FIRST THINGS FIRST

White Mountain Apache Tribe Region

2022 Needs and Assets Supplemental Report:

Children's Access to and Use of Public Health Services

Report Prepared by:

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EXECUTIVE SUMMARY

Under the direction of First Things First (FTF), the Arizona State University Center for Health Information & Research (CHiR) conducted a regional network analysis of children from birth to age 5 to determine the health assets and health needs in the White Mountain Apache Tribe Region. White Mountain Apache Tribe Region consisted of the following nine subregions: Canyon Day, Cedar Creek, Cibecue, East Fork-Ft Apache, Hondah-McNary, North Fork, Rainbow City, Whiteriver and WMAT Remainder. The main data source was claims data from the Arizona Health Care Cost Containment System (AHCCCS), Arizona's Medicaid agency; therefore, the results presented in this report were for children and mothers who were enrolled in AHCCCS from 2017 to 2019.[1] This population was denoted as AHCCCS children or AHCCCS women.

CHiR and representatives from the FTF Regions, Programs, and Evaluation teams determined priority indicators for this report. AHCCCS children's health was measured in the following categories: primary care and well-child visits, health care workforce, screening for lead poisoning, weight assessment and counseling, developmental health, behavioral health, vision, hearing, oral health, immunizations, maternal prenatal and postpartum care, and health plan performance. Many of the reported indicators were from the Healthcare Effectiveness Data and Information Set (HEDIS)[2]. HEDIS is a performance improvement tool whereby health plans, health care organizations and government agencies submit data on specific health measures. HEDIS uses the collected data to calculate national performance statistics and benchmarks and set standards for measures. HEDIS specifications were applied to the AHCCCS population for each region. Non-HEDIS indicators, which do not have associated benchmarks, were compared to state and national data when possible. The results were displayed by gender, age, race, ethnicity, tribal affiliation[3], provider type, and health plan when the data was available and within data suppression guidelines. The results of the analyses are summarized below. When possible, the results are grouped by 1) indicators that met or were above the state average or national HEDIS standards and 2) indicators that did not meet or were below the state average or national HEDIS standards. Other notable findings are also presented that do not have comparison data.

Population and Demographics of Children Enrolled in AHCCCS

There were 234,616 children from birth to age 5 enrolled in AHCCCS statewide from 2017 to 2019. In White Mountain Apache Tribe Region there were 1,550 children enrolled in AHCCCS in 2017, 1,439 children enrolled in 2018 and 1,428 children enrolled in 2019. Of these, male AHCCCS children

[1] Data used in this report covers all AHCCCS members in Arizona, including members living in FTF tribal regions and subregions. Reports for tribal regions and subregions were carried out with specific approval from each tribe. For those tribal regions and subregions who did not give approval, data is included only in aggregate totals for Arizona, and—in the case of a tribal subregion—aggregate totals for the region.
[2] See https://www.ncqa.org/hedis/
[3] Tribal affiliation refers to whether an individual is a member of a federally recognized Arizona tribe and is displayed as a flag (Yes/No) in this report. This information is captured during enrollment in AHCCCS.

outnumbered females by 3-4%. There were 6-7% more infants and toddlers than preschoolers in 2017 and 2018, and slightly more preschoolers (1%) in 2019.

More than three-fourths of AHCCCS children in the region lived in three subregions: Whiteriver (47-48%), Cibecue (16-18%) and East Fork-Ft Apache (12-13%). By race, 1% of AHCCCS children reported as Caucasian/White and 95-97% as Native American; data was suppressed for Black and Asian/Pacific Islander. By ethnicity, 1% of AHCCCS children were Hispanic or Latino. Affiliation with a tribal community was reported by 98-99% of AHCCCS children annually.[4] Most AHCCCS children in the region were enrolled in the American Indian Health Plan (79-80%) and Steward Health Choice AZ (14-15%). Most annual health claims were submitted by hospitals (43-46%), physicians (16-20%), and non-emergency transportation (14-18%).

Health Care Workforce

The supply of physicians in the United States is tracked by the Association of American Medical Colleges biennially. Arizona had 160 hospitals individually licensed by the state which were subtyped as children, critical access, long term, short term, psychiatric, rehabilitation, transplant and non-participating. The White Mountain Apache Tribe Region had one short-term hospital and one non-participating hospital, both in Whiteriver. The rate of available primary care physicians in the region was 8-10 primary care physicians per 1,000 AHCCCS children compared to the statewide rate of 23-24 per 1,000 AHCCCS children. For primary care physicians accepting AHCCCS patients, the regional rate was 5-8 physicians per 1,000 AHCCCS children. For dentists accepting AHCCCS patients, the regional rate was 2-4 dentists per 1,000 AHCCCS children compared to 16-17 dentists per 1,000 AHCCCS children statewide.

We compared the distance that regional and statewide AHCCCS children needed to travel to the nearest provider type to assist in determining whether the population in the region may have access to care issues based on travel distance. To visit the nearest primary care physician or dentist, 15-22% of AHCCCS children in the region traveled one mile for services and another 38-39% traveled up to five miles compared to 56-65% of AHCCCS children statewide traveling up to one mile and another 27-35% traveling up to five miles. The nearest pharmacy was more than 10 miles away for 95% of regional AHCCCS children compared to 64% of statewide AHCCCS children who traveled one mile or less and 26% who traveled up to five miles. The nearest hospital was up to five miles away for 26-28% of regional AHCCCS children, five to 10 miles away for 42-43% of children and more than 10 miles away for 24% of children. For AHCCCS children statewide, 11-12% traveled one mile to the hospital and 69% traveled up to five miles. To visit the nearest behavioral health provider, 24-31% of AHCCCS children in the region traveled one mile for services and another 32-36% traveled up to five miles compared to 62-65% of AHCCCS children statewide traveling up to one mile and another 27-30% traveling up to five miles.

[4] Tribal affiliation refers to whether an individual is a member of a federally recognized Arizona tribe and is displayed as a flag (Yes/No) in this report. This information is captured during enrollment in AHCCCS.

Primary Care and Well-Child Visits

Access to primary care is important for the health and well-being of children. Primary care practitioners (PCPs) provide appropriate screenings, treatment and preventive services. When children regularly visit a PCP, they are less likely to visit the emergency department for non-urgent care. Well-child visits are PCP visits scheduled at designated age intervals where a child's growth and development are measured and tracked according to national guidelines. PCPs examine a child holistically for physical, mental, emotional and social/environmental health during a well-child visit.

Regionally, 17-19% of AHCCCS children had at least one PCP visit compared to 85-86% of AHCCCS children statewide and 86-87% of Medicaid children nationally. The regional rates were below the AHCCCS Minimum Performance Standard (MPS)[5] of 84%. None of the subregions met the AHCCCS statewide rates or MPS for annual PCP visits. AHCCCS children ages 1-2 (19-21%) were more likely to have annual PCP visits than ages 3-5 (15-17%).

Of regional AHCCCS children birth to 15 months, 14-35% had at least one well-child visit compared to 93-94% of statewide AHCCCS children. Of these, 5-8% or regional AHCCCS children had six or more well-child visits compared to 53-60% of statewide AHCCCS children and 63-66% of Medicaid children nationally. The region and state rates were below the AHCCCS MPS of 65% (2017 and 2018) and 62% (2019) for this indicator. For AHCCCS children ages 3-5, 7-9% of regional children had an annual well-child visit compared to 62-65% of statewide children and 72-74% of Medicaid children ages 3-6 nationally. The region was below the AHCCCS MPS of 66% for this indicator.

Screening for Lead Poisoning

Lead poisoning is a silent killer because often there are no symptoms. Exposure to lead can cause irreversible damage to the brain and other vital organs in children, as well as intellectual and behavioral deficits. To detect abnormal blood lead levels in children, screenings are conducted via a blood lead test. According to the Arizona Department of Health Services (ADHS), children who live in areas designated as high-risk for lead poisoning should receive a blood lead test at 12 and 24 months of age, and older children who have not been previously tested should receive the blood lead test.[6]

ADHS reported 61,391 children under age six (14% of children under age 5) were screened in 2019, and 40,773 (66%) of those children lived in high-risk areas. Of the children living in high-risk areas, 29% were screened at 12 months of age, and 19% were screened at 24 months of age. Only 10% of children were screened at both intervals. For AHCCCS children being screened for lead poisoning one or more times by

[5] Minimum Performance Standard (MPS) is the minimal expected level of performance by AHCCCS Contractors. AHCCCS-reported rates are the official rates used to determine Contractor compliance with performance requirements. If a Contractor does not achieve the MPS, they will be required to submit a corrective action plan and may be subject to sanctions for each deficient measure.

[6] https://www.azdhs.gov/preparedness/epidemiology-disease-control/lead-poisoning/index.php#high-risk-zip-codes-home

their second birthday in, the regional rates decreased from 10% in 2017 to 5% in 2018 and 2019 compared to AHCCCS statewide rates which increased from 32% in 2017 to 35% in 2019.

Weight Assessment and Counseling

Childhood obesity has both short-term and long-term effects, so it is important for PCPs to monitor weight problems in children and provide guidance for maintaining a healthy weight and lifestyle. The prevalence of obesity among children aged 2–5 years in 2015-2016 was 14% according to a national survey. For this report, we focused on AHCCCS children ages 3-5.

The regional rates for weight assessment, nutrition counseling and physical activity counseling were suppressed for AHCCCS children in White Mountain Apache Tribe Region. AHCCCS children statewide were assessed at rates of 9-19% for weight assessment, 4-5% for nutrition counseling, and <1-1% for physical activity assessments[7]. The national HEDIS Medicaid rates were reported; these rates included children ages 3-17, and therefore, were not strictly comparable to the region or state rates for AHCCCS children ages birth to 5.

Developmental Screening and Delay

During early childhood, children grow and develop at a rapid pace physically and cognitively. Although children develop skills at different times, there are guidelines that define the period when an average child should meet certain developmental milestones. National pediatric guidelines recommend developmental screenings during well-child visits for all children ages 9 months, 18 months, 2 years and 2.5 years. Developmental delay occurs when a child does not demonstrate mastery of developmental milestones. Developmental delays have been found to occur in 10-15% of preschool children nationwide.

The rates of developmental screenings in AHCCCS children birth to age 5 were 1-2% at the regional level compared to statewide AHCCCS rates of 10-14%.[8] The regional rates were based on 17-38 annual claims. Developmental screenings were conducted most often on regional AHCCCS children ages 1-2 (2-4%). Rates of diagnosing developmental delay in AHCCCS children were 1-3% at the regional level compared to 3-5% at the state level for AHCCCS children. Regional AHCCCS children who were diagnosed with developmental were slightly more likely to be male (1-4%) than female (1-3%) and ages 1-2 (4%) in 2019 than age 0 (2%) and ages 3-5 (3%). Of those AHCCCS children who were diagnosed with developmental delay, 34% of regional AHCCCS children received behavioral health services in 2019 compared to 58% of AHCCCS children statewide.

[7] Physical Activity Counseling includes sports physicals which are not provided to children in the early childhood age group.

[8] Due to the limited capture of developmental screenings in claims data alone, these rates should be interpreted with caution.

Behavioral Health

The social-emotional development and adaptive functioning of a young child is as important as their physical health. Negative early childhood events can lead to behavioral and physical health problems in adulthood if behavioral health intervention services are not provided at the infant and toddler stages. For young children, behavioral health services [9] would likely include day programs, crisis services, rehabilitation services, health promotion, mental health counseling, psychiatric and psychologist services, and various support services. One to eight percent of AHCCCS children ages 3-5 in the region received behavioral health services compared to 11-16% of AHCCCS children statewide.

Vision[10]

Visual impairment affects a child's development, performance, and quality of life. Fortunately, most vision problems are successfully treated when detected early through regular visits to PCPs, and well-child visits should include a vision screening. It has been estimated that 20% of preschool children in the United States have eye or vision problems. Arizona's Eyes on Learning Vision Coalition recommends a vision screening beginning at age one. Children ages 3-5 should have at least one vision screening by a PCP or trained screener, and annual screenings should be provided to children in kindergarten through fourth grade.

In White Mountain Apache Tribe Region, 6-7% of AHCCCS children received an annual vision screening or well-child visit compared to 43-47% of AHCCCS children statewide. AHCCCS children ages 1-2 (8-10%) were more likely to receive an annual vision screening or well-child visit than ages 3-5 (6-7%). Eye exams were conducted less frequently on AHCCCS children, ranging 2-4% at the regional level and 4-5% at the state level. Regional AHCCCS children who were female (2-4%) were more likely to receive an eye exam than males (2-3%). Follow-up eye exams were conducted on regional AHCCCS children at rates of 9-11% and statewide at rates of 4-5%. AHCCCS children with visually significant eye conditions received treatment at rates of 42-81% regionally compared to 54-60% statewide, however the numbers are small at the regional level.

Hearing[10]

Most children begin hearing sounds at birth and learn to speak over time by imitating the sounds around them. However, it is reported that around two or three out of every 1,000 children are born deaf or hard-of-hearing in the United States, and more lose their hearing later in childhood. For children diagnosed with hearing loss, early detection, intervention and treatment would provide each child with the

[9] For more detail on AHCCCS behavioral health services, visit https://www.azahcccs.gov/Members/AlreadyCovered/coveredservices.html

[10] Per the AHCCCS Medical Policy Manual, AHCCCS children should receive hearing and vision screenings during their well-child visits according to the periodicity schedule. Claims data does not specify each service provided during a well-child visit; thus, we cannot verify whether these screenings were provided according to the schedule. The rates in this report should be interpreted with caution.

[10]

opportunity to develop better language and communication skills. Arizona strives to screen all infants before one month of age. Infants who do not pass the initial hearing screen and a rescreening, should be evaluated further to confirm or diagnose hearing loss before 3 months of age. Infants diagnosed with permanent hearing loss should receive intervention services before 6 months of age.

Around 99% (82,035) of all Arizona infants received a newborn hearing screening in 2017 which was slightly higher than the national rate of 98%. Less than 1% of all Arizona infants were diagnosed with permanent hearing loss, and of those, 42% were diagnosed before three months of age. Nationally, 10% of infants were diagnosed with permanent hearing loss, and of those, approximately 74% were diagnosed before three months of age. Additional audiology services were provided to 5% of AHCCCS children under age one in White Mountain Apache Tribe region compared to 9-12% of AHCCCS children statewide. Hearing screenings were provided to 2% of AHCCCS children ages 1-5 in the region compared to 20-28% of AHCCCS children statewide. Regional AHCCCS children ages 1-5 who had a hearing screening were more likely to be male (2-4%) than female (2%). Given the 2% rate of hearing screenings for ages 1-5, which were based on counts of seven to 12 claims annually, additional audiology services were provided to 86% of regional AHCCCS children in 2017 and 100% of children in 2018 and 2019. Statewide AHCCCS children's rates for additional audiology services for ages 1-5 decreased from 68% to 57% over the same period.

Oral Health

Oral health is a key indicator of overall health, well-being and quality of life. Access to dental care is necessary to maintain good oral health. Two preventative care dental visits are recommended annually for children. For young children, the application of fluoride varnish to primary and permanent teeth is also recommended to prevent cavities.

In White Mountain Apache Tribe Region, 14-22% of AHCCCS children had at least one annual dental visit compared to 51-53% of AHCCCS children statewide. Neither the region nor the state met the AHCCCS MPS of 60% for annual dental visits for ages 2-20. The subregional rates for at least one annual dental visit ranged 11-36%. AHCCCS children ages 3-5 (21-31%) were more likely to have at least one annual dental visit than ages 1-2 (6-8%). Two preventative care dental visits are recommended annually for children. Regionally, 2-6% of AHCCCS children received the biannual preventative care dental visit compared to 18-20% of AHCCCS children statewide. Fluoride varnish was applied to 13-21% of AHCCCS children in the region compared to 47-49% of AHCCCS children statewide. The subregional rates for a fluoride varnish application ranged 6-36%. AHCCCS children ages 3-5 (18-30%) were more likely to have a fluoride varnish application than ages 1-2 (4-9%).

Maternal Prenatal and Postpartum Care

The health of women before pregnancy and after delivery significantly impacts their health and the health of their babies. Thus, it is important to focus on women's prenatal and postpartum care. Prenatal care involves regular visits to a health care provider to monitor the mother's health and health of the developing fetus. Women should have at least one prenatal visit in the first trimester of pregnancy. The period of up to 60 days following childbirth is called the postpartum period for AHCCCS women. Preexisting health conditions, social determinants, and newly developed conditions contribute to maternal morbidity and mortality during this period so at least one postpartum visit is recommended.

In White Mountain Apache Tribe Region, 46-63% of pregnant women began prenatal care in the first trimester compared to 84-86% of AHCCCS women statewide. The Healthy People 2030 target rate was 81%[11]. For postpartum care, 52-67% of regional AHCCCS women had at least one postpartum visit compared to 88-89% of AHCCCS women statewide and 64-75% of Medicaid women nationally.

Conclusion

From 2017 to 2019, White Mountain Apache Tribe Region showed strong performance on the following AHCCCS children's and women's health indicators: newborn hearing screenings and immunizations (DTaP, Hepatitis A and Combo 3). These achievements contributed to good health outcomes throughout the region. The areas where needs were identified for AHCCCS women and children included PCP visits, well-child visits, access to care, supply of health care professionals, lead poisoning screenings, vision screenings, developmental screenings, oral health, and prenatal and postpartum care visits. The information in this report can be combined with other available information to create a more comprehensive view of young children and women in the region for regional council planning.

[11] Healthy People 2030 Prenatal Care Objective - https://health.gov/healthypeople/objectives-and-data/browse-objectives/pregnancy-and-childbirth/increase-proportion-pregnant-women-who-receive-early-and-adequate-prenatal-care-mich-08

INTRODUCTION

THE IMPORTANCE OF EARLY CHILDHOOD HEALTH

Under the direction of First Things First (FTF), the Arizona State University Center for Health Information & Research (CHiR) conducted a regional analysis of children from birth to age 5 to explore the health assets and needs in the FTF White Mountain Apache Tribe Region. This report provides detailed health utilization and access to services for children birth through 5, along with prenatal and postpartum women, who were enrolled in the Arizona Health Care Cost Containment System (AHCCCS). Additional information is provided via medical board licensing data to further describe access to medical professionals and services contracted under AHCCCS. The goal is for the FTF Regional Partnership Councils to utilize the findings in this report when conducting regional planning discussions, as an additional resource and tool to the Regional Needs and Assets base report.

DEFINITIONS

Access to Care

This term refers to making health care services readily available when needed and removing all barriers.

Age Groups

- Age is defined as the age of the patient on Dec. 31 of each given year. The age for a patient is constant through the report year. Special age breakdowns are listed for certain indicators that have an associated milestone.
- Infants: less than 1 year of age
- Toddlers: greater than or equal to 1 year of age to less than 3 years of age
- Preschooler: greater than or equal to 3 years of age to less than 6 years of age

Assets

An asset is a finding where young children or women appear to be faring well regarding utilization of or access to health care.

Behavioral Health

To determine whether children are receiving behavioral health services, we used the following definition: category of service on claim equals mental health services (category of service = 47) or primary diagnosis is a behavioral health diagnosis as listed in the AHCCCS Behavioral Health Services Matrix https://www.azahcccs.gov/PlansProviders/MedicalCodingResources.html .

Children

Unless noted otherwise, all references to children denote children, ages birth to 5, who are AHCCCS members.

CMS Median

The Centers for Medicare & Medicaid Services (CMS) annually collects and reports state performance rates on a standardized set of care quality measures for Medicaid and Children's Health Insurance Program beneficiaries, called the Child and Adult Core Set. The CMS Median is the average performance among reporting states for each measure.

Habilitation

Training in independent living skills or special developmental skills, sensory-motor development, orientation and mobility and behavior intervention.

Healthcare Effectiveness Data and Information Set

The Healthcare Effectiveness Data and Information Set (HEDIS) is a tool produced by the National Committee for Quality Assurance (NCQA) that is used by most U.S. health plans to measure performance and quality in health care. HEDIS® contains over 90 measures under six domains of care: effectiveness of care, access/availability of care, experience of care, utilization and risk adjusted utilization, health plan descriptive information, and measures reported using electronic clinical data systems. The national committee collects HEDIS® survey results from health plans and Preferred Provider Organizations through the Healthcare Organization Questionnaire and collects non-survey data through the Interactive Data Submission System. HEDIS measures are specifically defined to make comparisons among health plans. The measurement set is reviewed annually. CHiR uses the AHCCCS claims within HEDIS. HEDIS measures have complicated numerator and denominator calculations, and therefore, are expressed and interpreted as rates.

Health Plans

Health plan categories include acute care, Children's Rehabilitative Services, Comprehensive Medical and Dental Program, Developmental Disability/Department of Economic Security, Long Term Care, and Fee-For-Service American Indian health plans.

Minimum Performance Standard

Minimum Performance Standard (MPS) is the minimal expected level of performance by AHCCCS Contractors. AHCCCS-reported rates are the official rates used to determine Contractor compliance with performance requirements. If a Contractor does not achieve the MPS, they will be required to submit a corrective action plan and may be subject to sanctions for each deficient measure.

Needs

A need is an area where it appears that access or utilization of health care is low.

Postpartum Period

The AHCCCS postpartum period begins the day the pregnancy terminates and continues for 60 days following pregnancy termination.

Primary Care Physician Specialties

Physicians included in the primary care specialty include Family Practitioner, General Practitioner, Internal Medicine and Pediatrician.

Race/Ethnicity

Race and ethnicity are grouped and reported in the following manner.

- Race
  - Asian/Pacific Islander
  - Black
  - Caucasian/White
  - Native American
  - Other/Unknown
- Ethnicity
  - Hispanic or Latino
  - Not Hispanic or Latino
  - Unknown

Up until 2017, AHCCCS only collected one race/ethnicity variable and used the Hispanic value to denote Hispanic or Latino origin. As of 2017, AHCCCS began collecting race and ethnicity as separate variables. Hispanic is retained as a race variable, but AHCCCS is phasing out its use; therefore, the decrease in the use of Hispanic in the race variable correlates to the increase in reporting of Unknown in the race variable. Ethnicity is reported separately beginning in 2018 and notes on its use in this report are below.

- Individuals who reported "Not Hispanic, Latino, Spanish" are not Hispanic or Latino origin.
- To denote those of Hispanic or Latino origin, we combine Mexican, Mexican American, Chicano, Puerto Rican, Cuban, Other Hispanic/Latino Origin, and Hispanic or Latino Unknown.
- All individuals who reported a race/ethnicity of Hispanic prior to 2017 were assigned a race of other/unknown and an ethnicity of Hispanic or Latino origin
- Ethnicity Unspecified refers to individuals who did not answer or were not provided the opportunity to give this information.
- Ethnicity Unknown means the individual chose to be unknown. AHCCCS started phasing out this category in October 2018.
- Data on multiracial individuals is not collected.

Tribal Affiliation

Tribal affiliation refers to whether an individual is a member of a federally recognized Arizona tribe and is displayed as a flag (Yes/No) in this report. This information is captured during enrollment in AHCCCS. This is based on AHCCCS-stated affiliation, not residential location.

Well-Child Visits

Children enrolled in AHCCCS receive well-child visits under the Early and Periodic Screening, Diagnostic and Treatment (EPSDT) Program. The EPSDT program provides comprehensive treatment and preventive health care services for children under age 21. The services include dental, physical, behavioral health, developmental, vision, hearing, screenings and other specialty services. EPSDT visits are all-inclusive, meaning one payment is made for all services rendered during the visit. Only certain services are billed

separately when conducted by qualified health care providers, and those are: nutritional assessments, developmental screenings, immunizations, fluoride varnish and ocular photo screening.

Women

Unless noted otherwise, all references to women denote women who were AHCCCS members.

APPROACH

CHiR and representatives from the FTF Regions, Programs, and Evaluation teams determined priority indicators for this report. FTF provided the regional and subregional boundaries. White Mountain Apache Tribe Region consisted of the following nine subregions: Canyon Day, Cedar Creek, Cibecue, East Fork-Ft Apache, Hondah-McNary, North Fork, Rainbow City, Whiteriver and WMAT Remainder. The main data source was claims data from the Arizona Health Care Cost Containment System (AHCCCS), Arizona's Medicaid agency; therefore, the results presented in this report were for children and mothers who were enrolled in AHCCCS from 2017 to 2019. This population was denoted as AHCCCS children or AHCCCS women.

AHCCCS children's health was measured in the following categories: primary care, well-child visits, health care workforce, screening for lead poisoning, weight assessment and counseling, developmental screening and delay, behavioral health, vision, hearing, oral health, immunizations, maternal prenatal and postpartum care, and health plan performance.

Many of the reported indicators were from the Healthcare Effectiveness Data and Information Set (HEDIS). HEDIS is a performance improvement tool whereby health plans, health care organizations and government agencies submit data on specific health measures. HEDIS used the collected data to calculate national performance statistics and benchmarks and set standards for measures. HEDIS specifications were applied to the AHCCCS population for each region. The denominators were listed within each indicator and are available on the National Committee for Quality Assurance website at https://www.ncqa.org/hedis/ . Inclusion generally required a child to have continuous enrollment for the reporting year with no more than one gap smaller than 45 days allowed. Some indicators also required enrollment in a period preceding the reporting year.

Non-HEDIS denominators were derived from the children who met the AHCCCS inclusion criteria for the region. The AHCCCS inclusion criteria were children ages 0-5 (0 <= age < 6) who were enrolled in AHCCCS in 2017, 2018, or 2019 and residing in Arizona regions defined by First Things First. Health claims were for paid services in 2017, 2018, or 2019. Additional AHCCCS enrollment requirements were indicator-based. The complete population of children covered by AHCCCS were not included due to the limitations on AHCCCS enrollment gaps which were not met by all children.

For the distance analysis that was reported in the health care workforce section, all AHCCCS-enrolled children were assigned coordinates on a map related to their residential address on file. Health providers were also assigned coordinates from their address on file or public address, if available. Each child's address was analyzed to determine the distance in miles to the closest provider for each provider type. The children were then grouped into distance ranges as percentages. The region and state percentages

were listed side-by-side to compare totals and determine if the population in the region may have access to care issues due to the distance required to travel for health services.

Data used in this report covered all AHCCCS members in Arizona, including members living in FTF tribal regions and subregions. Report creations for tribal regions and subregions was carried out with specific approval from the tribe. As required by a Memorandum of Understanding previously established between FTF and the FTF White Mountain Apache Tribe Region, FTF notified the White Mountain Apache Tribe Region in writing that work would begin on this report, and the work was approved by the region in January 2020. For those tribal regions who did not give approval, data was included only in aggregate totals for Arizona. In the case of a tribal subregion, only aggregate totals for Arizona and the region were included.

REPORTING

There were 13 health topics discussed in this report. Each section began with context on the importance of the health topic before discussing the results from the AHCCCS claims data.

The AHCCCS results were presented at the regional level with state and national benchmarks provided for comparison, where available. When possible, the results are grouped by 1) indicators that met or were above the state average or national HEDIS standards and 2) indicators that did not meet or were below the state average or national HEDIS standards. Other notable findings were also presented that do not have comparison data. Most results were presented as percentages for standardization purposes and ease of comparison with benchmarks. The terms rate and percent were used interchangeably.

After reporting the general regional demographics, the results were displayed by gender, age group, race, ethnicity, tribal affiliation, provider type, and/or health plan when the data was available and within the data suppression guidelines stated below. Each section contained maps to display the results at the subregional level. The maps had a color gradient which compared the performance among the subregions for each indicator. A darker color denoted a higher percentage of individuals in the subregion who were included in the indicator. Percentages over 1% were rounded to the nearest whole number. Percentages less than 1% were denoted as “<1%”.

A brief conclusion summarized how well the region was doing with regards to access and utilization of health care services and provided areas where the regional councils may want to focus during their regional planning conversations.

The Executive Summary was designed to provide the main findings and takeaways for the report. A definitions section explained the lesser-known terms. The data sources were detailed in the Appendix which follows the references. The report was hyperlinked for ease of navigating from the Table of Contents and the text to the associated topics, figures and tables.

To protect the confidentiality of program participants, the First Things First Data Dissemination and Suppression Guidelines preclude our reporting data related to health or developmental delay if the count is less than six. Throughout this report, information which was not available because of suppression guidelines will be indicated by entries of “<6” for counts or “DS" (data suppressed) for percentages. Data

were sometimes not available for particular regions, either because a particular program did not operate in the region or because data were only available at a higher level (i.e., county, state, etc.). Cases where data were not available will be indicated by an entry of "N/A."

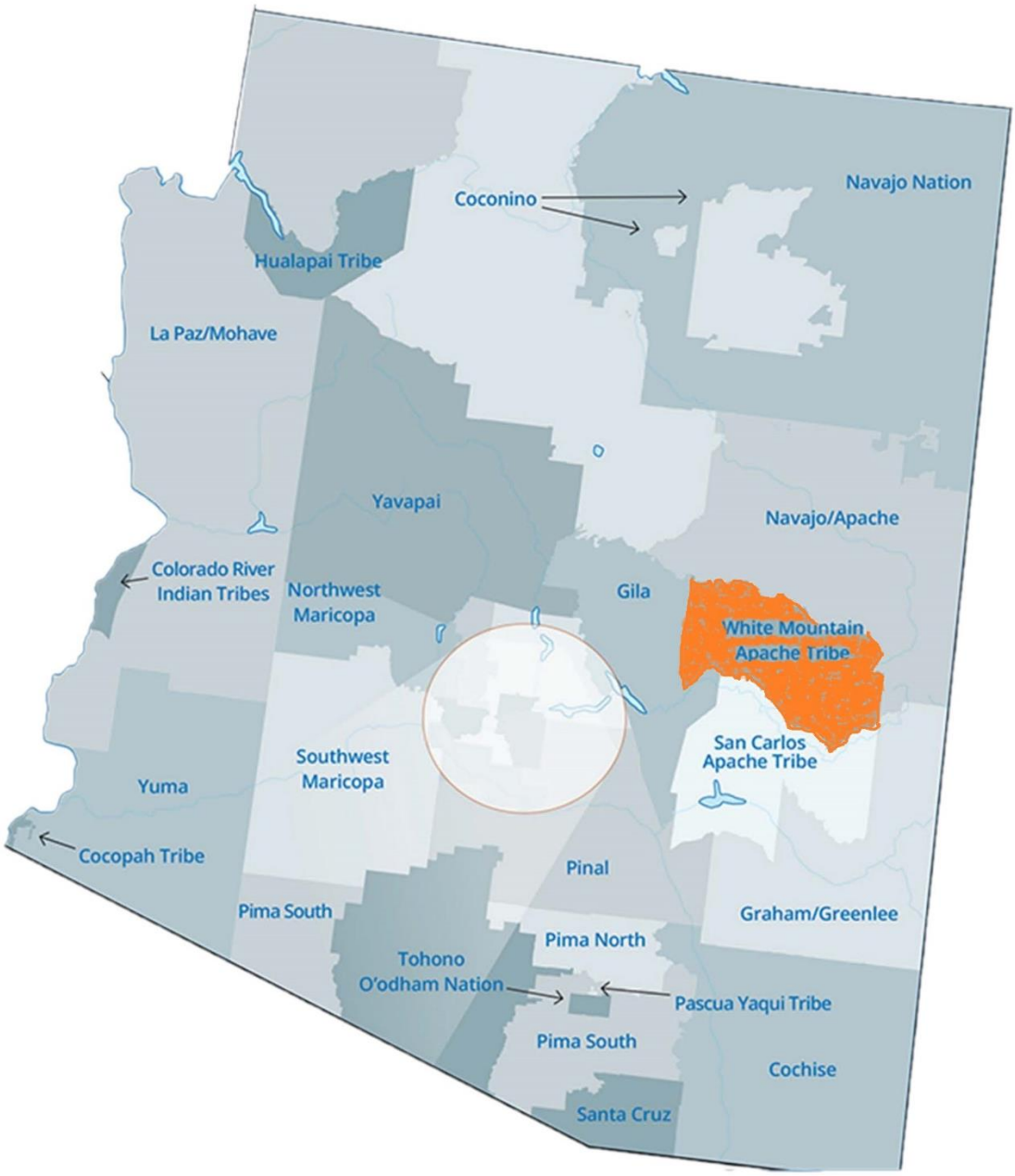
DATA LIMITATIONS

Most of the results in this report used AHCCCS claims and encounter data. While being limited to the population of children enrolled in Arizona Medicaid, this data source was also subject to coding errors and missing data for some indicators.

To best capture the full picture of childhood immunizations, a combination of data from claims, electronic health records, paper medical records and registry data was needed. AHCCCS used a combination of AHCCCS claims, Arizona State Immunization Information System (ASIIS) registry data and medical record data from its contractors to measure immunization rates internally. For this report, we used only AHCCCS claims as we did not have access to the other data sources. Since the AHCCCS claims data only included a subset of the immunizations of Arizona's children, our results showed substantially lower immunization rates than AHCCCS officially reports.

Per the AHCCCS Medical Policy Manual, AHCCCS children should receive hearing and vision screenings during their well-child visits according to the periodicity schedule. Claims data does not specify each service provided during a well-child visit; thus, we cannot verify whether these screenings were provided according to the schedule. The rates in this report should be interpreted with caution.

WHITE MOUNTAIN APACHE TRIBE REGIONAL RESULTS



POPULATION AND DEMOGRAPHICS OF CHILDREN ENROLLED IN AHCCCS

AHCCCS exists to make care affordable to the individuals and families it enrolls, including the approximately 235,000 children birth to age 5 who were enrolled in AHCCCS from 2017 to 2019.

There were 234,616 children from birth to age 5 enrolled in AHCCCS statewide from 2017 to 2019.

(AHCCCS Claims Data, 2021)

In White Mountain Apache Tribe Region, there were 1,550 children enrolled in AHCCCS in 2017, 1,439 children enrolled in 2018 and 1,428 children enrolled in 2019. Of these, male AHCCCS children outnumbered females by 3-4% (Table 1). In Table 2, there were 6-7% more infants and toddlers than preschoolers in 2017 and 2018, and slightly more preschoolers (1%) in 2019.

In Figure 1, more than three-fourths of AHCCCS children in the region lived in three subregions: Whiteriver (47-48%), Cibecue (16-18%) and East Fork-Ft Apache (12-13%). By race, 1% of AHCCCS children reported as Caucasian/White and 95-97% as Native American (Figure 2); data was suppressed for Black and Asian/Pacific Islander. By ethnicity, 1% of AHCCCS children were Hispanic or Latino (Figure 3). Affiliation with a tribal community was reported by 98-99% of AHCCCS children annually (Figure 4).[12] Most AHCCCS children in the region were enrolled in the American Indian Health Plan (79-80%) and Steward Health Choice AZ (14-15%) (Figure 5). In Table 3, most annual health claims were submitted by hospitals (43-46%), physicians (16-20%), and non-emergency transportation (14-18%).

Table 1. Number of AHCCCS Children Birth to Age 5 by Year and Sex

Year	Female	Male	Total of AHCCCS-Enrolled Children
2017	800	750	1,550
2018	751	688	1,439
2019	745	683	1,428

Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

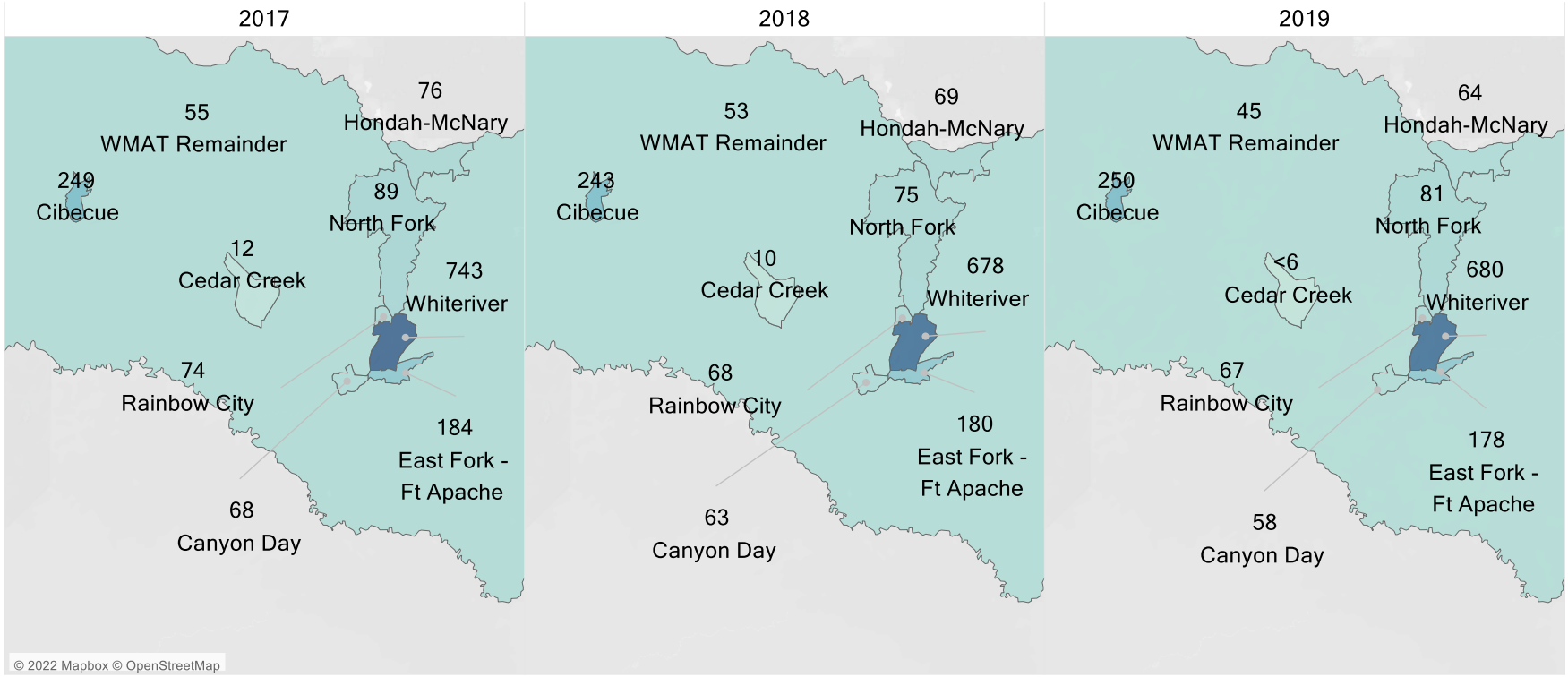
Table 2. Number of AHCCCS Children Birth to Age 5 by Year and Age Group

Year	Infant (under 1)	Toddler (1-2)	Preschooler (3-5)
2017	335	493	722
2018	258	506	675
2019	246	459	723

Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

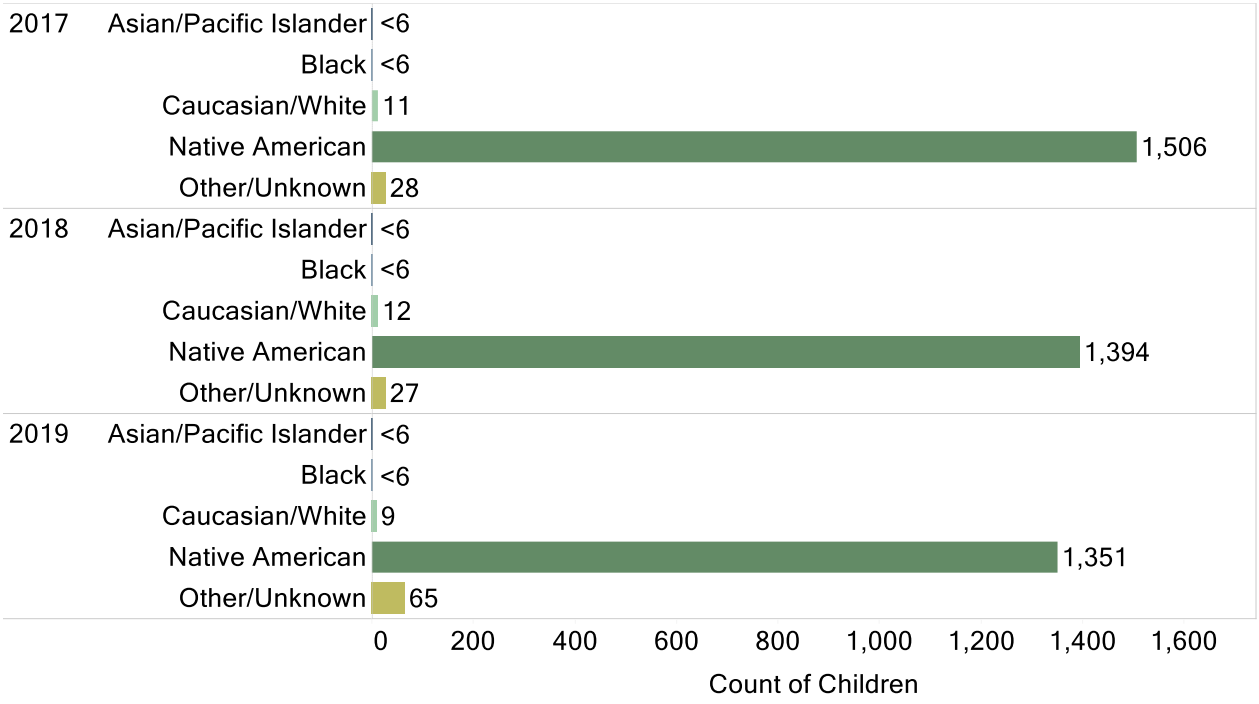
[12] Tribal affiliation refers to whether an individual is a member of a federally recognized Arizona tribe and is displayed as a flag (Yes/No) in this report. This information is captured during enrollment in AHCCCS.

Figure 1. Number of AHCCCS Children Birth to Age 5 by Year and Subregion



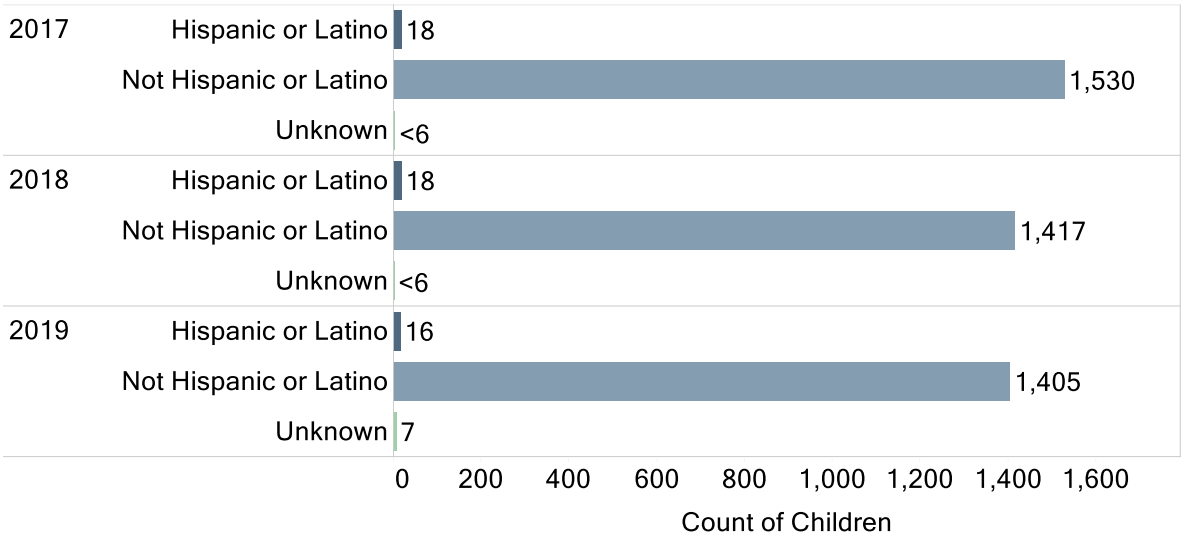
Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

Figure 2. Number of AHCCCS Children Birth to Age 5 by Year and Race



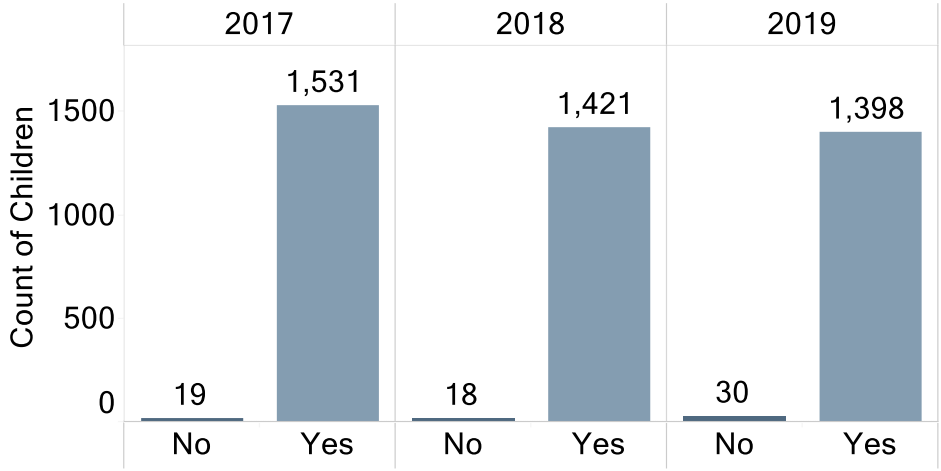
Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

Figure 3. Number of AHCCCS Children Birth to Age 5 by Year and Ethnicity



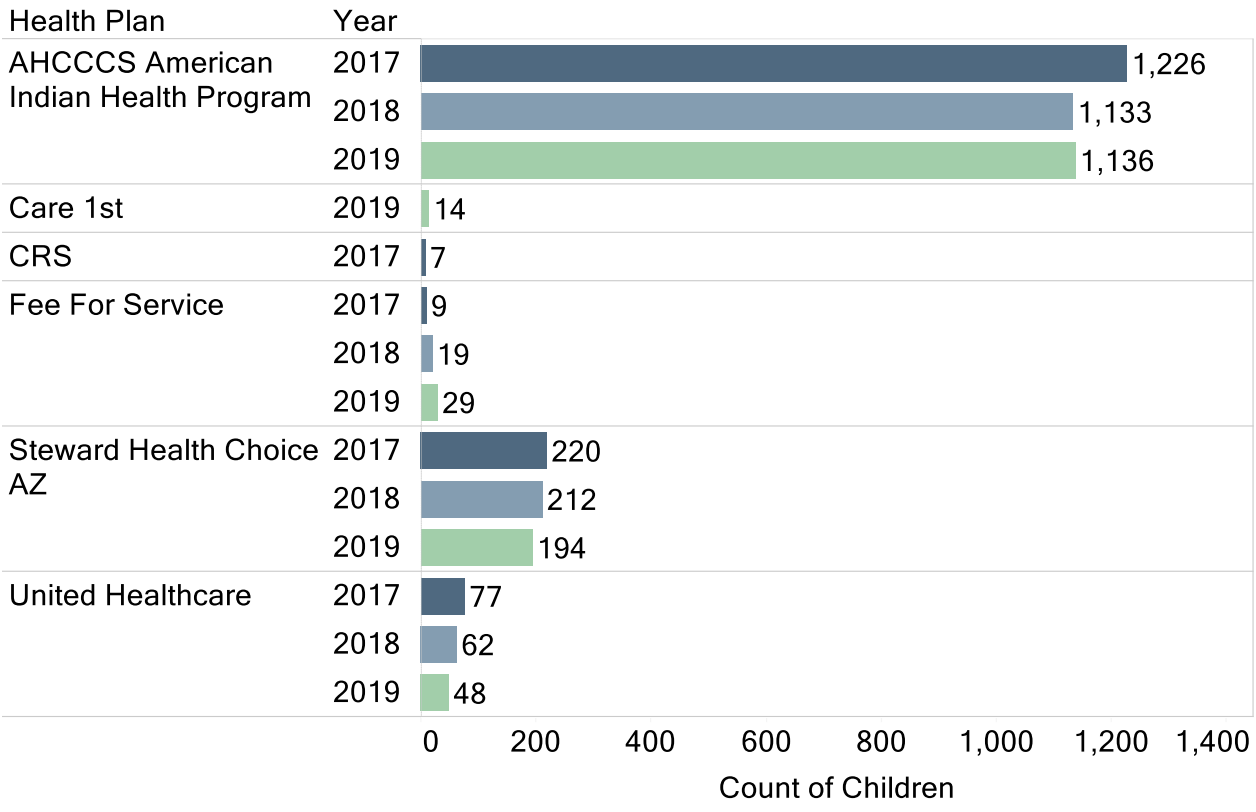
Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

Figure 4. Number of AHCCCS Children Birth to Age 5 by Year and Tribal Affiliation



Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

Figure 5. Number of AHCCCS Children by Year and Health Plan



Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

Table 3. Number of AHCCCS Claims by Provider Type (Billing Entity), 2017-2019

Provider Type	2017		2018		2019	
	Claims Count	Percent of Total	Claims Count	Percent of Total	Claims Count	Percent of Total
Behavioral Health Outpatient Clinic	258	1%	429	2%	1,285	5%
Dentist	503	2%	316	1%	507	2%
Durable Medical Equipment Supplier	340	1%	284	1%	300	1%
Federally Qualified Health Center (FQHC)	25	<1%	36	<1%	19	<1%
Habilitation Provider*	<6	DS	246	1%	438	2%
Hospital	11,472	43%	9,746	43%	13,046	46%
Integrated Clinics**	<6	DS	33	<1%	61	0%
Laboratory	180	1%	168	1%	245	1%
Non-Emergency Transportation Providers	4,519	17%	4,135	18%	4,096	14%
Occupational Therapist	19	<1%	111	<1%	227	1%
Pharmacy	1,112	4%	809	4%	880	3%
Physical Therapist	13	<1%	56	<1%	99	<1%
Physician – MD/DO	5,406	20%	3,905	17%	4,452	16%
Physician Assistant	892	3%	517	2%	509	2%
Registered Nurse Practitioner	351	1%	349	2%	556	2%
Speech Language Pathology	14	<1%	6	<1%	<6	DS
Speech/Hearing Therapist	31	<1%	33	<1%	25	<1%
Other	1,629	6%	1,427	6%	1,525	5%

Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

*Notes: * Habilitation is training in independent living skills or special developmental skills, sensory-motor development, orientation and mobility and behavior intervention.*

*** An Integrated Clinic is a provider licensed by the Arizona Department of Health Services as an Outpatient Treatment Center which provides both behavioral health services and physical health services.*

HEALTH CARE WORKFORCE

Currently, Arizona has 160 hospitals individually licensed by the state which are subtyped as children, critical access, long term, short term, psychiatric, rehabilitation, transplant and non-participating (Arizona Department of Health Services, 2021). The White Mountain Apache Tribe Region had one short-term hospital and one non-participating hospital, both in Whiteriver (Arizona Department of Health Services, 2021).

The rate of available primary care physicians in the region was 8-10 primary care physicians per 1,000 AHCCCS children (Table 5) compared to the statewide rate of 23-24 per 1,000 AHCCCS children (Table 4). For primary care physicians accepting AHCCCS patients, the regional rate was 5-8 physicians per 1,000 AHCCCS children. For dentists accepting AHCCCS patients, the regional rate was 2-4 dentists per 1,000 AHCCCS children compared to 16-17 dentists per 1,000 AHCCCS children statewide.

In Table 6, we compared the distance that regional and statewide AHCCCS children needed to travel to the nearest provider type to assist in determining whether the population in the region may have access to care issues based on travel distance. To visit the nearest primary care physician or dentist, 15-22% of AHCCCS children in the region traveled one mile for services and another 38-39% traveled up to five miles compared to 56-65% of AHCCCS children statewide traveling up to one mile and another 27-35% traveling up to five miles. The nearest pharmacy was more than 10 miles away for 95% of regional AHCCCS children compared to 64% of statewide AHCCCS children who traveled one mile or less and 26% who traveled up to five miles. The nearest hospital was up to five miles away for 26-28% of regional AHCCCS children, five to 10 miles away for 42-43% of children and more than 10 miles away for 24% of children. For AHCCCS children statewide, 11-12% traveled one mile to the hospital and 69% traveled up to five miles. To visit the nearest behavioral health provider, 24-31% of AHCCCS children in the region traveled one mile for services and another 32-36% traveled up to five miles compared to 62-65% of AHCCCS children statewide traveling up to one mile and another 27-30% traveling up to five miles.

Table 4. Supply of Key Health Professionals in Arizona per 1,000 AHCCCS Children, 2017-2019

Provider Type	2017		2018		2019*	
	Number	Rate	Number	Rate	Number	Rate
Total Active Physicians	16,345	70	17,356	74	N/A	N/A
Active Primary Care Physicians[1]	5,396	23	5,598	24	N/A	N/A
Pediatricians[4]	1,214	5	1,257	5	1,293	6
Active Registered and Practical Nurses[2]	N/A	N/A	101,599	433	104,434	445
Dentists[3]	3,796	16	3,903	17	4,012	17

Source: [1] (Association of American Medical Colleges, 2017). (Association of American Medical Colleges, 2019). [2] (National Council of State Boards of Nursing, 2021). [3] (American Dental Association, 2021). [4] (American Board of Pediatrics, 2020); (American Board of Pediatrics, 2019); (American Board of Pediatrics, 2018).

*Notes: The rate was calculated using the Arizona population of AHCCCS children birth to age 5 (N = 234,616). National data on pediatricians excluded those who were over age 70 to better control for those who may have been deceased in recent years. [1] Data were from the 2017 and 2019 AMA Physician Masterfiles. Active physicians were federal and non-federal with an Arizona state license who worked at least 20 hours per week. *Data on active physicians was not available for 2019.*

Table 5. Supply of Key Health Professionals in White Mountain Apache Tribe Region per 1,000 AHCCCS Children, 2017-2019

Provider	2017		2018		2019	
	Num	Rate	Num	Rate	Num	Rate
Primary Care						
Primary Care – All Licensed Primary Care Physicians[2]	12	8	15	10	13	9
Physicians accepting AHCCCS[1,2] – Total	8	5	11	8	9	6
Physicians accepting AHCCCS – Pediatrics	1	1	2	1	2	1
Physicians accepting AHCCCS – Primary Care	7	5	9	6	7	5
Physicians with ≥250 AHCCCS patients per year (all ages)	0	0	0	0	0	0
Behavioral Health – AHCCCS[1]						
Behavioral Health Physician Specialty or Allied Health Professional	4	3	4	3	6	4
Primary Care with Behavioral Health Services*	0	0	0	0	0	0
Other						
Dentist – accepting AHCCCS[2]	3	2	3	2	6	4
Hospital[1,3]	1	1	1	1	1	1
Pharmacy[1,4]	0	0	0	0	0	0

Source: [1]AHCCCS Claims Data, 2021. [2]Arizona Medical Board and Arizona Board of Osteopathic Medical Examiners in Medicine and Surgery, 2021. [3] (Arizona Department of Health Services, 2021). [4]RXOpen dataset, accessed from data.gov, 2020. CHiR was the source for all processing of the AHCCCS and Workforce data.

Notes: The rate was calculated using the regional population of AHCCCS children birth to age 5 in 2019 (N = 1,550 for 2017, N = 1,439 for 2018 and N = 1,428 for 2019). Pharmacies that were co-located with hospitals or clinics were not captured in the data. Hospital, and pharmacy historic data was not available, so all numbers are based on most recent data available.

**This includes Federally Qualified Health Clinics and Integrated Clinics. These facilities provide both behavioral health services and physical health services.*

Table 6. Percent of AHCCCS Children Grouped by Travel Distance Between Provider and Child's Residence by Provider Type for Region and Arizona, 2017-2019

Provider Type/Miles	Year	0-1 Miles		1-5 Miles		5-10 Miles		10+ Miles		Unknown**	
		Region	AZ	Region	AZ	Region	AZ	Region	AZ	Region	AZ
Behavioral Health Specialty or Primary Care with Behavioral Health Services*	2017	31%	62%	36%	30%	8%	3%	3%	2%	23%	4%
	2018	26%	64%	32%	27%	7%	3%	3%	2%	33%	3%
	2019	24%	65%	32%	27%	7%	3%	2%	2%	35%	4%
Dentist	2017	22%	62%	39%	29%	5%	3%	3%	4%	33%	2%
	2018	22%	63%	38%	29%	4%	3%	3%	3%	33%	3%
	2019	21%	63%	39%	28%	4%	3%	2%	3%	35%	3%
Hospital	2017	6%	11%	28%	69%	42%	9%	24%	10%	<1%	<1%
	2018	6%	12%	26%	69%	43%	9%	24%	11%	<1%	<1%
	2019	7%	12%	27%	69%	43%	9%	24%	11%	<1%	<1%
Pharmacy	2017	<1%	64%	1%	26%	5%	3%	95%	7%	<1%	<1%
	2018	<1%	64%	1%	26%	4%	3%	95%	7%	<1%	<1%
	2019	<1%	64%	1%	26%	4%	3%	95%	7%	<1%	<1%
Primary Care Physician	2017	15%	56%	39%	34%	5%	4%	19%	4%	23%	3%
	2018	22%	56%	38%	35%	4%	3%	3%	4%	33%	3%
	2019	21%	57%	39%	34%	4%	3%	2%	4%	35%	3%

Source: [1] (AHCCCS Claims Data, 2021). [2] (Arizona Medical Board and Arizona Board of Osteopathic Medical Examiners in Medicine and Surgery, 2021). CHiR was the source for all processing of the AHCCCS and Workforce data.

*Notes: See the Approach section for details on this methodology. Pharmacies that were co-located with hospitals or clinics were not captured in the data. Historic data on Hospital and Pharmacy were not available, so all numbers are based on the most recent data available. *Behavioral Health providers includes primary care providers that offer behavioral health services. **The Unknown column captured children who did not have an exact-match address, so the number of miles to the nearest provider could not be accurately calculated.*

PRIMARY CARE

Access to primary care is important for the health and well-being of children. Primary care practitioners (PCPs) provide appropriate screenings, treatment and preventive services. When children regularly visit a PCP, they are less likely to visit the emergency department for non-urgent care (Transforming Clinical Practice Initiative, 2019) (Piehl, Clemens, & Joines, 2000).

The inclusion criteria for this indicator were children enrolled in the previous 12 months who had at least one claim with a primary care provider, which includes primary care physicians, nurse practitioners and physician assistants.

Statewide, 85-86% of AHCCCS children ages 25 months to six years had at least one annual PCP visit from 2017 to 2019.

(Arizona Health Care Cost Containment System, July 2021)

Regionally, 17-19% of AHCCCS children had at least one PCP visit compared to 85-86% of AHCCCS children statewide and 86-87% of Medicaid children nationally in Table 7. The regional rates were below the AHCCCS Minimum Performance Standard (MPS) [13] of 84%. None of the subregions met the AHCCCS statewide rates or MPS for annual PCP visits (Figure 6). AHCCCS children ages 1-2 (19-21%) were more likely to have annual PCP visits than ages 3-5 (15-17%).

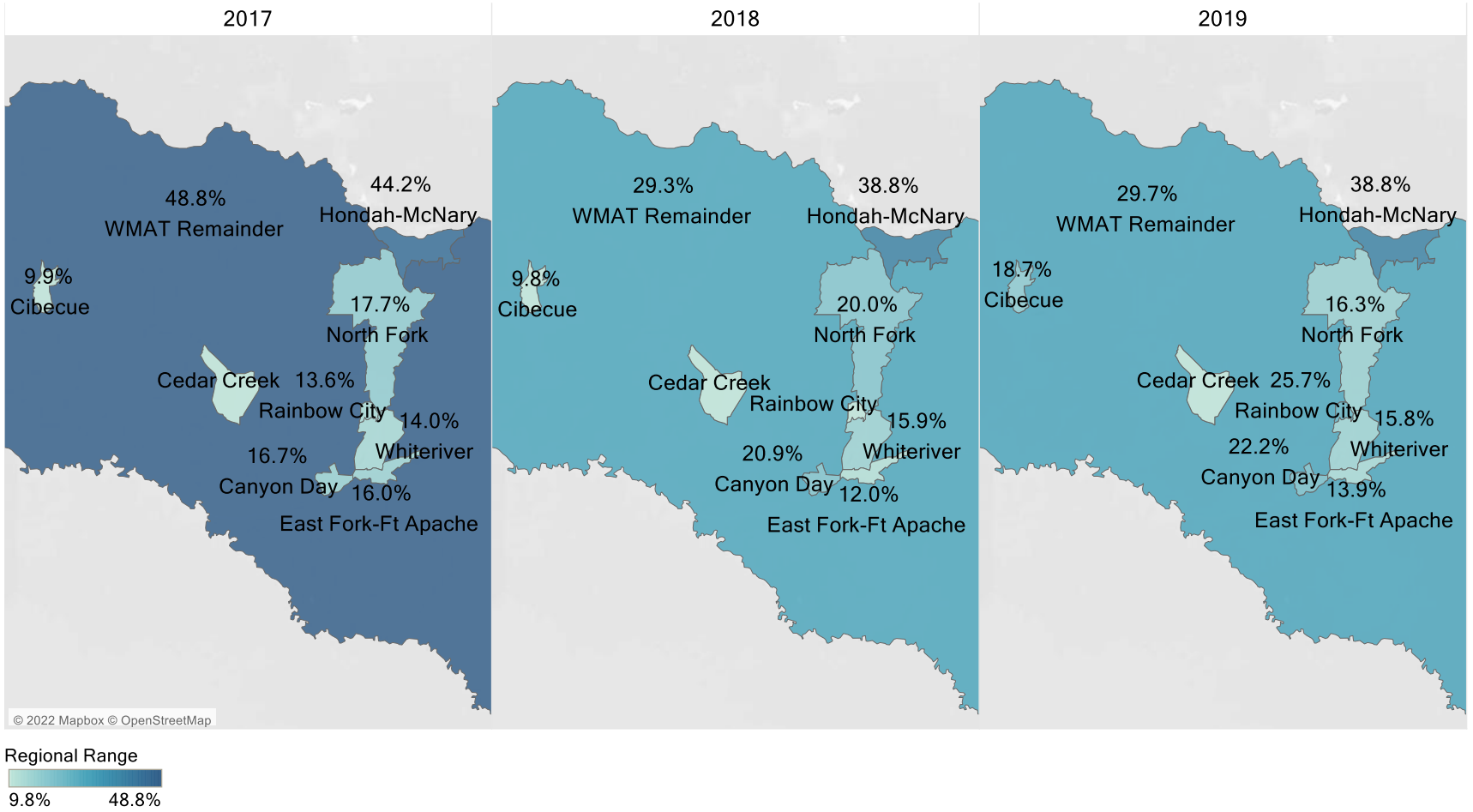
Table 7. Arizona and Regional AHCCCS Rates for PCP Visits, 2017-2019

Indicator/Year	2017		2018		2019	
	Region	Arizona	Region	Arizona	Region	Arizona
Access to Primary Care	17%	85%	17%	85%	19%	86%

Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

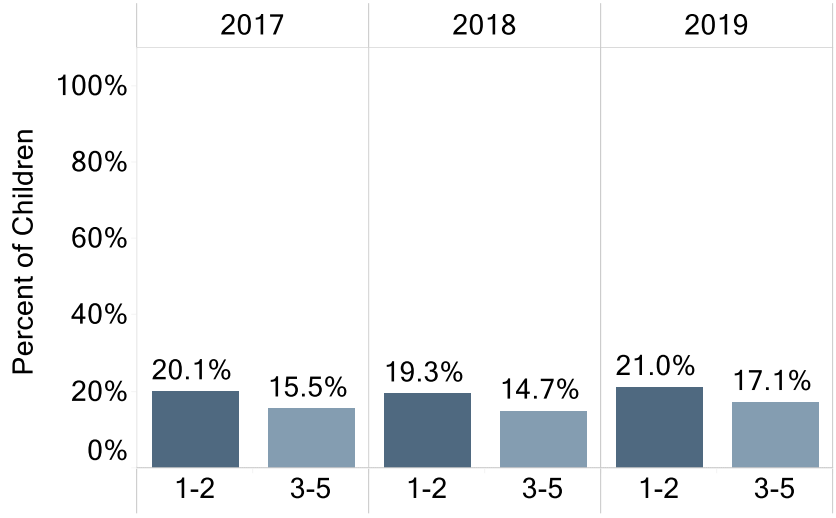
[13] Minimum Performance Standard (MPS) is the minimal expected level of performance by AHCCCS Contractors. AHCCCS-reported rates are the official rates used to determine Contractor compliance with performance requirements. If a Contractor does not achieve the MPS, they will be required to submit a corrective action plan and may be subject to sanctions for each deficient measure.

Figure 6. Percent of AHCCCS Children Ages 1 – 5 with a Visit to PCP by Subregion by Year



Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

Figure 7. Percent of AHCCCS Children Ages 1 – 5 with a Visit to PCP by Age Group and Year



Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

WELL-CHILD VISITS

Well-child visits provide an opportunity for PCPs to examine a child holistically for physical, mental, emotional and social/environmental health. A child's growth and development are tracked during a well-child visit. Screenings, counseling and immunizations take place at well-child visits. PCPs can instill healthy behaviors in children by reinforcing their importance during well-child visits. Parents and caregivers can team up with PCPs to address concerns. Creating a trusted relationship between the PCP and child is important as the child ages and develops, so these visits are beneficial to everyone involved (Moreno, 2018); (Sturgeon, 2015).

This HEDIS indicator assesses whether children who turned 15 months old during the measurement year had one or more well-child visits since birth, categorized by number of visits from one to six or more. A separate HEDIS indicator assesses whether children ages 3-5 had an annual well-child visit.

Regionally in Table 8, 14-35% of AHCCCS children birth to 15 months had at least one well-child visit compared to 93-94% of statewide AHCCCS children. Of these, 5-8% of regional AHCCCS children had six or more well-child visits compared to 53-60% of statewide AHCCCS children and 63-66% of Medicaid children nationally. The region and state rates were below the AHCCCS MPS of 65% (2017 and 2018) and 62% (2019) for this indicator. For AHCCCS children ages 3-5, 7-9% of regional children had an annual well-child visit compared to 62-65% of statewide children and 72-74% of Medicaid children ages 3-6 nationally. The region was below the AHCCCS MPS of 66% for this indicator.

Table 8. Arizona and Regional AHCCCS Rates for Well-Child Visits, 2017-2019

Indicator/Year	2017		2018		2019	
	Region	Arizona	Region	Arizona	Region	Arizona
At Least One Well-Child Visits in First 15 Months of Life	35%	93%	17%	94%	14%	94%
Six or More Well-Child Visits in First 15 Months of Life	8%	53%	7%	58%	5%	60%
Annual Well-Child Visit, Ages 3-5	8%	62%	7%	63%	9%	65%

Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

Table 9. Percent of AHCCCS Children Ages 3-5 with a Well-Child Visit by Subregion, 2017-2019

Subregion	Infant (under 1)	Toddler (1-2)	Preschooler (3-5)
Cibecue	DS	DS	6%
East Fork-Ft Apache	8%	DS	8%
Hondah-McNary	28%	DS	19%
Whiteriver	7%	7%	8%
WMAT Remainder	27%	DS	DS

Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

Note: Data was suppressed for subregions Canyon Day, Cedar Creek, North Fork and Rainbow City/

SCREENING FOR LEAD POISONING

Exposure to lead can cause damage to the brain and other vital organs, as well as intellectual and behavioral deficits. Because children who are exposed to lead often have no obvious symptoms, lead poisoning often goes unrecognized. Screening for lead via a capillary or venous lead blood test is an easy way to detect an abnormal blood lead level in children. There is no safe blood lead level. If not found early, exposure to lead and high blood lead levels can lead to irrevocable effects on a child's physical and mental health (Arizona Department of Health Services, 2006); (Arizona Department of Health Services, 2003); (National Center for Environmental Health, 2020).

In Arizona, blood lead results are reportable to the Arizona Department of Health Services (ADHS) for children less than six years old. According to ADHS, children who live in areas designated as high-risk[14] for lead poisoning should receive a blood lead test at 12 and 24 months of age, and older children who have not been previously tested should receive a blood lead test. ADHS reported 61,391 children under age six (14% of children under age 5) were screened in 2019, and 40,773 (66%) of those children lived in high-risk areas. Of the children living in high-risk areas, 29% were screened at 12 months of age, and 19% were screened at 24 months of age. Only 10% of children were screened at both intervals (Arizona Department of Health Services, 2021).

For AHCCCS children being screened for lead poisoning one or more times by their second birthday in, the regional rates decreased from 10% in 2017 to 5% in 2018 and 2019 compared to AHCCCS statewide rates which increased from 32% in 2017 to 35% in 2019.

Table 10. Arizona and Regional AHCCCS Rates for Lead Poisoning Screening, 2017-2019

Indicator/Year	2017		2018		2019	
	Region	Arizona	Region	Arizona	Region	Arizona
One or More Tests for Lead Poisoning by Second Birthday	10%	32%	5%	34%	5%	35%

Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

[14] Interactive map of Arizona neighborhoods to identify those considered to be high-risk is online at http://www.azhealth.gov/leadmap

WEIGHT ASSESSMENT AND COUNSELING

Childhood obesity has both short-term and long-term effects, so it is important for PCPs to monitor weight problems in children and provide guidance for maintaining a healthy weight and lifestyle. The prevalence of obesity among children aged 2–5 years in 2015-2016 was 14% according to the National Health and Nutrition Examination Survey (Hales, Carroll, Fryar, & Ogden, 2017). For this report, we focused on AHCCCS children ages 3-5.

The regional rates for weight assessment[15], nutrition counseling and physical activity counseling were suppressed for AHCCCS children in White Mountain Apache Tribe Region. In Table 11, AHCCCS children statewide were assessed at rates of 9-19% for weight assessment, 4-5% for nutrition counseling, and <1-1% for physical activity assessments[16]. The national HEDIS Medicaid rates were reported in Table 12; these rates included children ages 3-17, and therefore, were not strictly comparable to the region or state rates for AHCCCS children ages birth to 5.

Table 11. Arizona AHCCCS Rates for Weight Assessment and Counseling, Ages Birth to 5, 2017-2019

Indicator/Year	2017	2018	2019
BMI Assessment	9%	12%	19%
Nutrition Counseling	4%	5%	5%
Physical Activity Counseling	<1%	1%	1%

Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

Table 12. National Medicaid HEDIS Rates for Weight Assessment and Counseling, Ages 3-17 Years, 2017-2019

Indicator/Year	2017	2018	2019
BMI Assessment	73%	74%	77%
Nutrition Counseling	67%	67%	68%
Physical Activity Counseling	61%	62%	64%

Source: (National Committee for Quality Assurance, 2021).

[15] Under HEDIS, the rates for weight assessment are an evaluation of whether Body mass index (BMI) percentile is accessed and does not determine the absolute BMI value. The diagnosis codes for pediatric BMI included: Z68.51 (< 5th percentile for age), Z68.52 (5th percentile to < 85th percentile for age), Z68.53 (85th percentile to < 95th percentile for age) and Z68.54 (≥ 95th percentile for age).

[16] Physical Activity Counseling includes sports physicals which are not provided to children in the early childhood age group.

DEVELOPMENTAL SCREENING AND DELAY

During early childhood, children grow and develop at a rapid pace physically and cognitively. Although children develop skills at different times, there are guidelines that define the period when an average child should meet certain developmental milestones. The American Academy of Pediatrics recommends developmental screenings during well-child visits for all children ages 9 months, 18 months, 2 years and 2.5 years (Centers for Disease Control and Prevention). Parents may also notice concerns they have about their child's development and discuss them with their child's health care provider.

Developmental delay occurs when a child does not demonstrate mastery of developmental milestones, and the delay can range from mild to severe. Developmental delays have been found to occur in 10-15% of preschool children (Choo, Agarwal, How, & Yeleswarapu, 2019). The National Health Interview Survey found that from 2015-2018, 18% of U.S. children ages 3-17 years had at least one developmental disability (Zablotsky & Black, 2020). After being diagnosed with a developmental delay, children should be referred to appropriate behavioral health services.

AHCCCS PCPs use developmental screening tools during 9-month, 18-month and 24-month well-child visits. Developmental screenings are assessed in claims data using billing code CPT 96110. AHCCCS has an active Performance Improvement Project to increase the number of screenings in its eligible populations (Arizona Health Care Cost Containment System, 2021). AHCCCS analyzed its own performance on developmental screenings using several data sources and reported 26% (Median = 42%) of eligible members in acute care screened in 2017 and 30% (Median = 33%) screened in 2018. Rates for AHCCCS children in foster care were 34% and 38% for the same years, respectively. AHCCCS also analyzed the 2018 data for disparities and found disparities in five of Arizona's 15 Counties: Apache, Gila, Navajo, Santa Cruz and Yavapai. Racial disparity was also demonstrated for the American Indian population.

Table 13 showed rates of developmental screenings in AHCCCS children birth to age 5 were 1-2% at the regional level compared to statewide AHCCCS rates of 10-14%.[17] The regional rates were based on 17-38 annual claims. Developmental screenings were conducted most often on regional AHCCCS children ages 1-2 (2-4%) (Figure 8). Rates of diagnosing developmental delay in AHCCCS children were 1-3% at the regional level compared to 3-5% at the state level for AHCCCS children in Table 13. Regional AHCCCS children who were diagnosed with developmental were slightly more likely to be male (1-4%) than female (1-3%) (Figure 9) and ages 1-2 (4%) in 2019 than age 0 (2%) and ages 3-5 (3%) (Figure 10). Of those AHCCCS children who were diagnosed with developmental delay, 34% of regional AHCCCS children received behavioral health services in 2019 compared to 58% of AHCCCS children statewide.

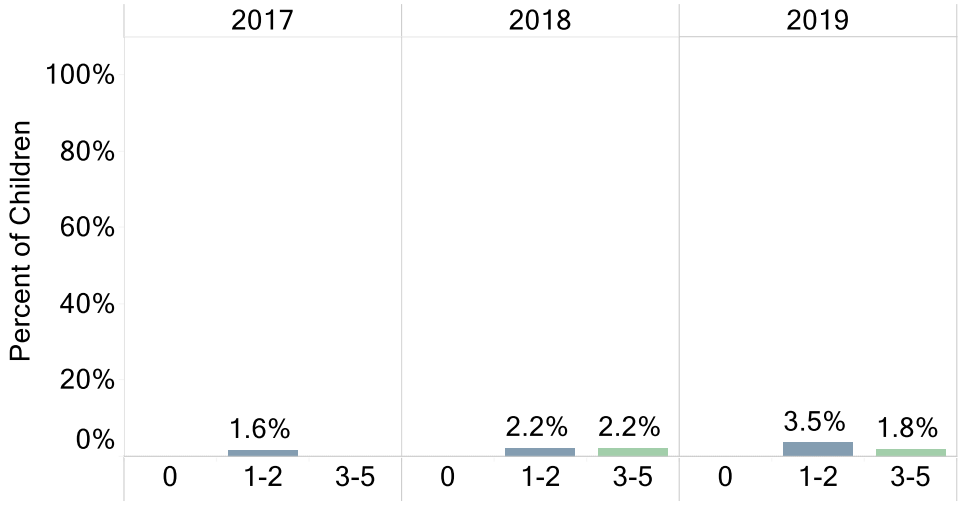
[17] Due to the limited capture of developmental screenings in claims data alone, these rates should be interpreted with caution.

Table 13. Arizona and Regional AHCCCS Rates for Developmental Screenings and Delay, 2017-2019

Indicator/Year	2017		2018		2019	
	Region	Arizona	Region	Arizona	Region	Arizona
Developmental Screening, Ages Birth to 5	1%	10%	2%	11%	2%	14%
Diagnosing Developmental Delay, Ages Birth to 5	1%	3%	1%	4%	3%	5%
Developmental Delay and Behavioral Health Services, Ages 3-5	DS	49%	DS	47%	34%	58%

Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

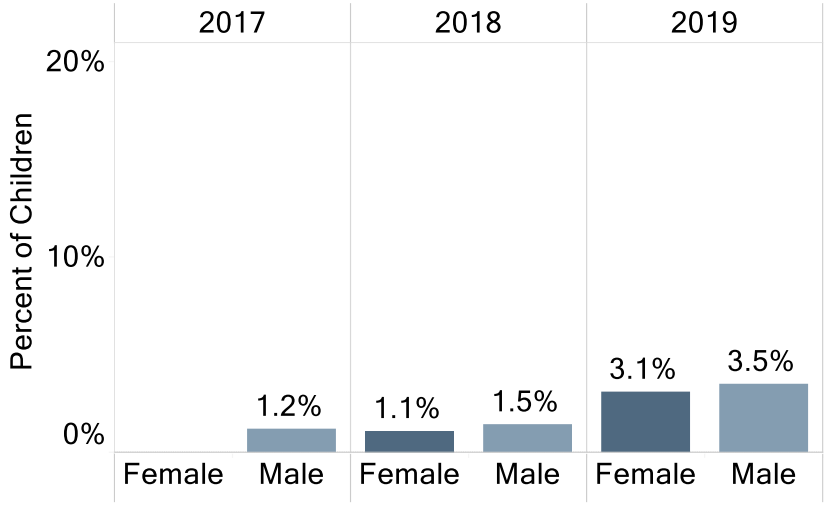
Figure 8. Percent of AHCCCS Children Receiving Developmental Screenings by Age Group and Year



Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

Notes: Since developmental delay screenings are more likely to take places for those ages 1-2, the other analyses focus on that age group. Data was suppressed for age 0 (all years) and ages 3-5 (2017).

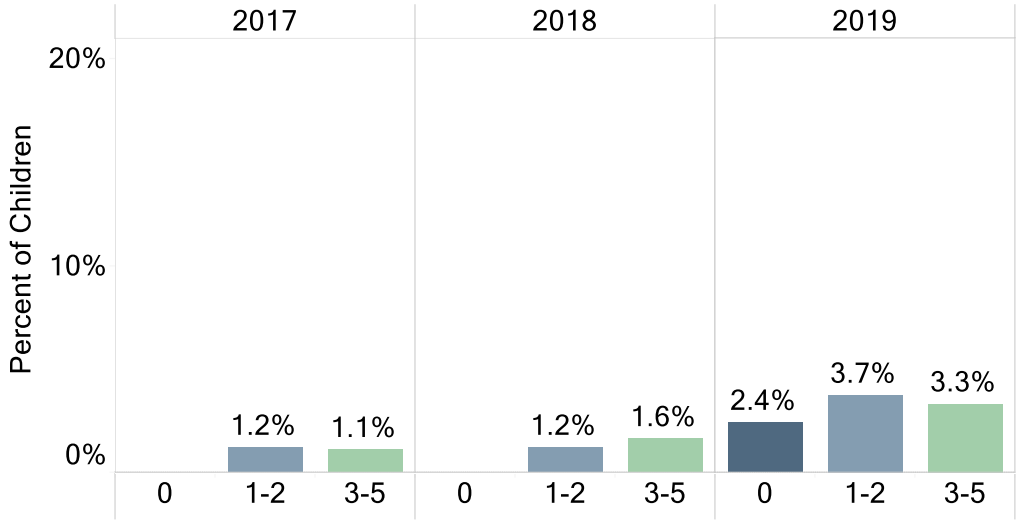
Figure 9. Percent of AHCCCS Children with a Diagnosed Developmental Delay by Sex and Year



Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

Note: Data was suppressed for females in 2017.

Figure 10. Percent of AHCCCS Children with a Diagnosed Developmental Delay by Age Group and Year



Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

Note: Data was suppressed for age 0 in 2017 and 2017.

Table 14. Percent of Claims by Provider Type for AHCCCS Children with a Diagnosed Developmental Delay Who Have Received Behavioral Health Services, 2017-2019

Provider Type	2017		2018		2019	
	Claims Count	Percent of Total	Claims Count	Percent of Total	Claims Count	Percent of Total
Durable Medical Equipment Supplier	11	61%	6	33%	6	10%
Hospital	<6	DS	7	39%	18	30%
Occupational Therapist	<6	DS	<6	DS	13	22%
Physical Therapist	<6	DS	<6	DS	6	10%
Physician – MD/DO	<6	DS	<6	DS	8	13%

Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

BEHAVIORAL HEALTH

During the early years of life, the social-emotional development and adaptive functioning of a child changes rapidly and profoundly as their developing brains encounter experiences (National Scientific Council on the Developing Child, 2004). The Adverse Childhood Experiences studies demonstrate how negative early childhood events such as neglect, violence and trauma can lead to behavioral and physical health problems in adulthood like chronic disease, mental illness, and substance abuse (Centers for Disease Control and Prevention, n.d.). However, these effects can be mitigated with proper intervention at the infant and toddler stages by behavioral health services (Arizona Health Care Cost Containment System, 2018). For young children, behavioral health services[18] would likely include day programs, crisis services, rehabilitation services, health promotion, mental health counseling, psychiatric and psychologist services, and various support services.

Pediatric behavioral health providers screen AHCCCS children from birth to age five for emotional, behavioral, and/or developmental needs. A national screening tool assists providers in coordinating services based on the intensity of need and formulating an integrated treatment plan (American Academy of Child and Adolescent Psychiatry, 2006).

Of AHCCCS children statewide, 11% of children received behavioral services in 2017, nearly 12% of children in 2018 and nearly 16% of children in 2019.

According to Table 15, 1-8% of AHCCCS children ages 3-5 in the region received behavioral health services compared to 11-16% of AHCCCS children statewide.

[18] For more detail on AHCCCS behavioral health services, visit https://www.azahcccs.gov/Members/AlreadyCovered/coveredservices.html

Table 15. Arizona and Regional AHCCCS Rates for Behavioral Health Services, Ages 3-5, 2017-2019

Indicator/Year	2017		2018		2019	
	Region	Arizona	Region	Arizona	Region	Arizona
Behavioral Health Services, Ages 3-5	1%	11%	2%	12%	8%	16%

Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

Table 16. Percent of Claims by Provider Type for AHCCCS Children Ages 3-5 Receiving Behavioral Health Services, 2017-2019

Provider Type	2017		2018		2019	
	Claims Count	Percent of Total	Claims Count	Percent of Total	Claims Count	Percent of Total
Behavioral Health Outpatient Clinic	12	24%	50	60%	186	52%
Durable Medical Equipment Supplier	11	22%	6	7%	6	2%
Hospital	6	12%	17	20%	51	14%
Integrated Clinics	<6	DS	<6	DS	19	5%
Occupational Therapist	<6	DS	<6	DS	46	13%
Physical Therapist	<6	DS	<6	DS	16	4%
Physician – MD/DO	8	16%	7	8%	15	4%
Other	12	24%	4	5%	17	5%

Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

VISION

Health conditions such as vision problems are detected through regular visits to PCPs. The American Public Health Association estimates that 20% of preschoolers have eye or vision problems (American Public Health Association, 2019). Most vision problems are successfully treated when detected early, but many children do not receive adequate vision screenings. A lack of vision care at younger ages can mean higher rates of undetected vision problems, leading to visual impairments that affect a child's development, performance, and quality of life.

Of all Arizona children 0-5 years old, 35% received a vision screening 2019-2020.
(Child and Adolescent Health Measurement Initiative)

Arizona's Eyes on Learning Vision Coalition recommends a vision screening as early as age one during a well-child visit. Other settings that provide vision screening include pediatrician offices, educational settings and community settings. Children ages 3-5 should have at least one vision screening

by a PCP or trained screener during this timeframe. Annual screenings should be provided to children in kindergarten through fourth grade. A vision screening is not necessary for children with certain developmental delays that cause difficulties with language and speech, motor skills, behavior, memory, learning, or other neurological functions. Instead, eye doctors recommend that all children with these types of delays receive a comprehensive eye exam. (Eyes on Learning, n.d.)

Vision screenings are typically included in AHCCCS' well-child visits according to their vision periodicity schedule and as medically necessary (Arizona Health Care Cost Containment System, 2021). However, the vision screening is not billed as a separate claim when completed during a well-child visit. Therefore, to capture the population of children who received a vision screening, we assumed that AHCCCS children were screened at their annual well-child visit, or they received a separately billable vision screening. Additional analysis showed that there were very few children who received a vision screening and not a well-child visit annually. Given that the claims data did not specify that a vision screening occurred during the well-child visit, these rates should be interpreted with caution and may be an overestimation of actual vision screenings.

Eye exams are completed by optometrists or ophthalmologists, so we captured those using procedure codes for ophthalmological services. We designated the eye exam as a follow-up eye exam if the visit occurred within six months of a vision screening or well-child visit. If a child was diagnosed with a visually significant eye condition during an eye exam and received treatment or additional visits to an optometrist or ophthalmologist for eyeglasses, surgery or other procedures, the rate of treatment was reported under "visually significant eye conditions who receive treatment". To calculate the rate for visually significant eye conditions who receive treatment, the denominator was all AHCCCS children who received an eye exam and had a diagnosis of strabismus, refraction and accommodation, amblyopia, or other eye disorders; and of those AHCCCS children with an eye condition, the numerator included children who were treated for the eye condition.

In White Mountain Apache Tribe Region, 6-7% of AHCCCS children received an annual vision screening or well-child visit compared to 43-47% of AHCCCS children statewide (Table 17). AHCCCS children ages 1-2 (8-10%) were more likely to receive an annual vision screening or well-child visit than ages 3-5 (6-7%) (Figure 12). Eye exams were conducted less frequently on AHCCCS children, ranging 2-4% at the regional level and 4-5% at the state level. Regional AHCCCS children who were female (2-4%) were slightly more likely to receive an eye exam than males (2-3%) (Figure 13). Follow-up eye exams were conducted on regional AHCCCS children at rates of 9-11% and statewide at rates of 4-5%. AHCCCS children with visually significant eye conditions received treatment at rates of 42-81% regionally compared to 54-60% statewide, however the numbers are small at the regional level.

Table 17. Arizona and Regional AHCCCS Rates for Vision, 2017-2019

Indicator/Year	2017		2018		2019	
	Region	Arizona	Region	Arizona	Region	Arizona
Vision Screening or Well-Child Visit	6%	44%	6%	43%	7%	47%
Eye Exams	2%	4%	2%	4%	4%	5%
Eye Exams after Vision Screening or Well-Child Visit	9%	4%	10%	5%	11%	4%
Visually Significant Eye Conditions Who Receive Treatment	66%	54%	42%	56%	81%	60%

Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

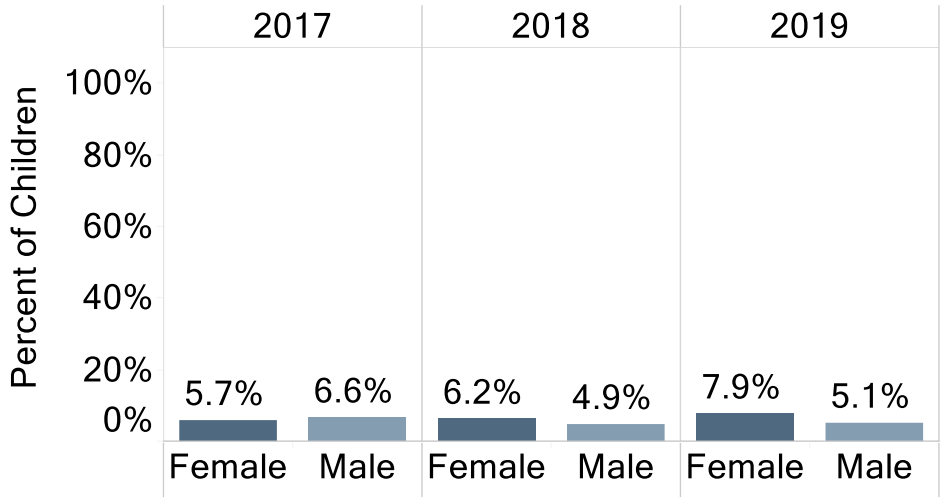
Table 18. Percent of AHCCCS Children Receiving Vision Screening or Well-Child Visit by Subregion, 2017-2019

Subregion	Infant (under age 1)	Toddler (ages 1-2)	Preschooler (ages 3-5)
Canyon Day	DS	13%	DS
Cibecue	3%	3%	5%
East Fork-Ft Apache	5%	5%	8%
Hondah-McNary	19%	13%	16%
North Fork	10%	DS	DS
Rainbow City	DS	DS	9%
Whiteriver	5%	5%	6%
WMAT Remainder	19%	11%	DS

Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

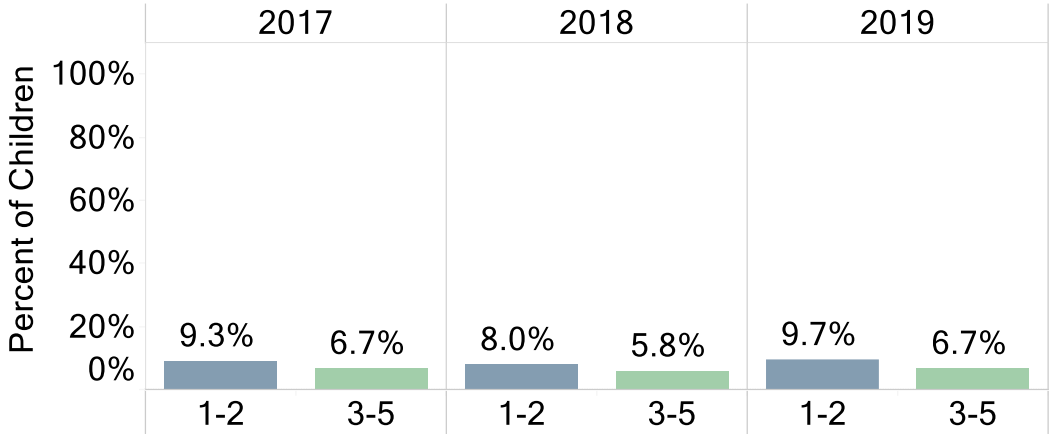
Note: Data was suppressed for Cedar Creek subregion.

Figure 11. Percent of AHCCCS Children Receiving Vision Screening or Well-Child Visit by Sex and Year



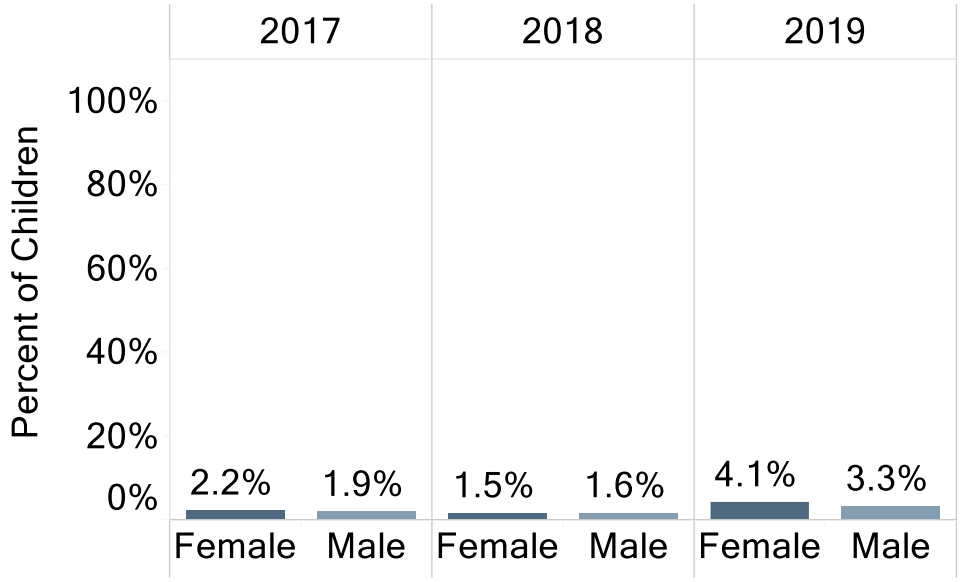
Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

Figure 12. Percent of AHCCCS Children Receiving Vision Screening or Well-Child Visit by Age Group and Year



Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

Figure 13. Percent of AHCCCS Children Receiving Eye Exams by Sex and Year



Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

Notes: Eye exams are performed by an optometrist or ophthalmologist.

HEARING

Most children begin hearing sounds at birth and learn to speak over time by imitating the sounds around them (NIDCD Information Clearinghouse, 2011). The National Institute on Deafness and Other Communication Disorders reports that around two or three out of every 1,000 children are born deaf or hard-of-hearing in the United States, and more lose their hearing later in childhood (NIDCD Information Clearinghouse, 2011). To detect hearing loss early, every state conducts universal newborn hearing screenings before a baby is discharged from a hospital or birthing center. If hearing loss is indicated, parents will be referred to an audiologist to conduct more comprehensive hearing testing and determine appropriate intervention services. For children diagnosed with hearing loss, early intervention helps children develop better language and communication skills.

Arizona strives to screen all infants before 1 month of age. Infants who do not pass the initial hearing screen and a rescreening, should be evaluated further to confirm or diagnose hearing loss before 3 months of age. Infants diagnosed with permanent hearing loss should receive intervention services before 6 months of age (Arizona Department of Health Services, n.d.). This report included available data on hearing screenings along with comprehensive hearing testing, evaluation and assessment which were termed “additional audiology services”.

Around 99% (82,035) of all Arizona infants received a newborn hearing screening in 2017 (Arizona Health Care Cost Containment System, 2018) which was slightly higher than the national rate of 98% (National Center on Birth Defects and Developmental Disabilities, 2019). Less than 1% of all Arizona infants were diagnosed with permanent hearing loss, and of those, 42% were diagnosed before three months of age (Arizona Health Care Cost Containment System, 2018). Nationally, 10% of infants were diagnosed with permanent hearing loss, and of those, approximately 74% were diagnosed before three months of age (National Center on Birth Defects and Developmental Disabilities, 2019). Additional audiology services were provided to 5% of AHCCCS children under age one in White Mountain Apache Tribe region compared to 9-12% of AHCCCS children statewide in Table 19. Hearing screenings were provided to 2% of AHCCCS children ages 1-5 in the region compared to 20-28% of AHCCCS children statewide. Regional AHCCCS children ages 1-5 who had a hearing screening were more likely to be male (2-4%) than female (2%) (Figure 14). Given the 2% rate of hearing screenings for ages 1-5, which were based on counts of seven to 12 claims annually, additional audiology services were provided to 86% of regional AHCCCS children in 2017 and 100% of children in 2018 and 2019. Statewide AHCCCS children’s rates for additional audiology services for ages 1-5 decreased from 68% to 57% over the same period.

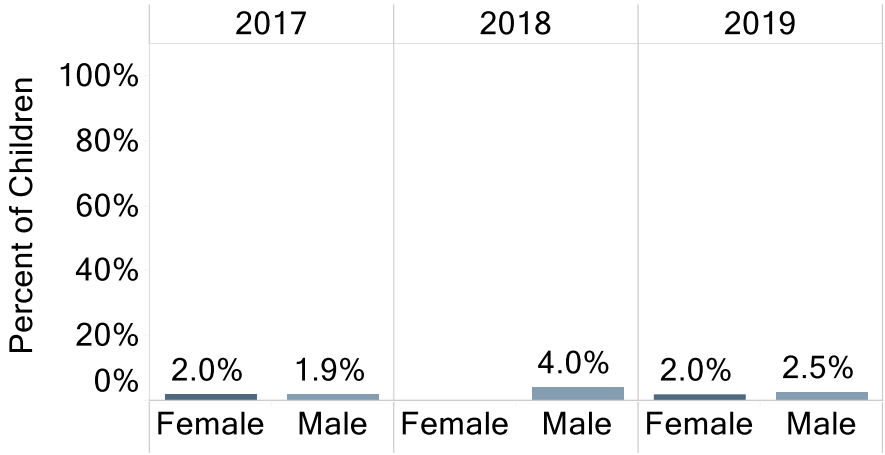
Table 19. Percent of AHCCCS Statewide and Regional Hearing Results, 2017-2019

Indicator / Year	2017		2018		2019	
	Region	Arizona	Region	Arizona	Region	Arizona
Additional Audiology Services Under Age One	DS	11%	DS	12%	5%	9%
Hearing Screening Ages 1-5	2%	20%	2%	22%	2%	28%
Additional Audiology Services for those Screened, Ages 1-5	86%	68%	100%	66%	100%	57%

Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

Note: The rates for additional audiology services for regional AHCCCS children ages 1-5 were based on small cell counts.

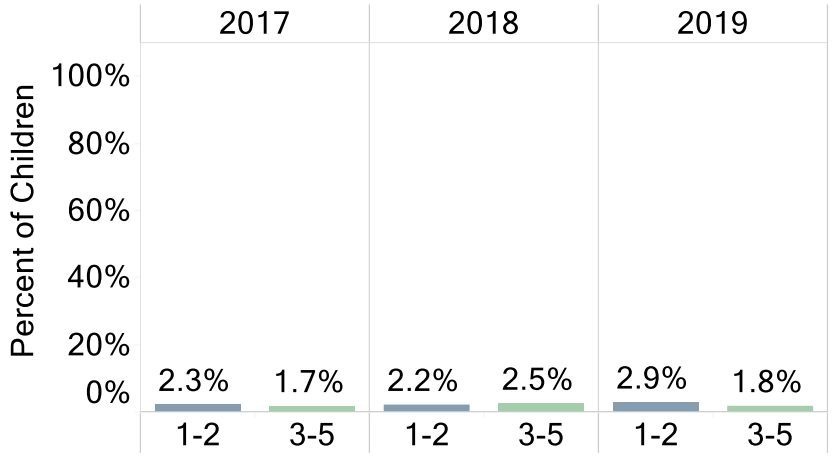
Figure 14. Percent of AHCCCS Children Ages 1-5 Receiving Hearing Screening Tests by Sex and Year



Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

Note: Data was suppressed for female in 2018.

Figure 15. Percent of AHCCCS Children Ages 1-5 Receiving Hearing Screening Tests by Age Group and Year



Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

ORAL HEALTH

Oral health concerns our teeth, gums, and oral-facial system that includes the ability to smile, speak, chew and other senses. Daily brushing and flossing of our teeth and gums demonstrates good oral hygiene, but it is not enough to maintain good oral health. We also need good nutrition, proper management of other health conditions, access to dental care, and extra help when there is a genetic predisposition to oral health conditions or special health care needs.

Oral health is a key indicator of overall health, well-being and quality of life.

Unfortunately, tooth decay has become a chronic disease in children. The CDC reports that 20% of children ages 5-11 have at least one untreated cavity, and children in low-income families are twice as likely to have cavities than children in higher-income families (Dye, Xianfen, & Beltrán-Aguilar, 2012). Cavities can be prevented by applying a fluoride varnish to primary and permanent teeth, drinking fluoridated tap water, brushing with a fluoride toothpaste, and applying dental sealants. Children should have regular visits to the dentist, beginning before their first birthday, for early identification and management of problems (Enany, n.d.). This report focuses on dental visits for ages 1-5.

In White Mountain Apache Tribe Region, 14-22% of AHCCCS children had at least one annual dental visit compared to 51-53% of AHCCCS children statewide (Table 20). Neither the region nor the state met the AHCCCS MPS of 60% for annual dental visits for ages 2-20 (Table 21). The subregional rates for at least one annual dental visit ranged 11-36% (Figure 16). AHCCCS children ages 3-5 (21-31%) were more likely to have at least one annual dental visit than ages 1-2 (6-8%) (Figure 17).

Two preventative care dental visits are recommended annually for children. Regionally, 2-6% of AHCCCS children received the biannual preventative care dental visit compared to 18-20% of AHCCCS children statewide (Table 20). Fluoride varnish was applied to 13-21% of AHCCCS children in the region compared to 47-49% of AHCCCS children statewide. The subregional rates for a fluoride varnish application ranged

6-36% (Figure 19). AHCCCS children ages 3-5 (18-30%) were more likely to have a fluoride varnish application than ages 1-2 (4-9%) (Figure 20).

Table 20. Percent of Statewide and Regional AHCCCS Children Oral Health Visits for Ages 1-5, 2017-2019

Type of Visit / Year	2017		2018		2019	
	Region	Arizona	Region	Arizona	Region	Arizona
Any Annual Dental Visit	20%	51%	14%	52%	22%	53%
Preventative Care Dental Visit Twice Annually	6%	18%	2%	19%	5%	20%
Fluoride Varnish Application	18%	47%	13%	48%	21%	49%

Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

Table 21. AHCCCS Statewide Contractor Rate of Performance on Annual Dental Visits for Ages Two to 20 Years, 2017-2019

Contractor	2017	2018	2019	Minimum Performance Standard
AHCCCS Complete Care	61%	61%	60%	60%
Comprehensive Medical and Dental Program	74%	75%	60%	60%
KidsCare	74%	74%	76%	60%

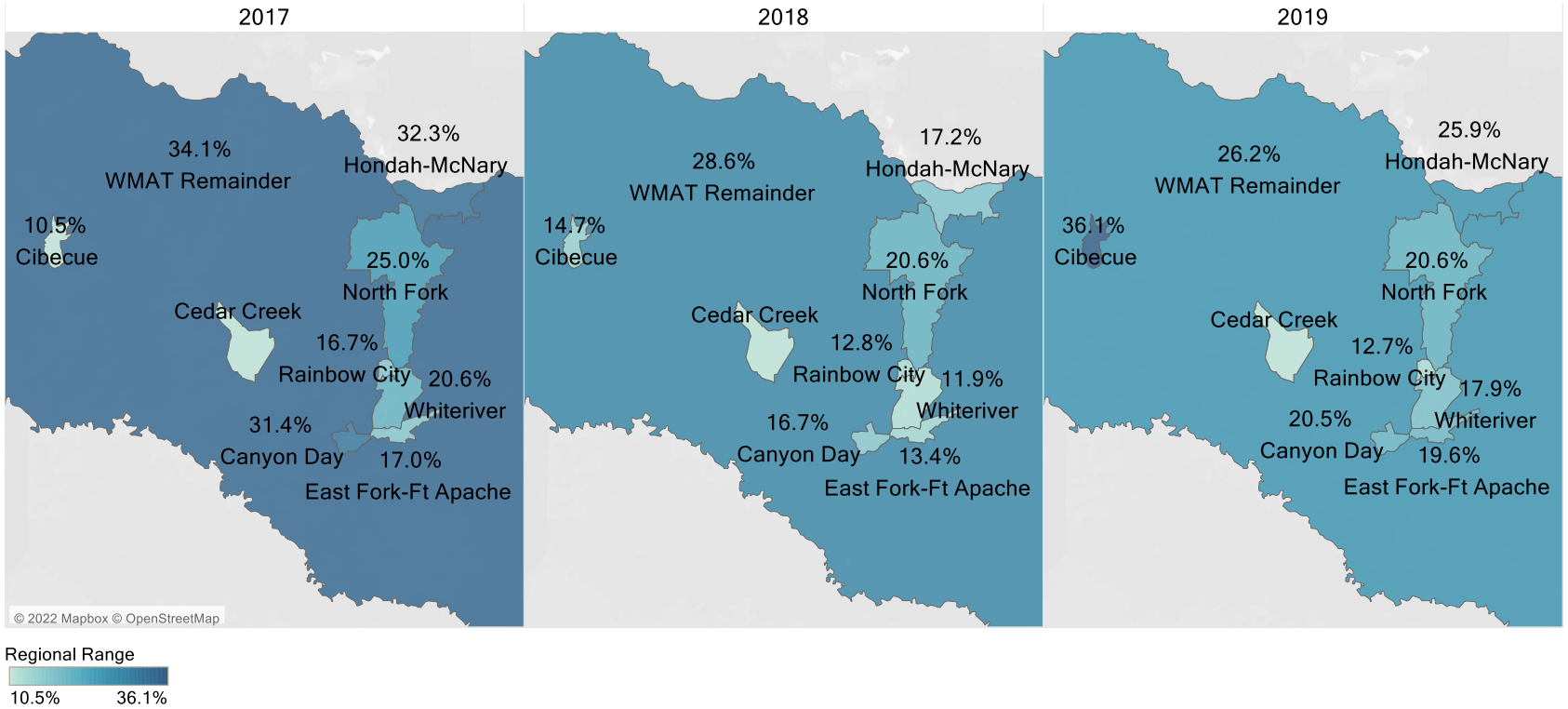
Source: (Health Services Advisory Group, 2021); (Health Services Advisory Group, 2019) (Health Services Advisory Group, 2020).

Table 22. Percent of AHCCCS Claims by Provider Type for Children Ages 1-5 With at Least One Annual Dental Visit, 2017-2019

Provider Type	2017		2018		2019	
	Claims Count	Percent of Total	Claims Count	Percent of Total	Claims Count	Percent of Total
Dentist	495	97%	311	97%	498	98%
Other	13	3%	8	3%	10	2%

Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

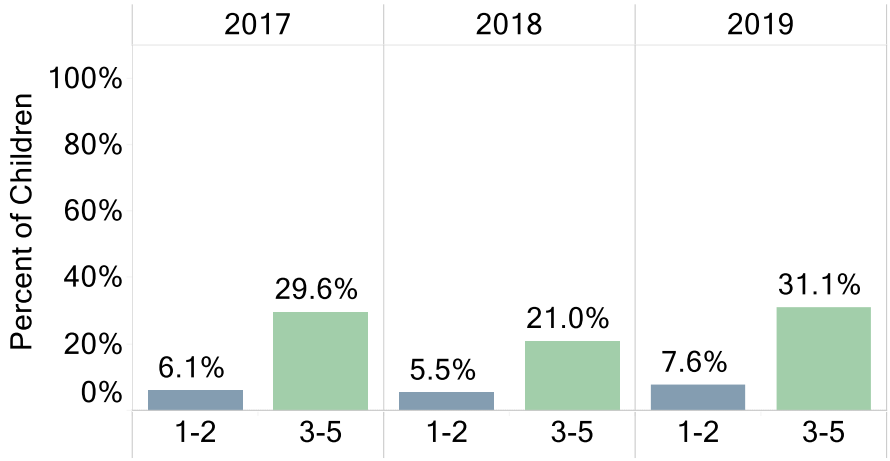
Figure 16. Percent of AHCCCS Children Ages 1-5 With at Least One Annual Dental Visit by Subregion by Year



Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

Notes: This indicator includes any claim with an associated dental procedure code (CDT). Data was suppressed for Cedar Creek in all years.

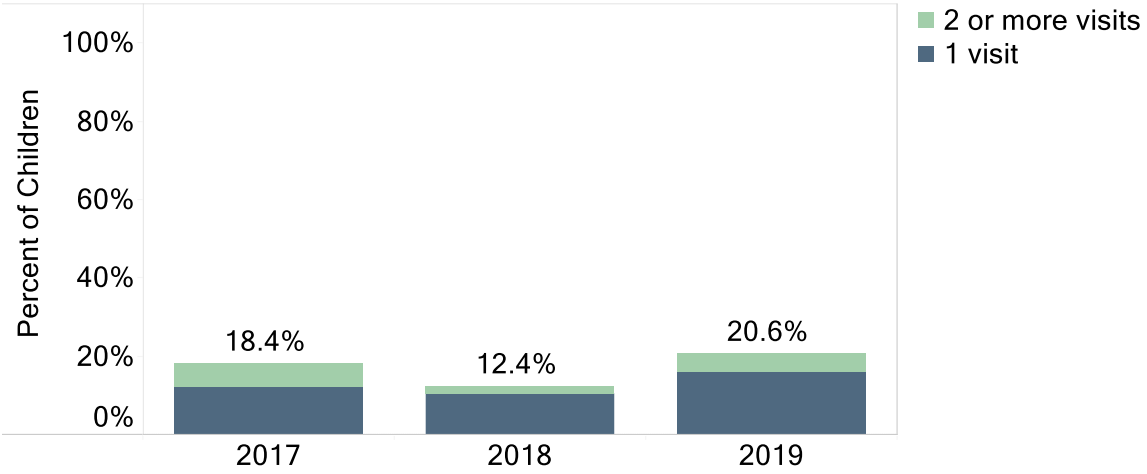
Figure 17. Percent of AHCCCS Children Ages 1-5 With at Least One Annual Dental Visit by Age Group and Year



Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

Notes: This indicator includes any claim with an associated dental procedure code (CDT).

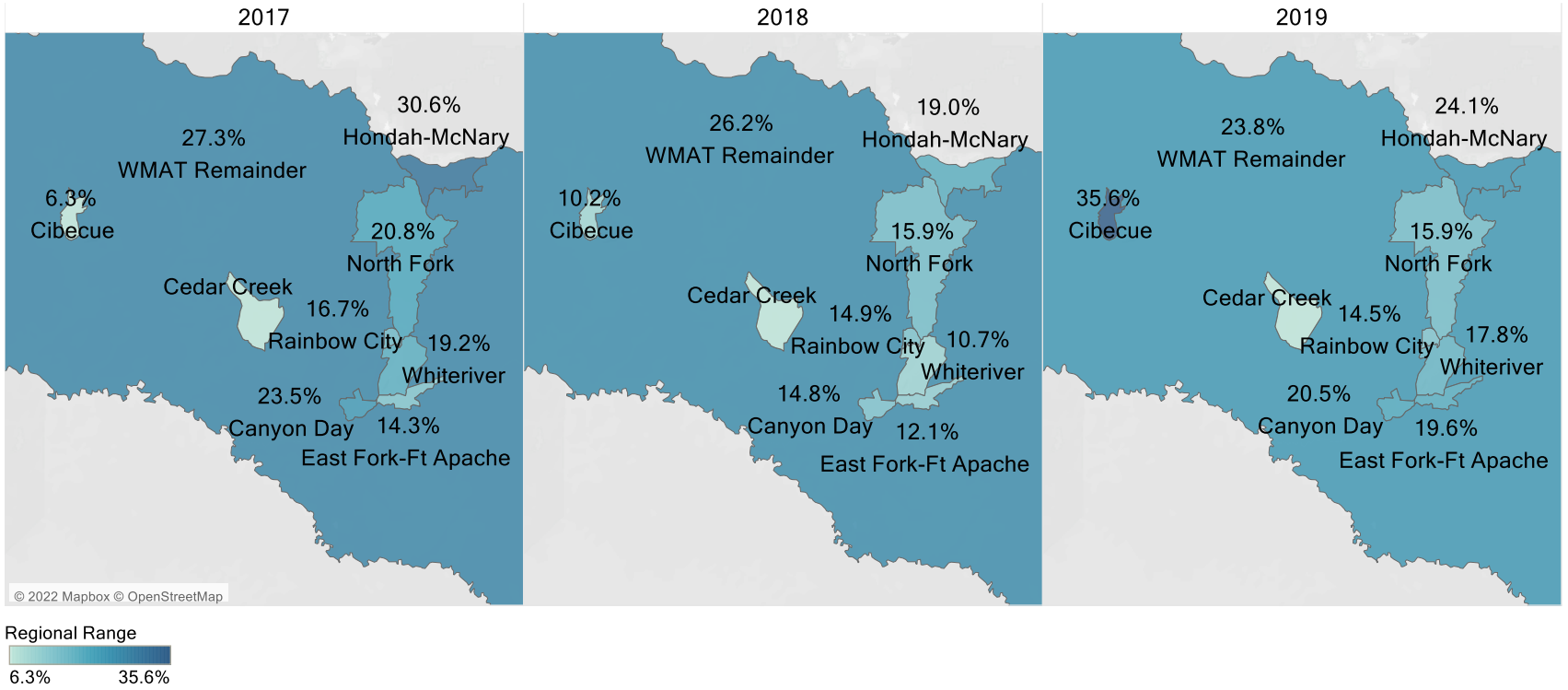
Figure 18. Percent of AHCCCS Children Ages 1-5 With One and Two Preventative Care Dental Visits in a Year



Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

Notes: This indicator is called a preventative care dental visit and includes the following procedures: D0120 periodic oral evaluation, D0150 comprehensive oral evaluation and D0145 oral evaluation for patient under 3 years of age and counseling with primary caregiver.

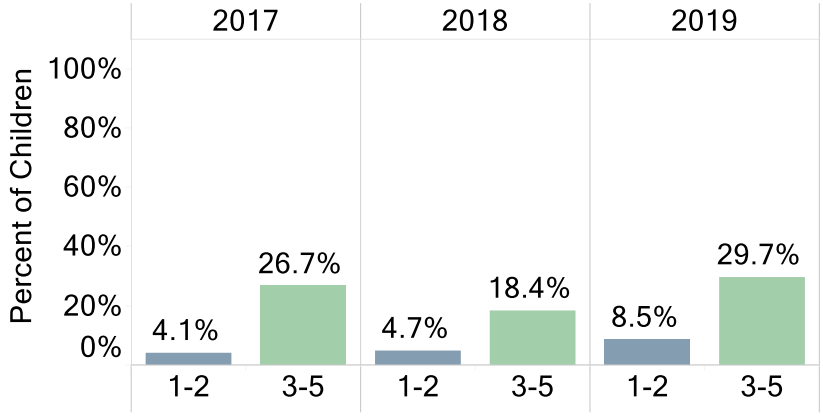
Figure 19. Percent of AHCCCS Children Ages 1-5 Receiving Fluoride Varnish by Subregion by Year



Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

Note: Data was suppressed for Cedar Creek in all years.

Figure 20. Percent of AHCCCS Children Ages 1-5 Receiving Fluoride Varnish by Age Group and Year



Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

Table 23. Percent of Claims by Provider Type for AHCCCS Children Ages 1-5 Receiving Fluoride Varnish, 2017-2019

Provider Type	2017		2018		2019	
	Claims Count	Percent of Total	Claims Count	Percent of Total	Claims Count	Percent of Total
Dentist	286	100%	168	96%	299	93%
Other	<6	DS	7	4%	23	7%

Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

IMMUNIZATIONS

Childhood vaccines protect children from many serious and potentially life-threatening diseases such as diphtheria, measles, meningitis, polio, tetanus and whooping cough, at a time in their lives when they are most vulnerable to disease. Approximately 300 children in the United States die each year from vaccine preventable diseases (HHS Office of Disease Prevention and Health Promotion, 2021). Immunizations are essential for disease prevention and are a critical aspect of preventable care for children. Vaccination coverage must be maintained to prevent a resurgence of vaccine-preventable diseases.

The Centers for Medicare and Medicaid Services measures the quality of immunizations through a core indicator of childhood immunization status which is also used by HEDIS. The measure calculates a rate for certain vaccines recommended by a child's second birthday (National Quality Forum, 2017):

- Percent of children who have completed the following schedules: four diphtheria, tetanus and acellular pertussis (DTaP); three polio (IPV); one measles, mumps and rubella (MMR); three haemophilus influenza type B (HiB); three hepatitis B (HepB); one chicken pox (VZV); four pneumococcal conjugate (PCV); one hepatitis A (HepA); two or three rotavirus (RV); two influenza (flu).

- Percent of children who have completed all vaccine courses combined: Combo 10.
- Percent of children who have completed Combo 3: four diphtheria, tetanus and acellular pertussis (DTaP); three polio (IPV); one measles, mumps and rubella (MMR); three haemophilus influenza type B (HiB); three hepatitis B (HepB); one chicken pox (VZV); four pneumococcal conjugate (PCV).

AHCCCS measures childhood immunization completion rates with each of its contractors biennially using the core measure. AHCCCS children's immunization status in Table 25 is the percent of AHCCCS children who have completed each indicated vaccine course by their second birthday, recorded in AHCCCS claims only. These rates were substantially lower than AHCCCS' published statistics in Table 24 due to the limitation of claims data and should be interpreted with caution. AHCCCS declared that claims data does not have the greatest level of detail as claims are not always reported for immunizations, particularly in school settings. To accurately capture immunization rates in AHCCCS' published statistics, AHCCCS uses data from medical records and from the Arizona State Immunization Information System (ASIIS), which is maintained by the Arizona Department of Health Services.

AHCCCS reported that statewide childhood immunization completion rates met or exceeded the national mean rates for three immunizations: DTaP, Hep A and Combo 3 (Arizona Health Care Cost Containment System, 2018) (Table 24). Several barriers to immunizations remained, such as the spread of misinformation about vaccines and parental hesitancy. The rate of exemptions from immunizations increased statewide as nearly 6% of kindergarteners had a Personal Beliefs Exemption in place since the 2017-2018 school year (Arizona Department of Health Services, 2021).

Table 24. AHCCCS Statewide Aggregate Immunization Completion Rates by Two Years Old, FFY 2016

Immunizations	FFY 2016 (period ending 9/30/2017)	HEDIS Medicaid Mean	AHCCCS Minimum Performance Standard
DTaP	79%	77%	85%
Polio	88%	89%	91%
MMR	89%	90%	91%
HiB	87%	88%	90%
Hep B	87%	88%	90%
VZV	88%	89%	88%
PCV	76%	77%	82%
Hep A	88%	84%	40%
RV	61%	69%	60%
Flu	40%	45%	45%
Combo 3	71%	70%	68%

Source: (Arizona Health Care Cost Containment System, 2018).

Note: The rows shaded green are the childhood immunization rates that met or exceeded the national median rates.

Table 25. Percent of Statewide and Regional AHCCCS Children Immunization Status, from AHCCCS Claims Data Only, 2017-2019

Immunizations	2017		2018		2019	
	Region	Arizona	Region	Arizona	Region	Arizona
DTaP	4%	30%	2%	38%	4%	52%
Polio	12%	40%	6%	51%	6%	66%
MMR	9%	57%	6%	72%	6%	76%
HiB	2%	44%	4%	56%	6%	69%
Hep B	DS	13%	DS	18%	3%	21%
VZV	9%	57%	6%	72%	6%	76%
PCV	5%	18%	2%	31%	3%	52%
Hep A	9%	65%	6%	75%	5%	78%
RV	10%	31%	6%	39%	4%	51%
Flu	1%	19%	3%	31%	DS	34%
Combo 3	DS	4%	DS	10%	2%	15%
Combo 10	DS	2%	DS	4%	DS	7%

Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

Notes: Rates only include immunizations recorded in AHCCCS claims, this is likely an undercount of immunization rates. Rows shaded pink are for comparing with Table 24.

MATERNAL PRENATAL AND POSTPARTUM CARE

Research has shown that the health of women before pregnancy and after delivery significantly impacts the health of their babies; therefore, it is important to focus on women's preconception health, prenatal care, postpartum care and beyond (Healthy People 2030).

Women who do not seek prenatal care are three times as likely to deliver a low birth weight infant.

(NICHD - Eunice Kennedy Shriver National Institute of Child Health and Human Development, 2017)

For pregnant women, prenatal care is essential for a healthy pregnancy and reducing the complications that can lead to poor birth outcomes for mother and child. Prenatal care involves regular visits to a health care provider to monitor the mother's health and health of the developing fetus, and this care should begin as early as possible in the pregnancy and continue until delivery. Prenatal care can identify problems or complications and take steps to manage them (NICHD - Eunice Kennedy Shriver National Institute of Child Health and Human Development, 2017). The American Academy of Pediatrics and the American College of Obstetricians and Gynecologists recommend that a woman with an uncomplicated pregnancy be examined at least once in the first trimester for prenatal care. Appropriate perinatal services and education are crucial components of a healthy birth.

The period of up to 60 days following childbirth is called the postpartum period. Preexisting health conditions, social determinants, and newly developed conditions contribute to maternal morbidity and mortality during this period. Health care providers consider the postpartum period to be critical to the health and well-being of both mother and child, so postpartum care should not be considered as optional. Yet, research has shown that nearly 40% of women in the United States have gone without a single postpartum visit (American College of Obstetricians and Gynecologists, 2018).

In White Mountain Apache Tribe Region, 46-63% of pregnant women began prenatal care in the first trimester compared to 84-86% of AHCCCS women statewide (Table 26). The Healthy People 2030 target rate was 81%[19]. For postpartum care, 52-67% of regional AHCCCS women had at least one postpartum visit compared to 88-89% of AHCCCS women statewide and 64-75% of Medicaid women nationally.

[19] Healthy People 2030 Prenatal Care Objective - https://health.gov/healthypeople/objectives-and-data/browse-objectives/pregnancy-and-childbirth/increase-proportion-pregnant-women-who-receive-early-and-adequate-prenatal-care-mich-08

Table 26. Percent of All AHCCCS Women Who Received Timely Prenatal and Postpartum Care, 2017-2019

Type of Care	2017		2018		2019	
	Region	Arizona	Region	Arizona	Region	Arizona
Prenatal Care	46%	84%	63%	86%	63%	85%
Postpartum Care	52%	88%	63%	89%	67%	89%

Source: AHCCCS Claims Data, 2021. CHiR is the source for all processing of the AHCCCS data.

CONCLUSION

The physical, mental, and emotional health of young children lays the foundation for the rest of their life. White Mountain Apache Tribe Region had several assets contributing to better health outcomes for young children and women enrolled in AHCCCS from 2017 to 2019, including newborn hearing screenings and immunizations (DTaP, Hepatitis A and Combo 3). These achievements contributed to good health outcomes throughout the region. The areas where needs were identified for AHCCCS women and children included PCP visits, well-child visits, access to care, supply of health care professionals, lead poisoning screenings, vision screenings, developmental screenings, oral health, and prenatal and postpartum care visits.

The information in this report can be combined with other available information to create a more comprehensive view of young children and women in the region for regional council planning.

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APPENDIX: DATA SOURCES

The source of data in all tables, graphs, reports, presentations, and other publications is the Arizona Health Care Cost Containment System (AHCCCS) (2021) unless otherwise noted. CHiR is the source of the calculations, analysis and/or processing of the data.

AHCCCS health claims and encounters data. AHCCCS is the state Medicaid provider. The data include health care transactions (paid claims) on all members, patients receiving inpatient, emergency department or other outpatient care in the state. The data layout is already at the individual patient level when received and requires no further manipulation to standardize variables or match patients.

AHCCCS System

In October 2018, AHCCCS enacted major changes to its care delivery system to integrate physical and behavioral health care under designated health plans for its eligible populations, called AHCCCS Complete Care. Integrated care would result in better coordination among providers in the same network and better health outcomes for AHCCCS enrollees. Under AHCCCS Complete Care, the choice of health plans varies by geographic area, but affected members have the same array of covered services and access to a network of providers (Arizona Health Care Cost Containment System, 2018).

Table 27. AHCCCS Complete Care Health Plans by Geographic Service Area

Geographic Service Area	AHCCCS Complete Care Health Plans
North (Apache, Coconino, Mohave, Navajo and Yavapai Counties)	Care 1st and Health Choice Arizona
Central (Maricopa, Gila and Pinal Counties)	Banner University Family Care, Care 1st, Health Choice Arizona, Arizona Complete Health, Magellan Complete Care, Mercy Care, UnitedHealthcare Community Plan
South (Cochise, Graham, Greenlee, La Paz, Pima, Santa Cruz and Yuma Counties)*	Banner University Family Care, Arizona Complete Health, UnitedHealthcare Community Plan (Pima County only)

**Zip codes 85542, 85192, 85550 are in the South geographic service area.*

Other health plans serve specialty populations. AHCCCS members with developmental disabilities who are enrolled in the Department of Economic Security/Division of Developmental Disabilities (DES/DDD) with a Children's Rehabilitative Services designation receive integrated care through their assigned DDD health plan. Arizona Long Term Care members receive services through program contractors.

American Indian members have the choice of enrolling in an AHCCCS Complete Care managed care plan or the American Indian Health Program (AIHP fee-for-service) for integrated care or switch enrollment between the two at any time. AIHP members can also choose care coordination through a Tribal Regional Behavioral Health Authority when available (secondary health plan). American Indian members can receive services at any time from an Indian Health Service facility, or a tribally owned or operated organization (i.e., Tribal 638 providers or Urban Indian Health providers).

American Indian members determined to have a Serious Mental Illness receive behavioral health services from a Regional Behavioral Health Authority but have the option to choose the American Indian Health Program or AHCCCS Complete Care for physical health services.

Arizona Health Care Workforce- Physicians. For the provider indicators, we capture the supply of Arizona physicians by specialty using the Arizona Health Care Workforce data set. This data set includes administrative data collected from the Arizona Medical Board and the Arizona Board of Osteopathic Examiners in Medicine and Surgery, the licensing agencies for physicians.