FIRST THINGS FIRST

Navajo Nation Region

2018 NEEDS AND ASSETS REPORT

NAVAJO NATION
REGIONAL PARTNERSHIP COUNCIL
2018
NEEDS AND ASSETS REPORT

Prepared by

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Funded by

First Things First Navajo Nation Regional Partnership Council

LETTER FROM THE CHAIR

September 14, 2018

Message from the Chair:

Since the inception of First Things First, the Navajo Nation Regional Partnership Council has taken great pride in supporting evidence-based and evidence-informed early childhood programs that are improving outcomes for young children. Through both programmatic and other systems-building approaches, the early childhood programs and services supported by the regional council have strengthened families, improved the quality of early learning, and enhanced the health and well-being of children birth to 5 years old in our community.

This impact would not have been possible without data to guide our discussions and decisions. One of the primary sources of that data is our regional Needs and Assets report, which provides us with information about the status of families and young children in our community, identifies the needs of young children, and details the supports available to meet those needs. Along with feedback from families and early childhood stakeholders, the report helps us to prioritize the needs of young children in our area and determine how to leverage First Things First resources to improve outcomes for young children in our communities.

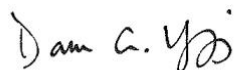
The Navajo Nation Regional Council would like to thank our Needs and Assets vendor, University of Arizona - Norton School of Family and Consumer Sciences, for their knowledge, expertise and analysis of the Navajo Nation region. Their partnership has been crucial to our development of this report and to our understanding of the extensive information contained within these pages.

As we move forward, the First Things First Navajo Nation Regional Partnership Council remains committed to helping more children in our community arrive at kindergarten prepared to be successful by funding high-quality early childhood services, collaborating with system partners to maximize resources, and continuing to build awareness across all sectors on the importance of the early years to the success of our children, our communities and our state.

Thanks to our dedicated staff, volunteers and community partners, First Things First has made significant progress toward our vision that all children in Arizona arrive at kindergarten healthy and ready to succeed.

Thank you for your continued support.

Sincerely,



Dawn Yazzie, Chair

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INTRODUCTORY SUMMARY AND ACKNOWLEDGMENTS

90 percent of a child's brain develops before kindergarten and the quality of a child's early experiences impact whether their brain will develop in positive ways that promote learning. Understanding the critical role the early years play in a child's future success is crucial to our ability to foster each child's optimal development and, in turn, impact all aspects of wellbeing of our communities and our state.

This Needs and Assets Report for the Navajo Nation Region helps us in understanding the needs of young children, the resources available to meet those needs and gaps that may exist in those resources. An overview of this information is provided in the Executive Summary and documented in further detail in the full report.

The First Things First Navajo Nation Regional Partnership Council recognizes the importance of investing in young children and ensuring that families and caregivers have options when it comes to supporting the healthy development of young children in their care. This report provides information that will aid the Council's funding decisions, as well as our work with community partners on building a comprehensive early childhood system that best meets the needs of young children in our community.

It is our sincere hope that this information will help guide community conversations about how we can best support school readiness for all children in the Navajo Nation region. This information may also be useful to stakeholders in our area as they work to enhance the resources available to young children and their families and as they make decisions about how best to support children birth to 5 years old in our area.

Acknowledgments:

We want to thank the Navajo Nation Office of the President and Vice President, Navajo Nation Department of Diné Education, Navajo Head Start, Navajo Nation Department of Health, Navajo Nation Division of Social Services, Navajo Nation Child Care and Development Fund, Navajo Nation Office of Vital Records, Navajo Area Indian Health Services, 638 Tribal Health Centers, Bureau of Indian Education - Family and Child Education, the early education centers in the Chinle, Kayenta, Holbrook, Flagstaff, Pinon, Red Mesa, Window Rock and Tuba City Unified School Districts, St. Michaels Indian School Preschool, Arizona Department of Economic Security and the Arizona Child Care Resource and Referral, the Arizona Department of Health Services, the Arizona Department of Education, the Census Bureau, the Arizona Department of Administration- Employment and Population Statistics, and the Arizona Health Care Cost Containment System for their contributions of data for this report, and their ongoing support and partnership with First Things First on behalf of young children.

To the current and past members of the Navajo Nation Regional Partnership Council, your vision, dedication, and passion have been instrumental in improving outcomes for young children and families within the region. Our current efforts will build upon those successes with the ultimate goal of building a comprehensive early childhood system for the betterment of young children within the region and the entire state.

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EXECUTIVE SUMMARY

This needs and assets report is the sixth biennial assessment of early education, health, and family support in the First Things First Navajo Nation Region.

Population Characteristics

According to the U.S. Census, 10,894 children under the age of six resided in the Arizona part of the Navajo Nation Region in 2010 (from here on referred to as "Navajo Nation Region") representing approximately 11 percent of the regions total population. Data provided by the Navajo Nation Office of Vital Records show that as of 2015, there were a total of 3,528 enrolled members under the age of six, 1,808 of whom were residing off-reservation. According to the U.S. Census in 2010, 95 percent of the young children (birth to age 4) in the region were identified as American Indian, a slightly greater proportion than in all Arizona reservations combined (92%). Almost a quarter (24%) of households in the region have at least one child under 6 years old.

According to the American Community Survey (ACS), 66 percent of children in the region live with a single parent. About seven percent of children ages birth to 5 are in kinship arrangements, with extended family members caring for them. The proportion of young children (0-5) living in a grandparent's household in the region (39%) is similar to that in all Arizona reservations combined (40%) but much higher than the state (14%). Twelve percent of children ages 0 to 17 living with grandparents in the region do not have a parent present in the household, and 56 percent live in multigenerational homes where the grandparent has assumed responsibility for the child, despite the presence of a parent.

Estimates from the ACS indicate that more than two-thirds of residents (68%) age 5 and older in the Navajo Nation Region speak a Native North American language at home, a higher proportion than across all Arizona reservations (50%). Nineteen percent of those who speak a language other than English at home indicated that they do not speak English "very well," which is higher than both all Arizona reservations combined (13%) and the state rate (9%). At a household level, eighteen percent of households in the region are classified as limited-English-speaking, which is higher than the proportion seen in all Arizona reservations combined (11%). Overall, the highest shares of Navajo speakers (ages 5 and older) live in the northern part of the Navajo Nation in the Western, Northern, and Chinle Agencies. For children ages 5 to 17, the distribution of Navajo speakers is similar to that of the overall population, but in general there are smaller proportions of children who speak Navajo at home than the proportion of the overall population. Key informants indicated that the low proportion of children who are able to speak Navajo fluently is a concern in the region.

Economic Characteristics

The median income for all families in the Navajo Nation Region was $31,748, according to recent estimates from the American Community Survey (ACS). The median income for families with married parents (husband-wife) and children under age 18 was higher ($46,102), and single-parent families made substantially less ($15,947 for households led by a single male and $22,077 for households led by a single female). According to the ACS, less than half (42%) of the total (all-age) population and more than half (54%) of young children (birth to 5) in the Navajo Nation Region live in poverty. More than three-quarters (76%) of families in the region with children aged four and under live below 185 percent of the FPL (i.e., earned less than $3,677 a month for a family of four), which is similar to the 77 percent across all Arizona reservations combined. As a way to address this need, the number of young children

supported by the Navajo Nation Department of Self Reliance (NNDSR) TANF program increased between 2015 and 2016, with the average number of young children receiving NNDSR each month rising from 1,269 to 1,292. The largest number of children are served through the Chinle NNDSR Field Office.

Recent estimates from the ACS indicate that the unemployment rate in the Navajo Nation Region was 24.4 percent; this rate is slightly lower than the estimated unemployment rate for all Arizona reservations combined (25.7%) but much higher than that seen statewide (9.9%). Almost two-thirds (62%) of young children live with one or more parents who are in the labor force, which is slightly lower than that seen in all reservations (64%).

The number of young children participating in Supplemental Nutrition Assistance Program in the region has declined since 2012 (-16% by 2015), although the program supports nearly 8,000 young children in the Navajo Nation Region annually. WIC enrollment has also declined slightly between 2015 and 2017. Key informants attribute the fall in participation rates to the fact that the current WIC program operating hours make it difficult for working parents to schedule their monthly appointments. Access to retailers may also be an issue as the ratio of SNAP retailers to the population is slightly lower than that available in all Arizona reservations or the state as a whole. The ratio of WIC retailers to the population in the region (37.29), is higher than that for all Arizona reservations combined (29.20), and it is much greater than the ratio at the state level (10.08) indicating that there are more WIC retailers relative to the population located within the regional boundaries than elsewhere in Arizona. On average, more than three-fourths of students in schools in the Navajo Nation Region were eligible for free or reduced-price lunch between 2012 and 2016. Two programs that address food needs, the Summer Food Service Program (SFSP) and the Child and Adult Care Food Program (CACFP), served 140,000 (SFSP) and 25,522 (CACFP) meals in the Navajo Nation Region in 2015.

Rates of home-ownership (74%) in the region are higher than across all Arizona reservations (69%) or the state (63%). The cost of housing is lower in the region compared to elsewhere in the state; 16 percent of housing units in the region require residents to contribute more than 30 percent of their household income toward housing, compared to 17 percent in all Arizona reservations and 34 percent statewide. However, transportation remains a challenge. As many as one in seven households have no vehicle available (15%), which is double the proportion of households without a vehicle across the state (7%).

Educational Indicators

In the 2014-2015 school year, 19 percent of third graders in the Navajo Nation Region attained a proficient or highly proficient score on the third grade math assessment, which was a much lower passing rate than across Arizona as a whole (42%). The percentage of students passing the math assessment was higher in several districts, including Tuba City Unified School District (37%), Holbrook Unified District (29%), and Pinon Unified District (23%). Performance on the English language Arts (ELA) test was poorer, with 14 percent of students demonstrating proficiency, compared to 40 percent statewide. Again, passing rates were higher in some districts, including Pinon Unified District (23%), Holbrook Unified District (19%), and Tuba City Unified School District (18%).

Rates of chronic absences for elementary students in grades one through three in the Navajo Nation Region have been consistently higher in 2014 and 2015 (53% for both) than across the state as a whole (34% and 36%, respectively). Rates of chronic absences were even higher in several districts, including Cedar Unified District (71% in 2015) and Pinon Unified District (58% in 2015). The high school drop-out rate for the 16 high schools in the region have slightly decreased from six percent in 2012 to five percent in 2015. The four-year high school graduation rate in all Navajo Nation Region schools has been consistently lower than that of schools statewide; graduation rates peaked in 2012, when 69 percent of seniors graduated in four years. About a third of the adults (33%) in the region have a high school diploma or GED equivalent and another third have (30%) some college or professional education.

Early Learning

Housed under the Navajo Nation Division of Social Services, the Navajo Nation Child Care Development Fund (CCDF) provides child care services for parents and families through tribal child care centers or private providers. Eight CCDF centers are Quality First sites. In the Chinle Region, there are 5 home-based providers serving a total of 13 children; fewer than ten of these children are between the ages of 0-5 years. There are 3 home-based providers in the Blue Gap community, and one each in the Cottonwood-Tselani and Chinle communities. As of March 2017, there were 4 home-based providers in the Tuba City Region within the communities of Tuba City, Tonalea, and Flagstaff (bordertown); fewer than ten children (0-5 years) were served in this region by home-based providers. In the Northern Agency, a total of 56 children were served by home-based providers with the Shiprock CCDF Casework Unit: 25 infants and toddlers and 31 preschool-age children. Fewer than ten children were care by home-based providers in the Fort Defiance Agency

Navajo Head Start administers two programs: Head Start and Early Head Start (EHS). Head Start comprises 109 program sites across four Head Start Regions: (1) Chinle Region, (2) Tuba City Region, (3) Fort Defiance Region, and (4) Crownpoint/Shiprock Region (predominantly serving New Mexico communities). Three EHS sites are in operation on the Navajo Nation. The two Arizona-based sites are in Fort Defiance and on the Diné College Campus in Tsaile. Altogether, Navajo Head Start (including EHS) sites in the First Things First Navajo Nation Region have a total funded enrollment of 1,252 children as of program year 2015-2016.

Funded by the Bureau of Indian Education (BIE), the Family and Child Education (FACE) is an early childhood and parental involvement program for American Indian families at BIE-funded schools. Altogether, 375 children ages birth to 5 were enrolled in both center- and home-based programs in the Arizona portion of the Navajo Nation in Program Year 2017. There are also 14 school-based preschool programs in the Navajo Nation Region. Of these, two programs were based in a private school. The rest of the 13 preschool programs are public school-based, and collectively have a total enrollment of 478 children.

In addition to the child care subsidies provided by the Navajo Nation Child Care Development Fund Program, some families in the Navajo Nation Region receive subsidies from the Arizona Department of Economic Security (DES). The number of children receiving these subsidies has fallen from 13 to less than 10 between 2013 and 2015.

The Navajo Nation Growing in Beauty program conducts screenings and developmental evaluations, including vision and hearing, to help children enter early intervention programs in the region. Both service coordination and direct services are available through the program. This AzEIP provider received referrals for 276 children aged 0-2 and served 109 children aged 0-2 in the region in 2015, increases from the previous two years. Limited data was available from the Division of Developmental Disabilities (DDD) regarding the number of young children referred to, or evaluated and served by DDD in the years 2012 through 2015. When available, data show fewer than 25 young children engaged with DDD during those years.

Child Health

Under the leadership of tribal health corporations, the Navajo Nation manages three large tribally-operated health care facilities in Arizona; Tsehootsooi Medical Center in Ft. Defiance, Tuba City Regional Health Care Corporation in Tuba City, and Winslow Indian Health Care Corporation in Winslow. Between December 2013 and November 2016, there were 46,520 active users of Tsehootsooi Medical Center; approximately 13.5 percent (n= 6,284) were young children (ages 0-5). In 2016, there were 38,271 active users of Tuba City Regional Health Care, and 10.3 percent (n=3,941) were young children. From 2014 to 2016, the number of active users grew slightly at Winslow Indian Health Care Center to 13,724 in 2016; 10.6 percent of these users (n=1,450) were young children. According to estimates

from the American Community Survey (ACS), 15 percent of young children, birth to age five, in the Navajo Nation Region were estimated to be uninsured, along with 24 percent of the total population (the U.S. Census Bureau does not consider coverage by the Indian Health Service (IHS) to be insurance coverage). At Winslow Indian Health Care Center, the percent of patients with third party insurance (meaning insurance besides Indian Health Service coverage) increased from 82 percent in fiscal year 2014 to 87 percent in fiscal year 2016. At Tsehootsooi Medical Center between December 2013 and November 2016, 89.7 percent of patients of all ages had third party insurance, and 78.4 percent of patients ages birth to 5 had third party insurance. In fiscal year 2016 at Tuba City Regional Health Care, 85.9 percent of all patient visits were covered by third party insurances, and all (100%) patient visits by patients ages birth to 5 were covered by third party insurance.

In 2014, there were 1,436 babies born in the Navajo Nation Region, and 90 percent of mothers giving birth identified as being American Indian or Alaska Native. Most mothers (80%) were not married in the region, and 11 percent were aged 19 or younger (8% statewide). Four percent of mothers giving birth were aged 17 or younger, double the percentage of teen mothers in the state (2%). Additionally, the proportion of mother's who used tobacco during pregnancy in the region was substantially lower (1%) that of the rate statewide (5%). From 2009 until 2013, the percent of births in the region with prenatal care beginning in the first trimester ranged from 64.8 to 69.6, far below the Healthy People 2020 target of at least 77.9 percent.

In 2014, 7.9 percent of babies in the region were born premature, compared to 9 percent statewide. In the same year, 5.6 percent of babies born in the region were low birth weight, compared to seven percent across the state. In 2015, six percent of newborn babies did not pass initial hearing screenings, which was higher than the overall statewide rate (3.8%). Overall, 41 percent of infants born at Navajo Area IHS facilities and tribal 638 facilities are exclusively or mostly breastfed at two months. Breastfeeding rates are highest at Kayenta Health Center (64%) and Fort Defiance (Tsehootsooi Medical Center) (45%).

The Healthy People 2020 target for vaccination coverage for children ages 19-35 months for each of the three major (DTAP, polio, and MMR) vaccines is 90 percent, and data from the Navajo Area IHS suggest that the region overall may not be meeting this goal. However, the Navajo Area overall as well as a number of health facilities in the area are meeting the IHS target of at least 77 percent of children ages 19-35 months having all recommended vaccines. Rates of personal exemptions for vaccinations among children in child care (0.0%) and kindergarten (0.3%) in the region were much lower than exemption rates at the state level (3.5% and 4.5% respectively). According to data from the Navajo Area IHS, over half (54%) of children ages 6 months to 17 years received a flu vaccine in fiscal year 2016.

Results from an IHS survey show that that 43 percent of AI/A children ages 3 to 5 from all IHS Areas, including the Navajo Area, have untreated tooth decay. The 2010 Oral Health Survey found that among children 2-5 years old across 13 IHS Areas, children in the Navajo Service Area had the highest average dmft score (which reflects the total number of permanent teeth in an individual that are decayed, missing or filled) at 6.52 (compared with the 4.13, the average dmft for the entire IHS population). The Navajo Area also had the highest percentage of children with caries experience (85.9%, compared with 62.3% for the entire IHS population), untreated decay (65.8%, compared with 43.6% for the entire IHS population), and percentage of teeth with decay experience (33.2%, compared with 21.0% for the entire IHS population).

From December 2013 to November 2016, 30 children ages birth to 5 were seen at the emergency department at Tsehootsooi Medical Center for unintentional injuries. In fiscal year 2016, 496 children ages birth to 5 were seen at the Tuba City Regional Health Care emergency department for unintentional injuries. Data also suggests that both ear infections and asthma are common health concerns for young children in the region.

Data from the Navajo Area IHS in the fourth quarter of fiscal year indicate that 19.6 percent of children ages 2 to 5 in the area had obesity. Obesity rates among young children were lowest at Fort Defiance (Tsehootsooi Medical Center) (13.6%) and highest at Shiprock-Northern Navajo Medical Center (23.3%).

Family Support and Literacy

In the Navajo Nation Region, home visitation services are available through the Baby FACE program, which is currently managed by the Navajo Nation Growing in Beauty early intervention program. As of May 2017, a total of 220 families and 240 children are enrolled in the Baby FACE programs at these seven schools; Black Mesa Community School, Cottonwood Day School, Dennehotso Boarding School, Lukachukai Community School, Pinon Community School, Seba Dalkai Boarding School, and Tuba City Boarding School. As of May 2017, a total of 43 families and 51 children are enrolled in the Baby FACE programs at these four schools; Dilcon Community School, Nazlini Community School, Shonto Preparatory School, and Rock Point Community School. Cumulatively, the Baby FACE programs in the Navajo Nation Region serve 263 families and 291 children.

Child welfare services in the Navajo Nation Region are overseen by the Navajo Nation Division of Social Services. According to data provided by the Division of Social Services, in 2015 there were an average of 82 children (ages 0-17) removed from their homes by Tribal Child Protective Services in any given month, which represents a slight increase from an average of 65 per month in 2014. In 2015, a total of 999 cases of child abuse or neglect were substantiated, down from 1,142 in 2014. Over half of children in care (54%; n=4,290) in 2015 were placed with relatives, 24 percent (n=1,911) were placed in Navajo Nation foster homes, 16 percent (n=1,308) were placed in contract foster homes, and six percent (n=505) were placed in contract facilities. In 2015, there were 63 foster care homes available to care for children in out-of-home placement, an increase from the 46 homes available in 2014; all foster homes are located on the reservation.

Data on juvenile offenses and arrests were available from the Navajo Nation Police Department. Overall, the number of juvenile arrests in the entire Navajo Nation fell from 590 in 2014 to 251 in 2016, and in the region, arrests fell from 347 in 2014 to 227 in 2016. The largest portion of arrests were related to substance use (35% of arrests in the region and 33% of arrests in the Navajo Nation).

Behavioral health services for community members in the Navajo Nation Region are also provided by the Navajo Nation Division of Behavioral Health Services (NDBHS). No data on the services provided by the NDBHS were available to be included in this report. However, each year from 2012 to 2015, between 71 and 78 pregnant or parenting women received publically-funded behavioral health services through the RBHA serving the reservation: Northern Arizona Regional Behavioral Health Authority (NARBHA), which is now known as Health Choice Integrated Care. The number of children ages 0 to 5 receiving behavioral health services from NARBHA fell from 129 in 2012 to fewer than 25 in 2015. Health care facilities in the Navajo Area IHS regularly conduct alcohol use screening among female patients ages 14 to 46 to help prevent Fetal Alcohol Syndrome. In the Navajo Area as a whole, 59.9 percent of all female patients in that age range were screened for alcohol use in the fourth quarter of 2016. Rates of screening were highest at Gallup Indian Medical Center (72.6%) and Crownpoint Health Care Facility (62.7%) and lowest at Shiprock-Northern Navajo Medical Center (53.3%).

Communication, Public Information, and Awareness

Since state fiscal year 2011, First Things First has led a collaborative, concerted effort to build public awareness and support across Arizona. In addition, First Things First began a community engagement effort in SFY2014 to recruit, motivate and support community members to take action on behalf of young children. In the Navajo Nation Region, these efforts have resulted in the recruitment of 1072 individuals into their tiered engagement program during the

period of FY2014 through 2016: 805 Friends, 217 Supporters and 50 Champions. In addition to these strategic communications efforts, First Things First has also led a concerted effort of policymaker awareness-building throughout the state. The Arizona Early Childhood Alliance represent the united voice of the early childhood community in advocating for early childhood programs and services. Finally, First Things First recently launched enhanced online information for parents of young children, including the more intentional and strategic placement of early childhood content and resources in the digital platforms that today's parents frequent.

System Coordination among Early Childhood Programs and Services

The Navajo Nation Regional Partnership Council supports coordination efforts in the region through a number of unfunded approaches in FY 2017. The Early Education Coalition seeks to coordinate early care providers in the shared vision of improving kindergarten-readiness efforts, create clear expectations and alignment of resources toward this vision, and to enhance cross-sector awareness of program requirements that can be leveraged to increase families' access to high quality early learning programs. The initiative, Understanding Child Care needs in Western Navajo Agency, intends to engage and collaborate with key stakeholders in the community of Tuba City to identify child care needs and develop a child care delivery system designated for children birth to 5 years and their families. In addition, coordination of services pertaining to special needs is being undertaken to facilitate dialogue among early intervention services stakeholders in the Navajo Nation in an effort to strengthen and unify the early intervention service delivery system in the region. In FY2018 the Early Education Coalition will become the Early Childhood Coalition. This will be the only unfunded approach that will continue into the new fiscal year. Coordination of Services pertaining to Special Needs efforts has been merged within the work of the Coalition.

2018 NEEDS AND ASSETS REPORT

About this Report

The data contained in this report come from a variety of sources. Some data were provided to First Things First by state agencies, such as the Arizona Department of Economic Security (DES), the Arizona Department of Education (ADE), and the Arizona Department of Health Services (ADHS). Other data were obtained from publicly available sources, including the 2010 U.S. Census, the American Community Survey (ACS), and the Arizona Department of Administration (ADOA). In addition to these public sources this report includes: 1) Quantitative data obtained from various Navajo Nation tribal departments and agencies with approval from the Navajo Nation Office of the President and Vice President; 2) Findings from qualitative data collection conducted in 2016 and 2017 specifically for this report through key informant interviews with service providers in the region.[i] Not all data will be available at a First Things First (FTF) regional level because not all data sources analyze their data based on FTF regional boundaries. When regional data are unavailable, this will be noted by N/A.

This report follows the First Things First Data Dissemination and Suppression Guidelines. Throughout this report, suppressed counts will appear as either **<10** or **<25** in data tables, and percentages that could easily be converted to suppressed counts will appear as **DS** (data suppressed). The signifier **N/A** indicates where data is not available for a particular geography. Please also note that some data, such as that from the American Community Survey, are estimates that may be less precise for small areas. Additional information on the limitations of U.S. Census and American Community Survey data in tribal communities is included in the Appendices section.

In most of the tables in this report, the top row of data corresponds to the First Things First Navajo Nation Region. When available, the next three rows show data for the New Mexico and Utah parts of the Navajo Nation as well as the Navajo Nation as a whole. Per recommendation of the First Things First Navajo Nation Regional Partnership Council, the following five rows include data for each of the five agencies within the Nation: Chinle, Eastern, Fort Defiance, Northern and Western. The last two rows show data that are useful for comparison purposes: all Arizona reservations combined and the state of Arizona.

For more detailed information on data sources, methodology, suppression guidelines, and limitation, please see the Appendices section.

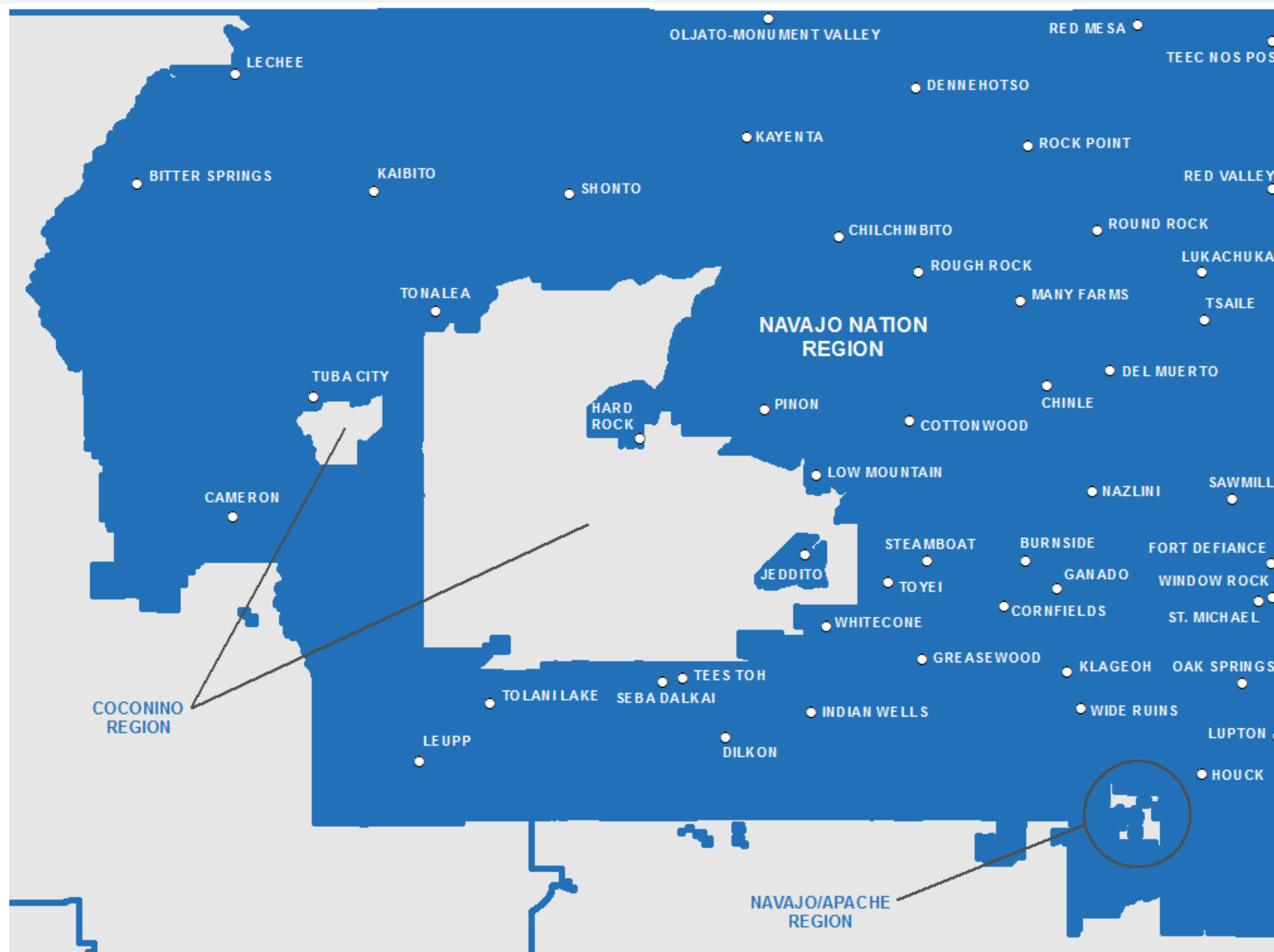
Description of the Region

When First Things First was established by the passage of Proposition 203 in November 2006, the government-to-government relationship with federally-recognized tribes was acknowledged. Each Tribe with tribal lands located in Arizona was given the opportunity to participate within a First Things First designated region or to elect to be designated as a separate region. The Navajo Nation Region was one of 10 Tribes who chose to be designated as its own region. This decision must be ratified every two years, and the Navajo Nation has opted to continue to be designated as its own region.

i Please note that throughout this report we will use the term "key informants" to refer to individuals who provided qualitative data for this report either through individual interviews or through a group discussion.

The Navajo Nation is a sovereign nation that extends into the states of Arizona, New Mexico and Utah, covering 27,000 square miles. The Navajo Nation is home to the Navajo people, also known as Diné, *The People*. Window Rock is the capital of the Navajo Nation from which three branches of government administer the Navajo Tribal Code. Local governmental authority lies with 110 Chapters in which local business is conducted and tribal voting occurs. The boundaries of the First Things First Navajo Nation Region mirror the Arizona-only portion of the Navajo Nation (see Figure 1 below).

Figure 1. The Navajo Nation First Things First Region



Source: First Things First (2016).

POPULATION CHARACTERISTICS

Why Population Characteristics Matter

Knowing the characteristics of families living within a region, and how they change over time, is important for understanding the resources and supports needed by those families.[1] The number of young children and families in a region, their ethnic composition, and the languages they speak can influence the type and location of services within a region such as schools, health care facilities and services, and social services and programs. Accurate and up-to-date information about population characteristics such as these can lead to the development or continuation of relevant resources and assure that they align with the needs of families in the region. Appropriately locating resources and services can support positive child outcomes. Disparities in access to jobs, food resources, schools, health care facilities and providers, and social services have been associated with a number of poor outcomes for children including infant mortality, obesity, and health insurance coverage, among others.[2]

An understanding of the supports and resources *within* a family is also key to helping young children achieve the best possible developmental outcomes.[3,4] Children living with and being cared for by someone other than their parents, such as relatives or close friends, is known as kinship care and is increasingly common.[5] Children living in kinship care can arrive in those situations for a variety of reasons including abuse, neglect, homelessness, chronic illness, or a family member's incarceration, among others. Children in kinship care often face special needs as a result of trauma, and these families often require additional support and assistance to help children adjust and provide the best possible home environment.[6] Caring for young children may pose a particular challenge for aging grandparents, as they often lack information on resources, support services, benefits, and policies available to aid in their caregiving role.[7] Understanding the makeup of families in a region can help better prepare child care, school and agency staff to engage with diverse families in ways that support positive interactions with staff and within families to enhance each child's early learning.[8]

Recognizing variations in regional language use and proficiency is also important to ensuring appropriate access to services and resources, and to identifying needed supports. Mastery of the language spoken in the home is related to school readiness and academic achievement.[9] Those children who engage in dual language learning have cognitive, social-emotional and learning benefits in early school and throughout their lifetimes.[10] Although dual language learning is an asset, some children come from limited English speaking households (that is, a household where none of the adult members speak English very well). Language barriers for these families can limit access to health care and social services, and can provide challenges to communication between parents and teachers, doctors and other providers, which can affect the quality of services children receive.[11] Assuring that early childhood resources and services are available in a language accessible to the child and caregivers is essential. Arizona is home to a large number of Native communities, with numerous Native languages spoken by families in those communities. Language preservation and revitalization are recognized by the U.S. Department of Health & Human Services as keys to strengthening culture in Native communities and to encouraging communities to move toward social unity and self-sufficiency.[12] Special consideration should be given to respecting and supporting the numerous Native languages spoken, particularly in tribal communities around the state.

What the Data Tell Us

Demographics

According to the U.S. Census, 10,894 children under the age of six resided in the Arizona part of the Navajo Nation in 2010 (from here on referred to as "Navajo Nation Region") (see Table 1). The overall population for the region was 101,835 in that same year, meaning that approximately 11 percent of residents were children under 6 years of age (see Table 3).

Data provided by the Navajo Nation Office of Vital Records show that as of 2015, there were 259,121 enrolled members of the Navajo Nation as a whole. Of these, 67,033 were residing off-reservation. A total of 5,336 children under the age of six were enrolled members of the Navajo Nation, 1,808 of whom were residing off-reservation (see Table 5). The total enrollment of children under the age of six increased substantially from 2,348 in 2014 to 5,336 in 2015 (Table 4). However, the overall enrollment (for all ages) decreased in the same time period, from 267,056 in 2014 to 259,121 in 2015.

Table 6 below shows a comparison between the population of the Navajo Nation according to the Census 2010 and on-reservation enrollment membership as reported by the Navajo Nation Office of Vital Records for 2015. The total on-reservation enrollment (n=192,088) was about ten percent higher than the total Census population number (n=173,667). These tribal enrollment data suggest the likelihood that census data provide an undercount of families on the Navajo Nation. It is important to note that it is not surprising that reservation census data do not match tribal enrollment numbers. The Census Bureau acknowledges that those residing on reservations are typically undercounted, with their estimate of the undercount in Arizona being about four percent (for more detail see Methods and Data Sources, page 148). In addition, enrollment criteria are set by each individual tribe, while census data are based on place of residence on Census Day (April 1, 2010). However, there is a considerable difference in the number of children birth to five reported by Census 2010 and the Navajo Nation Office of Vital Records, with only 3,528 young, on-reservation children enrolled, and 18,335 young children recorded by the Census 2010 (Table 6). The differences in these numbers suggest that children are not enrolled as members of the Navajo Nation while they are still young, but that with time, they eventually become enrolled. Key informants indicated that a possible reason behind the delay in enrollment may be the long distances that parents need to travel to the nearest facility of the Navajo Nation Office of Vital Records in each of the agencies within the Nation. Some key informants suggested that parents might need support with travel-related expenses in order to go through the enrollment process early on. Key informants also suggested that another possible explanation behind the low enrollment of young children might be related to inter-tribal marriages being more common in recent years, with more Navajos marrying members of other tribes. It is possible, key informants said, that these parents might be choosing to enroll their children as members of the tribe of the non-Navajo parent.

Since the turn of the 21st century, Arizona as a whole saw a 19 percent increase in the number of young children. In the Navajo Nation Region, an opposite trend was observed: the number of young children decreased by 12 percent from 2000 to 2010 (Table 2). Projected population estimates from 2015 to 2040 produced by the Arizona Department of Administration indicate that the overall population in the Navajo Nation Region will continue to decrease over the next several decades (Table 7).

According to the U.S. Census in 2010, 95 percent of the young children (birth to age 4) in the region were identified as American Indian, a slightly greater proportion than in all Arizona reservations combined (92%) (Figure 2). In the Navajo Nation Region, the proportion of children who were identified as Hispanic or Latino (4%) was substantially smaller than that in all Arizona reservations combined (9%) (Table 9).

Among adults, the overall ethnic/racial breakdown in the region looked similar to that of children: 95 percent of residents 18 and older identify as American Indian alone (not Hispanic or Latino), compared to 88 percent in all Arizona reservations combined (Table 8). One percent of adults in the region are Hispanic or Latino, compared to five percent in all Arizona reservations.

Table 1. Population of Young Children (Ages 0 to 5) in the 2010 Census

	Ages 0-5	Age 0	Age 1	Age 2	Age 3	Age 4	Age 5
Navajo Nation Region	**10,894**	**1,800**	**1,736**	**1,811**	**1,849**	**1,812**	**1,886**
Navajo Nation (New Mexico part)	6,712	1,078	1,092	1,074	1,205	1,112	1,151
Navajo Nation (Utah part)	729	127	117	128	124	102	131
Navajo Nation (entire)	18,335	3,005	2,945	3,013	3,178	3,026	3,168
Chinle Agency	3,134	545	481	519	531	549	509
Eastern Agency	3,361	551	543	545	594	540	588
Fort Defiance Agency	4,452	692	728	716	794	737	785
Northern Agency	3,223	521	526	514	562	541	559
Western Agency	4,165	696	667	719	697	659	727
All Arizona Reservations	20,511	3,390	3,347	3,443	3,451	3,430	3,450
ARIZONA	546,609	87,557	89,746	93,216	93,880	91,316	90,894

Source: U.S. Census Bureau (2010). 2010 Decennial Census, SF 1, Table P14

Table 2. Change in Population of Young Children (Ages 0 to 5), 2000 to 2010 Census

	Number of children (ages 0-5) in 2000 Census	Number of children (ages 0-5) in 2010 Census	Percent change in population (ages 0-5), 2000 to 2010
Navajo Nation (Arizona part)	**12,352**	**10,894**	**-12%**
Navajo Nation (New Mexico part)	7,896	6,712	-15%
Navajo Nation (Utah part)	818	729	-11%
Navajo Nation (entire)	21,066	18,335	-13%
Chinle Agency	3,589	3,134	-13%
Eastern Agency	4,165	3,361	-19%
Fort Defiance Agency	5,378	4,452	-17%
Northern Agency	3,414	3,223	-6%
Western Agency	4,520	4,165	-8%
All Arizona Reservations	21,216	20,511	-3%
ARIZONA	459,141	546,609	+19%

Source: U.S. Census Bureau (2000). 2000 Decennial Census, SF 1, Table P014

Table 3. Population (All Ages) in the 2010 Census

	All ages	Ages 0 to 5	Children (ages 0-5) as a percentage of the total population
Navajo Nation (Arizona part)	**101,835**	**10,894**	**11%**
Navajo Nation (New Mexico part)	65,764	6,712	10%
Navajo Nation (Utah part)	6,068	729	12%
Navajo Nation (entire)	173,667	18,335	11%
Chinle Agency	27,823	3,134	11%
Eastern Agency	33,316	3,361	10%
Fort Defiance Agency	43,940	4,452	10%
Northern Agency	30,945	3,223	10%
Western Agency	37,643	4,165	11%
All Arizona Reservations	178,131	20,511	12%
ARIZONA	6,392,017	546,609	9%

Source: U.S. Census Bureau (2010). 2010 Decennial Census, SF 1, Table P1

Table 4. Tribal Enrollment, Children 0-5

Age	2015 On reservation	2015 Off reservation
0	680	235
1	964	451
2	585	334
3	450	272
4	442	270
5	407	246
Total	3,528	1,808

Source: Navajo Nation Office of Vital Records. [Enrollment dataset]. Tribal-specific data.

Table 5. Tribal Enrollment All Ages

Age	2014 On-reservation	2014 Off-reservation	Total 2014 Enrollment	2015 On-reservation	2015 Off-reservation	Total 2015 Enrollment
Under 6 years of age	1,469	879	2,348	3,528	1,808	5,336
6 -17 years of age	34,796	78,947	113,743	28,193	71,554	99,747
18 years of age and older	163,200	58,871	222,071	160,367	58,071	218,438
Total membership	199,465	67,591	267,056	192,088	67,033	259,121

Source: Navajo Nation Office of Vital Records. [Enrollment dataset]. Tribal-specific data.

Table 6. Tribal Enrollment Compared to Census 2010

	Census 2010	Navajo Nation Total On-Reservation Enrollment (2015)	Census 2010 Population ages 0-5	Navajo Nation On-Reservation Enrollment ages 0-5 (2015)
Navajo Nation (entire)	173,667	192,088	18,335	3,528

Source: Navajo Nation Office of Vital Records. [Enrollment dataset]. Tribal-specific data; U.S. Census Bureau (2010). 2010 Decennial Census, SF 1, Table P1

Table 7. Projected Population (All Ages), 2015 to 2040

	2015	2020	2025	2030	2035	2040
Navajo Nation (Arizona part)	**102,117**	**102,049**	**101,100**	**99,365**	**97,581**	**95,183**
All Arizona Reservations	N/A	N/A	N/A	N/A	N/A	N/A
ARIZONA	6,758,251	7,346,787	7,944,753	8,535,913	9,128,899	9,706,815

Source: Arizona Department of Administration, Employment and Population Statistics (2015). State and county population projections (medium series).

Table 8. Race and Ethnicity of the Adult Population (Ages 18 and Older) in the 2010 Census

	Number of persons (ages 18 and older)	Hispanic or Latino	White alone (not Hispanic or Latino)	American Indian alone (not Hispanic or Latino)	African-American alone (not Hispanic or Latino)	Asian or Pacific Islander (not Hispanic or Latino)
Navajo Nation (Arizona part)	**67,252**	**1%**	**3%**	**95%**	**0%**	**0%**
Navajo Nation (New Mexico part)	44,714	2%	1%	96%	0%	0%
Navajo Nation (Utah part)	3,857	1%	2%	97%	0%	0%
Navajo Nation (entire)	115,823	1%	2%	95%	0%	0%
Chinle Agency	17,917	1%	3%	95%	0%	0%
Eastern Agency	22,396	2%	2%	96%	0%	0%
Fort Defiance Agency	29,843	1%	2%	95%	0%	0%
Northern Agency	21,028	1%	1%	96%	0%	0%
Western Agency	24,639	1%	3%	95%	0%	0%
All Arizona Reservations	117,049	5%	5%	88%	0%	0%
ARIZONA	4,763,003	25%	63%	4%	4%	3%

Source: U.S. Census Bureau (2010). 2010 Decennial Census, SF 1, Table P11

Note: Entries may sum to less than 100% because persons who report two or more race categories are not included here.

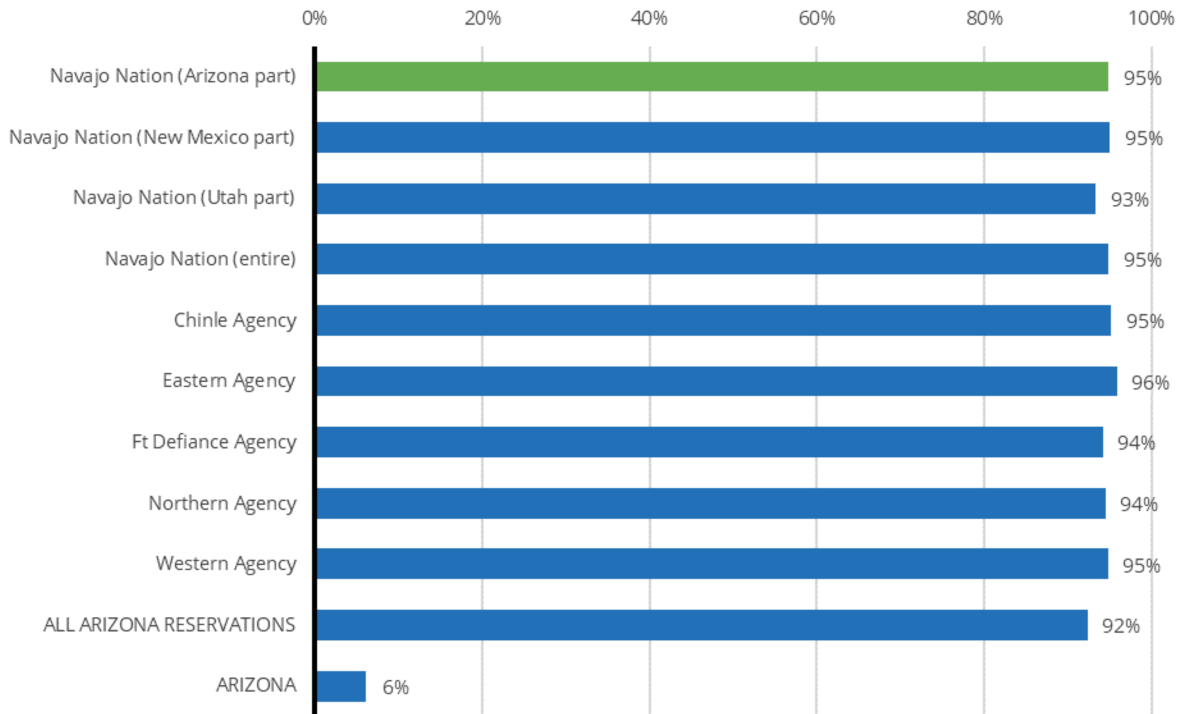
Table 9. Race and Ethnicity of the Population of Children (Ages 0 to 4) in the 2010 Census

	Population of children (ages 0-4)	Hispanic or Latino	White alone (not Hispanic or Latino)	American Indian	African-American	Asian or Pacific Islander
Navajo Nation (Arizona part)	**9,008**	**4%**	**1%**	**95%**	**0%**	**0%**
Navajo Nation (New Mexico part)	5,561	4%	1%	95%	0%	0%
Navajo Nation (Utah part)	598	4%	3%	93%	0%	0%
Navajo Nation (entire)	15,167	4%	1%	95%	0%	0%
Chinle Agency	2,625	3%	1%	95%	0%	0%
Eastern Agency	2,773	5%	0%	96%	0%	0%
Fort Defiance Agency	3,667	4%	1%	94%	0%	0%
Northern Agency	2,664	4%	1%	94%	0%	0%
Western Agency	3,438	5%	1%	95%	0%	0%
All Arizona Reservations	17,061	9%	1%	92%	0%	0%
ARIZONA	455,715	45%	40%	6%	5%	3%

Source: U.S. Census Bureau (2010). 2010 Decennial Census, SF 1, Tables P12B, P12C, P12D, P12E, P12H, and P12I

Note: Entries may sum to more than 100% because persons who report two or more race categories could be counted twice.

Figure 2. Percent of Children (Ages 0 to 4) Reported to be American Indian in the 2010 Census



Source: U.S. Census Bureau (2010). 2010 Decennial Census, SF 1, Table P12C

Living Arrangements

Based on data from the 2010 U.S. Census, 24 percent of households in the Navajo Nation Region have at least one child under 6 years old, a slightly lower proportion when compared to all Arizona reservations combined (26%) (Table 10). According to the American Community Survey, 66 percent of children in the region live with a single parent, which is slightly lower than the proportion in all Arizona reservations (68%) but substantially higher than in the state as a whole (38%) (Table 10). About seven percent of children ages birth to 5 are in kinship arrangements, with extended family members caring for them (Figure 3).

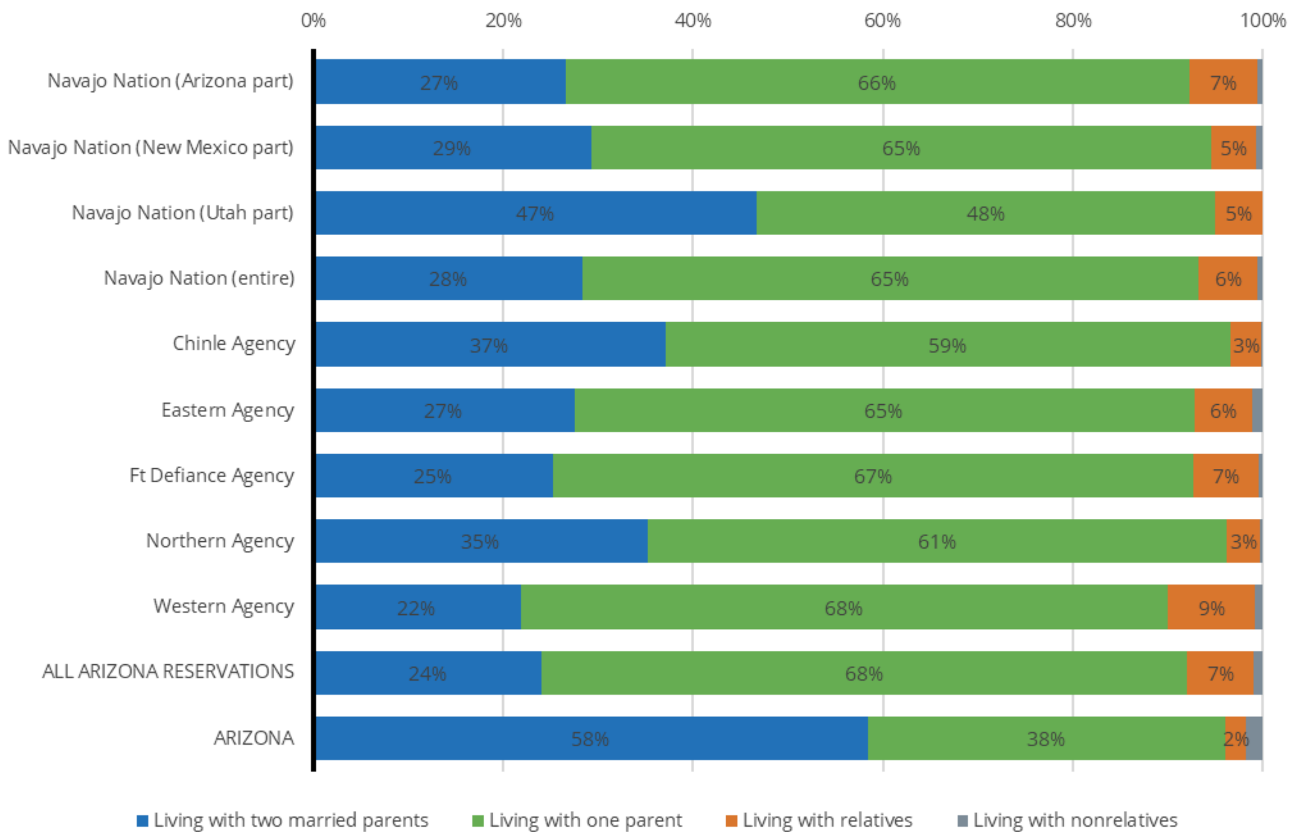
The proportion of young children living in a grandparent's household in the region (39%) is slightly lower than that in all Arizona reservations combined (40%) but more than double that of the state rate (14%) (Figure 4). It is important to note that these households may be multigenerational—i.e., the grandparent is considered the head-of-house, but the child's parent may also live here.[ii] Extended families that involve multiple generations and relatives along both vertical and horizontal lines are an important characteristic of many American Indian families. The strengths associated with a network of support can be very valuable when dealing with socio-economic hardships.[13] Table 11 provides additional information about the estimated 9,170 children ages 0 to 17 living with grandparents in the

[ii] Note that there is difference between families/sub-families and householders in Census data. For example, a child living with their single mother in their grandparent's married household would be counted as living with a single parent in the living arrangements (Figure 3) but as living in a married couple household in the composition of households table (Table 10). That is, the living arrangements figure looks at the presence of a child's parents within the household (whether or not the parent is the householder).

Navajo Nation Region. Twelve percent of these children who live with their grandparents do not have a parent present in the household, and fifty-six percent live in multigenerational homes where the grandparent has assumed responsibility for the child, despite the presence of the parent.

According to recent estimates from the American Community Survey, two percent of young children in the region live with foreign-born parents, which is similar to the proportion in all Arizona reservations combined (3%) and significantly lower than the proportion across the state (27%) (Table 12).

Figure 3. Living Arrangements for Young Children (Ages 0 to 5)



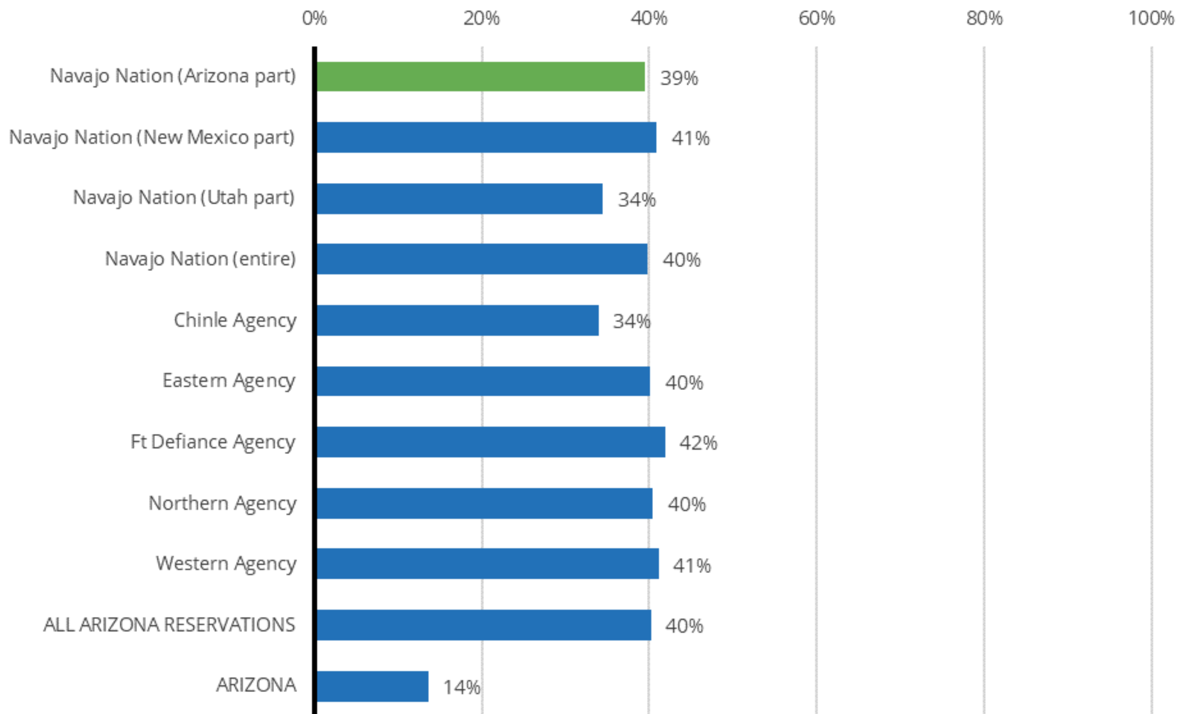
Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Tables B05009, B09001, B17006

Table 10. Composition of Households in the 2010 Census

	Total number of households	Total number of households with child(ren) under 6 years old	Percent of households with child(ren) under 6 years old	Households with child(ren) under 6 years old, husband-wife householders	Households with child(ren) under 6 years old, single male householder	Households with child(ren) under 6 years old, single female householder
Navajo Nation (Arizona part)	**29,232**	**7,159**	**24%**	**50%**	**12%**	**38%**
Navajo Nation (New Mexico part)	19,034	4,499	24%	49%	14%	37%
Navajo Nation (Utah part)	1,680	466	28%	55%	15%	30%
Navajo Nation (entire)	49,946	12,124	24%	50%	13%	37%
Chinle Agency	8,047	2,065	26%	48%	13%	39%
Eastern Agency	9,570	2,242	23%	49%	15%	36%
Fort Defiance Agency	13,031	2,932	23%	49%	12%	39%
Northern Agency	9,035	2,170	24%	51%	13%	36%
Western Agency	10,263	2,715	26%	52%	12%	35%
All Arizona Reservations	50,140	13,115	26%	45%	13%	42%
ARIZONA	2,380,990	384,441	16%	65%	11%	24%

Source: U.S. Census Bureau (2010). 2010 Decennial Census, SF 1, Table P20

Figure 4. Children (Ages 0 to 5) Living in a Grandparent's Household in the 2010 Census



Source: U.S. Census Bureau (2010). 2010 Decennial Census, SF 1, Table P41

Table 11. Children (Ages 0 to 17) Living in a Grandparent's Household

	Number of children (ages 0-17) living in a grandparent's household	Children (ages 0-17) living in a grandparent's household where the grandparent is responsible for the child	Children (ages 0-17) living in a grandparent's household where the grandparent is responsible for the child and no parent is present
Navajo Nation (Arizona part)	**9,170**	**56%**	**12%**
Navajo Nation (New Mexico part)	5,599	53%	11%
Navajo Nation (Utah part)	345	56%	22%
Navajo Nation (entire)	15,114	55%	12%
Chinle Agency	2,294	57%	10%
Eastern Agency	2,632	50%	10%
Fort Defiance Agency	3,856	56%	17%
Northern Agency	2,508	55%	12%
Western Agency	3,822	54%	9%
All Arizona Reservations	17,774	58%	12%
ARIZONA	140,038	53%	14%

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B10002

Table 12. Children (Ages 0 to 5) Living with Foreign-Born Parents

	Children (ages 0-5) living with one or two parents	Children (ages 0-5) living with one or two foreign-born parents
Navajo Nation (Arizona part)	**9,577**	**2%**
Navajo Nation (New Mexico part)	6,023	0%
Navajo Nation (Utah part)	671	2%
Navajo Nation (entire)	16,271	1%
Chinle Agency	2,839	2%
Eastern Agency	3,001	0%
Fort Defiance Agency	4,052	3%
Northern Agency	2,598	1%
Western Agency	3,779	0%
All Arizona Reservations	18,293	3%
ARIZONA	510,658	27%

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B05009

Language Use

Estimates from the American Community Survey indicate that about two-thirds of residents (67%) age 5 and older in the Navajo Nation Region speak Navajo at home. The proportion of Navajo speakers in the five agencies is similar to that in the region and the Navajo Nation as a whole, ranging from 65 percent in the Eastern Agency to 68 percent in the Chinle Agency (Table 13). Eighteen percent of those who speak Navajo at home indicated that they do not speak English "very well" (Table 13). Note that the estimates of people who report they "do not speak English very well" are based on self-report. The person answering the Census survey is asked (for each member of the household who speaks a language other than English) "How well does this person speak English?" The four response choices are "Very well," "Well," "Not well," or "Not at all."

At the household level, [iii] more than three-fourths (89%) of households in the region report speaking a language other than English in the home, most likely Navajo.[iv] Eighteen percent of households in the region are classified as

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[iii] *It is important to note that a household is considered to speak a language other than English in the home as long as one or more household members speak a language other than English. Thus the percent of* ***households*** *that speak Navajo is likely greater than the percent of the* ***population*** *age 5 and older that speak Navajo because there are many households with one or two speakers, even if the rest of the household do not speak Navajo.*

[iv] *Please note that the ACS does not report Navajo speakers separately in this table. It is therefore not possible to determine specifically how many households speak Navajo as the "other than English" language spoken in the home.*

limited-English-speaking, which is similar to the proportion seen in all Arizona reservations combined (11%) (Table 15).

Figure 5 shows a map of the percentage of the population age 5 and older in the Navajo Nation who report speaking Navajo. The share of the population that reports speaking Navajo varies across the region. Overall, the highest shares of Navajo speakers live in the northern part of the Navajo Nation in the Western, Northern, and Chinle Agencies. Figure 6 shows the distribution of children ages 5 to 17 who report speaking Navajo at home. The distribution pattern is similar to that of the overall population, but in general there are smaller proportions of children who speak Navajo at home than the proportion of the overall population. This trend is confirmed by data from the 2011-2012 Navajo Head Start Early Childhood Primary Language Questionnaire, which collected survey responses from nearly 1,500 parents and caregivers in the Chinle, Fort Defiance, Northern, and Western Head Start Agencies from both the center-based and home-based components of the program. Forty-nine percent of survey participants indicated that they speak both Navajo and English at home. Ninety-one percent, however, indicated that their *child* speaks only English at home, and nine percent reported that their child speaks both English and Navajo at home. No children were reported to speak only Navajo at home.[14] The decreasing trend in Navajo fluency among children is evident in the results of the most recent Navajo Head Start Early Childhood Primary Language survey conducted in 2015, as reported by Navajo Head Start staff: the proportion of children who are bilingual in English and Navajo decreased to four percent, and 96 percent of children are non-Navajo speakers (i.e. speak only English at home).[15] Key informants indicated that the low proportion of children who are able to speak Navajo fluently is a concern in the region.

In 2000, the Navajo Nation Education Committee approved the Head Start Act by resolution, for which the primary focus was to promote and implement Navajo language development at all Head Start facilities. This resolution was initially prompted by a 1995 executive order issued by then-Navajo Nation President Albert Hale to proclaim that the Navajo language be the medium of instruction at all Head Start facilities in the Navajo Nation. In 2015, Navajo Head Start and Diné College established a partnership to help NHS para-professionals attain their associates degrees in early childhood education and Navajo culture and language to further strengthen revitalization efforts.[16] Currently, Navajo Head Start continues to administer a full immersion program that integrates Navajo culture and language into its curriculum. As of October of 2016, six Navajo Head Start Centers provided a full Navajo immersion program, while ten were at transitional stages. Full immersion classrooms were expected to be in place at these 10 centers by the 2017-2018 year. Because a large proportion of the teachers are 22-35 years old, and Navajo fluency is lower among these younger residents, Head Start is planning to also implement a Navajo language revitalization program for the teachers, as well.

Table 13. Language Spoken at Home (Ages 5 and Older)

	Estimated population (ages 5 and older)	Speak English at home	Speak Navajo at home	Speak another language at home
Navajo Nation Region	**94,526**	**31%**	**67%**	**2%**
Navajo Nation (New Mexico part)	60,719	34%	64%	2%
Navajo Nation (Utah part)	5,764	17%	81%	2%
Navajo Nation (entire)	161,009	32%	66%	2%
Chinle Agency	25,318	30%	68%	2%
Eastern Agency	30,082	33%	65%	2%
Fort Defiance Agency	42,043	31%	67%	2%
Northern Agency	27,999	31%	67%	2%
Western Agency	35,525	31%	66%	2%
All Arizona Reservations	169,020	45%	38%	17%
ARIZONA	6,120,900	73%	1%	25%

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B16001

Note: The percentages in each row may not add to 100% due to rounding.

Table 14. Proficiency in English (Ages 5 and Older)

	Population (ages 5 and older)	Speak English at home	Speak Navajo at home, and speak English "very well"	Speak Navajo at home, and do not speak English "very well"	Speak another language at home, and speak English "very well"	Speak another language at home, and do not speak English "very well"
Navajo Nation (Arizona part)	**94,526**	31%	49%	18%	1%	1%
Navajo Nation (New Mexico part)	60,719	34%	53%	11%	2%	0%
Navajo Nation (Utah part)	5,764	17%	66%	15%	1%	1%
Navajo Nation (entire)	161,009	32%	51%	15%	1%	1%
Chinle Agency	25,318	30%	49%	20%	2%	0%
Eastern Agency	30,082	33%	51%	14%	2%	0%
Fort Defiance Agency	42,043	31%	54%	13%	1%	1%
Northern Agency	27,999	31%	57%	10%	1%	0%
Western Agency	35,567	31%	46%	20%	1%	1%
ALL ARIZONA RESERVATIONS	169,020	45%	28%	10%	14%	3%
ARIZONA	6,120,900	73%	1%	0%	16%	9%

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B16001

Note: The percentages in each row may not add to 100% due to rounding.

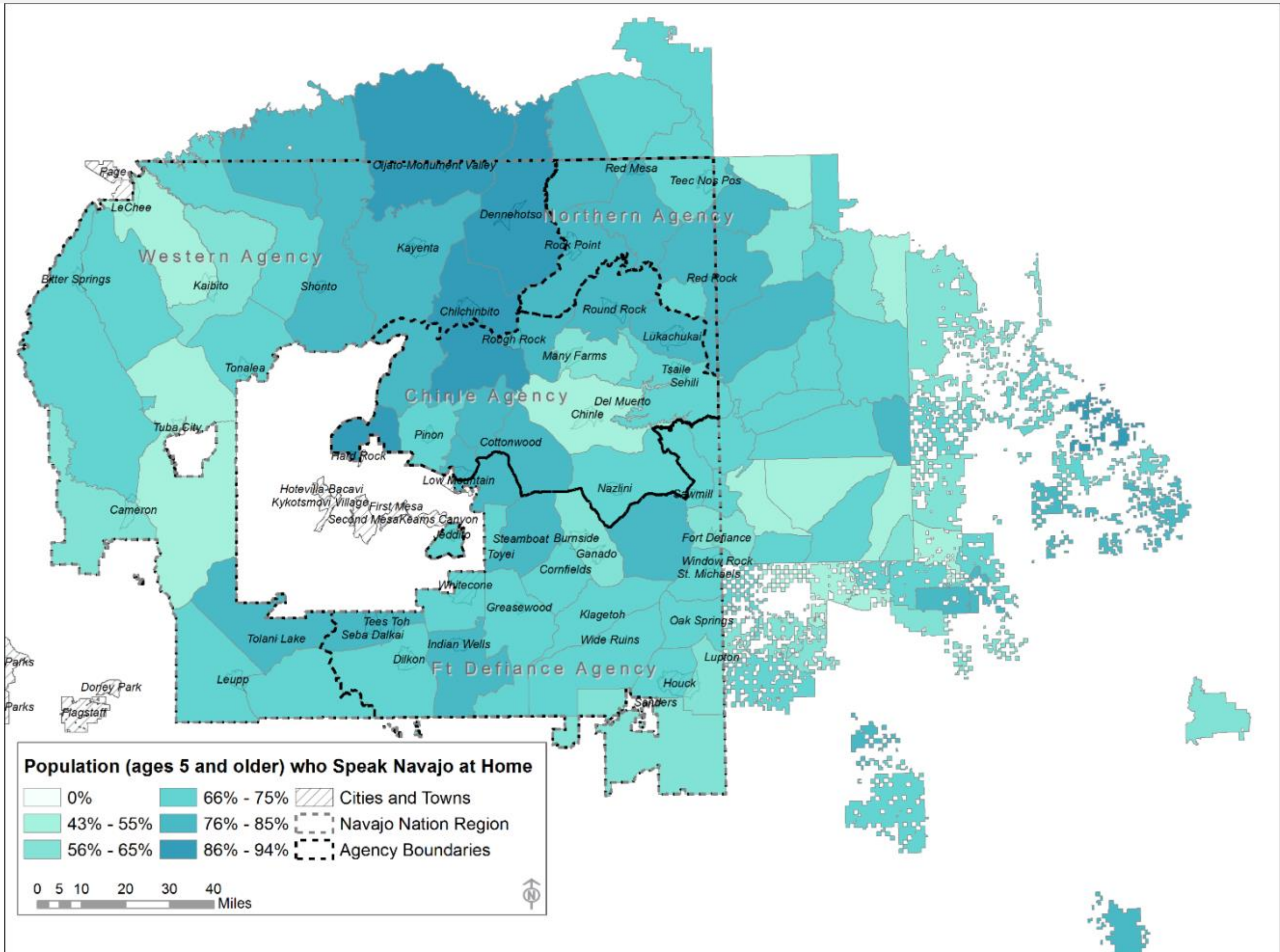
Table 15. Limited-English-Speaking Households

	Number of households	Households which speak a language other than English	Limited-English-speaking households
Navajo Nation (Arizona part)	**25,968**	**89%**	**18%**
Navajo Nation (New Mexico part)	16,544	91%	12%
Navajo Nation (Utah part)	1,395	93%	8%
Navajo Nation (entire)	43,907	90%	15%
Chinle Agency	6,775	91%	22%
Eastern Agency	7,828	91%	15%
Fort Defiance Agency	11,408	88%	14%
Northern Agency	7,957	92%	11%
Western Agency	9,933	87%	15%
All Arizona Reservations	47,892	73%	11%
ARIZONA	2,387,246	27%	5%

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B16002

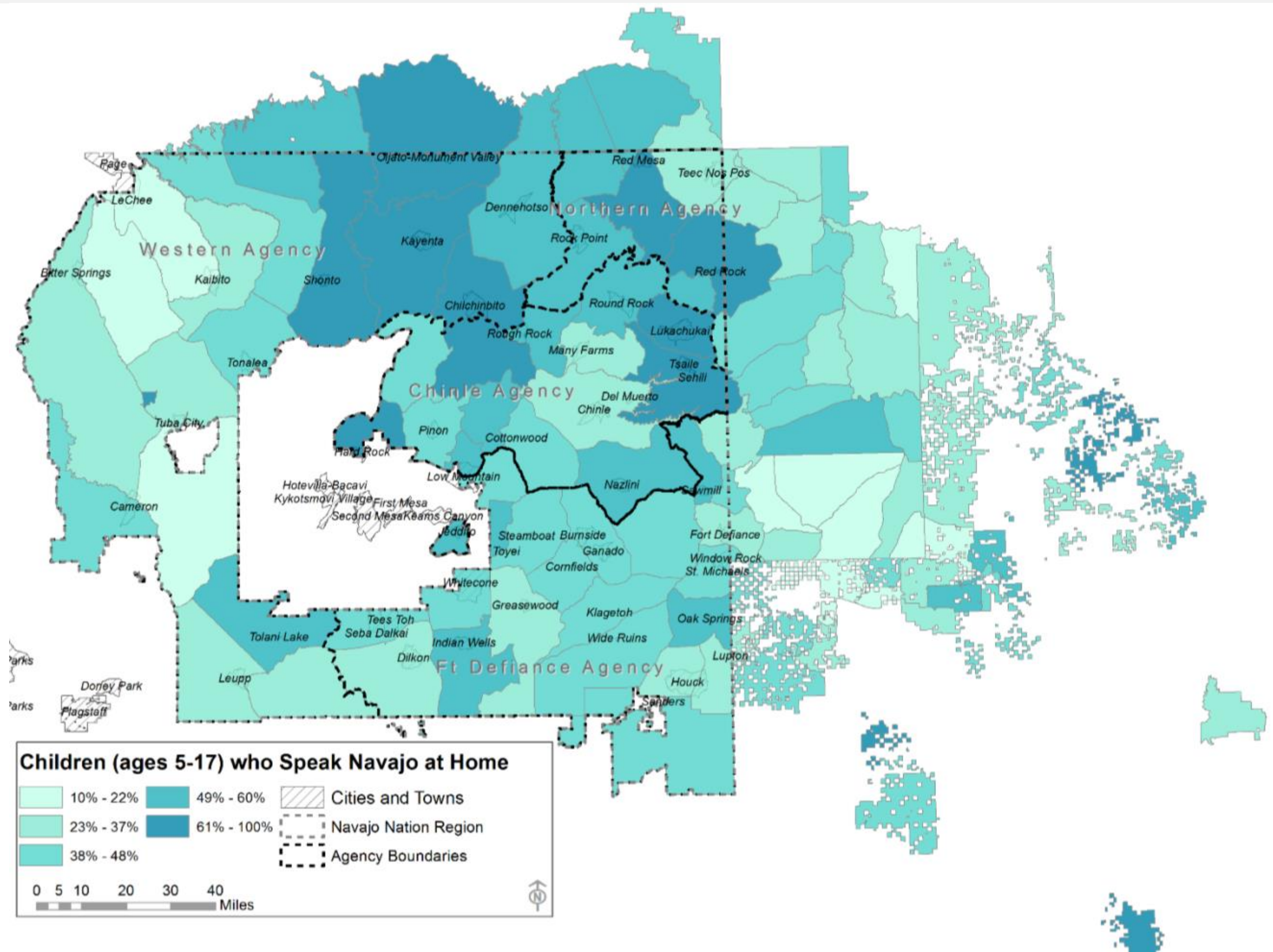
Note: A "limited English speaking household" is one in which no member 14 years old and over speaks English "very well." In other words, all members 14 years old and over have at least some difficulty with English.

Figure 5. Percent of Population (ages 5 and older) who Speak Navajo at Home



Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B16001. Map by CRED.

Figure 6. Percent of Children (ages 5 to 17) who Speak Navajo at Home



Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B16001. Map by CRED.

ECONOMIC CIRCUMSTANCES

Why Economic Circumstances Matter

The economic well-being of a family is a powerful predictor of child well-being. Children raised in poverty are at a greater risk of adverse outcomes including low birth weight, lower school achievement, and poor health.[17,18,19,20,21] They are also more likely to remain poor later in life.[22] More than a quarter (26%) of Arizona's children lived in poverty in 2014, compared to just over a fifth (21%) six years earlier.[23]

Poverty rates alone do not tell the full story of economic vitality in a region. Income and unemployment rates are also important indicators. According to the National Center for Children in Poverty, families typically need an income of about twice the federal poverty level to meet basic needs.[24] As a benchmark, the 2015 Federal Poverty Guideline for a family of four was $24,250; a typical family of four making less than $48,500 is likely struggling to make ends meet. Under- and unemployment can affect a family's ability to meet the expenses of daily living, and their access to resources needed to support their children's well-being and healthy development. A parent's job loss can affect children's school performance, leading to poorer attendance, lower test scores, and higher risk of grade repetition, suspension or expulsion.[25] Unemployment can also put families at greater risk for stress, family conflict, and homelessness.[26]

Housing instability and homelessness can have deleterious effects on the physical, social-emotional, and cognitive development of young children.[27] Housing that requires more than 30 percent of a household's income is an indicator of a housing affordability problem in a region, leaving inadequate funds for other family necessities, such as food and utilities.[28] High housing costs, relative to family income, are associated with increased risk for overcrowding, frequent moving, poor nutrition and homelessness.[29] Examining indicators related to housing quality, costs, and availability can reveal additional factors affecting the health and well-being of families in a region.

Public assistance programs are one way of counteracting the effects of poverty and providing supports to children and families in need. The Temporary Assistance for Needy Families (TANF) Cash Assistance program provides temporary cash benefits and supportive services to children and families. Eligibility is based on citizenship or qualified resident status, Arizona residency, and limits on resources and monthly income. In 2014, seven out of 10 TANF participants in Arizona were children, and the average monthly benefit was $93.[30]

Other public assistance programs available in Arizona affect access to food. Food insecurity – a limited or uncertain availability of food – is negatively associated with many markers of health and well-being for children, including a heightened risk for developmental delays.[31] Food insecurity is also associated with overweight and obesity.[32] The Supplemental Nutrition Assistance Program (SNAP, also referred to as "Nutrition Assistance" and "food stamps") has been shown to help reduce hunger and improve access to healthier food.[33] SNAP benefits support working families whose incomes simply do not provide for all their needs. For low-income working families, the additional income to access food from SNAP is substantial. For example, for a three-person family with one person whose wage is $10 per hour, SNAP benefits boost take-home income by 10 to 20 percent.[34]

There is an additional food assistance option for people residing on Indian reservations: the Food Distribution Program on Indian Reservations (FDPIR). The FDIR was established, in part, as a recognition of the barrier to benefit use that the long distances to SNAP (then food stamp) retailers placed on reservation residents.[35] Although eligibility requirements are similar, households cannot participate in both FDPIR and SNAP in the same month. A report comparing FDPIR and SNAP found that the size of the benefit that would be received by participants was typically larger with SNAP, but that program staff and participants reported that ease of enrollment and cultural compatibility favored FDPIR.[36]

In addition to SNAP and FDIR, food banks and school-based programs such as the National School Lunch Program[37] and Summer Food Service Program[38] are important resources aimed at addressing food insecurity by providing access to free and reduced-price food and meals in both community and school settings. The National School Lunch Program[39] provides free and reduced-price meals at school for students whose families' incomes are at or less than 130 percent of the federal poverty level (FPL) for free lunch and 185 percent of the FPL for reduced price lunch.

Another food and nutrition resource, the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) program, is a federally-funded program which serves economically disadvantaged pregnant, postpartum, and breastfeeding women, as well as infants and children under the age of five. The program offers supplemental nutritious food, breastfeeding and nutrition education, and referrals to health and social services.[40] In Arizona in 2015, half of all children aged birth through four were enrolled in WIC.[41] Participation in WIC has been shown to be associated with healthier births, lower infant mortality, improved nutrition, decreased food insecurity, improved access to health care and improved cognitive development and academic achievement for children.[42]

What the Data Tell Us

Income

The median income for all families in the Navajo Nation Region was $31,748, according to recent estimates from the American Community Survey (Table 16). The median income for families with married parents (husband-wife) and children under 18 was higher ($46,102), and single-parent families made substantially less. The median income for households run by single males in the Navajo Nation Region was $15,947, less than half of the median income in single male-led households in the state as a whole ($37,103). Households led by a single female householder had a median income of $22,077. The low median income for single-householders in the region (both male and female) is a concern because exactly half of young children (50%) live in single-parent households (see Table 10).

Table 16. Median Annual Family Income

	Median family income for all families	Median family income for husband-wife families with child(ren) under 18	Median family income for single-male-householder families with child(ren) under 18	Median family income for single-female-householder families with child(ren) under 18
Navajo Nation (Arizona part)	**$31,748**	**$46,102**	**$15,947**	**$22,077**
Navajo Nation (New Mexico part)	$30,137	$40,000	$16,900	$19,698
Navajo Nation (Utah part)	$30,577	$47,188	$21,563	$19,464
Navajo Nation (entire)	$31,069	$43,372	$16,466	$21,011
All Arizona Reservations	N/A	N/A	N/A	N/A
ARIZONA	$59,088	$73,563	$37,103	$25,787

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B19126

Poverty

According to the American Community Survey (ACS), a little less than half (42%) of the total (all-age) population of the Navajo Nation Region lives in poverty, a proportion which is the same as that seen across all Arizona reservations combined (42%) and substantially higher than the state (18%) (Table 17). Poverty rates are much higher among young children in the region (54%), similar to the poverty rate among young children in all Arizona reservations (55%) but much higher than the rate statewide (29%).

In addition to the families whose incomes fall below the federal poverty level, a proportion of households in the region and county are considered low-income (i.e., near but not below the federal poverty level (FPL)). The majority of families in the region with children aged four and under (76%) live below 185 percent of the FPL (i.e., earned less than $3,677 a month for a family of four), which is similar to the rate across all Arizona reservations combined (77%) and significantly higher than the rate statewide (49%) (Table 18).

The TANF/Cash Assistance program can be an important short-term support to families in dire financial need. In recognition of tribal sovereignty, the U.S. Department of Health and Human Services, Administration for Children and Families (ACF), which is the federal agency in charge of overseeing the TANF program, gives federally recognized tribes the option to administer their own TANF program. Tribes must submit a three-year Tribal TANF plan to ACF for review and approval. Approved Tribal TANF programs then receive a portion of the state TANF block grant funding from the state where the tribes are located.[43] Tribal TANF programs have more flexibility to design their programs to meet TANF requirement compared to state programs. These programs are allowed to extend the program's 60-month time limit on receipt of TANF cash assistance on reservations with high unemployment rates. They also may set their own work participation rates, work hour requirements, and definitions of allowable work activities, and determine their own types of support to provide clients. This flexibility allows programs to find creative ways to define allowable work activities that reflect both economic reality and tribal cultural values, such as including engagement in cultural activities in self-sufficiency plans.[44] Currently six tribes in Arizona manage their own Tribal TANF programs, including the Navajo Nation. The Navajo Nation TANF program is known as the Navajo Nation Department of Self Reliance (NNDSR), and its creation and establishment was influenced by traditional Navajo values and teachings.

Between 2015 and 2016, the average number of young children supported by the NNDSR program each month increased slightly from 1,269 to 1,292 (Table 19). Similarly the average number of children of all ages supported by the NNDSR program increased from 3,748 to 3,845. The majority of children enrolled in NNDSR are in single-parent households where both the parent and child participate in the program. The largest number of children are served through the Chinle NNDSR Field Office.

In addition to the families receiving support from through NNDSR, there are a few children in the Navajo Nation Region who receive TANF benefits through the state of Arizona. The number of children who received these benefits on a yearly basis fell from 77 children in 2012 to 27 children in 2015, a 65 percent decrease (Table 20). This decrease is substantially higher than the decrease in children receiving TANF benefits across the state (-39%) between 2012 and 2015.

Table 17. Persons Living in Poverty

	Number of persons (all ages) for whom poverty status is known	Persons (all ages) below poverty level	Number of young children (ages 0-5) for whom poverty status is known	Young children (ages 0-5) below poverty level
Navajo Nation (Arizona part)	**102,450**	**42%**	**10,316**	**54%**
Navajo Nation (New Mexico part)	65,774	43%	6,321	56%
Navajo Nation (Utah part)	6,365	43%	706	51%
Navajo Nation (entire)	174,589	42%	17,343	55%
Chinle Agency	27,311	43%	2,935	57%
Eastern Agency	32,629	47%	3,197	60%
Fort Defiance Agency	45,544	43%	4,350	57%
Northern Agency	30,104	38%	2,691	49%
Western Agency	39,001	40%	4,170	50%
All Arizona Reservations	183,508	42%	19,679	55%
ARIZONA	6,411,354	18%	522,513	29%

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B17001

Table 18. Ratio of Income to Federal Poverty Level (FPL) for Families with Young Children (Ages 0 to 4)

	Estimated number of families with children (ages 0-4)	Families with children (ages 0-4) below 100% FPL	Families with children (ages 0-4) below 130% FPL	Families with children (ages 0-4) below 150% FPL	Families with children (ages 0-4) below 185% FPL
Navajo Nation (Arizona part)	**4,696**	**50%**	**60%**	**66%**	**76%**
Navajo Nation (New Mexico part)	2,717	49%	59%	65%	73%
Navajo Nation (Utah part)	255	49%	60%	65%	76%
Navajo Nation (entire)	7,668	50%	60%	66%	75%
Chinle Agency	1,162	54%	64%	70%	78%
Eastern Agency	1,238	57%	69%	74%	81%
Fort Defiance Agency	1,727	50%	59%	64%	73%
Northern Agency	1,330	41%	50%	58%	68%
Western Agency	2,209	48%	59%	65%	76%
All Arizona Reservations	9,560	51%	62%	68%	77%
ARIZONA	301,165	27%	35%	41%	49%

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B17022

Table 19. Monthly Average Number of Children Served by the Navajo Nation Department for Self-Reliance (Tribal TANF Program)

	Monthly average FY2015 (Ages 0-18)	Monthly average FY2016 (Ages 0-18)	Monthly average FY2015 (Ages 0-5)	Monthly average FY2016 (Ages 0-5)
Total	**3,748**	**3,845**	**1,269**	**1,292**
BY TYPE OF CASE				
Child Only	805	815	134	128
One-Parent	2,037	2,115	704	716
Two-Parent	906	915	431	448
BY NNDSR FIELD OFFICE				
Chinle	990	894	332	285
Crownpoint	362	322	150	142
Farmington	591	756	190	247
Gallup	378	417	134	140
Kayenta	411	367	135	128
St. Michaels	451	528	157	178
Tuba City	565	560	171	172
BY AGE OF CHILD				
0 Years	148	153		
1 Years	189	197		
2 Years	208	204		
3 Years	229	226		
4 Years	245	247		
5 Years	250	264		
6 to 10 Years	1,214	1,247		
11 to 15 Years	957	972		
16 to 18 Years	307	335		

Source: xx [TANF data]. Tribal-specific data.

Note: FY 2015 is October 2014 to September 2015. FY 2016 is October 2015 to April 2016 (7 months).

Table 20. Number of Children (Ages 0 to 5) Receiving Temporary Assistance to Needy Families (TANF) from the state of Arizona

	CY 2012	CY 2013	CY 2014	CY 2015	Change from 2012 to 2015
Navajo Nation (Arizona part)	**77**	**86**	**67**	**27**	**-65%**
All Arizona Reservations	N/A	N/A	N/A	N/A	N/A
ARIZONA	26,827	24,889	19,884	16,336	-39%

Source: Arizona Department of Economic Security (2016). [Family Assistance Administration dataset]. Unpublished data.

Employment and Unemployment

The Arizona Department of Administration, Employment, and Population Statistics produces annual unemployment rates as part of their local area unemployment statistics (LAUS) calculations. LAUS data, however, are not available for tribal communities in the state, including the Navajo Nation.[v] Recent estimates from the American Community Survey (ACS) indicate that the unemployment rate in the Navajo Nation Region is 24.4 percent (see Figure 7). This rate is similar to the ACS rate for all Arizona Reservations combined (25.7%), yet substantially higher than the statewide rate (9.9%). ACS estimates aggregate data across five years (2010-2014 in the case of Figure 7).

ACS unemployment data, however, are likely to overestimate the proportion of Navajo Nation residents who are employed for wages. Since 1991 the Navajo Nation Division of Economic Development (NNDED) has been collecting survey data with all employers in the Navajo Nation to produce its own unemployment estimates. According to the Navajo Nation Comprehensive Economic Development Strategy (CEDS), 2009-2010 (the most recent available from the NNDED website), NNDED's estimated unemployment rate in the Navajo Nation in 2007 was 51 percent.[45] The CEDS document highlights that even 51 percent might be an underestimate of the true unemployment in the Nation because it adjusts for the proportion of the population over 16 who are looking for a job during the past four months. As indicated in the CEDS 2009-2010 document, "this requirement generates a special problem for the Navajo people. The Navajo Nation does not have much employment opportunities; and hence, naturally, the Navajo people cannot be looking for something that does not exist. The result is that a vast majority of the young and able-bodied Navajo individuals are dropped out of the labor force. As these people are not in the labor force, they cannot be counted as unemployed either."[46] Therefore, the NNDED estimates that a more accurate unemployment rate would be about 70 percent in 2007. Note that this estimate is prior to the large surge in unemployment seen across the state as an effect of the recession.

However, the CEDS 2009-2010 document also notes that a strong underground economy exists on the Navajo Nation. This underground economy involves informal arrangements and bartering, as well as road side vendors

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[v] *The definitions of the areas for which the Arizona Local Area Unemployment Statistics calculate unemployment rates places follow Census definitions of cities and towns. Geographic definitions were revised by the Bureau of Labor Statistics in 2016 and recalculated for the periods of 1976-2016. Tribal unemployment statistics as well as estimates for small towns and places are no longer available. Local Area Unemployment Statistics had been the source of unemployment rates for the First Things First Navajo Nation Regional Needs and Assets Reports until 2014 (for access to the 2014 Regional Needs and Assets Report see http://www.firstthingsfirst.org/regions/Publications/Needs%20and%20Assets%20Report%20-%202014%20-%20Navajo%20Nation.pdf).*

(selling arts, crafts, food) and railroad workers who are not officially employed.[47] These activities help somewhat off-set the expected effects of the high unemployment rate.

For young children living with both parents in the Navajo Nation Region, 26 percent have at least one of them in the labor force, compared to 24 percent across all Arizona reservations combined (Table 22). Thirty-nine percent of children live with a single parent who is not in the labor force, meaning they are neither employed nor looking for work, which is slightly higher than the percentage seen in all Arizona reservations combined (34%). Overall, 62 percent of young children live with one or more parents who are in the labor force, which is about the same as that seen in all Arizona reservations (64%). In addition to unemployment, the lack of child care, or the prohibitive cost of child care, can keep parents from participating in the labor force.[48] This may be true in the case of the one in five young children who live with a single parent who is not in the labor force.

Self-reported data on unemployment from families participating in the Navajo Head Start program (which is cost-free) are available from the Navajo Head Start Program Information Report (PIR). According to 2016 PIR data, in forty-three percent of the two-parent families with children enrolled in the program neither parent or guardian was working (i.e. they were unemployed, retired or disabled). Forty-two percent of two-parent families had one parent or guardian who was employed, and in the remaining 14 percent of families both parents or guardians were employed. In sixty-two percent of the single-parent families, the parent or guardian was not working.[49]

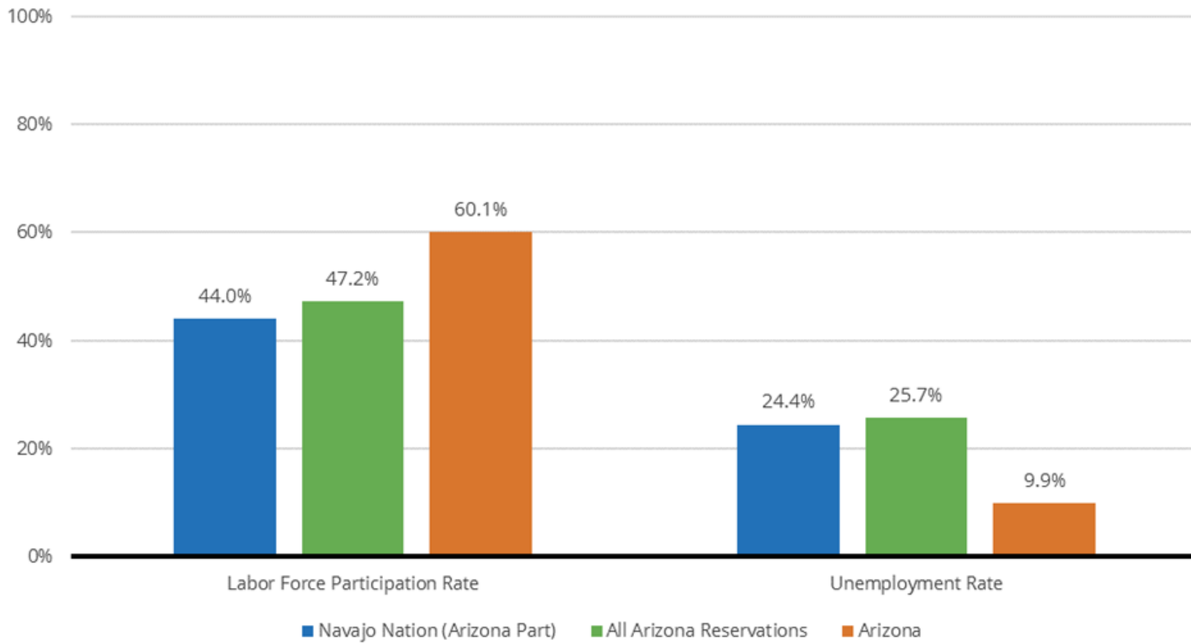
Table 21. Employment Status of Families Participating in the Navajo Nation Head Start, 2016

Employment	Number of families at enrollment	Percent of families at enrollment
Two-parent families	**1,009**	
In which both parents (or guardians) are employed	145	14%
In which one is employed and the other is not	427	42%
In which neither is employed	437	43%
Single-parent families	**580**	
In which the parent is employed	219	38%
In which the parent is not employed	361	62%

Source: Navajo Head Start Program Information Report (PIR), 2016.

Note: Parents (or guardians) who are "not employed" may be unemployed, retired, disabled, etc. Data include the entire Navajo Nation (Arizona, New Mexico, and Utah parts)

Figure 7. Labor Force Participation and Unemployment Rate, ACS Estimate



Source: U.S. Census Bureau. (2016). American Community Survey, 5-year estimates (2010-2014), Table S2301

Table 22. Parents of Young Children (Ages 0 to 5) Who Are or Are Not in the Labor Force

	Estimated number of children (ages 0-5) living with one or two parents	Children (ages 0-5) living with two parents who are both in the labor force	Children (ages 0-5) living with two parents, one in the labor force, and one not	Children (ages 0-5) living with two parents, neither in the labor force	Children (ages 0-5) living with a single parent who is in the labor force	Children (ages 0-5) living with a single parent who is not in the labor force
Navajo Nation (Arizona part)	**9,577**	**14%**	**12%**	**3%**	**36%**	**36%**
Navajo Nation (New Mexico part)	6,023	12%	13%	6%	36%	33%
Navajo Nation (Utah part)	671	10%	25%	13%	27%	24%
Navajo Nation (entire)	16,271	13%	13%	4%	35%	34%
Chinle Agency	2,839	18%	16%	4%	30%	32%
Eastern Agency	3,001	11%	15%	4%	39%	32%
Fort Defiance Agency	4,052	11%	13%	3%	33%	40%
Northern Agency	2,598	13%	15%	9%	38%	25%
Western Agency	3,779	13%	8%	3%	38%	38%
All Arizona Reservations	18,293	13%	11%	2%	40%	34%
ARIZONA	510,658	31%	29%	1%	29%	10%

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B23008

Note: "In the labor force" includes persons who are employed and persons who are unemployed but looking for work. Persons who are "not in the labor force" include stay-at-home parents, students, retirees, and others who are not working or looking for work.

Note: The percentages above may not add to 100% due to rounding.

Food Insecurity

Food insecurity is defined by the USDA as a "household-level economic and social condition of limited or uncertain access to adequate food."[50] Programs such as the Supplemental Nutrition Assistance Program (SNAP), the Food the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), and the National School Lunch Program are important for helping those at risk of hunger.

The number of young children participating in SNAP in the Navajo Nation Region has declined since 2012, but this program still supports 7,912 young children in the Navajo Nation Region annually (Table 23). The number of children receiving SNAP benefits was 9,468 in 2012 and decreased by 16 percent by 2015, a decline that is reflected across the state.

The Navajo Food Distribution program is managed through the Navajo Department of Health, and is part of the federal Food Distribution Program on Indian Reservations (FDPIR). In 2013, over 4,600 households took part in the Navajo Food Distribution Program, making it the largest FDPIR program in the US.[51]

In many Arizona tribes the WIC program was initially funded through the state of Arizona. Overtime, however, several tribes advocated for services that were directed by the tribes themselves. The Navajo Nation WIC program is one of several programs that are tribally-operated. The Navajo WIC program in the state of Arizona (i.e. the one serving the First Things First Navajo Nation Region) receives funding directly from the United States Department of Agriculture and is hosted within the Navajo Department of Health. Services are provided at 12 Service Unit clinics: Chinle, Crownpoint, Farmington, Fort Defiance, Gallup, Ganado, Kayenta, Pinon, Shiprock, Tsaile, Tuba City, and Winslow. Some of these clinics are located within health care facilities including: Winslow, Kayenta, Crownpoint, Ganado, and Shiprock. The rest are stand-alone clinics. In addition to these 12 main sites, the Navajo WIC program operates 17 satellite clinics in order to reach the population in more remote areas. Services in the bigger satellite clinics are provided 2 or 3 times per month, while the small sites operate once every other month. In general, the frequency of the services at the satellite clinics is determined by the need at each site. Each main clinic covers certain chapters within the Navajo Nation, but according to key informants some chapters do not have any clients enrolled.

Data on enrollment and participation were available from the Navajo WIC program. Please note that these data represent the entire Navajo Nation, not just Navajo Nation Region (i.e. the Arizona portion of the Nation). Total enrollment (women, infants and children) in the Navajo WIC program declined from 11,919 in January 2015 to 10,349 in January 2017. In addition to the decrease in total enrollment, participation rates (i.e. the proportion of WIC clients who are enrolled in the program and who participate by keeping their appointment and receiving their benefits) also declined in this same period (Table 25). In January 2015, the Navajo WIC participation rate was 81 percent, compared to 84 statewide. By January 2017, this rate had decreased to 77 percent (compared to 79% statewide) (Figure 8). Key informants indicated that this is a concern for the program, and that participation rates also varied by groups, in the range of 67 to 77 percent. As of January of 2017, one-year old children tended the have lowest participation rates. Although key informants with the WIC program did not know why this specific group of clients had a more difficult time keeping their appointments, they indicated that the overall decrease in the participation rates may be due in part to a change in business hours that the program implemented in early 2016. Prior to this date, the WIC program operated under an extended day schedule which allowed parents to schedule appointments before and after office hours. The program currently operates Monday to Friday from 9:00 to 5:00. Key informants attribute the fall in participation rates in part to the fact that the current operating hours make it difficult for working parents to schedule their monthly appointments. Key informants also pointed out that challenges with transportation may be related to the decrease in participation. Transportation services are available for medical appointments, but the WIC program is not considered a health care service that qualifies for transportation. WIC clients whose local clinic is located within a health care facility might have an advantage because they can try to schedule they might be able to have their WIC appointment at the same time as other medical visits that do qualify for transport services.

Another common challenge to participating in SNAP or WIC and to utilizing the benefits from these programs may be the availability of retailers where WIC vouchers or SNAP Electronic Benefits Transfer (EBT) cards are accepted.[vi] Table 26 below shows the number of SNAP and WIC retailers available within the boundaries of the Navajo Nation Region. The ratio of SNAP retailers to the population in the region (57.94) is slightly lower than that available in all

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[vi] *Electronic Benefits Transfer (EBT) is an electronic system that allows a recipient to authorize transfer of their government benefits from a Federal account to a retailer account to pay for products received. See https://www.fns.usda.gov/ebt/general-electronic-benefit-transfer-ebt-information. According to the Navajo Department of Health Second Quarterly Report of 2016 (January-March) at the time of submitting this report the Navajo WIC Program was in the initial stages of developing an Electronic Benefits Transfer (EBT) system. The program's target date for transitioning WIC to EBT was January 2017. http://nnopvp.org/wp-content/uploads/2016/04/DEPARTMENT-OF-HEALTH.pdf*

Arizona reservations combined (60.63) or the state as a whole (63.17), indicating that there are generally fewer SNAP retailers available in the region than elsewhere in the state.

The ratio of WIC retailers to the population in the region (37.29), is higher than that for all Arizona reservations combined (29.20), and it is much greater than the ratio at the state level (10.08) indicating that there are more WIC retailers relative to the population located within the regional boundaries than elsewhere in Arizona. The Navajo Nation WIC Nutrition Program authorizes its own WIC vendors, maintaining a separate process from those undertaken by the Inter Tribal Council of Arizona and Arizona Department of Health Services WIC programs. In 2017, there were 103 vendors authorized by the Navajo Nation WIC program across the states of Arizona, New Mexico, Colorado and Utah. Authorized vendors are located both within the reservation boundaries and also in the towns bordering the reservation. Many of these retailers are not full grocery stores, but rather venues like gas stations with a limited selection. The map in Figure 9 below shows the location of the authorized vendors on and around the Navajo Nation Region.

Schools are an important part of the nutrition assistance system, especially for children that may be food insecure. On average, more than three-fourths of students in schools in the Navajo Nation Region were eligible for free or reduced-price lunch between 2012 and 2016 (Table 27). The rates of eligible students increased from 78 percent in 2012 to 84 percent in 2016. In 2016, the highest proportions of students were eligible for free or reduced-price lunch in Holbrook Unified School District, Cedar Unified School District, Red Mesa Unified School District, and charter schools in the region.

When school is not in session, schools, community centers, churches, and other community institutions in areas with at least 50 percent of children or more who are eligible for free or reduced-price lunch can receive funding through the Summer Food Service Program (SFSP)[vii] to provide summer meals to children of all ages.[52] The number of meals served through SFSP in the region varied by year, depending on which sponsor programs were participating (Table 28). In 2015, more than 140,000 meals were served in the region, a nine percent decrease in the number of meals from 2012. Since such a high percentage of students attending school in the region qualify for free or reduced price lunch, the provision of meals over the summer is important to protect children from food insecurity over the summer.

The Child and Adult Care Food Program (CACFP) is another important nutrition program for young children. The program provides reimbursement to eligible child care centers, adult daycare centers, Head Starts, and emergency shelters, and afterschool programs serving at-risk youth to enhance their current menus to offer more fresh fruits and vegetables, whole grains, and low-fat dairy products. The goals of the CACFP program are to support the health and nutrition status of children and adults and promote good eating habits.[viii] According to data from the Arizona Department of Education, the Navajo Nation Region had 42 participating CACFP sites, serving a total of 25,522 meals in 2015 (Table 29). Most of these meals were served through Navajo Nation Head Start Centers. The number of meals served in the region has declined dramatically from 2012 and 2013. In 2013, which was the peak of CACFP participation, there were 57 sites participating in the program serving a total of 185,674 meals. Finally, during 2015, the Head Start centers only reported serving CACFP meals in August and September, meaning that 2015 only

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[vii] *For more information on the Summer Food Service Program in Arizona, visit http://www.azsummerfood.gov/*

[viii] *For more information on the CACFP, visit http://www.azed.gov/health-nutrition/cacfp/*

represents two months of data. No additional data for the remaining months were available to be included in this report.

Table 23. Numbers of Young Children (Ages 0 to 5) Receiving SNAP Benefits, 2012 to 2015

	CY 2012	CY 2013	CY 2014	CY 2015	Change from 2012 to 2015
Navajo Nation (Arizona part)	**9,468**	**9,115**	**8,633**	**7,912**	**-16%**
All Arizona Reservations	N/A	N/A	N/A	N/A	N/A
ARIZONA	296,686	290,513	277,345	249,712	-16%

Source: Arizona Department of Economic Security (2016). [Family Assistance Administration dataset]. Unpublished data.

Table 24. Live Births During Calendar Year 2014, by Mother's Educational Attainment

	Less than high school	High school or GED	Some college or professional education	Bachelor's degree or more
Navajo Nation (Arizona part)	**20%**	**36%**	**37%**	**6%**
All Arizona Reservations	N/A	N/A	N/A	N/A
ARIZONA	20%	25%	31%	23%

Source: Arizona Department of Health Services (2016). [Vital Statistics Births dataset]. Unpublished data.

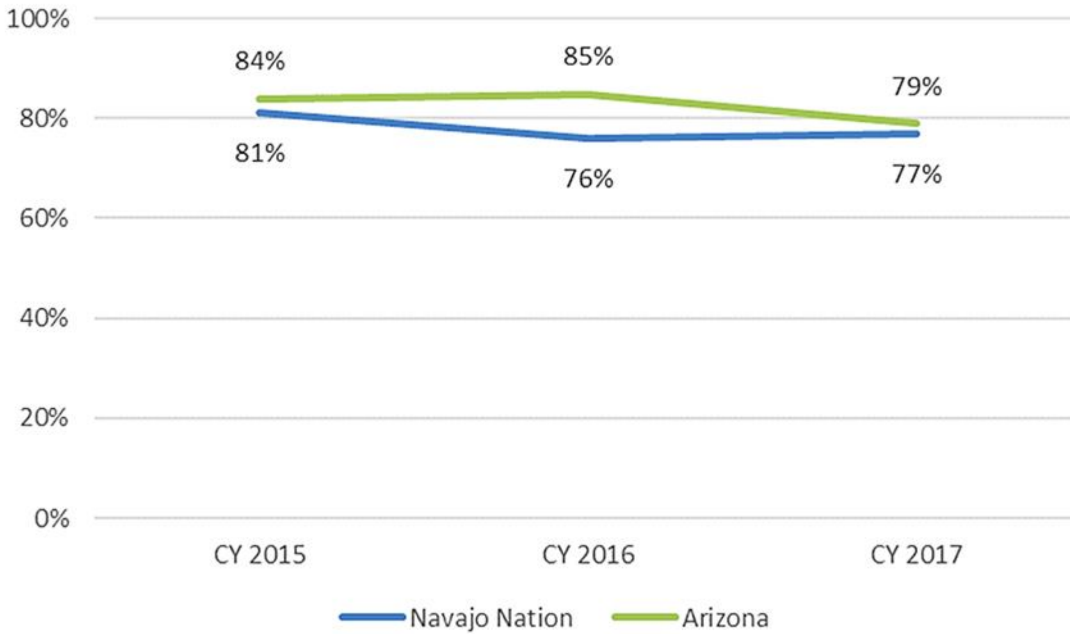
Note: The percentages above may not add to 100% due to rounding.

Table 25. Navajo WIC Enrollment and Participation Rates

	Number of clients enrolled	Number of clients participating	Participation rate
January 2015	11,919	9,667	81%
January 2016	12,134	9,263	76%
January 2017	10,349	7,950	77%

Source: Navajo WIC Program. [Participation Data]. Tribal-specific data. Received through personal communication.

Figure 8. Monthly Snapshots of Participation Rates in the WIC Program, January 2015, 2016, and 2017



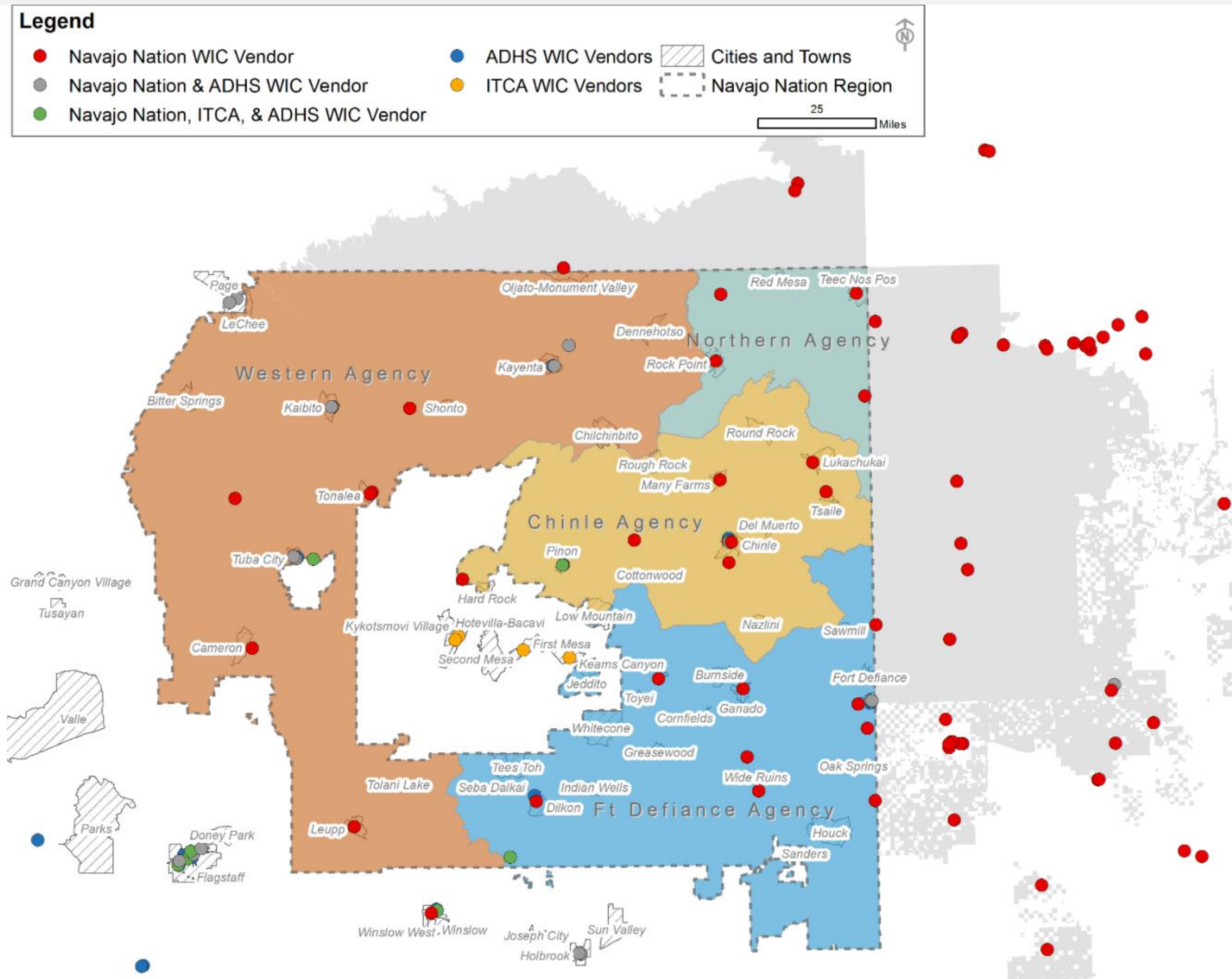
Source: Navajo WIC Program. [Participation Data]. Tribal-specific data. Received through personal communication; Arizona Department of Health Services (2016). [WIC datasets]. Unpublished data.

Table 26. Retailers Participating in the SNAP or WIC Programs

	Number of SNAP retailers	SNAP retailers per 100,000 residents	Number of WIC retailers	WIC retailers per 100,000 residents
Navajo Nation (Arizona part)	**59**	**57.94**	**38**	**37.29**
All Arizona Reservations	108	60.63	52	29.20
ARIZONA	4,038	63.17	644	10.08

Source: United Arizona Department of Health Services (2016). Arizona WIC Vendor List. Retrieved from http://azdhs.gov/documents/prevention/azwic/az-wic-vendor-list.pdf; Inter-Tribal Council of Arizona (2016). Special Supplemental Nutrition Program for Women, Infants, and Children: Find a Store. Retrieved from http://itcaonline.com/?page_id=1064; United States Department of Agriculture (2016). SNAP Retailer Locator. Retrieved from https://www.fns.usda.gov/snap/retailerlocator.
Notes: Per capita figures were calculated using the 2010 Census total population for each geography. SNAP and WIC retailers by geography account for the retailers falling within the geographic boundaries of a given area. WIC retailers account for retailers authorized through both the Arizona Department of Health Services and the Inter-Tribal Council of Arizona WIC Programs.

Figure 9. WIC Vendors in and around the Navajo Nation Region



Source: United Arizona Department of Health Services (2016). Arizona WIC Vendor List. Retrieved from http://azdhs.gov/documents/prevention/azwic/az-wic-vendor-list.pdf; Inter-Tribal Council of Arizona (2016). Special Supplemental Nutrition Program for Women, Infants, and Children: Find a Store. Retrieved from http://itcaonline.com/?page_id=1064 . Map produced by CRED

Table 27. Proportion of Students (Pre-kindergarten Through Twelfth Grade) Eligible for Free or Reduced-Price Lunch, 2012 to 2016

	2012	2013	2014	2015	2016
Navajo Nation (Arizona part)	**78%**	**79%**	**78%**	**83%**	**84%**
Cedar Unified District	97%	98%	98%	98%	98%
Chinle Unified District	79%	79%	79%	79%	78%
Ganado Unified School District	76%	86%	78%	78%	78%
Holbrook Unified District	91%	94%	90%	99%	99%
Kayenta Unified School District # 27	82%	85%	82%	88%	87%
Pinon Unified District	92%	87%	87%	87%	90%
Red Mesa Unified District	89%	91%	91%	88%	94%
Tuba City Unified School District #15	54%	54%	54%	84%	92%
Window Rock Unified District	76%	75%	78%	78%	78%
Navajo Nation Region Charter Schools	85%	85%	89%	88%	94%
All Arizona Reservations	N/A	N/A	N/A	N/A	N/A
ARIZONA	57%	57%	58%	58%	58%

Source: Arizona Department of Education (2016). [Free and Reduced Lunch dataset]. Unpublished data.

Table 28. Meals Served through the Summer Food Service Program, 2012 to 2016

	2012	2013	2014	2015	Change 2012-2015
Arizona Navajo Central Education Line Office	3,699	0	0	0	N/A
Black Mesa Community School	0	0	0	722	N/A
Cedar Unified District	2,136	3,199	2,597	389	-82%
Chilchinbeto Community School	0	0	2,928	966	N/A
Chinle Unified District	26,214	19,694	20,869	20,991	-20%
Cottonwood Day School	1,346	3,110	3,734	4,284	+218%
Dennehotso Boarding School	821	0	0	0	-100%
Dilcon Community School, Inc.	2,723	3,302	3,002	3,324	+22%
Ganado Unified School District	10,169	2,974	4,343	5,530	-46%
Greasewood Springs Community School, Inc.	2,064	1,546	1,134	1,427	-31%
Greyhills Academy	4,169	4,490	5,236	0	-100%

Hunters Point Boarding School		3,015	7,476	0	N/A
Jeehdeez'a Elementary	1,698	3,716	2,739	0	-100%
Kaibeto Boarding School	0	0	588	2,451	N/A
Kayenta Unified School District # 27	15,662	10,680	9,182	8,684	-45%
Keams Canyon Boarding School	910	0	738	0	-100%
Kin Dah Lichii Olta, Inc.	4,737	4,564	5,289	4,894	3%
Leupp Schools Inc.	0	0	0	1,602	N/A
Little Singer Community School Board Inc.	0	1,258	1,666	0	N/A
Nazlini Community School, Inc.	4,105	4,542	2,524	3,755	-9%
Painted Desert Demonstration Projects, Inc.	0	0	0	718	N/A
Pinon Community School Board	0	3,983	4,278	4,475	N/A
Pinon Unified District	10,096	3,722	5,452	4,410	-56%
Red Mesa Unified District	9,104	8,879	7,045	5,229	-43%
Red Rock Day School	0	0	2,812	3,323	N/A
Rock Point Community School	0	0	4,371	2,846	N/A
Rough Rock School Board, Inc.	4,139	5,511	4,271	5,918	+43%
Sanders Unified District	2,747	2,715	3,266	4,150	+51%
Seba Dalkai Boarding School	2,933	5,283	5,269	3,683	+26%
Second Mesa Day School	4,449	2,654	3,256	3,174	-29%
Shonto Governing Board of Education, Inc.	0	2,414	2,970	2,508	N/A
St. Michael Indian School	0	0	0	704	N/A
Tonalea Day School	0	3,460	5,109	3,737	N/A
Tuba City Unified School District #15	12,458	15,162	13,972	13,319	+7%
Wide Ruins Community School	0	0	2,278	1,204	N/A
Window Rock Unified District	31,117	16,476	22,991	19,794	-36%
Total Meals Served	**157,496**	**136,349**	**161,385**	**143,549**	**-9%**

Source: Arizona Department of Education. [Nutrition Program Data]. Unpublished data.

Table 29. Meals Served through CACFP

	2012	2013	2014	2015
Navajo Nation- Fort Defiance Agency Head Start	70,251	72,906	27,950	7,722
Navajo Nation-Chinle Agency Head Start	70,501	76,946	38,465	12,634
Navajo Nation-Western Agency Head Start	21,465	35,822	22,768	2,631
Pinon Unified District	0	0	0	2,535
Region Total	162,217	185,674	89,183	25,522

Source: Arizona Department of Education. [Nutrition Program Data]. Unpublished data

Note: In 2015, the Head Start centers only reported serving CACFP meals in August and September; therefore the 2015 data include only two months of the year.

Housing and Transportation

According to recent estimates from the American Community Survey (2010-2014), of the 25,968 occupied housing units in the Navajo Nation Region, 26 percent are occupied by renters and 74 percent are occupied by home-owners (Table 30). Rates of homeownership in the region are higher than in all Arizona reservations and the state. Residents in the Navajo Nation Region have a similar housing cost (16%) burden to residents of all Arizona reservations (17%) but lower than the average for residents statewide (35%) (Table 31). These data are consistent with results of a survey conducted by the Navajo Housing Authority in the spring of 2009 to assess the housing conditions and housing needs of residents in the Nation. The results from this survey, which included 11,466 households composed of 31,166 individuals, were summarized in a 2011 report produced for the Navajo Housing Authority (NHA) titled "Phase II Housing Needs Assessment and Demographic Analysis."[53] According this report, 80 percent of homes in the Nation are occupied by owners, and 20 percent by non-owners (which are not necessarily renters). Ninety percent of households reported paying no monthly mortgage or rent.[ix]

Despite high rates of home ownership, according to NHA's report, there are other pressing housing needs in the Nation: almost half (46%) of housing units require serious repairs and another 13 percent are dilapidated. The remaining 41 percent of homes require only minor repairs or no repairs at all. Five percent of all children in the Nation live in housing units classified as "available shelter," which is defined as "non-typical and non-standard housing of the lowest quality" including cars, tents, shacks and other lower quality enclosures. Half (50%) of all children live in overcrowded conditions.[x] Eighty-nine percent of homes in the Navajo Nation are heated by wood or pellets stoves, and nine percent area heated with natural gas or electricity. Fifty-six percent of houses have access to public water supply, but 31 percent of homes rely on off-site sources of water, which require transporting or hauling water for domestic use.[54]

Transportation is a challenge in the region. As many as one in seven households have no vehicle available (15%), which is double the proportion of households without a vehicle statewide (7%) (Table 32).

[ix] *According to the NHA report, the low proportion of households that pay rent or a mortgage is likely related to unique home financing and land ownership circumstances within the Navajo Nation: many of the homes are under leasing agreements held by the Mutual Help Program. Obstacles to development of conventional financing practices may include traditional cultural values, unfamiliar legal procedures, land held in trust, and the lack of a private-sector building industry.*

[x] *"Overcrowded" in this report is defined as surpassing the 'two persons per room' standard.*

Table 30. Owner- and Renter-Occupied Housing Units

	Number of occupied housing units	Owner-occupied units	Renter-occupied units
Navajo Nation (Arizona part)	**25,968**	**74%**	**26%**
Navajo Nation (New Mexico part)	16,544	76%	24%
Navajo Nation (Utah part)	1,395	92%	8%
Navajo Nation (entire)	43,907	75%	25%
Chinle Agency	6,775	76%	24%
Eastern Agency	7,828	79%	21%
Fort Defiance Agency	11,408	73%	27%
Northern Agency	7,957	76%	24%
Western Agency	9,939	73%	27%
All Arizona Reservations	47,892	69%	31%
ARIZONA	2,387,246	63%	37%

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B25106

Table 31. The Cost of Housing, Relative to Household Income

	Number of occupied housing units	Occupied housing units which cost 30% of household income, or more
Navajo Nation (Arizona part)	**25,968**	**16%**
Navajo Nation (New Mexico part)	16,544	15%
Navajo Nation (Utah part)	1,395	16%
Navajo Nation (entire)	43,907	15%
Chinle Agency	6,775	14%
Eastern Agency	7,828	15%
Fort Defiance Agency	11,408	15%
Northern Agency	7,957	16%
Western Agency	9,933	17%
All Arizona Reservations	47,892	17%
ARIZONA	2,387,246	34%

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B25106

Table 32. Households With No Vehicle Available

	Estimated number of households	Households with no vehicle available
Navajo Nation (Arizona part)	**25,968**	**15%**
Navajo Nation (New Mexico part)	16,544	15%
Navajo Nation (Utah part)	1,395	7%
Navajo Nation (entire)	43,907	15%
Chinle Agency	6,775	19%
Eastern Agency	7,828	16%
Fort Defiance Agency	11,408	15%
Northern Agency	7,957	12%
Western Agency	9,933	12%
All Arizona Reservations	47,892	17%
ARIZONA	2,387,246	7%

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B08201

EDUCATIONAL INDICATORS

Why Educational Indicators Matter

The degree to which people in a community are engaged and succeeding in educational settings can have profound impacts on the developmental and economic resources available to children and families in that region. Indicators such as school enrollment and attendance, achievement on standardized testing, graduation and dropout rates, and the overall level of education in the adult population can all paint a picture of a region's educational engagement and success.

The importance of education begins early in life. Preschool participation has been shown to better prepare young children for kindergarten by supporting good school attendance practices and honing socio-emotional, cognitive, and physical skills.[55,56,57,58] Starting in kindergarten, poor school attendance can cause children to fall behind, leading to lowered proficiency in reading and math, and increased grade-retention.[59]

Early education is laying an important foundation for the future. Students who are at or above grade level reading in third grade are more likely to graduate high school and attend college.[60] A family's economic circumstances can multiply this effect: more than one-fourth (26%) of children who were both not reading proficiently in third grade and living in poverty for at least a year do not finish high school – that is more than six times the dropout rate for proficient readers.[61]

In recognition of the importance of assuring that children are reading by the third grade, the Arizona Revised Statute §15-701 (also known as the *Move on When Reading* law) was enacted, which states that a student shall not be promoted from the third grade if the student obtains a score that falls far below the third-grade level.[62] Exceptions exist for students identified with or being evaluated for learning disabilities, English language learners, and those with reading impairments. From 2000-2014, the primary in-school performance measure of students in public elementary schools in the state used to meet the *Move on When Reading* requirement was the Arizona's Instrument to Measure Standards (AIMS).[63] In 2014, the statewide assessment tool for English language arts (ELA) and mathematics changed from AIMS to AzMERIT (Arizona's Measurement of Educational Readiness to Inform Teaching), and the first AzMERIT testing began in the 2015 school year.[64] New proficiency cut points were determined by grade level,[65] and earning a score of "proficient" or "highly proficient" indicates that a student is prepared for the next grade without requiring additional support.[66] Students who score as either "minimally" or "partially proficient" are likely to need support to be ready to move on to the next grade.[67] In order for children to be prepared to succeed on tests such as AzMERIT, research shows that early reading experiences, opportunities to build vocabularies, and literacy-rich environments are the most effective ways to support the literacy development of young children.[68]

Beyond the direct connections between caregivers' education and their own literacy, the ability to read to, share with, and teach young children in the home is influenced by parental and familial stress levels, income levels, and educational levels. Families in poverty are often grappling with issues of day-to-day survival which may limit time spent in developmentally enriching activities. Parents with higher educational attainment may be less vulnerable to these issues and are more likely to have children with positive outcomes related to school readiness and educational achievement, as well improved health, social and economic outcomes.[69] Higher levels of parental education are also associated with better housing, more secure neighborhoods, and stable working conditions, all of which are important for the health and well-being of children.[70,71]

What the Data Tell Us

The primary and secondary educational system in the Navajo Nation is comprised of grant schools,[xi] Bureau of Indian Education schools and schools managed by the Arizona Department of Education.

The Navajo Nation Department of Diné Education (DODE) is the central administrative education agency within the Executive Branch of the Navajo Nation, and is vested with the authority and responsibility to implement and enforce the educational laws of the Navajo Nation, pursuant to 10 N.N.C. § 107 (B). DODE is under the immediate direction of the Navajo Nation Superintendent of Schools, and subject to the overall direction of the Navajo Nation Board of Education (NNBOE). NNBOE is under the legislative oversight of the Health, Education, and Human Services Committee (HEHSC), a standing committee of the Navajo Nation Council.

DODE authorizes and renews grants and contracts for 29 Grant Schools, 17 of which are in the state of Arizona. The Navajo Nation Board of Education is responsible for the reauthorization of these grant schools based on the schools' academic and financial stability.

DODE works collaboratively with the Bureau of Indian Education (BIE) to address the needs of the 12 BIE Schools in the Arizona portion of the Navajo Nation. DODE also works with State Education Agencies (from the states of Arizona, New Mexico and Utah) primarily as an advocate for the Navajo students attending public schools. There are 11 Arizona school districts (with a total of 49 Arizona public schools), two New Mexico school districts (with 27 New Mexico public schools) and one Utah School District (with five Utah public schools) that operate within the boundaries of the Navajo Nation as a whole. In addition to these public schools, children from the Navajo Nation also attend private schools located within the reservation boundaries or in the towns bordering the reservation. There are five private schools located on the Arizona side and five on the New Mexico side.[72]

Through the Superintendent of Schools, DODE is authorized to perform a multitude of actions including (10 N.N.C. § 107 – see citation at end):

- establishing cooperative agreements with other Navajo Nation divisions and programs, and outside education organizations and entities;
- negotiating cooperative arrangements and intergovernmental agreements with local, state, federal agencies, and governmental bodies (subject to approval by the Navajo Nation Council or designated standing committee, when required);
- inquiring into and making impact determinations of educational situations involving Navajo students in any school or educational program which serves the Navajo Nation or receives funding for the education of Navajo students;
- informing Navajo Nation education stakeholders on the results of education-related inquiries;
- and collaborating with educational entities (i.e. schools, school districts, and governing boards), local communities, and other appropriate entities to develop implementation plans pertaining to educational laws, and coordinate resources.

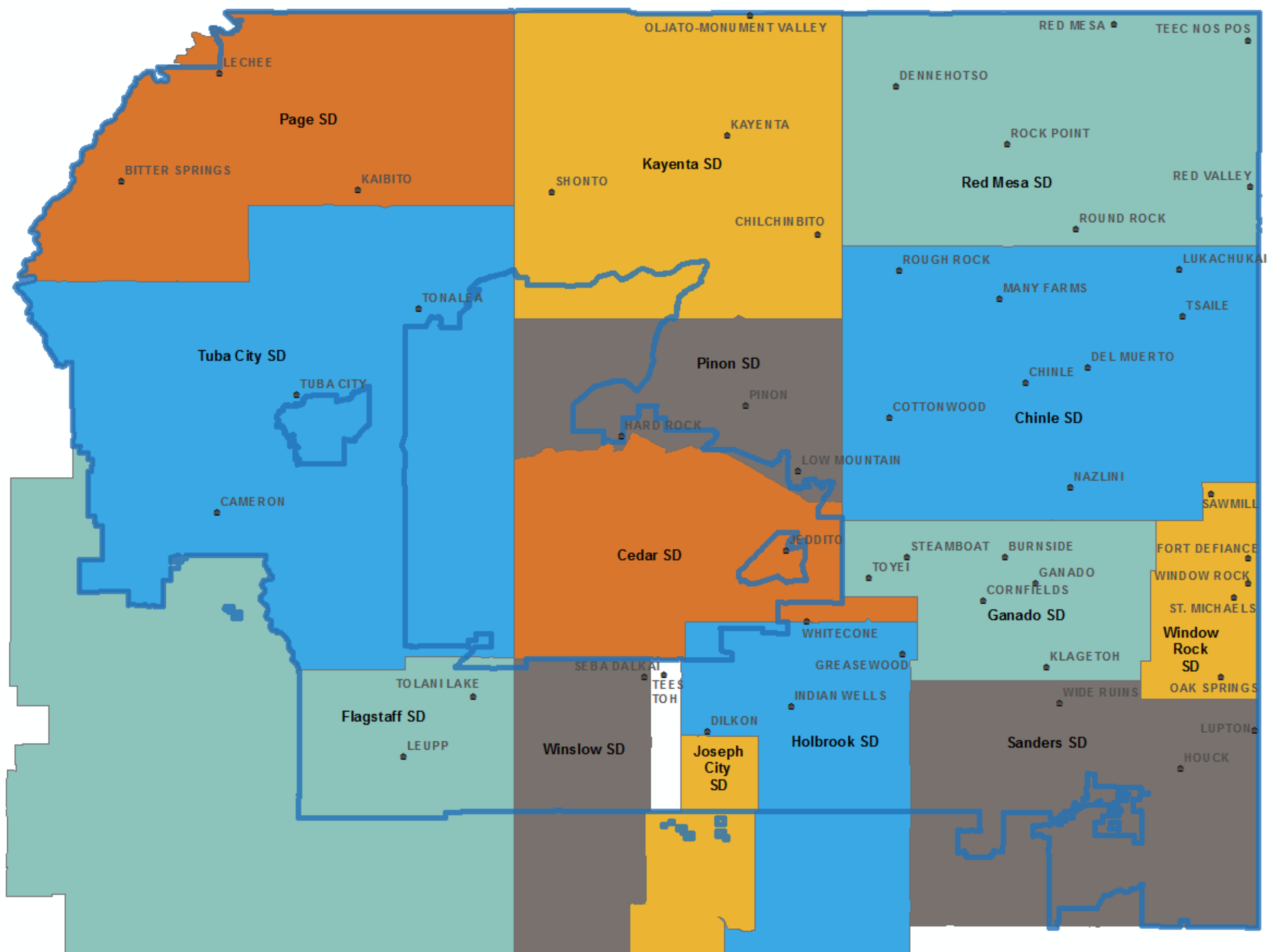
These responsibilities characterize DODE's central mission, which is to "promote and foster lifelong learning of the Navajo People, and to protect the cultural integrity and sovereignty of the Navajo Nation."

[xi] *Schools that are tribally controlled under P.L. 93-638 Indian Self Determination Contracts or P.L. 100-297 Tribally Controlled Grant Schools Act. 57*

Eleven programs are administered through DODE's oversight. These include the Office of Diné Accountability and Compliance; the Office of Standards, Curriculum, and Assessment Development; AdvancED Navajo Nation; the Office of Special Education and Rehabilitation Services; the Office of Navajo Nation Scholarship and Financial Assistance; the Navajo Nation Library, the Office of Diné School Improvement, the Office of Educational Research and Statistics, the Office of Diné Youth, and Navajo Head Start.

Figure 10 below shows the school districts within the First Things First Navajo Nation Region.

Figure 10. The School Districts of the Navajo Nation Region



Source: First Things First (2016).

Standardized Test Scores

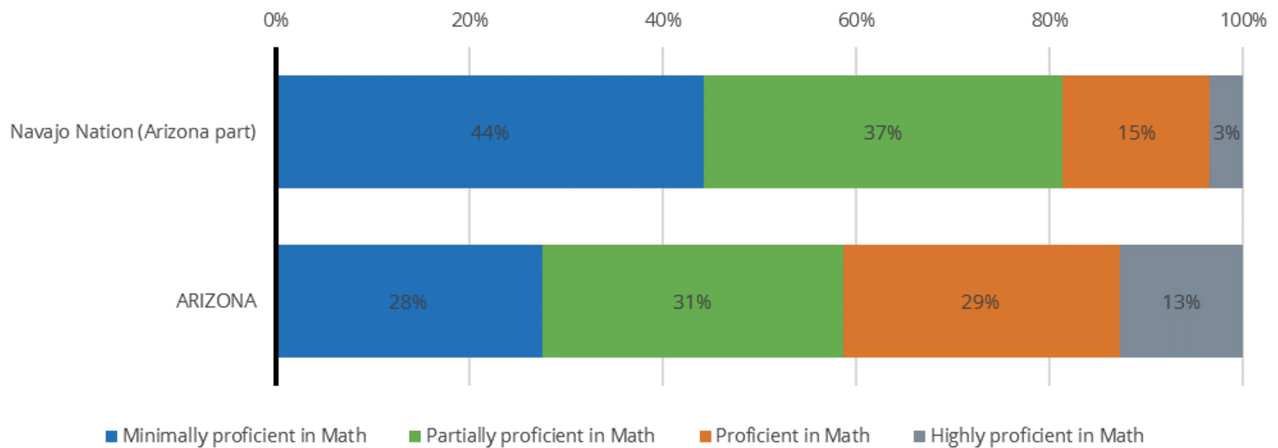
The AzMERIT, which replaced AIMS in the 2014-2015 school year, is designed to assess students' critical thinking skills and their mastery of the Arizona English Language Arts and Math Standards established in 2016. Students who receive a proficient or highly proficient score are considered adequately prepared for success in the next grade. In 2014-2015, 19 percent of third graders in the Navajo Nation Region attained these scores on the math assessment, a significantly lower passing rate than across Arizona as a whole (42%) (Figure 11). The percentage of students passing

the math assessment was higher in several districts, including Tuba City Unified School District (37%), Holbrook Unified District (29%), and Pinon Unified District (23%) (TABLE). Figure 10 shows a map of school districts in the region

Performance on the English Language Arts (ELA) test was slightly lower, with 14 percent of students demonstrating proficiency, compared to 40 percent across the state (Figure 12). Again, passing rates were higher in some districts, including Pinon Unified District (23%), Holbrook Unified District (19%), and Tuba City Unified School District (18%). A portion of the 71 percent of the Navajo Nation Region third graders who scored minimally proficient on the ELA test are at risk for retention in third grade, based on the Arizona's *Move on When Reading* law, which requires the retention of students whose reading score falls far below the third grade level.[xii]

Data on standardized test score results were not available from grant schools or schools overseen by the Bureau of Indian Education (BIE). The most recent publicly available data from BIE School Report Cards is from 2012-2013. According to key informants, BIE has undergone a process of internal restructuring, which is why more recent data are not available on their website.

Figure 11. AzMERIT Math Test Results for Third-Graders in the 2014-2015 School Year



Source: Arizona Department of Education (2016). [Education dataset]. Unpublished data.

Note: The percentages above may not add to 100% due to rounding.

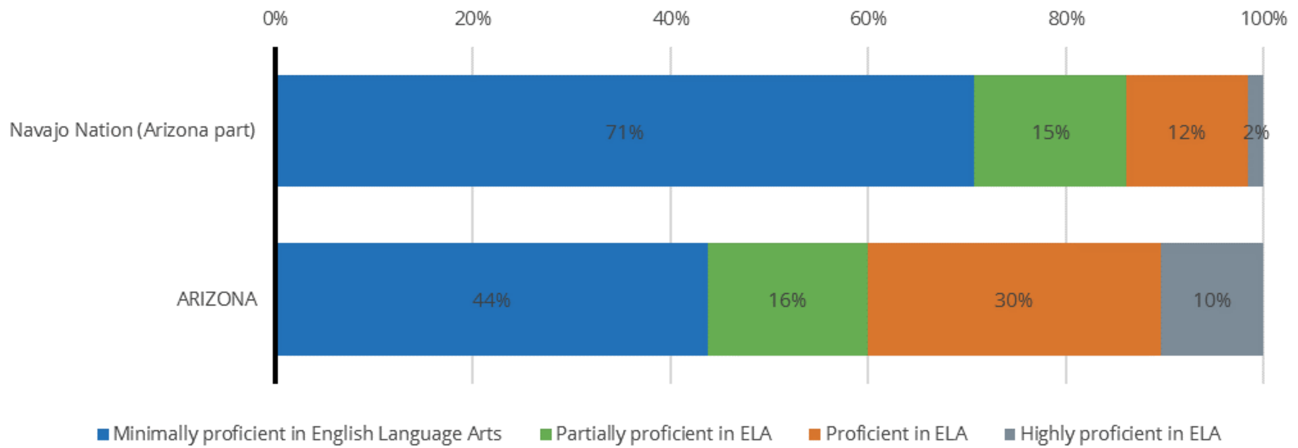
[xii] *Note that in the data provided, the scores reported are a combined ELA score of reading and writing. Students may have a minimally proficient ELA score and still meet the Move On When Reading requirement.*

Table 33. AzMERIT Math Test Results for Third-Graders in 2014-2015

	Minimally proficient in Math	Partially proficient in Math	Proficient in Math	Highly proficient in Math	Passing Math (proficient or highly proficient)
Navajo Nation Region Schools	**44%**	**37%**	**15%**	**3%**	**19%**
Cedar Unified District	36%	50%	14%	0%	14%
Chinle Unified District	40%	42%	15%	3%	19%
Ganado Unified School District	41%	44%	14%	2%	16%
Holbrook Unified District	42%	29%	22%	7%	29%
Kayenta Unified School District # 27	71%	20%	8%	1%	9%
Pinon Unified District	38%	40%	18%	5%	23%
Red Mesa Unified District	50%	43%	7%	0%	7%
Tuba City Unified School District #15	26%	37%	26%	11%	37%
Window Rock Unified District	47%	38%	13%	2%	15%
Navajo Nation Region Charter Schools	DS	DS	DS	DS	DS
All Arizona Schools	28%	31%	29%	13%	41%

Source: Arizona Department of Education (2016). [Education dataset]. Unpublished data.

Figure 12. AzMERIT English Language Arts Test Results for Third-Graders in the 2014-2015 School Year



Source: Arizona Department of Education (2016). [Education dataset]. Unpublished data.

Table 34. AzMERIT English Language Arts Test Results for Third-Graders in 2014-2015

	Minimally proficient in English Language Arts	Partially proficient in English Language Arts	Proficient in English Language Arts	Highly proficient in English Language Arts	Passing English Language Arts (proficient or highly proficient)
Navajo Nation Region Schools	71%	15%	12%	2%	14%
Cedar Unified District	57%	21%	21%	0%	21%
Chinle Unified District	79%	12%	8%	1%	9%
Ganado Unified School District	73%	17%	10%	1%	11%
Holbrook Unified District	69%	13%	13%	6%	19%
Kayenta Unified School District # 27	70%	16%	13%	2%	14%
Pinon Unified District	59%	17%	19%	4%	23%
Red Mesa Unified District	77%	19%	4%	0%	4%
Tuba City Unified School District #15	70%	12%	15%	3%	18%
Window Rock Unified District	66%	19%	15%	0%	15%
Navajo Nation Region Charter Schools	DS	DS	DS	DS	DS
All Arizona Schools	44%	16%	30%	10%	40%

Source: Arizona Department of Education (2016). [Education dataset]. Unpublished data.

Educational Attainment

The Arizona Department of Education tracks the percent of students who are chronically absent, meaning they have missed more than 10 days of school in a school year. Table 35 shows these percentages for elementary schools in the region. In 2014 and 2015, 53 percent of first through third graders were chronically absent, much higher than in the state as a whole (34% and 36%, respectively). Rates of chronic absences were even higher in several districts, including Cedar Unified District (71% in 2015) and Pinon Unified District (58% in 2015). Poor oral health is related to school absenteeism.[73] The high rates of tooth decay among children in the region may in part explain the large proportion of students with chronic absences in the region (see the *Child Health* section below for additional information on the oral health status of children in the region. Identifying and addressing other reasons behind chronic absenteeism is important to ameliorate later effects on educational achievement and graduation rates.

High School students in the Navajo Nation Region may attend one of 16 high schools and alternative public and charter schools in the region. The high school drop-out rate for these schools in the region has slightly decreased from 6 percent in 2012 to 5 percent in 2015 (Table 36). However, the drop-out rates in all schools in the region remain higher than the overall state rate of 3 to 4 percent. The four-year high school graduation rate in all Navajo Nation Region schools has been consistently lower than that of schools statewide. Graduation rates peaked in 2012, when 69 percent of seniors graduated in four years. In 2014, four-year graduation rates were highest in Window Rock Unified School District (80%) and Pinon Unified District (79%), where about four out of five seniors graduated on time. Data on the graduation and drop-out rates from grant schools and BIE schools in the region were not available to be included in this report.

Educational attainment for adults aged 25 and older in the Navajo Nation Region is similar to that across all Arizona reservations (Table 37). About a third of the adults (33%) in the Navajo Nation Region have a high school diploma or GED equivalent and another third have (30%) some college or professional education. Nine percent of adult residents in the Navajo Nation Region hold a Bachelor's degree or higher, which is significantly lower than the proportion across the state (27%).

Table 35. Chronic Absences for Students in Grade 1 to 3, 2014 and 2015

	Number of schools	Number of students in 2014	Students with chronic (more than 10) absences in 2014	Percent of students with chronic absences in 2014	Number of students in 2015	Students with chronic (more than 10) absences in 2015	Percent of students with chronic absences in 2015
Navajo Nation Region Schools	19	3,298	1,749	53%	3,233	1,698	53%
Cedar Unified District	1	74	43	58%	55	39	71%
Chinle Unified District	5	876	471	54%	861	446	52%
Ganado Unified School District	1	304	176	58%	330	170	52%
Holbrook Unified District	1	198	87	44%	197	76	39%

Kayenta Unified School District # 27	1	401	228	57%	402	222	55%
Pinon Unified District	1	331	189	57%	354	204	58%
Red Mesa Unified District	2	160	67	42%	163	74	45%
Tuba City Unified School District #15	4	341	138	40%	349	180	52%
Window Rock Unified District	2	599	348	58%	504	283	56%
Navajo Nation Region Charter Schools	1	14	<10	DS	18	<10	DS
All Arizona Schools	1,185	278,142	93,719	34%	283,147	103,078	36%

Source: Arizona Department of Education (2016). [Education dataset]. Unpublished data.

Table 36. High School Drop-Out and Graduation Rates, 2012 to 2015

	Total number of high schools and alternative schools	Drop-out rate, 2012	Drop-out rate, 2013	Drop-out rate, 2014	Drop-out rate, 2015	Four-year graduation rate, 2011	Four-year graduation rate, 2012	Four-year graduation rate, 2013	Four-year graduation rate, 2014
Navajo Nation Region Schools	16	6%	7%	6%	5%	66%	69%	64%	66%
Cedar Unified District	2	19%	16%	DS	DS	71%	DS	DS	0%
Chinle Unified District	1	4%	5%	5%	7%	68%	74%	56%	57%
Ganado Unified School District	2	4%	7%	5%	5%	66%	68%	56%	68%
Kayenta Unified School District # 27	1	3%	6%	6%	5%	70%	81%	71%	69%
Pinon Unified District	1	10%	10%	8%	6%	61%	65%	64%	79%
Red Mesa Unified District	2	7%	5%	6%	5%	72%	56%	62%	51%
Tuba City Unified School District #15	3	7%	10%	7%	5%	63%	62%	63%	68%
Window Rock Unified District	2	6%	5%	3%	3%	65%	71%	80%	80%
Navajo Nation Region Charter Schools	2	4%	6%	15%	DS	53%	58%	69%	50%
All Arizona Schools	836	4%	3%	3%	4%	78%	77%	76%	76%

Source: Arizona Department of Education (2016). [Education dataset]. Unpublished data.

Table 37. Level of Education for the Adult Population (Ages 25 and Older)

	Estimated population (ages 25 and older)	Less than high school	High school or GED	Some college or professional education	Bachelor's degree or more
Navajo Nation (Arizona part)	**57,749**	**28%**	**33%**	**30%**	**9%**
Navajo Nation (New Mexico part)	37,734	29%	35%	29%	7%
Navajo Nation (Utah part)	3,401	25%	42%	26%	7%
Navajo Nation (entire)	98,884	29%	34%	29%	8%
Chinle Agency	14,528	30%	32%	30%	8%
Eastern Agency	18,304	36%	33%	26%	5%
Fort Defiance Agency	27,173	28%	34%	30%	7%
Northern Agency	17,605	25%	36%	30%	8%

Western Agency	21,238	25%	36%	28%	11%
All Arizona Reservations	102,571	28%	34%	29%	8%
ARIZONA	4,284,776	14%	25%	34%	27%

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B15002

Note: The percentages above may not add to 100% due to rounding.

EARLY LEARNING

Why Early Learning Matters

Young children spend their time observing the world and learning at a rapid pace. From fine and gross motor skill development, to language and numeracy skills, to social skills, the early years of a child's life are filled with opportunities for learning. The skills that young children are building are critical for healthy development as well as later achievement and success. Just as rich, stimulating environments can promote development, early negative experiences can also carry lasting effects.[74] Gaps in language development between children from disadvantaged backgrounds and their more advantaged peers are already evident by 18 months of age;[75] those disparities that persist until kindergarten are predictive of later academic failure.[76]

Families play a tremendous role in fostering development. Research shows that children's health, socio-emotional, and cognitive development also benefit greatly from high quality early learning.[77,78] This is particularly true for children from disadvantaged backgrounds.[79] Children whose education begins in high quality preschool programs repeat grades less frequently, obtain higher scores on standardized tests, experience fewer behavior problems, and are more likely to graduate high school.[80]

Investment in children during the crucial first five years not only provides the necessary foundation for later achievement, but also produces a positive return on investment to society through increased educational achievement and employment, reductions in crime, and better overall health of those children as they mature into adults.[81,82,83] Experts estimate that investments in quality early learning initiatives can offer returns as high as $16 per dollar spent.[84,85] In other words, the costs of these programs are ultimately repaid several times over and the investment in early childhood is potentially one of the most lucrative ones that a community can make.

The ability of families to access quality, affordable early care and education opportunities, however, can be limited. Nearly one-third (32%) of parents of young children responding to a national survey regarding child care reported it was very or somewhat difficult to find care for their child, with cost being the most often cited challenge. More than two-thirds (69%) of parents surveyed reported having to pay in order to secure child care, and almost a third (31%) of those parents reported that this cost has caused a financial problem for the household.[86] According to the U.S. Department of Education, only 19 percent of four-year-olds in Arizona are enrolled in publically funded preschool or Head Start programs, compared to 41 percent nationally.[87] If not enrolled in publically-funded programs, which are often free or reduced cost, the annual cost of full-time center-based care ($9,166) for a young child in Arizona is nearly equal to the cost of a year at a public college ($10,065).[88] Child care subsidies can be a support for families who have financial barriers to accessing early learning services.[89]

In addition to prohibitive costs, the availability of suitable child care cannot be taken for granted. An inadequate child care supply, known as a "child care desert," has been defined as a zip code with at least 30 children under five years of age and either no or very limited center-based early care and education programs (i.e., there are more than three times as many children under age five as there are spaces in the child care settings.)[90] Living in a child care desert disproportionately affects rural populations, and given the many rural counties in Arizona, this is likely a common phenomenon in many regions.

Beyond basic issues of access and affordability, quality is also of paramount concern to parents. A recent national survey of parents who use child care for their young child(ren) found that most parents (59%) rated the quality of their child care as "excellent;" this runs contrary to research which suggests most child care across the country is not high quality.[91] How parents perceive and understand quality may differ; this points to the importance of quality rating systems to help guide parent choices. Quality First is Arizona's Quality Improvement and Rating System

(QRIS) for early child care and preschool providers. Quality First employs a five-point rating scale to indicate quality levels. A one-star rating indicates that the provider is committed to examining practices and improving the quality of care beyond basic health and safety requirements. Quality First providers can be assessed at or advance to a quality rating (3-5 star) by implementing lower teacher-to-child ratios, supporting higher staff qualifications, instituting a curriculum that aligns with state standards and child assessment, and providing nurturing relationships between adults and children that promote emotional, social, and academic development. The number of providers across the state that meet quality standards (three-star rating or higher) has increased in recent years with 25 percent of the 857 participating providers in 2013 and 65 percent of 918 participating providers in 2016 meeting or exceeding quality standards.[92]

The presence of qualified, well-trained, caring professionals is essential to providing quality child care and early education experiences for children. Ensuring that child care and early education programs promote developmental (cognitive, physical, socio-emotional) and academic readiness for kindergarten requires that professionals in these settings possess the knowledge and skills and engage in practices necessary to impart those benefits. In Arizona, the number of early childhood professionals receiving a credential or degree has increased from 2007 (21%) to 2012 (29%). However, one incentive for attaining these credentials – increased wages – shows an opposite pattern. Wages for assistant teachers, teachers, and administrative directors working across all types of licensed child care and education settings in Arizona decreased between 2007 and 2012, after adjusting for inflation. In addition, average annual wages for early education professionals in Arizona are about half that of kindergarten and elementary teachers, which may in turn affect retention of those in early education settings, particularly after degree attainment.[93]

In addition to formal education, there are additional professional development opportunities available for early childhood professionals in Arizona. The Arizona Early Childhood Career and Professional Development Network, supported by First Things First, hosts a professional development website, AZEarlyChildhood.org, that provides early childhood professionals with resources and information on professional development opportunities, career and job advancement, and networking in the early childhood field.[94,95]

The availability of early learning opportunities and services for young children with special needs is an ongoing concern across the state, particularly in the more geographically remote communities. Children with special health care needs (CSHCN) are defined as "those who have or are at increased risk for a chronic physical, developmental, behavioral, or emotional condition and who also require health and related services of a type or amount beyond that required by children generally."[96] According to the National Survey of Children's Health, children with special health care needs are more likely to experience more adverse childhood experiences than typically developing children,[97] and are at an increased risk for maltreatment and neglect.[98,99] Almost half (46%) of families with a child with special needs in Arizona have incomes below 200 percent of the federal poverty level.[100] In Arizona, the services available to families with children with special needs include early intervention screening and intervention services provided through the Arizona Department of Education AZ FIND (Child Find),[101] the Arizona Early Intervention Program (AzEIP),[102] and the Division of Developmental Disabilities (DDD).[103] Ensuring all families have access to timely and appropriate screenings for children who may benefit from early identification of special needs is paramount to improving outcomes for these children and their families. Timely intervention can help young children with, or at risk for, developmental delays improve language, cognitive, and socio-emotional development. It also reduces educational costs by decreasing the need for special education.[104,105,106]

What the Data Tell Us

Navajo Nation Child Care Development Fund

Housed under the Navajo Nation Division of Social Services, the Navajo Nation Child Care Development Fund (CCDF) provides child care services for parents and families who are working toward self-sufficiency through CCDF childcare services are available through tribal child care centers or private providers. CCDF provides child care for children who are: 12 years of age and younger, an enrolled member of the Navajo Nation or be eligible for enrollment, and residing within the same household as eligible parents or legal guardians. Eight CCDF centers are Quality First sites (see Table 28).

To qualify for childcare assistance, an eligible parent or legal guardian must reside on or near the Navajo Nation and fulfill one of the following statuses: holding employment (includes self-employment), pursuing completion of a GED, secondary, or post-secondary certificate or degree, attending a job-training program, participating in a TANF or Workforce Development program, or receiving a referral from a Child Protective Services (CPS) agency.

Organizationally, CCDF is comprised of five regions. Chinle Region, Fort Defiance Region, and Tuba City Region primarily serve Arizona communities. Crownpoint Region and Shiprock Region primarily serve New Mexico communities. There are four components to the CCDF organizational structure: Administrative Unit, Casework Units, Tribal Child Care Centers, and a Maintenance Unit.

- The **Administrative Unit** ensures that the other three CCDF component units have the necessary resources to accomplish their work objectives and needs. This unit is centrally located in Window Rock.
- The **Casework Units** guide parents or legal guardians seeking assistance through the application and eligibility-determination process. Once the Casework Unit determines a family eligible for program benefits, they help parents/guardians determine what type of child care provider will be utilized (tribal child care center or private provider). The Casework Unit also certifies individuals to become home-based child care providers. These providers are subsidized by CCDF.
- The **Tribal Child Care Centers** offer child care services to children ages 4 months to 13 years of age. Centers provide a healthy and safe environment in which learning and development can be promoted in five areas: social, emotional, physical, language, and cognitive. Nutritious meals and snacks are served to children at the centers.
- The **Maintenance Unit** is responsible for maintenance and upkeep of all child care centers. This unit also ensures that centers are compliant with Navajo Nation Office of Environmental Health standards.

In the Chinle Region, there are 5 home-based providers serving a total of 13 children, ages 0-12 years. Fewer than ten of these children are between the ages of 0-5 years (Table 28). There are 3 home-based providers in the Blue Gap community, and one each in the Cottonwood-Tselani and Chinle communities.

In the Tuba City (Western) Region, child care is extended only through home-based programs. There are currently no child care centers (Table 28). However, plans are in place to establish a center in the community of Tuba City. Previously, there had been a center in Shonto, but it closed because it could not meet minimum enrollment numbers to continue operating. As of March 2017, there were 4 home-based providers in this region within the communities of Tuba City, Tonalea, and Flagstaff (border town). Fewer than ten children (0-5 years) were served in this region by home-based providers. (Table 28).

In the Northern Agency, a total of 56 children were served by home-based providers with the Shiprock CCDF Casework Unit: 25 infants and toddlers and 31 preschool-age children. Fewer than ten children were care by home-based providers in the Fort Defiance Agency (Table 28).

Key informants indicated that the number of home-based providers under the CCDF program tends to fluctuate month by month. Some of the reasons behind this variability include: providers not having means of transportation or not being able to provide transportation to the children; providers not being able to afford being a provider; providers finding another job; and/or challenges related to passing the background check or the background check process taking too long.

Table 38. CCDF Centers and Home-Based Providers by Agency

Name	Infant and toddler enrollment	Preschool-age enrollment	Total enrollment (0-5)	Quality first center
Chinle Agency				
Chinle CCDF Casework Unit Home Based Providers	N/A	N/A	<10	Not applicable
Cottonwood Child Care Center (closed)	--	--	--	No
Kii Doo Baa I Child Care Center	14	<10	23	Yes
Kii Doo Baa II Child Care Center	N/A	N/A	N/A	Yes
Many Farms Child Care Center	21	19	42	Yes
Nooseli Beolta Child Care Center	N/A	N/A	N/A	Yes
Pinon #1 Child Care Center	N/A	N/A	N/A	No
Pinon Child Care Center	N/A	N/A	N/A	Yes
Rough Rock (closed)	--	--	--	No
Tsaile Child Care Center	15	0	15	No
Fort Defiance Agency				
Fort Defiance CCDF Casework Unit Home Based Providers	N/A	N/A	<10	Not applicable
Karigan Child Care Center	20	60	80	Yes
Little Miss Muffet	N/A	N/A	33	Yes
Northern Agency				
Rock Point (closed)	--	--	--	No
Shiprock CCDF Casework Unit Home Based Providers	25	31	56	Not applicable
Western Agency				
Leupp School	<10	14	DS	Yes
Tuba City CCDF Casework Unit Home Based Providers	N/A	N/A	<10	Not applicable

Source: Navajo Nation Child Care Development Fund. [2016-201]. [Enrollment data7. Tribe-specific data received through personal communication
Note that as of April 2017 the following centers were closed: Cottonwood, Rough Rock and Rock Point. Quality First data received from the Regional Director in November, 2016.

Note: N/A means that data were not available

Navajo Head Start and Early Head Start

Nationally, Head Start is a federal program that promotes school readiness of children ages birth to 5 years from low-income families through the provision of educational, nutritional, health, social, and other related services. Navajo Head Start is a federally-funded early childhood development organization within the Executive Branch of the Navajo Nation government. Led by the vision that Navajo children are sacred, Navajo Head Start endeavors to "cultivate independent, creative, competent dual language learners in a safe, healthy and nurturing environment; support families and communities; and advocate for policy and educational changes that ensure all children are successful." Leveraging holistic services to empower children, families, and communities is Navajo Head Start's central mission.

Navajo Head Start administers two programs: Head Start and Early Head Start (EHS). Head Start provides services to children 3 to 5 years old, and comprises 109 program sites across four Head Start Regions: (1) Chinle Region, (2) Tuba City Region, (3) Fort Defiance Region, and (4) Crownpoint/Shiprock Region (predominantly serving New Mexico communities). EHS services cater to pregnant women and infants and toddlers between the ages of birth to 36 months. Three EHS sites are in operation on the Navajo Nation. The two Arizona-based sites are in Fort Defiance and on the Diné College Campus in Tsaile. Both programs offer services through center- and home-based program options. Children must meet age-specific and income eligibility requirements to be enrolled in either program.

As shown in Table 39, a breakdown of funded enrollment by agency is as follows:

- A total of 480 children in the Chinle Agency
- A total of 393 children in the Fort Defiance Agency
- A total of 57 children in the Northern Agency, and
- A total of 322 children in the Western Agency.

Altogether, Navajo Head Start (including EHS) sites in the First Things First Navajo Nation Region have a total funded enrollment of 1,252 children (Table 39). The Navajo Head Start program as a whole (including the sites outside of Arizona) had a total funded enrollment of 2,100 children as of program year 2015-2016.[107]

To be eligible for the Head Start program, a child must turn three (3) years old by September 5, and not be older than the mandatory school age cut-off date (5 years old). Eligibility for the EHS program requires that a child be between 0-3 years of age. Once an EHS child turns 3, the family will transition to the Head Start program, but is required to reapply for the program and maintain income-eligibility. Children who demonstrate the most need according to Navajo Head Start's selection process have priority for acceptance and subsequent enrollment.

Ten percent of Navajo Head Start's funded enrollment is designated for children with disabilities. Preference is given to children who have been professionally diagnosed as having a disability and have a current Individualized Family Service Plan (IFSP) or Individualized Education Plan (IEP). If a child is suspected as having a disability, Navajo Head Start works with families to screen the child, make referrals, and provide follow-up to ensure that he/she receives needed support and services in Head Start to be successful when they reach elementary school.

In 2013 the Navajo Head Start program began a three-year process of organizational restructuring to ensure the program meets the standards established by the Administration of Children and Families, Office of Head Start (ACF-OHS). As part of the restructuring process, the program hired a cadre of new teachers with the credentials required by ACS-OHS and developed a comprehensive plan to ensure that children receive a high quality education as measured by progress in the Teaching Strategies Gold standards. School Readiness Coaches with the program are tasked with identifying areas of need where children might require additional support in order to meet the expected

benchmarks at the end of the school year. Navajo Head Start has also established a series of partnerships with other agencies in the Navajo Nation such as the Navajo Child Care Development Fund (CCDF) and the Navajo Nation Department of Behavioral Health Services. One of the challenges faced by the Navajo Head Start program is the fact that many of its facilities are old and in need of repairs or renovation. By partnering with CCDF, the Navajo Head Start has entered into shared-facility use agreements to be able to use available space within newer CCDF facilities.

None of the Head Start centers is currently participating in the Quality First program.

Table 39. Head Start Programs by Agency

Name	Type of center	Infant and toddler funded enrollment	Preschool-age funded enrollment	Total funded enrollment	Quality first site
Chinle Agency					
Blue Gap I & II NHS	HEAD START	N/A	N/A	40	No
Chinle II NHS	HEAD START	N/A	N/A	20	No
Chinle Valley NHS	HEAD START	N/A	N/A	20	No
Cottonwood NHS	HEAD START	N/A	N/A	20	No
Del Muerto I & II NHS	HEAD START	N/A	N/A	40	No
Dennehotso NHS	HEAD START	N/A	N/A	20	No
Forest Lake NHS	HEAD START	N/A	N/A	15	No
Hard Rock NHS	HEAD START	N/A	N/A	15	No
Low Mountain NHS	HEAD START	N/A	N/A	15	No
Lukachukai I & II NHS	HEAD START	N/A	N/A	40	No
Many Farms I & II	HEAD START	N/A	N/A	38	No
Many Farms III	HEAD START	N/A	N/A	20	No
Nazlini NHS	HEAD START	N/A	N/A	17	No
Pinon I NHS	HEAD START	N/A	N/A	20	No
Pinon II NHS	HEAD START	N/A	N/A	19	No
Rock Point I & II NHS	HEAD START	N/A	N/A	30	No
Round Rock I & II NHS	HEAD START	N/A	N/A	40	No
Tsaile NHS	HEAD START	N/A	N/A	20	No
Whippoorwill NHS	HEAD START	N/A	N/A	17	No
Dine College EHS	EHS	14	0	14	No
Total		N/A	N/A	480	

Source: Navajo Head Start (2015). 2015 Community Assessment. Received through personal communication. The display of the centers follows the way in which they are shown on the website of the Navajo Head Start (http://navajohs.org/Default.aspx). Quality First data received from the Regional Director in November, 2016.

Table 39. (continued). Head Start Programs by Agency

Name	Type of center	Infant and toddler funded enrollment	Preschool-age funded enrollment	Total funded enrollment	Quality first site
Fort Defiance Agency					
Cornfields NHS	HEAD START	N/A	N/A	20	No
Crystal NHS (New Mexico)	HEAD START	N/A	N/A	20	No
Dilkon NHS	HEAD START	N/A	N/A	20	No
Fort Defiance I & II NHS Center	HEAD START/EHS	16	40	56	No
Ganado NHS Center	HEAD START	N/A	N/A	20	No
Greasewood Springs NHS*	HEAD START	N/A	N/A	20	No
Jeddito NHS	HEAD START	N/A	N/A	17	No
Kin'Da'Li'Chi' NHS	HEAD START	N/A	N/A	20	No
Klagetoh NHS	HEAD START	N/A	N/A	15	No
Leupp I & II NHS	HEAD START	N/A	N/A	30	No
Lupton NHS	HEAD START	N/A	N/A	20	No
Red Lake NHS (New Mexico)	HEAD START	N/A	N/A	18	No
Sanders/Rural I NHS	HEAD START	N/A	N/A	17	No
Sawmill NHS	HEAD START	N/A	N/A	20	No
St. Michaels I NHS	HEAD START	N/A	N/A	20	No
St. Michaels II NHS Center	HEAD START	N/A	N/A	20	No
Steamboat NHS	HEAD START	N/A	N/A	20	No
White Cone NHS	HEAD START	N/A	N/A	20	No
Total		N/A	N/A	393	

Source: Navajo Head Start (2015). 2015 Community Assessment. Received through personal communication. The display of the centers follows the way in which they are shown on the website of the Navajo Head Start (http://navajohs.org/Default.aspx)
Note that as of May 2017, the Navajo Head Start program website indicates that the Greasewood Springs center moved to the Wide Ruins Community School and is thus referred to as "Wide Ruins." http://navajohs.org/region-ii.aspx. Quality First data received from the Regional Director in November, 2016.

Table 39 (continued). Head Start Programs by Agency

Name	Type of center	Infant and toddler funded enrollment	Preschool-age funded enrollment	Total funded enrollment	Quality first site
Northern Agency					
Red Mesa NHS (New Mexico)	HEAD START	N/A	N/A	20	No
Red Valley NHS (Arizona, New Mexico)	HEAD START	N/A	N/A	20	No
Sweetwater NHS	HEAD START	N/A	N/A	17	No
Total		N/A	N/A	57	
Western Agency			N/A		
Cameron NHS	HEAD START	N/A	N/A	20	No
Cowsprings NHS	HEAD START	N/A	N/A	17	No
Gap NHS	HEAD START	N/A	N/A	17	No
Inscription House II NHS	HEAD START	N/A	N/A	17	No
Kaibeto NHS	HEAD START	N/A	N/A	32	No
Kayenta I, II, III & IV NHS Centers	HEAD START	N/A	N/A	68	No
LeChee I & II NHS	HEAD START	N/A	N/A	17	No
LeChee III NHS	HEAD START	N/A	N/A	34	No
Navajo Mountain NHS (Utah)	HEAD START	N/A	N/A	15	No
Oljato NHS	HEAD START	N/A	N/A	20	No
Shonto I NHS	HEAD START	N/A	N/A	15	No
Tonalea I & II NHS	HEAD START	N/A	N/A	30	No
Tuba City I NHS	HEAD START	N/A	N/A	20	No
Total		N/A	N/A	322	

Source: Navajo Head Start (2015). 2015 Community Assessment. Received through personal communication. The display of the centers follows the way in which they are shown on the website of the Navajo Head Start (http://navajohs.org/Default.aspx). Quality First data received from the Regional Director in November, 2016.

FACE Program

Funded by the Bureau of Indian Education (BIE), the Family and Child Education (FACE) is an early childhood and parental involvement program for American Indian families at BIE-funded schools. The FACE program goals are: to support parents and primary caregivers in their role as their child's first and most influential teacher, strengthen family-school-community connections, increase parent participation in their child's learning and expectations for academic achievement, support and celebrate the cultural and linguistic diversity of each American Indian community served by the program, promote early identification and services to children with special needs, and promote lifelong learning. A focal point of FACE is the integration of Native language and culture in three settings: home, school, and community. Preparing FACE families for smooth transitions for the child from home-based to center-based or to another preschool experience is another important focus of the program.

FACE works in partnership with the National Center for Families Learning (NCFL), the Parents as Teachers National Center (PAT), and Research and Training Associates (RTA) to provide high-quality training, technical assistance, and evaluation.

In Program Year 2017, FACE services and activities were administered nationally in forty-four (44) BIE-funded schools, 8 of which are in the Arizona portion of the Navajo Nation (Table 30). Across the 8 center-based programs, the total number of children enrolled was 122, and the total number of adults enrolled was 160 (Table 30). The total number of children and adults enrolled in home-based programs was 262 and 274, respectively. Altogether, 375 is the total unduplicated number of children ages birth to 5 enrolled in both center- and home-based programs (Table 30).

Typically, FACE programs have a team of five or six staff members, including: a coordinator (who also often serves as the adult education teacher or early childhood teacher), an early childhood teacher and co-teacher, an adult education teacher and two parent educators. FACE has both a center-based and home-based component.

Home-based Services

Home-based services are provided through a 4-component model which includes personal visits, FACE family circles (group connections), screenings, and resource networks. Services are delivered by two parent educators who are knowledgeable of the community, culture, values and characteristics of the population served. Parent educators are trained and certified in the Parents as Teachers *Foundational, Model Implementation, and Foundational 2 Curriculum* which emphasizes parent-child interaction, development-centered parenting, and family wellbeing. Parent educators make personal visits to enrolled families of children prenatal through kindergarten to perform any of the following: assess the child's development level, provide parent-child learning experiences that support child development, encourage opportunities for parents and child(ren) to interact, and conduct screenings and referrals.

Center-based Services

Center-based services are provided through the four components of adult education, early childhood education, parent time, and Parent and Child Together Time®. Typically, the FACE center-based setting has two classrooms: one is designated for preschool children ages 3 to 5 years, and the other is the Adult Education classroom. The preschool classroom promotes a literacy-rich learning environment using an NCFL-developed curriculum called the *CIRCLE: A Developmentally Appropriate Preschool Curriculum.* The adult education classroom is a supportive environment where parents receive instruction focused on educational goal-setting in their roles as parent/family member, worker, and community member, and making achievements in the areas of parenting, education, employment, and self-improvement.

Eligibility

All child participants must be American Indian and be eligible for admission to a BIE-funded school upon reaching school age.

For home-based services, families with a child prenatal through kindergarten age are eligible if parents or primary caregivers are willing to actively participate in weekly or bi-weekly personal visits, screenings, resource networks, and FACE Family Circles. Priority for enrollment is given to teenage parents with children prenatal to 36 months, followed by families with children prenatal to 36 months, families referred by collaborating agencies, and families with children ages 3 years through kindergarten who are in need of services.

For center-based services, families with a child 3 years to 3rd grade are eligible if parents or primary caregivers expressly agree to participate in the FACE center-based program, including the four components of the program. Additionally, children in the center-based program must be toilet-trained. This requirement does not apply if the child has documented special needs and has a parent or guardian in attendance at the center who can provide changing as needed. Priority for enrollment is first given to families of a child who meets the 3 years to kindergarten (3-K) age range and who can commit to full-time participation in the program components. Thereafter, priority is provided in the order of the following: families with children transitioning from home-based to center-based, teenaged parents of children ages 3-K, families with children 3-K who are referred by collaborating agencies, children in elementary grades with parents who have academic needs, parents and adult family members of children 3 – K who can participate part-time (1-3 days per week), and parents and adult family members with children 3-K who can participate in parent engagement activities on a flexible basis.

Adults and children with special needs are eligible for both home-based and center-based services.

Table 45 below shows the number of children and adults participating in both the center-based and home-based components of the FACE program on the Navajo Nation Region. None of the FACE programs in the region participate in Quality First.

Table 40. FACE Programs by Agency, 2014-2015

	Children enrolled in center-based programs	Adults enrolled in center-based programs	Children enrolled in home-based programs	Adults enrolled in home-based programs	Total number of children enrolled (0-5)	Quality First site
Chinle Agency						
Many Farms	11	11	60	59	69	No
Rough Rock Community School	24	38	22	34	46	No
Fort Defiance Agency						
Greasewood Springs Community School	21	34	32	28	51	No
Kin Dah Lichi'l Olta	13	10	15	12	27	No
Leupp	9	11	41	36	50	No
Northern Agency						
T'iis Nazbas Community School	8	18	42	49	49	No
Western Agency						
Kayenta Community School	19	20	17	14	36	No
Little Singer Community School	17	18	33	42	47	No
Total	122	160	262	274	375	0

Source: FACE Report PY2014-2015

Note: The total number of children enrolled reflects the unduplicated number of children served by the program in both center-based and home-based services and may therefore not be the same as the sum of the number of children in the column "Children enrolled in home-based programs" plus the number in the column "Children enrolled in center-based programs."

Note: In August of 2016 a new FACE program opened at Nazlini Community School. No enrollment data were available for this center as it is a new one and it is not included in the FACE report used as the source for this table. Quality First data received from the Regional Director in November, 2016

School-Based Preschool

There are 13 school-based preschool programs in the Navajo Nation Region. Of these, one program was based in a private school. The remaining 12 preschool programs are public school-based, and collectively have a total enrollment of 478 children. Table 31 shows the majority of preschool programs are Quality First participating sites (n=11).

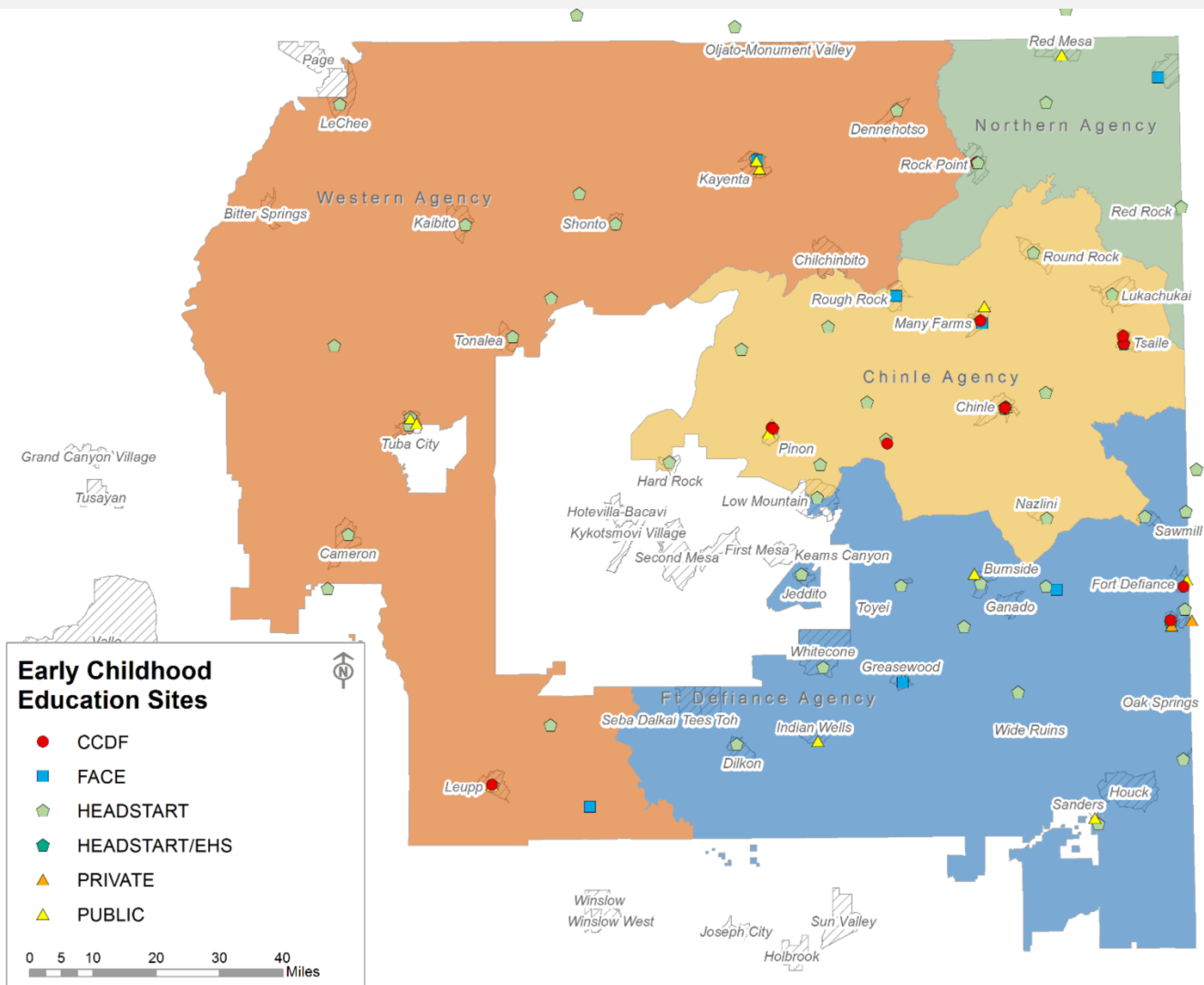
Table 41. School-Based Preschool Programs by Agency

Name	Type of school	Total enrollment	Quality First site
Chinle Agency			
Chinle Elementary School	PUBLIC	98	Yes
Many Farms Elementary School	PUBLIC	20	Yes
Pinon Elementary School	PUBLIC	31	Yes
Fort Defiance Agency			
Ganado Elementary School	PUBLIC	34	No
Indian Wells Elementary	PUBLIC	75	Yes
Tsehootsooi Integrated Preschool Program	PUBLIC	31	Yes
Saint Michael Indian School Preschool	PRIVATE	16	Yes
Northern Agency			
The Robert Charley Preschool Program*	PUBLIC	16	Yes
Western Agency			
ABC Preschool- Kayenta Unified School District	PUBLIC	67	Yes
C.O.P.E. Center	PUBLIC	12	Yes
Leupp Public School	PUBLIC	15	
Tsehootsooi Integrated Preschool Program	PUBLIC	23	Yes
Tuba City High School	PUBLIC	15	Yes
Tuba City Primary School	PUBLIC	41	No
Total		494	11 participating centers

Sources: Arizona Department of Education (2016). [Education dataset]. Unpublished data; Data for Robert Charley Preschool Program and Saint Michael Indian School Preschool are as of November 2016 and were received through personal communication; and Quality First data received from the Regional Director in November 2016.

The map in Figure 13 below shows the various center-based early care and education programs in the region.

Figure 13. Map of Early Care and Education Centers in the Navajo Nation Region



Source: Office of Head Start (2016). Head Start Program Information Report; Navajo Nation Child Care Development Fund; Navajo Nation FACE Program; Arizona Department of Education (2016). [Enrollment Dataset].

Despite the early care and learning options outlined above, key informants indicated that availability of reliable child care services is a challenge to parents with young children, especially for families where both parents work outside of the home. On the other hand, the fact that participation in early care and learning programs is often not stable makes it challenging for some centers to plan on the number of staff that need to be present each day. Key informants indicated that at many CCDF centers the number of children participating varies greatly from month to month and that some children attend the center for short periods of time. At some CCDF Case Work Units, children receive care for an average of only six months. Staff sometimes must shift the center in which they work based on the need. At one of the CCDF Casework Units, for instance, nine centers were available but only six were in operation as of December 2016 due mainly to a lack of staff but also to low enrollment.

Cost of Care

In addition to the child care subsidies provided by the Navajo Nation Child Care Development Fund Program, some families in the Navajo Nation Region receive subsidies from the Arizona Department of Economic Security (DES). DES prioritizes assistance to families who receive Cash Assistance (TANF), those who are transitioning off Cash Assistance to employment, and families involved with the Arizona Department of Child Safety (DCS) for subsidies. As of 2009, other families seeking DES subsidy support are placed on a waiting list. Statewide, 7,194 children were wait-listed as of January 6, 2017.[108] Table 42 shows the number of young children receiving child care subsidies from DES in the region, which has fallen from 13 to less than 10 between 2013 and 2015. The number of children on the waiting list for DES child care subsidies also fell from 17 in 2013 to less than 10 in 2015.

Table 42. Department of Economic Security (DES) Child Care Subsidies for Children (Ages 0 to 5), 2013 to 2015

	Children eligible for subsidy during 2013	Children eligible for subsidy during 2014	Children eligible for subsidy during 2015	Children receiving subsidy during 2013	Children receiving subsidy during 2014	Children receiving subsidy during 2015	Children on waiting list during 2013	Children on waiting list during 2014	Children on waiting list during 2015
Navajo Nation (Arizona part)	**13**	**12**	**14**	**13**	**12**	**<10**	**17**	**<10**	**<10**
All Arizona Reservations	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ARIZONA	28,429	29,180	43,860	27,041	26,685	38,855	5,094	5,195	5,140

Source: Arizona Department of Economic Security (2016). [Child Care Administration dataset]. Unpublished data.

Developmental Screenings and Services for Children with Special Developmental and Health Needs

The Navajo Nation Growing in Beauty program conducts screenings and developmental evaluations, including vision and hearing, to help children enter early intervention programs. Growing in Beauty's mission is to "assure that all Dine children with a developmental delay or disability, between the ages of birth to five, grow into beautiful individuals," and simultaneously honors the Navajo culture and language throughout its mission. The program highly emphasizes and helps families understand key principles of early intervention.

Both service coordination and direct services are available through the program, and include:

- Receiving and processing referrals from pediatricians, health care professionals, and other service providers;
- Providing developmental assessment and evaluation for at-risk children along with Growing in Beauty Partnership Program staff from the Institute of Human Development at Northern Arizona University, the St. Michaels Association for Special Education, and the Center for Development and Disability at the University of New Mexico;
- Making referrals and ensuring a team-based approach is used by early intervention specialists for the provision of support and services;
- Providing children with special needs and their families with transition supports into appropriate early childhood settings or preschool programs, including Head Start,
- Providing ongoing developmental screening and family support; and
- Providing advocacy and training for families.

Once a referral is received by the Growing in Beauty program, staff have 45 calendar days to both initiate and complete the process for gathering developmental information with the family. This process includes:

- Identifying concerns, priorities, and interests of the family;
- Screening and planning for evaluation;
- Evaluation/assessment of the child's skills (includes identification of the unique strengths and concerns of the child and their family, and a comprehensive assessment of cognitive development, physical development, communication skills, vision and hearing abilities, and social and emotional development);
- Determining eligibility for Early Intervention services; and
- Developing an Individualized Family Service Plan (ISFP) if the child is determined eligible.

Table 43. Arizona Early Intervention Program (AzEIP)/Growing in Beauty Referrals and Services for Children (Ages 0 to 2), 2013 to 2015

	Children (ages 0-2) referred to AzEIP during FY 2013	Children (ages 0-2) referred to AzEIP during FY 2014	Children (ages 0-2) referred to AzEIP during FY 2015	Children (ages 0-2) served by AzEIP during FY 2013	Children (ages 0-2) served by AzEIP during FY 2014	Children (ages 0-2) served by AzEIP during FY 2015
Navajo Nation (Arizona part)	**119**	**69**	**276**	**42 to 50**	**49 to 57**	**109**
All Arizona Reservations	N/A	N/A	N/A	N/A	N/A	N/A
ARIZONA	10,715	11,741	14,450	4,799	5,248	10,039

Source: Arizona Department of Economic Security (2016). [Arizona Early Intervention Program dataset]. Unpublished data.

Table 44. Children (Ages 0 to 5) Referred to the Division of Developmental Disabilities (DDD), 2012 to 2015

	Number of children (ages 0-2) referred in FY2012	Number of children (ages 0-2) referred in FY2013	Number of children (ages 0-2) referred in FY2014	Number of children (ages 0-2) referred in FY2015	Number of children (ages 3-5) referred in FY2012	Number of children (ages 3-5) referred in FY2013	Number of children (ages 3-5) referred in FY2014	Number of children (ages 3-5) referred in FY2015
Navajo Nation (Arizona part)	**DS**	**DS**	**DS**	**DS**	**DS**	**DS**	**DS**	**DS**
All Arizona Reservations	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ARIZONA	1,439	2,186	2,479	2,484	1,393	1,401	1,804	1,969

Source: Arizona Department of Economic Security (2016). [Division of Developmental Disabilities dataset]. Unpublished data.

Table 45. Children (Ages 0 to 5) Evaluated by the Division of Developmental Disabilities (DDD), 2012 to 2015

	Number of children (ages 0-2) screened in FY2012	Number of children (ages 0-2) screened in FY2013	Number of children (ages 0-2) screened in FY2014	Number of children (ages 0-2) screened in FY2015	Number of children (ages 3-5) screened in FY2012	Number of children (ages 3-5) screened in FY2013	Number of children (ages 3-5) screened in FY2014	Number of children (ages 3-5) screened in FY2015
Navajo Nation (Arizona part)	**DS**	**DS**	**0**	**DS**	**DS**	**DS**	**0**	**0**
All Arizona Reservations	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ARIZONA	732	314	216	238	669	731	727	958

Source: Arizona Department of Economic Security (2016). [Division of Developmental Disabilities dataset]. Unpublished data.

Note: Screening is defined by DES as including "children who DDD paid for an evaluation, not including occupational therapy, physical therapy, or speech therapy, during state fiscal year 2015."

Table 46. Children (Ages 0 to 5) Served by the Division of Developmental Disabilities (DDD), 2012 to 2015

	Number of children (ages 0-2) served in FY2012	Number of children (ages 0-2) served in FY2013	Number of children (ages 0-2) served in FY2014	Number of children (ages 0-2) served in FY2015	Number of children (ages 3-5) served in FY2012	Number of children (ages 3-5) served in FY2013	Number of children (ages 3-5) served in FY2014	Number of children (ages 3-5) served in FY2015
Navajo Nation (Arizona part)	**<25**	**<25**	**<25**	**<25**	**<25**	**<25**	**<25**	**<25**
All Arizona Reservations	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ARIZONA	2,646	2,693	2,341	2,336	2,563	2,600	2,533	2,540

Source: Arizona Department of Economic Security (2016). [Division of Developmental Disabilities dataset]. Unpublished data.

Table 47. Division of Developmental Disabilities (DDD) Service Visits for Children (Ages 0 to 5), 2012 to 2015

	Number of service visits (ages 0-2) in FY2012	Number of service visits (ages 0-2) in FY2013	Number of service visits (ages 0-2) in FY2014	Number of service visits (ages 0-2) in FY2015	Number of service visits (ages 3-5) in FY2012	Number of service visits (ages 3-5) in FY2013	Number of service visits (ages 3-5) in FY2014	Number of service visits (ages 3-5) in FY2015
Navajo Nation (Arizona part)	**672**	**626**	**306**	**N/A**	**313**	**814**	**1,201**	**1,154**
All Arizona Reservations	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ARIZONA	168,992	158,496	130,486	120,519	363,468	374,440	367,590	358,322

Source: Arizona Department of Economic Security (2016). [Division of Developmental Disabilities dataset]. Unpublished data.

CHILD HEALTH

Why Child Health Matters

Optimal development encompasses intellectual, social, emotional, and physical health. The extent to which children can achieve optimal development depends on the everyday environment and supports which surround them, as well as access to additional resources and services that support healthy development.[109,110] The health of a child in utero, at birth, and in early life sets the stage for health and well-being throughout their life. Factors such as access to health care and health insurance, a mother's receipt of prenatal care, and receipt of preventive care such as immunizations and oral health care all influence not only a child's current health, but long-term development and future health as well.[111,112,113]

One way to assess how well a region is faring is by comparing a set of indicators to a set of known targets or standards. With regard to children's health, Healthy People is a federal initiative which provides 10-year national objectives for improving the health of Americans. Healthy People 2020 targets were developed with the use of current health data, baseline measures, and areas for specific improvement. Using the Healthy People 2020 standards as a tool for comparison can help regions understand where they fall relative to the nation as a whole, as well as identify particular areas of strength and places for improvement in relation to young children's health. Therefore, Healthy People 2020 targets are included when available.

The ability to obtain health care is critical for supporting the health of young children. In the early years of a child's life, well-baby and well-child visits allow clinicians to offer developmentally appropriate information and guidance to parents and provide a chance for health professionals to assess the child's development and administer preventative care measures like vaccines and developmental screenings. [114] Families without health insurance are more likely to skip these visits, and so are less likely to receive preventive care for their children, or to receive care for health conditions and chronic diseases.[115,116] Children who lack health insurance are also more likely to be hospitalized and to miss school.[117] Health care services to members of federally-recognized Indian tribes are available from Indian Health Service (IHS) facilities and other tribally-administered health care facilities.[118]

Low income children in Arizona are covered by the Arizona Health Care Cost Containment System (AHCCCS), Arizona's Medicaid. AHCCCS coverage is available for children in families with income up to 147 percent of the Federal Poverty Level (FPL) for those under age 1, and up to 141 percent of FPL for those ages 1 to 5 (and 133% for those from 6-19 years). Across the nation, state-run Children's Health Insurance Programs (CHIP) have provided health insurance to children up to age 19 in families with incomes too high to qualify them for Medicaid (AHCCCS). Enrollment in the Arizona version of CHIP, KidsCare, was suspended as of January 1, 2010, a particularly vulnerable time for families, following on the heels of the Great Recession.[119] Arizona became the only state without an active CHIP program. However, in May 2016, the Arizona legislature voted to lift the freeze on KidsCare,[120] and in July 2016 applications began to be accepted for the first time in six years, with coverage beginning September 1, 2016.[121] Expanding health insurance availability for lower-income children can lead to health improvements, and to longer-term benefits such as increased high school and college graduation rates and higher lifetime earnings.[122]

Because a number of factors influence the health of a child before conception and in utero, the characteristics of women giving birth can have a substantial impact on the birth and developmental outcomes for their children. For instance, pregnancy during the teen years is associated with a number of health concerns for infants, including neonatal death, sudden infant death syndrome, and child abuse and neglect.[123] Teenaged mothers (and fathers) themselves are less likely to complete high school or college, and more likely to require public assistance and to live in poverty than their peers who are not parents.[124,125,126]

A mothers' weight status can also influence her child's health. Women who are obese before they become pregnant have pregnancies with a higher risk of birth complications and neonatal and infant mortality.[127,128] Babies born to obese women are at risk for chronic conditions in later life such as diabetes and heart disease.[129] Maternal smoking is another factor that can greatly affect child outcomes. Babies born to mothers who smoke are more likely to be born early (pre-term), be low birth weight, die from sudden infant death syndrome (SIDS) and have weaker lungs than other babies.[130]

One potentially harmful birth outcome that can have long-lasting effects are preterm births – births before 37 weeks of gestation. Preterm birth, in addition to being associated with higher infant and child mortality, often results in longer hospitalization, increased health care costs, and longer-term impacts such as physical and developmental impairments. Babies born at a low-birth weight (less than 2,500 grams or 5 pounds, 8 ounces) are also at increased risk of infant mortality and longer-term health problems such as diabetes, hypertension and cardiac disease. [131]

Quality preconception counseling and early-onset prenatal care can help reduce some of these risks for poor birth outcomes by providing information and supporting an expectant mother's health and nutrition.

After birth, a number of factors have been associated with improved health outcomes for infants and young children. One factor is breastfeeding, which has been shown to reduce the risk of ear, respiratory and gastrointestinal infections, SIDS, overweight, and type 2 diabetes.[132] The American Academy of Pediatrics recommends exclusive breastfeeding for about 6 months, and continuing to breastfeed as new foods are introduced for 1 year or longer.[133] Healthy People 2020 aims to increase the proportion of infants who were ever breastfed to 81.9 percent.[134]

Immunization against preventable diseases is another factor that protects children from illness and potentially death. In order to assure community immunity (also known as "herd immunity"), which helps to protect unvaccinated children and adults from contracting vaccine- preventable diseases, rates of vaccination in a community need to remain high.[135] Research shows that higher exemption rates of vaccines at the school-level have been associated with school-based outbreaks of preventable diseases such as measles and pertussis.[136]

Oral health and good oral hygiene practices are also very important to children's overall health. According to the National Survey of Children's Health, the percentage of children in Arizona with excellent or very good oral health (65.7%) falls below the national level of 71.3 percent.[137] Tooth decay and early childhood caries can have short and long term consequences including pain, poor appetite, disturbed sleep, lost school days, and reduced ability to learn and concentrate.[138]

In early childhood, illness and injury can cause not only trauma to a child but added stress for a family. Non-fatal unintentional injuries substantially impact the well-being of children,[139] and injuries are the leading cause of death in children in the United States.[140] Common causes of visits to the emergency department for children 0-5 in Arizona include falls (particularly from furniture), collisions with an object, and natural events like bites and stings. Common causes for hospitalization of young children in Arizona include falls, poisoning, and assault/abuse.[141] Many of these injuries are preventable, prompting the Centers for Disease Control and Prevention to produce a National Action Plan for Child Injury Prevention, which outlines evidence-based strategies for addressing the challenge of keeping children safe.[142] The Arizona Department of Health Services has recognized the need to focus on reducing childhood injuries in Arizona, and identified that as one of their priorities in the Bureau of Women's and Children's Health Strategic Plan[143], as well as included it as part of their Arizona Injury Prevention Plan.[144]

A child's weight status can have long-term impacts on health and well-being; in the United States, areas of concern tend to center around malnutrition and obesity, rather than undernutrition and underweight. Nationwide, it is estimated that about 3.8 percent of children ages 2-19 are underweight, 16.2 percent are overweight, and 17.2

percent are obese.[145,146] Obesity can have negative consequences on physical, social, and psychological well-being that begin in childhood and continue into and throughout adulthood.[147] The first two years of life are seen as critical to the development of childhood obesity and its resultant negative consequences. Higher birth weight and higher infancy weight, as well as lower-socioeconomic status and low-quality mother-child relationships have all been shown to be related to higher childhood weight.[148] One component of establishing a healthy weight – physical activity – also promotes improved visual-motor integration skills and object manipulation skills which in turn lead to improved executive function, social behaviors and ultimately school readiness for young children.[149] The availability and accessibility of recreational facilities and resources that promote physical fitness can impact the ability of both child and adult community members to reap the benefits of physical activity.

What the Data Tell Us

Access to Care

The Navajo Area Indian Health Service (NAIHS) provides health care services to American Indians who reside in the "four corners" area of the US Southwest which includes portions of the states of Arizona, New Mexico and Utah. Most service users are members of the Navajo Nation but NAIHS also serves the Southern Band of San Juan Paiutes, Zuni and Hopi populations.

NAIHS services are provided through inpatient, outpatient contract, and community health programs based out of six hospitals, seven health centers, and 15 health stations. Health Centers also operate full-time clinics and a few of these offer emergency services. In smaller communities health stations operate on a part-time basis. The health care facilities that operate under NAIHS are listed below:[150]

- Chinle Comprehensive Health Care Facility
- Crownpoint Health Care Facility
- Dzilth-Na-O-Dith-Hle Health Center
- Four Corners Regional Health Center
- Gallup Indian Medical Center
- Inscription House Health Center
- Kayenta Health Center
- Pinon Health Center
- Shiprock-Northern Navajo Medical Center
- Tohatchi Health Care Center
- Tsaile Health Center

As a result of the Indian Self-Determination and Education Assistance Act (PL-93-638), federally recognized tribes have the option to receive the funds that the Indian Health Service (IHS) would have used to provide health care services to tribal members. The tribes can then utilize these funds to directly provide services to tribal members. Under the leadership of tribal health corporations, the Navajo Nation manages three large tribally-operated health care facilities in Arizona under P.L. 93-638 ("638") contracts:

- Tsehootsooi Medical Center in Fort Defiance
- Tuba City Regional Health Care Corporation in Tuba City
- Winslow Indian Health Care Corporation in Winslow.

Tsehootsooi Medical Center offers family medicine, emergency services, OB/GYN care, a pediatric care unit, inpatient social services, and extensive specialty medical services including physical therapy and ear, nose, and throat (ENT) care. TMC also offers a dental clinic, an optometry clinic, a surgical clinic, and Navajo traditional healing services. TMC operates a mobile clinic and *Nahata Dziil Health Center,* a satellite health facility in Sanders, Arizona.

Tuba City Regional Health Care Corporation offers family medicine, internal medicine, pediatric care, elderly care, women's health care, emergency/trauma services including an intensive care unit, a surgical unit, and mental health services. Outpatient services include dental, diabetes prevention, Native and spiritual medicine, and audiology. TCRHCC also operates a mobile clinic and two satellite health facilities: *Sacred Peaks Health Center* in Flagstaff, and *LeChee Health Facility* in LeChee, Arizona.

Winslow Indian Health Care Center is an ambulatory patient-centered health care center operating on a family medicine model. WIHCC offers general health care, dental care, optometry services, perinatal care, women's health care, and physical therapy. Navajo traditional medicine and patient transport services are also offered. WIHCC also provides mobile health services including a two-chair dental van, a mobile medical van, and mobile on-site mammography services. In addition, WIHCC operates an urgent care clinic and two satellite health clinics in Dilkon and Leupp, Arizona.

Health care services are provided to residents of the Utah portion of the Navajo Nation by Utah Navajo Health System, a 501(c)(3) private not-for-profit corporation under the direction of a Board of Directors that is fully comprised of Navajo members.[151]

Health-related data were available to be included in this report from the Navajo Area Indian Health Service (IHS), and from all three of the large tribally-operated health care facilities listed above. Please note that each agency provided data in different formats and sometimes for different time periods. Because of this, it is not always possible to present all data related to one particular health indicator in just one figure or table. In addition, data were not available from each source for every indicator presented in this report.[xiii]

Between December 2013 and November 2016, there were 46,520 active users of Tsehootsooi Medical Center. Approximately 13.5 percent (*n*= 6,284) of them were young children (ages 0-5) (Table 48).[xiv] In 2016, there were 38,271 active users of Tuba City Regional Health Care, and 10.3 percent (*n*=3,941) were young children. From 2014 to 2016, the number of active users grew slightly at Winslow Indian Health Care Center to 13,724 in 2016. In 2016, 10.6 percent of these users (*n*=1,450) were young children.

A key factor in accessing health care is health insurance. According to estimates from the American Community Survey (ACS), 15 percent of young children in the Navajo Nation Region were estimated to be uninsured, along with 24 percent of the total population in the region (Table 49). It is important to note that the U.S. Census Bureau does not consider coverage by the Indian Health Service (IHS) to be insurance coverage. More detailed data on insurance coverage were available from the region's tribally-operated health care facilities. At Winslow Indian Health Care Center, the percent of patients with third party insurance (meaning insurance besides Indian Health Service coverage) increased from 82 percent in fiscal year 2014 to 87 percent in fiscal year 2016 (Figure 14). At Tsehootsooi Medical Center between December 2013 and November 2016, 89.7 percent of patients of all ages had third party

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[xiii] *As an example: the Navajo Area IHS provided data for all health care facilities (IHS and tribally-operated) that report on Government Performance and Results Act (GPRA) indicators (i.e. Figure 22, Figure 23, Figure 24, Figure 25, Figure 26, Figure 27 and Figure 33). Data on these indicators were not available from health care facilities that do not participate in GPRA reporting (i.e. Tuba City Regional Health Care Center, Utah Navajo Health System and Sage Memorial Hospital).*

[xiv] *Please note that the number of active users represents three years of data and may not represent unique individuals.*

insurance, and 78.4 percent of patients ages birth to 5 had third party insurance (Figure 15). The majority of patients with third party insurance were covered by Medicaid (AHCCCS). In fiscal year 2016 at Tuba City Regional Health Care, 85.9 percent of all patient visits were covered by third party insurances, and all (100%) patient visits by patients ages birth to 5 were covered by third party insurance (Figure 16). Again the majority of patient visits were covered by Medicaid (AHCCCS).

Table 48. Number of Active Users at Tribally-Operated Health Care Facilities, 2014 to 2016

	2014	2015	2016
Tsehootsooi Medical Center			
Active Users (all ages)	46,520		
Active Users (ages 0-5)	6,284		
Tuba City Regional Health Care			
Active Users (all ages)	N/A	N/A	3,941
Active Users (ages 0-5)	N/A	N/A	38,271
Winslow Indian Health Care Center			
Active Users (all ages)	13,108	13,554	13,724
Active Users (ages 0-5)	1,497	1,492	1,450

Source: Tsehootsooi Medical Center, Tuba City Regional Health Care, Winslow Indian Health Care Center. [Health indicator data set]. Tribal-specific data received by request.

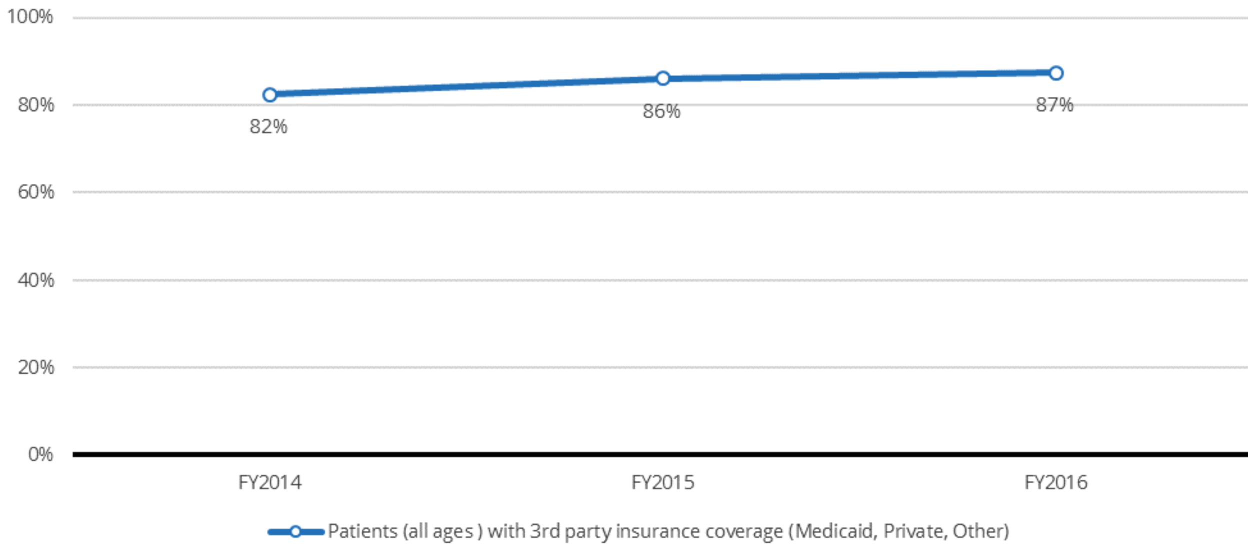
Notes: Data was only available for 2014-2016 combined for Tsehootsooi Medical Center and only for 2016 for Tuba City Regional Health Care

Table 49. Estimated Proportion of Population Without Health Insurance

	Estimated population (ages 0-5)	Children (ages 0-5) without health insurance	Estimated population (all ages)	Persons (all ages) without health insurance
Navajo Nation (Arizona part)	**10,376**	**15%**	**102,892**	**24%**
Navajo Nation (New Mexico part)	6,364	18%	65,947	40%
Navajo Nation (Utah part)	706	28%	6,373	39%
Navajo Nation (entire)	17,446	17%	175,212	31%
Chinle Agency	2,939	15%	27,654	20%
Eastern Agency	3,234	19%	32,796	39%
Fort Defiance Agency	4,371	19%	45,576	31%
Northern Agency	2,700	18%	30,113	40%
Western Agency	4,202	14%	39,029	23%
All Arizona Reservations	19,868	18%	184,327	26%
ARIZONA	531,825	10%	6,453,706	16%

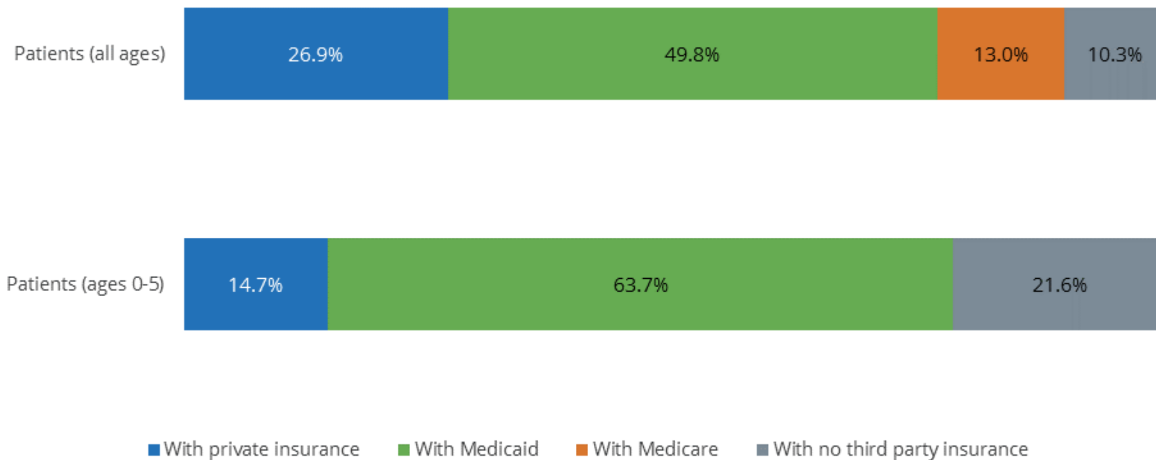
Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B27001

Figure 14. Patients with Third Party Insurance Seen at Winslow Indian Health Care Center, 2014 to 2016



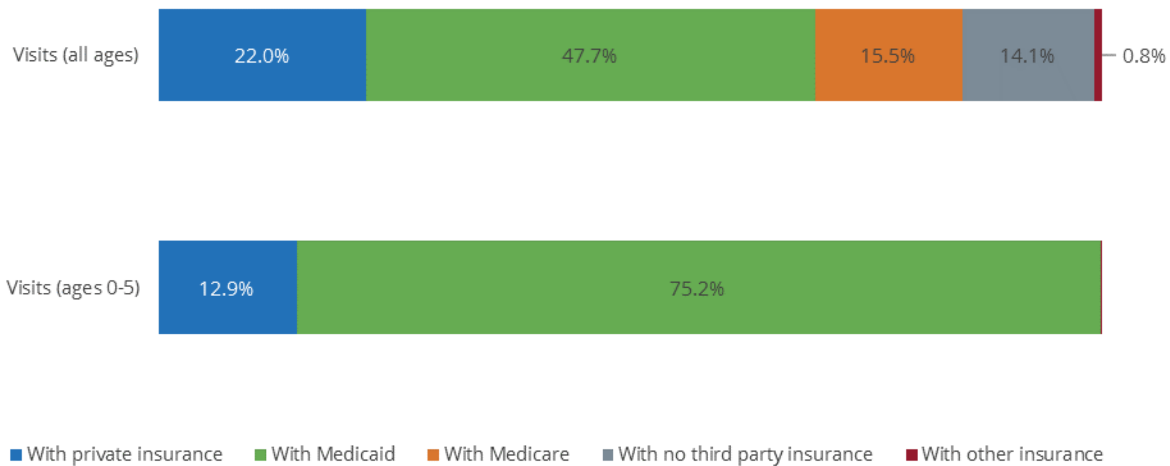
Source: Winslow Indian Health Care Center (2016). [Health indicator dataset]. Tribal-specific data received by request.

Figure 15. Patients by Type of Insurance at Tsehootsooi Medical Center, Dec 2013-Nov 2016



Source: Tsehootsooi Medical Center (2016). [Health indicator dataset]. Tribal-specific data received by request.

Figure 16. Patients by Type of Insurance at Tuba City Regional Health Care, FY 2016



Source: Tuba City Regional Health Care (2016). [Health indicator dataset]. Tribal-specific data received by request.

Maternal Characteristics

Data on maternal and child health indicators for residents of the Navajo Nation Region were available to be included in this report from the Arizona Department of Health Services, the Indian Health Services, tribally-operated hospitals and the Navajo WIC program. The Navajo Epidemiology Center is currently working in partnership with the state of New Mexico to collect data from pregnant women and newborns residing on the New Mexico part of the Navajo Nation as part of the Pregnancy Risk Assessment Monitoring System (PRAMS). PRAMS is a population-based surveillance system developed and sponsored by the Centers for Disease Control and Prevention. The PRAMS program monitors health indicators on the status, behaviors and experiences of mothers before, during and after the birth of a child. This includes prenatal care, counseling, multivitamin use, intimate partner abuse, teen pregnancy, home visiting, unintended and unwanted pregnancies, and other factors associated with pregnancy and birth outcomes.[152] As of April of 2016, no PRAMS data were available through the Navajo Epidemiology Center for residents of the Navajo Nation Region (i.e. the Arizona portion of the Navajo Nation). Key informants indicated that the Navajo Epidemiology Center had been in conversations with the state of Arizona to begin the collection of PRAMS data in the near future.

According to data from the Arizona Department of Health Services, in 2014, 1,436 babies were born to mothers residing in the Navajo Nation Region (Table 50). Of the mothers who gave birth in the Navajo Nation Region in 2014, the majority (90%) were American Indian or Alaska Native, and nine percent were White (non-Hispanic) (Figure 17). New mothers in the Navajo Nation had lower educational attainment than mothers statewide; 36 percent had a high school education or GED (31% statewide) and only 6 percent held a Bachelor's degree or more (23% statewide) (Table 51).

Most (80%) mothers were not married in the region, and 11 percent were aged 19 or younger (8% statewide) (Table 52). Four percent of mothers giving birth were aged 17 or younger, double the percentage of teen mothers in the state (2%). Additionally, the proportion of mother's who used tobacco during pregnancy in the Navajo Nation Region was substantially lower (1%) that of the rate statewide (5%).

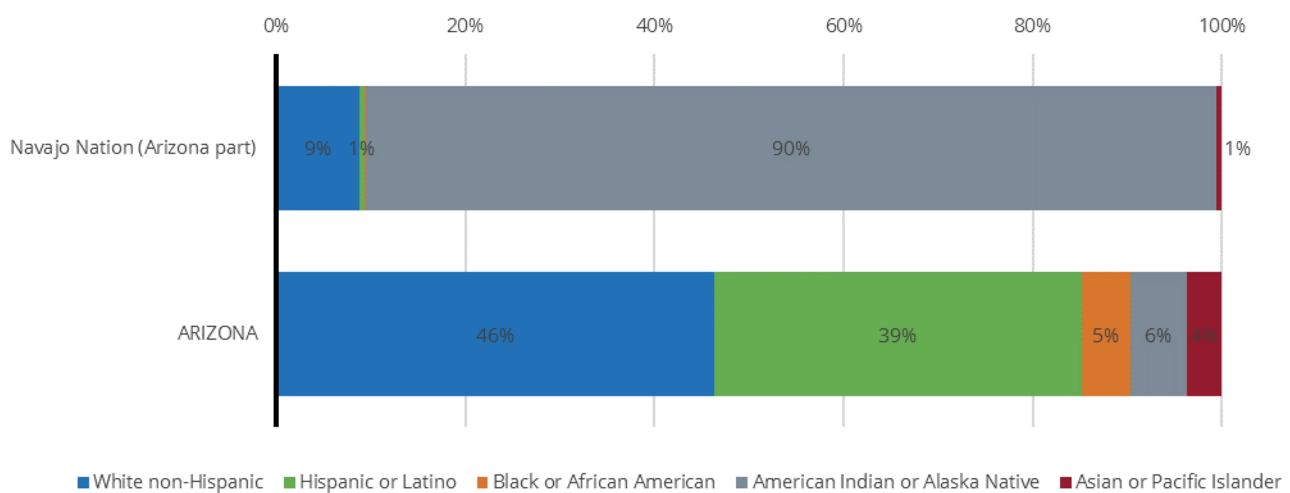
In the region, over 90 percent of births were to mothers relying on AHCCCS or Indian Health Service (IHS) coverage, which is much higher than the proportion statewide (55%) (Table 52). Figure 18 shows the breakdown of public payee by IHS or AHCCCS. Of the births covered by a public payee, the proportion of births covered by AHCCCS increased substantially from 55 percent in 2009 to 80 percent in 2014. Facilitating enrollment in AHCCCS can offer benefits both at the individual and community levels. Community members who enroll in a health insurance plan can gain increased access to health care services by being able to receive care through AHCCCS providers, Indian Health Service facilities, Tribes and Tribal Organizations, and Urban Indian Organizations. At the community level, tribes can benefit when IHS or tribally-operated 638 facilities bill a third-party insurer for medical services resulting in savings in Contract Health Service funds. The money saved through outside billing can then be used in other ways to benefit all tribal citizens.

Table 50. Live Births During Calendar Year 2014, by Mother's Place of Residence

	Total number of births to Arizona-resident mothers in 2014
Navajo Nation (Arizona part)	**1,436**
All Arizona Reservations	N/A
ARIZONA	86,648

Source: Arizona Department of Health Services (2016). [Vital Statistics Births dataset]. Unpublished data.

Figure 17. Race and Ethnicity of Mothers Giving Birth in 2014



Source: Arizona Department of Health Services (2016). [Vital Statistics Births dataset]. Unpublished data.

Table 51. Live Births During Calendar Year 2014, by Mother's Educational Attainment

	Less than high school	High school or GED	Some college or professional education	Bachelor's degree or more
Navajo Nation (Arizona part)	**20%**	**36%**	**37%**	**6%**
All Arizona Reservations	N/A	N/A	N/A	N/A
ARIZONA	20%	25%	31%	23%

Source: Arizona Department of Health Services (2016). [Vital Statistics Births dataset]. Unpublished data.

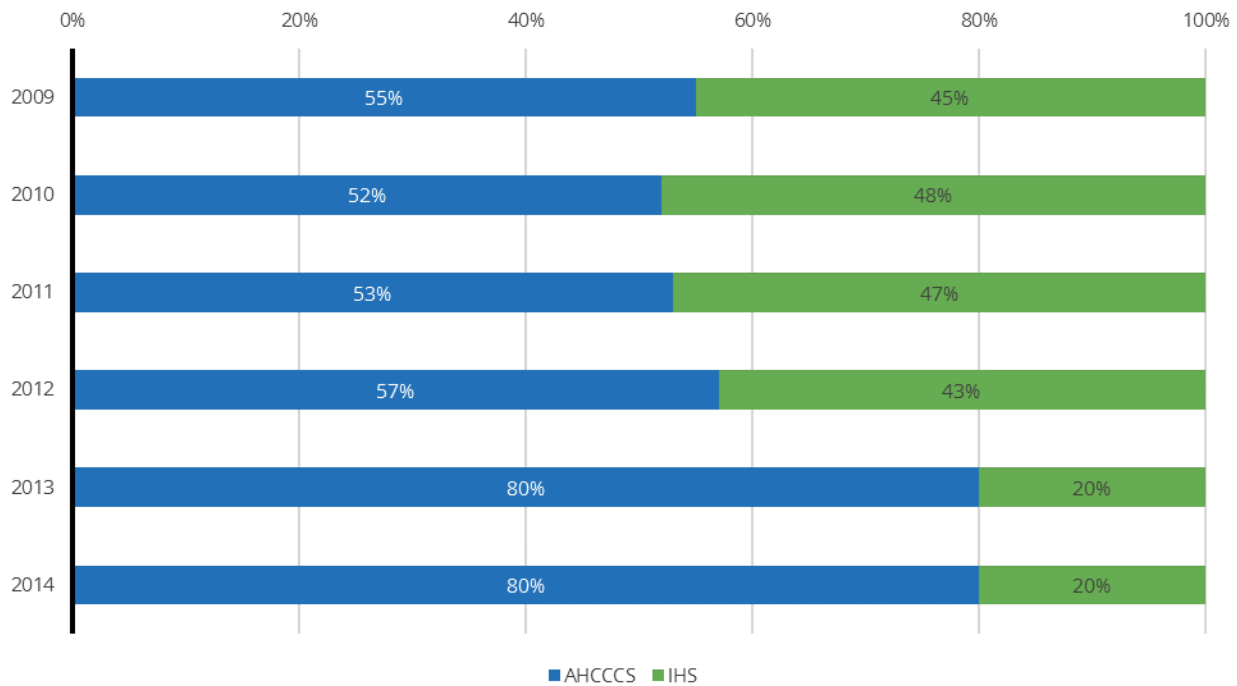
Note: The percentages above may not add to 100% due to rounding.

Table 52. Other Characteristics of Mothers Giving Birth in 2014

	Mother was not married	Mother was 19 or younger	Mother was 17 or younger	Birth was covered by AHCCCS or Indian Health	Tobacco use during pregnancy
Navajo Nation (Arizona part)	**80%**	**11%**	**4%**	**91%**	**1%**
All Arizona Reservations	N/A	N/A	N/A	N/A	N/A
ARIZONA	45%	8%	2%	55%	5%

Source: Arizona Department of Health Services (2016). [Vital Statistics Births dataset]. Unpublished data.

Figure 18. Public Payee Births, by Payee (AHCCCS or IHS), 2009 to 2014



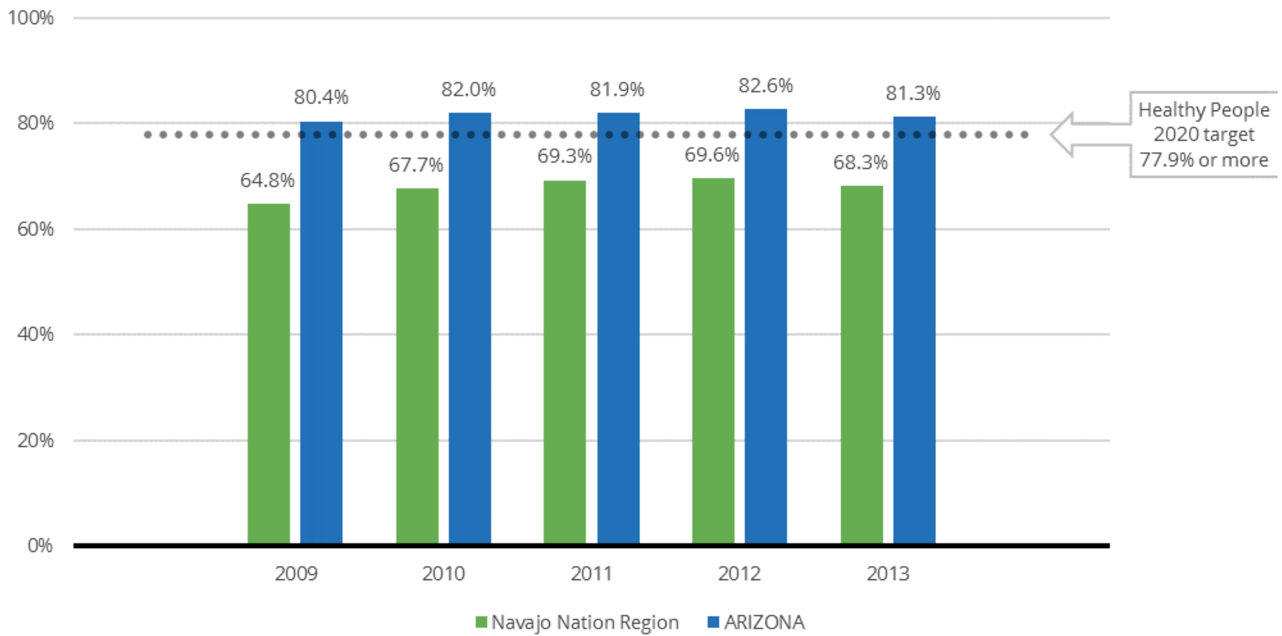
Source: Arizona Department of Health Services (2016). [Vital Statistics Births dataset]. Unpublished data.

Note: This figure only represents births paid for by a public payee (AHCCCS or IHS). Births paid for through private insurance or some other form of payment are not included in this figure.

Prenatal Care

The Healthy People 2020 goal is that at least 77.9 percent of pregnant women receive prenatal care that begins in the first trimester of pregnancy. From 2009 until 2013, the percent of births with prenatal care beginning in the first trimester ranged from 64.8 to 69.6 percent, far below the Healthy People 2020 target (Figure 19). In 2014, the Arizona Department of Health Services introduced major changes in the way that prenatal care by trimester is assessed and these structural changes mean that rates from 2014 onward are not directly comparable to earlier rates. The new calculations have resulted in a much higher number of birth certificates with "unknown" prenatal care status (7% in the Navajo Nation Region). Of those with known prenatal care status, only 67.7 percent of pregnant women obtained prenatal care during the first trimester, compared to 71.7 percent in the state (Table 53). It is not clear if this represents an actual decline, or is an artifact of the new reporting system.

Figure 19. Percent of Births With Prenatal Care Begun in First Trimester



Source: Arizona Department of Health Services (2016). [Vital Statistics Births dataset]. Unpublished data.

Table 53. Live Births During Calendar Year 2014, by Number of Prenatal Visits

	No visits	1 to 4 visits	5 to 8 visits	9 to 12 visits	13 or more visits	Percent of births with fewer than five prenatal care visits	Percent of births with prenatal care begun in the first trimester
Navajo Nation (Arizona part)	**1%**	**9%**	**23%**	**42%**	**23%**	**10%**	**67.7%**
All Arizona Reservations	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ARIZONA	2%	4%	15%	47%	31%	6%	71.7%

Source: Arizona Department of Health Services (2016). [Vital Statistics Births dataset]. Unpublished data.

Birth Outcomes

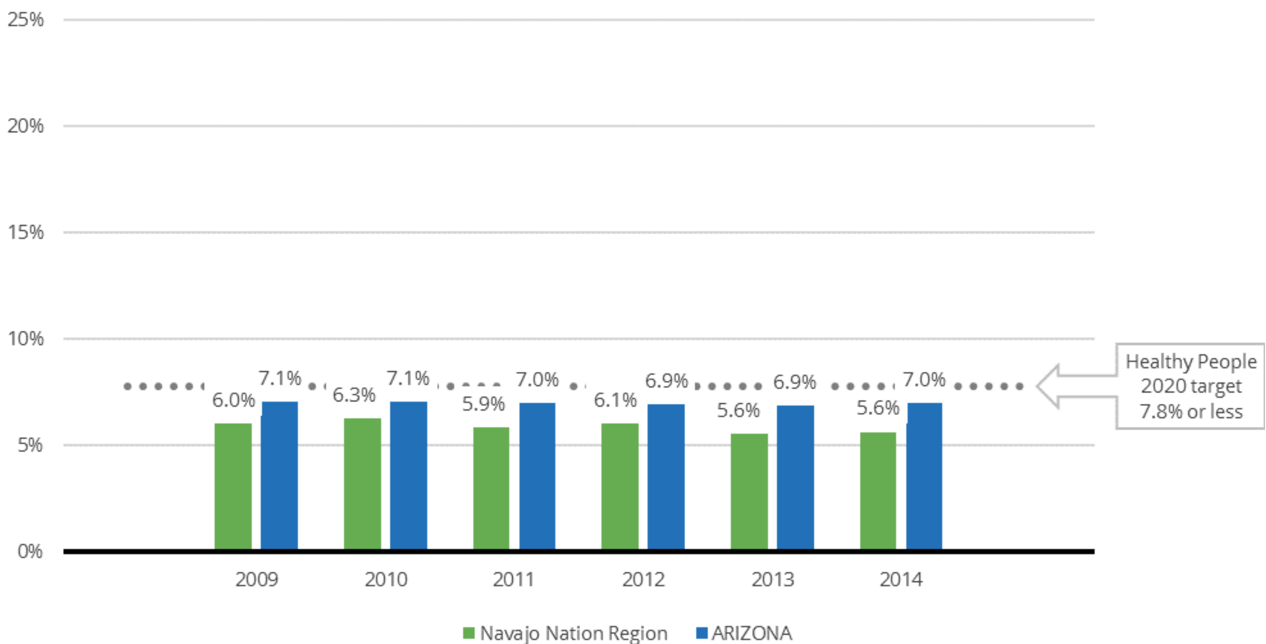
With regard to perinatal health, babies in the Navajo Nation Region were doing slightly better than babies in statewide in 2014. In 2014, only 5.6 percent of babies were low birth weight, compared to seven percent across the state (Figure 20). The percent of premature births was slightly lower in the region (7.9%) than in the state (9%) (Figure 21). Healthy People 2020 objectives include that fewer than 7.8 percent of babies are born at low birth weights and fewer than 11.4 percent are born preterm, meaning that the Navajo Nation has achieved the Healthy People 2020 goal for low birth weight and has nearly achieved it for preterm births (Figure 20 and Figure 21). Additionally, a lower proportion of newborns in the region (3%) were admitted to a Neonatal Intensive Care Unit (NICU) than across the state (7%) (Table 54).

Of the 1,421 newborns in 2015, six percent did not pass an initial hearing screen (Table 55). Only 1 percent of those screened required a diagnostic evaluation and none were found to have confirmed hearing loss, which are proportions similar to those seen across the state.

In recent years, IHS has undertaken the Baby-Friendly Hospital Initiative and increased the share of infants breastfed in many tribal communities.[153] All 13 IHS obstetric hospitals are now baby-friendly, including Chinle Comprehensive Health Care Facility in Chinle, Northern Navajo Medical Center in Shiprock, and Gallup Indian Medical Center in Gallup.[154] According to data from the Navajo Area Indian Health Service, breastfeeding rates at two months of age at facilities in the Navajo Area are above the IHS target of 36 percent at all facilities beside Shiprock-Northern Navajo Medical Center. Breastfeeding rates are highest at Kayenta Health Center (64%) and Fort Defiance (Tsehootsooi Medical Center) (45%). Overall, 41 percent of infants born at Navajo Area IHS facilities and tribal 638 facilities are exclusively or mostly breastfed at two months. Note that breastfeeding data from Tuba City Regional Health Care, Utah Navajo Health Systems, and Sage Memorial Hospital are not reflected in Figure 22.

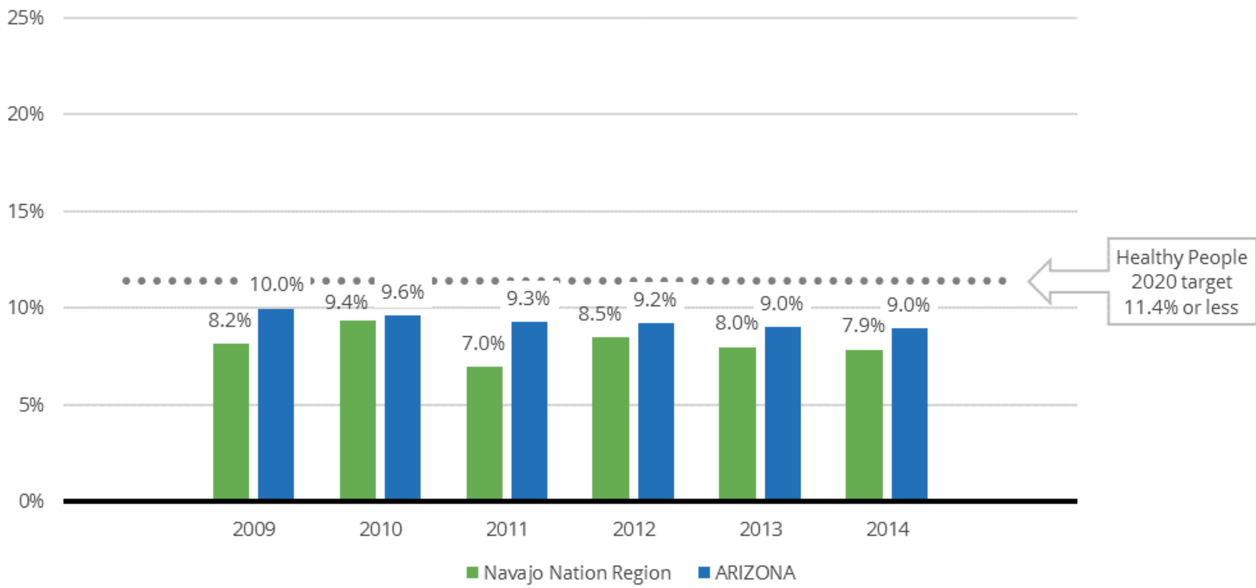
According to the 2015 National WIC Report, 21.6 percent of infants in the Navajo Nation WIC program were fully breastfed and 21.7 percent were partially breastfed. [155] This is higher than the average breastfeeding rates for Arizona as a whole, where only 10.8 percent of infants were fully breastfed and 20.3 percent of infants were partially breastfed. Nationally, 12.9 percent of infants enrolled in WIC were fully breastfed and 18.0 percent were partially breastfed. This suggests that breastfeeding rates in the Navajo Nation are higher than breastfeeding rates both in the state of Arizona and in the United States as a whole. Such high breastfeeding rates are a considerable asset for infant health in the region.

Figure 20. Percent of Babies Born in 2014 With Low Birthweight (5.5 Pounds or Less)



Source: Arizona Department of Health Services (2016). [Vital Statistics Births dataset]. Unpublished data.

Figure 21. Percent of Babies Born Premature in 2014 (37 Weeks or Less)



Source: Arizona Department of Health Services (2016). [Vital Statistics Births dataset]. Unpublished data.

Table 54. NICU Admissions

	Newborns admitted to intensive care unit
Navajo Nation (Arizona part)	**3%**
All Arizona Reservations	N/A
ARIZONA	7%

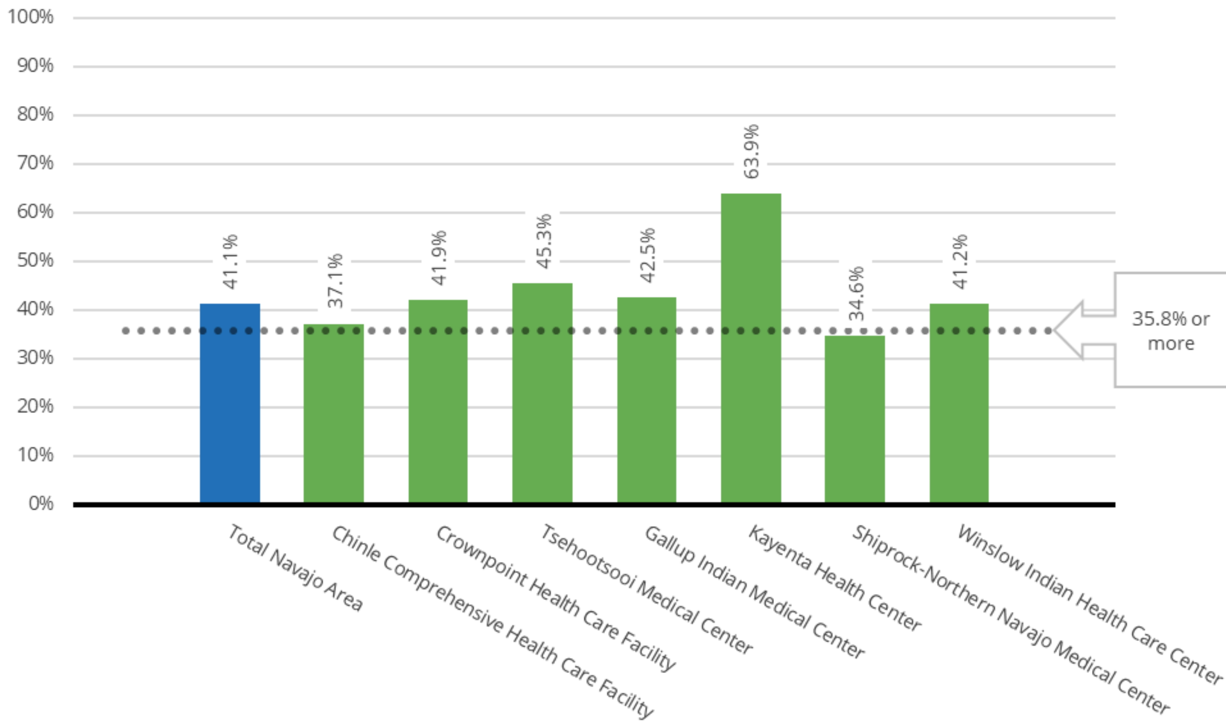
Source: Arizona Department of Health Services (2016). [Vital Statistics Births dataset]. Unpublished data.

Table 55. Newborn Hearing Screening Results

	Newborns with hearing screening	Newborns not passing initial screen	Newborns requiring diagnostic evaluation	Newborns with confirmed hearing loss
Navajo Nation (Arizona part)	**1,421**	**6%**	**1%**	**0%**
All Arizona Reservations	N/A	N/A	N/A	N/A
ARIZONA	84,887	4%	1%	0%

Source: Arizona Department of Health Services (2016). [Hearing Screening Results dataset]. Unpublished data.

Figure 22. Percent of Infants Breastfed at 2 Months by Hospitals in the Navajo IHS Area (April to June 2016), Compared to the 2016 National IHS Target



Source: Navajo Area Indian Health Service (2016). [Fourth Quarter GPRA Report 2016]. Tribal-specific data

Immunizations

The Healthy People 2020 target for vaccination coverage for children ages 19-35 months for these vaccines is 90 percent, and data from the Navajo Area Indian Health Service suggest that the region overall may not be meeting

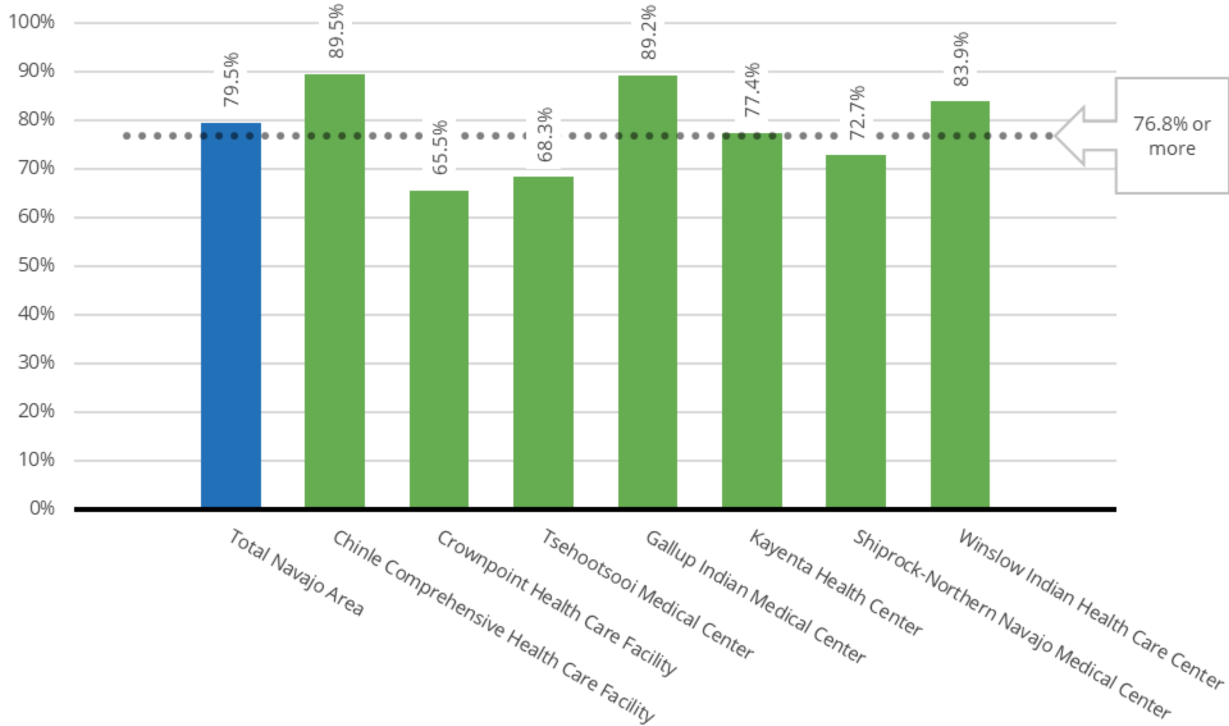
this goal (Figure 23). However, the Navajo Area overall, as well as, a number of health facilities in the area are meeting the IHS target of at least 77 percent of children ages 19-35 months having all recommended vaccines.

According to data from the Arizona Department of Health Services, nearly all children (97-99%) enrolled in the program were up-to-date on their immunizations. Overall, the regional rates were higher than those of the state with two exceptions in Polio and MMR vaccinations; only 75 percent of children received three or more Polio vaccinations (93% statewide) and 85 percent received two or more MMR (94% statewide) (Table 56).

The Healthy People 2020 target for vaccination coverage of kindergarteners is 95 percent for DTAP, MMR, polio, Hepatitis B, and Varicella vaccines. Kindergartners in the Navajo Nation Region are meeting the Healthy People 2020 goals for all immunizations, whereas statewide, kindergartners are meeting this goal for three of the five required vaccines. Rates of personal exemptions for vaccinations among children in child care (0.0%) and kindergarten (0.3%) in the region were much lower than exemption rates at the state level (3.5% and 4.5% respectively) (Table 56 and Table 57).

Influenza vaccines are important for protecting children from the flu. The Centers for Disease Control and Prevention recommends that all individuals older than 6 months of age be vaccinated against the flu.[156] Pregnant women, children, and elders are at higher risk of flu-related complications that may lead to hospitalization or sometimes death.[157] According to data from the Navajo Area Indian Health Service, over half (54%) of children ages 6 months to 17 years received a flu vaccine in fiscal year 2016 (Figure 24. Percent of Children (ages 6 months to 17 years) with an Influenza Vaccine (April to June 2016), Compared to the Healthy People 2020 Target (Figure 24). Rates of vaccination were highest at Chinle Comprehensive Health Care Facility (69%) and lowest at Winslow Indian Health Center (38%). The rates of influenza immunization in the area were below the Health People 2020 target of 80 percent of children having influenza vaccinations.

Figure 23. Childhood Immunization Rates (19 to 35 Months) by Hospitals in the Navajo IHS Area (April to June 2016), Compared to the 2016 National IHS Target



Source: Navajo Area Indian Health Service (2016). [Fourth Quarter GPRA Report 2016]. Tribal-specific data

Table 56. Vaccination Rates and Exemption Rates for Children in Childcare

	Students enrolled	Four or more DTAP	Three or more Polio	Two or more MMR	Three or more HIB	Two Hep A	Three or more Hep B	One or more Varicella	Religious exemption	Medical exemption
Navajo Nation (Arizona part)	**312**	**97%**	**75%**	**85%**	**97%**	**98%**	**99%**	**97%**	**0.0%**	**3.8%**
All Arizona Reservations	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ARIZONA	92,128	92%	93%	94%	92%	81%	92%	95%	3.5%	0.5%

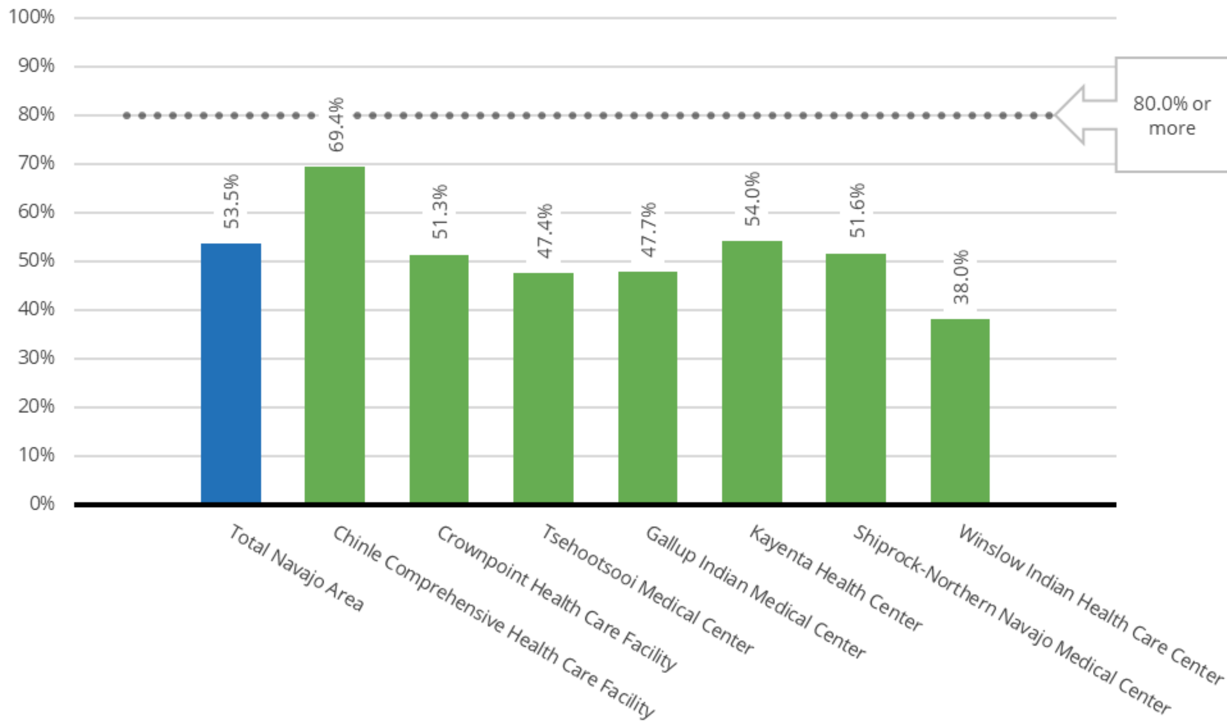
Source: Arizona Department of Health Services (2016). [Immunization Data Reports dataset]. Unpublished data.

Table 57. Vaccination Rates and Exemption Rates for Kindergarten Children

	Students enrolled	Four or more DTAP	Three or more Polio	Two or more MMR	Three or more Hep B	One or more Varicella	Personal exemption	Medical exemption
Navajo Nation (Arizona part)	**908**	**99%**	**99%**	**98%**	**99%**	**100%**	**0.3%**	**2.0%**
All Arizona Reservations	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ARIZONA	83,088	94%	95%	94%	96%	97%	4.5%	0.3%

Source: Arizona Department of Health Services (2016). [Immunization Data Reports dataset]. Unpublished data.

Figure 24. Percent of Children (ages 6 months to 17 years) with an Influenza Vaccine (April to June 2016), Compared to the Healthy People 2020 Target



Source: Navajo Area Indian Health Service (2016). [Fourth Quarter GPRA Report 2016]. Tribal-specific data

Oral Health

In 2010, the Indian Health Service (IHS) implemented an ongoing oral health surveillance system to monitor the oral health of American Indian and Alaska Native (AI/AN) children. Historically, this population has seen the highest rates of tooth decay in the United States, and it continues today at a rate that is 4 times than that of White children. The IHS Oral Health Survey collected data from preschool-age children in 2012 and 2014. During this last year, survey data were collected from a total of 11,873 children ages 1 to 5 from all IHS Areas, including 624 children from the Navajo Area. Results from the survey show that that 43 percent of AI/AN children ages 3 to 5 have untreated tooth decay. American Indian/Alaska Native children begin to experience tooth decay at an early age: 18 percent of the one-year old children participating in the survey already had tooth decay. In addition, the prevalence of decay experience in the primary teeth rises sharply with age, with 76 percent of five-year old children experiencing this condition. This means that prevention efforts are essential before the age of two in the reduction of tooth decay prevalence among AI/AN children. The survey also found that many AI/AN children were not receiving adequate dental care and there was an underutilization of dental sealants on AI/AN children's primary molars.[158]

The Decayed, Missing, and Filled Teeth (DMFT) index is a measure of caries experience that reflects the total number of permanent teeth in an individual that are decayed, missing or filled (accounts for the whole tooth). When lowercase letters are used, the dmft index is a variation that is applied to the primary teeth. Similarly, the Decayed, Missing, and Filled Surfaces (dmfs) is an index of caries experience that reflects the number of decayed, missing, or filled surfaces of primary teeth. The 2010 Oral Health Survey found that among children 2-5 years old across 13 IHS Areas, children in the Navajo Service Area had the highest average dmft score at 6.52 (compared with the 4.13, the average dmft for the entire IHS population). The Navajo Area also had the highest percentage of children with caries experience (85.9%, compared with 62.3% for the entire IHS population), untreated decay (65.8%, compared with 43.6% for the entire IHS population), and percentage of teeth with decay experience (33.2%, compared with 21.0% for the entire IHS population).

In 2014, the Center for Native Oral Health Research at the University of Colorado reported baseline oral health data from a randomized clinical trial it conducted in Navajo Nation Head Start centers in 2010 to test the effectiveness of a community-based intervention to reduce dental caries in young children. Among children ages 3-5 years, baseline data showed that the Decayed, Missing, and Filled Surfaces (dmfs) score was significantly higher in males compared to females (23.3 versus 19.4). The dmfs was also higher in older children (37.5 at age 5 versus 22.9 at age 4 versus 18.2 at age 3). Lower education levels among caregivers and lower socioeconomic status was also associated with increased dmfs scores among children. The mean Decayed, Missing, and Filled Teeth (dmft) value in this study was higher than the mean dmft from the 2010 oral health survey (7.35 versus 6.52, respectively). The percentage of children with untreated tooth decay and percentage of children with caries experience was also higher in this study compared to the 2010 oral health survey (69.5 versus 65.8, and 89.3 versus 85.9, respectively).[159]

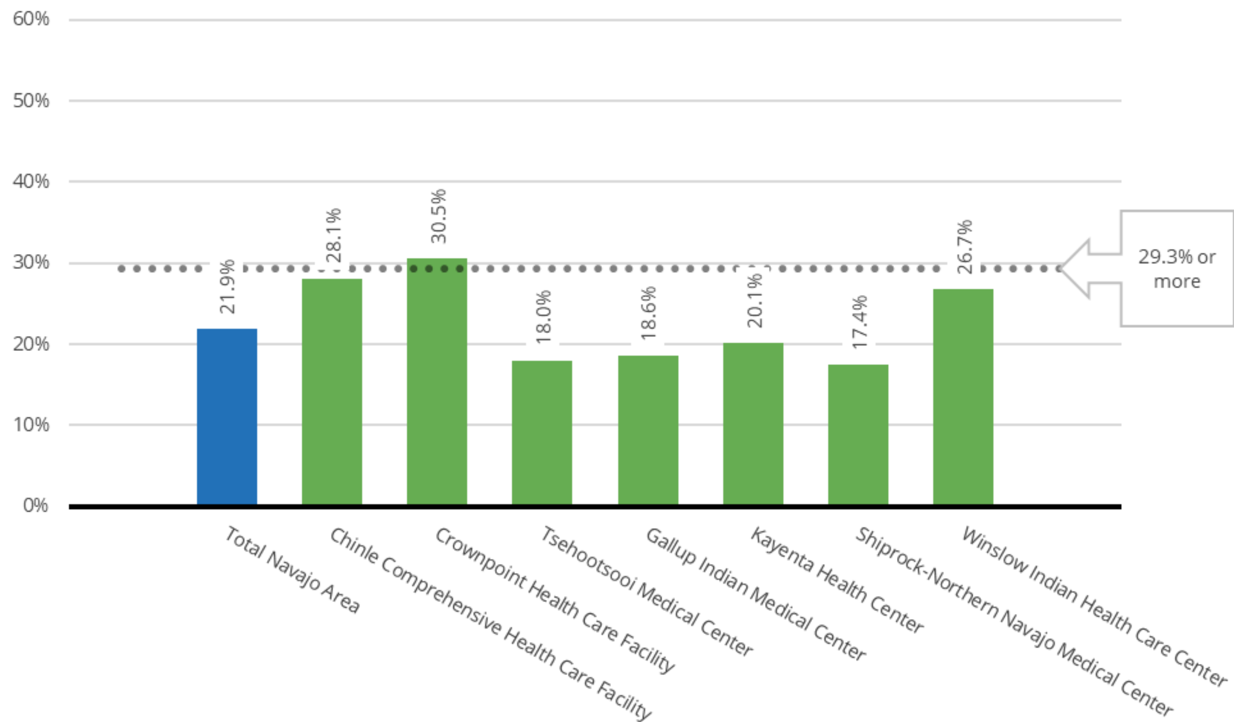
Data from facilities within the IHS Navajo Area show that the Navajo Area overall is not meeting the National IHS target for general dental access, defined as the percent of patients who receive dental services (Figure 25). Only one hospital in the area, Crownpoint Health Care Facility was meeting the goal between April and June 2016. Similarly, the Navajo Area did not meet the national IHS target for fluoride applications for patients ages 1 to 15 (Figure 26). While over half of children seen at Chinle Comprehensive Health Care Facility received fluoride applications, rates of fluoride applications were much lower at other health care facilities. The Navajo Area did meet the national HIS target for dental sealants among patients ages 2 to 15 (Figure 27). The percent of patients with one or more intact

dental sealants was highest at Chinle Comprehensive Medical Center, followed by Crownpoint Health Care Facility, and Kayenta Health Center.

Children with poor oral health are more likely to experience dental pain and therefore miss school and perform poorly in school.[160] Thus, the high rate of tooth decay among children in the Navajo Nation Region may be related to the high rates of chronic school absenteeism in the region (see Table 35).

While the state of Arizona has met its own 2020 benchmark of no more than 32% of children with untreated tooth decay and is on track towards the Healthy People's 2020 target (26%),[161] there remains a strong need for focused oral health efforts on primary prevention in tribal communities across the state.

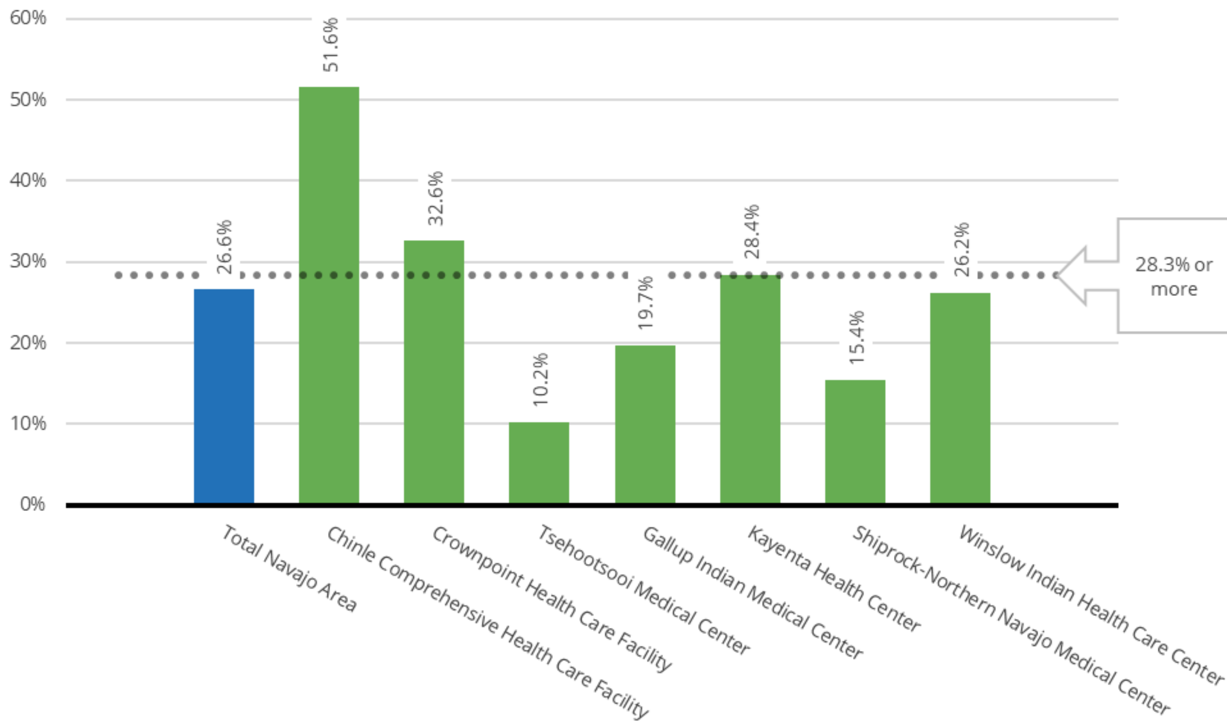
Figure 25. General Dental Access by Hospitals in the Navajo IHS Area (April to June 2016), Compared to the 2016 National IHS Target



Source: Navajo Area Indian Health Service (2016). [Fourth Quarter GPRA Report 2016]. ***Tribal-specific data***

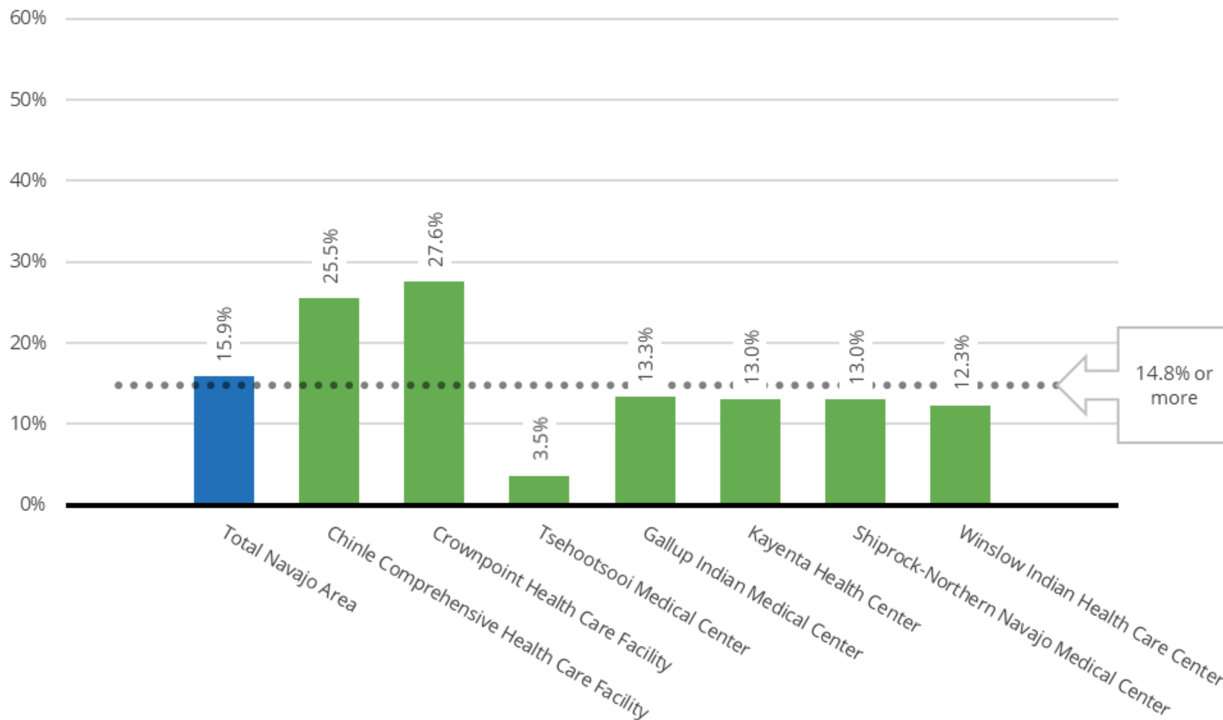
Note: Dental access is measured through the percent of patients who receive dental services.

Figure 26. Topical Fluorides for Children (ages 1 to 15) by Hospitals in the Navajo IHS Area (April to June 2016), Compared to the 2016 National IHS Target



Source: Navajo Area Indian Health Service (2016). [Fourth Quarter GPRA Report 2016]. Tribal-specific data

Figure 27. Sealants (Ages 2 to 15 Years) by Hospitals in the Navajo IHS Area (April to June 2016), Compared to the 2016 National IHS Target



Source: Navajo Area Indian Health Service (2016). [Fourth Quarter GPRA Report 2016]. Tribal-specific data.

Childhood Injury, Illness and Mortality

The Arizona Child Fatality Review (CFR) Program produces an annual report in order to identify ways to decrease or eliminate identified preventable deaths amongst children across the state. In the 2015 annual report, 768 deaths were reported in children under 18 years old in Arizona, 74 percent (566) of which were young children from birth to age five. More than one-third of these deaths (38%) occurred in the neonatal period (birth-27 days) and were due to natural causes (prematurity, neurological disorders, and other medical conditions). The infancy age group (28-365 days) saw 23 percent of these deaths, which were largely due to suffocation. About 13 percent of these deaths were amongst children 1-4 years old, an age group with high rates of fatalities due to drowning, motor vehicle accidents, and blunt force trauma.

Local CFR Teams conduct an annual report that reviews each death in the state and determines the preventability of each of these deaths. In 2015, 10 percent of perinatal deaths, 48 percent of infant deaths, and 57 percent of young child deaths in Arizona were deemed preventable.

Additionally, the CFR Teams determine which deaths can be classified as maltreatment based on the actions or failures to take appropriate preventative action by a parent, guardian, or caretaker. In the 2015 review, 11 percent of all child fatalities were due to maltreatment and all of these deaths were determined to have been preventable. These maltreatment deaths are classified in one of three categories: homicide (e.g. abusive force trauma), natural (e.g. failure to obtain medical care or prenatal substance use that caused premature death), or accidental (e.g. the unintentional injuries caused by negligence or impaired driving.

According to the Arizona Department of Health Services Bureau of Women's and Children's Health, the infant mortality rate in the Arizona part of the Navajo Nation was 6.5 deaths per thousand births. The statewide rate was 6.1 per thousand. These mortality rates are averaged over ten years (2006 to 2015).[162] The Healthy People 2020 target is no more than 6.0 infant deaths per thousand.[163] The most common cause of death for infants was disorders related to short gestation and low birth weight. For older children (ages 1 to 14), the most common cause of death was motor-vehicle and other accidents.

According to the report titled "A Description of Fatal Car Crashes Occurring Within the Navajo Nation and its Border Towns, 2005-2014" produced by the Navajo Epidemiology Center, there were 202 infant and child (under 11 years old) fatalities in motor-vehicle accidents over the period 2005 to 2014 on the Navajo Nation. In 45 percent of these cases, the child was not properly restrained (Table 58).

From December 2013 to November 2016, 30 children ages birth to 5 were seen at the emergency department at Tsehootsooi Medical Center for unintentional injuries.[164] In fiscal year 2016, 496 children ages birth to 5 were seen at the Tuba City Regional Health Care emergency department for unintentional injuries.[165] Winslow Indian Health Care Center does not have an emergency department.[166]

Data was available from Winslow Indian Health Care Center, Tsehootsooi Medical Center, and Tuba City Regional Health Care regarding visits for ear infections and asthma, two common childhood illnesses, and some of the primary reasons for medical visits among patients ages birth to 5. From 2014 and 2016, between 21.7 and 24.7 percent of patients ages birth to 5 were seen for ear infections at Winslow Indian Health Care Center, and between 4.6 and 7.6 percent of patients ages birth to 5 were seen for asthma (Figure 28). The share of young patients seen for asthma has increased by 3 percentage points over the past three years. At Tsehootsooi Medical Center, 23.8 percent of patients ages birth to 5 were seen for ear infections and 3.4 percent of young patients were seen for asthma from December 2013 to November 2016 (Figure 29). At Tuba City Regional Health Care, 10.9 percent of patients ages birth to 5 were seen for ear infections and 3.0 percent were seen for asthma in fiscal year 2016 (Figure 30). Taken as a whole, this data suggests that both ear infections and asthma are common health concerns for young children in the region. As many as one in five young children in the region have dealt with ear infections in the past year, and between one in thirty and one in twenty children have had medical care related to asthma.

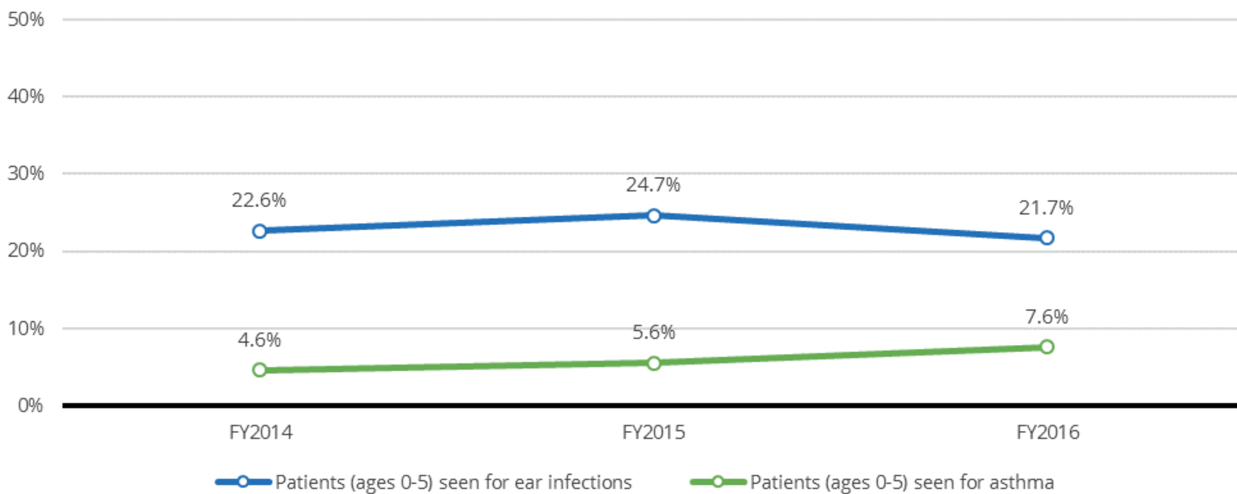
While most visits in the last few years at Tsehootsooi Medical Center and Tuba City Regional Health Care were for routine exams, upper respiratory infections and colds were also some of the most common reasons for medical visits among young children (Figure 31; Figure 32). At Tsehootsooi Medical Center, dental caries (tooth decay) was also among the top five reasons for young patient visits, suggesting that oral health is another primary health concern for young children.

Table 58. Child Mortality in Motor Vehicle Collisions (Ages 0 to 11), 2005 to 2014, Navajo Nation

Type of restraint used	Number of deaths	Percent
None	91	45%
Seat belt only	72	36%
Child restraint or booster seat	35	17%
Other or unknown type	4	2%
Total	202	100%

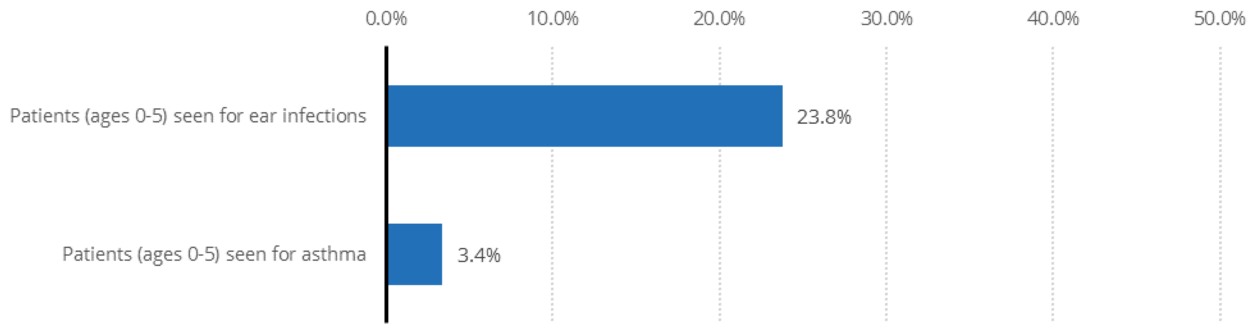
Source: Navajo Epidemiology Center. (n.d.). A Description of Fatal Car Crashes Occurring Within the Navajo Nation and its Border Towns, 2005-2014. Received through correspondence

Figure 28. Patients (ages 0-5) seen for Ear Infections or Asthma at Winslow Indian Health Care Center, 2014 to 2016



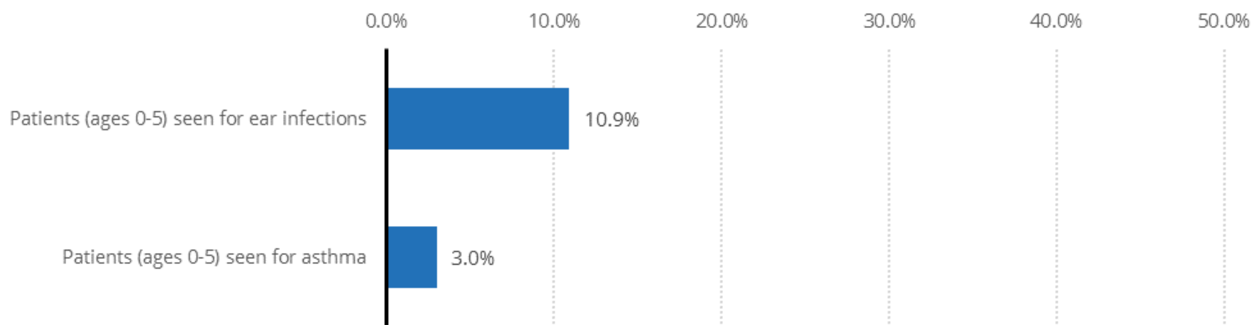
Source: Winslow Indian Health Care Center (2016). [Health indicator dataset]. Tribal-specific data received by request.

Figure 29. Patients (ages 0-5) seen for Ear Infections or Asthma at Tsehootsooi Medical Center, Dec 2013-Nov 2016



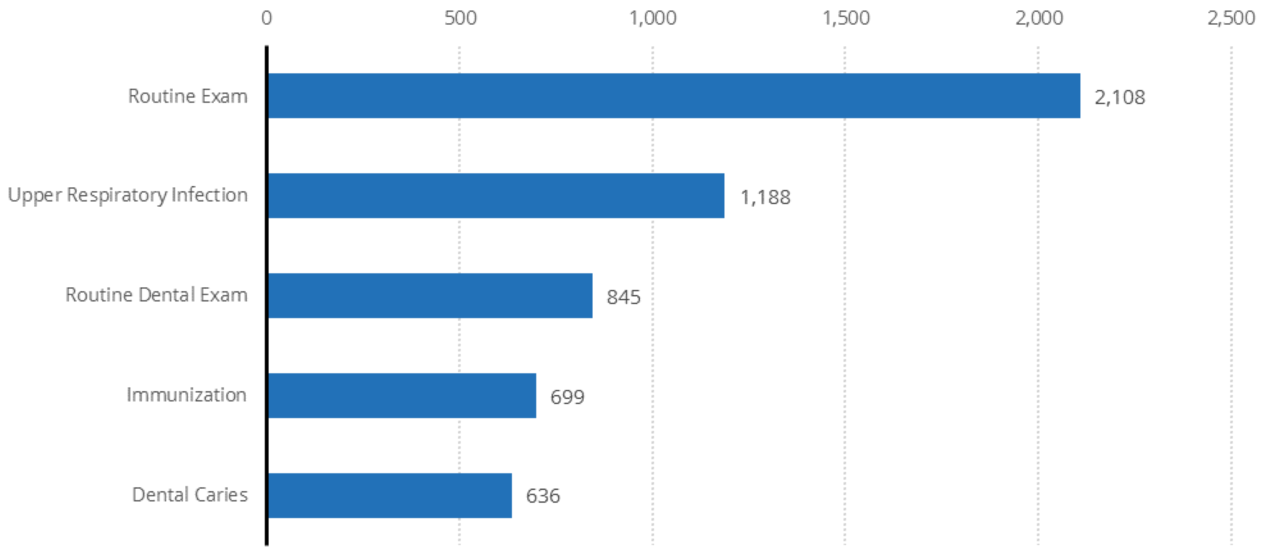
Source: Tsehootsooi Medical Center (2016). [Health indicator dataset]. Tribal-specific data received by request.

Figure 30. Patients (ages 0-5) seen for Ear Infections or Asthma at Tuba City Regional Health Care, FY 2016



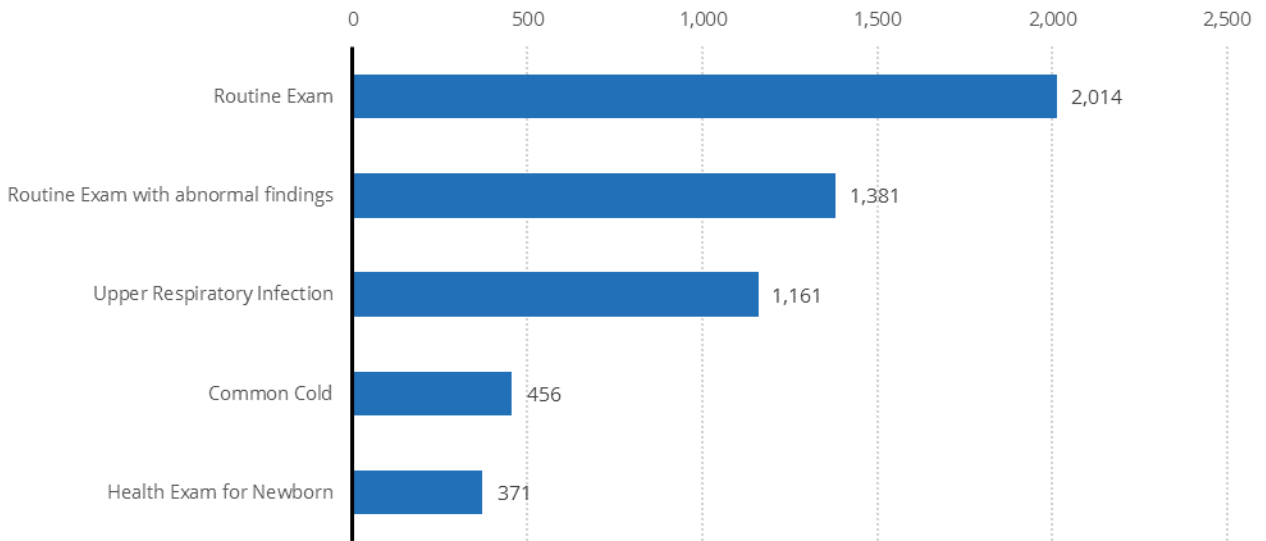
Source: Tuba City Regional Health Care (2016). [Health indicator dataset]. Tribal-specific data received by request.

Figure 31. Visits by Top Five Reasons for Visit for Patients (ages 0-5) seen at Tsehootsooi Medical Center, Dec 2013-Nov 2016



Source: Tsehootsooi Medical Center (2016). [Health indicator dataset]. Tribal-specific data received by request.

Figure 32. Visits by Top Five Reasons for Visit for Patients (ages 0-5) seen at Tuba City Regional Health Care, FY 2016

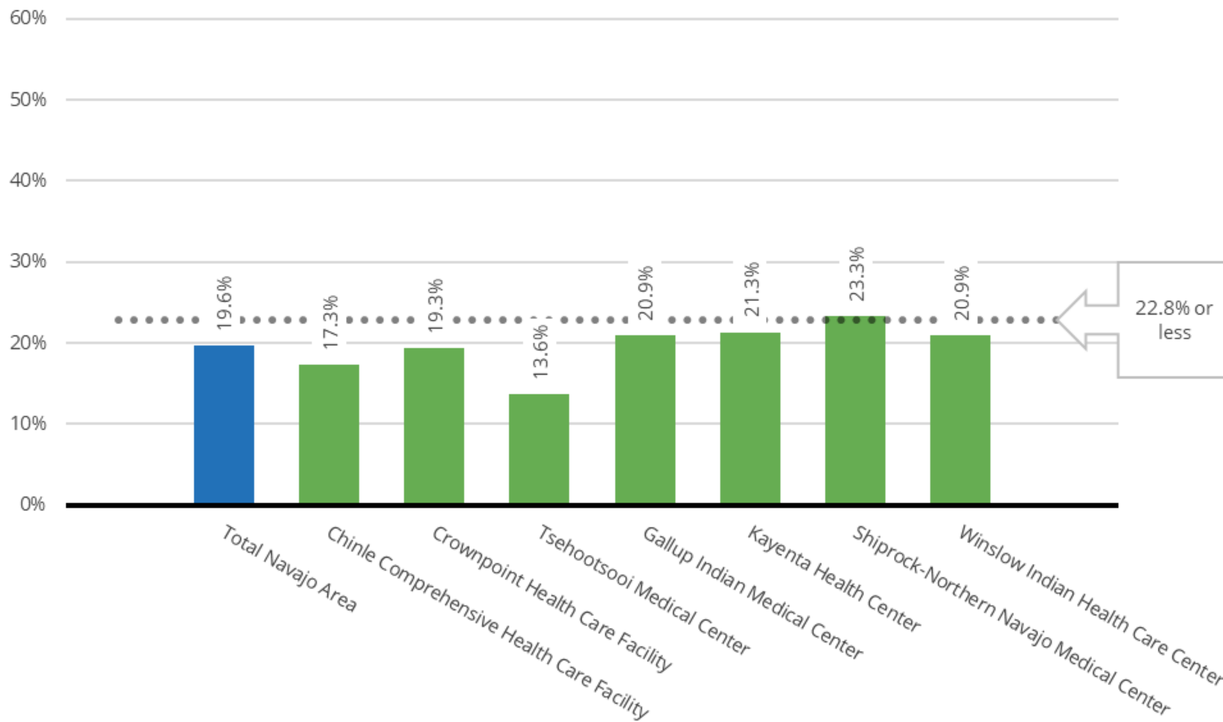


Source: Tuba City Regional Health Care (2016). [Health indicator dataset]. Tribal-specific data received by request.

Weight Status

Healthy People 2020 has set a goal of no more than 9.4 percent of children having obesity. Data from the Navajo Area Indian Health Service in the fourth quarter of fiscal year indicate that 19.6 percent of children ages 2 to 5 in the area had obesity. Obesity rates among young children were lowest at Fort Defiance (Tsehootsooi Medical Center) (13.6%) and highest at Shiprock-Northern Navajo Medical Center (23.3%). Overall, the area met the IHS target of 22.8 percent of less young children having obesity but did not meet the Healthy People 2020 target (Figure 33). In fiscal year 2016 overall, 21.0 percent of children (ages 2-5) seen at Winslow Indian Health Care Center had obesity and 19.2 percent seen at Tsehootsooi Medical Center had obesity. In that same period, 15.6 percent of children (ages 2-5) seen at Winslow Indian Health Care Center were overweight and 13.7 percent at Tsehootsooi Medical Center were overweight (Figure 34).

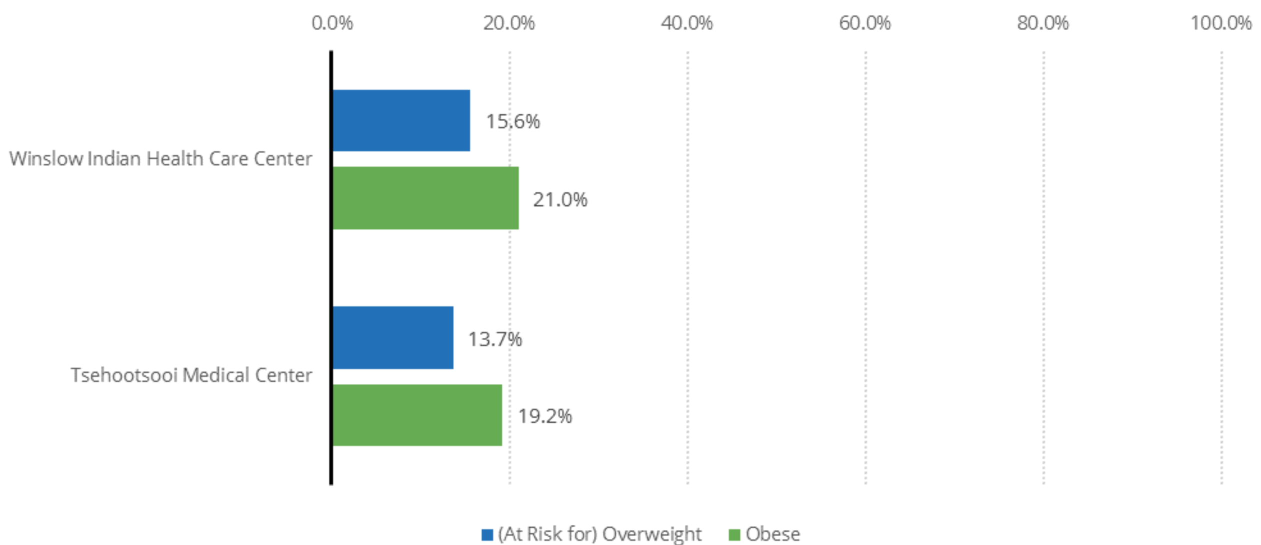
Figure 33. Rates of Childhood Obesity (ages 2-5) by Hospitals in the Navajo IHS Area (April to June 2016), Compared to the 2016 National IHS Target



Source: Navajo Area Indian Health Service (2016). [Fourth Quarter GPRA Report 2016]. Tribal-specific data

Note: Obesity is defined as having a BMI greater than or equal to the 95th percentile BMI

Figure 34. Rates of Childhood Obesity and Overweight for Winslow Indian Health Care Center and Tsehootsooi Medical Center, FY 2016



Source: Tsehootsooi Medical Center, Winslow Indian Health Care Center. [Health indicator dataset]. Tribal-specific data received by request.

Note: Obesity is defined as having a BMI greater than or equal to the 95th percentile BMI. Overweight is defined as having a BMI between the 85th and 95th percentile.

FAMILY SUPPORT AND LITERACY

Why Family Support and Literacy Matter

Parents, caregivers and families who provide positive and responsive relationships support optimal brain development during a child's first years[167,168] and promote better social, physical, academic and economic outcomes later in that child's life.[169,170] Parental and family involvement is positively linked to academic skills and literacy in preschool, kindergarten and elementary school.[171] Literacy promotion is so central to a child's development that the American Academy of Pediatrics has identified it as a key issue in primary pediatric care, aiming to make parents more aware of their important role in literacy.[172] Reading aloud, singing songs, practicing nursery rhymes, and engaging in conversation primes children to reach their full potential.

Home visitation can help reduce a number of barriers to healthy development, including poor nutrition, inadequate cognitive stimulation, infrequent positive interaction with caregivers, caregivers lacking an understanding of child development, and families having inadequate access to resources and support.[173] A systematic review conducted by the non-federal Task Force on Community Preventive Services found that early childhood home visitation results in a 40 percent reduction in episodes of abuse and neglect. Not all programs were equally effective; those aimed at high-risk families, lasting two years or longer, and conducted by professionals (as opposed to trained paraprofessionals) were more successful.[174] A more recent systematic review of home visitation programs enlisting paraprofessionals concluded that these programs are more effective if they are higher dose and longer duration, begin with mothers prenatally, have sufficiently trained providers, and have a particular focus, rather than addressing multiple areas.[175] According to the Pew Charitable Trusts, quality home visitation programs can not only improve school readiness, improve later school outcomes and high school graduation rates, but also produce positive returns on taxpayers' investments.[176]

Not all children are able to begin their lives in the most positive, stable environments. Adverse Childhood Experiences (ACEs)[177] have been linked to risky health behaviors (such as smoking, drug use and alcoholism), chronic health conditions (such as diabetes, depression, obesity), poorer life outcomes (such as lower educational achievement and increased lost work time), and early death.[178] Children in Arizona are more likely to have experienced two or more ACEs (31.1%) than children across the country (21.1%).[179] Children subject to maltreatment and neglect often suffer physical, psychological and behavioral consequences, and in fact are much more likely to have interactions with the criminal justice system in later life.[180] Special federal guidelines are currently in place to regulate how Native children and their families interact with the state's child welfare system. In 1978, Congress passed the Indian Child Welfare Act (ICWA). ICWA established federal guidelines that are to be followed when an Indian child enters the welfare system in all state custody proceedings. Under ICWA, an Indian child's family and tribe are able and encouraged to be actively involved in the decision-making that takes place regarding the child, and may petition for tribal jurisdiction over the custody case. ICWA also mandates that states make every effort to preserve Indian family units by providing family services before an Indian child is removed from his or her family, and after an Indian child is removed through family reunification efforts.[181]

Behavioral health supports are often needed to address issues of domestic violence, maltreatment, abuse and neglect that children may face. Infant and toddler mental health is the young child's developing capacity to "experience, regulate and express emotions; form close interpersonal relationships; and explore the environment and learn."[182] When young children experience stress and trauma they have limited responses available to react to those experiences.

Children exposed to alcohol and drugs neonatally also face a number of challenges. Newborns exposed to alcohol or drugs in Arizona had higher incidences of low birthweight (23.2% compared to 7% for all births), higher incidences of respiratory symptoms, and higher incidences of feeding difficulties. The median total charges related to care were also double that of other hospital births.[183] Opiate use during pregnancy, both illegal and prescribed use, has been associated with neonatal abstinence syndrome (NAS), where infants born exposed to these substances exhibit withdrawal creating longer hospital stays, increased health care costs and increased complications for infants born with NAS.[184] Infants exposed to cannabis (marijuana) in utero often have a decrease in birth weight, and are more likely to be placed in neonatal intensive care, compared to infants whose mothers had not used the drug during pregnancy.[185] Research suggests that alcohol and drug exposure may be linked to behavioral issues and developmental delays as a child develops, creating a need for extra supports when a child enters school.[186] Substance abuse treatment and supports for parents and families grappling with these issues can help to ameliorate these short and long-term impacts on young children.

What the Data Tell Us

Family Involvement

Home visitation programs offer a variety of family-focused services to pregnant mothers and families with infants and young children, with the goals of improving child health and developmental outcomes and preventing child abuse. They address issues such as maternal and child health, positive parenting practices, literacy, safe home environments, and access to services. They can also provide referrals for well child checks and immunizations, developmental screenings, and provide information and resources about learning activities for families.

In the Navajo Nation Region, home visitation services are available through the Baby FACE program, which is currently managed by the Navajo Nation Growing in Beauty early intervention program.

The Baby FACE Program is nearly identical to the home-based component of the FACE program, and they provide services to families with children prenatal to three years of age using the Parents as Teachers (PAT) model. The program's goals are to increase parenting knowledge and involvement; provide early detection of health and developmental outcomes through biannual developmental health screenings; prevent child abuse and neglect; increase school readiness and success; and enhance family wellbeing. Like the FACE program, Baby FACE also emphasizes the inclusion of the local Native language and culture into its education delivery by adapting activities and incorporating traditional parenting beliefs and strategies. PAT-trained Parent Educators make biweekly personal visits to enrolled families, collaborating with parents or other primary caregivers to support child development; build and strengthen family, school, cultural, and community connections; and fulfill program goals.

Up until June 2015, the Bureau of Indian Education (BIE) had previously funded operation of the Baby FACE programs within select BIE-funded Navajo Nation schools through the use of Title I funds. However, the U.S. Department of Education disapproved of the use of Title 1 monies for this purpose, resulting in the halt of Baby FACE program funding through this stream. When this decision occurred, the national office for the Parents as Teachers (PAT) organization responded by applying for and receiving a five-year grant from the U.S. Department of Education's Investing in Innovation (i3) Fund to continue funding of Baby FACE programs in selected BIE schools. With knowledge that the i3 funding period would end at the conclusion of the FY2015 federal cycle, PAT began coordinating with First Things First (FTF) to continue Baby FACE programming on the Navajo Nation. Joined by a representative from the National PAT office, numerous parent educators from Navajo schools with Baby FACE

programs advocated before the FTF Navajo Nation Regional Partnership Council (NNRPC) in mid-2014 for continued funding of their home visitation programs. The NNRPC eventually included funding of PAT-administered home visitation programs into their funding plan. This led to the NNRPC's approval of a government-to-government agreement with the Navajo Nation, establishing a partnership between the tribe and the BIE-funded and BIE-operated schools to support the continuation of Baby FACE programming in the Navajo Nation.

Since July 2015, FTF has provided direct grant funding to the Navajo Nation to support staffing and Baby FACE program operations within select BIE-funded schools. The Navajo Nation administers these funds to nine BIE-funded Navajo Nation schools; seven of which are in Arizona. These seven schools include Black Mesa Community School, Cottonwood Day School, Dennehotso Boarding School, Lukachukai Community School, Pinon Community School, Seba Dalkai Boarding School, and Tuba City Boarding School. As of May 2017, a total of 220 families and 240 children are enrolled in the Baby FACE programs at these seven schools.

In addition, another four schools also administer Baby FACE programs through funding received by the Navajo Nation from the state of Arizona. This funding stems from a federal grant awarded to the Arizona Department of Health Services (ADHS) through the federal Maternal, Infant, and Early Childhood Home Visitation (MIECHV) Program. These four schools include Dilcon Community School, Nazlini Community School, Shonto Preparatory School, and Rock Point Community School. As of May 2017, a total of 43 families and 51 children are enrolled in the Baby FACE programs at these four schools.

Cumulatively, the Baby FACE programs in the Navajo Nation region serve 263 families and 291 children.

Child Welfare

Child Welfare services in the Navajo Nation Region are overseen by the Navajo Nation Division of Social Services. According to data provided by the Division of Social Services, in 2015 there were an average of 82 children (ages 0-17) removed from their homes by Tribal Child Protective Services in any given month, which represents a slight increase from an average of 65 per month in 2014. In 2015, a total of 999 cases of child abuse or neglect were substantiated, down from 1,142 in 2014 (Table 59). In both 2014 and 2015, the majority of children in the care of Social Services were placed with relatives (Table 60). Over half of children in care (54%; *n*=4,290) in 2015 were placed with relatives, 24 percent (*n*=1,911) were placed in Navajo Nation foster homes, 16 percent (*n*=1,308) were placed in contract foster homes, and 6 percent (*n*=505) were placed in contract facilities (Table 61). In 2015, there were 63 foster care homes available to care for children in out-of-home placement, an increase from the 46 homes available in 2014. All foster homes are located on the reservation.

Table 59. Child Welfare: Removals and Placements

	2014	2015
Children (0-17) Removed By Tribal CPS	Average 65	Average 82
Substantiated Cases Of Child Abuse or Neglect (0-17)	1,142	999
Children (0-17) In ICWA Placements	1,185	1,131

Source: Navajo Nation Division of Social Services [Child welfare data]. Unpublished data.

Table 60. Child Welfare: Children in Care

	2014	2015
Wards In Contract Facilities (Foster Homes)	483	505
Wards In Contract Facilities (RTCs)	1,734	1,911
Wards Placed With Relatives	2,834	4,290
Wards In Navajo Nation Foster Homes	924	1,308

Source: Navajo Nation Division of Social Services [Child welfare data]. Unpublished data.

Table 61. Child Welfare: Foster Care Availability

	2014	2015
Foster Care Homes Licensed by the Navajo Nation (On Reservation)	46	63
Foster Care Homes Licensed by the Navajo Nation (Off Reservation)	0	0
Foster Care Beds In Homes Licensed by the Navajo Nation (Off Reservation)	0	0

Source: Navajo Nation Division of Social Services [Child welfare data]. Tribal-specific data.

Justice System Involvement

Data on juvenile offenses and arrests were available from the Navajo Nation Police Department. Overall, the number of juvenile arrests in the entire Navajo Nation fell from 590 in 2014 to 251 in 2016 (Table 62). That trend was mirrored in the region, where arrests fell from 347 in 2014 to 227 in 2016. Very few of these arrests were for serious (Part One) offenses—these arrests represented 7.5 percent of overall arrests in the region and 8 percent of arrests in the Navajo Nation as a whole. The largest portion of arrests were related to substance use (35% of arrests in the region and 33% of arrests in the Navajo Nation). These arrests include those for drunkenness, drug abuse, driving while intoxicated, and liquor laws.

Table 62. Navajo Police Department Juvenile Arrests

	Navajo Nation (Entire) 2014	Navajo Nation (Arizona Part) 2014	Navajo Nation (Entire) 2015	Navajo Nation (Arizona Part) 2015	Navajo Nation (Entire) 2016	Navajo Nation (Arizona Part) 2016
Grand Total	**590**	**347**	**482**	**237**	**251**	**227**
Serious (Part One) Offenses	**35**	**24**	**29**	**21**	**20**	**17**
Larceny or Theft	15	9	6	4	4	3
Burglary	10	9	7	8	6	7
Aggravated Assault	6	5	10	6	6	5
Motor Vehicle Theft	1	0	4	3	2	0
Rape	1	0	2	0	0	0
Robbery	0	0	0	0	2	2
Arson	2	1	0	0	0	0
Criminal Homicide	0	0	0	0	0	0
Other Offenses (Not Part One)	**555**	**323**	**453**	**216**	**231**	**210**
Substance-Use Related	236	160	175	104	84	80
Drunkenness	144	90	111	70	55	43
Drug Abuse	52	43	35	15	14	18
DWI	27	14	26	16	12	12
Liquor Laws	13	13	3	3	3	7
Violence Related	72	45	52	27	41	41
Domestic Violence	55	33	45	23	34	31
Weapons	10	9	3	2	6	6
Child Abuse	5	1	2	1	0	1
Assaults	2	2	2	1	0	3
Sex Offenses	0	0	0	0	1	0
Statutory	47	18	35	4	26	11
Runaways	30	7	20	1	7	1
Curfew Violation	17	11	15	3	19	10
Other	102	37	102	33	29	24
Disorderly Conduct	80	26	76	25	22	20
Vandalism	14	6	16	5	5	2
Suspicious Persons	7	4	8	3	0	0
Stolen Property	1	1	1	0	2	2
Fraud	0	0	1	0	0	0
Forgery or Counterfeiting	0	0	0	0	0	0
Embezzlement	0	0	0	0	0	0
Prostitution	0	0	0	0	0	0
Gambling	0	0	0	0	0	0
All Other Offenses	98	63	89	48	51	54

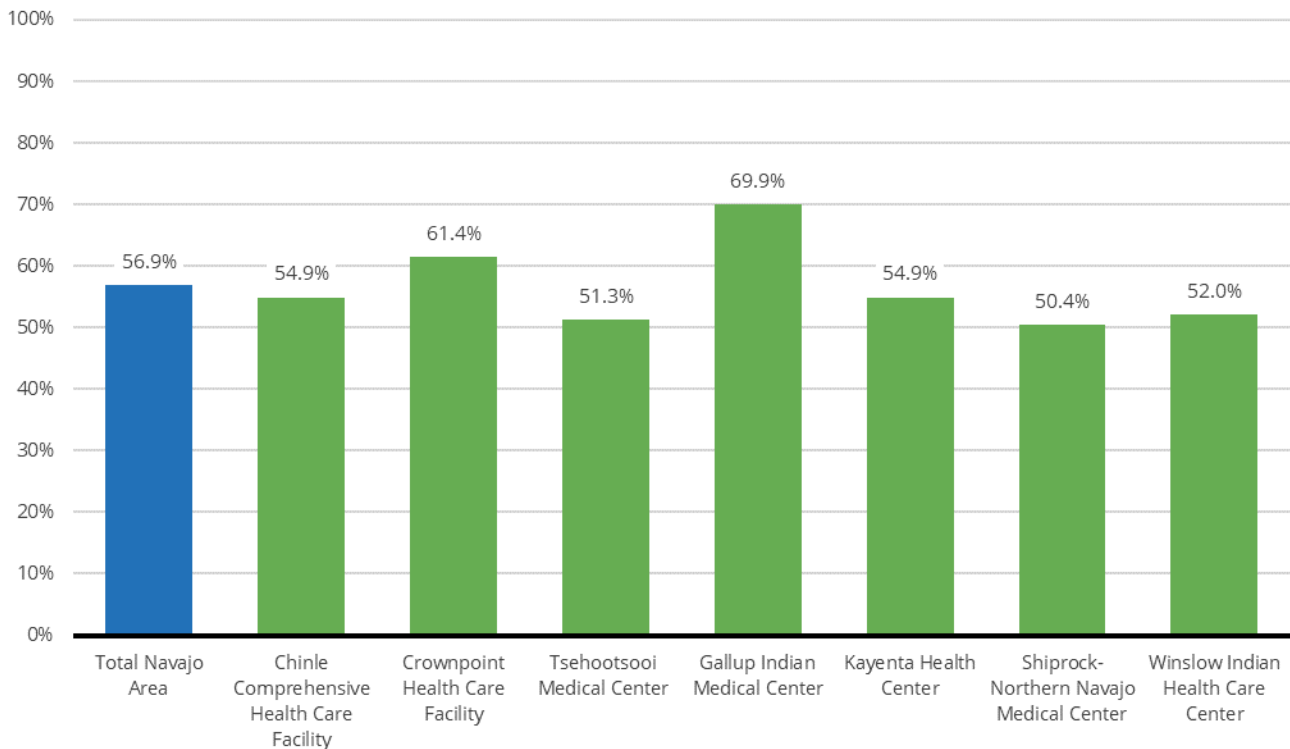
Source: Navajo Police Department [Juvenile arrest data]. Tribal-specific data.

Note: Data for 2016 are for 10 months only (January to October).

Domestic Violence

Data on domestic violence screenings were available from the Navajo Area IHS. From April to June 2016, 56.9 percent of women ages 14 to 46 who visited health care facilities in the Navajo Area were screened for domestic or intimate partner violence. Rates of screening varied by health care facility. Screening rates were highest at Gallup Indian Medical Center (69.9%) and Crownpoint Health Care Facility (61.4%) and lowest at Shiprock-Northern Navajo Medical Center (50.4%).

Figure 35. Domestic (Intimate-Partner) Violence Screening by Hospitals in the Navajo IHS Area (April to June 2016)



Source: Navajo Area Indian Health Service (2016). [GPRA Report]. Tribal-specific data.

Note: For FY 2016, there was no national target for Domestic Violence or Intimate-Partner Violence screening.

Behavioral Health

In Arizona, the Arizona Health Care Cost Containment System (Arizona's Medicaid program) contracts with community-based organizations, known as Regional Behavioral Health Authorities (RBHAs) and Tribal Regional Behavioral Health Authorities (TRBHAs), to administer publically-funded behavioral health services. Arizona is divided into separate geographical service areas (GSAs) served by various RBHAs or TRBHAs. The TRBHA for the Navajo Nation Region is the Navajo Nation Regional Behavioral Health Authority. Behavioral health services for community members in the Navajo Nation region are also provided by the Navajo Nation Division of Behavioral Health Services (NDBHS). NDBHS services are tribally-operated and provided through a 638 contract with federal funding. The division is administered through the Navajo Nation Division of Health.

According to NDBHS, as of January 2017 no services were being provided under the Division to children under the age of six, and thus, no data were available from NDBHS to be included in this report.

Table 63, however, shows that each year from 2012 to 2015, between 71 and 78 pregnant or parenting women received publicly-funded behavioral health services through the RBHA serving the reservation: Northern Arizona Regional Behavioral Health Authority (NARBHA), which is now known as Health Choice Integrated Care. Fewer than 25 children ages 0 to 5 receiving behavioral health services from NARBHA in any given year between 2012 and 2015 (Table 64). Key informants indicated that the lack of mental health services to young children is a concern in the region. Currently, the only services available for infants and toddlers are being provided through a strategy funded by the Navajo Nation First Things First Regional Partnership Council which provides technical support to child care centers participating in Quality First. These services, however, are directed at child care providers and do not provide direct care to young children or their families.

Substance use and abuse can contribute to or exacerbate behavioral health needs in families. Newborns exposed to alcohol or other noxious substances in utero may have long-lasting health care needs. Maternal substance use, particularly opioid use, can result in neonatal abstinence syndrome (NAS), where newborns display withdrawal symptoms. Statewide, the overall rate for NAS for the period 2008-2013 was 2.83 per 1,000 births, with a significant increase between 2008 (1.57 per 1,000 births) and 2013 (4.03 per 1,000 births).[187] In the same period, the rate of Fetal Alcohol Syndrome (FAS) was 0.27 per 1,000 births, with the rate increasing by nine percent from 2008 to 2013. [188] Health care facilities in the Navajo Area IHS regularly conduct alcohol use screening among female patients ages 14 to 46 to help prevent FAS. In the Navajo Area as a whole, 59.9 percent of all female patients in that age range were screened for alcohol use in the fourth quarter of 2016 (Figure 36). Rates of screening were highest at Gallup Indian Medical Center (72.6%) and Crownpoint Health Care Facility (62.7%) and lowest at Shiprock-Northern Navajo Medical Center (53.3%).

Table 63. Number of Pregnant or Parenting Women Receiving Behavioral Health Services, 2012 to 2015

	2012	2013	2014	2015	Change from 2012 to 2015
Navajo Nation (Arizona part)	**71**	**78**	**74**	**77**	**8%**
All Arizona Reservations	N/A	N/A	N/A	N/A	N/A
ARIZONA	19,134	17,731	13,657	14,546	-24%

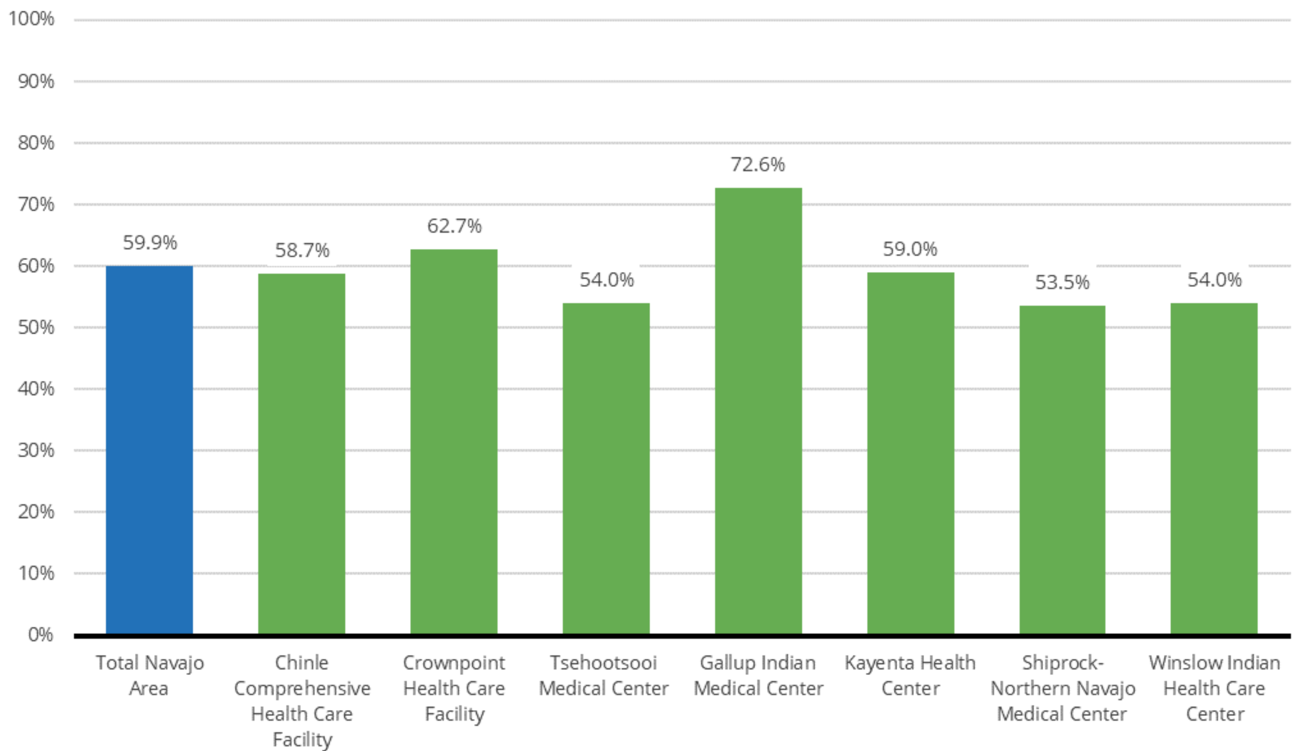
Source: Arizona Department of Health Services (2016). [Behavioral Health dataset]. Tribal-specific data.

Table 64. Number of Children (Ages 0 to 5) Receiving Behavioral Health Services, 2012 to 2015

	2012	2013	2014	2015	Change from 2012 to 2015
Navajo Nation (Arizona part)	**<25**	**<25**	**<25**	**<25**	**+13%**
All Arizona Reservations	N/A	N/A	N/A	N/A	N/A
ARIZONA	13,110	14,396	12,396	14,374	+10%

Source: Arizona Department of Health Services (2016). [Behavioral Health dataset]. Unpublished data.

Figure 36. Fetal Alcohol Syndrome Prevention by Hospitals in the Navajo IHS Area (April to June 2016)



Source: Navajo Area Indian Health Service (2016). [GPRA Report]. Tribal-specific data

Note: For FY 2016, there was no national target for Fetal Alcohol Syndrome prevention.

COMMUNICATION, PUBLIC INFORMATION, AND AWARENESS[xv]

[xv] *This section of the report was prepared by the First Things First Communications Division.*

Why Communication, Public Information, and Awareness Matter

Public awareness of the importance of early childhood development and health is a crucial component of efforts to build a comprehensive, effective early childhood system in Arizona. Building public awareness and support for early childhood is a foundational step that can impact individual behavior as well as the broader objectives of system building. For the general public, information and awareness is the first step in taking positive action in support of children birth to 5, whether that is influencing others by sharing the information they have learned within their networks or taking some higher-level action such as elevating the public discourse on early childhood by encouraging increased support for programs and services that impact young children. For parents and other caregivers, awareness is the first step toward engaging in programs or behaviors that will better support their child's health and development.

Unlike marketing or advocacy campaigns which focus on getting a narrowly-defined audience to take short-term action, communications efforts to raise awareness of the importance of early childhood development and health focus on changing what *diverse* people across Arizona *value* and providing them multiple opportunities over an extended time to act on that commitment.

There is no one single communications strategy that will achieve the goal of making early childhood an issue that more Arizonans value and prioritize. Therefore, integrated strategies that complement and build on each other are key to any successful strategic communications effort. Employing a range of communications strategies to share information – from traditional broad-based tactics such as earned media to grassroots, community-based tactics such as community outreach – ensures that diverse audiences are reached more effectively wherever they are at across multiple mediums. Other communications strategies include: strategic consistent messaging, brand awareness, community awareness tactics such as distribution of collateral and sponsorship of community events, social media, and paid media which includes both traditional and digital advertising. Each of these alone cannot achieve the desired outcome of a more informed community, so a thoughtful and disciplined combination of all of these multiple information delivery vehicles is required. The depth and breadth of all elements are designed to ensure multiple touch-points and message saturation for diverse audiences that include families, civic organizations, faith communities, businesses, policymakers and more.

What the Data Tell Us

Since state fiscal year 2011, First Things First has led a collaborative, concerted effort to build public awareness and support across Arizona employing the integrated communications strategies listed above.

Results of these statewide efforts from SFY2011 through SFY2016 include:

- More than 2,000 formal presentations to community groups which shared information about the importance of early childhood;
- Nearly 230 tours of early childhood programs to show community members and community leaders in-person how these programs impact young children and their families;
- Training of almost 8,700 individuals in using tested, impactful early childhood messaging and how to best share that message with others;
- The placement of more than 2,400 stories about early childhood in media outlets statewide;

- Increased digital engagement through online platforms for early childhood information, with particular success in the growth of First Things First Facebook Page Likes, which grew from just 3,000 in 2012 to 124,000 in 2016.
- Statewide paid media campaigns about the importance of early childhood from FY10 through FY15 included traditional advertising such as television, radio and billboards as well as digital marketing. These broad-based campaigns generated millions of media impressions over that time frame; for example in FY15 alone, the media campaign yielded over 40 million media impressions.

In addition, First Things First began a community engagement effort in SFY2014 to recruit, motivate and support community members to take action on behalf of young children. The community engagement program is led by community outreach staff in regions which fund the First Things First Community Outreach strategy. This effort focuses on engaging individuals across sectors – including business, faith, K-12 educators, and early childhood providers – in the work of spreading the word about the importance of early childhood since they are trusted, credible messengers in their communities. FTF characterizes these individuals, depending on their level of involvement, as Friends, Supporters, and Champions. Friends are stakeholders who have a general awareness of early childhood development and health and agree to receive more information and stay connected through regular email newsletters. Supporters have been trained in early childhood messaging and are willing to share that information with their personal and professional networks. Champions are those who have been trained and are taking the most active role in spreading the word about early childhood.
Supporters and Champions in the engagement program reported a total of 1,088 positive actions taken on behalf of young children throughout Arizona as of the end SFY16. These actions range from sharing early childhood information at community events, writing letters to the editor to connecting parents to early childhood resources and more. The table below shows total recruitment of individuals in the tiered engagement program through SFY2016.

Table 65. First Things First Engagement of Early Childhood Supporters, SFY2014 through SFY2016

	Friends	Supporters	Champions
Navajo Nation Region	805	217	50
ARIZONA	21,369	3,102	908

Note: Colorado River Indian Tribes Region receives limited Community Outreach coverage through agreement with La Paz/Mohave Region.

In addition to these strategic communications efforts, First Things First has also led a concerted effort of policymaker awareness-building throughout the state. This includes meetings with all members of the legislature to build their awareness of the importance of early childhood. FTF sends emails to all policymakers providing information on the impact of early childhood investments (such as the FTF annual report) and also has instituted a quarterly email newsletter for policymakers and their staff with the latest news regarding early childhood.

Furthermore, the Arizona Early Childhood Alliance – comprised of early childhood system leaders like FTF, the United Ways, Southwest Human Development, Children's Action Alliance, Read On Arizona, Stand for Children,

Expect More Arizona and the Helios Foundation – represent the united voice of the early childhood community in advocating for early childhood programs and services.

Finally, FTF recently launched enhanced online information for parents of young children, including the more intentional and strategic placement of early childhood content and resources in the digital platforms that today's parents frequent. Future plans for this parenting site include a searchable database of early childhood programs funded in all the regions, as well as continuously growing the amount of high-quality parenting content available on the site and being "pushed out" through digital sources.

SYSTEM COORDINATION AMONG EARLY CHILDHOOD PROGRAMS AND SERVICES

Why System Coordination Matters

To create a strong, comprehensive, and sustainable early childhood system, communities need an awareness of the importance of the first five years in a child's life, and a commitment to align priorities and resources to programs and policies affecting these first years. The early childhood development community can be disjointed, with efforts focused on individual topic areas, rather than aligned in coordinated efforts to mobilize resources and influence policy.[189] Supporting public awareness by providing accessible information and resources on early childhood development and health, and educating community members about the benefits of committing resources to early childhood, are key to generating broad visibility and supporting and growing this system. Assessing the reach of these educational and informational efforts in First Things First regions across the state can help early childhood leadership and stakeholders refine, expand or re-direct these efforts.

The partners in Arizona's early childhood system encompass a diverse array of public and private entities dedicated to improving overall well-being and school readiness for children birth to 5 statewide. Together they strive to develop a seamless, coordinated, and comprehensive array of services that can meet the multiple and changing needs of young children and their families.

In January 2010, First Things First (FTF) convened the first Arizona Early Childhood Task Force, comprised of a diverse group of leaders from across Arizona. The goal of this inaugural Task Force was to establish a common vision for young children in Arizona and to identify priorities and roles to build an early childhood system that would enable this vision to be realized. The Task Force identified six outcomes to work towards, including that the "early childhood system is coordinated, integrated and comprehensive."[xvi] First Things First's role in building this system is to foster cross-system collaboration among and between local, state, federal, and tribal organizations to improve the coordination and integration of Arizona programs, services, and resources for young children and their families.

Through strategic planning and system-building efforts that are funded through both FTF and other mechanisms, FTF is focused on developing approaches to connect various areas of the early childhood system. When the system operates holistically, families should experience a seamless system of coordinated services that they can more easily access and navigate in order to meet their needs. Agencies that work together and achieve a high level of coordination and collaboration help to establish and support a coordinated, integrated, and comprehensive system. At the same time, agencies also increase their own capacity to deliver services as they work collectively to identify and address gaps in the service delivery continuum.

Service coordination and collaboration approaches work to advance the early childhood system in the following ways:

- Build stronger collaborative relationships among providers
- Increase availability and access of services for families and children
- Reduce duplication
- Maximize resources
- Assure long term sustainability
- Leverage existing assets
- Improve communication

[xvi] *To build on this progress and focus on priorities for the next phase of its mission, beginning in November 2016, FTF convened a new statewide Early Childhood Task Force. In June 2017, this new Taskforce will help set the strategic vision for the next five years.*

- Reduce fragmentation
- Foster leadership capacity among providers
- Improve quality
- Share expertise and training resources
- Influence policy and program changes

What the Data Tell Us

As part of their responsibilities, FTF Regional Councils also develop annual funding plans based on identified needs and assets. Included in these funding plans are unfunded approaches which are regarded as potential opportunities for collaboration that do not need funding from regional councils. Unfunded approaches help forge strong and effective linkages among the regions' early childhood system.

The Navajo Nation Regional Partnership Council identified the following unfunded approaches within their FY2017 Funding Plan:[190]

1. Early Education Coalition – The intent of this approach is to coordinate early care providers in the shared vision of improving kindergarten-readiness efforts, create clear expectations and alignment of resources toward this vision, and to enhance cross-sector awareness of program requirements that can be leveraged to increase families' access to high quality early learning programs. Current and potential partners were identified as Navajo Head Start, CCDF, Regional School Districts, FACE programs, Growing in Beauty, and most importantly, families and caregivers of children ages birth to 5.

2. Understanding Child Care Needs in Western Navajo Agency – Led by Coconino County Supervisor Lena Fowler, the intent of this initiative is to engage and collaborate with key stakeholders in the community of Tuba City to identify child care needs and develop a child care delivery system designated for children birth to 5 years and their families. Current and potential partners were identified as Navajo Nation CCDF program, the Tuba City Unified School District, FACE programs, Navajo Head Start, and the Department of Economic Security Child Care Subsidy.

3. Coordination of Services pertaining to Special Needs – Led by Ms. Maureen Powers of the Futures in Education organization, the intent of this approach is to facilitate dialogue among early intervention services stakeholders in the Navajo Nation in an effort to strengthen and unify the early intervention service delivery system in the region. Stakeholders include, but are not limited to: individuals and organizations directly involved with the identification and evaluation of suspected developmental delays or disabilities, and delivery of early intervention/special education services. Current and potential partners were identified as Growing in Beauty, FACE programs, Navajo Head Start, and LEA representatives in the communities of Red Mesa, Chinle, and Window Rock.

In FY2018 the Early Education Coalition will become the Early Childhood Coalition. This will be the only unfunded approach that will continue into the new fiscal year. Coordination of Services pertaining to Special Needs efforts has been merged within the work of the Coalition.

SUMMARY AND CONCLUSIONS

This Needs and Assets Report is the sixth biennial assessment of the challenges and opportunities facing children birth to age 5 and their families in the First Things First Navajo Nation Region.

The data presented in this report, both quantitative and qualitative, show that the region has substantial strengths. The early learning system provides child care and education to young children in the region through a variety of options that includes school-based preschool programs, Navajo Head Start centers, tribally-operated Child Care Development Fund facilities, Family and Child Education (FACE) programs at Bureau of Indian Education schools and private schools. Breastfeeding rates are higher than those in the state of Arizona.

A summary of identified regional assets has been included below.

Economic Circumstances

- Stable participation in the **Navajo Nation Department of Self-Reliance tribal TANF program**, despite considerable decreases in TANF enrollment at the state level

Early Learning

- An early learning system that provides **early care and education opportunities** through a variety of programs, most of which are free-of-cost
- Availability of full **Navajo immersion** education for young children through the Navajo Head Start program

Child Health

- High rates of third-party **insurance coverage** for young children as reported by tribally-operated hospitals in the region
- Very low rates of **tobacco use** during pregnancy
- High **breastfeeding** rates

Family Support and Literacy

- Continued **home-visitation services** available through Baby FACE programs
- An increase in the number of **foster homes** available within regional boundaries for children who are in out-of-home placements

However, there continue to be substantial challenges to fully serving the needs of young children throughout the region. Many of these have been recognized as ongoing issues by the Navajo Nation Regional Partnership Council and are being addressed by current First Things First-supported strategies in the region. Some of these needs, and the strategies proposed to deal with them, are highlighted below:

- A lack of **mental health** care services for young children – Key informants noted that there is a critical lack of mental health services for children birth to five in the region. In FY 2017, the Regional Partnership Council funded a Mental Health Consultation strategy to support 25 child care providers at participating Quality First centers and two home visitation programs.

- A shortage of **qualified child care professionals** – Early care and learning programs in the region struggle with recruitment of child care professionals with adequate credentials in early childhood education. Several strategies are currently in place to address this challenge: Registry and College Scholarships, Professional Development for Early Childhood Professionals and FTF Professional REWARD$ all support child care professionals in acquiring CDA, AA or BA credentials or degrees in early childhood education.
- A lack of reliable **child care services** in some areas within the region – Despite the number of different programs that provide early care and learning opportunities in the region, key informants pointed out that working parents often struggle with finding child care services to meet their needs. The Regional Partnership Council funds Quality First scholarships and Child Care Health Consultation strategies to enhance the early learning system by providing additional support to child care centers in the form of scholarships and consultation on health related topics. The region is also funding two strategies to support parents and caregivers whose children are not participating in center-based early care and learning opportunities: Home Visitation and Family, Friends and Neighbors.
- High rates of **tooth decay** – Recent surveillance data from the Indian Health Service revealed that young children in the Navajo Nation have high rates of tooth decay, even among one-year old children. The Oral Health strategy provides funding for the application of fluoride varnishes to preschool-age children and to provide education on oral hygiene among child care professionals in the region.
- **Supporting families to meet their basic needs –** With a high proportion of families with young children living in poverty, and high unemployment rates in the region, many parents and caregivers are likely to struggle to meet their children's most basic needs. The Nutrition/Obesity/Physical Activity strategy provides funding for the distribution of 9,000 food boxes in the region to support families in need.

This report also highlighted some additional needs that could be considered as targets by stakeholders in the region:

Population Characteristics

- A low proportion of young children in the region who **speak the Navajo language** at home

Economic Circumstances

- Low median **income** for single-householders (both male and female) is a concern because half of the young children live in single-parent households
- High **poverty** rates among the overall population and the population of young children
- A high **unemployment** rate
- A high proportion of **housing** units that are in need of major repairs or full replacement
- A decrease in the total Navajo **WIC program enrollment and participation** rates

Educational Indicators

- High rates of **chronic absences** in public schools

Early Learning

- Lack of reliable **child care services** in some areas in the region/closing of child care centers due to low enrollment

Child Health

- High rates of **tooth decay** among young children
- High rates of **childhood obesity** that does not meet the Healthy People 2020 goal

Family Support and Literacy

- Lack of direct **mental health** care services for young children and their families

Although there are challenges outlined in this report, the Navajo Nation Region has substantial strengths to support parents and caregivers of young children to support them in growing up healthy and be ready for school.

Data Systems

In addition to the assets and challenges identified above, other assets and challenges related to the status of data systems in the region were identified through the process of collecting tribal data for this report. Services to families in the Navajo Nation, the largest Indian Nation in the United States, are provided through various complex systems. Particularly relevant to this report were two of these systems: education and health. Although educational services are overseen by the Navajo Nation Department of Diné Education (DODE), a diversity of institutions/agencies are in charge of the day-to-day operation of schools within the region (i.e. the Arizona Department of Education, the Bureau of Indian Education, churches, etc). In order to provide a comprehensive assessment of the status of the education system in the Navajo Nation as a whole, data from all of these different entities (some of which operate at a state level, while others are federal agencies) must be brought together. Key informants interviewed for this report spoke about the need for one centralized entity (DODE, for example) to be able to store, analyze and make available all of the education-related data (e.g. standardized test scores results) for the Nation as a whole. This, clearly, is not a trivial task. It requires substantial material (e.g. physical space, electronic servers) and human (e.g. personnel experienced in handling large data sets) capacity. It also requires planning for such a system to be sustained in the long term. Key informants, however, noted that there is an increasing interest in the Navajo Nation to work towards such goal.

Similarly, health care services in the Navajo Nation are provided by different entities, some of which are directly or indirectly tribally-operated (i.e. programs under the Navajo Department of Health; hospitals that operate as non-profit corporations managed by the Navajo Nation under P.L.93-638) and facilities managed by the Indian Health Services (IHS). A comprehensive picture of the health status of the population residing within the reservation boundaries would also require that multiple sources of data are pulled together from these different systems. This report presents data provided by both IHS and the 638 hospitals. However, summarizing this information for the region as a whole was challenging due to the fact that the data were not always available in the same format, time period, or from similarly structured databases. The fact that no single institution may be able to provide data for the region (or the Nation) as a whole can present a challenge to any comprehensive assessment of the health status of the residents in the region.

Effective, central data management systems in both the health and education realms may result in more efficient access to data for the Nation as a whole, and for smaller geographies such as chapters or agencies.

APPENDICES

Table of Regional Strategies

Navajo Nation Regional Partnership Council Planned Strategies for Fiscal Year 2017

Strategy	Strategy description
Registry and College Scholarships	The intent of this evidence informed Professional Development strategy is to provide access to higher education for the early childhood workforce working directly with or on behalf of young children birth to age five. The expected results of supporting continuing education and degree completion is elevating and professionalizing the field, recruiting and retaining a quality early childhood workforce and supporting and increasing the quality of services provided to young children.
Mental Health Consultation	The intent of this evidence informed strategy is to build the skills and capacity of early childhood education professionals to interact with children and their families. The expected result is the prevention, early identification, and reduction of challenging classroom behaviors and improved teacher skills. Further expected results are a decrease in negative outcomes for children, such as expulsion from preschool programs. Consultants are mental health professionals with expertise in children's social and emotional development working with early care and education providers. They engage in activities that promote enhanced early childhood practices and problem-solving through collaborative relationships with staff that interact with families and children. One primary focus is working within licensed child care centers or homes; however, services can also be provided to home visitation programs and contribute to professional development for family friend and neighbor (FFN) programs. Whether these expanded services are provided depends on strategy decisions made by a First Things First (FTF) Regional Partnership Council.
Child Care Health Consultation	The intent of this evidence based strategy is to provide statewide health and safety consultation specific to early care and education settings for children birth to age 5. The expected results are improved overall quality of care, reduced illness, and increased school readiness by supporting best practices that increase provider knowledge and promote behavior change, policy development and improvements in program environments.
Professional Development for Early Childhood Professionals	The intent of this evidence informed strategy is to provide high quality professional development for those that teach and care for young children. Implementation of this strategy must include both theory/topic presentation and theory into practice/practical application. The expected results of the implementation of this strategy include: participants increasing their knowledge base of early childhood and changing their practice in supporting young children's development and learning; and, participants receiving higher education credit for these learning opportunities that will articulate into a degree or certificate program.
FTF Professional REWARD$	The intent of this promising practice strategy is to provide financial incentives to early care and education teachers for children birth to age 5, and is dependent on the teacher's educational attainment, continued educational progress and commitment to continuous employment. The expected result is improved retention rates of highly qualified teachers, an improvement in the educational level of the professional workforce and continuity of care for young children enrolled in early care and education programs.
Quality First Scholarhips	The intent of this promising practice strategy is to provide financial support through scholarships for children to attend quality early care and education programs in order to assist low income families (200% of Federal Poverty Level and below) to afford a quality early care and education setting. The expected result is that more children will receive quality early childhood programs and services that will impact their learning and development and promote readiness for kindergarten.

Family, Friend, and Neighbor Care	The intent of this evidence informed strategy is to provide professional development and financial resources to family, friend and neighbor caregivers. The expected result is an improvement in the quality of caregiving, teaching and learning for children in unregulated home based early care and education settings.
Home Visitation	The intent of this evidence based strategy is to provide personalized support for families with young children, particularly as part of a comprehensive and coordinated system. Services may include developmental screenings, weekly home visits, linking families with needed community-based services, and advocacy and support services that empower families. Expected results that are common to home visitation programs include: improved child health and development, increase in children's school readiness, enhancement of parents' abilities to support their children's development; decreased incidence of child maltreatment; and improved family economic self-sufficiency and stability (US Department of Health and Human Services, 2014).
Oral Health	The intent of this evidence-based strategy is to provide best practice approaches that enhance the oral health status of children birth through age 5. The expected results are prevention of tooth decay and reduction in the prevalence of early childhood tooth decay and the associated risks for pain and infections that can lead to lifelong complications to health and wellbeing. The approaches for this strategy include: oral health screening for children and expectant mothers with referrals to oral health providers for follow up care as needed; fluoride varnishes for children; oral health education for families and other caregivers; and, outreach to families, other caregivers including early learning and care providers, and oral health and medical professionals.
Nutrition, Physical Activity, and Obesity Prevention	The intent of this strategy is to provide evidence based community and place-based interactive health education to support children birth to age 5 in achieving and maintaining a healthy weight. Interactive health education will focus on healthy nutrition and physical activity and be provided to children, families, early child care and education professionals, and others in the community who care for young children. The expected result is reduction in risk factors for poor nutrition and insufficient physical activity, which in turn can reduce the prevalence of overweight and obesity during early childhood. A healthy weight during early childhood is highly predictive of achieving a healthy weight at all ages, as well as reduction in psychosocial and health consequences of overweight and obesity.
Parenting Outreach and Awareness	The intent of this promising practice strategy is to increase families' awareness of positive parenting; child development including health, nutrition, early learning and language acquisition; and, knowledge of available services and supports to support their child's overall development. The expected result is an increase in knowledge and a change in specific behaviors addressed through the information and activities provided

Methods and Data Sources

The data contained in this report come from a variety of sources. Some data were provided to First Things First by state agencies, such as the Arizona Department of Economic Security (DES), the Arizona Department of Education (ADE), and the Arizona Department of Health Services (ADHS). Other data were obtained from publically available sources, including the 2010 U.S. Census, the American Community Survey (ACS), the Arizona Department of Administration (ADOA), and the Arizona Health Care Cost Containment System (AHCCCS). Data were also provided to First Things First by the Indian Health Service. Tribal data were obtained from various departments of the Navajo Nation. Qualitative data were also gathered through key informant interviews with services providers in the region and through group discussions with community leaders. In addition, regional data from the 2014 First Things First Parent and Caregiver Survey were included. Methodology for this survey is included below.

U.S. Census and American Community Survey Data.

The U.S. Census[191] is an enumeration of the population of the United States. It is conducted every ten years, and includes information about housing, race, and ethnicity. Census data presented in the report is drawn from the Census Geography for the Navajo Nation.

The American Community Survey[192] is a survey conducted by the U.S. Census Bureau each month by mail, telephone, and face-to-face interviews. It covers many different topics, including income, language, education, employment, and housing. The ACS data are available by census tract. The most recent and most reliable ACS data are averaged over the past five years; those are the data included in this report. They are based on surveys conducted from 2010 to 2014. In general, the reliability of ACS estimates is greater for more populated areas. Statewide estimates, for example, are more reliable than county-level estimates or estimates for smaller communities.

The data from the U.S. Census and the American Community Survey are available for the Navajo Nation as a whole, and separately for the parts of the Nation in Arizona, New Mexico, and Utah. In addition, the data are available for each of the 111 chapters which make up the Navajo Nation. By aggregating the chapter-level data, we created data for each of the five agencies (Chinle, Eastern, Fort Defiance, Northern, and Western).

These data sources are important for the unique information they are able to provide about children and families across the United States, but both of them have acknowledged limitations for their use on tribal lands. Although the Census Bureau asserted that the 2010 Census count was quite accurate in general, they estimate that "American Indians and Alaska Natives living on reservations were undercounted by 4.9 percent." [193] According to the State of Indian Country Arizona report[194] there are particular challenges in using and interpreting ACS data from tribal communities and American Indians in general. There is no major outreach effort to familiarize the population with the survey (as it is the case with the decennial census). Most important, the small sample size of the ACS makes it more likely that the survey may not accurately represent the characteristics of the population on a reservation. The State of Indian Country Arizona report indicates that at the National level, in 2010 the ACS failed to account for 14% of the American Indian/Alaska Native (alone, not in combination with other races) population that was actually counted in the 2010 decennial census. In Arizona the undercount was smaller (4%), but according to the State of Indian Country Arizona report, ACS may be particularly unreliable for the smaller reservations in the state.

While recognizing that estimates provided by ACS data may not be fully reliable, this report includes these estimates because they still are the most comprehensive publically-available data that can help begin to describe the families that First Things First serve. Considering the important planning, funding and policy decisions that are made in tribal

communities based on these data, however, the State of Indian Country report recommend a concerted tribal-federal government effort to develop the tribes' capacity to gather relevant information on their populations. This information could be based on the numerous records that tribes currently keep on the services provided to their members (records that various systems must report to the federal agencies providing funding but that are not currently organized in a systematic way) and on data kept by tribal enrollment offices.

A current initiative that aims at addressing some of these challenges has been started by the American Indian Policy Institute, the Center for Population Dynamics and the American Indian Studies Department at Arizona State University. The Tribal Indicators Project[195] begun at the request of tribal leaders interested in the development of tools that can help them gather and utilize meaningful and accurate data for governmental decision-making. An important part of this effort is the analysis of Census and ACS data in collaboration with tribal stakeholders. We hope that in the future these more reliable and tribally-relevant data will become available for use in these community assessments. Another important initiative currently undergoing to help improve the collection, use and interpretation of data related to tribal communities is the U.S. Indigenous Data Sovereignty Network (USIDSN) hosted by the Native Nations Institute at the University of Arizona. According to its website "USIDSN's primary function is to provide research information and policy advocacy to safeguard the rights and promote the interests of Indigenous nations and peoples in relation to data."[196]

Data Suppression

To protect the confidentiality of program participants, the First Things First Data Dissemination and Suppression Guidelines preclude reporting social service and early education programming data if the count is less than ten, and preclude our reporting data related to health or developmental delay if the count is less than twenty-five. In addition, some data received from state agencies may be suppressed according to their own guidelines. The ADHS, for example, does not report non-zero counts less than six, and DES does not report non-zero counts less than 10. Throughout this report, information which is not available because of suppression guidelines will be indicated by entries of "**<10**" or "**<25**" for counts or "**DS**" for percentages in the data tables.

For some data, an exact number was not available because it was the sum of several numbers provided by a state agency, and some numbers were suppressed in accordance with agency guidelines. In these cases, a range of possible numbers is provided, where the true number lies within that range. For example, for data from the sum of a suppressed number of children ages 0-12 months, 13 children ages 13-24 months, and 12 children ages 25-35 months, the entry in the table would read "26 to 34." This is because the suppressed number of children ages 0-12 months is between one and nine, so the possible range of values is the sum of the two known numbers plus one to the sum of the two known numbers plus nine. Ranges that include numbers below the suppression threshold of less than ten or twenty-five may still be included if the upper limit of the range is above ten or twenty-five. Since a range is provided rather than an exact number, the confidentiality of program participants is preserved.

Reporting Data over Time

To show changes over time, a percent change between two years is sometimes reported to show the relative increase or decrease during that period. Percent change between two years is calculated using the following formula:

$$\%\ \text{Change} = \frac{(\#\ in\ Year\ 2 - \#\ in\ Year\ 1)}{\#\ in\ Year\ 1}$$

School Data

A number of educational indicators were included in this report based on data received from the ADE at the school level. These data were then aggregated by region (e.g., the sum of all students in special education preschool in the region) and by regional portions of districts (e.g., the sum all students in special education preschool in a particular school district in the region) as well as by the county and state. Since ADE school districts do not follow FTF regional boundaries, district data may not represent the school district as a whole but rather the portion of that district which falls within a given region. School districts that straddle regional boundaries can be identified in Figure 10. For these districts, only the data for schools falling within regional boundaries was included in the district calculation. Data for charter schools were aggregated to a single number for all charter school located within the region.

Health Data

Health data were received from the Navajo Area Indian Health Service (IHS). These data reflect patients receiving care at all health care facilities in the Navajo Area that report data to IHS. Health-related data were also available to be included in this report from all three of the large tribally-operated health care facilities in the region: Tsehootsooi Medical Center, Tuba City Regional Health Care Corporation, and Winslow Indian Health Care Corporation. These data cover fiscal years 2014 to 2016 for Tsehootsoi Medical Center and Winslow Indian Health care Corporation and fiscal year 2016 for Tuba City Regional Health Care Corporation. The data includes all patients seen during these time frames, regardless of their place of residence or tribal enrollment. This means that, at the time of receiving services, patients represented in these datasets may or may not have lived within the reservation boundaries and may or may not have been members of the Navajo Nation. Data concerning key health indicators are collected differently in each health care center, so data were received in a varying formats. The data presented in this report were formatted to be as comparable as possible.

2018 Report Process

In March of 2017, a participatory Data Interpretation Session was held to review preliminary results of the data received, compiled and analyzed as of February of 2017. Members of the Navajo Nation Regional Partnership Council were involved in a facilitated discussion to allow them to share their local knowledge and perspective in interpreting the available data. Feedback from participating session members are included within the report, as appropriate.

For the 2018 Needs & Assets Report cycle, Regional Partnership Councils were also asked to identify areas of particular focus, or priority areas. These priorities were developed during the spring of 2016, and potential data sources to address these priorities were identified collaboratively among the Council, The Regional Director, FTF Research and Evaluation staff, and CRED staff. For the current report, the Navajo Nation Regional Partnership Council selected the following topics as priority areas:

- Information on early childhood development and health topics (including nutrition, dental, immunizations, social-emotional, developmental delays) shared by center-based early learning programs with parents and caregivers: What services are center-based early care and learning programs providing in these areas? How are center-based early care and learning programs engaging parents and providing information to them about these topics?
- Challenges that families face to participating in center-based early learning programs
- Knowledge of early childhood and education issues among parents and caregivers
- Self-perception of parents' and caregivers' competence and confidence to support their children's healthy development

Where available, data on these topics are presented in this report.

The Navajo Nation Regional Partnership Council also elected to fund additional work as part of the Regional Needs and Report process to enhance the data collected to address the priority areas outlined above. In addition to the information contained in this report, a separate addendum is available with in-depth information on these topics based on primary data collected from parent and caregiver surveys and interviews with staff at early center-based early care and learning programs throughout the region. The content and process of this additional work was approved and monitored by the Navajo Nation Human Research Review Board.

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NAVAJO NATION
REGIONAL PARTNERSHIP COUNCIL
2018
NEEDS AND ASSETS REPORT ADDENDUM

Prepared by

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EXECUTIVE SUMMARY

This report supplements information found in the First Things First 2018 Navajo Nation Regional Needs and Assets Report. It provides findings from additional data collected in response to a number of priority questions identified by the Navajo Nation Regional Partnership Council. Data collection methods include interviews with center-based early care and learning program staff, and surveys with parents and caregivers in the region.

The early learning programs identified for this project included: Navajo Head Start Centers; tribally-operated child care centers (managed through the Navajo Nation Child Care Development Fund); Family and Child Education (FACE) programs; school-based preschool programs; and church-based and other private provider programs (to the extent that their identification was feasible). Center-based early care and learning programs were identified for in-depth interviews by using purposive sampling to select centers so that they were geographically distributed and roughly proportional to the types of centers in the Navajo Nation Region. Thirty-one centers participated in this project.

Information from parents and caregivers was gathered from in-person surveys using the First Things First Parent and Caregiver Survey. In addition to the survey's core items, this instrument included additional questions aimed at addressing specific areas of interest to the Navajo Nation Regional Partnership Council. This report presents the results of data collected from 290 parents or caregivers. To be eligible for participation, survey respondents had to self-identify as one of the main caregivers of a child birth to 5 years of age and reside within the boundaries of the First Things First Navajo Nation Region (i.e. the Arizona portion of the Navajo Nation).

This project was reviewed and approved by the Navajo Nation Human Research Review Board on September 20, 2016.

Early Learning

The early care and learning system in the Navajo Nation Region is comprised of a variety of center-based and home-based providers. The focus of this report is on center-based programs, including: tribally-operated child care centers managed through the Navajo Nation Child Care Development Fund; Navajo Head Start Centers; Family and Child Education (FACE) programs; school-based preschool programs; and one private, church-based program.

Housed under the Navajo Nation Division of Social Services, the Navajo Nation Child Care Development Fund (CCDF) provides child care services for parents and families who are working toward self-sufficiency. Six CCDF centers were selected for, and participated in an interview for this project.

Navajo Head Start provides services to children 3 to 5 years old, and comprises 109 program sites across four Head Start Regions: (1) Chinle Region, (2) Tuba City Region, (3) Fort Defiance Region, and (4) Crownpoint/Shiprock Region (predominantly serving New Mexico communities). Early Head Start services cater to pregnant women and infants and toddlers between the ages of birth to 36 months. Head Start staff representing 16 centers participated in this project via a group interview.

Funded by the Bureau of Indian Education (BIE), Family and Child Education (FACE) is an early childhood and parental involvement program for American Indian families at BIE-funded schools. Two FACE programs participated in the interview process.

Nine preschool programs affiliated with an Arizona Department of Education public schools participated in an interview.

Only one preschool affiliated with a private, church-based school was available within the boundaries of the First Things First Navajo Nation Region. Staff from this preschool program also participated in an interview for this project.

Parents and caregivers who participated in the survey provided information on whether their children attended a center-based early care and learning program (CBECLP). They also indicated the specific type of center that their children were enrolled in. Over half of survey participants (n=174, 60%) reported that their children were not enrolled in a center-based program. Among parents who indicated having at least one child in a CBECLP (n=116), the majority had children enrolled in Head Start or Early Head Start (n=47, 41%), FACE (n=36, 31%) or a school-based preschool program (n=25, 22%). Staff from center-based early care and learning programs (CBELPs) that participated in interviews indicated that there was limited to no awareness among parents/caregivers about the existence of early childhood programs in their area. Center interviewees also pinpointed two primary barriers that impede children's access to CBELPs in their area: lack of family transportation and lengthy enrollment waiting lists. In addition, interviewees also identified additional major barriers including; income-based eligibility restrictions, staffing issues (i.e. staff shortages, non-certified staff, and long-vacant positions), the distance to early learning centers, challenging road conditions in some parts of the Nation, parental difficulty with the enrollment process and obtaining the documents required by the CBELPs, operating hours for some CBELPs, and that some parents think of CBELPs as a "babysitting" option to be used as needed, and not a place of learning where consistency in the child's attendance is necessary.

Child Health

Respondents to the Parent and Caregiver Survey were asked questions about their children's health and health-related resources. Almost half of respondents (49%) reported that their children had delayed or not received at least one type of needed care during the previous 12 months. Dental care (28%) and medical care (25%) were the types of care most frequently delayed or not received. Parents and caregivers said they typically receive health care for their children at the health facility nearest their community, which in large part were Tuba City Regional Health Care Corporation, Tsehootsooi Medical Center, and Winslow Indian Health Care Center (most likely these health care facilities were mentioned because these were locations in which a large proportion of the surveys were conducted.) With regards to dental care, parents and caregivers said they typically receive dental care for their child(ren) at Tuba City Regional Health Care Corporation (TCRHCC), Tsehootsooi Medical Center (TMC), Winslow Indian Health Care Center (WIHCC), and Chinle Comprehensive Health Care Facility (CCHCF).

The majority (62%) of parents and caregivers responding to the survey indicated they regularly get information about young children's development and health or about events for families of young children. Respondents indicated they would most like to get this information through word of mouth (47%), via a phone call (41%) or text message (38%), or through a flyer or Facebook (34% and 33% respectively). A higher proportion of respondents under the age of 40 indicated a preference for Facebook or Email as a means to receive information about children's health and development compared to those ages 40 and older. Higher percentages of respondents ages 40 and older prefer phone calls, and they had a stronger preference for word of mouth, compared to respondents under the age of 40. This suggests that different approaches to providing information may be needed to assure that information gets to parents and to grandparents raising their grandchildren.

Approximately half of all centers interviewed reported being required to provide parents and caregivers with information on topics relating to children's development and health. Centers shared health-related information with parents and caregivers using a variety of communication methods however, the majority of centers described face-to-face, verbal communication with parents and caregivers as the best method for sharing information. This corresponds with the results of the Parent and Caregiver Survey that reflects that word of mouth is the preferred means of communication about these issues. More than half of all centers felt that parents and caregivers were receptive or showed interest in the information provided to them. When parents and caregivers indicated that their child was enrolled in a center-based early care and learning programs (CBECLP), they were asked whether the CBECLP provided them with information on children's health and development, such as nutrition, oral health and immunizations. The vast majority (94%) of participants indicated that they did receive this type of information from the CBECLPs, and that the information was helpful.

Respondents to the Parent and Caregiver Survey were asked to report how worried they were about their child regarding a number of developmental indicators. Over two-thirds of respondents were "not at all worried" about any of these indicators. Parents and caregivers were most worried about how well their child behaves (5% worried a lot; 23% worried a little); gets along with others (4% worried a lot; 18% worried a little); talks and makes speech sounds (9% worried a lot; 12% worried a little);, and understands what they say (6% worried a lot; 11% worried a little).

Staff from center-based early care and learning programs interviewed for this project were also asked about specific child health and development education and services provided to enrolled children and their families. Interviewees were asked about the areas of particular interest to the Navajo Nation First Things First Regional Partnership Council: nutrition, oral health, immunizations, socio-emotional development, and developmental milestones/developmental delays.

The vast majority of centers indicated that they currently provide some type of nutritional education service to either the children enrolled, their parents and caregivers, or both. These services are offered directly by the staff with the center, or by an outside entity with which they partner. All of the CBECLPs that participated in this project reported having some type of oral health service provided to enrolled children. About half indicated that they receive services through the Navajo Nation First Things First oral health strategy grantee, Navajo County Public Health Services District, and their sub-grantee Coconino County Public Health Services District. Staff indicated that up-to-date immunizations are a requirement for enrollment in their centers, and children must show proof of immunization prior to enrolling. The vast majority of the centers provide no specific education or services in this area.

All but three of centers reported that they offer services in the area of early childhood socio-emotional development. About half of the centers indicated that their child care providers had received some type of training in socio-emotional development, or that the topic had been incorporated into their curriculum or lessons plan. Centers also partner with outside entities to provide support to children and their families around socio-emotional development. These agencies included: First Things First-funded Mental Health Consultation services, Indian Health Services, and the Navajo Nation Early Intervention Program Growing in Beauty.

When asked about services and education provided in the area of developmental milestones and developmental delays, the responses from participating CBECLPs were similar to those described for socio-emotional development. There are some similarities in the kind of support available for children and their families based on the type of system each center belongs to. Staff at CCDF centers referenced training that child care providers receive on healthy development as the main resource available for families. At the same time staff from half of the participating CCDF centers highlighted the limitations they experience when serving children with special needs, which included lack of in-depth training among child care providers to offer adequate services to this population and the inability to make

appropriate referrals to outside agencies for additional services. At FACE centers, parents receive information on developmental milestones as part of the parent education component of the program. Head Start centers conduct comprehensive assessments of the children enrolled and have formal partnerships with local school districts. All of the school-based preschool programs mentioned being aware of, or actually partnering with other entities to refer children for further assessment or services or to get children referred to them (in the case of the special needs specialist being housed at the center's school). Over half of them explicitly mentioned conducting assessments of children to identify possible developmental delays.

Family Support and Literacy

The Parent and Caregiver Survey included items assessing knowledge of the importance of early childhood experiences, and the timing of developmental milestones and early abilities. The survey also asked questions aimed at assessing parents' and caregivers' involvement in behaviors known to contribute positively to healthy development such as reading and singing to the child. A majority of survey respondents understand the importance of brain development during the early months of life: over half of respondents (56%) acknowledged that parents can substantially affect children's brain development at or before birth. However, a large portion of survey respondents (32%) also believed this impact was only possible later, from the first six months (16%) to a year or older (15%). Twenty percent of older respondents (ages 40 and up) believed that the impact on brain development starts after a child's first birthday; only 13 percent of younger respondents believed this.

When asked at what age an infant or young child begins to take in and react to their surroundings, less than one-third of respondents (31%) recognized that this occurs in the first month of life. More than (32%) believe that children do not respond to their environment until one year of age or later. Another third (33%) believe that children begin to react to their environment between two and 11 months of age. This suggests that a majority of Navajo Nation parents and caregivers responding to the survey do not fully understand the importance of a child's very early interactive experiences with his or her environment for healthy development.

Just under one-third of Parent and Caregiver Survey respondents (32%) understood that infants in their first month of life sense and respond to parents' moods. In contrast, more respondents (38%) believed that children sense and react to parent emotions only after they reach one year of age or older; two in 10 (20%) believed this did not occur until a child reached the age of three.

Fewer than half of survey respondents (45%) understood, definitely or probably, that children's capacity to learn is not set at birth. The majority (54%) believed that children's abilities are, or might be, fixed at birth and cannot be impacted by how parents interact with a child.

Results from the Parent and Caregiver Survey suggest that only 13 percent of respondents understood that television is definitely not a substitute for the give and take of real conversation, with an additional 17 percent indicating this was probably the case. Twenty-eight percent of the respondents reported that someone in the home read to their child six or seven days in the week prior to the survey. A smaller fraction (23%) reported that their child was not read to, or only once or twice during the week. In comparison, telling stories or singing songs was more frequent than reading. Almost half (47%) of the children are hearing stories or songs almost daily, and 85 percent of children are hearing stories or songs at least three days per week. Almost all respondents (98%) indicated strong (93%) or partial agreement (5%) with the statement, "I feel I am able to support my child's safety, health and well-being". Ninety-

eight percent of respondents strongly (89%) or somewhat agreed (9%) with the statement, "I feel I am able to support my child's learning and ability to think (i.e., cognitive development).

When parents and caregivers were asked what they liked best about raising young children in their community, it was clear that family support, exposure to the Navajo language and culture, quality schools, and small close-knit communities were highly valued. When early learning center staff were asked about the things that are working well in their communities for children aged birth to 5 years, nearly half regarded the availability of early learning programs in their area as a community asset. Efforts to teach Navajo language and culture were also highly regarded, particularly within early learning programs. When centers were asked to identify some community strengths and opportunities existing for parents and caregivers for young children, the top response was the educational information and resources being provided by various community agencies on topics such as parenting, child development and milestones, healthy brain development, family strengthening, health promotion, and family involvement.

When asked about some of the toughest things about raising young children in their community, parents and caregivers were most concerned with the lack of child care options in their area; substance abuse (primarily alcohol and drugs); challenges with traveling on unpaved roads; having to drive far distances to perform a variety of activities (for more rural communities); having very limited to no activities for children in the community outside of school hours; not having accessibility to schools or educational learning programs; and not having reliable transportation.

System Coordination among Early Childhood Programs and Services

Interviewees thought one of the best ways to improve coordination and collaboration across the early learning system is to improve the frequency of communication among early learning program providers and stakeholders. Improving communication flow from program managers to program staff and developing more efficient ways of information sharing (such as the utilization of videoconferencing) within programs were identified as ways of improving communication. Increasing collaborative efforts with other early learning programs and service providers in the area was also looked upon favorably by many interviewees. In addition, some interviewees thought more opportunities for co-training and professional development with other programs across the early learning system would be beneficial, as would increased program funding and seeking external grant funding.

INTRODUCTION

This report supplements information found in the First Things First 2018 Navajo Nation Regional Needs and Assets Report. It provides findings from additional data collected in response to the following priority questions identified by the Navajo Nation Regional Partnership Council:

- What early childhood development and health services are center-based early care and learning programs providing to parents?
- How are center-based early care and learning programs engaging parents and providing information to them about early childhood development and health?
- How are center-based early care and learning programs collaborating with other agencies to provide health and development-related information and services to families?
- What are the challenges to participating in center-based early learning programs that families face?
- What levels of information do parents already have about early childhood development?
- What are parents' and caregivers' self-perception of their competence and confidence to support their children's health development?

The project was implemented by the Community Research, Evaluation and Development team (CRED), part of the John and Doris Norton School of Family and Consumer Sciences at the University of Arizona. In consultation with the Regional Council, we used two approaches to collect this information: surveys and interviews with staff from center-based early care and learning programs (CBECLPs), and surveys of parents and caregivers of young children (birth to five) in the Navajo Nation region.

Center-based early care and learning programs (CBECLPs) were selected to be geographically dispersed and proportional to types of centers across the region. The early learning programs identified for this project included: Navajo Nation Head Start Centers; tribally-operated child care centers (managed through the Navajo Nation Child Care Development Fund); Family and Child Education (FACE) programs; school-based preschool programs; and church-based and other private provider programs (to the extent that their identification was feasible). The interview guide used to collect data from CBECLPs is included in Appendix C.

Information from parents and caregivers was gathered from in-person surveys. The surveys used were based on the First Things First Parent and Caregiver Survey. First Things First developed the Parent and Caregiver Survey for use in tribal regions, adapted from their 2012 Parent and Community Survey, which had been used to gather data by phone on similar topics across the state. In addition to the core Parent and Caregiver Survey items, a number of additional questions were included to address specific areas of interest to the Navajo Nation Regional Partnership Council. These items were developed in close collaboration with the Navajo Nation Regional Partnership Council and the Regional Director. The final version of the instrument is included in Appendix D.

This project was reviewed and approved by the Navajo Nation Human Research Review Board on September 20, 2016.

The overall structure of this report broadly follows that of the First Things First Navajo Nation Regional Partnership Council 2018 Needs and Assets Report; it is intended as an addendum to complement and expand on that report; therefore, references are made to the Needs and Asset Report where applicable.

METHODOLOGY

Center-Based Early Care and Learning Interviews

A sampling plan, identifying which center-based early care and learning programs (CBELPs) would be approached for participation, was developed in collaboration with the Regional Council and the Regional Director. An initial list of the various CBELPs that comprise the early learning system in the Navajo Nation Region was compiled at the beginning of this project. As of 8/9/2016, a total of 91 CBELPs were identified within the Navajo Nation Region boundaries, broken out across agencies as shown in the table below:

Table 1. Types and Number of Center-Based Early Learning Programs Identified by Agency (Arizona only)

Geography	CCDF	FACE	Head Start	Public School	Private/ Faith Based	Total (% of Total from each agency)
Navajo Nation Region (AZ)	13 (14%)	7 (8%)	58 (64%)	12 (13%)	1 (1%)	91 (100%)
Chinle Agency	9	2	21	3	0	35 (38%)
Ft Defiance Agency	2	2	20	3	1	28 (31%)
Northern Agency	1	1	3	1	0	6 (7%)
Western Agency	1	2	14	5	0	22 (24%)

Note. CCDF = Child Care Development Fund; FACE = Family and Child Education.

Regional Council members reviewed and provided feedback on the list at their meeting on 8/9/2016, to assure that it was complete and accurate. The list was further refined as part of the Regional Needs and Assets Base Report process, and the final list of CBELPs identified within the region is included as part of that report.

A subset of CBELPs were identified for in-depth interviews by using purposive sampling to select centers that were geographically distributed and roughly proportional to the types of centers in the Navajo Nation region (see Table 2). Public schools were over-represented in the sampling plan because at least one public school from each district was included. The initial plan was presented to the Regional Partnership Council at their 8/9/2016 meeting. Based on their feedback, the plan was modified to assure that: 1) centers experiencing long-term closure were not included in the sampling plan; 2) centers providing services to infants and toddlers were included in the plan; and 3) there was an adequate mixture of centers that are fully- and partially-staffed. These suggestions ensured the data collected would be useful to the Regional Council. Based on these community discussions and logic, we identified the following number of centers by agency and type:

Table 2. Types and Number of Center-Based Early Learning Programs Identified by Agency (Arizona only) for sample

Geography	CCDF	FACE	Head Start	Public School	Private/Faith Based	Total (% of Total from each agency)
Navajo Nation Region (AZ)	6 (18%)	4 (12%)	13 (39%)	9 (27%)	1 (3%)	33
Chinle Agency	3	1	4	1	0	9 (27%)
Ft Defiance Agency	2	1	4	2	1	10 (30%)
Northern Agency	0	1	1	1	0	3 (9%)
Western Agency	1	1	4	5	0	11 (33%)

The list of CBELPs selected for interviews is included in Appendix A.

Thirty of the 33 CBELPs that were selected agreed to participate in this project, a 94 percent participation rate.[1] A full list of participating centers is included in Appendix B.

Following the recommendation of the Navajo Head Start (NHS) program leadership, a group interview was conducted with staff from all the NHS centers selected in the sampling plan. Thus, in most tables, figures and the overall text of the report we will refer to "Head Start Centers" or just "Head Start" as one collective entity.

Interviews were conducted both in-person and over the phone. All participants that indicated a preference for a face-to-face meeting were interviewed in person.

Depending on the type of early learning center (i.e. Navajo Head Start, CCDF, FACE, public preschool, and private preschool), different levels of leadership were initially contacted by email or telephone and provided with information about the project to decide which early learning center staff would be best suited to participate in an interview. Center leaders were emailed a copy of the interview guide and informed consent. For CCDF centers, the central program manager was contacted and she preferred the regional program supervisors identify interview participants. At the recommendation of the national FACE program manager, principals for BIE schools, in which FACE programs operate, were contacted. Later, FACE program coordinators or teachers were directly contacted as a secondary approach. For public preschools, superintendents were initially contacted and then school principals were contacted. For the private preschool, the principal was contacted. As described above, Navajo Head Start administrative leadership arranged a group interview, which was their preferred approach.

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[1] *The current project includes interviews as a qualitative descriptive study to help place the findings of the quantitative results in context. Although there are not stringent guidelines for identifying the appropriate number of interviews to conduct, qualitative research scholars have typically identified roughly 20-30 subjects as a medium-sized subject pool appropriate for projects of moderate scope using inductive approaches to generate new insights. (For overviews and reviews, see, for example, Guest, g., Bunce, A., Johnson, L. (2006). How many interviews are enough? An Experiment with data saturation and variability. Field Methods, 18, 59-82; Curry, L.A., Nembhard, I.M. & Bradley, E.M. (2009). Qualitative and mixed methods provide unique contributions to outcomes research. Circulation. 119, 1442-1452; and Marshall, B., Cardon, P., Poddar, A., and Fontenot, R. (2013). Does sample size matter in qualitative research?: A review of qualitative interviews in IS research. Journal of Computer Information Systems, 11-22). Based on these guidelines, and the resources available for the project to allow for in-person data collection, 33 centers were selected. .*

The Navajo Nation Human Research Review Board-approved consent form was explained to each individual participating in the interview and each signed it. Each participant was provided a duffle bag as a token of appreciation for their participation. The First Things First Navajo Nation Regional Partnership Council provided informational materials and children's books that were included in each of the bags.

The final list of centers that participated in the interview process is included in Appendix B.

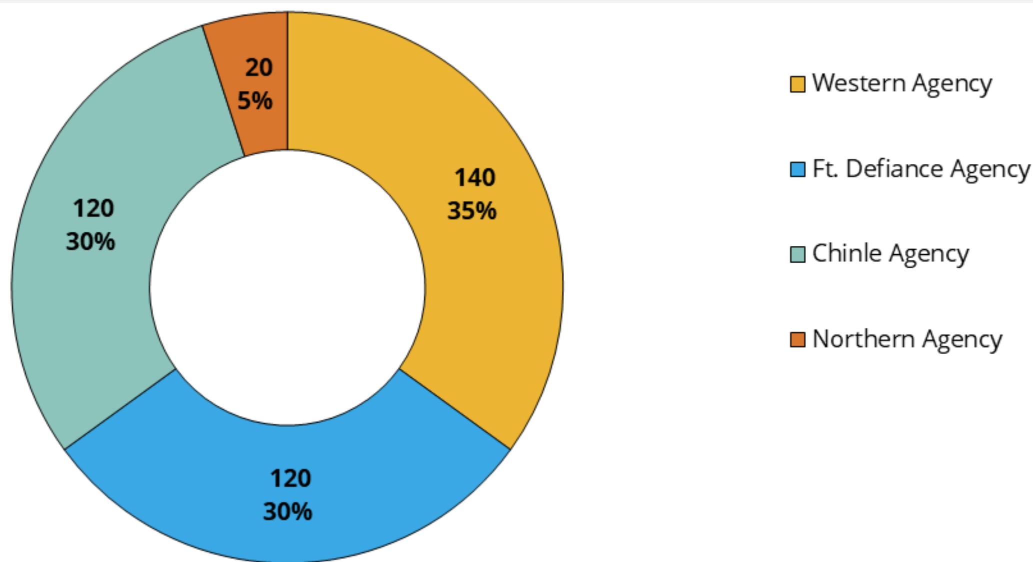
Parent and Caregiver Survey

Targeted Sample

The target number of participants, 400 across the Navajo Nation Region, was selected to be able to provide a reasonably tight estimate of the expected proportion (+/- 5%) of the region's families who are likely to respond to the items in a similar fashion. In consultation with the First Things First Navajo Nation Regional Partnership Council, the decision was made to attempt to sample parents and caregivers at a rate roughly proportional to the number of households with children ages birth to five residing in Arizona in each agency. Although the population of children ages birth to five is similar across the Navajo Nation agencies, fewer than 20 percent of the young children in the Northern Agency (544 of the 3,223) reside in the Navajo Nation Region (Arizona) portion of the Navajo Nation (see Table 3); therefore, the targeted sample from the Northern Agency was considerable smaller than the others.

The targeted sample size by agency was:

Figure 1. Target Sample Size by Agency



It is important to recognize that, although results are shown at the agency level for informational purposes, the sampling plan was developed to provide population estimates at the Navajo Nation Region level. That is, any differences by agency should not be over-interpreted as being reliable differences, but rather a snapshot of those who were surveyed in those areas, which can be incorporated into local knowledge about the agencies.

Table 3. Population of Young Children (Ages 0 to 5) in the 2010 Census

	Ages 0-5	Age 0	Age 1	Age 2	Age 3	Age 4	Age 5
Navajo Nation Region	**10,894**	**1,800**	**1,736**	**1,811**	**1,849**	**1,812**	**1,886**
Navajo Nation (New Mexico part)	6,712	1,078	1,092	1,074	1,205	1,112	1,151
Navajo Nation (Utah part)	729	127	117	128	124	102	131
Navajo Nation (entire)	18,335	3,005	2,945	3,013	3,178	3,026	3,168
Chinle Agency	3,134	545	481	519	531	549	509
Eastern Agency	3,361	551	543	545	594	540	588
Fort Defiance Agency	4,452	692	728	716	794	737	785
Northern Agency	3,223	521	526	514	562	541	559
Western Agency	4,165	696	667	719	697	659	727
All Arizona Reservations	20,511	3,390	3,347	3,443	3,451	3,430	3,450
ARIZONA	546,609	87,557	89,746	93,216	93,880	91,316	90,894

Source: U.S. Census Bureau (2010). 2010 Decennial Census, SF 1, Table P14

Possible venues and events for data collection were discussed with the Regional Director and Regional Council. Due to the timing of the data collection (December 2016 to March 2017), and the likelihood of inclement weather that time of year, it was determined indoor settings would be the most appropriate. Waiting rooms at health care facilities used by families with young children in the region were identified as the most suitable and accessible venues to reach a cross-section of families from diverse backgrounds. With support from the First Things First Navajo Nation Regional Director, three hospitals were approached to request permission to conduct surveys: Tuba City Regional Health Care Center, Tsehootsooi Medical Center, and Winslow Regional Health Care Center. Each of these facilities is tribally-operated by the Navajo Nation. Permission was granted by all hospitals through resolutions of support by the respective health boards, and all surveys from the Western and Ft. Defiance Agencies were conducted at these venues.

No health care facilities were approached in either the Chinle or Northern Agencies as there were no tribally-operated facilities. Surveys from parents and caregivers in these agencies were collected at the Navajo Nation Women, Infants, and Children (WIC) offices in Chinle and Pinon with permission from the Navajo Nation WIC leadership. Data were also collected at the T'iis Nazbas Community School and the Chinle and Shiprock flea markets. Because the goal was to reach a diverse sample of families across the Navajo Nation Region, although there may be differences in the characteristics of parents and caregivers who are approached at WIC offices and those who attend flea markets and clinics, this was seen as contributing to the overall robustness of the data for the Navajo Nation region. However, as noted above, it does mean that differences seen between agencies may be for a number of

reasons, including differences in the types of people who responded, and therefore should not be over-interpreted outside of the context of local knowledge.

Interviewers

Interviews were conducted by a team of interviewers, both of whom were members of the Navajo Nation. The lead interviewer, an experienced qualitative researcher with a master's degree in public health, participated in an in-person training with CRED staff who had conducted First Things First Parent and Caregiver Surveys in six other Arizona tribal regions. The lead interviewer provided training to the other local interviewer; who was also an experienced qualitative researcher and fluent in the Navajo language. The lead interviewer participated in weekly debriefing sessions with CRED staff to discuss progress and any obstacles to the study.

Depending on the preference of the participant, the surveys were either administered by one of the interviewers, or were completed by the parent with the assistance of the trained interviewer, who was available to answer questions at all times. All survey items were in the English language only. However, the interviewer who was fluent in the Navajo language was available to assist any participants who required translation from English to Navajo. No surveys were completely conducted in Navajo, but the interviewer occasionally assisted participants with clarifying some terms and translating them into the Navajo language.

Participants

Any individual who self-identified as one of the main caregivers of a child birth to 5 years of age and resided within the boundaries of the First Things First Navajo Nation Region (i.e. the Arizona portion of the Navajo Nation) was eligible to participate in the survey. Only one parent/caregiver per household was eligible to participate, to the extent that the interviewer may be able to determine household composition (e.g. if several members of a household were approached by the interviewer at once and this became clear to the interviewer, the interviewer indicated that only one person per household could participate in the survey. The interviewer did not make any additional explicit efforts to screen out possible members of the same household).

The Navajo Nation Human Research Review Board-approved consent form was explained to and signed by each parent or caregiver before completing a survey. Each participant received a duffle bag as a token of appreciation for participating in the study. The First Things First Navajo Nation Regional Partnership Council provided informational materials and children's books that were included in each of the bags.

In total, 291 parents or caregivers completed the Parent and Caregiver Survey. During the process of preparing the data for analysis, one participant was excluded from the analyses as this individual indicated Flagstaff as the place of residence and provided no additional information to assume a secondary residence within the Navajo Nation region. Thus, the tables and figures presented in this report are based on the data provided by 290 survey participants. As mentioned under *Target Sample*, the initial target was 400 parents or caregivers residing within the boundaries of the First Things First Navajo Nation Region (to achieve a response estimate at +/- 5%). The achieved sample size of 290 allows for a precision of estimate of proportions of +/- 6 percent at the Navajo Nation region level, with a 95 percent confidence level.

The fact that no health care facilities were approached to survey parents and caregivers in the Chinle Agency had a strong impact on the number of surveys that were collected from this agency. Multiple attempts were made at surveying parents and caregivers at the venues described above, but the number of potential survey participants at these venues did not compare to that in the hospitals. The final number of surveys from the Chinle Region (27) was much smaller than the original target number (120). However, the number of participants from both the Ft. Defiance

and Western Agencies (110 and 123, respectively) was closer to the target numbers of these agencies (120 and 140, respectively) (see Table 4 below).

Because of the small number of participants from the Chinle Agency and the Northern Agency, the survey results are less likely to be a reliable snapshot of families in those agencies if reported separately. Therefore, in consultation with the First Things First Regional Director, it was determined that responses from parents and caregivers in these agencies would be combined for presentation throughout this report. The geographic proximity of the two regions and the fact that residents are likely to access services from the same providers supports the decision to combine the responses from participants in these two agencies, which are shown as Chinle + Northern Agencies. A small number of respondents (n=16 or 5.5%) did not provide enough information to be assigned to a specific agency (Table 4).

Table 4. Survey Participants by Agency

	Number of Respondents	Percent
Agency		
Chinle	32	11.0%
Ft. Defiance	111	38.3%
Northern	15	5.2%
Western	116	40.0%
No Agency Determined	16	5.5%

Participant Characteristics

Table 5 on the following pages show characteristics of those who responded to the Parent and Caregiver Survey. Most respondents to the survey had a paid job (55.5%), were married (32.1%) or living with a partner (32.4%), had a high school diploma or GED (35.5%) or had some college (32.8%), and had a household income of less than $10,000 (46.2%). Most respondents were females (79%) and identified as Native American/American Indian (96.2%) or Native America/American Indian and another race (2.8%). Respondents to the survey tended to be younger than 40, with most falling between the ages of 30 and 39 (31.4%), 25 and 29 (20.7%) or 17 and 24 (17.2%). Although respondents were not explicitly asked about the role in the family, it is more likely that those 40 and younger are parents, and those over 40 are grandparent or other family caregivers.

Figure 2 and Figure 3 below show a comparison of the survey sample and 2010-2014 data from the American Community Survey on the Navajo Nation Region on education and income. Survey respondents reported higher formal educational attainment but lower household income compared to the population in the region as a whole.

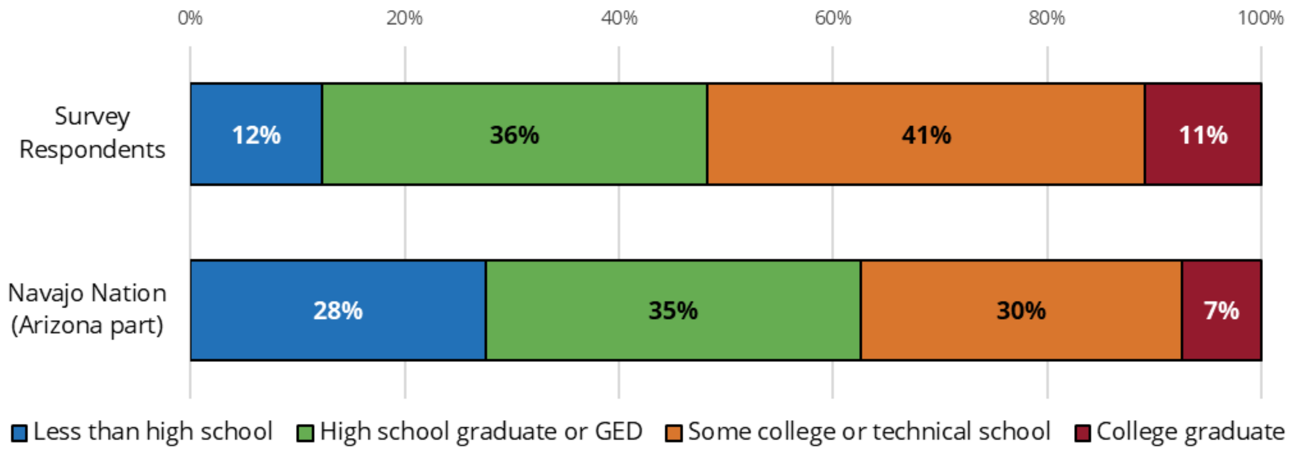
Table 5. Demographic Characteristics of the Respondents

	Number of Respondents	Percent
Do you currently have a paid job?		
Yes	125	43.1%
No	161	55.5%
No Response	4	1.4%
Marital Status		
Married	93	32.1%
Single	85	29.3%
Divorced or Separated	11	3.8%
Widowed	6	2.1%
Living with a partner	94	32.4%
No Response	1	0.3%
Last Grade of School Completed		
Less than High School	30	10.3%
Still in High School	5	1.7%
High School Graduate or GED	103	35.5%
Technical or Vocational School	22	7.6%
Some College	95	32.8%
College Graduate or Postgraduate	31	10.7%
No Response	4	1.4%
Household Income		
Less than $10,000	134	46.2%
$10,000 to $29,999	77	26.6%
$30,000 to $49,999	42	14.5%
$50,000 or More	26	9.0%
No Response	11	3.8%

Table 5. Demographic Characteristics of the Respondents (Continued)

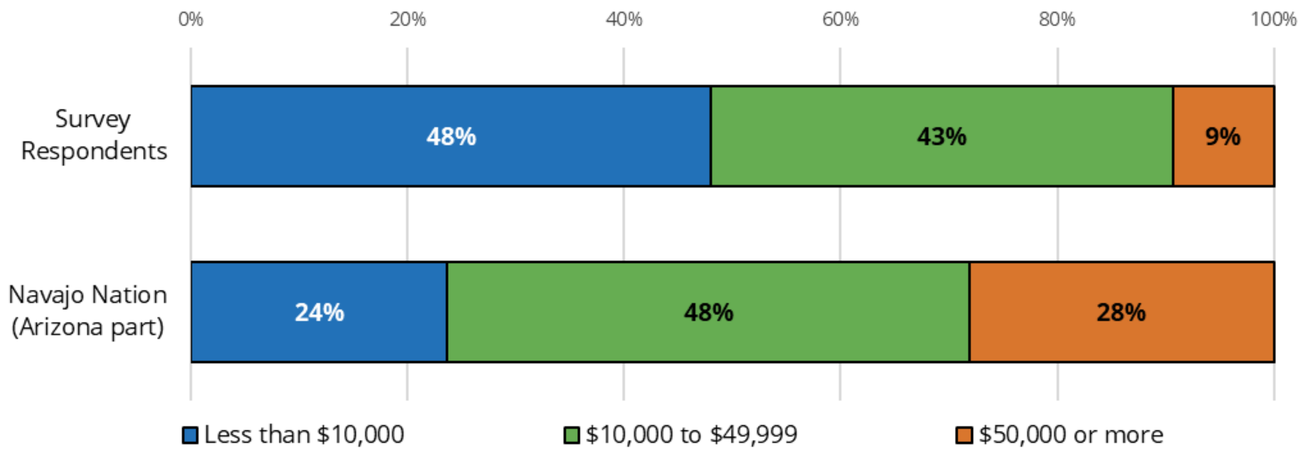
	Number of Respondents	Percent
Gender		
Male	50	17.2%
Female	229	79.0%
No Response	11	3.8%
Race/Ethnicity		
Native American/American Indian	279	96.2%
Native American/American Indian and Another Race	8	2.8%
Hispanic/Latino	1	0.3%
White/European/Anglo	1	0.3%
No Response	1	0.3%
Age		
17 to 24	50	17.2%
25 to 29	60	20.7%
30 to 39	91	31.4%
40 to 49	38	13.1%
50 to 59	23	7.9%
Ages 60 and Older	18	6.2%
No Response	10	3.4%

Figure 2. Comparison of educational attainment for survey respondents and the general population (ages 18 and older)



Source: American Community Survey 2010-2014, Table B15001

Figure 3. Comparison of household income for survey respondents and the general population



Source: American Community Survey 2010-2014, Table S1901

EARLY LEARNING

Center-Based Early Care and Learning Programs

The early care and learning system in the Navajo Nation Region is comprised of a variety of center-based and home-based providers. The focus of this report is on center-based programs (no home-based providers were included).[2]

Navajo Nation Child Care Development Fund

Housed under the Navajo Nation Division of Social Services, the Navajo Nation Child Care Development Fund (CCDF) provides child care services for parents and families who are working toward self-sufficiency. CCDF childcare services are available through tribal child care centers or private providers. CCDF provides child care for children who are 12 years of age and younger, an enrolled member of the Navajo Nation or eligible for enrollment, and residing within the same household as eligible parents or legal guardians.

To qualify for childcare assistance, an eligible parent or legal guardian must reside on or near the Navajo Nation and fulfill one of the following requirements: be employed (includes self-employment); pursue completion of a GED, secondary, or post-secondary certificate or degree; attend a job-training program; participate in a TANF or Workforce Development program; or receive a referral from a Child Protective Services (CPS) agency.

Organizationally, CCDF is comprised of five regions. Chinle Region, Ft. Defiance Region, and Tuba City Region primarily serve Arizona communities. Crownpoint Region and Shiprock Region primarily serve New Mexico communities.

The following centers were selected for, and participated in the interview process: Karigan, Kii Doo Baa I, Little Miss Muffet, Leupp, Many Farms and Tsaile. All of these centers operate Monday to Friday from 7:30 am to 5:30 pm, for a total of 50 hours of service per week. None of these centers provide transportation to children enrolled and all are able to provide services to children with special needs with the exception of the Leupp and Tsaile centers.

Table 7 shows the number of children served by participating CCDF centers at the time of the interview. It is important to note that, according to staff members, enrollment at some of the CCDF centers varies widely, sometimes even from day to day. As one staff member pointed out: "Right now we're over capacity, and on some days they hardly come in." Staff reported that there are children who attend on a day-by-day basis, and their parents pay for each day the child comes into the center. Although children who have been pre-approved through the eligibility process described above have priority for service, the lack of consistency in attendance presents a challenge to some centers when determining the appropriate level of staffing needed for each classroom. In some cases, staff must be moved from one center to the other (within their respective CCDF Region) depending on the center's need on a particular day.

Navajo Nation Head Start and Early Head Start Program

Navajo Head Start administers two programs: Head Start and Early Head Start (EHS). Head Start provides services to children 3 to 5 years old, and comprises 109 program sites across four Head Start Regions: (1) Chinle Region, (2) Tuba City Region, (3) Fort Defiance Region, and (4) Crownpoint/Shiprock Region (predominantly serving New Mexico

[2] *For additional information on the different types of center-based and home-based early care and learning programs on the Navajo Nation Region please see the First Things First Navajo Nation Regional Partnership Council 2018 Needs and Assets Report.*

communities). EHS services cater to pregnant women and infants and toddlers between the ages of birth to 36 months. Three EHS sites are in operation on the Navajo Nation. The two Arizona-based sites are in Fort Defiance and on the Diné College Campus in Tsaile. Both programs offer services through center- and home-based program options. Children must meet age-specific and income eligibility requirements to be enrolled in either program.

According to the information collected during the Head Start group interview, Head Start Centers operate Monday to Friday from 8:00 am to 1:30 pm, for a total of 27.5 service hours per week. Transportation is provided for enrolled children at all centers, and they all have the capacity to serve children with special needs.

Family and Child Education (FACE) Program

Funded by the Bureau of Indian Education (BIE), Family and Child Education (FACE) is an early childhood and parental involvement program for American Indian families at BIE-funded schools. The FACE program goals include: support parents and primary caregivers in their role as their child's first and most influential teacher; strengthen family-school-community connections; increase parent participation in their child's learning and expectations for academic achievement; support and celebrate the cultural and linguistic diversity of each American Indian community served by the program; promote early identification and services to children with special needs; and promote lifelong learning. A focal point of FACE is the integration of Native language and culture in three settings: home, school, and community. Preparing FACE families for smooth transitions for the child from home-based to center-based or to another preschool experience is an important focus of the program.

Typically, FACE programs have a team of five or six staff members, including: a coordinator (who also often serves as the adult education teacher or early childhood teacher), an early childhood teacher and co-teacher, an adult education teacher and two parent educators. FACE has both a center-based and home-based component. The current report focuses only on center-based services.

Two of the four FACE programs selected to participate in this project agreed to an interview: Rough Rock and Tiis Nazbas. Rough Rock FACE operates Monday to Thursday from 8:00 am to 2:00 pm, or 24 service hours per week. The Tiis Nazbas center provides services from 7:30 am to 3:30 pm, a total of 32 hours per week.

Rough Rock FACE has a classroom with a licensed capacity of 20 preschool-age children. However, at the time of the interview only nine children were enrolled (with eight on the waiting list) because of temporary staffing limitations. A common challenge for centers in the region is the ability to find teachers who are certified in early childhood education in the state of Arizona. Finding substitute teachers is often difficult and vacancies typically take a long time to be filled.

Tiis Nazbas FACE had 10 preschoolers enrolled at the time of the interview. The center has a licensed capacity to serve a larger number of children (68 families total). However, challenges related to recruiting staff with credentials in early childhood education similar to those faced by the Rough Rock center have prevented Tiis Nazbas FACE from serving more children. At the time the interview was conducted, the center had eight children on the waiting list. These children, however, were participating in the home-based component of the program; as soon as a center slot becomes available they will be transferred to center-based services.

An advantage of being co-located within an elementary school is that transportation is available to children enrolled in both of these FACE programs as part of the regular school bus route.

Public School Preschool Programs

Nine preschool programs affiliated with an Arizona Department of Education public schools participated in the interview: ABC Preschool; Chinle Elementary School Preschool; COPE Center (Kayenta); Indian Wells Elementary

Preschool; Leupp Preschool; Pinon Elementary School Preschool; Robert Charley Preschool; Tsehootsooi ESS; and Tuba City High School Preschool.

The program hours for school-based programs ranged from 24 per week at Tsehootsooi ESS, to 34 per week at Robert Charley Preschool. However, at some preschool programs the total number of service hours shown on Table 7 represents hours provided in more than one session (e.g. 28 services hours might be one three-hour morning session and one three-hour afternoon session, Monday to Thursday). Also, some programs operate Monday to Thursday or Tuesday to Friday, while others run Monday to Friday.

Similar to the FACE programs, the co-location within a public school facilitates access to school bus transportation. All school-based preschool programs participating in the interview were able to provide transportation to at least some of the children enrolled with the exception of the preschool at Tuba City High School, which did not have a monitor to accompany the preschoolers while they were riding the bus. However, at four of the nine participating school-based preschool programs, transportation was provided only to children with special needs. One of these programs allowed typically-developing children to ride the bus if accompanied by an older sibling. Another one prioritized children with special needs but was able to transport typically developing children when slots were available and the route was not disrupted. And one other center offers transportation services to teen parents but asked them to provide a car seat if there was none on the bus.

All participating school-based preschool programs were able to provide services to children with special needs. Some centers were, in fact, housed at the only public school in their area offering services to children with special needs.

Private School Preschool Programs

Only one preschool affiliated with a private school was available within the boundaries of the First Things First Navajo Nation Region at the time of the interviews and was therefore selected for participation. This program, St. Michaels Indian School Preschool, has been in operation for two years and serves 16 children. At the time the interview was conducted, this preschool did not have a waiting list.

St. Michaels Indian School Preschool provides transportation on a case-by-case basis and only to the CCDF Karigan Child Care Center. This program does not serve children with special needs.

Table 6 summarizes information about the services provided at the centers including hours of service per week, whether they provide transportation to the children enrolled, and whether they are able to serve children with special needs. Table 7 shows, when available, the approximate licensed capacity and enrollment of participating centers. It is important to note that the licensed capacity of the centers is typically higher than the actual center enrollment and that centers do not typically operate at their licensed capacity, often due to staffing shortages. Enrollment numbers might therefore more accurately reflect the true service capacity of the centers.

The map in Figure 4 shows the location of CBECLPs that participated in this project.

Table 6. Participating Center-Based Early Care and Learning Programs

Center	Type	Hours of operation	Hours of service per week	Trans-portation provided	Able to serve children (0-5) with special needs
Karigan CCDF	CCDF child care center	Mon-Fri 7:30am-5:30pm	50	No	Yes
Kii Doo Baa I	CCDF child care center	Mon-Fri 7:30am-5:30pm	50	No	Yes
Little Miss Muffet	CCDF child care center	Mon-Fri 7:30am-5:30pm	50	No	Yes
Leupp CCDF	CCDF child care center	Mon-Fri 7:30am-5:30pm	50	No	No
Many Farms	CCDF child care center	Mon-Fri 7:30am-5:30pm	50	No	Yes
Tsalie CCDF	CCDF child care center	Mon-Fri 7:30am-5:30pm	50	No	No
Navajo Head Start	Early Head Start/Head Start	Mon-Fri 8:00am-1:30pm	28	Yes	Yes
Rough Rock FACE	FACE	Mon-Fri 8:00am-2:00pm	24	Yes	Yes
Tiis Nazbas FACE	FACE	Mon-Fri 7:30am-3:30pm	32	Yes	Yes
St. Michaels Indian School Preschool	Private child care center	Mon-Fri 7:45am-4:00pm	28	Yes	No
ABC Preschool*	School-based preschool	Mon-Thurs 8:00am-11:00am|12:00pm-3:00pm	28	Yes	Yes
Chinle Elementary School	School-based preschool	Mon-Fri 8:30am-2:30pm	30	Yes	Yes
COPE Center (Kayenta)	School-based preschool	Mon-Fri 7:30am-3:30pm	32	Yes	Yes
Indian Wells Elementary*	School-based preschool	Mon-Thurs 7:30am-11:00am|12:00pm-3:15pm	30	Yes	Yes
Leupp Preschool	School-based preschool	Mon-Thurs 8:00am-3:00pm	28	Yes	Yes
Pinon Elementary	School-based preschool	Tues-Thurs 8:00am-3:00pm	28	Yes	Yes
Robert Charley Preschool	School-based preschool	Mon-Thurs 7:30am-4:00om	34	Yes	Yes
Tsehootsoi ESS	School-based preschool	Mon-Fri 8:00am-11:00am|11:45am-2:45pm	24	Yes	Yes
Tuba City High School	School-based preschool	Mon-Fri 7:30am-2:00pm	33	No	Yes

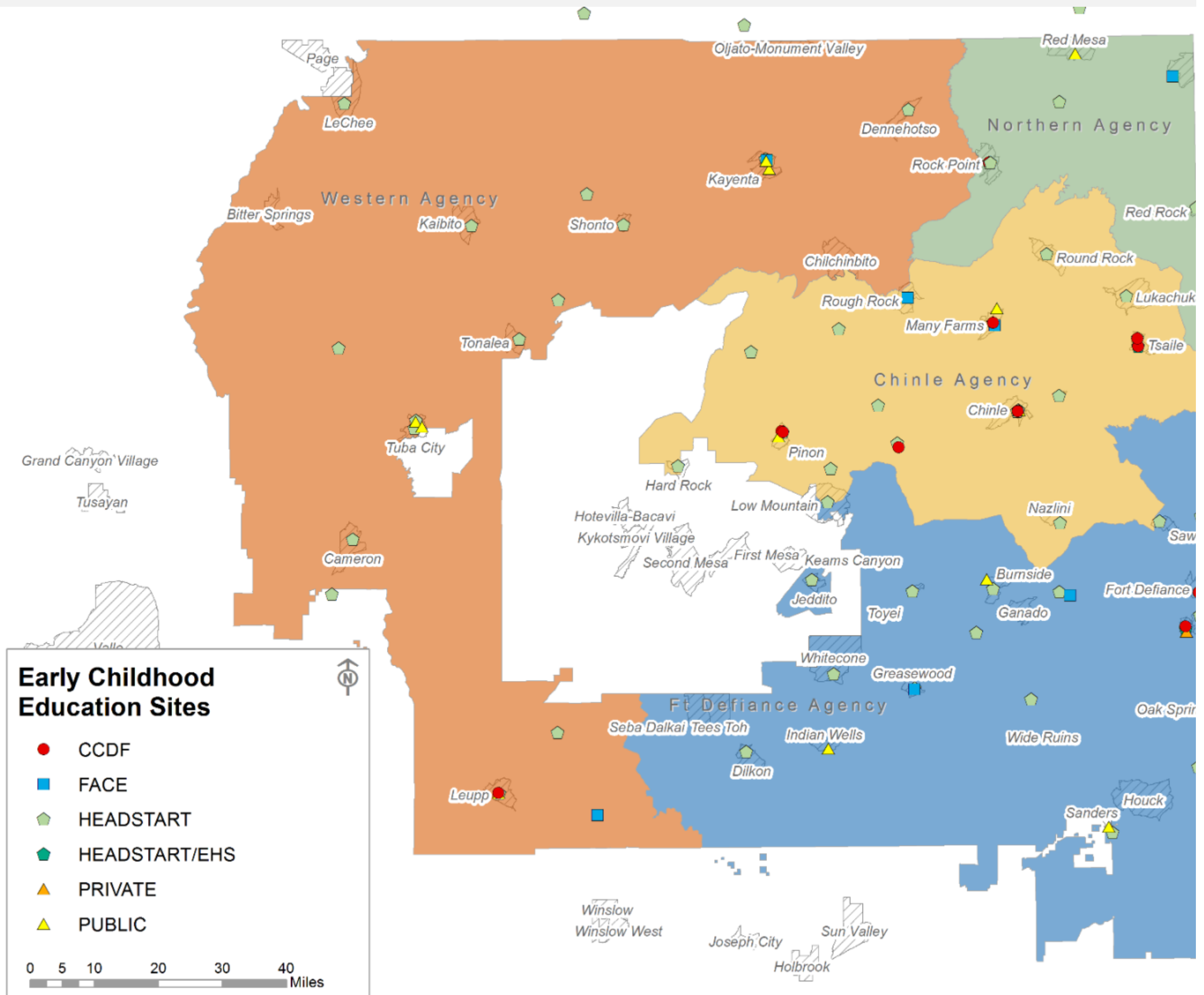
These centers provide services in two sessions of three hours each

Table 7. Approximate Capacity and Enrollment of Participating Center-Based Early Care and Learning Programs

Facility	Licensed or certified capacity for children (0-5)	Number of infants served	Number of toddlers served	Number of preschoolers served	Number of children (0-5) on waiting list
CCDF Child Care Centers					
Karigan CCDF	N/A	0*	20	60	15
Kii Doo Baa I	40	7	7	9	0
Little Miss Muffet	50	7	6	13	6
Leupp CCDF	34	0	4	14	52
Many Farms	27	7	12	0	0
Tsaile CCDF	22	9	6	0	0
Early Head Start/Head Start					
Navajo Head Start**	N/A	N/A	N/A	N/A	N/A
FACE					
Rough Rock FACE	20	Not applicable	Not applicable	9	8
Tiis Nazbas FACE	68	Not applicable	Not applicable	10	8
Private Child Care Center					
St. Michaels Indian School Preschool	16	Not applicable	Not applicable	16	0
School-Based Preschools					
ABC Preschool	180	Not applicable	Not applicable	88	20
Chinle Elementary School	120	Not applicable	Not applicable	101	0
COPE Center (Kayenta)	17	2	4	2	3
Indian Wells Elementary	118	Not applicable	Not applicable	79	7
Leupp Preschool	16	Not applicable	Not applicable	16	52
Pinon Elementary School	34	Not applicable	Not applicable	34	0
Robert Charley Preschool	50	Not applicable	Not applicable	16	4
Tsehootsooi ESS	59	Not applicable	Not applicable	34	15
Tuba City High School	45	Not applicable	Not applicable	15	12

"Not applicable" refers to the center not providing services to children in this age range.
***Please note that the Karigan Center does not provide services to children under the age of one. As of May 2017, the center had 8 one-year old children and 12 two-year old children enrolled.*
***Please note that the Head Start numbers in this table reflect enrollment in the centers in the Arizona part of the Navajo Nation (the FTF Navajo Nation Region)*

Figure 4. Map of participating center-based early care and learning programs



Participation in Center-Based Early Care and Learning Programs

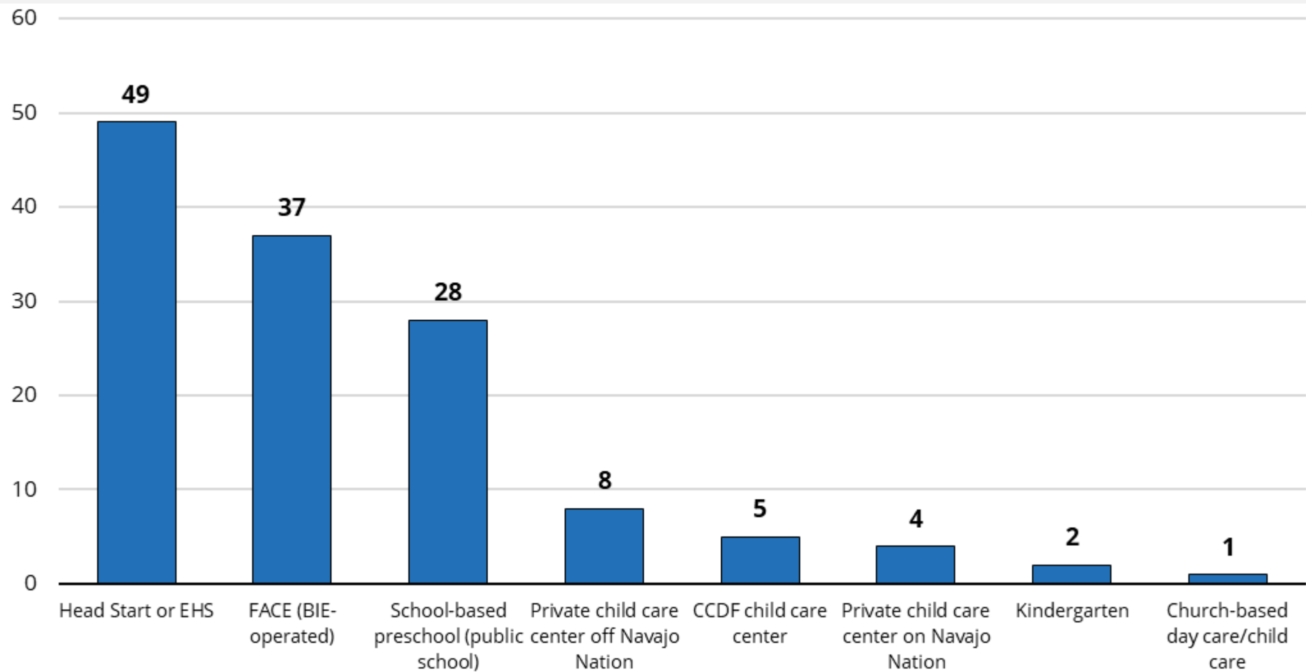
Parents and caregivers who participated in the survey provided information on whether their children attended a center-based early care and learning program (CBECLP). They also indicated the specific type of center that their children were enrolled in. Over half of survey participants (n=176, 61%) reported that their children were not enrolled in a center-based program. Among parents who indicated having at least one child in a CBECLP (n=114), the majority had children enrolled in Head Start or Early Head Start (n=49, 43%), FACE (n=37, 32%) or a school-based preschool program (n=28, 25%) (Figure 5).

Table 8. Participation in center-based early care and learning programs

	Navajo Nation	Chinle+ Northern Agencies	Ft. Defiance Agency	Western Agency	Unassigned
Number of respondents	**290**	**47**	**111**	**116**	**16**
Head Start or EHS	49	4	19	21	5
FACE (BIE-operated)	37	15	13	9	0
School-based preschool (public school)	28	4	14	8	2
Private child care center off Navajo Nation	8	1	3	3	1
CCDF child care center	5	1	2	2	0
Private child care center on Navajo Nation	4	1	1	2	0
Kindergarten	2	1	0	1	0
Church-based day care/child care	1	0	1	0	0
Does not have a child in child care or preschool	176	23	69	75	9

Note: The sum of the entries in each column may add to more than the total in the first row because some respondents had children in more than one type of care

Figure 5. Types of center-based early care and learning programs participants' children are enrolled in



Note: Some respondents reported more than one child in a center-based early care and learning program. If so, they are counted in more than one category here. There were 176 respondents who reported having no children in any early care or learning programs.

Parents and caregivers whose children were not enrolled in a CBECLP were asked why their children were not participating in such programs. Figure 6 below shows the responses to this question. Please note that the percentages do not add to 100 percent because this was a multiple-choice item and parents/caregivers could select all that applied to them.

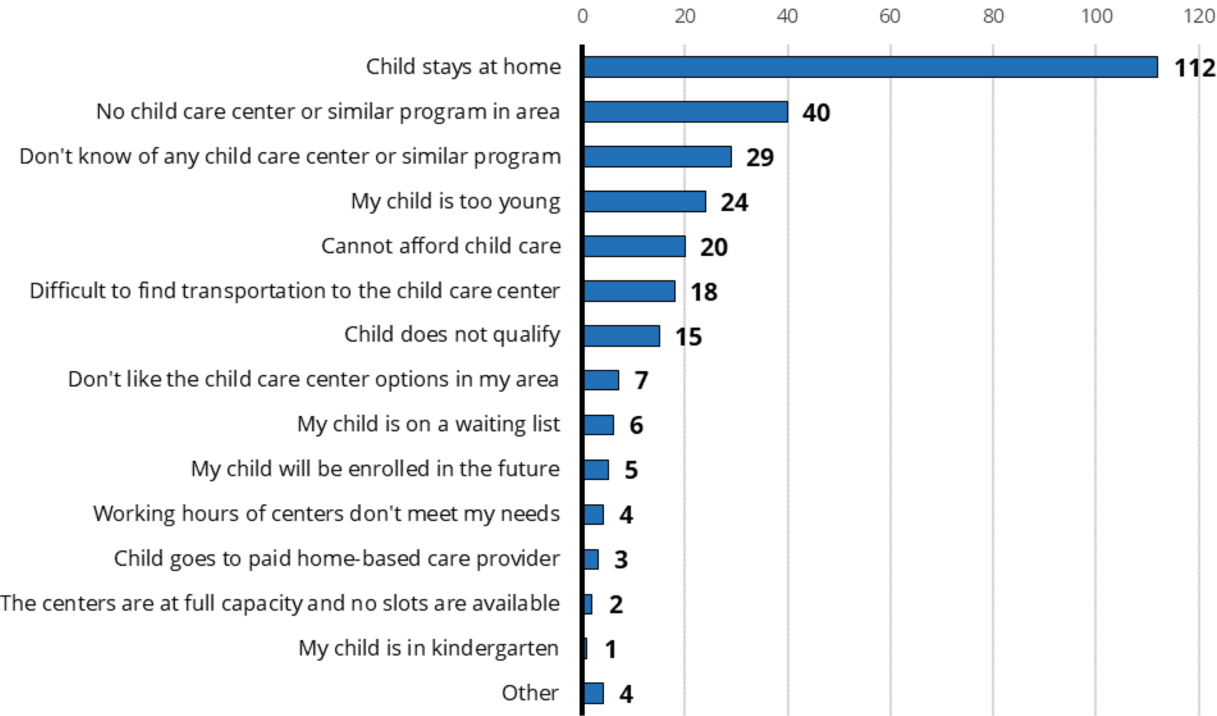
The majority of participants (n=112) reported that their child stayed home with them or with relatives or friends. However, only about one-quarter of those who selected this answer did not provide any other reasons. Most other parents selected a combination that included one or more of the other top five responses such as: "I don't know of any child care center in my area," "There is no child care center or similar program in my area," "I cannot afford to pay for a child care center", and "It is difficult to find transportation to the child care center" (Figure 6). The responses from these parents suggest an actual or perceived lack of child care options within their vicinity. Overall, there were no substantial differences in the parent and caregiver responses based on the agency where they resided: of the 29 parents who said they did not know of any child care centers or similar programs in their area, 14 (or 48%) were from the Ft. Defiance Agency and 12 (or 41%) were from the Western Agency. Among the 40 parents who reported that no child care center or similar program existed in their area, 16 (or 40%) were from the Ft. Defiance Agency and 18 (or 45%) were from the Western Agency.

It is interesting to note a response that was commonly brought up by survey participants in the "Other" category had to do with the perception that their child was too young to be enrolled in child care. All those responses were grouped into the "My child is too young" category shown in the figure below. Data were available on the ages of the children of most participants grouped in the "Too young" category. Ages ranged from three weeks to 3 years old,

with several children being in the toddler years. This suggests that some parents who participated in the survey perceived that a toddler or preschool-aged child might still be too young to be enrolled in a CBECLP.

The fact that most parents and caregivers who reported their children stayed home with them also indicated other reasons why children are not enrolled in a CBECLP, suggests that having their children stay at home may not necessarily be by choice. Access to a CBECLP appears to be a challenge for the majority of participants whose children were not enrolled in one, at the time of completing the survey. Whether it is because of a lack of nearby centers, difficulties paying for the service, securing transportation, working hours that do not meet parent needs, or lack of slots, parent responses suggest a difficulty in accessing this service.

Figure 6. Can you tell us why your child does not attend a child care center or similar early education program? (N=174)



Note: Some respondents gave more than one reason that their child was not in child care. If so, they are counted in more than one category here.

The Parent and Caregiver Survey included a question about the respondent's employment status. Table 9 below shows that of respondents who answered questions on both children's child care status, and job status, those with paid jobs were more likely to have their children enrolled in child care (46%) than those without paid jobs (38%).

Table 9. Participation in center-based early care and learning programs by parent/caregiver employment status

	Number of respondents	Percent of ALL respondents who reported child is in child care	Percent of respondents WITH paid jobs who reported child is in child care	Percent of respondents WITHOUT paid jobs who reported child is in child care
Navajo Nation Region	**282**	**41%**	**46%**	**38%**
Chinle + Northern Agencies	44	55%	71%	44%
Ft. Defiance Agency	109	41%	37%	45%
Western Agency	113	35%	46%	26%
Unassigned	16	44%	43%	44%

Note: Not all survey respondents are included here. Respondents are included only if they reported both (a) whether their child attends a child care facility and (b) whether they have a paid job.

Access to center-based early care and learning programs from the perspective of center staff

Staff from center-based early care and learning programs (CBELPs) who participated in the interviews shared their perspectives on whether children in their area who would benefit from enrolling in CBECLPs were able to access such a program.

Interview participants from more than half of the centers indicated that most children who could benefit from these programs were not accessing them. A common perception among interviewees was that there was limited to no awareness among parents/caregivers about the existence of early childhood programs in their area. Some said this situation remained in spite of advertising efforts made by their program. Families having limited options for early learning programs was also frequently mentioned, especially in relation to recent center closures in more rural communities. Interviewees in approximately one-third of all interviews (n=6), briefly discussed the closure of several Navajo Head Start centers in their area. Respondents stated that they had no actual knowledge on why the centers closed, and could only speculate. It is important to note that, as described above, many parents and caregivers whose children are not enrolled in a CBECLP reported not having, or knowing of any centers in their area. Based on the responses of center staff, the challenge to accessing CBECLP services may lie both on an actual lack of facilities and also on limited awareness among parents of the existing options.

Center interviewees pinpointed two primary barriers that impede children's access to CBELPs in their area: lack of family transportation and lengthy enrollment waiting lists. Waiting lists were often tied to staffing shortages, resulting in centers having to accept a reduced number of children for enrollment to comply with established student-teacher ratios. A teacher from one preschool shared how this can affect families seeking early learning opportunities for their children:

> *Some of these people want to come here, but I'm full for my one class and made a waiting list for my other class. People gave up after a while.*

Regarding the lack of transportation, one CCDF staff member in a rural community talked about the need for more home-based program providers like Baby FACE to increase access to early learning opportunities, especially for families that reside in more remote communities:

I think it's really difficult for some individuals. Not everyone has transportation or lives close to the road. It's a real shame that a lot of parents can't come here or even go to Diné College to get resources to benefit their children. We could offer a lot to a lot of kids if it was local. As far as I know, a lot of parents live 5 to 10 miles from the main road. I think that would be difficult for them to access these programs. Baby FACE – I don't know if they still offer this. They are one of the only programs that would travel to parents' house. People live scattered out in the area. It would be beneficial if there were more home-based providers like this program.

As described above, many CBECLPs do not provide transportation at all, and others offer this service only to children with special needs, or to those with older siblings who can ride with them. The ability of CBECLPs to offer transportation to all children enrolled is also hampered by the challenges involved in recruiting and retaining bus drivers. As noted by staff from two school-based preschool programs:

It is a geographical challenge because we don't live in neighborhoods so transportation is a challenge. It would be ideal if the preschool program had its own drivers and routes, but we have to work with this next best option. We strive to not have kids on the bus for longer than 45 minutes. Right now, we are not honoring this. The school's transportation department is experiencing a shortage of bus drivers and the bus ride is an hour and 15 minutes. The monitor is helpful to meet challenges with seat belt buckles and behavioral redirection. We need another one, this would be helpful.

Yes, transportation is a limitation to enrollment. We would service more kids, especially for those living a far distance away from our center. We would need more drivers and bus monitors.

Head Start staff added:

It is hard to get applicants for the bus driver positions because these positions ask for applicants to hold higher credentials and meet certain requirements such as physical exams and drug tests. It's difficult to find qualified people. The public schools are also in need of drivers, and often they can offer more competitive pay than Head Start can. Head Start centers have lost bus drivers to public schools that offer higher pay. Bus drivers for Head Start have extra duties, as opposed to other schools (i.e. public) where their only duty is to drive. Head Start bus driver duties include helping with classroom management, helping to implement lesson plans, and janitorial and cooking duties.

Two interviewees mentioned another barrier imposed by income-based eligibility requirements for some CBELPs, which disproportionately affects families not identified as low-income. Since the majority of early learning programs in the Navajo Nation region are dedicated to low-income families, families with incomes over established income thresholds often do not qualify to receive child care services at the center. And because interviewees said there are little to no private child care centers in the region, children from higher-income families were perceived to be at a disadvantage. Fifteen (or 9%) of parents and caregivers whose children were not enrolled in a CBECLP reported that their child does not qualify for services. It is not clear, however, if this was due to the family income surpassing the threshold for service eligibility.

Barriers to accessing center-based early care and learning programs

In addition to previously mentioned barriers (i.e. limited awareness of available early learning programs, limited options for early learning programs, lack of reliable transportation, waiting lists and income-based eligibility restrictions), interviewees also identified six additional major barriers.

First, staffing issues (i.e. staff shortages, non-certified staff, and long-vacant positions) were identified as an access barrier by five interviewees who added that as a result of these issues their programs were forced to limit student enrollment to numbers far below maximum capacity levels.

Second, the distance to early learning centers from certain family homes imposed challenges, as stated by three interviewees, particularly in very rural areas. A staff member from one public preschool considered her community to be in a rural area and described driving as a "big burden" for most.

Third, challenging road conditions (i.e. muddy and impassable conditions brought about by wet weather events such as rain or snow) in some parts of the Nation were identified by three interviewees as a potential barrier for some families. One interviewee noted:

> *Some people only have one vehicle. In some areas, you need a truck, and sometimes [the] road conditions [pose challenges].*

Fourth, at least three interviewees perceived that parents and caregivers often struggle with the enrollment process and obtaining the documents required by the CBELPs (e.g. visiting vital records offices to obtain child records or having to update immunizations records). As a result, some parents might give up in their attempt to enroll their children in a program.

Fifth, the operating hours for some CBELPs might not work with the schedules of parents and caregivers who have to drive more than 30 minutes to get to their work or school site after they drop off their child at the center. Three interviewees mentioned this as a barrier. For instance, if a parent has to be at work by 8:00 a.m. or earlier and the drive to work takes 45 minutes or longer, this is a challenge because most centers do not open until 7:30 a.m. and the parent will be late for work. In another scenario mentioned, some CBELPs might only operate until 2:00 or 3:00 pm and a parent might not be able to pick up their child or make alternate arrangements for pick-up because the parent must remain at work until 5:00 p.m.

Sixth, there was the perception from two interviewees that some parents think of CBELPs as a "babysitting" option to be used as needed, and not a place of learning where consistency in the child's attendance is necessary. One preschool provider elaborated on this, stating

> *There are parents who think this is a day care center. They want their free time. Parents just drop off kids so parents have free time for lunch. And the school can't say 'no,' despite explaining what the center is and what it provides.*

The previous six barriers mentioned were identified by more than one interviewee. In addition, one interviewee pointed out another significant barrier for some families. This interviewee, who works regionally with Navajo Head Start centers, noted that some families experience homelessness or other situations that create instable family environments, such as domestic violence or neglect, that makes attendance difficult. She explains these situations and the resulting impact:

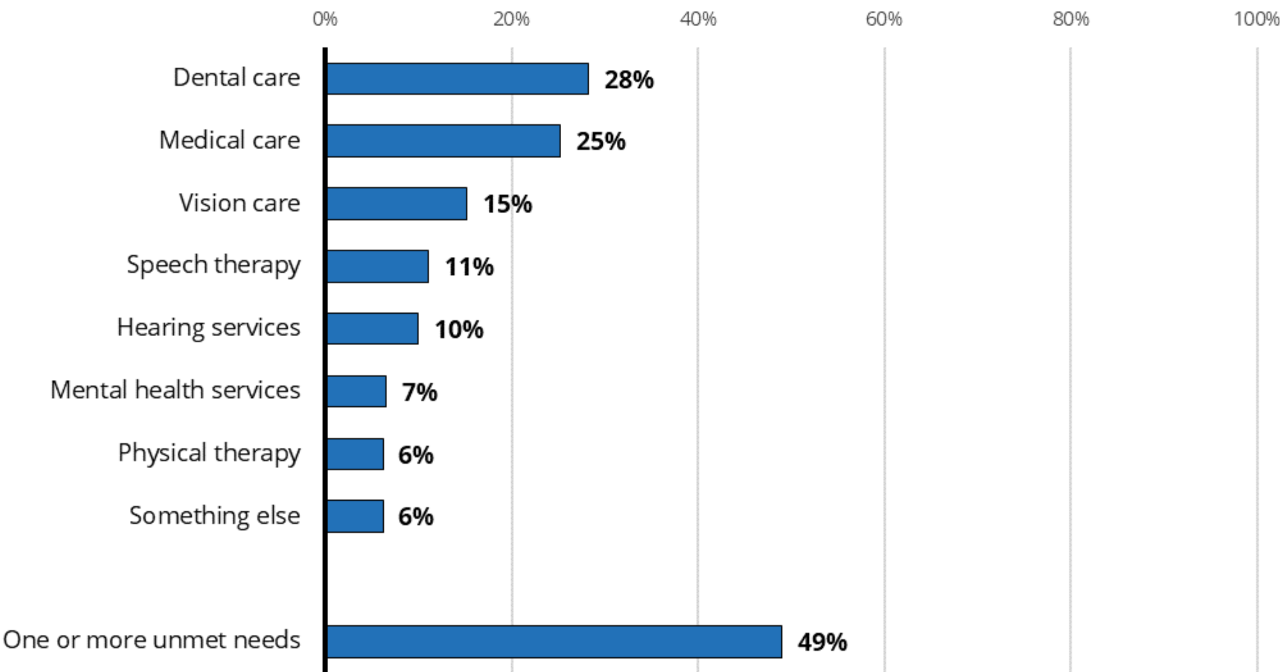
> *Some children are homeless and may just stay with parents (instead of going to an early learning program). Some families with young children might have a disagreement with their families with whom they're staying, and have to leave as a result. Another barrier is unstable homes where domestic violence arises or where the parents have separated. These types of occurrences produce fluctuations in student attendance on a daily basis.*

CHILD HEALTH

Access to Care

Respondents to the Parent and Caregiver Survey were asked questions about their children's health and health-related resources. Respondents were presented with a list of types of care including dental, medical and vision care and services related to hearing, mental health and physical therapy. Almost half of respondents (49%) reported that their children had delayed or not received at least one of these types of needed care during the previous 12 months (Figure 7). Dental care (28%) and medical care (25%) were the types of care most frequently delayed or not received. Respondents form Chinle + Northern Agencies were the most likely to report one or more unmet needs for their children (53%) (Table 10, Figure 7).[3]

Figure 7. During the past 12 months, was there any time when your child (or children) needed these types of care, but it was delayed or not received? (N=290)



Note: Survey respondents were able to indicate more than one unmet need.

[3] *Please note that it is possible that this difference may be be somewhat of an artifact of interviews in the other agencies having been done at clinic facilities.*

Table 10. During the past 12 months, was there any time when your child (or children) needed these types of care, but it was delayed or not received?										
	Number of respondents	Dental care	Medical care	Vision care	Speech therapy	Hearing services	Mental health services	Physical therapy	Some-thing else	One or more unmet needs
Navajo Nation	**290**	**28%**	**25%**	**15%**	**11%**	**10%**	**7%**	**6%**	**6%**	**49%**
Chinle+Northern Agencies	47	28%	28%	11%	11%	9%	6%	4%	9%	53%
Ft. Defiance Agency	111	30%	23%	15%	9%	12%	9%	6%	5%	46%
Western Agency	116	28%	27%	16%	12%	9%	4%	7%	5%	49%
Unassigned	16	25%	25%	19%	19%	6%	6%	6%	19%	56%

Parents and caregivers said they typically receive health care for their children at the health facility nearest their community, which in large part were Tuba City Regional Health Care Corporation, Tsehootsooi Medical Center, and Winslow Indian Health Care Center. Most likely these health care facilities were mentioned because these were locations in which a large proportion of the surveys were conducted. A few parents and caregivers said they received health care for their children at North Country Health Care (Flagstaff, AZ), Dilkon Health Clinic (Dilkon, AZ), Leupp Health Clinic (Leupp, AZ), Chinle Comprehensive Health Care Facility (Chinle, AZ), Pinon Health Center (Pinon, AZ), Northern Navajo Medical Center (Shiprock, NM), Four Corners Regional Health Center (Red Mesa, AZ), San Juan Regional Medical Center (Farmington, NM), Lake Powell Medical Center (Page, AZ), Hopi Health Care Center (Polacca, AZ), and Sacaton Hohokam Memorial Hospital (Sacaton, AZ).

With regards to dental care, parents and caregivers said they typically receive dental care for their child(ren) at Tuba City Regional Health Care Corporation (TCRHCC), Tsehootsooi Medical Center (TMC), Winslow Indian Health Care Centr (WIHCC), and Chinle Comprehensive Health Care Facility (CCHCF). For the most part, parents and caregivers said they are content with dental care they receive at the dental clinic in these facilities because, primarily, dentists and staff are "nice," "friendly", and "professional." Parents and caregivers also appreciated that dental staff were "kind" to their children, "understanding," "helpful," and provided "quick" dental services. Most were moderately satisfied with the wait time; however, some simply said it was "ok." Satisfaction with dental care at these locations seemed to be high, as most survey respondents said they either would not change anything about the type of care they receive or they did not have any recommendations to offer in terms of changes. A few respondents who referenced WIHCC dental clinic in their responses perceived a need for more dentists as appointment slots were often full, which prompted one parent/caregiver to take her children to a local private dental care provider. One parent said she really liked getting dental care for her infant at TCRHCC because the dental clinics nearest to her in Kayenta and Inscription House do not provide dental services for children under 1 year of age.

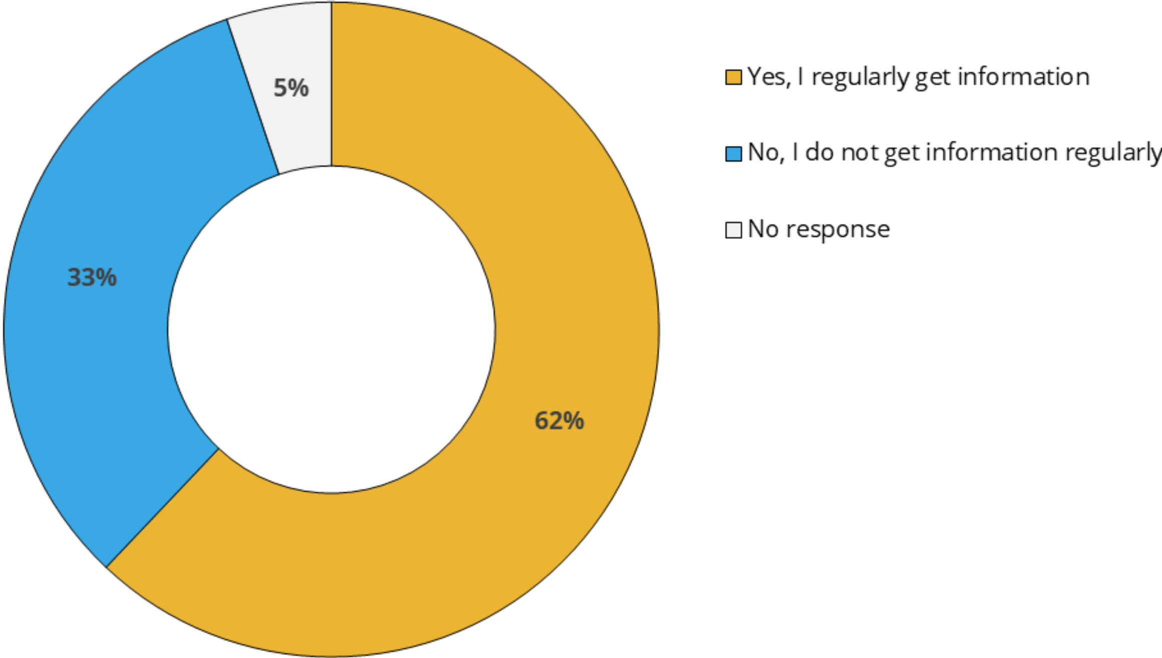
Other locations that Parent and Caregiver Survey respondents listed as places where they typically receive dental care for their young children included: Sundance Dental Care of Gallup (Gallup, NM), Gallup Children Dentistry (Gallup, NM), Four Corners Regional Health Center (Red Mesa, AZ), Tse Bonito Dental (Tse Bonito, NM), Cameron Dental Clinic (Cameron, AZ), Pinon Health Center (Pinon, AZ), Hopi Health Care Center (Polacca, AZ), Around the Mountain Pediatric Dentistry (Flagstaff, AZ), Dilkon Dental Clinic (Dilkon, AZ), Leupp Health Facility (Leupp, AZ),

Northern Navajo Medical Center (Shiprock, NM), and unnamed private dental care providers in Flagstaff, Albuquerque, Page, and Farmington.

Access to Information Related to Children's Health Care and Development

The ability to access health and development information and resources is key to expanding parents' knowledge regarding children's healthy development. The majority (62%) of parents and caregivers responding to the survey indicated they regularly get information about young children's development and health or about events for families of young children (Figure 8). Respondents also indicated they would most like to get this information through word of mouth (47%), via a phone call (41%) or text message (38%), or through a flyer or Facebook (34% and 33% respectively; Figure 9). The least popular ways to receive information on children's health and development or about events for families were through TV (20%), radio (16%) or Twitter (2%). Please note that participants selected the top three ways in which they like to receive information, so the percentages shown on Figure 9 do not add to 100 percent because each participant selected more than one.

Figure 8. Do you regularly get information about young children's development and health OR about events for families with young children? (N=290)



Responses to this survey item were also analyzed by age group, with those 17-39 assumed to mostly be parents of young children, and those 40 and older more likely to be grandparents or other family caregivers. Although word of mouth was the preferred method for both age groups, Figure 9 shows that a higher proportion of respondents under the age of 40 indicated a preference for Facebook or Email as a means to receive information about children's health and development compared to those ages 40 and older. Higher percentages of respondents ages 40 and older prefer phone calls, and they had a stronger preference for word of mouth, compared to respondents under the age of 40. This suggests that different approaches to providing information may be needed to assure that information gets to parents and to grandparents raising their grandchildren.

Figure 9. Top three ways in which parents or caregivers would like to receive information about young children's development & health or about events for families with young children in their community (N=290)

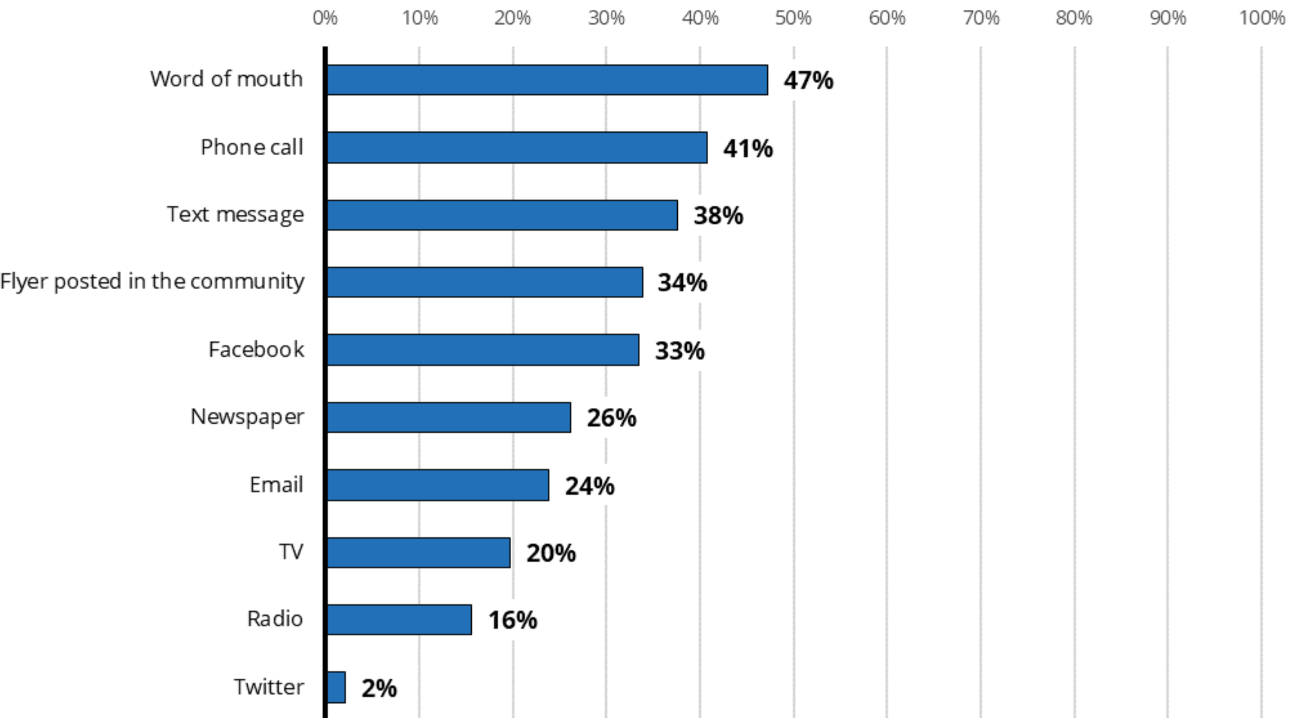
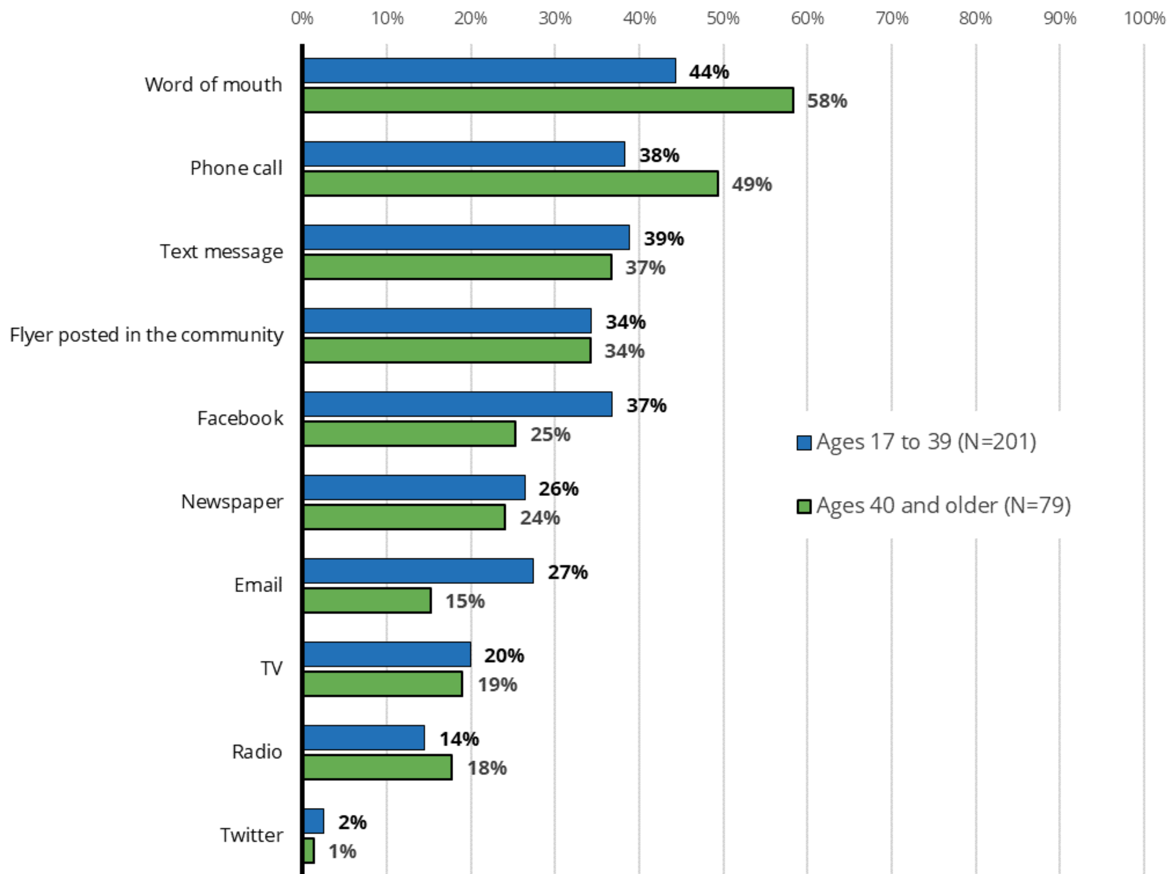


Figure 10. Top three ways in which parents or caregivers would like to receive information about young children's development & health or about events for families with young children in their community, by age (N=280)



Parental Concerns Regarding Child Development and Developmental Milestones

Ensuring all families have access to timely and appropriate screenings for children who may benefit from early identification of special needs is paramount to improving outcomes for these children and their families. Timely intervention can help young children with, or at risk for, developmental delays, develop language, cognitive, physical and socio-emotional capabilities similar to that of their typically developing peers. It also reduces educational costs by decreasing the need for special education.[1,2,3] Respondents to the Parent and Caregiver Survey were asked to report how worried they were about their child regarding a number of developmental indicators. Over two-thirds of respondents were "not at all worried" about any of these indicators (Figure 11). Parents and caregivers were most worried about how well their child behaves (5% worried a lot; 23% worried a little); gets along with others (4% worried a lot; 18% worried a little); talks and makes speech sounds (9% worried a lot; 12% worried a little);, and understands what they say (6% worried a lot; 11% worried a little). This pattern was similar across agencies with the following exceptions: respondents in the Western Agency were most worried about how well their child gets along with others (26% worried a lot or worried a little), and respondents in the Chinle + Northern Agencies second most common worry was how well their child talks and makes speech sounds (29% worried a lot or a little) (Table 11).

Figure 11. Please tell me how much you are currently worried about how well your child... (N=290)

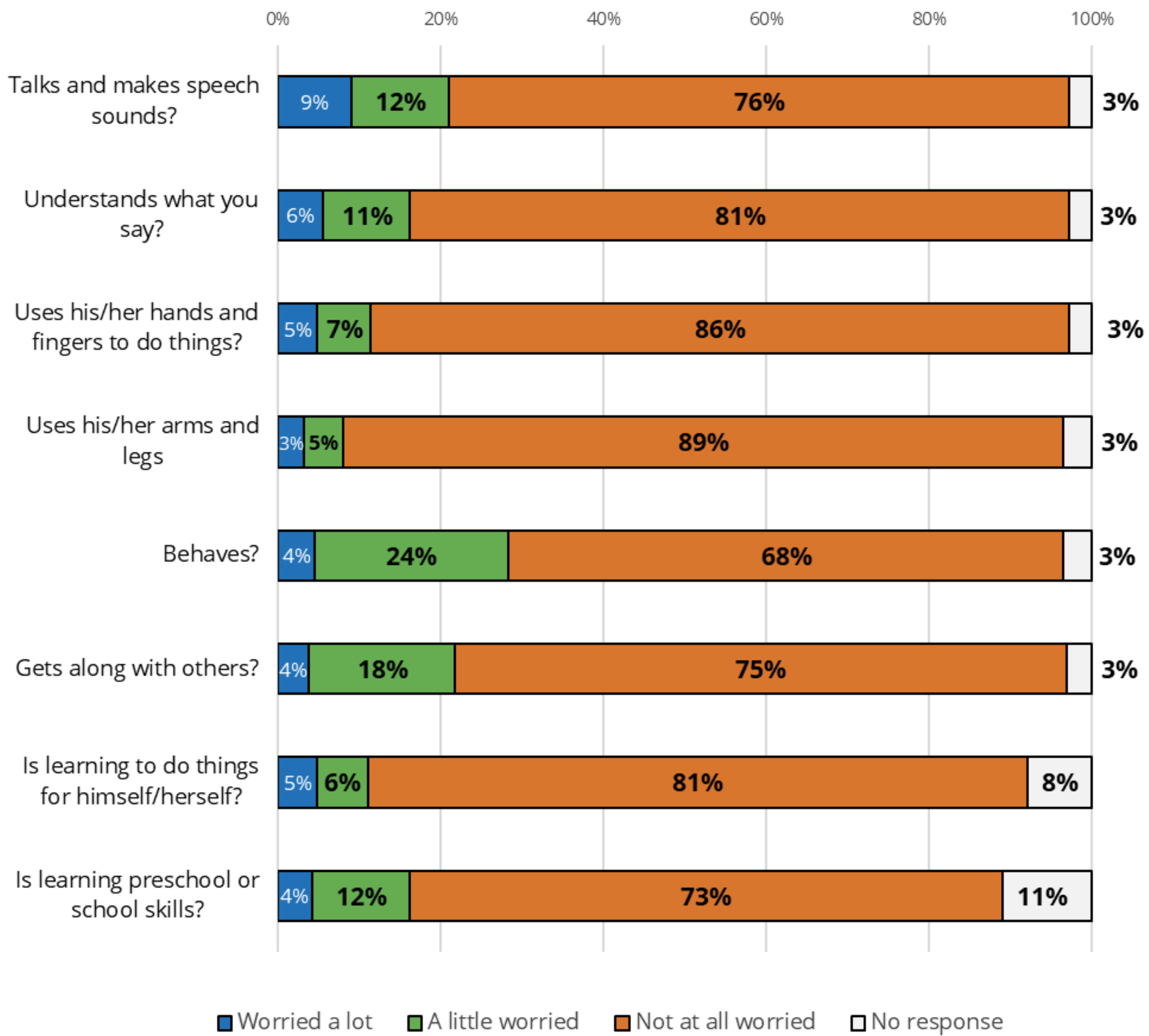


Table 11. Percent of respondents who are "worried at lot" or "a little worried" about how well their child...

	Number of respon-dents	Talks and makes speech sounds	Under-stands what you say	Uses his or her hands and fingers to do things	Uses his or her arms and legs	Behave s	Gets along with others	Is learnin g to do things for himself or herself	Is learnin g pre-school or school skills
Navajo Nation	**290**	**21%**	**16%**	**11%**	**8%**	**28%**	**22%**	**11%**	**16%**
Chinle + Northern Agencies	47	26%	19%	9%	11%	32%	21%	13%	17%
Ft. Defiance Agency	111	17%	17%	12%	8%	30%	17%	12%	16%
Western Agency	116	24%	16%	12%	8%	27%	28%	11%	16%
Unassigned	16	13%	6%	13%	0%	19%	13%	0%	13%

Information and Services on Children's Health and Development

Both the Interview Guide for center-based early care and learning programs (CBECLP) and the Parent and Caregiver Survey included questions aimed at learning how CBECLPs engage parents and caregivers on a variety of child health and development topics. This section summarizes the information collected through such questions.

Center requirements to provide information on child health and development to parents and caregivers of children participating in center-based early care and learning programs

Across the early learning system, approximately half of all centers interviewed reported being required to provide parents and caregivers with information on topics relating to children's development and health. For some programs, such as the Navajo Head Start, sharing this type of information with parents is a program-wide requirement that applies to all centers as part of their 'engagement, awareness and parent involvement' mandatory activities. Though other centers reported not being required to share this information, most of these centers said they did so regardless.

CCDF centers complete wellness health checks (sometimes called 'narratives') where they document observed health-related needs of a child that warrant parental/guardian attention. In some instances, CCDF staff may write parents or primary caretakers a referral to a local health facility to address a child-related health concern with a health care provider.

Parent Time at FACE programs allows parents to receive training and education on health topics specific to certain children age groups. Adult educators might cover nutrition, oral health, and the importance of immunizations during this time.

In centers not required to share health-related information with parents, many staff said they feel this information is needed, and therefore strive to provide it to their families. Staff at one preschool described how they want to help parents and caregivers build a better and more comprehensive understanding of what influences and impacts child health and development:

Parents need to know that immunizations, teeth are important. Caries is an issue. Lots of kids with baby bottle decay and kids without front teeth. This affects their overall wellbeing. Same with nutrition. Parents need to know that nutrition is about moving around and preventing things from happening to you. Some parents don't know this information and don't know how.

Another staff member from a different preschool touched on their program's desire to share more information through parent education sessions to help improve understanding of child development, but mentioned excessive reporting requirements from various agencies as a factor limiting advancement toward their goal:

We don't do family support, and we recognize we need to do this. It is a lot…dealing with [Arizona Department of Education] requirements, child care licensures, and additional requirements through Quality First to maintain enrollment. Lots of reporting requirements. I feel my staff is stretched very thin.

A staff member from a FACE program related:

I would say [sharing health information with parents and caregivers] is recommended, but not required. For me as an adult teacher, I do Parent Time. We do talk about why it's important with immunizations and nutrition…how it affects children.

Means of Communication regarding Health and Child Development Information commonly used by Center-Based Early Care and Learning Programs

Centers share health-related information with parents and caregivers using a variety of communication methods. By and large, the majority of centers described face-to-face, verbal communication with parents and caregivers as the best method for sharing information. Note that this corresponds with the results of the Parent and Caregiver Survey that reflect that word of mouth is the preferred means of communication about these issues (see Figure 9). Typically, this occurs during the times that parents drop-off or pick-up their children from the center, during parent meetings or conferences, or any other time at which center staff might have a chance to talk with a parent in-person. Many centers mentioned hosting monthly parent meetings or "Parent Nights." For FACE programs, face-to-face communication is an integral part of its parent education instruction component. Similarly, Head Start staff pointed out:

The one-on-one in person conversation is the best way of communicating information to the parents.

Distribution of print materials was the next most highly used format of information sharing. Among print materials, flyers and newsletters were identified as the most popular ways of sharing information, followed by reminder notes, letters, and brochures. Some centers mentioned having a classroom bulletin board or a "parent center" where they posted health-related information for parents to view when they visit the center, such as during drop-off or pick-up times.

Centers in larger communities said they used email as a form of communication with parents and caregivers, and often emailed them the aforementioned materials in electronic form. Centers in more rural communities did not cite email as a communication route they used. A few centers mentioned performing daily health/wellness checks and progress reports for each child, and using these tools to have an in-person discussion with parents/caregivers about the child's wellbeing and development. At this time, pertinent health-related information might be shared in both verbal and written form.

Other communication methods mentioned (though on a less widely used scale) included personal phone calls, automated phone messages, texting, tabling events, center websites, radio, and social media (mainly Facebook). A few centers expressed a number of reasons for being cautious to use social media as an information sharing tool: 1)

concern for protection of child identities, 2) challenges regarding parents or community members who may use it as an outlet to spread misinformation and incessant negative commentary, and 3) challenges that may blur the personal and professional relationships between parents/caregivers and center staff online. On the other hand, interviewees pointed out that social media gives center staff an opportunity to receive feedback about information being shared and to get a sense of how parents are reacting to that information (e.g. with the numbers of "likes" on Facebook posts).

Some Navajo Head Start centers began using texting approximately five years ago as a means to share information about school closures, health and safety alerts, general announcements, and upcoming health fairs. Text messaging was one on the top three ways that parents and caregivers responding to the survey reported wanting to receive information (see Figure 9).

New or additional types of health communication under consideration by some center-based early care and learning programs

While a few centers said they had not explored any further ideas to diversify their methods of communication of health information to parents and caregivers, some centers were amiable to the idea of developing monthly newsletters and using email. Head Start staff mentioned parents had suggested creating a monthly calendar that would inform them of items or tasks that were due for a particular month, and what parents and caregivers were encouraged to reinforce at home. Staff at one CCDF center said they were currently in the early stages of developing portfolios for each child in which information on the child's progress would be recorded and shared with parents. Also mentioned was the possibility of starting Family Nights with CCDF families for the purpose of bringing together families to discuss and provide suggestions on information that would benefit them. Some CCDF centers have already established these types of family events and have implemented the use of child progress portfolios. Other CCDF centers have not, but are exploring the possibilities.

One preschool thought families could benefit from the program hosting additional parent support sessions that focus on various developmental topics. This same preschool also thought hosting Parent Nights would be helpful for families:

> *...and then host Parent Nights to inform them on things [parents and caregivers] can do. Most feel they can't do stuff because they can't afford certain things. We want to reach out to families at dinner time. What ways can you converse with your child to expand on language use? You don't have to buy anything. It could be something like cutting sandwiches into shapes. We really want to empower [children]. We don't have to buy things to be able to do so.*

Another preschool thought such family/parent nights should also dedicate some time to focus on helping first-time parents to become more informed, and to help all parents understand that parenting today is different than what it was in the 1980s and 1990s. In planning these types of events, this preschool mentioned it was important to be aware of any other community events, such as basketball games, that may pose an interference to attendance.

How parents and caregivers respond to information on child health and development provided by center-based early care and learning programs

More than half of all centers felt that parents and caregivers were receptive or showed interest in the information provided to them, as the following quotes suggest:

They are very receptive because the teacher is communicating about their child [during drop-off and pick-up times]. The parents are open and ask a lot of questions.

It really depends on the parent and if they want to be engaged in what the child is doing. A lot of the parents are pretty receptive to recommendations or things that are being taught in the centers.

Some of the parents made comments, like: "This is nice that you have this open house. Now I know what my child is doing and where they are development-wise." It gave them that info where they're able to help their child more at home.

A staff member with a CCDF center said parents regularly inform staff when they read the literature provided to them or when they apply the newly-learned knowledge or skill at home. Children also tell staff they tried new activities at home with their families. Another CCDF center said parents vocalize their appreciation for the information and will say, "Thank you for reminding us." One FACE program observed increased attendance of families to activities or events that involve cultural/traditional practices and knowledge, such as presentations on traditional foods.

A few centers, particularly Navajo Head Start and CCDF, discussed having a feedback form parents and families use to offer comments, complaints, or recommendations; interview participants pointed out that these forms are routinely used by parents. Not all centers, however, have a mechanism for two-way communication with families. One preschool recognized a need to establish opportunities that would enable parents to respond to the information provided them, such as a community forum. Staff from this preschool also mentioned possible barriers in communicating information to parents and caregivers:

We sometimes send info out, and maybe it's not so much understood. We have to keep in mind our grandparents that are not fluent [in English], so their voices are not heard.

Some centers highlighted challenges communicating information to parents without upsetting them, as the following illustrates:

Honestly, a lot of our parents are young so it's difficult to sit down with them. I wish I could say something more to the parents about child development and health, but I don't want to be stepping on anyone's toes. I don't want parents to be upset with me.

Sometimes you can tell by their body language that they are offended. This happens particularly with information on obesity and tooth decay. Staff do their best to pass on information on these topics to parents while saying that it might not be referring to their child directly, but that the staff is just letting them know about the topic in general.

A few centers spoke about the challenge of providing information to parents and caregivers who are unable to give more of their time for this interaction (perhaps, due to employment or education commitments) when they are dropping off or picking up their children. One staff elaborated:

Most of the parents have a positive response to certain info to child, but the other part – they don't want to hear it. They are in a rush just to drop off their child. Only some of the parents are like this.

Information on child health and development provided to parents and caregivers of children participating in center-based early care and learning programs

When parents and caregivers indicated that their child was enrolled in a center-based early care and learning programs (CBECLP), the Parent and Caregiver Survey asked participants whether the CBECLP provided them with information on children's health and development. As examples of these topics the survey mentioned nutrition, oral health and immunizations. The vast majority (94%) of participants indicated that they did receive this type of information from the CBECLPs. Only nine participants whose children were enrolled in a program answered "No" to this question. These participants reported an affiliation with a FACE program (n=3), a CCDF center (n=2), a school-based preschool program (n=2), an Early Head Start or Head Start program (n=1) and a private child care center on the reservation (n=1). A follow-up question asked these respondents whether they would be interested in receiving this information from their CBELPs. Four of them said yes: Three wanted information on child development-related topics, two on nutrition, and one on oral health (some indicated more than one topic). The rest did not provide a response.

Parents who reported receiving health and child development information from their CBECLP's were asked how that information was provided to them and whether it was helpful. A total of 66 parents/caregivers responded to this item. Only one survey respondent explicitly indicated that the information provided by the CBECLP was not helpful. This participant said: "[they] just hand out flyers [and pamphlets] and that is it. This is why it's not that useful." Most of the answers to this question suggested that parents are generally satisfied with the health and child development information they receive from their CBECLPs. Their responses focused mostly on the format in which the information was conveyed to them. They can be broadly categorized into: a) Those who received information in a written format (n=13, 20%); b) Those who received it in some sort of face-to-face manner (n=22, 33%), and c) Those who indicated that the CBECLPs relayed this information to them both in a written format and through face-to-face interactions (n=18, 27%). Thirteen participants (20%) did not provide enough information for their responses to be included in any of these categories.

Examples of paper-based means to communicate with parents and caregivers included notes, flyers, and pamphlets. As some respondents reported: "Through flyers sent home in her backpack." Or: "They send home letters and notes. Yes, [it's] helpful."

Information conveyed in a face-to-face manner included one-on-one conversations, home visits and parent meetings. The following are examples of the responses provided by survey participants: "One-on-one, in-person-info on how far [they are on] developmental milestones. Even gives family books." "His teacher will talk one on one with us."

Examples provided by parents and caregivers who reported getting information in both written and in-person ways include: "Monthly meetings with caregivers. Informational handouts to take home." Or "Flyers are given and [we] do sit-in sessions at center."

Child Health and Development Education and Services provided by center-based early care and learning programs

Staff from center-based early care and learning programs interviewed for this project were also asked about specific child health and development education and services provided to enrolled children and their families. Interviewees were asked about the areas of particular interest to the First Things First Navajo Nation Regional Partnership

Council: nutrition, oral health, immunizations, socio-emotional development, and developmental milestones/developmental delays.

Nutrition – The vast majority of centers indicated that they currently provide some type of nutritional education service to either the children enrolled, their parents and caregivers, or both. These services are offered directly by the staff with the center, or by an outside entity with which they partner.

Only three centers said they do not directly address this topic. At one of these centers the only information on nutrition provided to parents comes from their food service vendors, which send home "monthly blurbs about nutrition… Just little facts." A representative from the second center noted that staff get some information on this topic as part of their health and safety standards training in the form of a lecture. This person then elaborated:

> *I never really thought about why [nutrition education] is not being provided. It would be something nice to get. We did a couple of things with First Things First (FTF) when the nutritionist would come over. They demonstrated food things with the children. The kids really enjoyed it. This would be really helpful. Taste, smell of food – that sort of thing. We do this currently with babies but it's not something that is required. The FTF nutrition person visited approximately 3-4 times, and the last time they came was about a year and a half ago.*

The third center had become part of the Quality First program not long before the interview took place. Staff with this center pointed out that, although no educational services were provided on the topic of nutrition, the preschool teacher was interested in making healthy eating and physical activity a part of the curriculum. In this interviewee's view, participation in Quality First would facilitate access to new resources, some of which might include nutrition-related support.

About half of the interviewees, including those representing Head Start, indicated that their centers had incorporated nutrition-related information and activities as part of the classroom curriculum or during lunch and snack time. These activities include hands-on food demonstrations and conversations about healthy food while children eat their meals at school. Below are some examples of how children learn about nutrition as part of their regular daily program:

> *For students, we do have a unit that staff members use at a given point in time as part of curriculum. We talk about the basic four food groups, what is healthier, junk food, and making those choices.*
>
> *We do breakfast in the classroom, and we discuss the food we eat and which ones are healthy. Also during science integration class… there are topics about nutrition. We emphasize the distinction between healthy and junk food.*
>
> *At lunch time we seat with the kids and talk to them about eating food, getting color on their plates, getting greens etc.*
>
> *Teacher's lessons plans include food pyramid, serving sizes for toddlers, and students get hands on experiences.*

Another way in which nutrition-related education and services are offered at CBECLPs is through partnerships with other agencies. About two-thirds of the centers that participated in the interviews (including Head Start) mentioned at least one outside program that has come to the center to provide services in this area. In fact, about half of these centers reported partnering with multiple agencies that offer nutrition-related programming. Navajo County Public Health Services District (a grantee of First Things First and sometimes referred to as "First Things First") was the

agency that was named by most of the centers (ten, including Head Start).[4] Other programs mentioned by CBECLP staff were: Navajo Indian Health Services or tribally-operated hospitals, Navajo WIC program, the Navajo Special Diabetes Program, Community Outreach and Patient Empowerment (COPE)[5] and Fit Kids of Arizona,[6] and the Church of Latter-day Saints. The following are examples of the type of work being done by these organizations, as stated by center staff:

> *Someone from First Things First comes in to provide educational sessions on nutrition every 2 weeks. For example, they might focus on strawberries for one session and will talk about varieties, colors, what it has in it (nutrients), what the benefits are, etc. They will do a food project with the kids and do a story and a little game with the children.*
>
> *Nutrition education is usually provided from First Things First. They come over and give us books, posters, booklets. We use these with the children. It is really helpful! And then on the food pyramid that goes with it. They also gave us a plate and we use it for education. We teach them about the different food groups and serving sizes, recognizing food, etc.*
>
> *We have the Diabetes Project and the Nutrition department. A few times FTF came in to do presentations. They have an 8-week program talking about different topics in nutrition.*
>
> *A community garden was started with the Church of Latter-day Saints.*
>
> *The other is a curriculum we use is through COPE project and it's called "Happy Homes." COPE provides the materials and train us in using this curriculum. Topics include: screen-time (limitations for electronics), gardening, fruits and veggies, routines, and sleep.*

Staff from three CBCELPs (two CCDF ones and a school-based program) also noted that they combine nutrition-education with Navajo language and culture teachings. At one of the CCDF centers teachers work with the children in "pronouncing the different types of food in English and in Navajo." Staff with the other CCDF center stated that the center tries to serve native food to the children and also had "a person coming in to demonstrate making blue mush and blue bread for kids to taste it."

Overall, most centers that participated in interviews had some type of in-house or external education around nutrition provided to the students, and in a few cases also to the parents. Nevertheless, it is important to point out that a few of the staff members interviewed indicated that when services were provided by an outside agency, they had often been intermittent and/or had ceased to be offered at some point, sometimes without previous notice. Some interviewees noted that their main contact person with those agencies had left and that they had not heard from the program ever since, or that the services were "sporadic" and "don't happen regularly." Given their daily workloads, it may be challenging for the centers to be proactive in reestablishing contact with their partner agency. As one staff member with a school-based program indicated:

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[4] *The Navajo Nation First Things First Regional Partnership Council funds a Nutrition Education & Obesity Prevention Program (NEOPP) as part of their Nutrition/Obesity/Physical strategy. The grantee for this strategy is Navajo County Public Health Services District (with support from the Coconino County Health Department as a subcontractor).*

[5] *COPE is a Native-managed non-profit organization that promotes healthy living and wellbeing to prevent chronic disease and to improve the lives of Navajo individuals already living with chronic diseases. For more information see https://www.copeprogram.org/*

[6] *For more information on Fit Kids of Arizona, a fitness and healthy lifestyle program that is offered at several school districts in northern Arizona see* https://nahealth.com/fit-kids/learning-healthier-way-live

[Person's name] used to come in to provide recipes and demonstrations on snacks. But there aren't any now. It stopped in 2015. We haven't contacted them to resume. Our director wants to get better at that.

From that perspective, CBECLPs that have incorporated nutrition education as part of their curriculum may be more likely to continue offering this information to children in their programs compared to those that rely on their outside partners to do it. Finding ways for the staff to learn how to incorporate the information that outside entities provide into their daily activities may be a way to ensure that the nutrition-related knowledge continues to be disseminated on a regular basis.

Oral Health – All of the CBECLPs that participated in this project reported having some type of oral health services provided to enrolled children. About half indicated that they receive services through the First Things First Navajo Nation oral health strategy grantee, Navajo County Public Health Services District and their sub-grantee Coconino County Public Health Services District. Four centers were receiving services from Indian Health Services (IHS) facilities or tribally-operated hospitals such as Tsehootsooi Medical Center or Winslow Indian Health Care Center and Tuba City Regional Health Care Center (including a mobile unit). Four other centers, including Head Start, reported being served by both the Navajo County Public Health Services District and IHS/tribally-operated hospitals. One center did not indicate which agency provides oral health services to them. In addition to the services offered by outside entities, Head Start has staff members who are trained and certified in how to apply fluoride varnishes.

Oral health screenings, fluoride varnishes, general oral health education and distribution of tooth brushes and tooth paste seem to be common services that children receive regardless of the entity providing them. At one school-based preschool, sealants were applied to children twice a year by personnel from a nearby tribally-operated hospital. Staff with this center noted, however, that only about half of the families take advantage of this service (as indicated by the proportion of children who bring back a signed consent form). This staff member pointed out that it may be that parents had already taken their children to have sealants applied on their own. At least two centers explicitly stated that the partnership with the FTF grantee had been in place for a long time (2-4 years). And most of the centers reported receiving these services on a regular basis, twice a year. As indicated by a staff member with a CCDF center, Navajo County Public Health Services District takes a proactive stand in scheduling the service and lets them know when visits will take place. This proactive approach may be an important part of a successful long term partnership. As noted above in the Nutrition section above, some centers struggle with continuation of services if the responsibility to maintain contact with the outside partner is left mainly to the center itself.

In addition to these services, at least three centers indicated that teaching children how to brush their teeth and practicing brushing every day was a part of their daily activities.

Three of the interviewed centers pointed out challenges related to the oral health services currently available. Two of these centers highlighted the fact that children often do not bring back the signed consent form required to receive services. In addition, staff from one CCDF center pointed out that absenteeism presents a challenge to the number of children who can take advantage of oral health services provided at the center. In the words of a school-based preschool staff member:

Parent consent forms are sometimes hard to get when they're needed for the fluoride varnishing services. I follow up with phone calls. What I notice is that parents do not really notice what children bring back with them from school. Or else the kids will lose the consent form they need for parents to sign.

Based on the responses by interviewed staff, it appears that availability of oral health services at CBECLPs is relatively high. At some centers, however, the challenge may be the proportion of children that are able to take advantage of available services due to a lack of consent form (or because they are not present when the service is

being provided). In addition, it is important to ensure that communication and collaboration among the multiple providers takes place to avoid duplication of efforts. Some of this communication appears to be taking place, at least among some of the providers, as highlighted by an interviewee with a school-based preschool. At this participant's center, both Coconino County Public Health Services District and a tribally-operated hospital offered services to enrolled children, but "they work together to ensure no over-varnishing takes place." Nevertheless, a key informant with Navajo County Public Health Services District indicated that oral health services are also available at some schools in the region through private mobile dental units for children who are enrolled in the Arizona Health Care Cost Containment System (AHCCCS), Arizona's Medicaid program. There is a concern that these private providers do not offer continuity in their services and that they may become a "competition" to more regular providers such as IHS/tribally-operated hospitals or FTF grantees.

Immunizations – The vast majority of the centers provide no specific education or services in this area. Staff indicated that up-to-date immunizations are a requirement for enrollment in their centers, and children must show proof of immunization prior to enrolling. Staff from four centers (including Head Start) noted that their CBECLPs had an established partnership with local health care facilities in their area (IHS or tribally-operated hospitals) to make sure children are fully immunized. For instance, a CCDF center indicated that they work closely with a nurse at the nearby hospital who checks the immunization records of children enrolled to notify parents when additional vaccines are needed. Staff from a FACE program noted a partnership with the local public school district for health screenings where the district is notified if students are not up-to-date on their immunizations. Head Start works closely with Public Health Nurses who help review children's records to identify those that may be lacking vaccines.

Staff from six centers pointed out that they do not provide any specific information or education but that they send out reminders to parents about keeping their children fully immunized. At centers affiliated with schools, school nurses are responsible for sending out this information to parents.

Only two centers (a CCDF one and a school-based preschool one) mentioned that in the past, the local health care facilities had come to the center to provide flu shots. The school-based program explicitly mentioned that this service is now available only to older children in the elementary school, as the experience was 'too traumatic' for the preschoolers. Parents are now advised to take their children to get their shots.

Socio-emotional development – All but three of centers reported that they offer services in the area of early childhood socio-emotional development. Two of the centers that said no services are provided, noted that they do provide information on the topic as part of their lessons plan or as part of the health and safety training for the child care providers. Interview participants from about half of the centers indicated that their child care providers had received some type of training in socio-emotional development, or that the topic had been incorporated into their curriculum or lessons plan (this includes three of the centers that were eligible for Mental Health Consultation services).

Staff from six centers referenced Mental Health Consultation services that are available to them as part of their participation in the First Things First (FTF)-Funded Quality First program.[7] Staff from two of these programs pointed out that, although they are aware of the service being available, as of the time of the interview they had not utilized them. One of these interviewees noted that child care providers at her center are trained in the type of support provided by the Mental Health Consultation grantee and that they would see it as a duplication of services to request support in this area.

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[7] *CBECLPs that participate in Quality First are eligible for Mental Health Consultation services provided by the FTF grantee, Southwest Human Development through their "Smart Support" program. For more information on the program see https://www.swhd.org/training/smart-support/*

In addition, three centers (two school-based preschool programs and Head Start) stated that they partner with Indian Health Services facilities to provide counseling to children who might require this type of support. As for Head Start, one of the regions works with a health care provider who offers training to the teachers in classroom behavior management.

Three centers (Head Start, a school-based program and a FACE program) mentioned using a screening tool to identify children who might need additional support in the area of socio-emotional development. Two of these centers were using the Ages and Stages Questionnaire and the other did not identify the instrument by name.

Staff from three centers (all school-based preschool programs) mentioned a collaboration with Growing in Beauty in screening children for adequate socio-emotional development, training for staff members, or help with transitions into kindergarten.

The type of system that each center belongs to seems to provide different opportunities for services in this area. Staff from most of the participating CCDF centers reported that no direct services, such as screenings and referrals, are provided to enrolled children or their families. None of them named other agencies with which they might partner and one explicitly said "we don't necessarily work with any other department on this." They emphasized, however, that staff have received trainings on the topic, including professional development opportunities provided to all staff members within a certain CCDF Region. When asked about the lack of services (or partnerships to provide services) on socio-emotional development, one staff member said:

> *Maybe no one really wants to ask someone to come over. I think it's really limited in the field. Locally, I don't think anyone would want to do a demonstration in this area.*

The responses of two other CCDF staff members suggest, however, that there may be some variability depending on the specific CCDF region. They pointed out that agencies outside of the Navajo Nation have been contracted to provide training to centers within their region, either in-house or in the surrounding border towns.

The two FACE programs participating in this project reported that information on early childhood socio-emotional development is offered as part of the adult education component of FACE programs.

Navajo Head Start centers have access to their own mental health consultants, who are individuals with a private practice who contract with Head Start at the beginning of each school year.

And most of the CBECLPs that mentioned having access to FTF-funded services are school-based preschool programs. This is consistent with the fact that, at the time of the interviews, the majority of CBECLPs that were enrolled in Quality First were preschools associated with public schools.[8]

Developmental milestones and developmental delays – When asked about services and education provided in the area of developmental milestones and developmental delays, the responses from participating CBECLPs were similar to those described in the socio-emotional development section above. In several cases, the assessments that children enrolled in the centers undergo are comprehensive and include physical, cognitive and socio-emotional development all at once.

The types of services available mirror those described in the section above. There are some similarities in the kind of support available for children and their families based on the type of system each center belongs to. In general, the

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[8] A number of CCDF centers joined the Quality First program as this project was being conducted.. As newly enrolled participants, many of the centers had not yet accessed some of the services available to them through Quality First by the time the interviews took place. See Appendix A for a full list of CBECLPs that participated in this project and were enrolled in Quality First as of November of 2016.

responses from staff at CCDF centers focused on training that child care providers receive around healthy development and early identification of possible delays as the main resources available for families. Only one center explicitly mentioned conducting in-house developmental assessment of the children enrolled. Two centers mentioned making some accommodations in the daily activities in order to support children with special needs. Staff from one other center pointed out that they sometimes partner with a staff member with the local school district's special education department who can help answer questions they might have. Below are some examples of the responses provided by CCDF staff regarding the work they do around developmental milestones and delays:

> *The teacher has to go and get training for herself. She went to autism and Brain Builders [for Life]*[9] *trainings. She got lots of handouts and made copies for the center. I don't know if parents were taking them though.*
>
> *As for socio development and developmental delays, our knowledge is progressing. We're learning more and getting more training on it. We're starting to implement what we learn at the trainings in the classroom with the children.*

It is important to note, however, that when asked about the center's capacity to serve children with special needs, staff from half of the participating CCDF centers highlighted the limitations they experience when serving this population. Mainly, they emphasized the lack of in-depth training among child care providers to offer adequate services to children with special needs and to make appropriate referrals to outside agencies for additional services.

At FACE centers, parents receive information on developmental milestones as part of the parent education component of the program. One FACE center indicated having an established relationship with the local school district for developmental assessments and services to address developmental delays, which are provided locally at the center.

As mentioned above, Head Start centers conduct comprehensive assessments of the children enrolled. Through formal partnerships with local school districts, children who are identified as being at risk for developmental delays are referred to the respective school district's special needs department for further evaluation and possible services. Head Start staff also pointed out that a good collaborative relationship exists between Head Start and the Navajo Nation's Early Intervention Program, Growing in Beauty,[10] which refers children with special needs to Head Start for priority enrollment.

Among staff from school-based preschool programs, over half of them explicitly mentioned conducting assessments of children to identify possible developmental delays, either through direct screening of the children (in most cases), using development and learning assessment tools like Teaching Strategies[11] or by surveying the parents. All of the school-based preschool programs mentioned being aware of, or actually partnering with other entities to refer children for further assessment or services or to get children referred to them (in the case of the special needs specialist being housed at the center's school).

Among all interview participants, staff from two other school-based preschool programs (in addition to Head Start) indicated that they collaborate with Growing in Beauty to have children evaluated, or referred for services. A staff member from another school-based preschool noted that they get support from the Mental Health Consultation FTF

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[9] *Brain Builders for Life is a training provided by the University of Arizona Cooperative Extension focused on early brain development and typical child development (prenatal to three years old). For more information see: https://extension.arizona.edu/brain-builders-life*

[10] *The Navajo Nation Growing in Beauty program conducts screenings and developmental evaluations, including vision and hearing, to help children enter early intervention programs. For more information see: http://www.nnosers.org/growing-in-beauty.aspx*

[11] *https://teachingstrategies.com/solutions/assess/gold/*

grantee, Southwest Human Development. Five centers explicitly mentioned referring parents to developmental assessment opportunities through Child Find when children under their care are identified as being at risk for developmental delays. It is not clear, however, whether these interviewees referred to Child Find services through the Arizona Department of Education AZ FIND,[12] or through the Navajo Nation Child Find program housed at Growing in Beauty. Staff members highlighted some challenges that parents face when trying to access Child Find services. For one, the referrals are not proactive, so it is up to the parents to make sure they follow-up on the recommendation to have their children evaluated. In addition, parents might need to travel to the nearest location where Child Find services take place. With limited transportation being an overall challenge in the region, the required commute may result in parents not accessing this resource. As indicated by staff from two centers (a school-based preschool and a CCDF center):

> *You have to really look for Child Find. Then parents have to travel to the service area to get this service. It would be better if it happened locally at the center. It is also only offered once a month.*

> *We'll just mention Child Find to the parents but we don't follow-up. We used to try to follow-up to see if parents followed through, but it was determined that it was the parents' responsibility.*

Head Start staff highlighted other barriers to access related to parent awareness about the importance of early identification of developmental delays and intervention services:

> *Some parents might be in denial and they think that the problems will just go away and the child will grow out of them. They don't want their child to be identified as having special needs. Parent involvement might be a barrier. Sometimes parents miss their appointments. There is also a lack of education and understanding that might serve as barriers. Head Start is trying to educate parents the best way they can. Grandparents might be the caregivers when parents struggle with substance abuse problems. This type of family situation can make it hard to get involved.*

Other challenges identified by the various interview participants included: developmental assessments that are conducted at the school district's offices in nearby towns, off the Navajo Nation, for which transportation is also a limitation; training for CBECLP staff on this topic that also takes place outside of the Nation, making it difficult for child care providers to access it; vacant specialist positions that are difficult to fill (e.g. preschool special needs educator, occupational therapist); and lack of parental awareness around developmental delays.

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[12] *For more information on AZ FIND, visit http://www.azed.gov/special-education/az-find/*

FAMILY SUPPORT AND LITERACY

Family Involvement

Parents, caregivers and families who provide positive and responsive relationships support optimal brain development during a child's first years[4,5] and promote better social, physical, academic and economic outcomes later in that child's life.[6,7] Not all children are able to begin their lives in the most positive, stable environments. Adverse Childhood Experiences (ACEs)[8] have been linked to risky health behaviors (such as smoking, drug use and alcoholism), chronic health conditions (such as diabetes, depression, obesity), poorer life outcomes (such as lower educational achievement and increased lost work time), and early death.[9] To best support their child and to counteract negative influences, parent and caregiver knowledge of children's early development, and their involvement in a variety of behaviors known to contribute positively to healthy development, can play a tremendous role in fostering development.

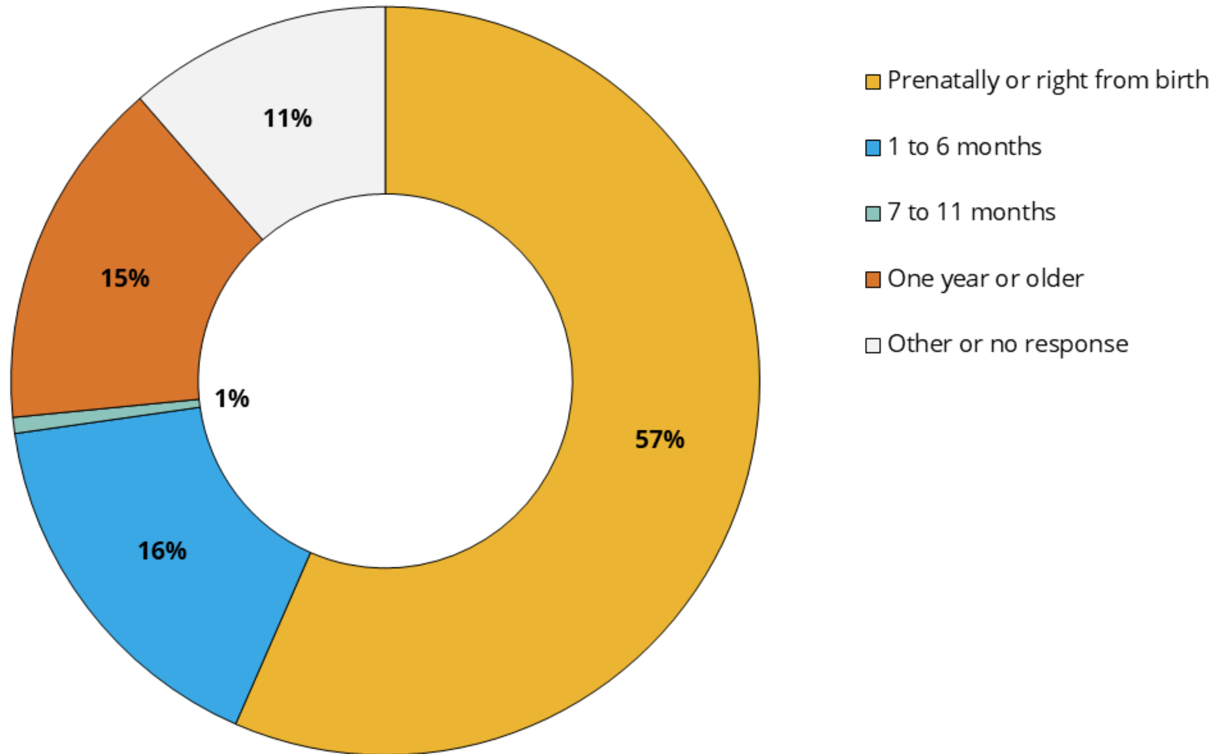
Parent and Caregiver Awareness of Early Childhood Development and Engagement

The Parent and Caregiver Survey included items assessing knowledge of the importance of early childhood experiences, and the timing of developmental milestones and early abilities. The survey also asked questions aimed at assessing parents' and caregivers' involvement in behaviors known to contribute positively to healthy development such as reading and singing to the child. The section below describes the results of these survey items.

Brain Development

A majority of survey respondents understand the importance of brain development during the early months of life: over half of respondents (56%) acknowledged that parents can substantially affect children's brain development at or before birth (Figure 12). However, a large portion of survey respondents (32%) also believed this impact was only possible later, from the first six months (16%) to a year or older (15%) (Figure 12). Among agencies, over a third of survey respondents in the Chinle + Northern Agencies (38%) and Western Agency (35%) believed that parental influence on brain development begins only after at least one month of age (Table 12). This indicates that knowledge gaps exist that have very real implications for how adults interact with and raise young children. Providing specific information about the importance of early interactions in healthy brain development is the first step in assisting families in making choices that will support and optimize their child's development. Twenty percent of older respondents (ages 40 and up) believed that the impact on brain development starts after a child's first birthday; only 13 percent of younger respondents believed this.

Figure 12. When do you think a parent can begin to make a big difference on a child's brain development? (N=290)

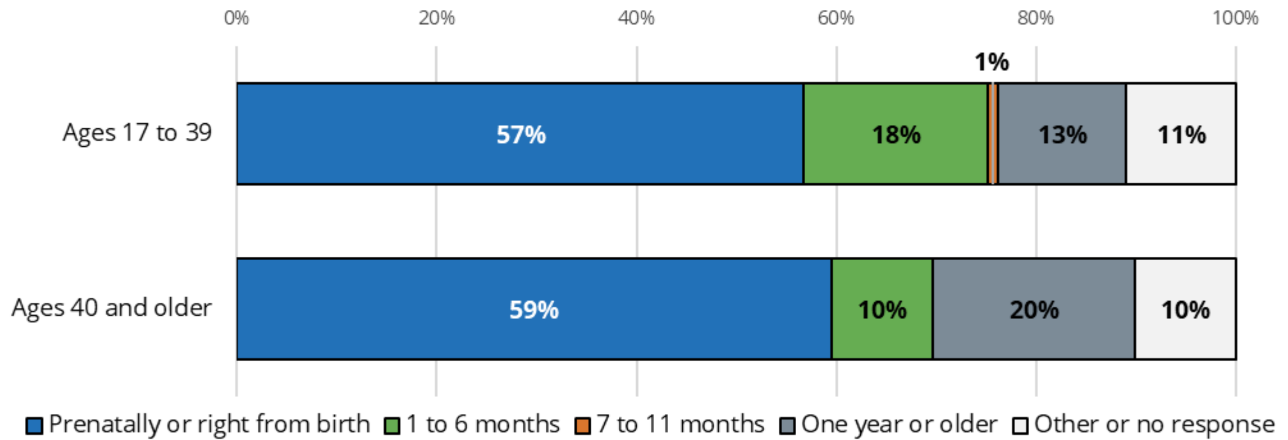


Source:

Table 12. When do you think a parent can begin to make a big difference on a child's brain development?

	Number of respondents	Prenatally or right from birth	1 to 6 months	7 to 11 months	One year or older	Other or no response
Navajo Nation	**290**	**57%**	**16%**	**1%**	**15%**	**11%**
Chinle+Northern Agencies	47	55%	19%	0%	17%	9%
Ft. Defiance Agency	111	59%	15%	1%	13%	13%
Western Agency	116	55%	16%	1%	18%	9%
Unknown Agency	16	56%	13%	0%	6%	25%

Figure 13. By age of respondent: When do you think a parent can begin to make a big difference on a child's brain development?

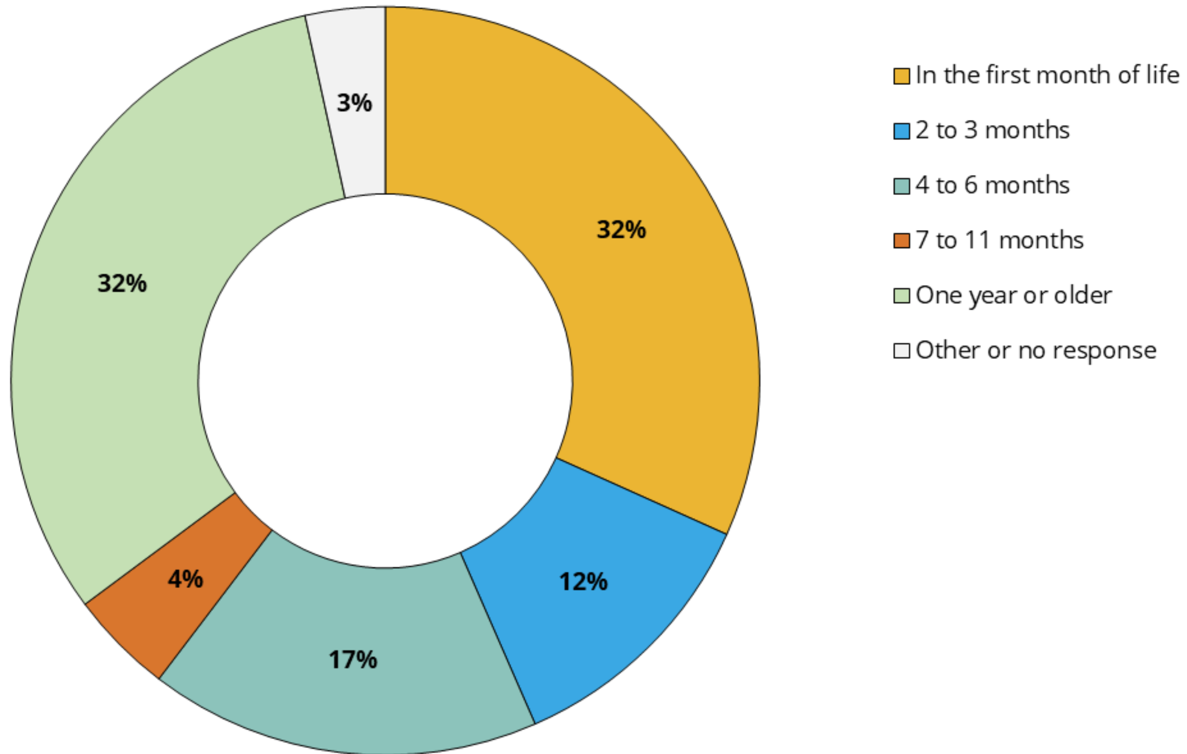


Source:

Young children reacting to the world around them

When asked at what age an infant or young child begins to take in and react to their surroundings, fewer than one-third of respondents (31%) recognized that this occurs in the first month of life (Figure 14). More than (32%) believe that children do not respond to their environment until one year of age or later. Another third (33%) believe that children begin to react to their environment between two and 11 months of age. This suggests that a majority of Navajo Nation parents and caregivers responding to the survey do not fully understand the importance of a child's very early interactive experiences with his or her environment for healthy development. Variability existed between Agencies, with almost four in 10 respondents (38%) in the Chinle + Northern Agencies aware that infants begin interacting with the world around them in the first month of life, while just over a quarter (28%) of respondents in the Western Agency shared the same belief (Table 13). There was also some difference between the older and younger respondents on this question. Relatively more (37%) of the older respondents and relatively fewer (30%) of the younger respondents believed that infants take in and react to their surroundings in the first month of life.

Figure 14. At what age do you think an infant or young child begins to really take in and react to the world around them? (N=290)

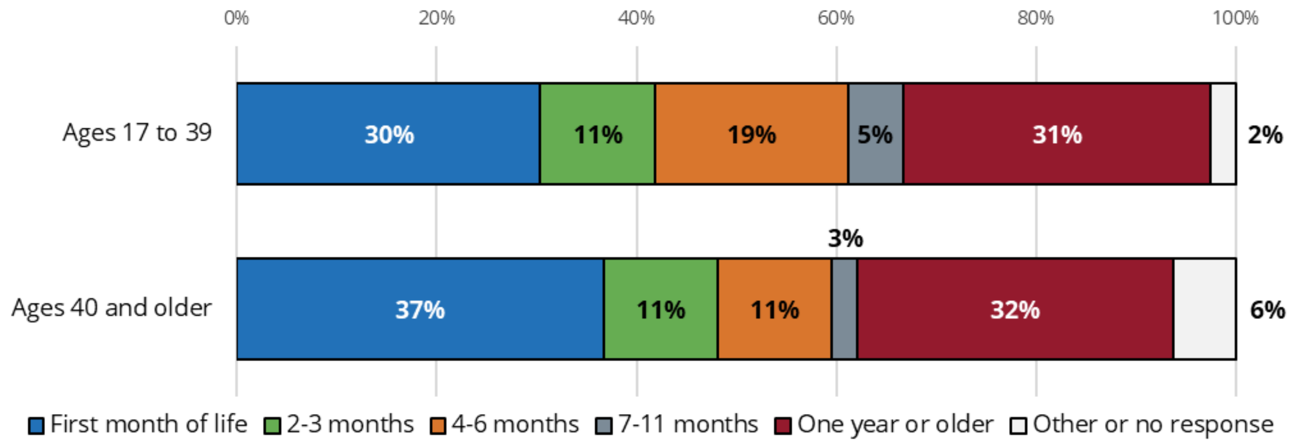


Source:

Table 13. At what age do you think an infant or young child begins to really take in and react to the world around them?

	Number of respondents	In the first month of life	2 to 3 months	4 to 6 months	7 to 11 months	One year or older	Other or no response
Navajo Nation	**290**	**32%**	**12%**	**17%**	**4%**	**32%**	**3%**
Chinle+Northern Agencies	47	40%	9%	9%	11%	26%	6%
Ft. Defiance Agency	111	32%	12%	19%	1%	33%	3%
Western Agency	116	27%	14%	18%	5%	34%	3%
Unknown Agency	16	38%	6%	19%	6%	25%	6%

Figure 15. By age of respondent: At what age do you think an infant or young child begins to really take in and react to the world around them?

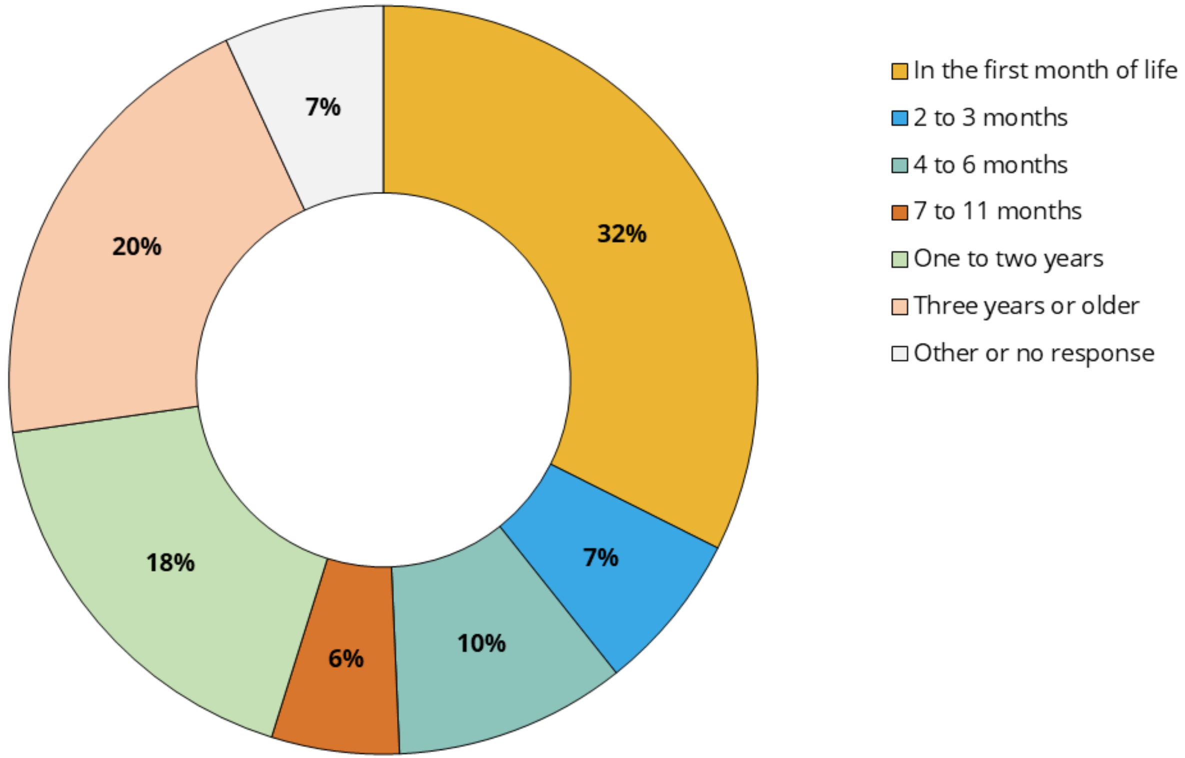


Source:

Children responding to parents' or caregivers' moods

Just under one-third of Parent and Caregiver Survey respondents (32%) understood that infants in their first month of life sense and respond to parents' moods (Figure 16). In contrast, more respondents (38%) believed that children sense and react to parent emotions only after they reach one year of age or older; two in 10 (20%) believed this did not occur until a child reached the age of three. Some variability again existed by Agency, with almost half of respondents (48%) in the Chinle + Northern Agency indicating that young children cannot sense their parents mood until reaching at least one year of age; 29 percent felt this did not happen until the child reached three years of age or older (Table 14). The difference between older and younger respondents was small. A higher proportion of respondents ages 40 and older (24%) reported that children respond to parents' mood at three years or more, compared to 19 percent among younger respondents.

Figure 16. At what age do you think a baby or young child can begin to sense whether or not his parent is depressed or angry, and can be affected by how his parents are feeling? (N=290)

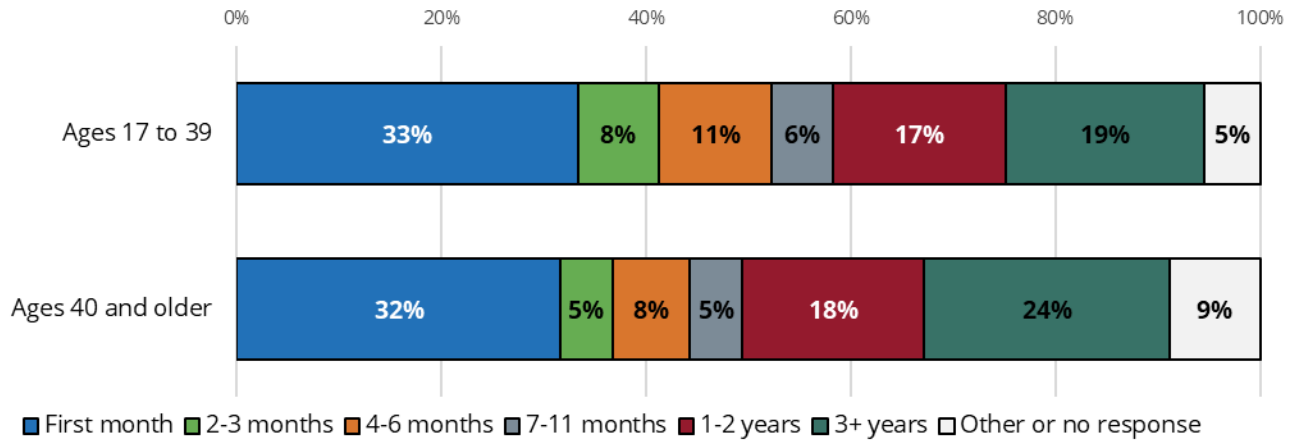


Source:

Table 14. At what age do you think a baby or young child can begin to sense whether or not his parent is depressed or angry, and can be affected by how his parents are feeling?

	Number of respondents	In the first month of life	2 to 3 months	4 to 6 months	7 to 11 months	One to two years	Three years or older	Other or no response
Navajo Nation	**290**	**32%**	**7%**	**10%**	**6%**	**18%**	**20%**	**7%**
Chinle+Northern Agencies	47	28%	2%	11%	6%	19%	28%	6%
Ft. Defiance Agency	111	32%	7%	14%	4%	17%	22%	5%
Western Agency	116	34%	7%	7%	8%	18%	18%	9%
Unknown Agency	16	38%	19%	6%	0%	19%	6%	13%

Figure 17. At what age do you think a baby or young child can begin to sense whether or not his parent is depressed or angry, and can be affected by how his parents are feeling?



Children's capacity to learn

Fewer than half of survey respondents (45%) understood, definitely or probably, that children's capacity to learn is not set at birth (Figure 18). The majority (54%) believed that children's abilities are, or might be, fixed at birth and cannot be impacted by how parents interact with a child. Pronounced difference existed by Agency (Table 15). Almost two-thirds of respondents (62%) in Chinle + Northern Agencies indicated that children's capacity for learning being set at birth was definitely false (48%) or probably false (14%). In contrast, 61 percent of respondents from the Western Agency believed that children's learning capacity was set at birth and was unlikely to be affected by parental interaction. Over half (53%) of respondents in the Ft. Defiance Agency believed the same.

Figure 18. Children's capacity for learning is pretty much set from birth and cannot be greatly changed by how the parents interact with them. (N=290)

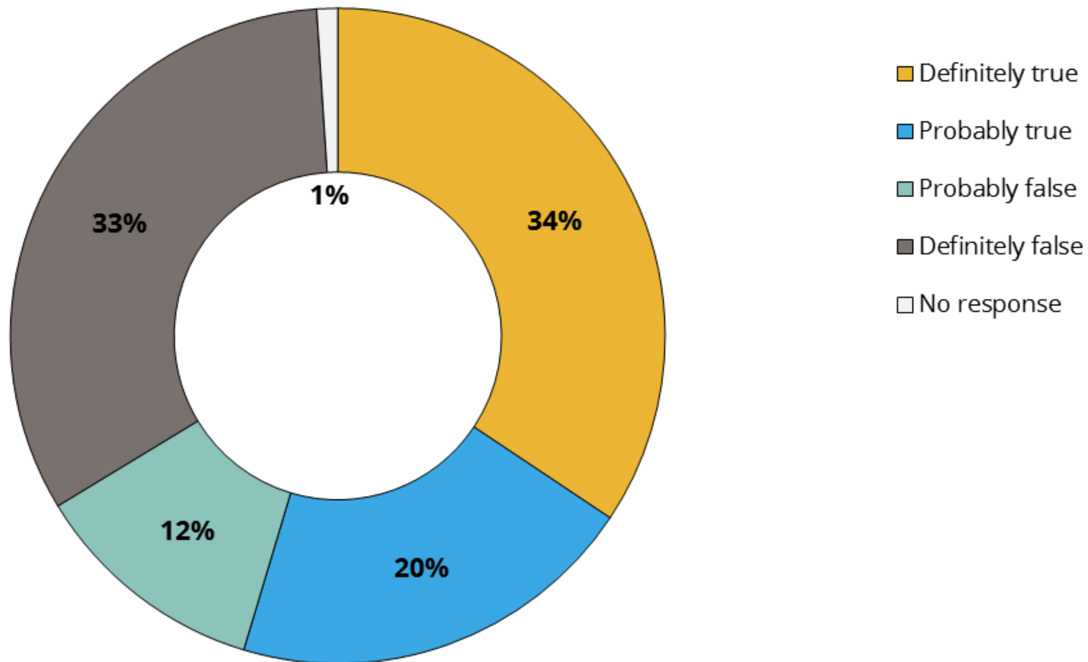


Table 15. Children's capacity for learning is pretty much set from birth and cannot be greatly changed by how the parents interact with them.

	Number of respondents	Definitely true	Probably true	Probably false	Definitely false	No response
Navajo Nation	**290**	**34%**	**20%**	**12%**	**33%**	**1%**
Chinle+Northern Agencies	47	21%	19%	13%	45%	2%
Ft. Defiance Agency	111	36%	18%	12%	34%	0%
Western Agency	116	37%	22%	12%	28%	1%
Unknown Agency	16	44%	25%	6%	25%	0%

Language development and television

Results from the Parent and Caregiver Survey suggest that only 13 percent of respondents understood that television is definitely not a substitute for the give and take of real conversation, with an additional 17 percent indicating this was probably the case (Figure 19). More than two-thirds of respondents (69%) indicated that television might (or does) promote language development as effectively as personal interaction.

Responses to this item varied by age, suggesting a possible generational difference. Respondents age 40 and older were more likely to indicate that children get the same benefit from hearing someone talk on television as hearing a person in the same room talk to them; 83 percent of participants in this age group responded that this statement was definitely or probably true, and 17 percent said it was probably or definitely false. Conversely, respondents under the age of 40 were more likely to say the benefit was not the same; 64 percent of respondents in the age group indicated that the statement was definitely or probably true, and 37 percent said it was probably or definitely false (Figure 20).

Some variability existed across agencies, with fewer than one quarter (24%) of Chinle + Northern Agencies respondents indicating it was "definitely true" that children get the same benefit from hearing someone on the TV as someone talking to them in person (Table 16). Forty percent or more of respondents in the Ft. Defiance Agency (43%) and Western Agency (40%) believed the same.

Figure 19. In learning about language, children get the same benefit from hearing someone talk on TV as hearing a person in the same room talking to them. (N=290)

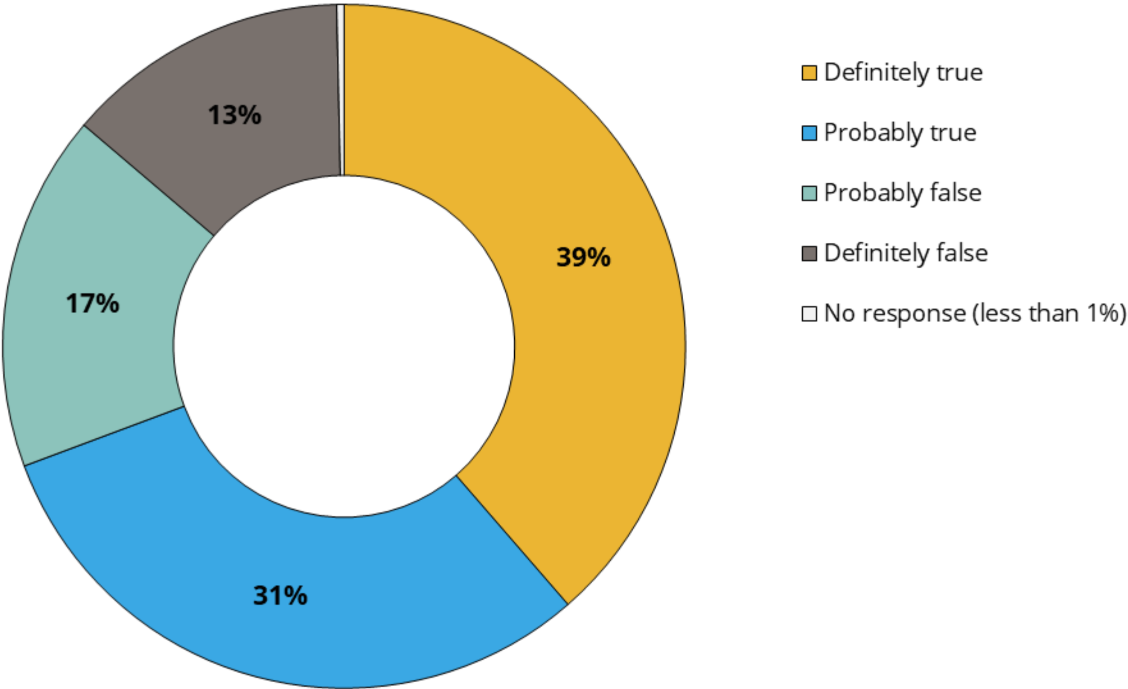


Figure 20. In learning about language, children get the same benefit from hearing someone talk on TV as hearing a person in the same room talking to them (by age) (N=280)

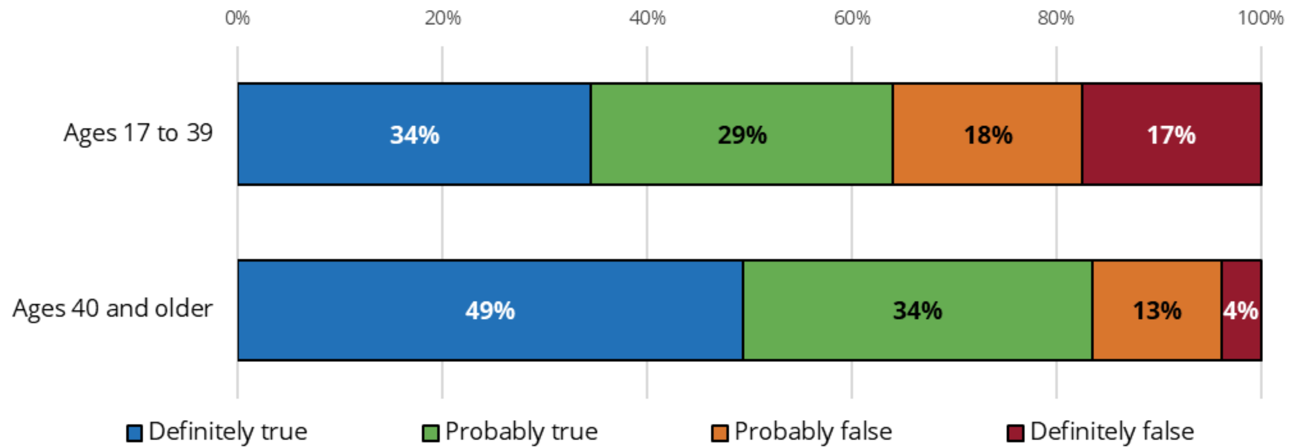


Table 16. In learning about language, children get the same benefit from hearing someone talk on TV as hearing a person in the same room talking to them.

	Number of respondents	Definitely true	Probably true	Probably false	Definitely false	No response
Navajo Nation	**290**	**39%**	**31%**	**17%**	**13%**	**0%**
Chinle+Northern Agencies	47	28%	36%	17%	19%	0%
Ft. Defiance Agency	111	43%	28%	18%	11%	0%
Western Agency	116	38%	30%	17%	14%	1%
Unknown Agency	16	44%	38%	6%	13%	0%

Reading and singing to the child

Children need exposure to responsive and stimulating interactions in the early years for later success in school and life.[13] Parents do not need expensive toys or resources to lay the early groundwork for later school success. Talking to children, singing songs and telling stories, reading books, playing simple games like peek-a-boo, and providing consistent and affectionate responses are all behaviors that promote healthy social-emotional development.

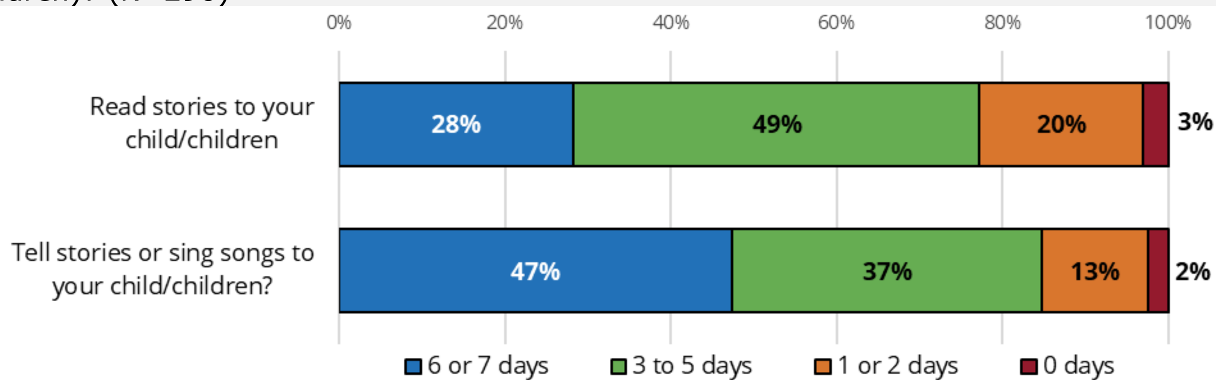
[13] *Center on the Developing Child at Harvard University (2010). The Foundations of Lifelong Health Are Built in Early Childhood.* *http://www.developingchild.harvard.edu*

Reading regularly to young children is linked to better cognitive and language development, stronger literacy skills, and higher academic achievement when children start school.[14]

The Parent and Caregiver Survey collected data on two items about home literacy activities known to contribute positively to healthy development.

Twenty-eight percent of the respondents reported that someone in the home read to their child six or seven days in the week prior to the survey (Figure 21). A smaller fraction (23%) reported that their child was not read to, or only once or twice during the week. In comparison, telling stories or singing songs was more frequent than reading. Almost half (47%) of the children are hearing stories or songs almost daily, and 85 percent of children are hearing stories or songs at least three days per week.

Figure 21. During the past week, how many days did you or other family members read stories to your child? How many days did you tell stories or sing songs to your child (or children)? (N=290)



[14] *Rodriguez, E., & Tamis-LeMonda, C. S. (2011). Trajectories of the Home Learning Environment across the First Five Years: Associations with Children's Language and Literacy Skills at PreKindergarten. Child Development, Vol. 82(4), pp. 1058-1075.*

Table 17. During the past week, how many days did you or other family members read stories to your child?

	Number of respondents	Six or seven days	Three to five days	One or two days	Zero days	No response
Navajo Nation	**290**	**28%**	**49%**	**20%**	**3%**	**0%**
Chinle+Northern Agencies	47	36%	43%	17%	4%	0%
Ft. Defiance Agency	111	29%	50%	16%	5%	0%
Western Agency	116	24%	51%	23%	2%	0%
Unknown Agency	16	31%	44%	25%	0%	0%

Table 18. During the past week, how many days did you tell stories or sing songs to your child?

	Number of respondents	Six or seven days	Three to five days	One or two days	Zero days	No response
Navajo Nation	**290**	**47%**	**37%**	**13%**	**2%**	**0%**
Chinle+Northern Agencies	47	51%	36%	9%	4%	0%
Ft. Defiance Agency	111	48%	37%	12%	3%	1%
Western Agency	116	44%	40%	15%	2%	0%
Unknown Agency	16	56%	25%	19%	0%	0%

Parent confidence in their ability to support their child's development

Parents and caregivers were asked to respond to questions about their own ability to impact their children's well-being and learning. Almost all respondents (98%) indicated strong (93%) or partial agreement (5%) with the statement, "I feel I am able to support my child's safety, health and well-being" (Figure 22). Results were similar across agencies, although respondents from Chinle + Northern Agencies were slightly less likely to strongly agree (86%) and more likely to somewhat agree (12%) with the statement than respondents from other Agencies (Table 19). Again, this may be an artifact of the use of clinics to interview parents in the other Agencies; parents there may be primed to feel that they are supporting their child's health and well-being by virtue of being about to engage in health care.

Figure 22. I feel I am able to support my child's safety, health, and well-being. (N=290)

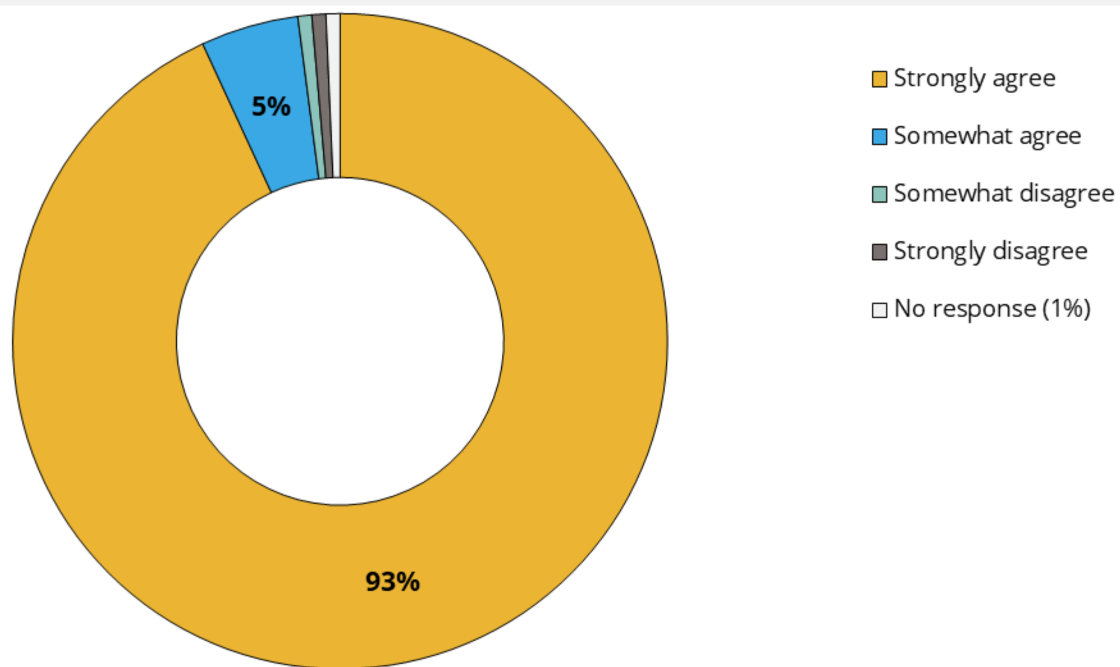


Table 19. I feel I am able to support my child's safety, health, and well-being.

	Number of respondents	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	No response
Navajo Nation	**290**	**93%**	**5%**	**1%**	**1%**	**1%**
Chinle+Northern Agencies	47	87%	11%	0%	2%	0%
Ft. Defiance Agency	111	94%	5%	1%	0%	1%
Western Agency	116	95%	3%	1%	0%	1%
Unknown Agency	16	94%	0%	0%	6%	0%

Again, agreement was high regarding respondents ability to support their children's learning. Ninety-eight percent of respondents strongly (89%) or somewhat agreed (9%) with the statement, "I feel I am able to support my child's learning and ability to think (i.e., cognitive development) (Figure 23). Results were very similar across Agencies (Table 20).

Figure 23. I feel I am able to support my child's learning and ability to think (i.e. cognitive development). (N=290)

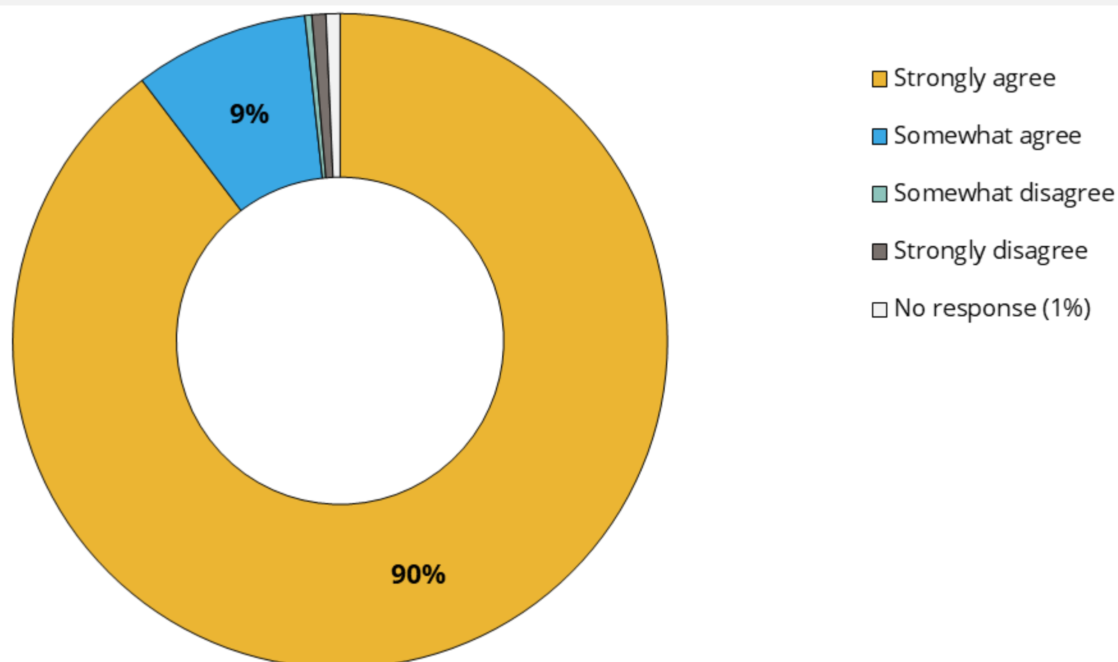


Table 20. I feel I am able to support my child's learning and ability to think (i.e. cognitive development).

	Number of respondents	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	No response
Navajo Nation	**290**	**90%**	**9%**	**0%**	**1%**	**1%**
Chinle+Northern Agencies	47	89%	9%	0%	2%	0%
Ft. Defiance Agency	111	89%	10%	0%	0%	1%
Western Agency	116	90%	9%	1%	0%	1%
Unknown Agency	16	94%	0%	0%	6%	0%

Community Assets and Challenges Faced by Parents and Caregivers Raising Young Children

When parents and caregivers were asked what they liked best about raising young children in their community, it was clear that family support, exposure to the Navajo language and culture, quality schools, and small close-knit communities were highly valued.

In regard to family and family support, parents and caregivers said they appreciated being around family, having family (immediate and extended) nearby and children benefitted from this by having more opportunities to learn about their family history and develop their sense of identity through family. Moreover, parents and caregivers valued having close proximity and access to grandparents and family elders. Some mentioned the importance of being around family in order to pass on traditional Navajo teachings and to reinforce learning of the Navajo language.

Many parents and caregivers talked about the sense of security, safety, and belonging they received from being a part of their small communities where "people know each other." It was mentioned many times that being a part of a small community meant resources were more readily accessible and the distance to community schools were within walking distance for some.

Parents and caregivers from smaller communities said they felt more peace and quiet in these areas, and liked the wide, open spaces of their environment. They perceived their children as having more opportunities to explore and interact more with their natural environment. Parents and caregivers from smaller communities were also more likely to say they liked being able to instill respect and appreciation for the ranching life, where there is more emphasis on the care of livestock.

Parents and caregivers from larger communities said they liked having more and easier access to schools, program services, resources, and amenities such as paved roads, playgrounds, and cellular telephone service.

When early learning center staff were asked about the things that are working well in their communities for children aged birth to 5 years, nearly half regarded the availability of early learning programs in their area as a community asset. This position was even stronger among interviewees in larger communities that had a multitude of different early learning programs to offer families. According to interviewees, centers provide children with the support, stability, and resources they need to be kindergarten-ready. Interviewees valued their roles as care providers and teachers, acknowledging that parents were entrusting them with partial responsibility to help raise their child, in a sense. A child development worker from a CCDF center shared:

> *I think this program is working well because we provide a lot of education to children, 0 to 5 years old. We also provide nutritious meals to them, and a lot of care and love on our part when parents are not around because they are at work or school.*

Efforts to teach Navajo language and culture were also highly regarded, particularly within early learning programs. Efforts range from informal practices in which center staff occasionally talk in Navajo to children to embedded curricula similar to those used in immersion programs. At one CCDF center, staff talk to children in Navajo and teach children how to identify colors, numbers, and animals in Navajo. Parents seemed to appreciate this effort, and the interviewee who shared this sounded hopeful that perhaps one day, all verbal communication with children would be in Navajo. Within the Navajo Head Start program, interviewed staff felt that the implementation of the Navajo immersion programs was working well. Head Start staff indicated that in one region, there were five Head Start centers that provide Navajo cultural instruction and language learning in the morning, and then follow a western

educational curriculum in the afternoon. One preschool teacher mentioned an ongoing language class that was offered at the Navajo Nation Museum every Thursday where children were learning basic Navajo language skills.

Community sports programs or programs promoting physical activity were also mentioned as working well for young children in the community. Interviewees identified community swimming pools, summer t-ball leagues, the Wings of America running camp, soccer and basketball programs offered by the Navajo Nation Department of Youth, and the popular Just Move It series of community fun walks and runs around the Navajo Nation.

Another thing a few interviewees identified as working well for young children in the community were any efforts to provide food security or nutrition awareness for children and their families. Examples of these the Women, Infants, and Children program and food donations provided by some community churches.

When centers were asked to identify some community strengths and opportunities existing for parents and caregivers for young children, the top response was the educational information and resources being provided by various community agencies on topics such as parenting, child development and milestones, healthy brain development, family strengthening, health promotion, and family involvement. One CCDF staff member talked about the changes she's observed in parents in this regard:

> *I think a lot of parents nowadays are getting more info and education on the brain development of young children. They're realizing young children need more contact, and that being there for their child is really important…talking to them, reading to them. A lot of programs and agencies are teaching more parents about this.*

For grandparents raising young children, schools are particularly important centers where they go first to receive information regarding child health and development and parenting. In this respect, schools are seen as strength in the community. According to one preschool staff member, her school designates a key contact representative with whom grandparents can communicate issues and concerns.

One preschool staff member identified the local Indian Health Service as a strength in the community for parents, and talked about how IHS providers in her area do a good job of discussing developmental milestones with parents of young children, as well as their efforts to promote early literacy by providing children with reading books and coloring books. Here, she discusses the type of support they provide parents:

> *They provide parenting support. I think they have offered classes at IHS, and [IHS] has had conferences [on topics such as] "how to be a better parent" and fatherhood for parents.*

Three interviewees considered wellness centers and health programs that offered fitness classes or sports activities as community strengths that benefit parents of young children.

Two interviewees identified the establishment of higher education extension campuses in their community as a strength and how this signified opportunities for parents to attain post-secondary education. One interviewee talked about the Navajo Technical University branch that had been recently established in her community and how meaningful it is that parents can receive higher education without having to leave home.

In addition, the following were mentioned once: access to computers at the chapter house; teen parenting programs; Food Distribution Program; community parks; community churches; a parenting helpline; Navajo traditional parenting classes said to be offered by the Navajo Peacemaking Program; and tuition assistance programs (for early learning programs) such as Quality First scholarships.

In more populated communities, community strengths and opportunities for parents and caregivers were also identified as libraries, Navajo culture centers, free family movie nights, Boys and Girls clubs, and an afterschool program in Ft. Defiance called Rez Refuge.

When asked about some of the toughest things about raising young children in their community, parents and caregivers were most concerned with the lack of child care options in their area; substance abuse (primarily alcohol and drugs); challenges with traveling on unpaved roads; having to drive far distances to perform a variety of activities (for more rural communities); having very limited to no activities for children in the community outside of school hours; not having accessibility to schools or educational learning programs; and not having reliable transportation.

Regarding lack of child care options, most responses were in reference to the absence of child care centers or programs in the community, but some parents contextualized their response to indicate they were unable to meet income requirements to be eligible for child care services.

Approximately ten percent of surveyed parents and caregivers said they did not have any problems, challenges, or negative experiences associated with raising their children in their community.

SYSTEM COORDINATION AMONG EARLY CHILDHOOD PROGRAMS AND SERVICES

System Coordination from the Perspective of Center-based Early Care and Learning Programs

Interviewees thought one of the best ways to improve coordination and collaboration across the early learning system is to improve the frequency of communication among early learning program providers and stakeholders. Improving communication flow from program managers to program staff and developing more efficient ways of information sharing (such as the utilization of videoconferencing) within programs were identified as ways of improving communication.

Increasing collaborative efforts with other early learning programs and service providers in the area was looked upon favorably by many interviewees. Four interviewees said their program either currently extends or is looking to extend more invitations to community service providers (i.e. health promotion, public safety, etc.) to provide educational outreach to children and families through presentations or in-house activities. One interviewee saw increased collaboration with other community partners such as Child Protective Services (CPS), the Indian Health Service (IHS), and the Women, Infants, and Children (WIC) program as an opportunity to improve and streamline the referral system for children and their families. Another interviewee said increased collaboration was a way to prevent the duplication of services.

Some interviewees thought more opportunities for co-training and professional development with other programs across the early learning system would be beneficial. When asked about potential opportunities for increased coordination and collaboration across the early learning system, one early childhood teacher described what she thought were the benefits of having a regional early childhood summit for Navajo Nation early learning program providers:

> *I believe the benefit would be the professional development and early childhood services provided in the state. I went to one in August in Flagstaff, and was surprised to see many reservation-based early childhood providers there. It allowed for all on-rez and off-rez providers to come together and share experiences about what is encountered on Navajo Nation, how similar or different their programs are, what's working here, and what's not.*

Four interviewees thought increased program funding and seeking external grant funding would be helpful. Five interviewees lauded the benefits of participating in Quality First or connecting with First Things First. The following quotes characterize this:

> *I'm really looking forward to our work with First Things First. They're really putting us in a place where we can say, "Yes, we offer quality child care," and it's something to look forward to.*

> *We've made an improvement in collaboration by joining First Things First. We're networked with other programs. In speaking with a coach with the early childhood program in [Navajo community], they want to do a watch here and see what the program is doing. There are things not working for them that work here. [We] have an early childhood education program here that's well established that they can learn about.*

Becoming a part of Quality First has helped teachers come up with things that are developmentally appropriate for students.

CONCLUSIONS

Early childhood development and health services provided at center-based early care and learning programs

Overall, center-based early learning programs that participated in this project offer a wide variety of support services to enrolled children. Differences exist, however, in the intensity, frequency and consistency of these services depending largely on the type of center.

In general, center-based early care and education programs that are affiliated with a school appear to have the best support system in place in terms of partnerships with external agencies, referrals to outside services (and from outside entities in some cases), and ability to provide in-house services. This may be due in part to the fact that they are part of a larger institution (i.e. the school) and a system (i.e. public education) which makes additional services available to them. The schools at which these preschools are located are often the actual providers of specialized services within a certain area, as in the case of services for children with special needs. Children enrolled in these programs are likely to have access to a wider array of services.

CCDF centers, on the other hand could benefit from additional support and partnership with external agencies providing the types of child health and development that were the focus of this report. In particular, CCDF centers are likely to benefit from additional training for staff in how to support children with special needs. During the process of completing this report, a number of CCDF centers –including some of those participating in this project--became part of the First Things First Quality First system. Their enrollment in Quality First will connect these centers with an array of support services in areas of identified need such as professional development; recruitment and retention of staff with credentials in early childhood education; and early identification of, and intervention for, children with special needs. Administrative support for staff to take advantage of newly available training opportunities will ensure that their participation in Quality First is most successful.

Often, external agencies provide education and services around childhood development and health (such as oral health screenings and fluoride varnishing). This external provision is critical for some of these centers; the services only exist in some areas because of this external support. However, there are regional differences in what is available given the variability across the early childhood systems throughout the Navajo Nation. For instance, immunization provision and early intervention screening depend on the types of health care facilities available nearby and the partnerships that are formed with other systems such as Local Education Agencies (public schools) in the vicinity.

In addition, services and educational interventions provided by external agencies are often provided one time or intermittently, and may depend on outreach from center staff, making it difficult to provide continuity. Identifying what can be integrated into the center's own curricula, lesson plans, or daily structure may make some of the educational components (such as nutrition and physical activity) more sustainable.

Even where sustainable partnerships exist (such as through long-standing First Things First -funded strategies), some challenges still exist at the center-level in terms of getting consent forms from parents so children can access those services.

It is important to note that the immunizations was the one health-related topic where most centers reported not providing any type of parent education or direct services. Interviewed staff pointed out that children must be up-to-date on their immunizations in order to be enrolled in the center. Although immunization coverage tends to be higher among children enrolled in child care centers, families in the region might still benefit from additional

education on this topic. According to the 2018 Navajo Nation Regional Needs and Assets Report, the Healthy People 2020 target for vaccination coverage for children ages 19-35 months is 90 percent, and data from the Navajo Area Indian Health Service suggest that the Navajo Nation Region overall may not be meeting this goal. Parent education through child care centers might help promote higher immunization coverage among the youngest children in the region.

Child health

The Parent and Caregiver Survey asked participants a number of questions related to access to health care services and satisfaction with services currently available to them. Most of the survey participants singled out dental care and medical care as the main types of care needed by their children but not received. About half of survey participants indicated reported having one or more health care-related unmet needs.

Considering that a large proportion of the surveys were conducted at health care facilities and therefore included parents who were actually receiving those services, it is likely that the need in the Navajo Nation Region as a whole is even higher. On the other hand, parents who were able to access services seemed to be mostly satisfied with them.

Differences may exist at the community level and also depending on the age of the children. The survey data collected for this project do not lend themselves to assessing differences in service need by the child's age. Nevertheless, the responses of some parents shed some light on these differences. For instance, a parent said she liked getting dental care for her infant at Tuba City Regional Health Care Center because the dental clinics nearest to her in Kayenta and Inscription House do not provide dental services for children under one year of age. Identification of 'hot spots' or areas of high need where services for the youngest children are not available might be especially relevant for the region. As highlighted in the Navajo Nation 2018 Regional Needs and Assets Report, a high proportion of one-year old American Indian and Alaska Native children already have tooth decay. Prevention efforts before the age of two are essential to reduce the prevalence of tooth decay among this population.[15] The widespread network of child care centers with which the Navajo Nation First Things First Oral Health grantee partners with may be one way to gather information from parents about specific areas with limited dental services for very young children.

Participation in center-based early care and learning programs

More than half of parents and caregivers participating in the survey did not have their children enrolled in a CBECLP. The reasons cited by parents suggest that access to these types of programs continues to be a challenge. Many parents reported not having, or not knowing of any CBECLPs in their areas. Staff from CBECLPs interviewed for this project agree that many children who would benefit from participating in a CBECLP are not able to access this service. Lack of awareness among parents about existing CBECLPs may partly explain the problem. During the last few years, a number of Head Start centers have closed and reopened as part of the Head Start restructuring process.[16] This might have created a level of uncertainty among parents concerning the availability of services in their area. Similarly, the 2018 First Things First Navajo Nation Regional Needs and Assets Report also documented the closure of CCDF centers. In the case of CCDF, however, low enrollment was the reason behind the closures. Among CCDF centers participating in this project, half had no children on their waiting list while the others did. At one center, the waiting list had twice as many children as those enrolled. A better understanding of the reasons

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[15] *According to the 2018 Regional Needs and Assets Report, data from the Indian Health Service Oral Health Survey conducted with children ages 1 to 5 in all IHS Areas, including the Navajo Area, 18 percent of one-year old children already had tooth decay.*

[16] *For additional information about this process see the 2018 Navajo Nation Regional Needs and Assets Report.*

behind this variability might help stakeholders in the early learning system better allocate resources to different areas.

Location and ease of access may help explain different levels of demand for services in certain regions. Centers serving more remote rural areas where parents have a more difficult time accessing them may have fewer children enrolled and on their waiting list, especially if they do not provide transportation, as it is the case for CCDF centers.

Both child care providers and parents/caregivers cited limited transportation as major barrier to accessing CBECLP services. Even among centers that are able to bus children, this service may be available to only a subset of them (i.e. children with special needs, or children with older siblings riding the bus). Staff from participating CBECLPs reported that recruiting and retaining qualified staff is often a challenge not only with regards to child care providers, but also to other types of support staff such as bus drivers and monitors.

In addition to facing structural barriers such as a lack of CBECLPs in certain areas or limited transportation services, participation in center-based care may be hindered by parental perceptions about the appropriateness of utilizing this service. Many parents who reported that their children do not participate in CBECLPs stated that their child is "too young" as one of the reasons for not enrolling them. This was the case even among parents whose children were in the toddler years. Promoting awareness about the benefits of high quality early education programs may encourage parents to have their children participate in CBECLPs.

On the other hand, parents and caregivers in the region seem to appreciate the services provided by the various CBECLPs beyond the logistic support they offer to parents who need to work or attend school. A high proportion of the parents participating in the survey whose children were enrolled in CBECLPs reported not having a paid job. While some of these parents may use center services while they look for work, others may also do so because of the educational value that CBECLPs provide to their children.

An important issue brought up by parents and CBCELPs staff is the challenge faced by families that exceed the income limit to access some of the existing center-based services. Since the majority of CBECLPs in the Navajo Nation region aim at supporting low-income families, those with incomes over established thresholds often struggle to find child care and learning opportunities for their children. Given the fact that private child care centers are limited in some areas and to non-existent in others within the region, it is important to find creative ways to support these families to meet their child care needs. As the workforce in the Navajo Nation region becomes increasingly better prepared and more qualified, more families would be expected to fall in this category. Some parents may be in the position to access child care services offered by private providers in the border towns outside of the Navajo Nation. However, parents and caregivers participating in this project emphasized the importance of children learning the Navajo language and culture. CBECLPs within the Navajo Nation are more likely to be able to provide services with strong Navajo language and culture components. This may be particularly important considering that, according to the 2018 Navajo Nation Regional Needs and Assets Report, language preservation is of outmost importance to the Nation as very few young children are currently fluent in the Navajo language. Ensuring the availability of child care services for families whose income exceed established threshold for services will also encourage them to stay within (or return to) the Nation as opposed to settling somewhere else.

Parent knowledge of early childhood development and self-perception of their competence and confidence to support their children's healthy development

Although a high proportion of parents and caregivers surveyed for this project have a good understanding of parental influence on promoting their child's healthy development during the early months of life (e.g. they acknowledged that parents can substantially affect children's brain development at or before birth), there is room for

improvement in the level of awareness about the timing of other critical developmental milestones and early abilities.

For instance, about a third of survey participants believe that children do not respond to their environment until one year of age or later (when in fact this begins to take place during the first month of life). Only 13 percent of respondents understood that television is definitely not a substitute for the give and take of real conversation.

Some generational differences may exist in parent awareness of early childhood development, at least in some areas: caregivers age 40 and older were more likely to indicate that children get the same benefit from hearing someone talk on television as hearing a person in the same room talk to them.

Providing specific information about the importance of early interactions in healthy brain development is the first step in assisting families in making choices that will support and optimize their child's development.

The vast majority of parents and caregivers participating in this project indicated that they feel able to support their child's safety, health, well-being, learning and ability to think. While this is a positive finding, it is also important to note that it may be an artifact of the use of clinics to interview parents. They may be primed to feel that they are supporting their child's health and well-being by virtue of being about to engage in health care.

It is important to note that the survey questions assessing parental awareness of early childhood development were challenging and often parents had a difficult time understanding them. Although these items were part of a standardized questionnaire that had been used in other First Things First tribal regions, future efforts in determining the level of parental awareness may benefit from testing the items at the local level to make sure they are well understood.

APPENDICES

Appendix A. Center-Based Early Care and Learning Programs Selected for Participation in Interviews

Center-Based Early Care and Learning Programs Selected for Interviews		
Agency	**Name**	**Type**
CHINLE	Kii Doo Baa I Child Care Center	CCDF
CHINLE	Many Farms Child Care Center	CCDF
CHINLE	Tsaile Child Care Center	CCDF
CHINLE	Rough Rock Community School	FACE
CHINLE	Del Muerto I & II NHS	HEADSTART
CHINLE	Forest Lake NHS	HEADSTART
CHINLE	Low Mountain NHS	HEADSTART
CHINLE	Dine College EHS	HEADSTART/EHS
CHINLE	Chinle Elementary School	PUBLIC
FT DEFIANCE	Karigan Child Care Center	CCDF
FT DEFIANCE	Little Miss Muffet	CCDF
FT DEFIANCE	Greasewood Springs Community School	FACE
FT DEFIANCE	Dilkon NHS	HEADSTART
FT DEFIANCE	Genado NHS Center	HEADSTART
FT DEFIANCE	Lupton NHS	HEADSTART
FT DEFIANCE	Ft. Defiance NHS	HEADSTART/EHS
FT DEFIANCE	Saint Michael Indian School	PRIVATE
FT DEFIANCE	Indian Wells Elementary	PUBLIC
FT DEFIANCE	Tsehootsie Integrated Preschool Program	PUBLIC
NORTHERN	T'iis Nazbas Community School	FACE
NORTHERN	Red Valley NHS	HEADSTART
NORTHERN	The Robert Charley Preschool Program	PUBLIC
WESTERN	Leupp School	CCDF
WESTERN	Littler Singer Community School	FACE
WESTERN	Greymountain HB	HEADSTART
WESTERN	Kailbeto NHS	HEADSTART
WESTERN	LeChee I & II NHS	HEADSTART
WESTERN	Shonto I NHS	HEADSTART
WESTERN	ABC Preschool-Kayenta Unified School District	PUBLIC
WESTERN	Leupp Public School	PUBLIC
WESTERN	Tuba City High School	PUBLIC
WESTERN	Tuba City Primary School	PUBLIC

Appendix B. Center-Based Early Care and Learning Programs that participated in the interviews

Participating Center-Based Early Care and Learning Programs		
Center	**Type**	**Quality First Grantee**
Karigan CCDF	CCDF child care center	Yes
Kii Doo Baa I	CCDF child care center	Yes
Little Miss Muffet	CCDF child care center	Yes
Leupp CCDF	CCDF child care center	No
Many Farms	CCDF child care center	Yes
Tsalie CCDF	CCDF child care center	No
Rough Rock FACE	FACE	No
Tiis Nazbas FACE	FACE	No
St. Michaels Indian School Preschool	Private child care center	Yes
ABC Preschool	School-based preschool	Yes
Chinle Elementary School	School-based preschool	Yes
COPE Center (Kayenta)	School-based preschool	Yes
Indian Wells Elementary	School-based preschool	Yes
Leupp Preschool	School-based preschool	Yes
Pinon Elementary	School-based preschool	Yes
Robert Charley Preschool	School-based preschool	Yes
Tsehootsoi EES	School-based preschool	Yes
Tuba City High School	School-based preschool	Yes

Participating Center-Based Early Care and Learning Programs (cont.)

Center	Type	Quality First Grantee
Del Muerto I	Head Start Center	No
Del Muerto II	Head Start Center	No
Forest Lake NHS	Head Start Center	No
Low Mountain NHS	Head Start Center	No
Dilkon NHS	Head Start Center	No
Ganado NHS	Head Start Center	No
Lupton NHS	Head Start Center	No
Red Valley NHS	Head Start Center	No
Red Valley NHS	Head Start Center	No
Cameron NHS	Head Start Center	No
Kaibeto NHS	Head Start Center	No
LeChee I	Head Start Center	No
Le Chee II	Head Start Center	No
Shonto I	Head Start Center	No
Dine College EHS	Early Start Center	No
Ft. Defiance NHS	Head Start Center	No

Note: The table shows the centers that were participating in Quality First as of November of 2016.

Appendix C. Center-Based Early Care and Learning Program Interview Guide

Center-based early learning program
key informant interview guide

Type of early learning program:

☐ Private child care center off the Navajo Nation

☐ Private child care center on the Navajo Nation

☐ CCDF child care center

☐ Navajo Nation Early Head Start /Head Start

☐ FACE

☐ School-based preschool

☐ Church-based day care/child care

☐ Other (Please specify:____)

Interviewee Name: ____________________________________

Interviewee title/position:

☐ Director ☐ Director/Teacher
☐ Lead Teacher ☐ Other (please specify:_________________________________)

1. **Could you please tell me the number of children aged five years and younger you are currently licensed or certified to serve?**

2. **What are the days and hours you provide childcare for children 5 and younger in a typical week?** (*Interviewer: Check each day that the center or provider provides childcare and write in the hours provided each day, e.g. 8am-5pm, 6am to midnight, etc.)*
   ☐ Monday: hours___________________
   ☐ Tuesday: hours___________________
   ☐ Wednesday: hours___________________
   ☐ Thursday: hours___________________
   ☐ Friday: hours___________________
   ☐ Saturday: hours___________________
   ☐ Sunday: hours___________________

Age Group	**3. How many children do you serve in each of the following age groups?**
Infants (18 months and younger)	
Toddlers (19-35 months)	
Preschoolers (3-5 years olds)	

4. **Do you currently have a waiting list for any of the age groups we just discussed?**

☐ Yes (*proceed to 5*)

☐ No (*skip to 3*)

5. **(*If yes to 4*) How many children do you have on a waiting list for each of the following age groups:**

Age Group	# of Children on Waiting List
Infants (18 months and younger)	
Toddlers (19-35 months)	
Preschoolers (3-5 years olds)	

6. **Do you provide transportation to or from your center/home for the children enrolled in your care?**

☐ Yes (*proceed to 7*)

☐ No (*skip to 8*)

7. **Please describe the transportation you provide, e.g., transportation is provided for every child enrolled, provided on a case by case basis, for an extra fee, etc**.

____

____

______________________________________*(go to 9)*

8. **Has not providing transportation been mentioned as a reason why some children do not enroll in your program/care?**

☐ Yes

☐ No

9. **Do you have the ability to serve children 5 and under with special needs (physical, emotional, developmental or behavioral) in your program/care?**

☐ Yes (*proceed to 10*)

☐ No (*skip to 13*)

10. **How many of the children five and under currently enrolled in your program have a physical condition that affects the way you/your program serves them?**

Number of children _________

11. **How many of the children five and under have an emotional, developmental, or behavioral condition that affects the way you/your program care for them?**

Number of children _________

Engagement

12. **Is your center required to provide parents/caregivers with information on children's development and health topics? (e.g. nutrition, oral health, importance of immunizations)**
(*If yes, proceed to 13*)

(*If not, skip to 15*)

13. **How does your center share this type of information with parents? (e.g. newsletter, parent nights, fliers, parent-teacher conferences)** *If not clear, also probe for whether the information goes one-way or whether there are opportunities for interaction/follow-up/questions)*

14. **Does your center provide this information to parents, even if not required? Why or why not? If yes, follow up on how (e.g. newsletter, parent nights, fliers, parent-teacher conferences)** *If not clear, also probe for whether the information goes one-way or whether there are opportunities for interaction/follow-up/questions)*
(*If center does not provide any information, skip to 16*)

15. **How do parents typically respond to the information provided to them?** (*Proceed to 17*)

16. *If center doesn't share this information ask*: **Is this something your center might be interested in doing? Why or why not?**

Health-related issues (nutrition, oral health, immunizations, socio-emotional, developmental milestones/delays)

I'm going to ask you now some questions about some specific areas of children's development and health and whether your center provides any services to address them

Area	**17. Does your center provide education and/ or services in this area (*adjust depending on the area*) to the children enrolled?**	What types of services?	Does your agency work in partnership with other agencies/departments to provide services in this area? *(Describe) Note: Probe for referrals*
Nutrition	☐ Yes ☐ No (Why not?)		
Oral health	☐ Yes ☐ No (Why not?)		
Immunizations	☐ Yes ☐ No (Why not?)		
Socio-emotional development	☐ Yes ☐ No (Why not?)		
Developmental milestones/ developmental delays	☐ Yes ☐ No (Why not?)		

If not discussed above, probe for barriers to providing these services?

If not discussed above, probe for specific efforts that are perceived as especially successful/working well.

Access/barriers/other general issues

17. **Do you think all the young children who could benefit from early learning programs in your community/area are able to access these programs? Why or Why not?**

18. **What (other) barriers keep children aged five years and younger in your community from accessing early learning programs and services?**

19. **What opportunities do you see to improve coordination and collaboration across the early childhood system in your area?**

20. **What are the things that work well in your community for kids aged 0-5? What strengths/opportunities can you can identify in your community for parents and caregivers of young children?**

21. **Based on your work with families, what do you think are the biggest challenges that parents of children 0-5 in your community are facing?**

Appendix D. Parent and Caregiver Survey

Parent and Caregiver Survey

SURVEY ELIGIBILITY PRE-QUESTIONS

a. Are there any children ages 5 years old or younger living in your household?	☐ **Yes** (go to next question)	☐ **No** *Please return this form to the facilitator. Thank you!*
b. Are you one of this child(ren)'s main caregivers?	☐ **Yes** (go to next question)	☐ **No** *Please return this form to the facilitator. Thank you!*
c. Do you live on the Navajo Nation in Arizona?	☐ **Yes** (go to next question)	☐ **No** *Please return this form to the facilitator. Thank you!*
d. How old are the child(ren) 5 years old or younger that you care for?		

SURVEY QUESTIONS

1. **When do you think a parent can begin to make a big difference on a child's brain development? *(For example: Impact the child's ability to learn?)***

2. **At what age do you think an infant or young child begins to really take in and react to the world around them?**

3. **At what age do you think a baby or young child can begin to sense whether or not his parent is depressed or angry, and can be affected by how his parents are feeling?**

DURING THE PAST WEEK, how many days did you or other family members…

	None	1 day	2 days	3 days	4 days	5 days	6 days	7 days
4. READ STORIES to your child/children?	☐	☐	☐	☐	☐	☐	☐	☐

5. TELL STORIES or SING SONGS to your child/children?	☐	☐	☐	☐	☐	☐	☐	☐

How True or False are these STATEMENTS?

	Definitely True	**Probably True**	**Probably False**	**Definitely False**
6. Children's capacity for learning is pretty much set from birth and cannot be greatly changed by how the parents interact with them.	☐	☐	☐	☐
7. In learning about language, children get the same benefit from hearing someone talk on TV as hearing a person in the same room talking to them.	☐	☐	☐	☐

How much do you Agree or Disagree with these STATEMENTS?

	Strongly Agree	**Somewhat Agree**	**Somewhat Disagree**	**Strongly Disagree**
8. I feel I am able to support my child's safety, health, and well-being.	☐	☐	☐	☐
9. I feel I am able to support my child's learning and ability to think (i.e. cognitive development).	☐	☐	☐	☐

Now I'm going to ask you some questions about your child/ren's health.

10. Sometimes people have difficulty getting health care when they need it. **During the PAST 12 MONTHS, was there any time when your child(ren) needed these types of care, but it was delayed or not received? (select all that apply)?**

Medical Care	☐	Hearing Services	☐	Something Else **Please describe:*	☐
Dental Care	☐	Speech Therapy	☐		
Vision Care	☐	Physical Therapy	☐	______________________	
Mental Health Services	☐			______________________	

11. Please tell me how much you are currently worried about how well your child(ren)…

	Worried A Lot	***A Little Worried***	***Not at all worried***	***I don't have a child this age.***
Talks and makes speech sounds? ***(ages 4 months – 5 years)***	☐	☐	☐	☐

	Worried A Lot	*A Little Worried*	*Not at all worried*	*I don't have a child this age.*
Understands what you say? ***(ages 4 months – 5 years)***	☐	☐	☐	☐
Uses his/her hands and fingers to do things? ***(ages 4 months – 5 years)***	☐	☐	☐	☐
Uses his/her arms and legs ***(ages 4 months – 5 years)***	☐	☐	☐	☐
Behaves? ***(ages 4 months – 5 years)***	☐	☐	☐	☐
Gets along with others? ***(ages 4 months – 5 years)***	☐	☐	☐	☐
Is learning to do things for himself/herself? ***(ages 10 months – 5 years)***	☐	☐	☐	☐
Is learning preschool or school skills? ***(ages 18 months – 5 years)***	☐	☐	☐	☐

The next questions are about your community and the services you have access to:

12. What do you like best about raising young children in your community?

13. What are the hardest things about raising young children in your community?

14. WHERE do you typically go for health care for your child?

- *What do you like about it? What would you change about it, if you could?*

15. WHERE do you typically go for dental care for your child?

- *What do you like about it? What would you change about it if you could?*

16. Do you regularly get information about young children's development and health OR about events for families with young children?

17. What are the TOP THREE (3) ways in which you would like to receive information about young children's development & health or about events for families with young children in your community?

MARK UP TO THREE CHOICES:

- ☐ Word of Mouth
- ☐ Text Message
- ☐ Phone Call
- ☐ Email
- ☐ Newspaper
- ☐ Facebook
- ☐ Twitter
- ☐ TV
- ☐ Radio
- ☐ Flyer posted in the community

18. **Does your child(ren) attend a child care center or other program such as Early Head Start/Head Start, FACE, preschool, or day care center?**
    - ☐ Yes ········► Please CONTINUE onto Question 19.
    - ☐ No ········► Please SKIP to Question 21.

19. **If YES, can you please tell us which center your child(ren) attend?**
    - ☐ Private child care center **on** the Navajo Nation
    - ☐ Private child care center **off** the Navajo Nation
    - ☐ CCDF child care center
    - ☐ Early Head Start or Head Start
    - ☐ FACE (BIE-operated)
    - ☐ School-based preschool (public school)
    - ☐ Church-based day care/child care
    - ☐ Other (*Please specify:*____)

20. **Does the child care center (or similar program) provide information to the parents/caregivers on topics regarding children's health and development?** *For example, information on nutrition, oral health, and immunizations?*
    - ☐ Yes ········► **How do they provide that information to you? Is the information useful?**
    - ☐ No ········► **Would you like to receive information on children's health and development topics from your child care provider? What type of information would be helpful?**

Answer Question 21 only IF your child(ren) DOES NOT ATTEND a child care center or similar early education program.

21. **Can you tell us why your child(ren) does not attend a child care center or similar early education program?**
    CHECK ALL THAT APPLY:
    - ☐ My child(ren) stays at home with me and/or my relatives or friends
    - ☐ My child(ren) goes to a paid home-based care provider
    - ☐ I cannot afford to pay for a child care center
    - ☐ There is no child care center or similar program in my area
    - ☐ It is difficult to find transportation to the child care center

- ☐ I don't know of any child care center or similar program in my area
- ☐ I don't like the child care center options available in my area
- ☐ The working hours of the child care center(s) in my area do not meet my needs
- ☐ My child does not qualify for the child care options available in my area
- ☐ Other (*Please specify:* ____)

We are almost done! We now have a few questions for you to answer about yourself.

22. **Do you currently have a paid job?**
    ☐ Yes ☐ No

23. **Are you currently:**
    - ☐ Married
    - ☐ Single
    - ☐ Divorced/Separated
    - ☐ Widowed
    - ☐ Living with a partner

24. **What is your age?** ______

25. **Gender?** ☐ Male ☐ Female

26. **What is the highest grade or year of school you have completed?**
    - ☐ Less than high school
    - ☐ Still in high school
    - ☐ High school graduate
    - ☐ GED
    - ☐ Technical or vocational school
    - ☐ Some college
    - ☐ College graduate or postgraduate

27. **How would you describe your ethnic or racial background?** *CHECK ALL THAT APPLY:*
    - ☐ Native American/American Indian
    - ☐ Hispanic/Latino
    - ☐ African American/Black
    - ☐ Asian
    - ☐ White/European/Anglo
    - ☐ Hawaiian/Pacific Islander
    - ☐ Other (*Specify:* _________________________________)

28. **Is your total family income before taxes…**
    - ☐ Less than $10,000
    - ☐ $10,000 to $19,999
    - ☐ $20,000 to 29,999
    - ☐ $30,000 to $39,999
    - ☐ $40,000 to $49,999
    - ☐ $50,000 to $59,999
    - ☐ $60,000 to $74,999
    - ☐ $75,000 or more

29. **Where do you live?** Community: _________________________________ Zip Code: _____________

Thank you for your valuable input!

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[8] *ACEs include 8 categories of traumatic or stressful life events experienced before the age of 18 years. The 8 ACE categories are sexual abuse, physical abuse, emotional abuse, household adult mental illness, household substance abuse, domestic violence in the household, incarceration of a household member, and parental divorce or separation.*

[9] *Centers for Disease Control and Prevention. (n.d.). Division of Violence Prevention: About adverse childhood experiences. Retrieved from https://www.cdc.gov/violenceprevention/acestudy/about_ace.html*