

2008

NEEDS AND ASSETS REPORT



 **FIRST THINGS FIRST**

White Mountain Apache Tribe

Regional Partnership Council



White Mountain Apache Tribe

Regional Partnership Council

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2008 Needs and Assets Report

Submitted in accordance with ARS 8-1161. Each regional partnership council shall submit a report detailing assets, coordination opportunities and unmet needs to the board biannually. The regional partnership council's needs and assets assessment shall be forwarded to the board for final approval no later than September 1 of each even-numbered year, beginning in 2008. The board shall have discretion to approve or reject a council's assessment in whole or in part or to require revisions. The board shall act on all needs and assets assessments no later than October 1 of each even-numbered year, beginning in 2008.

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Contents

First Things First – A Statewide Overview	1
The White Mountain Apache Tribe Regional Partnership Council	2
Executive Summary	5
Overview of Region: White Mountain Apache Tribe Regional Partnership Council.....	5
Regional Child and Family Indicators	7
Summary of Regional Findings on Child and Family Indicators	7
Regional Population Growth.....	8
Additional Indicators by the Regional Partnership Council.....	9
Regional Race, Ethnicity and Language Characteristics.....	10
Family Composition	11
Employment, Income and Poverty	13
Parent Educational Attainment.....	15
Healthy Births.....	16
Health Insurance Coverage and Utilization	18
Child Safety.....	22
Children’s Educational Attainment.....	23
Current Regional Early Childhood Development and Health System	28
Summary of Regional Findings on Early Childhood System.....	28
Quality.....	29
Access.....	30
Health	33
Family Support.....	37
Professional Development	39
Public Information and Awareness.....	42
System Coordination.....	44
Additional Indicators of Interest to Regional Partnership Council	45
Conclusion	47
Appendices	50
Assets for White Mountain Apache Region	50
Citations for resources used and extant data referenced	51
Description of methodologies employed for data collection	54



First Things First – A Statewide Overview

The mission of First Things First (FTF) is to increase the quality of, and access to, early childhood programs that will ensure that a child entering school arrives healthy and ready to succeed. The governance model of First Things First includes a State-level Board (twelve members in total, of whom nine are appointed by the Governor) and Regional Partnership Councils, each comprised of eleven members appointed by the State Board (Board). The model combines consistent state infrastructure and oversight with strong local community involvement in the planning and delivery of services.

First Things First has responsibility for planning and implementing actions that will result in an improved system of early childhood development and health statewide. The Regional Partnership Councils, thirty-one in total, represent a voluntary governance body responsible for planning and implementing actions to improve early childhood development and health outcomes within a defined geographic area (“region”) of the state. The Board and Regional Partnership Councils will work together with the entire community – all sectors – and the Arizona Tribes to ensure that a comprehensive, high quality, culturally sensitive early childhood development and health system is put in place for children and families to accomplish the following:

- Improve the quality of early childhood development and health programs
- Increase access to quality early childhood development and health programs
- Increase access to preventive health care and health screenings for children through age five
- Offer parent and family support and education concerning early childhood development and literacy
- Provide professional development and training for early childhood development and health providers
- Increase coordination of early childhood development and health programs and public information about the importance of early childhood development and health.

The White Mountain Apache Tribe Regional Partnership Council

Arizona voters expressed their commitment to early childhood development and health with the passage of Proposition 203, now known as First Things First. In recognition of the government-to-government relationship with federally recognized tribes, Proposition 203 included a provision allowing each tribe with tribal lands located in Arizona the opportunity to participate within an FTF designated region, or elect to be designated as a separate region by FTF, based on what is best for their children. The White Mountain Apache Tribe was one of ten tribes that elected to have their tribal lands designated as its own region.

The First Things First White Mountain Apache Tribe Regional Partnership Council (Regional Council) works to ensure that all children in the region are afforded an equal chance to reach their fullest potential. The Regional Council is charged with partnering with the community to provide families with opportunities to improve their children's educational and developmental outcomes. By investing in young children, the Regional Council and its partners will help build brighter futures for the region's next generation of leaders, ultimately contributing to economic growth and the region's overall well being.



To achieve this goal, the White Mountain Apache Tribe Regional Partnership Council, with its community partners, will work to create a system that builds and sustains a coordinated network of early childhood programs and services for the young children of the region. As a first step, The First Things First report, *Building Bright Futures: A Community Profile*, provides a glimpse of indicators that reflect child well being in the state and begins the process of assessing needs and establishing priorities. The report reviews the status of the programs and services serving children and their families and highlights the challenges confronting children, their

families, and the community. The report also captures opportunities that exist to improve the health, well-being and school readiness of young children.

In the fall of 2008, the White Mountain Apache Tribe Regional Partnership Council will undertake strategic planning and set a three-year strategic direction that will define the Regional Council's initial focus in achieving positive outcomes for young children and their families. The Regional Council's strategic plan will align with the Statewide Strategic Direction approved by the FTF Board in March 2008.

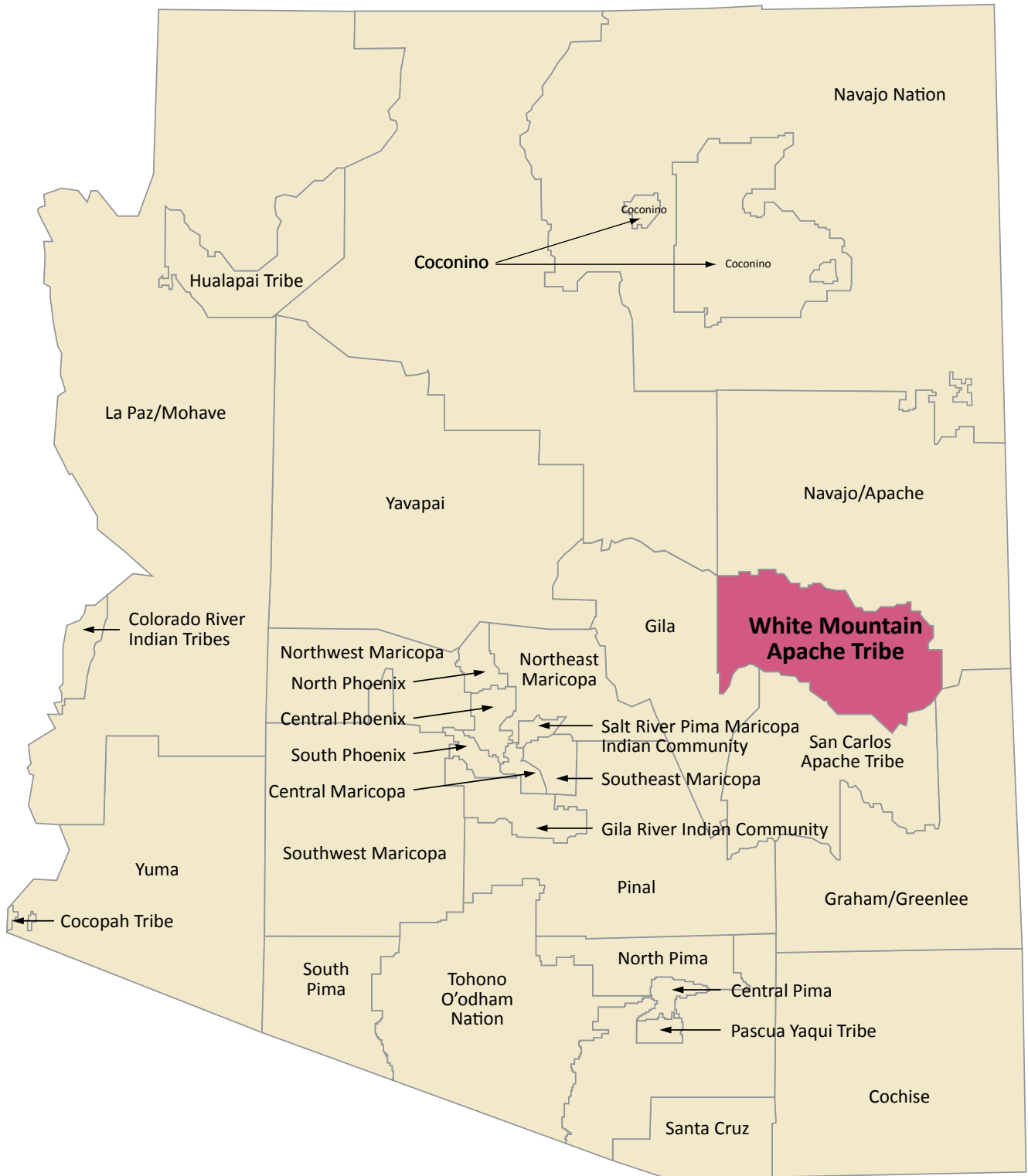
To effectively plan for and make programming decisions, the Regional Council must first be fully informed of the current status of children of the White Mountain Apache Tribe. This report serves as a planning tool for the Regional Council as they design their strategic roadmap to improve the early childhood development and health outcomes for young children. Through the identification of regional needs

and assets and the synthesis of community input, this initial report begins to outline possible priority areas for which the Regional Council may focus its efforts and resources.

It is important to note the challenges in writing this report. While numerous sources for data exist in the state and region, the information was often difficult to analyze and not all state data could be analyzed at a regional level. Lack of a coordinated data collection system among the various state agencies, tribal programs and agencies, and early childhood organizations often produced statistical inaccuracies and duplication of numbers. Additionally, many indicators that could effectively assess children's healthy growth and development are not currently or consistently measured.

Nonetheless, FTF was successful in many instances in obtaining data from other state agencies, Tribes, and a broad array of community-based organizations. In their effort to develop regional needs and assets reports, FTF has begun the process of pulling together information that traditionally exists in silos to create a picture of the well being of children and families in various parts of our state.

The First Things First model is for the Regional Council to work with the FTF Board to improve data collection at the regional level so that the Regional Council has reliable and consistent data in order to make good decisions to advance the services and supports available to young children and their families. In the fall of 2008 FTF will conduct a family and community survey that will provide information on parent knowledge related to early childhood development and health and their perception of access to services and the coordination of existing services. The survey results will be available in early 2009 and include a statewide and regional analysis.



Executive Summary

In January 2007 First Things First (FTF), released the report *Building Bright Futures*, Arizona's first statewide needs and assets assessment of the current state of early childhood in Arizona. The report provided data on the need to improve early childhood education practice and capacity, highlighted existing resources or assets currently available to support early childhood efforts, and identified opportunities for creating a comprehensive early childhood improvement plan for the State of Arizona. As part of the First Things First initiative thirty-one Regional Partnership Councils were also created to represent early childhood interests at the local level and, among other responsibilities, conduct a community-level needs and assets assessment every two years. Each eleven-seat council is comprised of community stakeholders with vested interests in the process of early childhood education and its outcomes (i.e., educators, parents, business leaders, health care providers, etc.). This report presents findings from the first needs and assets assessment completed in 2008 for the White Mountain Apache Tribe Regional Council. Each assessment will be used to help guide strategic planning and funding decisions at the local level on behalf of the First Things First state initiative mandated by Proposition 203.

Overview of Region: White Mountain Apache Tribe Regional Partnership Council

The Fort Apache Indian Reservation, home of the White Mountain Apache Tribe, is located in east central Arizona and covers 1.67 million acres in portions of Navajo, Apache and Gila counties. The topography and climate of the region is diverse as the reservation stretches from the southwestern desert foothills, at an elevation of 2,700 feet in the Salt River Canyon, up to the northeastern mountains, where elevations exceed 11,000 feet. The White Mountain Apache Tribe has a network of enterprises that includes a timber company, a retail center, and a ski resort. The community of Whiteriver has the largest population and is the seat of the tribal government. It is 35 miles south of Show Low and 95 miles northeast of Globe. Other communities include Cibecue, Carrizo, Forrestdale, Cedar Creek, Hon-Dah, McNary and Seven Mile. The community is served by the Whiteriver Unified School District, including Whiteriver, Seven Mile, and Cradleboard Elementary Schools; McNary School District, including McNary Elementary School; Cibecue Community School; East Fork Lutheran Mission, including East Fork Elementary School and two Bureau of Indian Education (BIE) Schools- John F. Kennedy Day School and Theodore Roosevelt School.

For this report it is important to note the difference between the White Mountain Apache Tribe and the region that the White Mountain Apache Tribe Regional Partnership Council for FTF oversees. In this report, where data indicates the "White Mountain Apache Tribe" it is referring only to those individuals who are enrolled members of the White Mountain Apache Tribe regardless of their residence. Therefore, someone who is an enrolled member of the Tribe but living in Phoenix could be counted in the numbers provided. However, when the report refers to the "White Mountain Apache Region" it is referring to any individual residing within the boundaries of the Fort Apache Indian Reservation.

Whenever possible, regional data was used rather than tribal data since the regional data more reflects the area that the White Mountain Apache Tribe Regional Partnership Council will be responsible.



Regional Child and Family Indicators – Young Children and Families in the White Mountain Apache Region

The well being of children and families in a region can be explored by examining indicators or factors that describe early childhood health and development. Needs assessment data on indicators provide policy makers, service providers, and the community with an objective way to understand factors that may influence a child's healthy development and readiness for school and life. The indicators included in this section are similar to indicators highlighted in the statewide needs and assets report. Data in this report examine the following:

- **Early childhood population** – Race, ethnicity, language and family composition
- **Economic status of families** – Employment, income, poverty and parents' educational attainment
- **Trends in births**
- **Health insurance coverage and utilization**
- **Child Safety**- The Indian Child Welfare Act
- **Educational achievement** – elementary school performance and high school graduation

Regional data is compared with state and national data wherever possible. Every attempt was made to collect data for multiple years at each level of reporting (regional through national). However, there are some items for which no reliable or comparable data currently exist.

It may not be possible for the White Mountain Apache Tribe Regional Partnership Council to have a direct impact on these or other indicators. Nonetheless, they are important measures to track because they outline a picture of a child's chance for success. In addition, some indicators such as child abuse, child neglect and poverty are tracked because they provide pertinent information on how children are faring, or factors to consider when designing strategies to improve child outcomes in the region.

Summary of Regional Findings on Child and Family Indicators

According to the U.S. Census, from 2000 to 2006, the overall population of the White Mountain Apache Region increased by 11 percent compared to 23 percent growth across the state. The population growth for children ages zero to five decreased by 1 percent, while this portion of the population grew by 23 percent in Arizona and 7 percent in the nation. The White Mountain Apache Region's population is 94 percent American Indian, 4 percent White, and 2 percent Hispanic. According to the US Census, more than 59 percent of the population five years and older speak a language other than English.

Family composition, employment and income are important factors to consider

for the early development of children. In 2006, the majority of children within the White Mountain Apache Region lived in households with two parents. However, the region has a significantly higher percentage of single parent families than is reported for the state and the nation. The percentage of teen pregnancy for White Mountain Apache Region is also higher than the state and national averages, with one out of four children being born to parents aged 19 years or younger.

For the White Mountain Apache Region, the unemployment rate was 54 percent in 2007 as compared to the rest of Arizona at approximately 3.8 percent. The tribal rate has mirrored the recent downward trend in unemployment rates for both the region and the state. In Arizona, the annual median household income reported for 2006 was \$47,265, slightly lower than the national average of \$48,451 per year. For that same year, the median income for the White Mountain Apache Region was less than half that of the state or nation, \$20,578. Almost 50 percent of the families in the White Mountain Apache Region are at or below federal poverty guidelines.

According to data reported from 2002 to 2006, more than half of those mothers who gave birth had at least a high school degree and/or some college. The percentage of births to mothers without a high school degree in the White Mountain Apache Region was more than double the rate of the state as a whole. About 8 percent of births for the White Mountain Apache Tribe were low birth weight compared to 7 percent of American Indian births in Arizona. In 2006, 37 percent of children (ages 0-5) were enrolled in AHCCCS or KidsCare in the White Mountain Apache Region, compared to 22 percent in Arizona.

Regional Population Growth-- Charts and Discussion

According to the U.S. Census, from 2000 to 2006, the overall population of the White Mountain Apache Region increased by 11 percent compared to 23 percent growth across the state. The population growth for children ages 0-5 decreased by 1 percent, while this portion of the population grew by 30 percent in Arizona and 8 percent in the nation.

White Mountain Apache Region--Population growth (all ages)

	2000	2007	% Change
White Mountain Apache Region	12,377	N/A	N/A
Arizona	5,130,632	6,338,755	+24
U.S.	281,421,906	301,621,157	+7

Source: U.S. Census (2000), American Community Survey, ADHS Primary Care Area Statistical Profile (2006)

White Mountain Apache Region-- Population growth for children ages 0-5 years

	2000	2007	% Change
White Mountain Apache Region	1,522	N/A	N/A
Arizona	459,141	594,110	+29
U.S.	23,140,901	24,755,834	+7

Sources: U.S. Census 2000 and Population Estimates

An important characteristic to note for U.S. federally recognized tribes is the fact that the population is young; in some cases 40 percent of the tribe is under 19 years of age. This may be due to many factors including age specific mortality rates and teen motherhood.

Another important note is that the information provided above is based on the U.S. Census. As mentioned before, for most Native communities, the census tends to under-estimate counts. Such could be said of the number of births per year. Other community agencies such as WIC, the Indian Health Services and the Bureau of Indian Affairs report higher births per year for this region. As such, other community resources might provide more reliable information in terms of the numbers of babies born every year in this region.

Additional Indicators by the Regional Partnership Council

Number of Children Enrolled vs. Number of Children in the Region

Although the U.S. Census indicates that there are 1,522 children living within the White Mountain Apache Region. Of those children 1,251 are tribally enrolled as of July 2008. Enrollment numbers only include those children whose families submitted a complete application for enrollment that was approved by the Office of Membership Services using specific criteria as determined by the tribe. The table below shows the number of enrolled children by age.

Number of tribally enrolled children ages 0-5 by age, July 2008

White Mountain Apache Tribe

AGE	# of Enrolled Members
0	84
1	187
2	217
3	266
4	229
5	268
TOTAL	1251

Source: WMAT Office of Vital Records, Enrollment Office, July 2008

U.S. Census data on population for American Indians who are tribal members of federally recognized tribes differ from Tribal Enrollment data and, therefore, do not accurately reflect true population totals. There are various factors for the inaccuracy of U.S. Census data: the U.S. Census race/ethnicity data is self reported, there is general distrust by tribal members of census takers related to providing information to the federal government, and there is misrepresentation of tribal members living on and off the reservation. Tribal Enrollment departments/programs have inaccuracies as well, which may be due to delay in enrollment of children after birth and inability to document the specific enrollment criteria for the tribe.

According to the U.S. Census, 61 percent of American Indians and Alaska Natives live in urban areas. Due to the fact that U.S. Census race/ethnicity data is self-reported, there is no method of verification of tribal membership available to

substantiate this percentage. Also, it is widely understood that many tribal members leave and return to their reservation to pursue education and employment opportunities throughout their lives.

Regional Race, Ethnicity and Language Characteristics-- Charts and Discussion

Race and Ethnicity Characteristics

The White Mountain Apache people are Western Apache and are closely related to the other Apache Tribes including San Carlos, Payson, and Camp Verde. Historically, the White Mountain Apache people lived in family groups and bands, with homes and farms along the East and North Fork of the White River, and Cedar, Carrizo, Cibecue, and Oak Creeks, among others.

The White Mountain Apache Tribe is composed of federally recognized tribal members according to the standards set by the tribal government. The table below reflects the racial/ethnic characteristics of the White Mountain Apache Tribe, and may reflect multi- or bi-racial identity or the race/ethnicity of spouses or partners living on the reservation. Aside from 94 percent American Indian, the other races/ethnicities most commonly identified are White(4 percent) and Hispanic (2 percent).

Race/ethnic Characteristics (all ages) (2006)

	American Indian or Alaska Native	White Non-Hispanic	Hispanic or Latino	Black or African American	Asian or Pacific Islander
White Mountain Apache	94%	4%	2%	<1%	<1%

Source: ADHS Primary Care Area Statistical Profile (2006)

Data are not available regarding the racial/ethnic characteristics of children born in the White Mountain Apache Region. However, data from the Head Start Community survey does provide race/ethnicity characteristics and reflects similar characteristics for the entire population of children 0-5.

White Mountain Apache Region–Head Start Race/Ethnicity Characteristics of Children* (3-4 years)

	American Indian or Alaska Native	White Non-Hispanic	Hispanic or Latino	Black or African American	Asian or Pacific Islander
White Mountain Apache Region	97.4%	0.2%	1.9%	0%	0.1%

2007 Head Start Community Survey*Totals can equal more than 100% since guardians are allowed to multi-identify their children in a race/ethnic category

The table below puts into context the number of births for mothers residing on the Fort Apache Indian Reservation compared to births for all American Indians residing on a reservation in Arizona. White Mountain Apache births to mothers residing on the reservation represents 9 percent of all births to mothers residing on tribal lands in Arizona.

Births to Arizona American Indians (2006)

Births to White Mountain Apache Tribe (On Reservation)	Births to All American Indians (On Reservation)	Births to All American Indians (In Arizona)
355	4,063	6,364

Source: ADHS Primary Care Area Statistical Profile (2006)

Language Characteristics

Apache is an Athabaskan language and is close in dialect to the Navajo language. There are clear distinctions between Western Apache, spoken by the White Mountain Apache, and the Eastern Apache, spoken by Jicarilla, Lipan and Plains Apache. There are many fluent speakers in the community and significant efforts have been made to preserve and maintain the language. According to the U.S. Census, approximately 4 percent of the population, who are 5 years and older, speak a language other than English.

In 2008 a survey of the Head Start service providers showed that 84 percent of children enrolled in Head Start came from homes where English was the primary language. Additionally, 14 percent of children enrolled in Head Start spoke a tribal language and 3 percent did not specify their primary language.

White Mountain Apache Region--Language Characteristics, Population 5 years and older (2007)*

Language Spoken at Home	Percent
English Only	41%
Language Other than English	4%

*Source U.S. Census Bureau 2000

Language characteristics, in terms of language primacy or fluency, are generally not measured in children until they reach their fifth year. As a result, data on these characteristics is usually limited to children over the age of five. Data from the most recent 2008 KidsCount and American Community Survey estimate that up to 32 percent of Arizona children ages five to eighteen speak a language other than English.

Family Composition-- Regional Caregiver and Family Patterns Charts and Discussion

In 2006, the majority of children within the White Mountain Apache Region lived in households with two parents, although the region has a significantly higher percentage of single parent families than is reported for the state and the nation.

White Mountain Apache Region--Percentages of single parent households with children 0-18 years (2000)

	Female	Male	Married
White Mountain Apache Region	39%	8%	53%
Arizona	15%	7%	78%
U.S.	17%	6%	77%

Source: U.S Census (2000), ADHS Statistical Profile Primary Care Area (2006)

Since the year 2000, approximately one out of every three family households in Arizona has been headed by a single parent.¹ Estimates indicate that many of these households are led by mothers only, while a few are led by fathers only. While this number of single-parent households might seem high, Arizona is actually right at the national average for this statistic and better than many states where single parent households can approach the 50% mark (i.e., Washington, D.C. and Mississippi).² One of the more reliable predictors of a child receiving early education and care services is whether or not the child’s mother is both a single parent and needs to work to support the family. Nationally, in 1991, 85 percent of working mothers of 4-year olds used early childhood education and care programs, with that figure jumping to 91 percent in 1999. The table below provides a snapshot of the household structure and living conditions for all American Indian children compared to all children in Arizona.

It is important to give cultural considerations when interpreting statistics of American Indian families. It is noted that the role of extended family in American Indian communities is very different from other extended family units within Western society³. The extended family often includes several households of significant relatives along both vertical and horizontal family relations that form a network of support.

Teen Parent Households

The percentage of teen pregnancy for White Mountain Apache Tribe is higher than the state and national average, with one out of four children being born to parents aged 19 years or younger. The percentage of children born to teen mothers has remained relatively consistent since 2003.

White Mountain Apache Tribe--Percentage of children born to teen mothers

	2002	2003	2004	2005	2006
White Mountain Apache Tribe	Data not available	25% (73)	25% (79)	27% (83)	26% (91)
American Indians in AZ	19% (1,039)	19% (1,141)	19% (1,142)	19% (1,204)	19% (1,216)
Arizona	13%	13%	13%	12%	13%

Source: American Community Survey (2002-2006), ADHS Primary Care Area Statistical Profile (2002-2006)

Babies born to teen mothers are more likely than other children to be born at a low-birth weight, to experience health problems and developmental delays, to experience abuse or neglect and to perform poorly in school. As they grow older, these children are more likely to drop out of school, get into trouble, and end up as teen parents themselves.⁴

1 This estimate is from KidsCount.
 2 Hernandez, D. (2006). Young Children in the U.S.: a Demographic portrait based on the Census 200. Report to the national Task Force on Early Childhood Education for Hispanics, Tempe, Arizona State University.
 3 Red Horse, J. (1981). American Indian families: Research perspectives. In F. Hoffman (Ed.), The American Indian Family: Strengths and Stresses. Isleta, NM: American Indian Social Research and Development Associates.
 4 Annie E. Casey Foundation. KidsCount Indicator Brief: Preventing Teen Births, 2003.

The state average for teenage births has remained relatively constant at around 12 percent for more than five years, but little progress has been made in reducing the prevalence of Arizona teen mothers giving birth to a second child. From 2000 to 2006, approximately 22 percent⁵ of births to a teen mother were the mother's second child. In 2008, Arizona ranked 41st out of the 50 states for the highest high school drop-out rates, so many teen mothers are also challenged in the workforce to provide for their children because they lack a high school diploma. Ironically, dropout prevention studies consistently identify the need for high-quality early childhood education to *prevent* the high school drop-out problem, which in turn is cited in the early childhood literature as one reason why children of teenage mothers often have poor early childhood outcomes themselves.

Grandparent Households

Arizona has approximately 4.1 percent of grandparents residing with one or more grandchildren, which is higher than the 3.6 percent national average.⁶ For many grandparent caregivers this responsibility is a long term commitment.⁷

It is critical to note that grandparent caregivers are more likely to be poor in comparison with parent-maintained families. Furthermore, many grandparent caregivers have functional limitations that affect their ability to respond to the needs of grandchildren.⁸

According to the 2008 Head Start Survey, approximately 8 percent of children enrolled with Head Start have a grandparent as a primary care giver. This number is twice that of the state or the nation. Additionally, according to the U.S. Census 2000, 65 percent of grandparents in the White Mountain Apache Region are living with at least one grandchild and are considered the primary care giver in the home.

Employment, Income and Poverty-- Charts and Discussion

Regional Employment Rates, Annual Income and Families in Poverty

Tribal governments are unique from other forms of government in the United States because they engage in business enterprises as a means of economic development. Tribal enterprises include, but are not limited to, natural resource management, tourism, artistry, construction, gaming and other businesses. Diversity in economic enterprises allows tribes to maintain government functions and supports the local and regional economy through development, revenue sharing, employment, direct financial contributions, and contract services. Tribes are often among the top employers within their geographic region and are a driving economic force that attracts tourism and industry. Some of the tribal enterprises that provide employment in this region include the Fort Apache Timber Company, Sunrise Ski Resort and Park Resort, and Hon-Dah Hotel and Casino. The tribe and its enterprises is a primary employer for tribal members and non-members living within the region.

5 Grandparents Living with Grandchildren, 2000, census brief.

6 Ibid.

7 Ibid.

8 Ibid

Employment status can impact the home and family environment. In Arizona, recent unemployment rates have ranged from a high of 6 percent in 2002 to a low of 3.8 percent in 2007. According to the 2005 American Indian Population and Labor Force Report, 51 percent of the labor force in the region is unemployed. However, unemployment rates have followed a downward trend for both the region and the state over the last five reported years. Still, an unemployment rate of 51 percent far exceeds the state and national numbers.

White Mountain Apache Region-- Unemployment rates

	2005
White Mountain Apache Region	51%
Arizona	4.6%
U.S.	5.1%

Bureau of Indian Affairs, American Indian Population and Labor Force Report (2005)

Annual Income

In Arizona, the annual median household income reported for 2000 was \$40,558, slightly lower than the national average of \$41,994 per year. For that same year, the median income for the White Mountain Apache Tribe was less than half, at \$18,903.

White Mountain Apache Region--Median⁹ annual household income (per year- pretax)

	2000
White Mountain Apache Region	\$18,723
Arizona	\$40,558
U.S.	\$41,994

Source: US Census 2000

Families in Poverty

The median annual income for 42 percent of the households in the White Mountain Apache Region is at or below federal poverty guidelines. That is 32 percent higher than households in Arizona and 32 percent higher than the national average. For a family of four, the Federal Poverty level is \$21,200 a year (for the 48 contiguous states and D.C.).¹⁰

9 The median, or mid-point, is used to measure income rather than taking the average, because the high income households would skew the average income and artificially inflate the estimate. Instead, the median is used to identify income in the middle of the range, where there are an equal number of incomes above and below that point so the entire range can be represented more reliably.

10 Federal Register, Volume 73, No. 15, January 23, 2008, pp. 3971-3972.

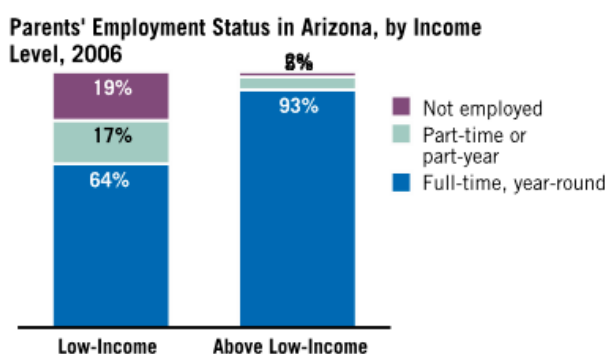
White Mountain Apache Region -- Families* living at or below the Federal Poverty Level (2000)

	Percent of Households Living At or Below 100 Percent of the Federal Poverty Level
White Mountain Apache Region	42%**
Arizona	10%
US	10%

*Only families with children 18 years or under were included. Source: U.S Census 2000, **KidsCount

Census data on the number of children ages 0-5 living at or below 100 percent of the Federal Poverty Level was not available. Additionally, Census data on children living at or below 200 percent of the Federal Poverty Level was also not available. Lastly, data was not available for the number of families receiving public assistance benefits.

Even Arizona parents who are employed may be struggling to “make ends meet”, as some research indicates that almost two-thirds of working families are living at or below the federal poverty line and are considered to be “low-income” families. The following graph shows the relationship between employment levels and categorization as “low income” or “above low income”.



© National Center for Children in Poverty (nccp.org)
Arizona Demographic Profiles

Both women and men are more likely to have higher incomes if they have greater educational success. For example, according to 2004 statistics a woman with less than a 9th grade education could expect to earn less than \$18,000 per year, but with a high school diploma that income expectation rose to more than \$26,000 per year. With a bachelor's degree in 2004, women were reporting an income of \$41,000 per year.¹

Parent Educational Attainment-- Charts and Discussion

Educational Attainment

Studies have found consistent positive effects of parent education on different aspects of parenting such as parenting approaches, attitudes, and childrearing philosophy. Parent education can potentially impact child outcomes by providing an enhanced home environment that reinforces cognitive stimulation and increased use of language.² Past research has demonstrated an intergenerational effect of parental educational attainment on a child's own educational success later in life and some studies have surmised that up to 17 percent of a child's future earnings may be linked (through their own educational achievement) to whether or not their parents or pri-

mary caregivers also had successful educational outcomes.

Approximately 22 percent of births nationally are to mothers who do not possess a high school degree, while the state rate has remained fixed at 20 percent in recent years. According to data reported from 2002 to 2006, more than half of mothers of the White Mountain Apache Tribe who gave birth had at least a high school degree and/or some college. However, the percentage of births to mothers without a high school degree for the White Mountain Apache Tribe was more than double the state average.

White Mountain Apache Tribe--Percentage of Live Births by Mother's Educational Attainment

		2002	2003	2004	2005	2006
White Mountain Apache Tribe	2 No H.S. Degree	33%	46%	46%	44%	44%
	H.S. Degree	47%	36%	38%	37%	37%
	1-4 years College 60	19%	15%	14%	18%	17%
Arizona	2 No H.S. Degree	20%	21%	20%	20%	29%
	H.S. Degree	29%	29%	29%	29%	30%
	1-4 years College 60	32%	32%	32%	33%	33%
U.S.	2 No H.S. Degree	15%	22%	22%	N/A	N/A
	H.S. Degree	N/A	N/A	N/A	N/A	N/A
	1-4 years College 60	21%	27%	27%	27%	27%

Source: ADHS Health Profile of American Indians (2006); ADHS/Vital Statistics

Healthy Births--Charts and Discussion

Prenatal Care

Adequate prenatal care is vital in ensuring the best pregnancy outcome. A healthy pregnancy leading to a healthy birth sets the stage for a healthy infancy during which time a baby develops physically, mentally, and emotionally into a curious and energetic child. Yet in many communities, prenatal care is far below what it could be to ensure this healthy beginning. Some barriers to prenatal care in communities and neighborhoods include the large number of pregnant adolescents, the high number of non-English speaking residents, and the prevalence of inadequate literacy skills.¹¹ In addition, cultural ideas about health care practices may be contradictory and difficult to overcome, so that even when health care is available, pregnant women may not understand the need for early and regular prenatal care.¹²

Late or no prenatal care is associated with many negative outcomes for mother and child, including:

11 Ashford, J., LeCroy, C. W., & Lortie, K. (2006). *Human Behavior in the Social Environment*. Belmont, CA: Thompson Brooks/Cole.
 12 LeCroy & Milligan Associates (2000). *Why Hispanic Women fail to seek Prenatal care*. Tucson, AZ.

- Postpartum complications for mothers
- A 40 percent increase in the risk of neonatal death overall
- Low birth weight babies, and
- Future health complications for infants and children.

As the table below shows, for the White Mountain Apache Tribe, approximately 51 percent of the mothers received prenatal care during the first trimester. This is lower than the rate for all American Indian mothers living within tribal lands in Arizona, which is 63 percent. Only 4 percent of women in this region reported they received *no* prenatal care, but overall, pregnant women across Arizona often fail to receive *early* prenatal care. According to national statistics, 83 percent of pregnant women receive prenatal care in their first trimester, compared to 77 percent in Arizona¹³.

One prominent indicator of whether prenatal care is obtained in the first trimester is ethnicity. In Arizona, 12% of Whites received no prenatal care, 24% of Blacks received no prenatal care, 30% of Hispanics received no prenatal care, and 32% of American Indians received no prenatal care.¹⁴ Any effort to increase prenatal care should consider these large ethnic differences. There are many barriers to the use of early prenatal care, including: lack of general health care, transportation, poverty, teenage motherhood, stress and domestic violence.¹⁵

White Mountain Apache Tribe--Selected Characteristics of Newborns and Mothers (2006)

Tribe/Nation	Total births	Teen Mother (<=19yr)	Prenatal Care 1 st Trimester*	No Prenatal Care	Public \$	LBW <2500**	Unwed Mothers
White Mountain Apache Tribe	355	91	182	14	338	30	267
Total AI on Reservation Births	4,063	818	2,557	133	3,599	288	3,156

* First trimester prenatal care serves as a proxy for births by number of prenatal visits and births by trimester of entry to prenatal care.** Low Birth Weight (LBW) serves as a proxy for preterm births (<37 weeks). Source: Health Status Profile of American Indians in Arizona, Arizona Department of Health Services/Division of Public Health Services, Arizona Vital Statistics (2006).

Low Birth-Weight Babies

Low-birth weight and very-low-birth weight (defined as less than 3lbs, 4 oz.) are leading causes of infant health problems and death. Many factors contribute to low-birth weight. Among the most prominent are: drug use during pregnancy, smoking during pregnancy, poor health and nutrition, and multiple births. About 8 percent of births for the White Mountain Apache Tribe were low-birth weight compared to 7 percent of American Indian births in Arizona.

The Centers for Disease Control reports that low-birth-weight births have been rising over the past several years. However, Arizona is producing fewer low-birth-

13 Child Health USA 2003, U. S. Department of Health and Human Services, Health Research and Services Administration.

14 Arizona Department of Health Services, Health disparities report, 2005.

15 <http://www.cdc.gov/reproductivehealth/products&pubs/dataoaction/pdf/rhow8.pdf>

weight babies each year. Studies have suggested that Arizona's lower-than-average incidence of pregnant women who smoke cigarettes accounts for better outcomes regarding birth-weight than is seen in other cities in the United States. In 2004, the national incidence of pregnant women who smoked cigarettes was over 10 percent, while the Arizona rate was only 5.9 percent. For those women who smoke during their pregnancies, white teenagers seem to have the highest prevalence for this behavior, at 30 percent nationally.

Births to Teen Mothers

About 10 percent of American teen girls between the ages of 15 and 19 become pregnant each year. It is startling to consider that one in five 14-year-old girls become pregnant before reaching the age of 18.¹⁶ Once a young woman becomes pregnant, the risk of a second pregnancy increases. About one-third of adolescent mothers have a repeat pregnancy within two years.¹⁷ A repeat teen birth comes with a significant cost to the teenage mothers themselves and to society at large. Teen mothers who have repeat births, especially closely spaced births, are less likely to graduate from high school and more likely to live in poverty and receive welfare when compared with teen parents who have only one child.¹⁸ In spite of a declining teen birth rate, teenage parenthood is a significant social issue in this country. Teen parents face significant obstacles in being able to rear healthy children. Teen parents are generally unprepared for the financial responsibilities and the emotional and psychological challenges of rearing children.

According to 2006 data, 26 percent of the births for the White Mountain Apache Tribe are to mothers under the age of 19.

Health Insurance Coverage and Utilization-- Charts and Discussion

Access to Medical Care

Medical insurance coverage is provided to families in the White Mountain Apache Region through the Indian Health Services (IHS), the Arizona Health Care Cost Containment System (AHCCCS) (equivalent to Medicaid), and private insurance through employers. The Indian Health Service (IHS), an agency within the Department of Health and Human Services, provides federal health services to any person who is of Indian decent, regardless of tribal affiliation, who belongs to the local Indian community. However, they do not require proof that a person "belongs" to an Indian community nor do they specify a particular blood quantum of Indian blood. This provision of health services grew out of the special government-to-government relationship between the federal government and Indian tribes. The relationship, established in 1787, is based on Article I, Section 8 of the Constitution, and has been given form and substance by numerous treaties, laws, Supreme Court decisions, and Executive Orders.

¹⁶ Center for Disease Control, fact sheet, 2001.

¹⁷ Kaplan, P. S., *Adolescence*, Boston, MA, 2004.

¹⁸ Manlove, J., Mariner, C., & Romano, A. (1998). *Positive educational outcomes among school-age mothers*. Washington DC: Child Trends.

Uninsured Children

Health insurance significantly improves children's access to health care services and reduces the risk that illness or injury will go untreated or create economic hardships for families. Having a regular provider of health care promotes children's engagement with appropriate care as needed. Research shows that children receiving health care insurance¹⁹:

- Are more likely to have well-child visits and childhood vaccinations than uninsured children
- Are less likely to receive their care in the emergency room
- Do better in school

When parents cannot access health care services for preventive care such as immunizations, there may be delayed diagnosis of health problems, failure to prevent health problems, or the worsening of existing conditions.²⁰ Furthermore, good health promotes the academic and social development of children because healthy children engage in the learning process more effectively.²¹

From 2001 to 2005, Arizona had a higher percentage of children without health insurance coverage compared to the nation. One reason that Arizona children may be less likely than their national counterparts to be insured is that they may be less likely to be covered by health insurance through their families' employer. In Arizona, 48 percent of children (ages 0-18) receive employer-based coverage, compared to 56 percent of children nationally.²²

Percentage of children (0-5 years) without health insurance coverage

	2001	2002	2003	2004	2005
Arizona	14%	14%	13%	14%	15%
U.S.	10%	10%	10%	10%	10%

Source: Kids Count

The chart below shows children enrolled in AHCCCS or KidsCare – Arizona's publicly funded, low-cost health insurance programs, for children in low-income families. As the chart shows, 37 percent of children (ages 0-5) were enrolled in AHCCCS or KidsCare in White Mountain Apache Region in 2006, much higher than the state proportion of 22 percent.

19 Johnson, W. & Rimaz, M. Reducing the SCHIP coverage: Saving money or shifting costs. Unpublished paper, 2005. Dubay, L., & Kenney, G. M., Health care access and use among low-income children: Who fares best? *Health Affairs*, 20, 2001, 112-121. Urban Institute and Kaiser Commission on Medicaid and the Uninsured estimates based on the Census Bureau's March 2006 and 2007 Current Population Survey. Arizona Department of Health Services, Community Health Profile, Phoenix, 2003.

20 Chen, E., Matthews, K. A., & Boyce, W. T., Socioeconomic differences in children's health: How and why do these relationships change with age? *Psychological Bulletin*, 128, 2002, 295-329.

21 National Education Goals Panel. *Reconsidering children's early developmental and learning: Toward common views and vocabulary*. Washington DC.

22 . Urban Institute and Kaiser Commission on Medicaid and the Uninsured estimates based on the Census Bureau's March 2006 and 2007 Current Population Survey. Arizona Department of Health Services, Community Health Profile, Phoenix, 2003.

White Mountain Apache Region--Percentage of population enrolled in AHCCCS, KidsCare, Medicare and Transportation Score compared with County and Arizona.

	AHCCCS	KidsCare	Medicare	Transportation Score
White Mountain Apache Region	34%	3%	11%	228
Arizona	18.4%	3.8%	11.1%	121

Sources: AHCCCS Report AHAHX431 (2005); KidsCare, Report AHAHR431, percent of 2005 population 0 – 19 yrs (2005); Centers for Medicare and Medicaid Services, Dept of Health and Human Services (2003); Adequacy of transportation part of Primary Care index. The higher the score the less adequate or greater the need for transportation

While many children do receive public health coverage, many others who likely qualify, do not. In 2002, the Urban Institute's National Survey of America's Families estimated that one-half of uninsured children in the United States are eligible for publicly funded health insurance programs (like AHCCCS or KidsCare in Arizona), but are not enrolled.²³ Indeed, the large percent of families who fall below 200 percent of the Federal Poverty Level in the region suggest that many children are likely to qualify for public coverage. National studies suggest that these same children are unlikely to live in families who have access to employer-based coverage.²⁴ Children who are living on tribal lands can access medical care through the Indian Health Service.

Health coverage is not the only factor that affects whether or not children receive the care that they need in order to grow up healthy. Other factors include: the scope and availability of services that are privately or publicly funded; the number of health care providers including primary care providers and specialists; the geographic proximity of needed services; and the linguistic and cultural accessibility and competency of services.

Lack of health coverage and other factors combine to limit children's access to health services. For example, according to a 2007 report by the Commonwealth Fund, only 36 percent of Arizona children under the age of 17 had a regular doctor and at least one well-check visit in the last year. According to the same study, only 55 percent of children who needed behavioral health services received some type of mental health care in 2003.²⁵

Medical Health Insurance Utilization

While a variety of factors ultimately influence access to health care, health coverage does play an important role in ensuring that children get routine access to a doctor or dentist's office. For example, for children under age five enrolled continuously in AHCCCS in Arizona, 78 percent received at least one visit to a primary care practitioner (such as a family practice physician, a general pediatrician, a physician's assistant, or a nurse practitioner) during the year 2007. Unfortunately, data regarding children continuously enrolled in AHCCCS who had at least one visit to a primary

²³ Genevieve Kenney, et al, "Snapshots of America's Families, Children's Insurance Coverage and Service Use Improve," Urban Institute, July 31, 2003.

²⁴ Long, Sharon K and John A. Graves. "What Happens When Public Coverage is No Longer Available?" Kaiser Commission on Medicaid and the Uninsured, January 2006.

²⁵ Commonwealth Fund. State Scorecard on Health Care System Performance, 2007.

care practitioner are not available for the White Mountain Apache Tribe.

Oral Health Access and Utilization

Access to dental care is also limited for young children in both the state and the region. There are no data available for the White Mountain Apache Region. However, the chart below provides a snapshot of oral health access and utilization through the White Mountain Apache Head Start Program. In 2006-2007, 256 children between the ages of 3 and 5 completed a dental exam, with 79 percent found to need treatment. Of these, 82 percent received treatment.

White Mountain Apache Region--Oral health in Head Start Children

2006-2007	Number of Children	Dental Home	Completed Exam	Preventive Care (% of exams)	Needed Treatment (% of exams)	Received Treatment (of those who needed)
White Mountain Apache Tribe	260	252 (97%)	256 (98%)	252 (98%)	201 (79%)	165 (82%)

Source: Head Start PIR Program Year 2006-2007

Currently, there are five dentists (4 general dentists and a pediatric dentist) employed through the IHS hospital in Whiteriver. Those five dentists are responsible for serving a population of roughly 20,000 people residing on the Fort Apache Reservation. As a result, there is little emphasis on preventative care for anyone in the community let alone children 0-5. A majority of the dentists' time is spent seeing the most urgent cases.

Access to oral health care is even more challenging for families with special needs children. According to a statewide Health Provider Survey report released in 2007, a large majority (78 percent) of Arizona dental providers surveyed in 2006 (N =729 or 98 percent of all AHCCCS providers) said they did not provide dental services to special needs children because they did not have adequate training (40 percent), did not feel it was compatible with the environment of their practices (38 percent), or did not receive enough reimbursement to treat these patients (19 percent). The Provider survey report recommended more training for providers to work with Special Needs Plans (SNP), collaborating with ADA and ADHS to increase the number of providers who accept young children.

Dental Disease in Children 0-5

In 2006, a total of 253 four-year-old children were evaluated by the Indian Health Service dentists at the annual Head Start screenings in Whiteriver and Cibecue. Of these children screened, 75 percent had active dental disease and were in need of dental treatment. Based on the 2007 Navajo County Oral Health Needs Assessment, 42 percent of four-year-old children showed signs of dental disease. This means that the proportion of children in the White Mountain Apache Region have almost 2x the prevalence of dental disease than other children the same age in neighboring counties.

Childhood Obesity

According to the Centers for Disease Control, the prevalence of obesity (BMI >30) is a growing health concern for adults, children and adolescents. Obesity rates raise major concern because of the health implications for those people who are obese as well as the nation as a whole. These health risks include:

- Hypertension (high blood pressure)
- Osteoarthritis (a degeneration of cartilage and its underlying bone within a joint)
- Dyslipidemia (for example, high total cholesterol or high levels of triglycerides)
- Type 2 Diabetes
- Coronary Heart Disease
- Stroke
- Gallbladder Disease
- Sleep Apnea and Respiratory Problems
- Some Cancers (endometrial, breast and colon)

One of the goals for Healthy People 2010 is to reduce the prevalence of obesity among children and adolescents to less than 5 percent.

In 2006 the White Mountain Apache Head Start screenings collected height and weight information for all children screened. Based on the height and weight provided, a body mass index (BMI) was calculated for all of the children. Based on that information, 56 percent of children 3-4 years old screened for Head Start were classified as overweight or obese. According to the goals for Healthy People 2010, the White Mountain Apache Region is a far cry from the 5 percent that is expected by the year 2010.

Child Safety-- Charts and Discussion

Over the years, a number of federal policies have had a devastating effect on the preservation of American Indian families. An example includes the policy of forcibly removing Indian children from their families and into federal boarding schools, with the goal of assimilating them into mainstream American society. Based on nationwide studies conducted between 1969 and 1974, 25 percent to 35 percent of Indian children were removed from their homes and placed in non-Indian foster or adoptive homes by state courts and welfare agencies. In response to this trend, Congress passed the Indian Child Welfare Act (ICWA) in 1978. ICWA is designed to protect the best interests of Indian children and promote the stability and security of Indian tribes and Native families. ICWA grants jurisdiction to the tribe in child custody matters involving Indian children that are members of a federally recognized tribe.

Currently, there is no information on how many children residing in the region are involved in an ICWA case nor was their adequate information, at the time of this report, on how many children are residing in foster care but are not considered an ICWA case. However, it would be beneficial for the region to have a better idea of the number of ICWA cases occurring annually in the region and how many children

have been displaced because of those cases. Future reports would work with the tribal Legal Department as well as the tribal Prosecution department to collect this data.

Child Mortality

The infant mortality rate can be an important indicator of the health of communities. Infant mortality is higher for children whose mothers began prenatal care late or had none at all, those who did not complete high school, those who were unmarried, those who smoked during pregnancy, and those who were teenagers.³ Furthermore, children living in poverty are more likely to die in the first year of life. For example, children living in poverty are more likely to die from health conditions such as asthma, cancer, congenital anomalies, and heart disease.⁴ In Arizona as well as the rest of the nation, many factors that lead to a young child's death are related to health status, such as a pre-existing health condition, inadequate prenatal care, or even the lifestyle choices of the parent. Another area of concern includes factors such as injury--unfortunately, in many circumstances, preventable injury. Data was not available for the White Mountain Apache Region for 2003 through 2005. Data available for 2006 showed that the number of deaths in ages 0-14 population was less than 1 percent (n=7). The majority of infant deaths in the community from 2004-2006 were due to congenital malformation, followed by conditions originating in the peri-natal period. This mirrors the most common causes of infant deaths among American Indians residing on reservations within Arizona over the same time period.

Children's Educational Attainment-- Charts and Discussion

School Readiness

Early childhood programs can promote successful school readiness especially for children in low-income families. Research studies on early intervention programs for low income children have found that participation in educational programs prior to kindergarten is related to improved school performance in the early years.⁵ Furthermore, research indicates that when children are involved in early childhood programs over a long period of time, with additional intervention in the early school years, better outcomes can emerge.⁶ Long-term studies have documented early childhood programs with positive impact evident in the adolescent and adult years.⁷ Lastly, research has confirmed that early childhood education enhances young children's social developmental outcomes such as peer relationships.⁸

Generally, child development experts agree that school readiness encompasses more than acquiring a set of simple skills such as counting to ten by memory or identifying the letters of the alphabet. Preparedness for school includes self confidence, the ability to problem solve, and the willingness to persist at a task. While experts identify such skills as being essential to school readiness, the difficulty comes in attempting to quantify and measure these more comprehensive ideas of school readiness. Currently no instrument exists that sufficiently identifies a child's readiness for school entry. Although Arizona has a set of Early Learning Standards (an agreed upon set of concepts and skills that children can and should be ready to do at the start of kindergarten), current assessment of those learning standards have not been validated nor have the standards been applied consistently throughout the state.

The community is served by elementary schools in the Whiteriver Unified School

District, including Whiteriver, Seven Mile, and Cradleboard Elementary Schools; the McNary School District, including McNary Elementary School; Cibecue Community School; and BIE schools including John F. Kennedy Day School and Theodore Roosevelt School.

Whiteriver Unified School District evaluates 5-year-old students using the Peabody Picture Vocabulary Test (PPVT-4). The PPVT-4 scale is a norm-referenced, wide-range instrument for measuring the receptive (hearing) vocabulary of children. The PPVT-4 scale measures understanding of the spoken word in standard American English and thus assesses vocabulary acquisition and scores using an age equivalent. The table below shows that, of the 110 children tested, the average vocabulary score for 5 year olds was nearly 2 years behind national norms (Average Score: -1.88). Additionally, the mid-range score for 5 year-olds tested was almost the same as the average of two years behind normal (Median Score: -1.85). Of all the children tested in 2007, the scores ranged from 4 years and two months behind to 2 months ahead (Score Range: -4.18 to 0.26).

2007 Information

Number Tested: 110

Testing Information	Age Information
Average Score: -1.88	Average Age (in years): 5.25
Median Score: -1.85	Median Age: 5 years, 3 months
Score Range: -4.18 to 0.26	Age Range: 4 years, 10 months to 6 years, 3 months

Elementary Education

Data are available for the White Mountain Apache Region on the Arizona’s Instrument to Measure Standards Dual Purpose Assessment (AIMS DPA) for the Whiteriver Unified School District and the McNary Elementary District. The AIMS DPA is used to test Arizona students in Grades 3 through 8. This assessment measures the student’s level of proficiency in Writing, Reading, and Mathematics and provides each student’s national percentile rankings in Reading/Language and Mathematics. In addition, Arizona students in Grades 4 and 8 are given a Science assessment.²⁶ The chart below shows a complex picture of how each school district in the White Mountain Apache Region performs. For example, 50 percent of third grade children attending McNary meet or exceed the standard in math and 58 percent meet the standard in writing at both Whiteriver Unified and McNary Elementary.

White Mountain Apache Region--AIMS DPA 3rd Grade Score Achievement Levels in Mathematics, Reading, and Writing, 2007

School District	Mathematics				Reading				Writing			
	FFB	A	M	E	FFB	A	M	E	FFB	A	M	E
Whiteriver Unified	23%	44%	33%	1%	14%	55%	31%	0%	10%	27%	58%	5%
McNary Elementary	17%	33%	42%	8%	50%	17%	33%	0%	0%	42%	58%	0%

26 Spring 2008 Guide to Test Interpretation, Arizona’s Instrument to Measure Standards Dual Purpose Assessment, CTB McGraw Hill.

FFB = Falls Far Below the Standard, A = Approaches the Standard, M = Meets the Standard, and E = Exceeds the Standard

Data included for all schools for which AIMS DPA grade score achievement levels were published. See Arizona Department of Education, Accountability Division, Research and Evaluation Section, 2007 AIMS Scale Score Table.

It is important to note that the table above does not include data from John F. Kennedy Day School, Cibecue Community School or East Fork Lutheran School. Given the amount of time to complete this report and the availability of staff at schools during the summer months, data was not available. However, the Whiteriver Unified School District serves approximately 80 percent of children residing in the region. In the future, the White Mountain Apache Regional Partnership Council will work to collect more comprehensive data from all of the schools located in the region.

Secondary Education

The completion of high school is a critical juncture in a young adult's life. Students who stay in school and take challenging coursework tend to continue their education, stay out of jail, and earn significantly higher wages than their non-graduating counterparts.²⁷ A small proportion of high school students attend public schools outside of the region. The chart below provides the graduation rates for Alchesay High School and Cibecue Community School, a federally funded grant school through the Bureau of Indian Education. Compared with the state and national data, the schools in the White Mountain Apache Region have a significantly lower graduation rate.

Many factors contribute to poor attendance and low graduation rates, including transportation issues, family challenges, frequent moves and teens' perceptions of the value of completing high school. In focus groups conducted with teens at two tribal schools in Arizona (not White Mountain), the primary motivating factors students identified for attending school were to be with their friends, to participate in sports, to alleviate boredom, for specific classes that they like and because their parents want them to come²⁸. Conversations with teens and their families in the White Mountain Apache Region may reveal other challenges or incentives that could be addressed by the community to help the students complete high school.

White Mountain Apache Region-- High School Graduation Rates 2006

TRIBE HS Districts	Total # Graduates	Total # in Cohort	Graduation Rate
Alchesay H.S.	70	201	35%
Cibecue Community	Data Unavailable	Data Unavailable	57%*
East Fork Lutheran Mission	Data Unavailable	Data Unavailable	Data Unavailable
Arizona*	50,355	71,691	70%
United States**	N/A	N/A	N/A

*Bureau of Indian Education School Report Card 2004-2006, Cibecue Community School. Tables do not include fifth year graduates.

27 Sigelman, C. K., & Rider, E. A., *Life-span development*, 2003, Pacific Grove, CA: Wadsworth.

28 LeCroy & Milligan Associates, Native American Dropout Prevention Initiative Year 2 Evaluation Report, 2008.

White Mountain Apache Region-- High School Graduation Rates 2005

TRIBE HS Districts	Total # Graduates	Total # in Cohort	Graduation Rate
Alchesay H.S.	85	185	46%
Cibecue Community	Data Unavailable	Data Unavailable	Data Unavailable
East Fork Lutheran Mission	Data Unavailable	Data Unavailable	Data Unavailable
Arizona*	50,923	68,498	74%
United States**	2,799,250	3,747,323	75%

White Mountain Apache Region--High School Graduation Rates 2004

TRIBE HS Districts	Total # Graduates	Total # in Cohort	Graduation Rate
Alchesay H.S.	75	205	37%
Cibecue Community	Data Unavailable	Data Unavailable	Data Unavailable
East Fork Lutheran Mission	Data Unavailable	Data Unavailable	Data Unavailable
Arizona*	47,071	61,450	77%
United States**	2,753,438	3,705,838	74%

Source: Arizona Department of Education,



Current Regional Early Childhood Development and Health System

Summary of Regional Findings on Early Childhood System

Quality care is often associated with licensed care. However, there is no commonly agreed upon or published set of indicators of quality for Early Care and Education in Arizona. One of the tasks of First Things First will be to develop a Quality Improvement and Rating System with these common indicators of quality that are also relevant in tribal communities. Although there are no programs in the White Mountain Apache Region accredited by any of the ADE recognized accrediting organizations, the White Mountain Apache Tribe is a Head Start grantee and enrolls 260 children ages 3 to 5.

There are several other types of child care providers within the White Mountain Apache Region, including the Chaghache Day Care Center operated by the tribe's Division of Early Childhood Development. The center is federally funded by the Child Care and Development Fund and provides center based care, family child care homes, and in home care in limited circumstance. The Whiteriver Unified School District provides Alchesay Beginnings, an early child care center, and four special needs preschools for 6 hours per week. Total enrollment for early care and education providers is 165 children ages 0 to 5. Currently, the cost of care for children attending a licensed center or subsidized programs ranges from \$15 to \$20 per day depending on the age of the child and where he/she receives child care.

The majority of families in the White Mountain Apache Region receive medical care from the Whiteriver Service Unit of the Indian Health Service, which includes the Whiteriver Hospital, the Cibecue Health Center, and other community health services. Services are also provided by the White Mountain Apache Division of Health Programs. Health related data was requested, but was not made available in time to include in this report. Head Start health data was used to provide a snapshot of the community. Children attending Head Start in the region received medical screenings and immunizations. According to the Head Start Program Information Report, 96 percent of children had up-to-date screenings and immunizations. At the beginning of the year, 33 children were returning for the next year of pre-school. However, the total number of enrollees for any given year is roughly double that number at 65-70 annually.

The White Mountain Apache Region has a number of family support resources and programming. Programs such as the Food and Nutrition Service--Women, Infant, and Children (WIC), public and BIE schools, the White Mountain Apache Tribe Division of Early Childhood Development, Alchesay Beginnings, and Child Find provide opportunities for parents to obtain information on nutrition, the importance of physical activity, early childhood development, children with special needs, and other parenting skills workshops.

The educational levels of early child care professionals in Whiteriver exceed those in Arizona and are comparable to the national percentages. Certificate and degree offerings available within the community greatly improve access to higher education options. Northland Pioneer Community College has an Education Center in

Whiteriver and has offered classes in the outlying community of Cibecue. Northern Arizona also has a campus in Whiteriver and offers Bachelor and partial Master level programs in the community.

There are number of different media used for providing information and raising parent awareness about early childhood education. The primary method for announcing program activities, workshops, education and information is through the tribal radio station, KNNB – Apache Radio, and the tribal newspaper, The Apache Scout. Programs post information and flyers throughout their offices, Tribal Administration Offices, and on bulletin boards throughout the community. The White Mountain Apache have a strong oral tradition; and, as such, “word of mouth” is also considered an effective method for disseminating information about community activities.

Quality-- Charts and Discussion

A number of states have been increasingly concerned about creating high quality early care and education. This concern makes sense for a number of reasons. First, child care needs are growing because a majority of children ages 0-6 years of age participate in regular, non-parental child care. In one study, 61 percent of young children participated in some form of child care. Further, 34 percent participated in some type of center-based program²⁹. Second, child care is a growing industry. Increasing maternal employment rates and policies from welfare reform have increased demand. Third, research has found that high quality child care can be associated with many positive outcomes including language development and cognitive school readiness³⁰. Quality care is often associated with licensed care, and while this isn't always true, one study found that the single best indicator of quality care was the provider's regulatory status.³¹

Currently there is no commonly agreed-upon or published set of indicators of quality for Early Care and Education in Arizona. One of the tasks of First Things First will be to develop a Quality Improvement and Rating System with these common indicators of quality. Until this rating system is available statewide, this report presents for the White Mountain Apache Regional Partnership Council an initial snapshot of quality in the community.

Accredited Early Child Care Centers

There are no programs in the White Mountain Apache Region accredited by any of the ADE recognized accrediting organizations (NAEYC, NECPA, NAC, AMS, AMI, ICOSA, NAFCC). The White Mountain Apache Tribe Head Start enrolled 260 children in 14 full-day, 5-day-per-week classes in 2006-2007. Eight classes were headed by a teacher with a degree in Early Childhood Education or a related field. The average

²⁹ : Federal interagency forum on child and family statistics. *America's children: Key national indicators of well-being, 2002*. Washington DC.

³⁰ NICHD Early Child Care Research Network, The relation of child care to cognitive and language development, *Child Development, 2000, 71*, 960-980.

³¹ Pence, A. R., & Goelman, H. The relationship of regulation, training, and motivation to quality care in family day care. *Child and Youth Care Forum, 20*, 1991, 83-101.

class size was 18. Average staff to child ratio was one staff to nine children for 3- and 4-year olds. The program reports that 70 children required full-day or year-round child care. When they were not in the Head Start program, 15 were in a family child care home, 16 attended another child care center, and 28 were cared for at home or by relatives or other adults. Eleven children were cared for at the Head Start program or by a child care center partner.

For 16 children, this was their second year of Head Start classes. Of children enrolled, 259 were Native American. A total of 39 percent of families were receiving public assistance, 38 percent were income eligible, 21 percent were over income, and 2 percent were foster children. In all, 217 children live in families speaking English as their primary language, while 35 families spoke a tribal language and eight did not specify.

White Mountain Apache Head Start, 2007

Regional Data for 2007	Head Start
Number of Classes	14
Average Class Size	18
Three Year Olds	15
Four Year Olds	245
Preschoolers staff to Child Ratio (Avg.)	1:9

Sources: WMAT Head Start Program Information Report 2007

Access—Charts and Discussion

Family demand and access to early care and education is a complex issue. Availability and access are influenced by, but not limited to factors such as: Number of early care and education centers or homes that have the capacity to accommodate young learners; infrastructure to support early care centers, time that families have to wait for an available opening (waiting lists), ease of transportation to the care facility; and the cost of the care. Data on these issues are either not available or anecdotal.

For the current Needs and Assets report for the White Mountain Apache Region, data from the Market Rate Survey were unavailable. Independent provider surveys were conducted for purposes of this report. Available data include: number of early care and education programs by type, number of children enrolled in early care and education by type, and average cost of early care. In 2008 when the provider surveys were conducted, all regulated centers were contacted and provided input. However, kit/kin providers were not contacted and will be an area for the Regional Partnership Council to explore in subsequent years.

Number of Early Care and Education Programs

There are several different types of child care providers within the White Mountain Apache Region. In addition to the Head Start, the Tribe’s Division of Early Childhood Development administers Chaghache Day Care Center, funded by the Child Care and Development Fund. The Whiteriver Unified School District provides Alchesay Beginnings, an early child care center, and four special needs preschools offering six hours per week.

White Mountain Apache Region--Number of early care and education programs by type*

Tribally Licensed centers	Small groups homes	Tribally Approved family child care homes	Elementary School Based Preschool and Early Care Programs	Providers registered with the Child Care Resource and referral
1	0	15	7	1

Source: Provider Surveys, July 2008. The DES Child Care Market Rate Survey 2006 had no data for the White Mountain Apache Tribe.

Chaghache Day Care Center provides center based care, family child care homes, and in-home care under limited circumstances for children ages 0-12. Alchesay Beginnings serves children from age birth to five in age-appropriate classrooms. Both programs integrate language and culture into the curriculum. The school-based preschool programs serve children ages 3 to 5 and give priority to children with special needs.

Number of Children Enrolled in Early Care and Education Programs

The table below presents the number of children enrolled in early care and education programs by type as identified by the provider survey in July 2008 for the White Mountain Apache Region. These numbers do not account for children cared for in tribally regulated or unregulated care, family care, or who are in need of care but do not have access to it. Identification of methodologies and data sets related to unregulated care and demand for early care and education are a priority for the future.

White Mountain Apache Region-- number of children enrolled in early care and education programs by type

	Tribally Licensed centers	Small groups homes	Tribally Approved family child care homes	Elementary School Based Preschool and Early Care Programs	Providers registered with the Child Care Resource and Referral	Total Enrollment Ages 0-5
Total Enrollment 0-5	80	No data	No data	48	125 (ages 0 to 12), 37 (ages 0-5)	165

Source: Provider Survey, July 2008. The DES Child Care Market Rate Survey 2006 had no data for the White Mountain Apache Tribe

As of July 2008, the enrollment for Chaghache Day Care Center was 80 children, which includes 12 infants and 25 toddlers. There were 15 Family Child Care Homes registered with the program, but the number of children ages 0 to 5 enrolled in them was not provided. The staff-to-child ratio for infants was 1:3, and for toddlers 1:4. Alchesay Beginnings enrollment was 80 children, of which 11 were less than twelve months, 19 were one year old, 23 were two years old, and 32 were three-to-five years old. Both charge fees for services and provide subsidies for families who qualify. The school-based preschools are free to families and have an approximate enrollment of 65-70 each year. Each classroom has a certified teacher and teacher assistant.

Costs of Care

The table below presents the average cost for families by type of early care and education. The Department of Economic Security's Market Rate phone survey of care providers that examined the average charge for care for different ages of children did not collect data for the White Mountain Apache Region. Therefore, a provider survey was conducted to determine rates in the region. In general, it can be noted that care is more expensive for younger children. Infant care tends to be more costly for parents because ratios of children should be lower and infant care requires a unique skill set. Clearly these costs present challenges for families, especially those at the lowest income levels.

Currently, the cost of care for children attending a licensed center or subsidized program ranges from \$15 to \$20 per day depending on the age of the child and where they receive child care.

White Mountain Apache Region-- early care and education average daily cost, by type and age group, 2008

Setting Type & Age Group	White Mountain Apache Region (2004, 2006)	White Mountain Apache Region (2008)	U.S. (2008)
Group Homes (ADHS) Infant Toddler Preschooler	No Market Rate Survey data for this region		
Licensed Centers (ADHS) Infant Toddler Preschooler		\$20 per day \$20 per day \$18 per day	\$9,567 per yr** \$7,084 per yr**
In-Home Care Infant Toddler Preschooler			Data not available
Certified Homes (DES) Infant Toddler Preschooler			\$6,505 per yr.**
Alternately Approved Homes (food programs) Infant Toddler Preschooler			Data not available
Unregulated Homes (CCR & R) Infant Toddler Preschooler	Data not available	Data not available	Data not available
Subsidized Settings (all ages) Infant Toddler Preschooler		\$18 per day \$16 per day \$15 per day	

**Assumes full-time enrollment

Sources: 2008 Provider Survey, 2008 Child care in Arizona (NACCRA). The DES Child Care Market Rate Survey 2006 had no data for the White Mountain Apache Tribe

Health-- Charts and Discussion

Children’s good health is an essential element that is integrally related to their learning, social adjustment, and safety. Healthy children are ready to engage in the developmental tasks of early childhood and to achieve the physical, mental, intellectual, social and emotional well being necessary for them to succeed when they reach school age. Children’s healthy development benefits from access to preventive, primary, and comprehensive health services that include screening and early identification for developmental milestones, vision, hearing, oral health, nutrition and exercise, and social-emotional health.

The majority of families in the White Mountain Apache Region receive medical care from the Whiteriver Service Unit of the Indian Health Service, which includes the Whiteriver Hospital, the Cibecue Health Center, and other community health services. The Whiteriver Hospital is located about three miles north of Whiteriver and serves approximately 17,000 tribal members and other communities around the area. Residents to the southwest are served through the Cibecue Health Center, fifty miles from Whiteriver. The Whiteriver Hospital is a JCAHO-accredited hospital staffed by 22 physicians, a podiatrist, 5 nurse practitioners, 5 dentists, 2 optometrists, and about 79 nursing staff members. The 45-bed facility’s services include general medical, pediatrics, alcohol treatment, obstetrics, and ambulatory surgery. Patients requiring inpatient surgical procedures and complex medical care are referred to Phoenix Indian Medical Center, approximately a 4-hour drive from Whiteriver, or contract-care hospitals. The Whiteriver Hospital is also the base for major research projects by Johns Hopkins University that include gastroenteritis, pneumococcal diseases and respiratory syncytial virus.

Children attending Head Start in the region received medical screenings and immunizations. According to the 2006-2007 Head Start Program Information Report, 96 percent of children had received up-to-date screenings and immunizations.

White Mountain Apache Region--Medical Services Head Start Children

2006-2007	# of Children	Health Insurance **	Medicaid / EPSDT / Combination (% of insured)	Medical Home	IHS (home) % of Medical Home	Up-To-Date Screenings **	Up-To-Date Immun.	Mental Health Assess.	MH Outside Referral
White Mountain Apache Region	260	252 (97%)	182 (72%)	252 (97%)	251 (99%)	250 (96%)	250 (96%)	1 (< 1%)	10 (4%)

* 1 private insurance; 69 'other' ** 45 diagnosed as needing treatment; 39 received treatment: 4 treated for anemia; 7 treated for asthma; 8 treated for vision problems. Source: Head Start PIR Program Year 2006-2007

Developmental Screening

Early identification of developmental or health delays is crucial to ensuring children’s optimal growth and development. The Arizona Chapter of the American Academy of Pediatrics recommends that all children receive a developmental screening at 9, 18, and 24 months with a valid and reliable screening instrument. In addition, pro-

viding special needs children with supports and services early in life leads to better health, better outcomes in school, and opportunities for success and self-sufficiency into adulthood. Research has documented that early identification of and early intervention with children who have special needs can lead to enhanced developmental outcomes and reduced developmental problems.³² For example, children with autism, identified early and enrolled in early intervention programs, show significant improvements in their language, cognitive, social, and motor skills, as well as in their future educational placement.³³

Parents' access to services is a significant issue, as parents may experience barriers to obtaining referrals for young children with special needs. This can be an issue if, for example, an early child care provider cannot identify children with special needs correctly.³⁴

While recommended, all Arizona children are not routinely screened for developmental delays although nearly half of parents nationally have concerns about their young child's behavior (48 percent), speech (45 percent), or social development (42 percent)³⁵. Children most likely to be screened include those that need neonatal intensive care at birth. These babies are all referred for screening and their families receive follow-up services through Arizona's High Risk Peri-natal Program administered through county Health Departments, although the process may differ slightly if the referral is generated within the Indian Health Service.

Every state is required to have a system in place to find and refer children with developmental delays to intervention and treatment services. The federal Individuals with Disabilities Education Act (IDEA) governs how states and public agencies provide early intervention, special education, and related services. Infants and toddlers with disabilities (birth to age three) and their families receive early intervention services under IDEA Part C. Children and youth (ages 3-21) receive special education and related services under IDEA Part B.

The White Mountain Apache Tribe has a Child Find Program, a component IDEA that identifies, locates, and evaluates children ages birth to 5 years of age with disabilities who are in need of early intervention or special education services. Child Find provides referrals to Arizona Early Intervention Program (AZEIP), Arizona's system that serves infants and toddlers. Children eligible for AZEIP services are those who have not reached fifty percent of the developmental milestones expected at their chronological age in one or more of the following areas of childhood development: physical, cognitive, language/ communication, social/emotional, and adaptive self-help. Identifying the number of children who are currently being served through an early intervention or special education system, indicates what portion of the population is determined to be in need of special services (such as speech or physi-

32 Garland, C., Stone, N. W., Swanson, J., & Woodruff, G. (eds.). *Early intervention for children with special needs and their families: Findings and recommendations*. 1981, Westat Series Paper 11, University of Washington; Maisto, A. A., German, M. L. Variables related to progress in a parent-infant training program for high-risk infants. 1979, *Journal of Pediatric Psychology*, 4, 409-419.; Zeanah, C. H. *Handbook of infant mental health*, 2000, New York: The Guildford Press.

33 National Research Council, Committee on Educational Interventions for Children with Autism, Division of Behavioral and Social Sciences and Education. *Educating children with autism*. Washington, DC: National Academy Press; 2001.

34 Hendrickson, S., Baldwin, J. H., & Allred, K. W. Factors perceived by mothers as preventing families from obtaining early intervention services for their children with special needs, *Children's Health Care*, 2000, 29, 1-17.

35 Inkelas, M., Regalado, M., Halfon, N. Strategies for Integrating Developmental Services and Promoting Medical Homes. Building State Early Childhood Comprehensive Systems Series, No. 10. National Center for Infant and Early Childhood Health Policy. July 2005.

cal therapy). Comparing that number to other states with similar eligibility criteria provides a basis for understanding how effective the child find process is. This is the first task in knowing whether or not a community's child find process, including screening, is working well.

Second, when conducted effectively, screening activities assist in identifying children who may be outside the range of typical development. Based on screening results, a child may be further referred for an evaluation to determine eligibility for services. Accurate identification through appropriate screening most often leads to a referral of a child who then qualifies to receive early intervention or special education services. One consideration of the effectiveness of screening activities is the percent of children deemed eligible compared to the total number of children referred. The higher the percent of children eligible, the more accurate and appropriate the referral. Effective screening activities are critical to assuring such accuracy.

The White Mountain Apache Child Find program provides monthly screenings and free services to children from age birth through five with special needs. The Child Find program provides access to a "Toybrary" for tribal members to check out developmental toys for use at home, occupational therapy, and five small playgroups for children who are diagnosed with special needs or are considered borderline. Child Find has a full-time speech pathologist on staff and provides services in English and Apache.

According to the 2007 Head Start Parent's Survey, 16 percent of parents report having at least one child with special needs. Consistent data comes from the Child Find program as well. The September 2006 Child Find report found that 18 percent of 3-, 4- and 5-year-old children in the region are diagnosed as disabled. The national rate of children with disabilities is between 10-12 percent, which means that White Mountain Apache region's children suffer disproportionately compared to the rest of the nation. Additionally, the proportion of children with a "severe cognitive delay" for the region is between three and five percent while the national figure is only one percent. Potential contributors for these high numbers include but are not limited to:

- Children born with fetal alcohol syndrome/fetal alcohol effects
- Chronic ear infections early in life
- Infant and childhood injury and infections
- Inadequate nutrition during pregnancy

The largest school district in the Region (Whiteriver Unified School District) collects information regarding children enrolled with a disability. In total, there are 33 children enrolled who have one of the following diagnoses:

- Hearing Impaired (HI)
- Preschool Moderate Delay (PMD)
- Preschool Severely Delay (PSD)
- Preschool Speech & Language Delay (PSL)
- Visually Impaired (VI)

Given the small number of children with a given diagnosis, the exact numbers could not be provided.

Nationally, the percentage of American Indians served under Part B is higher than other races, with the majority being categorized with developmental delay or speech and language delay. This trend is similar in Arizona. There is ongoing dialogue regarding the use of standardized practices with culturally and linguistically diverse children. There is widespread concern over the disproportionate representation of American Indian children in special education programs nationally.⁹

There are many challenges for Arizona’s early intervention programs in being able to reach and serve children and parents. Speech, physical, and occupational therapists are in short supply and more acutely so in some areas of the state than others. Families and health care providers are frustrated by the tangle of procedures required by both private insurers and the public system. These problems will require the combined efforts of state and regional stakeholders to arrive at appropriate solutions.

While longer-term solutions to the therapist shortage are developed, parents can be a primary advocate for their children to assure that they receive appropriate and timely developmental screenings according to the schedule recommended by the Academy of Pediatrics. Also, any parent who believes their child has delays can contact the White Mountain Apache Child Find Program, Arizona Early Intervention Program, or any school district and request that their child be screened. Outreach, information and education for parents on developmental milestones for their children, how to bring concerns to their health care provider, and the early intervention system and how it works, are parent-support services that each region can provide. These measures, while not solving the problem, will give parents some of the resources to increase the odds that their child will receive timely screening, referrals, and services.

Insurance Coverage

The following chart compares the percent of children in Arizona receiving no medical care for those insured all years versus those uninsured all or part of the year. As the chart shows, over 38 percent of children who are uninsured all or part of the year, are not receiving medical care compared to 15 percent of children who are insured throughout the year.

State and National--Percent of children (0-17) not receiving any medical care, 2003

	Insured All Year		Uninsured All or Part of the Year	
	Percent not receiving medical care	Number not receiving medical care	Percent not receiving medical care	Number not receiving medical care
Arizona	14.8	171,303	38.1	134,259
U.S.	12.3	7,635,605	25.6	2,787,711

Source: Robert Wood Johnson Foundation. Protecting America’s Future: A State-By-State Look at SCHIP and Uninsured Kids, August 2007.

As described in the section on Health Coverage and Utilization, children who are enrolled in AHCCCS are very likely to receive well-child visits during the year, as are

children who are enrolled in Head Start.

Immunizations

Immunization of young children is known to be one of the most cost-effective health services available and is essential to prevent early childhood diseases and protect children from life threatening diseases and disability. A goal for Healthy People 2010 for the U.S. is to reach and sustain full immunization of 90 percent of two-year-old children. According to the Head Start Program Information Report 2007, 96 percent of the 250 children enrolled in the program had up-to-date immunizations, which represents about 16 percent of the total population in the region for ages 0 to 5. According to the White Mountain Apache Head Start Community Assessment September 2007, 176 parents surveyed indicated that quality health service, immunizations, and family planning services were the most important health issues in the community.

Family Support—Charts and Discussion

Family support is a foundation for enhancing children's positive social and emotional development. Children who experience sensitive, responsive care from a parent perform better academically and emotionally. Beyond the basics of care and parenting skills, children benefit from positive interactions with their parents (e.g. physical touch, early reading experiences, and verbal, visual, and audio communications). Children depend on their parents to ensure they live in safe and stimulating environments where they can explore and learn.

Many research studies have examined the relationship between parent-child interactions, family support, and parenting skills.³⁶ Much of the literature addresses effective parenting as a result of two broad dimensions: discipline and structure, and warmth and support.³⁷ Strategies for promoting enhanced development often stress parent-child attachment, especially in infancy, and parenting skills.³⁸ Parenting behaviors have been shown to impact language stimulation, cognitive stimulation, and promotion of play behaviors—all of which enhance a child's well being.³⁹ Parent-child relationships that are secure and emotionally close have been found to promote

36 Brooks-Gunn, J., Klebanov, P.K., & Liaw, F. R. The learning, physical, and emotional environment of the home in the context of poverty: The Infant Health and Development Program. *Children and Youth Services Review*, 1994, 17, 251-276; Hair, E., C., Cochran, S. W., & Jager, J. Parent-child relationship. In E. Hair, K. Moore, D. Hunter, & J. W. Kaye (Eds.), *Youth Development Outcomes Compendium*. Washington DC, Child Trends; Maccoby, E. E. Parenting and its effects on children: On reading and misreading behavior genetics, 2000, *Annual Review of Psychology*, 51, 1-27.

37 Baumrind, D. Parenting styles and adolescent development. In J. Brooks-Gunn, R., Lerner, & A. C. Peterson (Eds.), *The encyclopedia of adolescence* (pp. 749-758). New York: Garland; Maccoby, E. E. Parenting and its effects on children: On reading and misreading behavior genetics, 2000, *Annual Review of Psychology*, 51, 1-27.

38 Sroufe, L. A. *Emotional development: The organization of emotional life in the early years*. Cambridge: Cambridge University Press; Tronick, E. Emotions and emotional communication in infants, 1989, *American Psychologist*, 44, 112-119.

39 Brooks-Gunn, J., Klebanov, P.K., & Liaw, F. R. The learning, physical, and emotional environment of the home in the context of poverty: The Infant Health and Development Program. *Children and Youth Services Review*, 1994, 17, 251-276; Snow, C. W., Barnes, W. S., Chandler, J., Goodman, I. F., & Hemphill, J., *Unfulfilled expectations: Home and school influences on literacy*. Cambridge, MA: Harvard University Press.

children's social competence, pro-social behaviors, and empathic communication.⁴⁰

The new economy has brought changes in the workforce and family life. These changes are causing financial, physical, and emotional stresses in families, particularly low-income families. Regardless of home language and cultural perspective, all families should have access to information and services and should fully understand their role as their children's first teachers.

Supporting families is a unique challenge that demands collaboration between parents, service providers, educators and policy makers to promote the health and well being of young children. Every family needs and deserves support and access to resources. Effective family support programs will build upon family assets that are essential to creating self-sufficiency in all families. Family support programming will play a part in strengthening communities so that families benefit from "belonging." Success is dependent on families being solid partners at the table, with access to information and resources. Activities and services must be provided in a way that best meets family needs.

Family support is a holistic approach to improving young children's health and early literacy outcomes. In addition to a list of services like the licensed child care providers, preschool programs, food programs, and recreational programs available to families, Regional Partnership Councils will want to work with their neighborhoods to identify informal networks of people – associations – that families can join and utilize to build a web of social support.

The White Mountain Apache Region has a number of family support resources and programs. These include the Food & Nutrition Services--Women, Infant, and Children (WIC), public and BIE Schools, the White Mountain Apache Tribe Division of Early Childhood Development, Alchessay Beginnings, and Child Find. These resources and programs provide opportunities for parents to obtain information on nutrition, the importance of physical activity, early childhood development, and children with special needs. In addition, some offer other parenting skills workshops.

Parent knowledge about early education issues

When asked, child care professionals continually report that families need more and better information around quality child care⁴¹. Parents seem fairly perceptive of their need for more information. Little is known about parent knowledge about early education in the White Mountain Apache Region. The table below highlights programs within the community that provide parent information and education.

⁴⁰ ; Hair, E., C., Cochran, S. W., & Jager, J. Parent-child relationship. In E. Hair, K. Moore, D. Hunter, & J. W. Kaye (Eds.), *Youth Development Outcomes Compendium*. Washington DC, Child Trends; Sroufe, L. A. *Emotional development: The organization of emotional life in the early years*. Cambridge: Cambridge University Press; Tronick, E. Emotions and emotional communication in infants, 1989, *American Psychologist*, 44, 112-119.

⁴¹ Whitebook, M., Howes, C., & Phillips, D. *Who cares? Child care teachers and the quality of care in America, 1989*, Oakland, CA: Child Care Employee Project.

Programs Providing Information Parent Information and Education

White Mountain Apache Tribal Library	Provides monthly activities for children
Women, Infant and Children	Provides parent education and has over 100 educational brochures on breast feeding, health, nutrition, and early childhood development
Child Find	Provides parent support groups, parent training, transportation to medical appointments, child advocacy
Whiteriver Unified School District – Special Needs Preschools	Parent workshops, newsletters, home visits, conferences, surveys, child progress notes

Professional Development-- Charts and Discussion

Professionals providing early childhood services can improve their knowledge and skills through professional education and certification. This training can include developmental theory, as well as practical skills in areas such as child health, child safety, parent/child relationships, and professional child care service delivery. The professional capacity of the early childhood workforce and the resources available to support it affect the development of the region’s young children.

Child Care Professionals’ Certification and Education

Research on caregiver training has found a relationship between the quality of child care provided and child development outcomes⁴² Furthermore, formal training is related to increased quality care; however, *experience without formal training* has not been found to be related to quality care.⁴³

A provider survey was conducted in July 2008 to identify the educational backgrounds of teachers and teacher assistants in the region. Other data sources were used to report the educational levels for Arizona and the U.S.

White Mountain Apache Region--Child care professionals’ educational background, 2007

Degree Type	White Mountain Apache Region 2007		Arizona* 2007		U.S.** 2002	
	Teachers	Assistants	Teachers	Assistants	Teachers	Assistants
No degree	5%	41%	61%	82%	20%	12%
CDA	41%	0%	9%	7%	N/A	N/A
Associates	41%	14%	15%	8%	47%	45%
Bachelors	13%	0%	19%	7%	33%	43%
Masters	0%	0%	6%	Less than 1%		

42 NICHD Early Child Care Research Network. The relation of child care to cognitive and language development, 2000, *Child Development*, 71, 960-980.

43 Galinsky, E. C., Howes, S., & Shinn, M. *The study of children in family care and relative care*. 1994, New York: Families and Work Institute; Kagan, S. L., & Newton, J. W. Public policy report: For-profit and non-profit child care: Similarities and differences. *Young Children*, 1989, 45, 4-10; Whitebook, M., Howes, C., & Phillips, D. *Who cares? Child care teachers and the quality of care in America*, 1989, Oakland, CA: Child Care Employee Project.

Sources: Compensation and Credentials report, Center for the Child Care Workforce – Estimating the Size and Components of the U.S. Child Care Workforce and Caregiving Population report, 2002. WMAT Head Start PIR 2007, Provider Surveys with Early Childcare Centers in the region

* Arizona figures were determined by using the statewide average from the Compensation and Credentials report.

**U.S. figures had slightly different categories: High school or less was used for no degree, Some college was used for Associates degree, and Bachelors degree or more was used for Bachelors and Masters degree

The educational levels of early child care professionals in the White Mountain Apache Region exceed those in Arizona and are comparable to the national percentages. Certificate and degree offerings available within the community greatly improve access to higher education options. The White Mountain Apache Tribe's Higher Education Program also supports students by providing scholarships to students attending college and universities. The Higher Education Program fulfills its commitment to the White Mountain Apache Tribe by supporting tribal members to maintain, protect, and serve the people and resources of the Tribe.

Professional Development Opportunities

Early childhood educators and professionals have a variety of education and training resources available, including online training and education and degree programs. Northland Pioneer Community College has an Education Center in Whiteriver and has offered classes in the outlying community of Cibecue. The Whiteriver Center enrollment of 250-300 per semester is one of the multi-site college's highest. Community members and early childhood professionals have the option of completing a variety of certificates and degrees in a number of early childhood areas within Whiteriver. Students may alternatively access a greater selection of courses at the White Mountain/Show Low Campus located approximately 35 miles north of Whiteriver. Northland Pioneer College also provides dual enrollment opportunities to high school students to complete Certificates of Completion in Infant/Toddler and Pre-school. Courses are offered on-site at the Whiteriver Unified School District's early child care program, Alchesay Beginnings.

Northern Arizona University also has a campus in Whiteriver and offers Bachelor and partial Master level programs in the community.

White Mountain Apache Region--Available education and certification programs for child care professionals

School	Degree/Certificates
Northland Pioneer Community College	<ul style="list-style-type: none"> • Certificate of Completion in Early Child Development, Infant/Toddler, and Preschool • Certificate of Applied Science in Early Childhood Development, Infant/Toddler Development, School-Age Children, Family Care, Early Childhood Management, and Special Needs • Associate of Applied Science in Early Childhood Development • Associate in Transfer Partnership Degree with Northern Arizona University
Northern Arizona University – Whiteriver Campus	<ul style="list-style-type: none"> • B.A. and B.S. Interdisciplinary Studies - Learning & Pedagogy • B.S. Ed. in Early Childhood Education • M.Ed. Bilingual/Multicultural Education (Partial Program Only)
Northern Arizona University (online programs)	<ul style="list-style-type: none"> • B.A.S. in Early Childhood Education • M.Ed. in Early Childhood Education

Employee Retention

Providing families with high quality child care is an important goal for promoting child development. Research has shown that having child care providers who are more qualified and who maintain employee retention is associated with more positive outcomes for children.⁴⁴ More specifically, research has shown that child care providers with more job stability are more attentive to children and promote more child engagement in activities.⁴⁵

The chart below shows the average length of employment for the early child care providers in the region, excluding the White Mountain Apache Head Start. The average length of employment is split between less than two years at 44 percent and more than five years at 48 percent.

⁴⁴ Raikes, H. Relationship duration in infant care: Time with a high ability teacher and infant-teacher attachment. 1993, *Early Childhood Research Quarterly*, 8, 309-325.

⁴⁵ Stremmel, A., Benson, M., & Powell, D. Communication, satisfaction, and emotional exhaustion among child care center staff: Directors, teachers, and assistant teachers, 1993, *Early Childhood Research Quarterly*, 8, 221-233; Whitbook, M., Sakai, L., Gerber, E., & Howes, C. *Then and now: Changes in child care staffing, 1994-2000*. Washington DC: Center for Child Care Workforce.

White Mountain Apache Region--Average length of employment for child care professionals

	Less than 1 Year	1-2 Years	2-3 Years	3-4 Years	4-5 Years	More than 5 Years
Teachers	0	2	2	0	0	4
Assistant Teachers	0	8	0	0	0	7
Teacher Directors	0	0	0	0	0	0
Administrative Directors	0	1	0	0	0	1

Source: Provider Survey (excludes WMAT Head Start)

Compensation and Benefits

Higher compensation and benefits have been associated with quality child care. Research studies have found that in family care and in child care centers, workers' salaries are related to quality child care⁴⁶. Furthermore, higher wages have been found to reduce turnover—all of which is associated with better quality child care⁴⁷. Better quality care translates to workers routinely promoting cognitive and verbal abilities in children and social and emotional competencies.⁴⁸

The table below provides the average wages for early care professionals at the White Mountain Apache Region's child care centers and Head Start. The average teaching salary for Head Start teachers is higher than that of teachers at early care centers, but the reverse is true in the case of assistant teachers. A second table allows for comparison with state and national wage rates.

White Mountain Apache Region--Average wages for child care professionals (2004 – 2007)

		2004	2007
Teacher	Average Hourly Wage	No data	\$9.73
Assistant Teacher	Average Hourly Wage	No data	\$7.95
Teacher/ Director	Average Hourly Wage	No data	No data
Admin/ Director	Average Hourly Wage	No data	No data
Head Start* Teacher	Average Hourly Wage	Data not available	\$14.13 (\$22,698 yearly)
Head Start* Assistant Teacher	Average Hourly Wage	Data not available	\$7.48 (\$11,968 yearly)

Sources: 2004 and 2007 data is from the Compensation and Credentials Survey.

46 Lamb, M. E. Nonparental child care: Context, quality, correlates. In W. Damon, I. E. Sigel, & K. A. Renninger (Eds.), *Handbook of Child Psychology* (5th ed.), 1998, pp. 73-134. New York: Wiley & Sons; National Research Council and Institute of Medicine. *From neurons to neighborhoods: The science of early childhood development*. Washington DC: National Academy Press.

47 Shirr, Elisabeth B. Pathway to Children Ready for School and Succeeding at Third Grade. Project on Effective Interventions at Harvard University, June 2007.

48 Ibid.

*Source: Head Start PIR data 2006-7, Provider Surveys

	Arizona		U.S.
	2004	2007	2006
Assistant Teachers	\$8.02/hr	\$9.00/hr.	\$9.05/hr.
Teachers	\$11.62/hr.	\$11.80/hr.	\$12.45/hr.
Administrative Directors	\$19.03/hr.	Not reported	\$20.88/hr.

Sources: Arizona Compensation and Credentials Report (2007); U.S. Dept. of Labor (2008);

Public Information and Awareness-- Charts and Discussion

Public interest in early childhood is growing. Recent research in early childhood development has increased families’ attention on the lasting impact that children’s environments have on their development. The passage of Proposition 203 – First Things First – in November 2006, as well as previous efforts, lead by the United Way, the Arizona Community Foundation, and the Arizona Early Education Funds, have elevated early childhood issues to a new level in our state.

Increasingly, families and caregivers are seeking information on how best to care for young children. National studies suggest that more than half of American parents of young children do not receive guidance about important developmental topics, and want more information on how to help their child learn, behave appropriately, and be ready for school. Many of the most in-need, low-income, and ethnic-minority children are even less likely to receive appropriate information.⁴⁹

Families and caregivers also seek information on how families can connect with and navigate the myriad public and private programs that exist in their communities that offer services and support to young children and their families. Few connections exist between such public and private resources, and information that is available on how to access various services and supports can be confusing or intimidating. Information provided to families needs to be understandable, culturally and geographically relevant, and easily accessible.

The White Mountain Apache Region has a number of support programs and services for parents and children related to early childhood. Many programs partner to provide services to achieve a common goal of strengthening overall health and wellness for children from birth to age five. In addition to the White Mountain Head Start and the early child care programs discussed in previous sections, the following are some of the programs and resources available to children and families:

Whiteriver Unified School District provides four preschool programs at locations across the reservation. The programs organize workshops and parent nights and distribute a newsletter and educational newspaper articles to raise parent awareness. They also hosted a project developed by the Alchesay High School to develop a web-based Speaking Apache Dictionary.

Apache Behavioral Health Services Children and Family Services, which provide individual and family counseling, case management, crisis intervention, and other adult behavioral health services.

49 Halfon, Nel, et al. “Building Bridges: A Comprehensive System for Healthy Development and School Readiness.” National Center for Infant and early Childhood Health Policy, January 2004.

Culture and language preservation efforts have been led by the Apache Cultural Center and Museum and Tribal Library. Established in 1969, the White Mountain Apache Cultural Center serves as a repository of the Tribe's cultural heritage, preserving the oral histories, archival materials, and objects of cultural, historical and artistic significance to the White Mountain Apache people.

Nutrition services are provided through Women, Infant and Children (WIC) and Public Health Nursing. These programs emphasize the importance of a healthy diet and exercise. WIC services include nutrition assistance for mothers of children ages 0-5, educational materials and information for parents, and breastfeeding classes for new mothers. Public Health Nursing provides community outreach and home-based education for parents. Vaccinations are provided for children 0-5.

Community facilities include three community centers, a fairground, an indoor swimming pool, three gymnasiums, and a four-acre public park in Whiteriver.

Car seat training is provided by the Office of Environmental Health for new parents.

Public awareness and information efforts also need to go beyond informing parents and caregivers of information needed to raise an individual child or support a family in care giving. Increased public awareness around the needs of children and their families is also needed. Policy leaders need to better understand the link between early childhood efforts and the broader community's future success. Broader public support must be gleaned to build the infrastructure needed to help every Arizona child succeed in school and life. Success in building a comprehensive system of services for young children requires a shift in public perceptions and public will.⁵⁰

System Coordination-- Charts and Discussion

Throughout Arizona, programs and services exist that are aimed at helping young children and their families succeed. However, many such programs and services operate in isolation of one another, compromising their optimal effectiveness. A coordinated and efficient systems-level approach to improving early childhood services and programs is needed.

System coordination can help communities produce higher quality services and obtain better outcomes. For example, one study found that families who were provided enhanced system coordination benefited more from services than did a comparison group that did not receive service coordination.⁵¹ Effective system coordination can promote First Things First's goals and enhance a family's ability to access and use services.

Partnerships are needed across the spectrum of organizations that touch young children and their families. Organizations and individuals must work together to establish a coordinated service network. Improved coordination of public and private human resources and funding could help maximize effective outcomes for young children.

⁵⁰ Clifford, Dean, PhD. Practical Considerations and Strategies in Building Public Will to Support Early Childhood Services.

⁵¹ Gennetian, L. A., & Miller, C. *Reforming welfare and rewarding work: Final report on the Minnesota Family Investment Program: Effects on Children*, 2000, New York: Manpower Demonstration Research Corporation; Miller, C., Knox, V., Gennetian, L. A., Doodoo, M., Hunter, J. A., & Redcross, C. *Reforming welfare and rewarding work: Final report on the Minnesota Family Investment Program: Vol. 1: Effects on Adults*, 2000, New York: Manpower Demonstration Research Corporation.

A wide array of opportunities exists for connecting services and programs that touch children and families. Early childhood education providers, services, and programs that help families care for their young children could be better connected to enhance service delivery and efficiency. Partnerships with the White Mountain Apache Tribe and state programs that help low income families could be better coordinated so that redundancies as well as “gaps” in services are eliminated and there is a continuum of care.



Parent & Community Awareness of Services, Resources or Support

Building Bright Futures, the 2007 Statewide Assessment, noted that the passage of First Things First by majority vote demonstrates that Arizonans are clearly concerned about the well-being of young children in Arizona. However, when asked “how well informed are you about children’s issues in Arizona,” more than one in three respondents say they are not informed. There are number of different media used for providing information and raising parent awareness about early childhood education. The primary method for announcing program activities, workshops, education, and information is through the tribal radio station, KNNB – Apache Radio, and the tribal newspaper, The Apache Scout. Programs post information and flyers throughout their offices, Tribal Administration Offices, and on bulletin boards throughout the community. Additionally, the White Mountain Apache have a strong oral tradition and, as such, “word of mouth” is also considered a method for disseminating information about community activities.



Additional Indicators of Interest to Regional Partnership Council

Areas of interest for further data collection identified by the White Mountain Apache Region include:

- Obesity among children ages 0-5
- Dental screening and treatment
- Incidence of ear infections

Conclusion

Synthesis of findings on regional child and family indicators and early childhood system

The White Mountain Apache Region has a number of centralized services and the capacity to create opportunities for children and families. Providers recognize the need to better coordinate local resources to provide parents and families with a cohesive, collaborative, and comprehensive service array that will better meet their own and their children's needs. Although the region is limited in the number of early child care settings, tribal programs make a conscientious effort to provide parent education and raise community awareness as evidenced by their program information, brochures, newsletters, activity calendars, and website.

The assessment provides evidence that coordination among programs within the community is critical to ensuring that children are receiving medical, dental, vision, and developmental screenings, which are so critical in a young child's life. More information and data is needed to identify the needs of children not currently being served by early care and education programs, specifically those children in relative care or receiving care outside the community. High incidence of obesity, dental disease, infections, and other health issues were of great concern to many program staff, school administrators, and health care providers.

Educational attainment is another area of importance within the community. The percentage of births to mothers without a high school diploma is higher in the region than it is across the state, which may be due to high rate of teen pregnancies. However, the number of births to mothers with a high school degree or some college is higher than the state. There is evidence of a need for greater training and certification among child care professionals. The White Mountain Apache Region has conveniently situated higher education resources. However, more information is needed to determine what barriers may exist to accessing these resources.

Identification of Greatest Regional Assets

The White Mountain Apache Region has wide array of programs and services that integrate the culture and language into curricula and activities. Many of the teachers and program staff are from the community, have post-secondary certificates and degrees, and are fluent speakers of the Apache language. Community members have options in the type of child care they obtain. Tribal programs and the schools make a concerted effort to provide educational opportunities, information, trainings, and opportunities for parent engagement. Community members have access to certificate and degree programs in Whiteriver from Northland Pioneer College and Northern Arizona University. Higher education options also exist in nearby Show Low, approximately 35 miles north of Whiteriver.

Identification of Greatest Regional Needs

As is so often the case, strengths can also be the flip side of subtle challenges.

While there are a number of early care and education programs in the community, there are not enough to meet the need of the population of children ages 0-5 and



costs may be prohibitive for some low income families. In addition, although trainings and workshops have been offered, parent participation has been low and overall education on child development is low.

Second, dental disease rates among children 3-4 years old are very high compared to the Healthy People 2010 goals of 5 percent. This might be due to the fact that the number of resources for parents of young children to receive preventive dental care is not readily available. Specifically, there is only one pediatric dentist in the region. Additionally, a majority of services provided by the IHS dental department focus on triage of dental needs and spend very little time on prevention.

Lastly, children entering kindergarten are, on average, two years behind in their language development; a trend that seems to remain constant in this community since the late 1980s. Increased access to research-based curricula that improves language and vocabulary development is tremendously needed in early care and education settings. Not only that, there should be a focus on kith and kin providers and ensuring they have access to resources that will help young children develop language and literacy skills so that when they enter kindergarten they are not behind.

Appendices

Assets for White Mountain Apache Region

Tribal Government Departments and Programs			
Apache Cultural Center and Museum	Junction of Arizona 73 and Indian Route	Whiteriver	85941
Apache Diabetes Wellness Center	210 Upper Terrace	Whiteriver	85941
Apache Tribal Guidance Center, Apache Behavioral Health Services	-----	Whiteriver	85941
Chaghache Day Care	617 South Chief Avenue	Whiteriver	85941
Child Find Program	P.O. Box 190	Whiteriver	85941
Cibecue Healthy Nations	-----	Cibecue	85911
Community Health Representatives – Whiteriver and Cibecue	-----	Whiteriver	85941
Tribal Education Department	P.O. BOX 999 205 W. Fatco Rd	Whiteriver	85941
Fire Department	610 South Chief Avenue	Whiteriver	85941
Head Start	311 North 1 st Street	Whiteriver	85941
Indian Health Service, Office of Environmental Health	State Route 73	Whiteriver	85941
Indian Health Service, Public Health Nursing	State Route 73	Whiteriver	85941
Police Department	5 East Sycamore Street	Whiteriver	85941
Tribal Council	P.O. Box 700	Whiteriver	85941
White Mountain Apache WIC	100 E. Walnut St.	Whiteriver	85941
Schools			
Alchessay High School	200 Falcon Way	Whiteriver	85941
Cibecue Community School	1004 Main Street	Cibecue	85911
Cradleboard Elementary	P.O. Box 190	Whiteriver	85941
East Fork Lutheran School	4325 Ft. Apache Rd.	Whiteriver	85941
John F. Kennedy Day School	Highway 73	Whiteriver	85941
McNary Elementary	108 North Pollack	McNary	85930
Seven Mile Elementary	2005 Fort Apache Road	Whiteriver	85941
Theodore Roosevelt School Middle School	P.O. Box 567	Fort Apache	85926
Whiteriver Elementary	P.O. Box 190	Whiteriver	85941
Hospitals/Clinics			
Cibecue Emergency Medical Service	421 Cooley Road	Cibecue	85911
Indian Health Service	307 West Kuper Drive	Whiteriver	85941
Phoenix Indian Medical Center	4212 North 16 th Street	Phoenix	85016
Whiteriver PHS Indian Hospital	P.O. Box 860	Whiteriver	85941
Colleges			
NAU Whiteriver Campus c/o Whiteriver Unified School District	963 South Chief Avenue/ Tech Bldg.	Whiteriver	85941
Northland Pioneer Community College – Whiteriver Center	720 South Chief	Whiteriver	85941
Recreation Centers			
Cibecue Community Gym	10 West 3 rd Street	Cibecue	85911
N'Dee Bii Fitness Center	1105 S. Chief Ave.	Whiteriver	85941
Whiteriver Community Pool	1105 S. Chief Ave.	Whiteriver	85941

Libraries			
White Mountain Apache Public Library	-----	Whiteriver	85941
White Mountain Apache Public Library	-----	Cibecue	85911
Non Tribal Programs/Agencies/Coalitions			
Adolescent & Family Services	305 West Bengay Drive	Whiteriver	85941
Boys & Girls Club of The White Mountain Apache Tribe	109 East Manzanita Street	Whiteriver	85941
Inter Tribal Council of Arizona -Women, Infant and Children -Dental Program	2214 North Central Avenue # 100	Phoenix	85004
Apache Behavioral Health Services	249 W. Ponderosa Dr.	Whiteriver	85941
White Mountain Apache Housing Authority	50 W. China Town St.	Whiteriver	85941
The Hope Center	617 S. Chief Ave.	Whiteriver	85941
The Kennel- Youth Center	P.O. Box 1613	Whiteriver	85941
Alchesay Beginnings Child Development Center	P.O. Box 190	Whiteriver	85941

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Description of methodologies employed for data collection

The commencement of the needs and assets assessment process began on May 1, 2008. On June 24, 2008, the First Things First Regional Coordinator presented an overview of the program and the Needs and Assets Assessment to Tribal Council, who approved the request. All data were collected by July 18, 2008. For existing data, collection methods included the review of published reports, utilization of available databases, and tribal program data that resulted in asset inventories as well as listings for child care settings.

Primary data, otherwise defined as newly collected data that did not previously exist, were collected in the most rapid fashion available given the short time horizon in which to complete the assessment. For the White Mountain Apache Region, this rapid needs and assets assessment approach consisted of consultants working with the RPC Coordinator to conduct a survey to collect information on early care and education centers in the region. Twelve questions were included in the survey. The

survey was conducted by phone with all early child care programs within the boundaries of the reservation. A total of three surveys were completed. Data collected from the centers were analyzed using sums, averages, and percentages as applicable to each question for which survey data were supplied. Data was also requested from the Indian Health Service, Child Find, and K-12 schools. Due to the short timeframe of data collection, or for other reasons unknown, the data was never obtained.

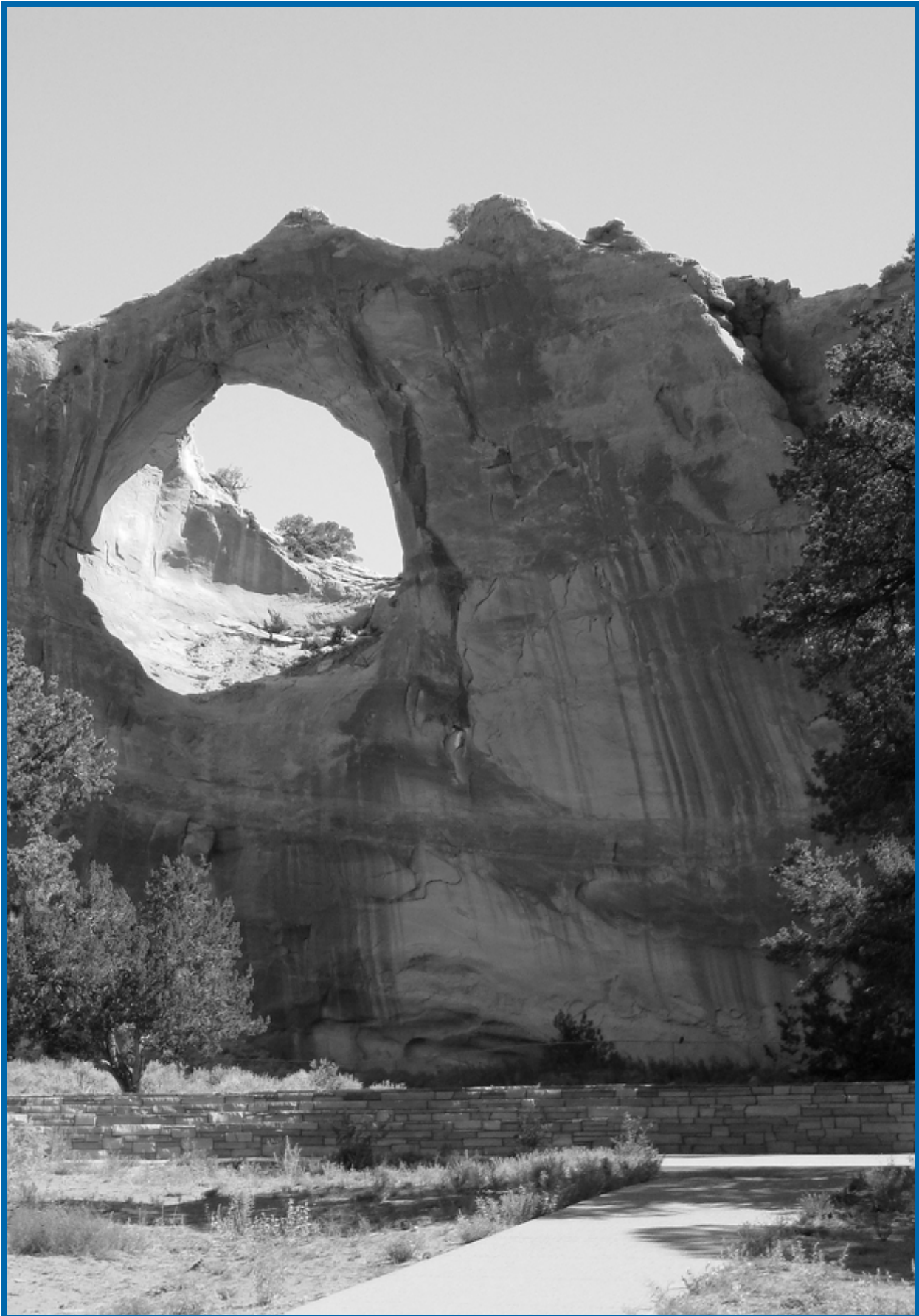
As made plain in the state's 2007 *Bright Futures* report, gaps in data capacity infrastructure are more than evident when looking for evidence of how well young children are doing in Arizona with regard to early childhood health and education efforts. Data was not always available at the regional level of analysis, particularly for the tribally specific data. In particular, data for children 0-5 years was especially difficult to unearth and in many cases indicators are shown that include all children under the age of 18 years, or school age children beginning at age six. One exception to this case is the Head Start data that was reported, which pertained to children under the age of five years. Compounding this problem are additional barriers that limit the sharing of data between communities, organizations, and other entities due to concerns over privacy and other obstacles that impede the dissemination of information.

It is also important to note that even when data is available for this population of children (0-5 years), or even the adult population of caregivers or professionals, there are multiple manners in which data are collected and indicators are measured, depending on agency perspectives, understanding in the field, and the sources from which data are mined. These indicators, approaches, and methods of data collection also change over time, sometimes even yearly, and these inconsistencies can lead to different data representations or interpretations of the numbers presented in this and other reports where data capacity infrastructure efforts are still in their infancy as they are in Arizona and nationally, with regard to young children ages 0-5 years.

Given these limitations with Arizona's current data capacity infrastructure, data presented here should be interpreted carefully; yet, it should also be seen as one step in the right direction toward building this capacity at the local level by conducting regular community assessments on a biennial basis.

(Footnotes)

- 1 US Census Bureau, Income by education and sex².
- 2 Hoff, E., Laursen, B., & Tardiff, T. (2002). Socioeconomic status and parenting. In M.H. Bornstein (Eds.), *Handbook of parenting, Volume II: Ecology & biology of parenting* (pp.161-188). Mahwah, NJ: Lawrence Erlbaum Associates.
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- 6 Reynolds, A. J. Effects of a preschool plus follow up intervention for children at risk. *Developmental Psychology*, 30, 1994, 787-804.
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- 9 Hammer, P.C. and Demmert, W.G. Jr. (2003). American Indian and Alaska Native early childhood health, development, and education assessment research. ERIC Clearinghouse on Rural Education and Small Schools (ERIC Reproduction Service No. ED482326).





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