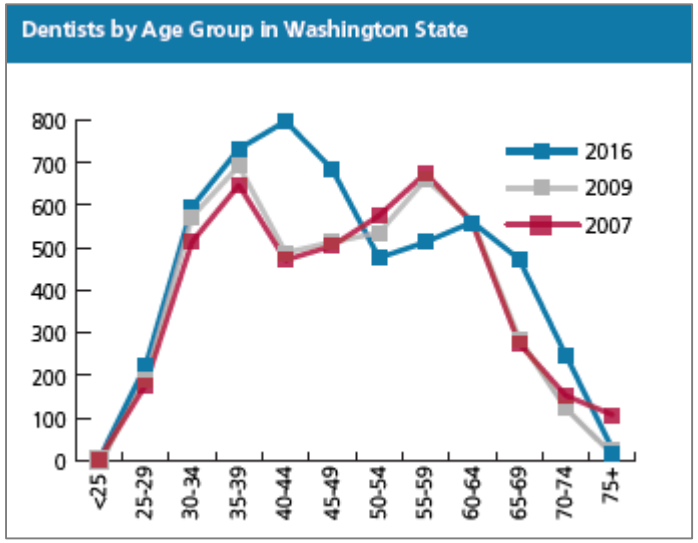
Source: Patterson D, Andrilla H, Schwartz M, Hager L, Skillman S. Assessing the Impact of Washington State's Oral Health Workforce on Patient Access to care. Seattle, WA: University of Washington Center for Health Workforce Studies, Apr 2017. Available from: http://depts.washington.edu/fammed/chws/wp-content/uploads/sites/5/2017/11/Washington_State_Oral_Health_Workforce_FR_Nov_2017_Patterson.pdf

Washington state dentists, with a license address in Washington, were unevenly distributed across Washington's counties and its Accountable Communities of Health (ACH). In King County, the most populous ACH in Washington, there were 109 licensed dentists per 100,000 population. All other ACHs had a dentist-to-100,000 population ratio of less than 70.

Washington State Dental Workforce, 2016







Source: Patterson D, Andrilla H, Schwartz M, Hager L, Skillman S. Assessing the Impact of Washington State's Oral Health Workforce on Patient Access to care. Seattle, WA: University of Washington Center for Health Workforce Studies, Apr 2017. Available from: http://depts.washington.edu/fammed/chws/wp-content/uploads/sites/5/2017/11/Washington_State_Oral_Health_Workforce_FR_Nov_2017_Patterson.pdf

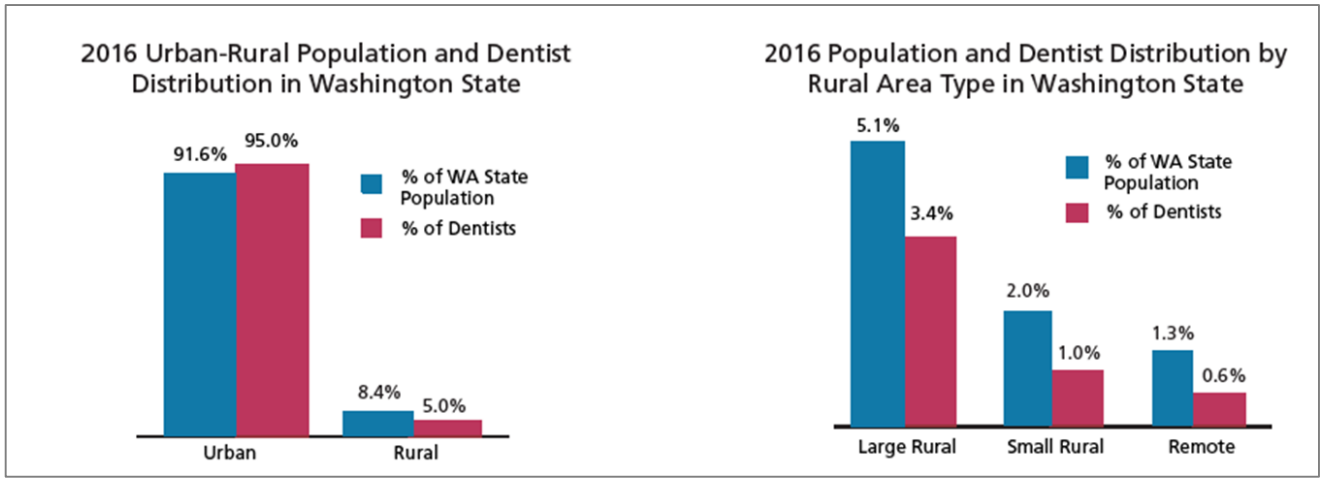
Section: Providers

An increasing number of women are becoming dentists in Washington, consistent with the national trend.

The racial and ethnic diversity of Washington's dental workforce has been increasing since 2007. However, several groups remain underrepresented (i.e. African American, American Indian/Alaska Native, Native Hawaiian/Pacific Islander, and Hispanics).

The age distribution of dentists in Washington state has changed in the last 8 years. The number of dentists in their 30's and 40's has increased since 2007, while the number of dentists in their 50's and early 60's has decreased.

Washington State Dental Workforce, 2016
Urban vs. Rural

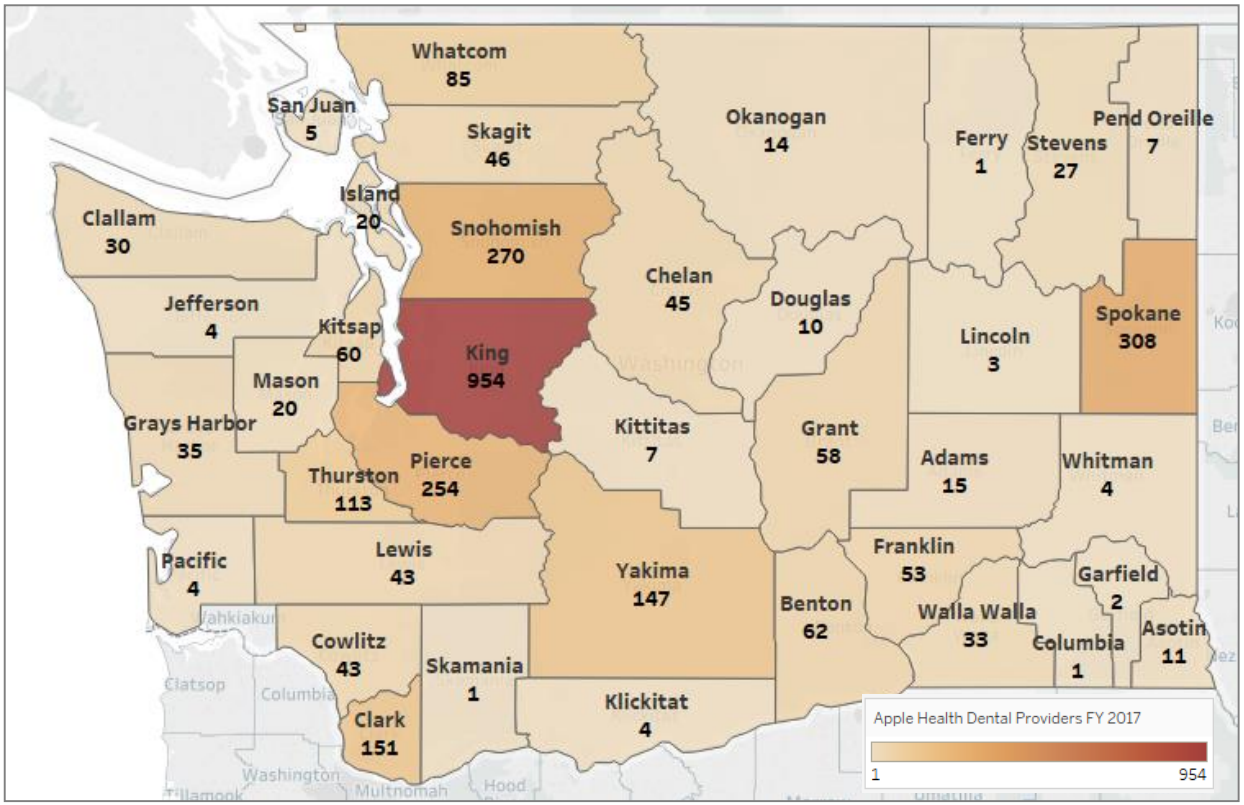


Source: Patterson D, Andrilla H, Schwartz M, Hager L, Skillman S. Assessing the Impact of Washington State's Oral Health Workforce on Patient Access to care. Seattle, WA: University of Washington Center for Health Workforce Studies, Apr 2017. Available from: http://depts.washington.edu/fammed/chws/wp-content/uploads/sites/5/2017/11/Washington_State_Oral_Health_Workforce_FR_Nov_2017_Patterson.pdf

Section: Providers

Rural areas in Washington had a disproportionately low supply of dentists compared to urban areas in 2016. Only 3.4% of dentists were located in large rural places in Washington, compared to 5.1% of the state's population. Small and remote rural areas, where 2.0% and 1.3% of the population lived, had only 1.0% and 0.6% of Washington's dentists respectively.

Dental Providers Serving Apple Health-insured Clients FY 2017



Statewide Dental Providers Total: 2,724 (range 1-954)

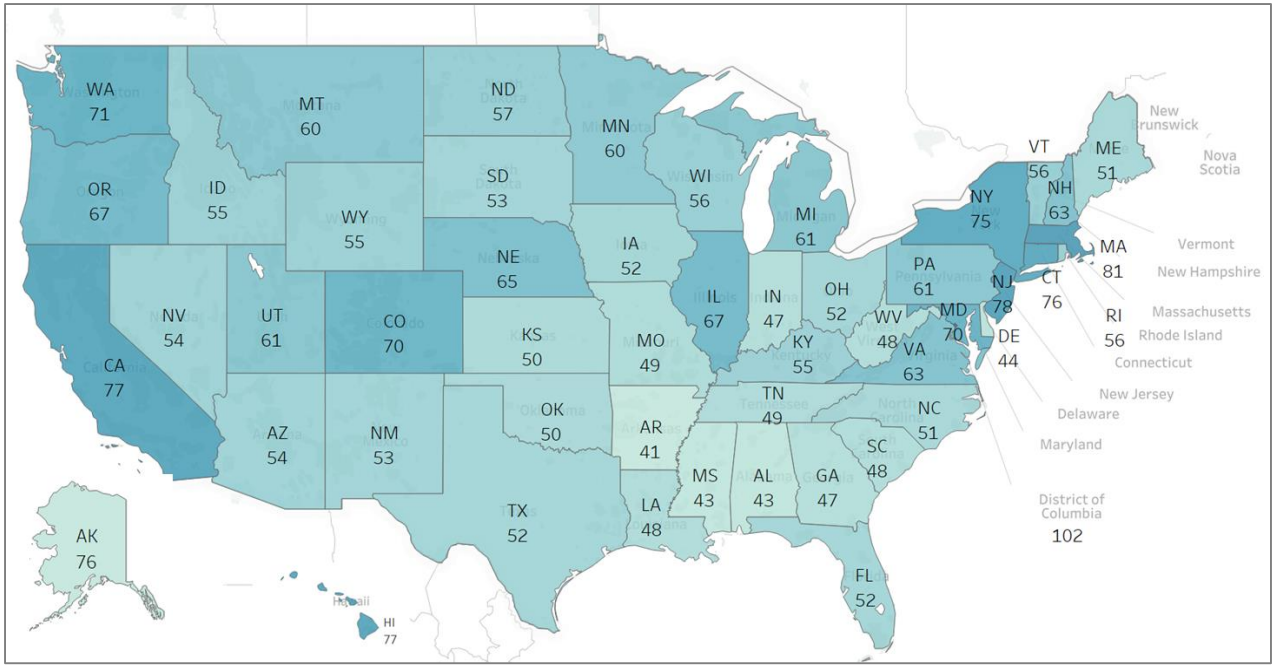
Note: Total providers include all types of unique individual dental providers identified through Service Provider's NPI (may all be working at the same clinic).

Source: Washington State Health Care Authority, Apple Health Dental Services Enrollment and Utilization Data

Section: Providers

The number of dental providers accepting Apple Health-insured clients and billing for services in FY 2017 varies by county with as low as one dental provider in some counties, indicated by light shading (Skamania, Ferry and Columbia counties), and a high of 954 in King County (indicated by dark shading).

Dental Workforce – Washington State Compared Nationally



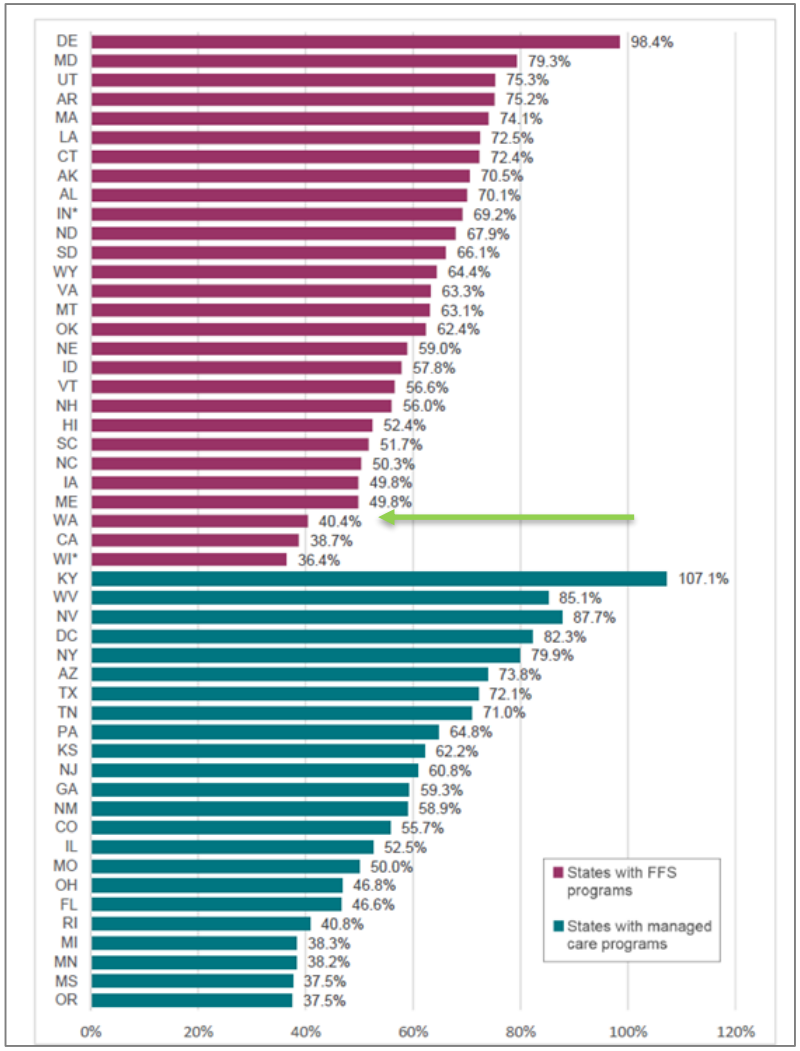
Source: American Dental Association, Health Policy Institute analysis of ADA masterfile. Available from https://www.ada.org/en/science-research/health-policy-institute/data-center/supply-and-profile-of-dentists

Section: Providers

In 2017, Washington state ranked 9th in the nation for dentist per capita (71 dentists per 100,000). It had a higher dentist to population ratio than the national average of 61 per 100,000.

In the last decade, Washington state had an increase of 4.5% in the number of dentists per 100,00 population, similar to the national average.

Children's Medicaid Reimbursement Rates WA vs. Other States



Source: : Gupta, N., Vujicic M., Yarbrough C., Blatz, A., Harrison, B. Medicaid Fee-For-Service Reimbursement Rates for Children and Adult Dental Care Services for all States, 2016. Health Policy Institute Research Brief. American Dental Association. April 2017. Available from: https://www.ada.org/~/media/ADA/Science%20and%20Research/HPI/Files/HPIBrief_0417_1.pdf

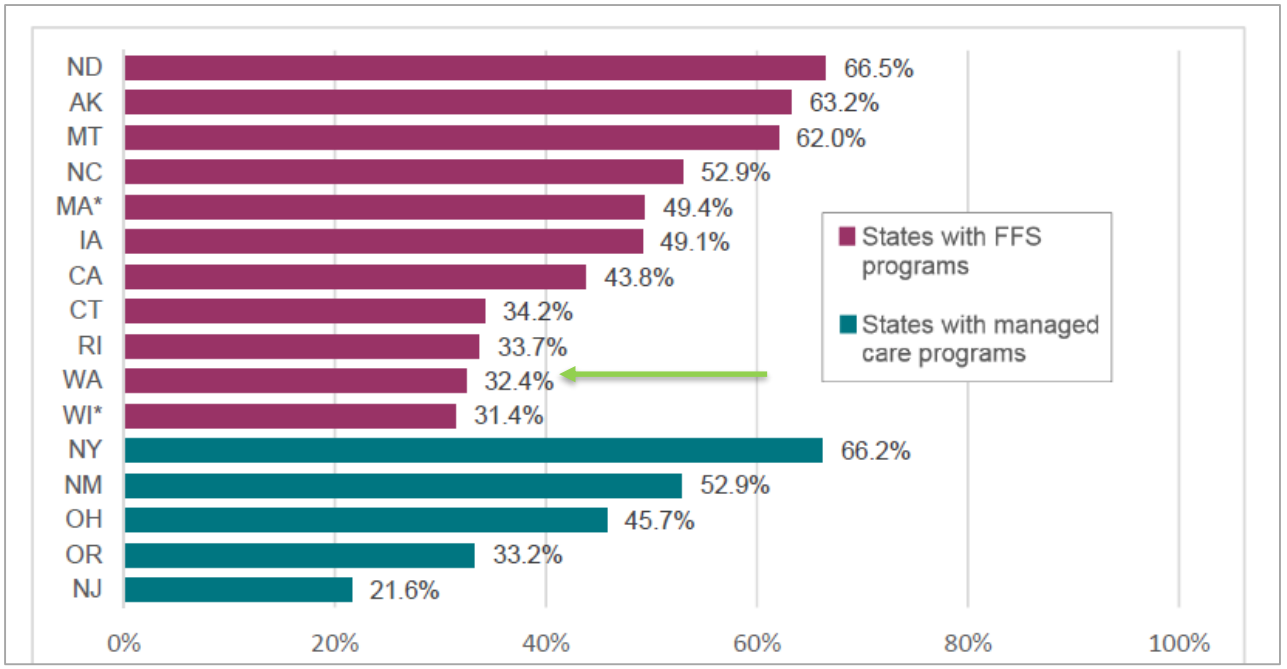
Section: Providers

On average across the US, children's Medicaid fee-for-service (FFS) reimbursement rates relative to private dental insurance reimbursement was 61.8% in 2016.

Washington's Medicaid FFS dental reimbursement compared to private dental insurance reimbursement is the third lowest in the nation (40.4%) and significantly lower than the national average.

Adult Medicaid Reimbursement Rates
WA Dental Providers vs. Other States

Medicaid Fee-For Service Reimbursement as a Percentage of Private Dental Insurance Reimbursement (Adult Dental Services, 2016)



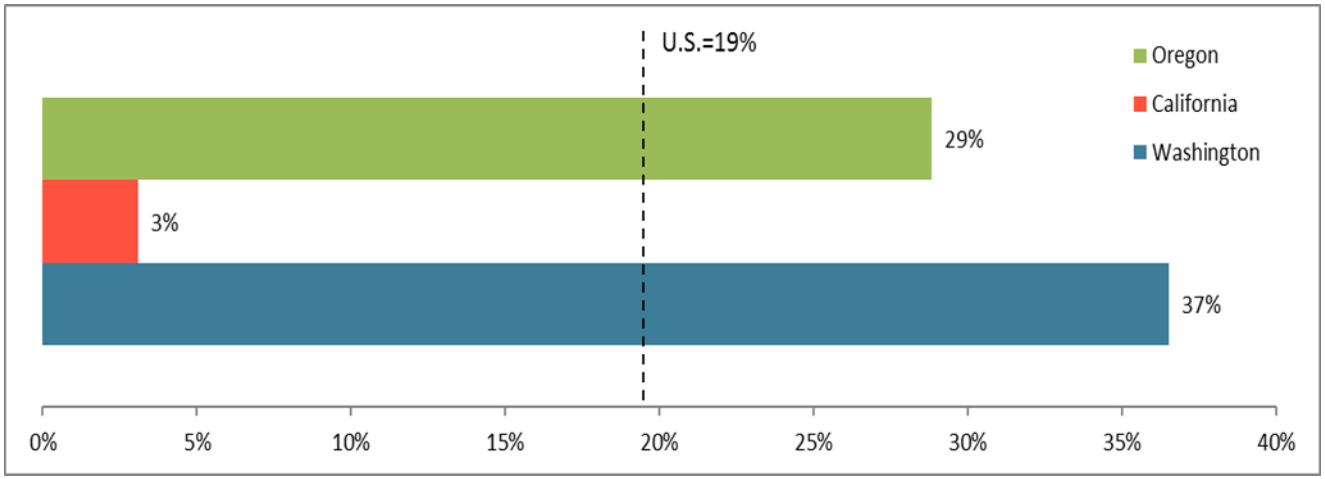
Source: : Gupta, N., Vujicic M., Yarbrough C., Blatz, A., Harrison, B. Medicaid Fee-For-Service Reimbursement Rates for Children and Adult Dental Care Services for all States, 2016. Health Policy Institute Research Brief. American Dental Association. April 2017. Available from: https://www.ada.org/~/media/ADA/Science%20and%20Research/HPI/Files/HPIBrief_0417_1.pdf

Section: Providers

On average, Adult Medicaid fee-for-service (FFS) reimbursement relative to fees reimbursed by private dental insurance was 46.1% in 2016.

Washington's adult FFS reimbursement rates for dentists serving Apple Health-insured adults is next to the lowest in the nation (32.4%). Only Wisconsin has lower dental Medicaid reimbursement rates than Washington.

Percentage of Population Living in a Dental Health Professional Shortage Area (HPSA): US vs. West Coast States, 2017

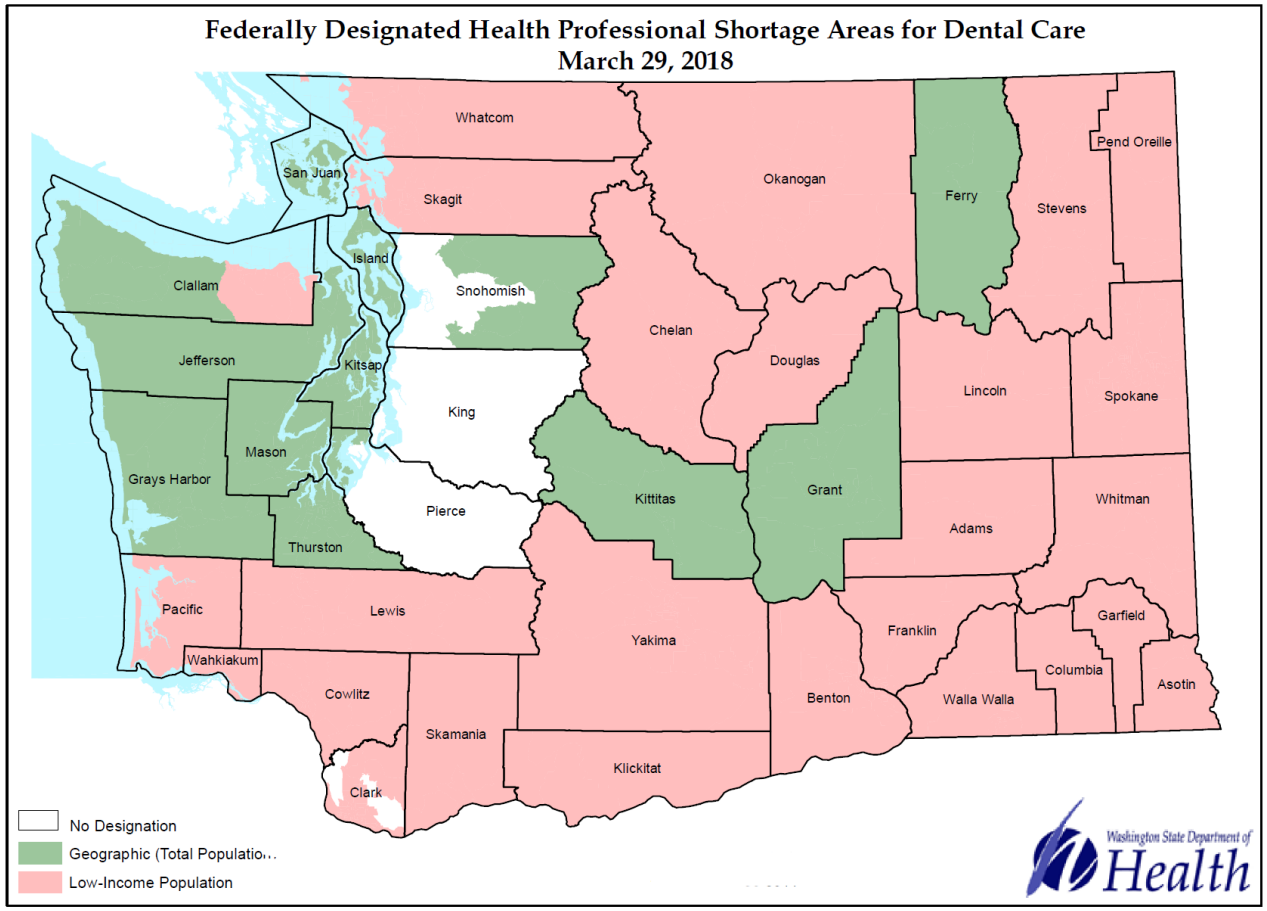


Source: Designated Health Professional Shortage Areas (HPSA) Statistics, Health Resources and Services Administration (HRSA), Accessed May 2018. Percentages calculated using 2010 population data from U.S. Census Bureau.

Section: Providers

Nearly 37% of people in Washington state live in a Dental Health Professional Shortage Area, higher than the national average of 19%.

Federally Designated Health Professional Shortage Areas for Dental Care 2018



Source: Washington State Department of Health. Office of Community Health Systems. Dental Health Care Shortage Areas Map.

Section: Providers

Although Washington state has a higher dentist to population ratio than the national average and has one of the ten highest ratios in the nation (71 per 100,000 compared to 61 nationally) dentists are not evenly distributed throughout the state and there is a shortage of dentists serving the low-income population.

The dentist-to-population ratio varies widely by county. King County has the highest ratio, at 108 dentists per 100,000 people, while Ferry has the lowest ratio of 13 dentists per 100,000 people. There are 20 counties with a ratio lower than 50 dentists per 100,000 people.

Providers of Oral Health Services Key Findings

- Washington has a higher dentist to population ratio than the national average and the number of dentists practicing in Washington increased by 8.5% from 2007 to 2016. However, dental providers are unevenly distributed across Washington's counties. Rural areas of Washington have a disproportionately low supply of dental providers compared with urban areas.
- Nearly 37% of people in Washington live in a Dental Health Professional Shortage Area, higher than the national average of 19%.
- In FY 2017, fifty cents out of every dollar for Apple Health dental services went to private practice providers, while forty-five went to Federally Qualified Health Centers.
- Washington's Medicaid FFS reimbursement rates for children and adults are some of the lowest in the US.
- The portion of dental users served by Federally Qualified Health Centers has been consistent for the last four years. Nearly one third of children and slightly more than half of adults receiving dental care were served by Federally Qualified Health Centers.
- The total number of private practice providers (including not-for-profit) serving the Apple Health-insured population slightly decreased in the last two fiscal years.

Policy Implications and Additional Data Needs

Policy Implications and Opportunities

Washington state has made significant progress to improve our oral health system, especially for children. Yet the data show that much work remains to address disparities and ensure everyone is able to access the care they need, when and where they need it. That is how we can ensure that members of all our communities are able to reap the benefits of good oral health, including improved school readiness and learning, increased employability, reduced medical expenditures, avoidance of dental pain, better overall health, and the sense of wellbeing that comes from confidence in one's smile.

Recommended Policy Strategies:

- Invest in Increasing Utilization for Children.
  - Achieve parity between Apple Health medical utilization and Apple Health dental utilization for kids. As a result of ABCD, our state has made great strides in children's access to dental care. However, we must do more to address enduring disparities.
  - Expand the programs that are working, including ABCD and build capacity at FQHCs.
  - Focus resources to invest in strategies that reach children who are not currently connected to care, including the use of Dental Heath Aide Therapists in Tribal clinics, exploring teledentistry and other community-based care, and supporting community health workers.

Policy Implications and Opportunities

- Invest in Increasing Utilization for Adults.
  - Set a goal of increasing overall adult Apple Health dental utilization, and increase the share of adult dental visits that are for routine care while reducing the proportion of visits that are for dental emergencies or urgently-needed treatment.
  - Expand access points, especially in parts of the state with few providers, through increased dental capacity at FQHCs, dental residency programs, teledentistry and other initiatives.
  - Evaluate and expand Oral Health Connections, the pilot testing an enhanced Apple Health dental benefit for pregnant women and people with diabetes.
  - Extend dental coverage to underserved adult populations like those enrolled in Medical Care Services and adult COFA migrants.

- Increase Prevention.
  - Expand access to community water fluoridation.
  - Support sealant programs and use of silver diamine fluoride (SDF), interim therapeutic restoration, and other minimally invasive and preventive techniques.
  - Expand hygiene care at senior facilities and other community settings.
  - Incentivize true whole-person care, integrating oral, physical and behavioral health to diagnose and treat disease early.

Policy Implications and Opportunities

- Ensure a Smooth Transition to Dental Managed Care.
  - Closely monitor implementation, and use contract requirements to measure increases in overall utilization and preventive services in particular. Track disparities in access and outcomes and work with plans to close those gaps.
  - Protect aspects of the program that are successful, like ABCD.

Washington state's longstanding commitment to health care access and innovation, including Cover All Kids, implementing Medicaid Expansion, and embracing public/private partnerships to pilot new ideas, makes us well-positioned to seize these opportunities. Furthermore, there is a variety of stakeholders in Washington who recognize the importance of oral health for their constituencies and are potential partners in this work.

Additional Data Needs

Due to data limitations, we were not able to report or provide detailed analysis on Apple Health utilization in several domains. Additional information on the following data would be helpful to inform future policy:

- **Utilization of oral health services by pregnant and post-partum women –** Better understanding the proportion of pregnant and post-partum women that are accessing oral health services could inform strategy to ensure a higher number receive care in order to prevent disease among their babies and toddlers.

- **Utilization of oral health services by adults with chronic health conditions –** Given recent evidence that people with health conditions, such as diabetes, have significantly lower medical costs when they receive oral healthcare, the opportunity exists to examine progress in Washington in getting these populations into dental care.

- **Utilization of oral health services by race and ethnicity –** Having health information systems that capture detailed data on race, ethnicity, language and other characteristics to monitor oral health equity is of utmost importance to working towards eliminating disparities in oral health and improving quality of care. Apple Health dental enrollment and utilization data stratified by race and ethnicity could provide valuable information about the extent and impact of healthcare disparities.

Note: Data on utilization of oral health services by pregnant women and adults with chronic health conditions will be available for Spokane, Thurston, and Cowlitz Counties in the next three years as part of the Oral Health Connection project.

Additional Data Needs Continued

- **Emergency department (ED) dental visits** – According to the Washington State Hospital Association, dental visits are a top reason Apple Health-insured patients visit the ED. Better quantifying the cost and types of patients (e.g., age, health conditions, etc.) that seek care in the ED could inform strategies to divert these visits.

- **Dental treatment requiring operating room use** – Children, and some adults with disabilities, that need treatment for severe tooth decay often necessitate the care be provided under general anesthesia in an operating room. Capturing these trends would provide a gauge for progress in reducing these severe cases.

Resources and Appendices

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Slide 4: Introduction

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Slide 5: Oral Health is a Critical Component of Overall Health and Well-Being

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Slide 6: Overview of the WA Apple Health Dental Program: Children's Coverage

American Dental Association Health Policy Resources Center as reported in *Oral Health for All*, DentaQuest Foundation.

Slide 8: Dental Programs & Services Available to WA Apple Health Children Enrollees

Norwood, K. ; Slayton, R. "Oral Health Care for Children with Developmental Disabilities" Feb. 2018. American Academy of Pediatrics. Accessed July, 2018.
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Slide 9: Overview of WA Apple Health Dental Program: Adult Coverage

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Slide 11: Oral Health Connection

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Slide 18: Washington State Apple Health Dental Expenditures vs. Medical Expenditures FY 2017

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Slide 21: Apple Health Expenditures Adjusted for Inflation: Adults and Children, FY 2011 – FY 2017

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Slide 26: High Cost Dental Service Users, FY 2017

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Slide 43: Percent of Child Enrollees Using at least One Service, by Age Group, FY 2008 vs. FY 2017

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[http://www.aapd.org/resources/frequently_asked_questions**/#36**]

Slide 53: Utilization for Children in Washington vs. Other States

"In Search of Dental Care: Two Types of Dentist Shortages Limit Children's Access to Care." June 2013. The Pew Charitable Trusts. Accessed June 30, 2016.

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Slide 61: Washington's Children's Oral Health Status Smile Survey 2015-2016

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[https://www.astdd.org/www/docs/wa-smile-survey-report-2016.pdf]

Slide 92: Washington State Dental Workforce, 2016

Patterson D, Andrilla H, Schwartz M, Hager L, Skillman S. Assessing the Impact of Washington State's Oral Health Workforce on Patient Access to care. Seattle, WA: University of Washington Center for Health Workforce Studies, Apr 2017. Accessed June 1, 2018.

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Slide 97: Children's Medicaid Reimbursement Rates WA vs. Other States

Gupta, N., Vujicic M., Yarbrough C., Blatz, A., Harrison, B. Medicaid Fee-For-Service Reimbursement Rates for Children and Adult Dental Care Services for all States, 2016. Health Policy Institute Research Brief. American Dental Association. April 2017. Accessed June 10, 2018:

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Slide 98: Adult Reimbursement Rates WA Dental Providers vs. Other States

Gupta, N., Vujicic M., Yarbrough C., Blatz, A., Harrison, B. Medicaid Fee-For-Service Reimbursement Rates for Children and Adult Dental Care Services for all States, 2016. Health Policy Institute Research Brief. American Dental Association. April 2017. Accessed June 10, 2018:

[https://www.ada.org/~/media/ADA/Science%20and%20Research/HPI/Files/HPIBrief_0417_1.pdf]

Slide 99: Percentage of Population Living in a Dental Health Professional Shortage Area (HPSA) US vs. West Coast States, 2017

Designated Health Professional Shortage Areas (HPSA) Statistics, Health Resources and Services Administration (HRSA), Accessed June 2018.

Slide 100: Federally Designated Health Professional Shortage Areas for Dental Care 2018

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Additional Resources

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About the Sponsor

Arcora Foundation

Arcora Foundation completed this report for the purpose of better understanding the use and expenditures associated with dental services for Washington's Apple Health population. Arcora Foundation is a non-profit funded by Delta Dental of Washington, committed to lasting approaches to improving the oral health of Washington's residents. The Foundation's mission is to bend the arc of oral health toward health equity by partnering with communities and using evidence-based approaches to prevent disease, increasing access to dental care, and ensuring that oral health is part of whole person care.

Note: For additional information visit ArcoraFoundation.org

Acknowledgments

The sponsor and authors wish to acknowledge the support of staff at the Washington State Health Care Authority (HCA), which provided the data for this project.

They wish to acknowledge the support and guidance of Dr. Lisa Maiuro at Health Management Associates in the completion of the initial Facts and Figures report. Dr. Lisa Maiuro was the lead author and researcher for the Washington State Medicaid Facts and Figures FY2008-FY 2012, which was published in 2013. She is a former UCLA/Rand Corp. Pew Health Policy Fellow and has more than 25 years of experience in health policy and research and data analysis, including the analysis of oral health data for the purposes of improving access to quality dental care through data driven information. (http://www.healthmanagement.com)

Methods

Claims Data:
The expenditure and utilization analyses for this presentation were based on the Washington Apple Health paid claims data as extracted by Arcora Foundation . Data are included for Fiscal Year 2008 through Fiscal Year 2015.

The dental procedure codes are grouped into sections as follows:

I. Diagnostic D0100-D0999. Examples of services include exams and x-rays.
II. Preventive D1000-D1999. Examples of services include application of fluoride and sealants.
III. Restorative D2000-D2999. Examples of services a crown which may be used to restore an already broken tooth or a tooth that has been severely worn down.
IV. Endodontics D3000-D3999. An example of a service is a root canal.
V. Periodontics D4000-D4999. Examples of services include the removal of plaque and tartar from under the gums.
VI. Prosthodontics, removable D5000-D5899. An example of a service is removable dentures.
VII. Maxillofacial Prosthetics D5900-D5999. Examples of services include orbital and other facial prosthetics.
VIII. Implant Services D6000-D6199. Examples of services include the surgical placement of implants.
IX. Prosthodontics, fixed D6200-D6999. Examples of services include permanent retainers.
X. Oral and Maxillofacial Surgery D7000-D7999. Examples of services include dental extractions.
XI. Orthodontics D8000-D8999. Examples of services include dental braces.
XII. Adjunctive General Services D9000-D9999. Examples of services include anesthesia and other services related to dental treatment.

Data for Federally Qualified Health Center (FQHC) services based on the specific dental procedures in the twelve groups above were not available. Therefore, all FQHC based dental care was classified as “Other.” In 2010 the Washington State Department of Social and Health Services (DSHS) replaced its Apple Health Management Information System with a new payment processing system named ProviderOne. ProviderOne is now the primary provider payment processing system for DSHS. Prior to that point, not all the dental FQHC expenditures were reported in the dental data. Consequently, total dental expenditures that include FQHC data for FY 2008 through FY 2010 are incomplete and therefore FY 2008 through FY 2010 data are not included in the expenditure analysis for this report.

Methods

Sealants:
CMS' Oral Health Initiative seeks to improve children's access to dental care, with an emphasis on early prevention. One of the initiative goals is to increase the proportion of Apple Health and CHIP children ages 6 to 9 who receive a sealant on a permanent molar by 10 percentage points. [1]

Enrollee Demographic Data:
The enrollee demographic data for this presentation were based on the Washington Apple Health paid claims data as provided by Heath Care Authority. Demographic data (e.g., age and county) for a single enrollee may vary by claim within a given year. However, in order to track an enrollee's utilization and expenditures over time based on demographic factors it was necessary to have a single indicator for a given year for many of these demographic fields. Subsequently, demographic information was based on the value for which the enrollee had the most months of eligibility, e.g. if the enrollee was in King County for 8 of the 12 months, the enrollee's county was designated as King for the year.[2] This is an obvious study limitation but necessary for this type of analysis and we do not believe this approach has a material impact on our findings.

Access/Utilization Measures:
There are many definitions of and methods by which to measure access to care and utilization. One of the most basic is a utilization rate, i.e., the proportion of a population that uses a service in a specified time period. The numerator in this equation is typically an unduplicated count of users, i.e., an individual is only counted once regardless of the number of times that person is seen or the number of services received. The denominator, however, can be specified in several different ways, each of which tends to influence how the data are interpreted.

Most of the analyses used an unduplicated count of enrolled members, referred to as "enrollees" over the course of the year. This reflected the aggregate number of people who had the benefit of dental services at any time during the period analyzed. However, it is important to note that in the Washington Apple Health program, like all Medicaid programs, over the course of a year some individuals may be eligible for a month or two while others may be eligible for the entire year. Thus, it isn't reasonable to assume that people who have been enrolled for a month have had the same opportunity to receive dental care as those who have been enrolled for a year.

[1] Mann Cindy. "update on CMS Oral Health Initiative and Other Oral Health Related Items." July 2014. CMCS Information Bulletin. Accessed July 2018. [https://www.medicaid.gov/Federal-Policy-Guidance/Downloads/CIB-07-10-2014.pdf]
[2] In cases where individuals were enrolled in more than two programs and/or counties for an equal number of months, Arcora Foundation chose whichever program and/or county they were enrolled in last (i.e., most recent month).
[3] "Guideline on Perinatal Oral Health Care." 2011. American Academy of Pediatric Dentistry (AAPD). Accessed July, 2018. [http://www.aapd.org/media/Policies_Guidelines/G_PerinatalOralHealthCare.pdf]

Methods

Top Procedures by Expenditures and Users:
The top procedures by expenditures and the top 10 procedures by users slides contain simplified procedure names. Below are the full procedure names and procedure codes:

- **Adolescent Orthodontic Treatment:** Comprehensive Orthodontic Treatment of the Adolescent Dentition (D8080)
- **Stainless Steel Crown:** Prefabricated Stainless Steel Crown (D2930)
- **Periodic Oral Exam:** Dental - Periodic Oral Examination (D0120)
- **Composite Filling - 2 Surfaces:** Resin-Based Composite - 2 Surfaces Posterior (D2392)
- **Fluoride- Child:** Topical Application of Fluoride (Prophylaxis Not Included) - Child (D1203)
- **Cleaning – Child:** Prophylaxis - Child (D1120)
- **Composite Filling - 1 Surface:** Resin-Based Composite - 1 Surface Posterior (D2391)
- **Sealant:** Sealant - Per Tooth (D1351)
- **Extraction:** Extraction Erupted Tooth/Exposed Root (D7140)
- **Comprehensive Oral Exam:** Comprehensive Oral Evaluation Orthodontics (D0150)
- **X-Rays Two Bitewings:** Bitewings-Tow Films (D0272)
- **X-Rays Complete Intraoral:** Dental- Intraoral-Complete Series (D0220)
- **X-Rays Intraoral Periapical First:** Dental Intraoral Periapical First Film (D0230)

Apple Health Expenditures Adjusted to 2014 Dollars:
Calculating real dollars: Price inflation causes the value of a dollar to fall over time, and so the same dollar amount in two different years will usually represent different amounts of purchasing power. To counteract this problem, analysts typically adjust dollar figures to account for inflation. Figures that have not been adjusted for inflation are said to be in 'nominal dollars,' while those that have been adjusted are in 'real dollars.' Converting costs to 'real dollars' allows us to compare costs incurred in different years. For our analysis we used the medical consumer price index to capture changes in price related to medical services.

Definitions

- **Adjunctive General Services:** Services performed in addition to another procedure, such as anesthesia, only when the procedure is directly related to the original procedure.
- **Continuously Eligible:** An enrollee who was enrolled in the dental program for 11 or more consecutive months during a fiscal year.
- **Diagnostic Services:** Services used to determine the cause of an illness.
- **Endodontics:** A dental specialty concerned with treatment of the root and nerve of the tooth.
- **Fixed Prosthodontics:** Replacement of missing teeth with artificial materials, such as a bridge or denture, in a permanent fashion.
- **Health Professional Shortage Area:** A HPSA is a geographic area wherein the population has an inadequate number of dentists to serve their dental needs. The designation is used primarily for the purposes of loan repayment for dentists and hygienists.
- **Maxillofacial Prosthetics:** Surgery of, pertaining to, or affecting the jaws and the face.
- **Oral Surgery:** Procedures used to correct problems or damage to the mouth, teeth, or jaw by incision or manipulation.
- **Orthodontics:** A dental specialty concerned with straightening or moving misaligned teeth or jaws with braces or surgery.
- **Periodontics:** A dental specialty concerned with the treatment of gums, tissue, and bone that support the teeth.
- **ProviderOne:** The Medicaid Management Information System that is the State's Medicaid Payment system managed by HCA
- **Other:** Comprised of procedures codes T1015, Clinic Services-FQHC Encounter and T2035, Utility Services Anesthesia, where the former accounts for 97% of the expenditures for these two services categories.
- **Preventive Services:** Services performed to help avoid sickness or other problems in the mouth.
- **Removable Prosthodontics:** Replacement of missing teeth with artificial materials, such as a bridge or denture, in a temporary fashion.
- **Restorative Services:** Procedures used to correct problems or damage to the mouth, teeth, or jaw without surgery.
- **Sealant:** Plastic resin placed on the biting surfaces of teeth to prevent bacteria from attacking the enamel and causing tooth decay.
- **User:** An enrollee who received one or more services.