COMPREHENSIVE STRATEGIC HEALTH PLANNING: ADDRESSING THE HEALTH CARE NEEDS OF AMERICAN INDIANS LIVING OFF THE RESERVATION IN BERNALILLO COUNTY

Executive Summary

In response to huge shortfalls in federal funding allocated to provide health care services to American Indians living in Bernalillo County and the resulting suspension of urgent care services at the Albuquerque Indian Health Center in 2005, the New Mexico State Legislature enacted HB236 in 2008 to create a nine-member Bernalillo County Off-Reservation Native American Health Commission. Mandated to complete a comprehensive strategic health plan to address the health care needs of the tribal members living off the reservation, the Commission serves as an important voice to shape and guide health policy decisions impacting urban Indians. Long over-looked by federal, state, and local policy-makers, this report is a critical first step in developing pragmatic solutions to ensure the existence of adequate resources for health care services and the elimination of health disparities between off-reservation tribal members and other populations.

Based on data from the U.S. Census and the New Mexico Bureau of Business and Economic Research, the Commission established that at least 40,000 American Indians are living in Bernalillo County. The Commission contends that this number is significantly underestimated based on the number of registered users of the Indian Health Service in 2003. At that time, there were 46,883 individuals representing as many as 407 tribes from across the country living in Albuquerque and listed as patients at the Albuquerque Indian Health Center.

Using known data about health disparities within the Off Reservation Native American population in Bernalillo County as a foundation for its analysis, the Commission sought to link these to health care utilization data to determine the level to which the existing health care system appeared able to meet the health care needs of the community. In order to do this, the Commission systematically analyzed claims data from the State's Medicaid program, UNM Hospital data for all programs, data from the Albuquerque Area Indian Health Service, First Nations Health Source, and Hospital Inpatient Discharge Data (which included all Bernalillo County acute care facilities). The Commission also used the New Mexico Pregnancy Risk Assessment and Monitoring System (PRAMS) data from the Department of Health, and surveyed twenty three local clinics and providers to identify where Native Americans were being served outside of the traditional sources of care. For the first time, the Commission was able to move beyond anecdotal evidence and conjecture to identify

the following key areas of opportunity to improve health outcomes for tribal members living away from their home reservations and ways in which the existing health care system can become more responsive to their health care needs:

- ***Maternal and Child Health*** – Despite significant Medicaid enrollment and an array of services available through Medicaid coverage, one in three American Indian newborns are born with health issues. Exploring opportunities to create a Medicaid-based accountable care organization could incentivize the health care system to ensure early access to and utilization of pre-natal care services.

- ***Chronic Disease, Mental, and Behavioral Health*** –American Indians in New Mexico are nearly three times more likely to die from diabetes than whites and more than three times as likely to die from alcohol-related causes. Despite significant resources allocated to diabetes care, better coordination of care and access to culturally competent treatment options is necessary to eliminate the tragic connection between chronic disease, mental, and behavioral health.

- ***Access to Primary Care*** – There is no single entity in Bernalillo County providing primary care services to a significant portion of the off-reservation community. At UNM Hospital, primary care visits make up just 2% of the total visits by American Indians. Creating strategic partnerships between major providers and exploring innovative contracting opportunities could result in new points of access for primary care services.

- ***Preventable Deaths*** – The average age of death for American Indians living in Bernalillo County is 56 years compared to 71 years for all races. Pneumonia and influenza deaths are major risk factors for Native Americans. Developing targeted campaigns and preventative strategies could significantly reduce the number of preventable deaths.

- ***Elder Health*** – American Indians ages 65 and over make up just 7% of the total American Indian population in Bernalillo County compared to 14% for all races. Small numbers of elderly off-reservation community members receive care at local providers, but more data is needed to accurately determine the level of services currently being utilized. Based on the outcomes from several community meetings, it appears that more continuity and coordination of services for the elderly is necessary.

- ***Monitoring and Evaluation*** – Continuous evaluation and monitoring of the local health care system is necessary to determine the success of any interventions that are developed. The Commission expects to monitor and

evaluate the implementation of the strategic health plan and continue to lead future planning efforts. In order to fulfill this role, it will be necessary to provide the Commission with claim data on an annual basis and support its efforts to develop the infrastructure to become the primary entity to store and analyze complex data sets.

Background

Since the 18th century, American Indians have ceded more than 400,000,000 acres of land to the federal government in exchange for certain promises, protections and services. These agreements establish a legal obligation which "requires the United States…to provide economic and social programs necessary to raise the standard of living and social well-being of the Indian people to a level comparable to non-Indian society." [1] This obligation requires the federal government to provide medical treatment to all American Indians living in the United States. In effect, it can be described as the nation's first pre-paid health insurance policy.[2]

Despite the federal government's legal obligation to provide health care services to all American Indians and Alaska Natives, it has consistently failed to fulfill its responsibility. In FY10, the Indian Health Service received just over $4 billion to provide health care services to more than 1.9 million American Indians. Decades of chronic underfunding and rising health care costs have led to nearly catastrophic impacts to Indian people dependent on the Indian Health Service System for care. In comparison to the nearly $4000 that is spent per capita for federal prisoners, the Indian Health Service spends just $2150 per capita each year tribal members.

Funding for American Indians living off the reservation makes up just over 1% of the total budget for the Indian Health Service or $43 million. This funding supports 34 independent non-profit agencies in 19 states designed to provide health care services to tribal members living in urban areas. The inequity of this funding allocation becomes obvious when considering that 67% of the nation's 4.1 million American Indians live off the reservation, resulting in a per capita expenditure of less than $16 per year.

Locally, the Albuquerque Service Unit has being systematically defunded and dismantled, resulting in the closure of inpatient units at the Albuquerque Indian Health Center in 2003 and the suspension of urgent care services in 2005.

[1] American Indian Policy Review Commission. Final Report, U.S. Senate Select Commission on Indian Affairs, 95th Congress, Meetings of the American Indian Policy Review Commission.Washington, DC: US Government Printing Office; 1978.
[2] Oversight hearing on the president's proposed Indian Health Service budget for fiscal year 1997 (statement of Daniel K. Inouye)

With one of the largest Native American populations in the country, the lack of access to healthcare has become dire for tribal members living off the reservation in Bernalillo County.

At present, the Albuquerque Indian Health Center provides only outpatient services. American Indians that need inpatient, emergency, or specialized outpatient diagnostic and treatment services must go beyond the IHS to receive these services and in order for services to be paid for by the federal government, they must be eligible for Contract Health Services. The Contract Health Service program is woefully underfunded resulting in the routine denial of request for services. For many patients, necessary diagnostic tests and services are received only after a condition has become a matter of life or death, in some cases arriving too late to be effective.

There is a single medical services clinic in Albuquerque that receives approximately $660,000 in federal funding through the Title V Urban Indian Health Program. A second facility receives approximately $500,000 in federal funding under Title V to provide dental care to American Indian children served by the Albuquerque Area. The medical services clinic, First Nations Community Healthsource, does not have the capacity to adequately meet the healthcare needs of the tens of thousands of Native Americans living in Albuquerque.

The University of New Mexico Hospital (UNMH) is bound by a 1952 contract to provide healthcare to Native Americans free of charge. This same contract binds the federal government to reimburse UNMH for its costs. Since the Albuquerque Indian Health Center closed its urgent care services, the healthcare promised by the 1952 contract has become critically important. Yet, to date, the federal government is not reimbursing UNMH for its costs and the Hospital is not providing full service treatment to Native Americans free of charge.

While it is unclear how the contract can or will be enforced, one thing is clear: the federal government is in breach of its contractual obligation to provide comprehensive healthcare to all American Indians and those living off-reservation are bearing the brunt of this failure. Holding the federal government accountable to its obligations, or developing solutions in its absence, is the challenge faced by tribal members living in Bernalillo County.

Bernalillo County Off-Reservation Native American Health Commission

In response to the impacts of reductions in services provided by the Indian Health Service, the Bernalillo County Off-Reservation Native American Health Commission was established through the enactment of HB236 during the 2008 legislative session. Nine members were appointed to the Commission on September 23, 2008. The

Commission creates a voice for tribal members living off the reservation in Bernalillo County and is charged with developing a comprehensive strategic health plan to address their health care needs. The plan is to be completed by 2010 and its recommendations implemented by 2011.

The Commission is mandated to perform the following strategic health planning activities:

Create a health care plan that includes:

1. An estimate of the number and tribal affiliation of Native Americans living off the reservation in Bernalillo County
2. An inventory of sources of non-emergency health care for off-Reservation Native Americans to include federal, state, tribal and local public resources
3. A cross-jurisdictional budget analysis compiled from the most current annual figures reported by state and county facilities demonstrating the amount of health care funding for off-reservation Native Americans available to the existing non-emergency facilities
4. Recommendations to eliminate the duplication of services, improve access, initiate new services and consolidate non-emergency health care budgets for off-reservation Native Americans
5. A comprehensive set of recommendations for redesigning the system of non-emergency health care available to off-reservation Native Americans

Within three years of being named, the Commission is expected to present the plan to the New Mexico State Legislature and address:

1. Financing for persons not eligible for Medicaid
2. Estimated costs or savings to the State from off-reservation Native Americans receiving Medicaid
3. Strategies to enhance the use of preventative care
4. Non-residential substance abuse treatment
5. Residential treatment for substance abuse withdrawal
6. Coordination of health care facilities with transportation services
7. Domestic violence and suicide prevention programs

Strategic Health Planning Process

To inform the planning process and to develop recommendations to the legislature, the Commission established the following strategic planning phases:

1. Determine the size of the urban Indian population living in Bernalillo County in order to establish the extent of potential health care need.

2. Review available health disparity information nationally, in New Mexico, and for Bernalillo County Native Americans.

3. Complete an inventory of existing health system and services by developing and delivering a survey to health care providers in Bernalillo County

4. Examine health care service utilization trends in relation to identified health disparities

5. Based on budget and cost information provided by providers and Medicaid claim data, estimate the current cost of providing services to the population.

6. Work collaboratively with community members and key stakeholder groups to develop strategies and solutions to address identified needs

7. Develop a process to monitor and evaluate implementation of the plan

How Many Native Americans live in Bernalillo County?

In 2006, the Census Bureau estimated that there were 34,462 Native Americans living in the county. The New Mexico Bureau for Business and Economic Research (BBER) estimated this population to be higher, at 37,279. In 2008, the Census Bureau released a second estimate and said there were 38,744 American Indians in Bernalillo County. It is likely when the census is completed for 2010, the Native population will be at or exceed 40,000[3]. This urban Indian population is the largest presence of native populations outside of reservation and pueblo land in New Mexico and they form 6% of the total population in Bernalillo County.

An examination of tribal affiliations recorded on users of the Albuquerque Area IHS reveals that these urban Native Americans are primarily Navajo. Remaining users come from every pueblo and tribe in New Mexico as well as from other states in the US. In all, over 380 different tribes are registered with IHS as living in Bernalillo County. [4]

[3] American Indian Population of Bernalillo County: A Review of Available Data, (Draft 4), Sterling Fluharty, January 2010.

[4] According to the Albuquerque Indian Health Center Report: Registration and PCC Counts for Indian Patients for Albuquerque service unit, dated October 28, 2008, there were 50,958 Native Americans in Albuquerque in 2007, from 388 different tribes. 47% are Navajo. Every New Mexico pueblo and tribe is reflected here, as are tribes from all over the US. See Appendix for further details.

Health Status and Related Indicators

Nationally and within the state, Native American populations are well documented to have significant health disparities. Nationally, Native Americans have the highest teen death rate (95 deaths per 100,000 teens ages 15-19, as opposed to the national average of 64 per 100,000). In New Mexico, Native Americans are more than twice as likely as the rest of the population to die of alcoholism and diabetes. Other causes of mortality for Native Americans are motor vehicle accidents (twice the rate for whites), preventable outcomes such as youth suicide[5], alcohol related (70% higher than that of the next highest group, Hispanics) and treatable diseases such as diabetes, pneumonia and influenza.[6]

According to the 2009 Racial and Ethnic Health Disparities Report Card produced by the New Mexico Department of Health (http://www.nmhealth.org/dpp/dppr.htm)

> "*American Indians in New Mexico bear a disproportionate share of poor health status and disease. Of the 20 indicators in the 2009 Racial and Ethnic Health Disparities Report Card American Indians have the highest (worst) rates on 7 indicators.*"

The report notes that Native American women in New Mexico receive no or late prenatal care at much higher rates than national rates, and Native American women in New Mexico have the worst rates (40.9 per 100 for 2006-2008) than women from other racial and ethnic groups.

Infant mortality rates for Native Americans in Bernalillo County were 8.1 per 1,000 live births compared to 6.3 for the general population[7]. According to the New Mexico Pregnancy Risk Assessment and Monitoring System (PRAMS) data for Bernalillo County, most Native pregnant women (80% or more) do not access services that could make their pregnancy healthy and cope with a new baby better (classes on breastfeeding, parenting, counseling, home visiting). However, 61.7% of Native American women accessed the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) during their pregnancy.[8]

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[5] Racial and Ethnic Health Disparities Report Card 2009 http://www.nmhealth.org/dpp/dppr.htm; the Native American youth suicide rate at 403.6 per 100,000 is the worst for all races and ethnicities.
[6] Racial and Ethnic Health Disparities Report Card 2009 http://www.nmhealth.org/dpp/dppr.htm
[7] Analysis of Vital Statistics and Survey Data among American Indians and Alaska Natives living in Bernalillo County, Accessed by the Urban Indian Health Institute, Seattle, June 2009.
[8] New Mexico Pregnancy Risk Assessment and Monitoring System (NM PRAMS) 1997-2006 Region 3: Health Services received during the prenatal and postpartum periods among women in Bernalillo County with a live birth, provided to the project.

Chronic liver disease and cirrhosis are among the top five causes of age adjusted mortality for this community (31.0 per 100.000 versus 13.6 for all others). In addition, age adjusted alcohol-related mortality is at 28.9 per 100,000 (versus 8.6 for all others). Data from the Behavioral Risk Factor Surveillance System Data indicate that Native Americans from Bernalillo County have higher rates of use than general population in tobacco use, diabetes, obesity; less than general population in leisure/exercise.[9]

The impact of higher mortality rates is reflected in the following table which documents the average age of death for Native Americans in Bernalillo County.

Average Age of Death – American Indians in Bernalillo County		
Residents	**Number of Deaths**	**Average Age at Death**
Bernalillo County American Indians, 2006	124	56
Total For All Bernalillo County Residents, All Races (2006)	4,841	71
All New Mexico Residents, All Races	15,229	70

Another perspective is provided in the 2006 census data estimates by age for the Native American population in Bernalillo County (BBER). As a proportion of their population, there are more AIAN between the ages of 0 and 19 than in all races and ethnicities: 32.9% for AIAN versus 25% for all others. After age 40, this proportion of the population begins to markedly decrease, and once the AIAN population reaches 50 years and above, AIAN are 19% of total AIAN population.[10] For all races and ethnicities, the same age group is 32% of their total population.

For those 65 and older, AIAN from Bernalillo County made up 7% of their total population, while all others are 14%. The numbers of older Native Americans are significantly lower than their proportions in the rest of the population.

[9] Urban Indian Health Institute, Seattle; Sources cited US Centers for Health Statistics 2001-2005 combined; CDC BRFSS, 2004-2008.
[10] Census data from Bureau of Business and Economic Research, UNM

American Indian/Alaskan Native 0-85+ Years: July 01, 2007 Bernalillo County				
Age Groups	Total AI/AN	Age AI/AN as % of AI/AN Totals	Total All Race / Ethnicities	Age All Race / Ethnicities as % of Totals
0 years	657	2%	8,319	1%
0 to 19	12,280	33%	161,190	25%
20 to 49	17,791	48%	276,762	43%
50 to 64	4,765	13%	116,427	18%
65 and over	2,443	7%	89,644	14%
All Ages	**37,279**	**100%**	**644,023**	**100%**

Social Determinants of Health

Socio economic determinants of health have been well documented. Poverty, lack of economic security, the presence of disabilities, and lack of opportunity all lead to poor health outcomes. Native Americans in Bernalillo County face formidable obstacles due to poverty and opportunity.

Education and Income Levels

Educational attainment provides one measure of disparities between racial and ethnic groups; in fact, it could be expected to be a mitigating factor. In Bernalillo County in 2000, Non-Hispanic Whites were the most educated, followed by American Indians, and then Hispanics.[11] The census income data at that time indicated that American Indians were the lowest in median incomes, and this trend persists in 2007.[12] Education has not translated into higher paying jobs for this population, and lower paid jobs are less likely to provide health coverage for the employee and/or the family.

Children Living in Poverty

More than half (52 percent) of Native-American children live in families where no parent has full-time, secure employment, versus 33 percent of US children overall. According to the Census, 31% of Urban Native American children are living in poverty. In addition, 6% of 5 to 17 year olds are living with a disability. Most children who are disabled are also poor (26%).[13]

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[11] American Indian Population of Bernalillo County: A Review of Available Data, (Draft 4), Sterling Fluharty, January 2010.

[12] American Indian Population of Bernalillo County: A Review of Available Data, (Draft 4), Sterling Fluharty, January 2010 reference to Estimates and Projections Summary Report, available from geolytics, Inc., Estimates data set for 2001-2007; median income was $31,467 for single-race Indians, $35,567 for Hispanics, and $50,772 for Non Hispanic White Alone.

[13] Native American Children in New Mexico, Snapshots from the US Census, NM Voices for Children, 2005

Housing

Because the sample size for the county Indian population is so small in the annual American Community Survey, it is not possible to accurately estimate how many single-race American Indians lived in mobile homes or apartment complexes, but in 2008, the Survey indicated that 40-45% of American Indians were living in owner-occupied households compared to 69 – 60% of non-Hispanic whites.[14] About a third of all American Indian households were headed by a single parent, while the comparable figures for Hispanic and non-Hispanic white households were significantly lower.[15]

While the Commission acknowledges the necessity of addressing the socio economic factors that impact the health of a community, it is imperative that the effects of these root causes are mitigated by developing strategies to ensure the local health care system is responsive to the health care needs of the community it is funded to serve.

Inventory and Utilization Analysis

The Commission viewed the analysis of the current utilization patterns of available health care and costs associated with these services as an essential starting point to propose a plan to enhance, expand or improve care for urban Indians in Bernalillo County.

The ability to gather data on health service utilization patterns of Native Americans was hampered by the fact that most health care providers do not collect race and ethnicity data on their users. UNMH initiated the collection of race and ethnicity in 2007, and made data available to this project. The two other major hospitals in Albuquerque – Presbyterian Hospital and Lovelace Health – were contacted, but stated that they did not collect race and ethnicity data it would have been impossible to define Native American users in their database. Much later in the project, the Commission was able to access Hospital Inpatient Discharge Data (HIDD) from the New Mexico Health Policy Commission. While it was not possible to identify the facilities, this data enabled the Off-Reservation Commission to illustrate how the urban Indian community sought inpatient care outside of UNMH and confirmed many of the findings identified using Medicaid and UNM data. A detailed analysis of the HIDD data is included as Appendix B to this report.

[14] American Indian Population of Bernalillo County: A Review of Available Data, (Draft 4), Sterling Fluharty, January 2010.
[15] American Indian Population of Bernalillo County: A Review of Available Data, (Draft 4), Sterling Fluharty, January 2010.

New Mexico Medicaid agreed to provide billing data to this project. Medicaid collects race and ethnicity data which makes it possible to look at Native Americans on Medicaid and their use of services across all providers.

In addition, a targeted survey was conducted of the largest publicly funded providers in the county that had a mission to provide services to minority populations and to hard to reach populations. A mix of Medical, Behavioral and Dental sites were included in this survey. But many primary care providers provided incomplete information or could not comply with our survey request because they do not collect race and ethnicity information.

Through the survey and through other processes, the project was able to use data from the following organizations:

1. Albuquerque Area Indian Health Service (ABQ-IHS)
2. The University of New Mexico Health Sciences Center, including UNM Hospital (UNMH)
3. First Nations Community HealthSource (FNCH) - an Urban Indian Health Organization, as well as a Federally Qualified Health Center
4. Selected community based and public health clinics
5. New Mexico Medicaid

Data Issues

All data received for analysis were in a de-identified form. The project received billing data from New Mexico's Medicaid and from UNMH for 2007. Although these two databases were very valuable, their limitations need to be acknowledged.

- It was not always possible to know whether the same user used different sites and therefore appeared in more than one database.
- ABQ-IHS only provided data in hard copy and provided multiple years worth of data.
- Some sites generated data based on calendar others on fiscal years and the project allowed sites to use the 12 month period that was easiest for the site. Most provided data for 2007, but some also included 2008.
- Diagnostic coding was not uniformly applied across all sites. Some provided raw codes, others provided groups.
- The basis of all utilization data was billing, and only data essential to that function was available.
- Detailed inpatient data were only available through UNMH and Medicaid databases.

- Medicaid data only reflect those eligible for coverage which means the data are skewed to pregnant women, children, the disabled, and dual eligible Medicare enrollees. This misses a large number of adults, especially men under Medicare age.

Identifying unduplicated Native American Users

As the first step, the project sought to determine how many individual Native American users were represented in the data from the different sites. Using responses from the survey, from IHS, UNMH and Medicaid, the following summary conclusions were possible.

1. Most survey responders (but not all) were able to provide counts of unduplicated Native American users of services.

Unduplicated Users of Medical Services							
Medical Services	**No. of Sites in County**	**Total Undup All Races/ Ethnicity**	**American Indian Undup**	**AI as % of total Undup**	**Total Visits All Races/ Eth**	**AI Visits**	**AI visits as % of total visits**
First Nations (Medical Programs only)	1	5764	2825	49%	15600	7579	48.6%
Public Health Clinics (BEHR)	6	8257	180	2%	252819	6955	2.8%
First Choice Clinics	5	29574	121	0%	76027	217	0.3%
School Based Health Centers in B. County	11	3450	N/A	N/A	12435	964	7.8%
Totals	**23**	**47045**	**3126**	52%	**356881**	**15715**	**4.4%**

Additional unduplicated users from provider services:

a. First Nations Community Healthsource provided 11 other support programs ranging from alternative therapy to WIC programs; 7,063 Native Americans used these programs and they were 72% of the visits.

b. The Albuquerque Indian Health Center is a major provider of health care services to Bernalillo County Native Americans. A three year average of their user data indicate that 8,518 individuals used IHS services and generated 50,000 visits on average a year. The three year average shows a 94% utilization of the Albuquerque site by people living in Bernalillo County.

c. UNMH for all services (Medical, BH, Emergency, Outpatient, and Inpatient) in 2007 had 4,817 unique Native Americans from Bernalillo County. They were 4% of all unduplicated users of UNMH from Bernalillo County, and generated 16,262 visits which amounted to 3% of all visits to UNMH from Bernalillo County.

2. Unduplicated Users in Medicaid (funding source)

Medicaid data from 2007 had 9,217 unique clients who were Native Americans from Bernalillo County, the highest user count of all (including IHS). They formed 8.5% of all unduplicated Bernalillo County Medicaid users. The following table provides a breakdown of all users for all services covered by Medicaid:

Bernalillo County Medicaid			
Medicaid 2007	Native Americans	All Races	NA % of totals
No. of Clients	9,217	98,918	9%
No. of Claims	173,312	2,258,958	8%

The survey of local clinics reviewed that a focused few serve significant numbers of Bernalillo County Native Americans. First Choice, a FQHC which has five clinics in the county reported that it served about 121 Native Americans. The public health clinics do not provide primary care, but served 180 Native Americans from Bernalillo County.

Overlaps of Users and Sites

It is not possible to distinguish when users move between UNMH, ABQ-IHS and First Choice. In some instances, there are programmatic and historical links. ABQ-IHS sends its maternity cases for delivery to UNMH and UNMH also supports their high risk cases. ABQ-IHS, UNMH and First Nations bill Medicaid, so the Medicaid data contains activity from these and other sites in the survey. Many access IHS's prescription services after receiving medical services elsewhere.

Users as a Proportion of County Population

According to census estimates, there were 12,280 children between the ages of 0 to 19 who were Native American and living in Bernalillo County. Medicaid had 686 clients under 1 year old, and 5,532 in the 1 to 19 age group for a total of 6,218 Native American children from this county on Medicaid which represented 51% of the estimated Native American population in that age group in the county.

According to the ABQ-IHS user data for 2007, there were 2,473 children using the ABQ-IHS Health Center in 2007. Children with Medicaid were able to access care at other provider sites. It is safe to say that Medicaid and IHS probably cover the vast majority of Native American users that appear in the summary table in Bernalillo County and that Medicaid probably covers a larger number of users who access non IHS services.

The table below summarizes unduplicated user counts from sites with the largest user populations as well as Medicaid, and represents them as a percentage of the total population for this population in Bernalillo County. Although we know the population is not represented in exact age proportions, this provides an overview of the extent of coverage and access for urban Native Americans in Bernalillo County

Summary of Unduplicated Users		
Agency	% of population	Unduplicated
Indian Health Service	22%	8518
First Nations Community Healthsource (medical)	7%	2825
First Nations Community Healthsource (other)	18%	7063
UNM Hospital	12%	4817
Medicaid	24%	9217

Total Bernalillo County American Indian Population = 38744

Using Health Service Data to Inform Health Disparities Management

The health care system at this time has no systematic mechanism for reporting and monitoring health outcomes for any population. The only data available for analysis are at best a proxy for a small number of interventions for which the provider can bill. Utilization data may not be a perfect basis for identifying health disparities, but they can provide indirect evidence of health risk can impact on the individual, the community and on health care costs.

Utilization data can be more useful for tracking some health indicators than others. Outcomes of pregnancy and newborns, as well as chronic diseases can be derived from aspects of visit frequency and cost information. Billing data can assist us to understand whether risk issues are being identified and treated, but it is only a proxy.

The enormity and complexity (as well as the limitations) within claims data in Medicaid makes it difficult for all issues to be exhaustively explored at this time due to

time and resource limitations. But the findings presented here highlight the value of looking more closely at this data for exactly the kinds of clues that might allow the health system monitor outcomes for enrollees under Medicaid.

Health Care Service Utilization Patterns

The purpose of this analysis is to see what utilization data can tell us about patterns of care, and where this information could inform the goal of reducing the impact of health disparities on the off-Reservation population living in Bernalillo County. Because of the size and scope of the Medicaid database, it will be a primary source for gathering utilization patterns. However, data submitted by other providers will be used to fill out the picture since they include (especially at UNMH and ABQ-IHS) the non-Medicaid eligible population.

The Medicaid database allows for reviewing utilization patterns across providers. While there are several limitations that prevent us from drawing conclusions for the population in general, there are also distinct opportunities to address the needs of those who are vulnerable, young and poor using this data as one step in that direction. Because of the structural limitations to enrollment and coverage, the data are unduly skewed to the young and the female.

Medicaid data also helps address questions about other resources accessed by Native Americans in Bernalillo County, and where providers are located.

Where do Native Americans from Bernalillo County Access Medicaid Services?

There have been many assumptions about how far afield residents from Bernalillo County go for their health care. Medicaid data indicate that across all services, Native Americans who are residents in Bernalillo County access care in Albuquerque.

Health care planning for improving health outcomes for this community have to focus on health care systems within this city.

- *For Outpatient Care*: Albuquerque based providers generated 20,879 (87%) of the total Outpatient Medicaid claims of 24,066. These claims were for 5,394 individual clients, representing 78% of all clients and 88% of all claims paid. A small number - 3187 or 15% of all claims – were from providers outside of Albuquerque. There were 973 clients who appeared in both Albuquerque and non-Albuquerque sites.

- *Physicians and Practitioners*: Physicians and practitioner claims from Albuquerque were 81% of all clients, 91% of claims filed, and 87% of all payments by

Medicaid. Physicians were the top provider types. Since many physicians practice in groups and bill under a group name, and since providers determine their "specialty" or type as it appears in this database, it is impossible to present the exact number of physicians who billed for services to Bernalillo County Native Americans. For the sub-category "Physician, MD":

- Twenty five "entities", i.e. Albuquerque physician groups and some individual physicians billed 11,059 claims (57% of total claims). These groups (and a few individuals) billed 100 or more claims each. Major groups were ABQ Health Partners, Presbyterian, Women's Specialists, University Physician Associates/UNM Medical Group, Radiology Associates, and After-Hours Pediatrics. 1,389 other physicians billed for the rest of the claims.

- Additional provider types in this group include Schools, Mental and Behavioral Health services, Personal Care Providers, and Hospitals (non inpatient) services.

- There were 1,329 clients who accessed services within and outside of Albuquerque.

- *Hospitals* in Albuquerque submitted 90% of the claims for inpatient admissions (1,106) and were recipients of 83.6% of all inpatient claims as well. UNMH provided the largest volume of inpatient services, with Presbyterian and Lovelace in second and third place respectively. Inpatient claims from outside of Albuquerque were in very low numbers. Outside of the hospitals in Albuquerque, the next highest inpatient claims for BCNA are Gallup (21), Las Cruces (19) and Ft Defiance (13), and Nashville (7).

Since the vast majority of Native Americans in New Mexico are on fee for service, not managed care plans, enrollees are free to seek care outside of their place of residence. But as the data shows, while some do go elsewhere, the vast majority of beneficiaries seek care close to where they live.

A Profile of Bernalillo County Native Americans on Medicaid

- Total number of Native American clients from Bernalillo (unduplicated users): 9,217
- Number of Native American Medicaid users on Medicare: 487
- Total Native Americans users as % of total users: 8.5%.
- Native Americans as percentage of total claims and payments: 9% of claims, with total payments of $39,901,029

- All other races and ethnicities in Bernalillo County claims and payments: 108,137 with total payment of $441,001,604
- Native American children ages 0 to 19 as percentage of total users: 67.4%
- Native American adults 20 to 64 as percentage of total users: 30.6%
- Native American clients' gender: 59% female
- Provider City for most Native Americans (over 80%): Albuquerque
- Native American claims type: 57% of claims (58% of clients) are fee for service.
- Some claims are only fee for service – such as HCSB Waiver, Long Term Care; Inpatient care is 74% fee for service.

For most age group categories, the Indian population mirrors all other races. However, in the age group for the "dual eligible" (i.e. those on Medicare who are also eligible for Medicaid), the Indian population is just 2% of their population, while all others are 6.10%.

The following presents a high level overview of different provider groups and one coverage plan (Medicare). Physicians dominate the Practitioner/Physician category, followed by Outpatients which also has a large number of physician and physician groups.

American Indian				
Claim Type	No. of Clients	Percent	No. of Claims	%
Practitioner/ Physician	6953	75.4%	55340	31.9%
Outpatient	5951	64.6%	24066	13.9%
Pharmacy (RX)	5510	59.8%	51786	29.9%
Dental	2912	31.6%	6340	3.7%
Laboratory and X-ray	1230	13.3%	4008	2.3%
Inpatient	1064	11.5%	1318	0.8%
Transportation	747	8.1%	4227	2.4%
Medicare Crossover	467	5.1%	9653	5.6%
Medical Supply	386	4.2%	2551	1.5%
HCBS Waiver	146	1.6%	11353	6.6%
Long Term Care	110	1.2%	2000	1.2%
Home Health	52	0.6%	616	0.4%
Hospice	9	0.1%	54	0.0%
Total	9217	100%	173312	100.00%

Note: Actual user count totals and percent totals exceed 100% because clients use more than one service.

The highest volume of claims dominates the highest amounts paid. But in terms of costs, two relatively low volume claims – HCBS Waivers (6.6% of claims) and Inpatient claims (0.8%) become significant players. They form 23% and 22% of all claims paid.

Claim Type	Total	% of totals
Practitioner/ Physician	$9,656,761	24%
HCBS Waiver	$9,075,307	23%
Outpatient	$8,660,780	22%
Inpatient	$4,396,991	11%
Subtotal for Claims Paid	$31,789,839	80%
Totals for Claims Paid	**$39,901,029**	**100%**

This analysis will focus on the following major treatment areas: Practitioner/Physician, Outpatient, Medicare, Long Term Care and Inpatient. These claim types are more than 80% of total costs. Other areas will be included as they become relevant to the issue at hand.

"Practitioner/Physicians" are mainly physicians but also include hospital outpatient care, specialty clinics, as well as nurse specialists, midwives, nurse psychiatrists, optometrists and specialists. There is overlap with Outpatient claims which are usually from Federally Qualified Health Centers, Hospital Outpatient clinics, and Indian Health Service clinics. These claim types represent a wide set of services provided to Medicaid recipients. Clinical codes available in the data[16] were used to identify health management, diagnostic and treatment services. The codes, of course, are limited in scope, and are not uniformly applied.

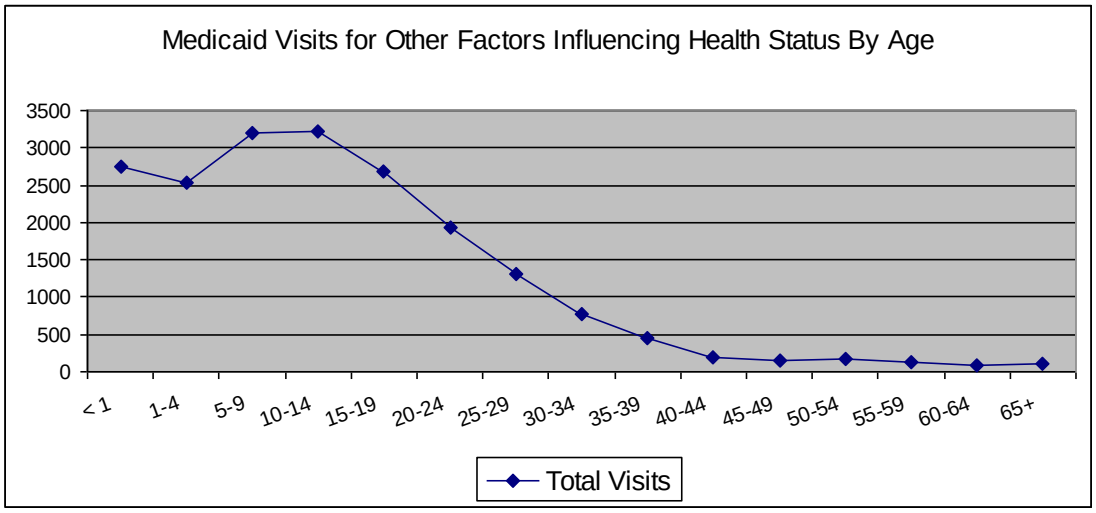
There is an extensive network of providers and provider organizations accessed by Native American and other clients for Medicaid covered services.

[16] ICD 9-CM codes were provided for all claims where clinical treatment was provided. There were none for many other claims, including HCBS Waivers, Transportation and Pharmacy. Major Diagnostic Categories were linked to ICD9CM codes to cluster them in meaningful ways. Additional ICD Categorizations helped to cut across ICD "body-systems". Diagnostic Related Groups were provided with inpatient discharges. DRGs are useful since they aggregate relevant ICD 9 CMs to reflect severity levels within similar discharge categories. V Codes and E Codes link with Factors Influencing Health Status. They have been categorized for this project to provide a picture of health maintenance activities under Medicaid.

Provision of Health Maintenance and Proactive Health Intervention

The largest common category of claims for both Practitioners/Physicians and Outpatient treatment settings were "Other Factors Influencing Health Status". This aptly named set of codes totaled 19,693 claims for 7,174 clients. These clients made up 77% of the total clients in the database. In other words, most clients in Medicaid had some contact with the health system that could be considered proactive and designed to improve health status.

As illustrated by the following graph, age groups associated with this category are young, with infants being in the highest volume of visits. Clinical codes in this group of claims reflect supervision of pregnancies, care of newborns, infants and children, vaccinations, general examinations, reproductive health management, and screenings for cancer, STD, and other health maintenance activities. (See table that follows)



The majority of codes fell into the groups identified in the following table.[17] This is also where "aftercare" is documented for procedures, for prosthetics, for any other medical device, as well as pre-operative and pre-procedural examinations, screening for health risk, general and targeted counseling for mental and behavioral health, and dental services.

[17] These categories were developed for this project using the highest volume V Code descriptions

Medicaid: Other Factors Influencing Health Status			
CATEGORY	**Outpatient**	**Practitioner/ Physician**	**Totals**
Care Child/Infant	1414	2897	4311
MH/BH Counseling, Screening	8	3737	3745
Dental	1366	325	1691
Normal Pregnancy	1278	298	1576
Reproductive Health	505	741	1246
Examinations (Routine Med, Eye, Gyn)	448	745	1193
Vaccinations	481	650	1131
Aftercare	557	510	1067
Other Pregnancy Related (high risk, screening, other)	243	590	833
Sub Totals for high volume Categories	6300	10493	16793
Totals for All	**7479**	**12214**	**19693**

The positive message here is that most Medicaid recipients are receiving some health maintenance intervention. The issue is whether they are accessing these interventions at the optimal time: how early in the pregnancy did supervision begin for normal mothers and for those with risk? How many mothers received adequate post partum care, and how many were treated for post natal depression?

Provider Submitted Data – Utilization Patterns of Health Services

Primary care is the basis for all good preventive strategies and for maintaining health and managing chronic disease. Available utilization data shows that some of this is happening within the larger health care providers.

Three agencies are key players in providing access to care for Native Americans in Bernalillo County. They are the Albuquerque Area Indian Health Center (ABQ-IHS), The University of New Mexico Health Sciences (located in geographic proximity to the IHS) and First Nations Health Source. However, the larger (private) physician community was not included in the survey, and the data from Medicaid provides insight into additional providers of service to this population.

It is also important to acknowledge that the difference in age between users covered by Medicaid and those in provider data.

Medicaid is dominated by children and youth (67.4%). In contrast, IHS, FNCH and UNMH services are more heavily used by adults (20 to 64 years): 66.1% of UNMH users and 63% of IHS users are age 20 and over. For FNCH, the age group 19 to 64 was 89.8%.

The Albuquerque Area Indian Health Center provides a range of outpatient services ranging from primary care to chronic disease management. Both primary and secondary codes were included in the documentation provided.[18] Pharmacy service was about 30% of total contacts for service. Primary care and Behavioral health were 6,842 or 11.8% and 2950 or 5.1% of the data. Pregnancy services are included in Primary care (see table that follows).

PRIMARY CARE AT ALBUQUERQUE AREA INDIAN HEALTH CENTER		
Primary Care ABQ-IHS	3 yr Average 06-08	% of Reason for visit
Reproductive Health Mgmt/Contracept	1437	21%
Routine Child Health Exam	1265	18%
Vaccine - Influenza	1227	18%
Vaccinations Other	1026	15%
Supervision Normal Pregnancy	979	14%
Antenatal Screening	478	7%
Other Visits	432	6%
Primary Care Total	**6842**	**100%**

It is impossible to identify how many unduplicated pregnant Native American women are managed through IHS since only visit level data was provided. These women deliver at UNMH. IHS manages pre-natal and postpartum care as well as routine child health as needed.

IHS also proves clinics for chronic and acute care. Diabetes, asthma and allergic rhinitis are high volume visits to IHS. Diabetes funds a targeted Diabetes model

[18] All reports were provided only in hard copy which restricted detailed analyses. In addition, the diagnostic codes included both primary and secondary codes without differentiation.

service at its Albuquerque site. Behavioral Health visits at the ABQ Indian Health Center doubled from 2006 to an annual total of 4,050 in 2008. Specialty services include high risk obstetrics, rheumatology and perinatology.

First Nations Community Healthsource is an Urban Indian Health program participant and FQHC that serves Bernalillo County Native Americans. First Nations provides primary care as well as a range of other medical, dental and behavioral health services.

Approximately 2,825 individuals access medical services and generated a total of 7,549 visits for primary. Because of special IHS funding for Diabetes management, visits for Diabetes form the top two highest volumes of visits to this site. Hypertension is third, followed by Supervision of pregnancy.

Another 7,053 individuals access First Nations Dental, Behavioral Health, Homeless, and WIC programs. A breakdown of these programs are provided in the following table. IHS funds First Nations separately for Diabetes, Dental, and Substance Abuse programs.

FIRST NATIONS COMMUNITY HEALTH SOURCE VISITS TO PROGRAMS			
Programs at FNCH	**Visits By All**	**% American Indian**	**American Indian Visits**
Medical	15,600	49%	7,579
Behavioral Health	4,653	70%	3251
Dental	7,272	90%	6,545
Traditional Healing*	406	90%	365
Acupuncture*	324	81%	262
Massage*	240	91%	218
Healthy Relationship Education	60	100%	60
Youth Mentoring	240	80%	192
Homeless Outreach	2,206	90%	1,985
HIV Prevention/Case Management	720	75%	540
Social Services	723	90%	651
Medicaid Enrollment	980	30%	294
WIC	12,000	90%	10,800
Emergency Financial Assistance	45	100%	45
Totals	**44,877**	**72%**	**32,282**

**Based on 9 months data*

There are eleven ***School Based Health Centers*** (SBHC) in Bernalillo County that serve 12 schools.[19] These centers provide services to all students with no financial barriers. Their focus is on adolescent services, but they serve children from elementary school age on up, depending on the setting.

SBHC data show that Native American students use SBHCs in a highly variable fashion. Native American visits are 31.9% of all visits at Bernalillo High School, and 70.8% of visits at NACA.[20] Native American students contributed 964 visits or 7.8% of total visits (12,435) at SBHCs in Bernalillo County Schools.

The Native American Community Academy (NACA) shares a SBHC with Wilson. Of the total 387 AI/NA visits to this SBHC, 264 were from NACA and represented 235 unduplicated users. Wilson however, also contributed 123 AI/AN visits which were 8% of the total visits for that school. School Based Health Centers provide primary and behavioral health services. The largest volumes of service are for Well Child Exams (EPSDT), Primary Care, Behavioral Health and Reproductive services.

Bernalillo County School Based Health Care Services	
Services	**Total Visits**
Behavioral Health	4851
Primary Care	3317
Other	1528
Immunizations	1143
EPSDT	894
Family Planning	559
Total Visits	**12,292**

UNM Hospital provides a full range of services from primary care to highly specialized inpatient services. When Primary Care is accessed, the major codes reflect the primary care, health maintenance needs as reflected in Medicaid data. Primary care visits for BCNA were 2% of total visits. Visits for the Health Service Related Codes were 44.8%. Beyond this, the numbers drop off significantly. For all other

[19] The data used in this report came through the Office of School and Adolescent Health (Department of Health), and reflect the time period of the 2008-09 school year. The Wilson and NACA schools share an SBHC. It is also possible that this data is not complete, this being the initial year of a brand new data collection system implementation.

[20] Data from OSAH, NM Dept of Health, for 2008-9 school-year. Some schools are open year round. Data were extracted from a newly implemented data collection system. It is not clear if the full scope of services have been captured through this new system.

races, this category was only 28.2%. Pregnancy related and other well child visits were the dominant reason for visiting UNMH.

UNMH Primary Use by Native Americans from Bernalillo County				
Description of Services	American Indian		Totals All Race/Ethnicity	
	American Indian Visits	% AI Visits by Total AI visits	All Races / Ethnicities Visits	% All races by All Race Totals
Health Services Related – Primary Care	969	44.8%	39,170	28.2%
Musculoskeletal	191	8.8%	13,723	9.9%
Respiratory Conditions	155	7.2%	11,756	8.5%
Other Symptoms & Conditions	135	6.2%	12,865	9.3%
Metabolic & Immune Problems	135	6.2%	13,293	9.6%
Mental Health	81	3.7%	6,630	4.8%
Infectious Diseases	76	3.5%	4,608	3.3%
Nervous System	76	3.5%	5,134	3.7%
Subtotals	**1818**	**84.1%**	**107179**	**77.2%**
Totals	**2161**	**100.0%**	**138,818**	**100.0%**

UNMH has a wide range of highly specialized services and BCNA accessed these services in a different manner from the rest of the user population at UNMH:

BERNALILLO COUNTY USER AND VISIT FOR ALL UNMH SERVICES				
Service Categories	American Indian			
	AI Users	Users as % of total Race / Ethnicity Users	AI Visits	Visits as % of total Race / Ethnicity Visits
Other Outpatient	2,775	4%	9,392	3%
Emergency	2,369	7%	3,650	7%
Inpatient	893	6%	1,084	6%
Outpatient Primary Care	839	2%	2,136	2%

In Summary for UNMH Services:

Native Americans (who were primarily adults over the age of 20) from Bernalillo County (BCNA) used UNMH for its most expensive services and used very little primary care services:

- Forty-nine percent of BCNA unduplicated users used Emergency Services; 19% of BCNA users were admitted to hospital. In both instances, these proportions were higher than for the total population of users. Some users used both Inpatient and Emergency services.

- BCNA do not use UNMH as their primary care provider; primary care visits formed just 2% of visits for all users and 13% of total visits for BCNA. For all races, primary care was used by 40% of unduplicated users and represented 27.5% of total visits.

- BCNA Inpatient users were 19% of total BCNA, but charges for admissions were 66% of all charges for BCNA compared with 55% inpatient charges for all inpatient users.

- BCNA used UNMH services overall less frequently than all others: 3.36 visits per patient versus 4.35 for all others.

- The average BCNA charge per visit was $1,673.91 versus $1,124.28 for all others. This is reflective of low volumes in primary care, and the significantly higher use of inpatient and emergency departments.

Links between Utilization and Health Disparities

Selected indicators for health disparities were examined in closer detail to look at how these are present in the Medicaid data. Where relevant, provider submitted data have been included.

Maternal and Child Health

According to the NM Department of Health's 2009 Racial and Ethnic Health Disparities Report Card, the issue of late or no prenatal care for Native Americans has a disparity ratio of 2.0 – 2.4 which means "The disparity requires intervention". The 2006-2008 rate was 40.9 per 100 compared to 18.7 for whites (the group with the best rate).

Pregnancy related visits were within the top ten categories of visits for the IHS and First Nations. At UNMH, there were an additional 538 visits to UNMH's Outpatient sites for Pregnancy and Childbirth services. Women dominated utilization of these

Outpatient services (since this service includes maternity services - there is some overlap here with primary care) beginning at age 15 ranging from 59% to 78% for their age groups. In addition Other Outpatient includes diagnostic and testing services and various specialist clinics.

In 2007, Medicaid provided coverage to 451 clients for "normal pregnancy" monitoring and care. About 103 clients were also coded for risk (and there is overlap between these two sets of clients) – and some were coded for insufficient prenatal care, indicating they accessed care late in their pregnancy. Because there is no consistency in coding for these conditions, it is difficult to draw conclusions about how many high risk clients accessed care too late. Another area for exploration is whether women are being seen at the right intervals to manage their pregnancy according to best practice guidelines - between 43 and 48% of these clients had less than 4 visits. It is possible that for some clients, this is only a partial record since it only included their visits for 2007 (one calendar year). It was impossible for this project to do further exploration about other contacts these patients might have had in connection with their pregnancy, but this is one area where the system can be monitored regularly, where the timeliness of presentation for care can be recorded and monitored, linked to deliveries, and where preventable conditions may be identified and monitored.

UNMH had 241 admissions for Pregnancy and Childbirth (not all these would have been deliveries and it is possible that not all of them were enrolled in Medicaid). In addition, there were 207 live-born infants. Hence 42.7% of the UNMH inpatient admissions for Bernalillo County Native Americans were for pregnancy related services.

There were 433 clients who delivered in the Medicaid inpatient data. There were 66 claims that were "encounters" for MCO plans and 367 who were fee for service. For Salud programs (managed care), there were no payments recorded for these Encounters.

Of the total deliveries under Medicaid fee for service, 65% had a normal delivery while another 18% had a normal delivery with a complicating diagnosis. The rest had complications of varying degrees. C-Sections were 18% of total claims paid but 36% of the total costs. In addition, if the cost of normal delivery is used as the benchmark for all other deliveries, C-Sections are two times or more the cost of a normal delivery.

Deliveries under Medicaid			
DRG_Description	**FFS**	**FFS Paid**	**Average FFS Paid**
Normal Delivery	237	$426,414.50	$1,799.22
Delivery (non C-section) with Complications	61	$162,467.87	$2,663.41
Cesareans deliveries	69	$324,808.94	$4,707.38
Total Claims for Deliveries	**367**	**$913,691.31**	**$2,489.62**

Good prenatal care is a pre-requisite for a healthy pregnancy and outcome. Normal newborns (see table below) are 68% of total births. All other newborns are 32% of births but 79% of costs. The emotional burden of a high risk pregnancy is that it impacts the mother and the newborn. There is tragically a high cost connected with the intensive care needed to manage prematurity, immaturity and other neonatal problems. Low volumes in newborns with the highest severity are likely to skew the average cost, but these costs provide an indication of the kind of costs that are possible.

Newborns - Medicaid			
Newborn	**FFS Claims**	**FFS Paid**	**Average per FFS Claim Paid**
Normal Newborn	154	$120,129.79	$780.06
Newborns with problems	74	$453,084.50	$6,122.76
Totals	**228**	**$573,214.29**	**$2,514.10**

There were 46 births that were Encounter claims, but no payments were allocated to these births. Of the 46 births under the Encounter category, 31 or 67% were normal newborns, same as within the fee for service.

Findings – Maternal and Child Health

The health disparities report card and PRAMS data indicate that problems persist with inadequate prenatal care in the Native American community. Medicaid covered 433 deliveries in Bernalillo County, and there were 662 births registered for Native Americans in Bernalillo County in 2007.[21]

[21] Sterling Fluharty, The American Indian Population of Bernalillo County, January 2010, page 15

The need for early intervention for monitoring pregnancies, and specifically for mothers who are still in their teens indicates the need for a community based strategy. In addition to the health and emotional burden of a high risk pregnancy, Medicaid provides proof that the cost implications of premature births are enormous.

Chronic Diseases

Two chronic conditions and related acute illnesses will be reviewed here to illustrate the extent to which this data could provide useful information about possible interventions.

Diabetes is a major issue for Native Americans and the NM-DOH report card indicates that although this population appears to be the most likely to receive recommended screenings, that Native Americans have the highest death rate for diabetes (over three times that of whites). IHS has adopted and funded the Diabetes Model program, and funds First Nations specifically to provide diabetes care to urban Indians at that site. Visits for diabetes are the first and second in volumes of visits to First Nations.

While Diabetes appears across many services, these three categories had the highest numbers of visits. Again, there is some concern that the data may not be comprehensive in this regard and it is difficult to accurately isolate all of the codes here. The data show that 386 outpatient clients made visits for diabetes care. The average cost per client for outpatient care was $599.92, while the average claim was $149.11.

Service	# Clients	Claims	Average Visit/pt
Medicare	187	573	3.06
Outpatient	99	317	3.20
Practitioner Physician	100	663	6.63
Totals	**386**	**1553**	**4.02**

Service	Encounter	FFS	Total Payments
Practitioner Physician	$11,252.06	$142,322.24	$153,574.30
Outpatient	$7,566.68	$57,262.12	$64,828.80
Medicare	N/A	$13,165.52	$13,165.52
Total Payments Diabetes	**$18,818.74**	**$212,749.88**	**$231,568.62**

There were only three inpatient admissions for diabetes under Medicaid. Only two had charges associated with them, and the total was $6215.75, for an average per admission of $3107.88. But clearly, the numbers of admissions are low, but the costs of each admission are many times the cost for a client or a claim. The other related risk factor that was difficult to extricate was the diagnosis of obesity and overweight.

Respiratory diseases are a mix of chronic (asthma) and acute/episodic such as upper respiratory infection to pneumonia and bronchitis. The data indicate that Native Americans are twice as likely to die from pneumonia as other populations, and this is one situation were early diagnosis is essential for good outcomes. For non-inpatient claims, there were 3,770 unique clients who were treated for Respiratory problems and generated 8,524 claims. Total payments for Respiratory were $1,223,343.90, or $143.52 per claim.

There were 58 inpatient admissions for Respiratory Conditions of which 54 were paid under fee for service for a total payment of $391,529.85. The per-claim rate was $7,250.55. Fifty seven percent (57%) of admissions were for Bronchitis and Asthma, and Pneumonia and Pleurisy.

The impact of untreated respiratory infections is serious. Again, outpatient treatment is significantly more cost effective and the focus on preventive interventions such as vaccinations, and asthma management is definitely a major issue for Medicaid.

Findings- Chronic and Acute Diseases

The DOH Report card notes that American Indians have the highest death rate "over 3 times that of whites and 50% higher than that of Hispanics." The report adds that this high death rate is "particularly perplexing" because this population is receiving the necessary screenings. It is possible that the availability of organized programs through IHS have been successful in reaching adults. While Medicaid data could be used to monitor the escalation of those diagnosed with diabetes, and links to obesity and mental health further analyzed, there needs to be additional monitoring of adults with diabetes.

Asthma responds well to early diagnoses, and regular management. This is a major source of claims in the Medicaid database as well as in the IHS data and there should be greater attention to addressing any Emergency Department visits and hospitalizations that indicate that secondary prevention strategies should be implemented. The data also indicates the need for interventions to reduce hospitalizations and to reduce deaths from pneumonia.

Mental and Behavioral Health

Health statistics on mortality and morbidity for Native Americans in Bernalillo County underscores the impact of mental and behavioral need in the community. Chronic liver disease and cirrhosis is one of the top five causes of age adjusted mortality for this community (31.0 per 100,000 versus 13.6 for all others). In addition, age adjusted alcohol related mortality is at 28.9 per 100,000 (versus 8.6 for all others)

Nationally, the U.S. Surgeon General has reported that rates of co-occurring mental illness and substance abuse, especially alcohol, are higher among Native Americans, and that the suicide rate among American Indians and Alaska Natives is 50 percent higher than the national rate. Large-scale studies of mental disorders among older American Indians are lacking, but smaller studies have found rates of depression ranging from 10 to 30 percent[22].

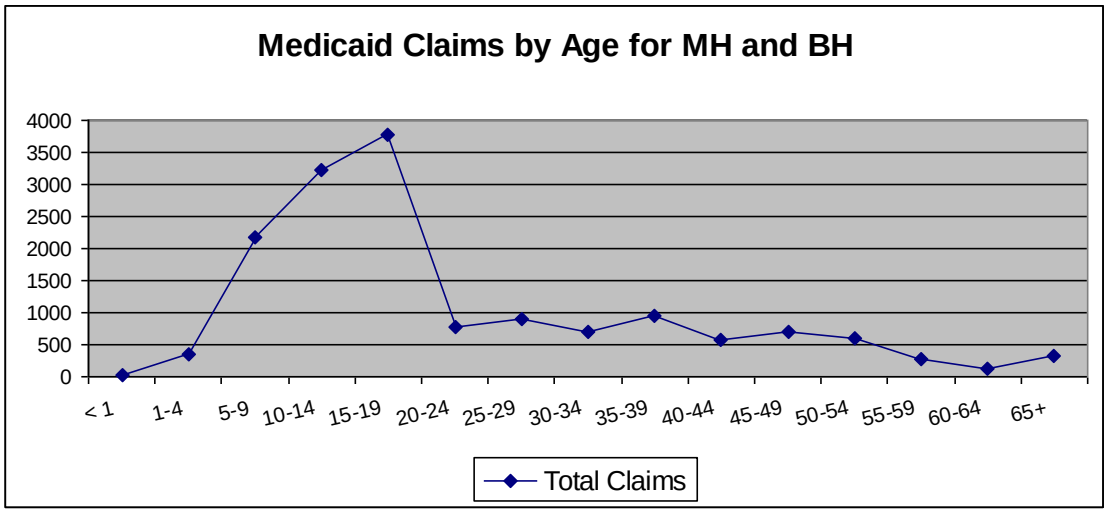
The impact of mental health on physical health cannot be overstated. Substance abuse and alcohol addiction have been documented as major health disparity indicators for Native Americans, leading to deaths related to alcohol and youth suicide. Suicide, violence, self-injury, and behavioral problems in children are linked to physical well being or lack thereof. Chronic diseases and obesity trigger depression – forming a perfect storm unless managed in a coordinated manner. Severe mental illness coupled with lack of access to care leads to poverty and to a spiral of other health problems. Early diagnosis and treatment can have positive, long term impacts on people with risk for mental and behavioral health problems.

In 2007, Medicaid paid for Mental and Behavioral health (MH/BH) services through Value Options which contracted for services across the state. The payment information in this database for these services is uneven, with large gaps in payments relative to claims made. It is likely that agreements with specific providers precluded per-claim assignments in the database (e.g. for residential care). Total payments are just above $4 million dollars, but neither fee for service nor encounter claims appear to reflect full payments for all claims.

There were 1,429 individual clients who generated 15,159 claims (98% of total claims) in the largest treatment settings (Physician/Practitioner, Outpatient, Medicare, Long Term Care and Inpatient). These clients were 16% of total individual clients in the full database for 2007.

[22] http://www.tribalconnections.org/ehealthinfo/mentalhealth.html

The following graph illustrates the fact that youth (19 years or younger) are the primary users of MH and BH services.



Medicaid funded treatment for Mental and Behavioral Health occurs in a number of settings. It also encompasses developmental problems in children and mental retardation.

The following provides an overview of the Medicaid defined claims. Physician claims dominate in volumes, but long term care is in second place for payment even though its numbers are significantly lower.

Mental and Behavioral Health Claims
Medicaid 2007

Claim Type	Encounter Claims	Encounter Paid	FFS Claims	FFS Paid	Total Claims	Total Paid
Practitioner/Physician	11198	$2,985,563.76	810	$127,876.62	12008	$3,113,440.38
Long Term Care	482	$0.00	225	$623,594.19	707	$623,594.19
Outpatient	859	$190,569.97	405	$139,672.83	1264	$330,242.80
Inpatient	129	$8,043.60	9	$21,583.43	138	$29,627.03
Medicare			1043	37332.64	1043	37332.64
Transportation	26	$8,275.10	102	$29,223.00	128	$37,498.10
Laboratory and Xray	32	$3,174.90	101	$8,099.40	133	$11,274.30
Hospice	1	$0.00	11	$8,685.85	12	$8,685.85
HCBS Waiver			16	$8,152.69	16	$8,152.69
Medical Supply	18	$1,357.82	22	$2,420.02	40	$3,777.84
Home Health	21	$0.00			21	$0.00
Total	**12766**	**$3,196,985.15**	**2744**	**$1,006,640.67**	**15510**	**$4,203,625.82**

MH/BH conditions that are most prevalent in this data are listed below. The categories were developed from the ICD Codes. As this data indicates, the diagnoses range from mood disorder to schizophrenia. Given the evidence of the impact of alcohol and substance abuse on the mortality and morbidity of Native Americans, this is evidence that for this subset of clients, there is some care available. But the numbers of clients associated with these visits total 1,429 given the fact that from 10% to 30% of this population might have a need for MH/BH services.

Medicaid MH/BH Categories for Mental Disorders		
Diagnostic Categories	**Total Claims**	**% of total**
Conduct Disorders	2496	16%
Depression	2312	15%
Severe Mental Illness	2053	13%
Post Traumatic Stress	1597	10%
Attention Deficit	1215	8%
Mood Disorder	1207	8%
Alcohol and Drug Related	1263	8%
Anxiety	896	6%
Subtotal	**13039**	**84%**
Mental Disorders Total	**15510**	**100%**

Inpatient MH/BH: Sixty seven patients were the basis of 138 admissions for mental disorders and addiction. 28% were admitted once, but the rest were admitted more than once. 7 patients were admitted five or more times. The highest number of admissions was eight. Hence admission for inpatient care is a high risk for a small number of patients. Most inpatient admissions for MH/BH were between 10 and 19 years. Payments associated with Inpatient claims are incomplete. There were only 2 Encounters out of 28 claims with payments. It is impossible to conclude anything about the full inpatient cost of Mental and Behavioral Health for Native Americans using Medicaid data.

Long Term Care: In the Medicaid claims context, long term care refers to residential care for mental and behavioral health, including mental retardation and treatment foster care for youth. There were 707 claims for long term care for 62 clients.

Long Term Care - Medicaid			
Age	**Ages 1 to 19**	**All Other Ages**	**Totals**
Residential Treatment Ctr Not JCAHO	452	0	452
ICF MR Private	25	155	180
Nursing Facility, Private	0	37	45
Residential Treatment Ctr. JCAHO	26	0	28
Treatment Foster Care	0	0	2
Totals by Age	**506**	**201**	**707**

Note: Claims by age that numbered five or less have been removed from Residential Treatment and TFC.

Diagnoses associated with patients in long term care varied significantly. The largest number of claims was for mental retardation, the second for conduct disorders, third for post-traumatic stress disorder. Other diagnoses included bipolar disorder, attention deficit disorder, mood disorder, dementia, alcohol and drug related reasons, and depression.

Physician/Practitioner and Outpatient Claims for Mental and Behavioral Health: Substance Abuse and mental disorders ranged from bipolar disorder to depression, anxiety and behavioral disorders in both Outpatient and Physician claims.

There were a wide variety of providers ranging from Mental Health Clinics, Residential Treatment Centers, Rehabilitation centers, Treatment Foster Care, Physicians, Psychiatric hospitals and Group Homes. In addition, there were an extensive variety of counselors: Psychologists, Social Workers, and Psychiatric Nurse Specialists. The Albuquerque Public Schools also billed for specific mental and behavioral services.

Outpatient claims' providers tend to overlap with these, but were limited in number and types. They include Hospital Outpatient services, Psychiatric hospitals, Residential Treatment Centers, and FQHC sites (all of which appear here), and Indian Health Services.

Provider submitted Data on Mental and Behavioral Health

Sites with Behavioral Health services that responded to this survey were Albuquerque Area Indian Health Services, School Based Health Care (SBHC) Sites, First Nations,

First Choice, Hogares and Lifestyle Recovery. Individual users were not enumerated by most sites. UNMH data also contained Mental and Behavioral health claims and unique users could be extracted from this data. Hogares was able to provide an estimated number of Native American youth using its Behavioral Health Services: 3% for individual sessions and 9% in groups. First Choice reported no use of its Behavioral Health by Native Americans, while Lifestyle Recovery reported a small range of estimated Native American users.

Behavioral Health Utilization by Bernalillo County American Indians (BCAI) and All Others		
Sites	**BCAI Visits**	**Visits – All/All Others**
First Nations	3251	4653
Hogares (Youth)	1384	14999
First Choice	0	139
SBHC (youth) in Bernalillo County Schools	N/A	12292
Lifestyle Recovery	est. 50-100	500-1000
IHS (3 yr average)	2950	Not applicable

The ***Albuquerque Area Indian Health Center*** also provides behavioral health services. The following codes represent the highest volumes of services provided. Individual user counts were not available from this data. The 3-yr average understates the total visits which have been growing from 1951 in 2006 to 4,050 in 2008.

Albuquerque Indian Health Center BEHAVIORAL HEALTH VISITS		
ICD Code Description	**3 Yr Total**	**3 yr Average**
Depression	2518	839
Anxiety	1797	599
Attention deficit	1448	483
Other counseling	1082	361
Severe Mental Illness	1039	346
Prolonged post-traumatic stress	967	322
MH/BH Total	**8851**	**2950**

Native Americans made up 70% of total visits to Behavioral health at ***First Nations Community Healthsource***. The Albuquerque Area Indian Health Center site provides no substance abuse services, but IHS funds mental health and substance abuse services at FNCH. The program targeting the Native Americans who are homeless has just been initiated in this past year, and may bring in higher numbers to FNCH.

BEHAVIORAL HEALTH VISITS TO FNCH			
For Native Americans		**For All Patients**	
Diagnosis	**# Visits**	**Diagnosis**	**# Visits**
Drug Abuse	1050	Drug Abuse	1121
Alcohol Dependence	884	Alcohol Dependence	984
Adjustment Disorder	281	Post Traumatic Stress Disorder	616
Post Traumatic Stress Disorder	258	Adjustment Disorder	330
Depression	148	Depression	280
Anxiety	75	Anxiety	152
Adjustment Disorder with Anxiety	69	Adjustment Disorder with Mixed Anxiety	113
Sub Total	2765	Sub Total	3596
All Others	**486**		**1057**
TOTALS All Visits	**3251**		**4653**

All of the eleven ***School Based Health Centers*** in the Bernalillo County area provide mental and behavioral services. They do not appear in the Medicaid data because they may not bill aggressively for Medicaid, or because their parent organization might bill under a different name. The following shows that Behavioral Health averages 39% of all visits. Behavioral health data was not available by race and ethnicity, nor were details for clinical diagnoses available.

School Based Health Care in Bernalillo County Behavioral Health as % of All Visits	
SBHC	**Totals**
Physical	7441
Behavioral Health	4851
Total Visits	12292
BH as % of Totals	**39%**

Native Americans form a very small portion of the total mental and behavioral health database from ***UNM Hospital***. The following tables reflect counts highest volumes primary diagnostic codes. The leading outpatient diagnosis is "non-dependent use of drugs". This refers to misuse or overuse of prescription or non-prescription drugs, as well as binge drinking or other excessive alcohol consumption.

OUTPATIENT BH/MH at UNMH			
Top Ten Diagnoses - Outpatient	Native American		All Races/Eth
Diagnosis	**Visits**	**% of Diag**	**Total Dx**
Abuse of drugs	308	13.50%	2280
Severe Mental Illness	269	2.70%	19415
Adjustment reaction	81	2.50%	3222
Alcohol dependence	77	4.50%	1720
Anxiety	62	1.70%	3655
Depressive disorders	57	1.80%	3098
Drug dependence	53	1.10%	4811
Conduct Disorder	43	3.70%	1175
Hyperkinetic syndrome of childhood	40	2.00%	1971
Total	**990**	**2.40%**	**41347**
** Percentages are of total diagnoses – i.e. 1.6% of Episodic mood disorders were NA*			

Inpatient visits at UNMH are dominated by episodic mood disorders and alcohol induced mental disorders. Native Americans are almost 11% of all the visits for this diagnosis in the inpatient data. Further evaluation of substance abuse diagnoses

shows that Native Americans are 22 of 273 inpatient discharges with substance abuse diagnoses. Of these, 17 were for alcohol induced mental disorders.

INPATIENT BH/MH at UNMH			
Top Ten Diagnoses - Inpatient	**Native American**		**All Races**
Diagnosis	Admissions	% of AIAN Admissions	Total Dx All Races
Severe Mental Illness	31	5.10%	1029
Alcohol-induced mental disorders	17	10.90%	156
Pervasive developmental disorders	2	7.10%	28
Depressive disorders	4	4.50%	88
Other psychoses	2	2.60%	78
Drug-induced mental disorders	1	1.20%	84
Anxiety	1	2.40%	42
Adjustment reaction	0	0.00%	67
Hyperkinetic syndrome of childhood	0	0.00%	26
Total (and % of All MH adm)	**58**	**3.60%**	**1598**
** Percentages are of total diagnoses – i.e. 4% of Episodic mood disorders are IA/AN*			

With the major challenges facing the Native American communities, the relatively low numbers of clients accessing MH/BH services need further attention and exploration.

It is also possible that claims from Value Options are not all included here. What is clear is that there are a larger number of providers available beyond Indian Health and First Nations and they are providing care to Native Americans with MH/BH needs.

But clearly there is a larger group with unmet needs that exists beyond what was available through the providers represented here.

Findings – Mental and Behavioral Health

There appear to be many MH/BH services available for those enrolled in Medicaid, and specifically for acute needs of the young.

Given the report that BH/MH needs might impact on 10% to 30% of the population, the impact on those not on Medicaid is particularly significant.

The proportions of Native Americans receiving MH/BH in other sites do not also reflect high volumes of users.

Specifically, targeted substance abuse prevention and treatment is warranted.

Most importantly, programs for medical and behavioral health need to be integrated. The impact of depression on substance abuse and chronic disease progression cannot be underestimated.

Oral and Dental Health

Dental Visits were reported by a few sites in the survey:

- Community Dental Clinics did not have the capacity to provide data at the level of detail in the survey. They estimated that they see 300-500 individuals who generate700-800 visits a year. No detail was provided regarding Native Americans, and they cannot identify Native Americans with addresses in Bernalillo County.
- First Choice estimated it provided 11,899 Dental visits, but race breakdowns were not available.
- First Nations Community Healthsource reports 6,545 Dental visits by Native Americans.[23]

The Albuquerque Indian Dental Clinic is known to provide oral health and dental services to American Indian children, but did not respond to requests for data from this project. Medicaid pays for a significant amount of dental care and that will be presented in a later section on Medicaid.

Preventable Conditions

As the DOH Report card indicated, pneumonia and influenza deaths were major risk factors for Native Americans who "consistently have the highest rate of deaths due to pneumonia and influenza". Both conditions have vaccinations available for adults and a greater effort to target this population could prevent hospitalizations and or deaths. According to the NIH website[24] vaccination for bacterial pneumonia is recommended for people age 2 and older particularly for those with other health

[23] SIPI Dental Clinic was included in the survey but we received no response.
[24] http://www.nlm.nih.gov/medlineplus/ency/article/002029.htm

related conditions which include chronic diseases (such as heart disease, alcoholism, diabetes), everyone 65 years or older, other immune system problems, and Native Americans populations. There needs to be greater information about the age groups for deaths from pneumonia and influenza and appropriate campaigns to ensure preventive strategies are made available to providers who provide health services to these populations.

Elder Health Care

The Off-Reservation Commission partnered with the UNM Geriatric Education Center to take a closer look at health issues affecting Native Americans over the age of 55 living in Bernalillo County. The detailed report from this project is included as Appendix C, but the lack of Medicare data was a major limitation. 4,941 American Indians living in Bernalillo County are age 55 and over.

Coverage data from UNMH indicates that only 39% of visits for this age population were covered under Medicare. Recently acquired data from the California Rural Indian Health Board indicates that enrollment in Medicare in 2006 for Native Americans living in Bernalillo County age 65 and over was just 864[25]. As a result of the passage of welfare reform in 1996, eligibility for Medicare is limited to individuals who have worked in systems which paid into Medicare or Social Security for at least 10 years. Many Native elders worked in as ranchers, silver-smiths, etc. and may be ineligible for Medicare coverage. While ineligible individuals may purchase Medicare Part A, many elders balk at paying for coverage they believe they are entitled to receive due to the federal trust obligation.

The Albuquerque Indian Health Center is clearly a significant provider of services to those over 55, more than First Nations and UNM Hospital services. While the Indian Health Service clustered users in two age groups including those ages 45 to 64 and those who are age 65 or over, their records indicate that they provided prescription services, chronic disease management, and vaccination and other prevention programs to 401 individual users age 65 and over in 2007. However, given the inevitable age-related diseases that accompany individuals in older age groups, the question of where the rest of the 4,941 people over the age of 55 are receiving care is unclear.

UNM Hospital provides a spectrum of services to a small, core group of seniors. Of the total 493 users of UNMH services, 295 came more than once, and 64 came ten times or more. Seniors are regularly using specialist services (81%) at UNMH and this could reflect high levels of chronic disease/need. Further analysis is needed to

[25] Enrollment reflects American Indians who have used the Indian Health Service at some point in their lifetime.

understand whether this is the result of special programs for the elderly that are available at UNMH.

According to the UNMH data, only 6% of visits in this age group were covered through Medicaid. Those that are currently enrolled are likely to be dual eligible and therefore have higher levels of financial and medical need. They may not be representative of the overall population in this age category, but they do illustrate the needs for those with significant health care issues. Those over 55, whose health and disability might qualify them for coverage under Medicaid may benefit from targeted enrollment initiatives.

As stated earlier, health disparities data for Native Americans in New Mexico reveal that there are higher deaths for this population for pneumonia, diabetes and influenza. Inpatient data from UNMH and Medicaid shows that respiratory conditions are among the high volume admissions. Age increases the risk of serious side effects and death – and these data provide an indication of the services needed by this population Medicaid data reveals that Home Care and Long Term care services are major resources and that these conditions are being addressed for those with Medicaid; However there were only a 493 individuals in this age group on Medicaid.

There were only 37 users of Long Term Care services in Medicaid for this age group which generated 925 claims for an average of 25 visits per client; 29% of all charges paid by Medicaid for this age group were for Long Term Care. The average cost per claim was $1,185.46 but claims ranged from $3908.43 to $721.14 per claim for long term care.

Medicaid enrollees on the HCBS Waiver had third highest volumes of claims (18% of totals), for just 17 users. Home and Community Based Services are provided through Medicaid to individuals who can then remain in their homes instead of being institutionalized. These individuals have significant disabilities or other chronic problems. Providers are primarily Home Care Agencies. The average cost for the highest volume claims under HCBS was $640.22 versus $1,194.52 average for highest volume claims for Long Term Care.

In an effort to seek additional information regarding the health care needs of the American Indian population over age 55, two community meetings were held. Outcomes from those sessions indicated that the elderly may be returning to the reservation where elderly care services may be more readily available. A number of participants indicated that they felt their health care needs were adequately met by the Indian Health Service, but others expressed feelings of isolation and the perception that there is little or no advocacy to ensure their needs are addressed. Some participants indicated that they routinely travel outside of the county for health care services because the wait time for appointments is too long or they have been refused

care by the Albuquerque Service Unit. Ensuring continuity and coordination of health care services to the elderly must become a strategic health planning priority.

Current Health Care Costs

Part of the charge for this project was to arrive at some sense of the costs currently associated with care for Native Americans in Bernalillo County. This has proven to be a challenge since there is no systematic collection or reporting of costs. The most comprehensive databases available from UNMH and Medicaid are still incomplete.

The available databases yield the following information:

Cost of All Services to Native Americans in Bernalillo County	
UNMH All Services	$27,502,357.32
First Nations Community Healthsource	$1,540,994.80
Medicaid - All Provider Payments	$39,901,029.00
IHS Budget for 2007	$5, 182,001.00[26]
Total	**$74,126,382.12**

Medicaid is billed by UNMH for 31.3 % of charges to Native Americans from Bernalillo County and 2.3% of charges are billed to Value Options. UNMH estimates that 16.2% of Bernalillo County Native Americans change their insurance after admission.

Recommendations

Based on the analysis contained in this report, it is clear that health disparities persist between the American Indian population and other races and ethnicities even as in Medicaid, when it appears that some proportions of the population have adequate health care coverage. In addition to addressing the social determinants that cause these disparities, it is imperative that we mitigate the effects of these root causes by adopting early intervention strategies.

The Commission is in the process of seeking input from community members and key stakeholder groups to review the findings in this report and develop integrated strategies and solutions to address them. It is suggested that several strategic areas of focus might be considered. These consist of better access to primary care and chronic disease management, but also to target simple causes of preventable deaths, and to monitor all providers and programs to ensure that appropriate prevention and

[26]According to R.C. Begay, Albuquerque Area Indian Health Service

management is in place. Specifically, we propose the following strategic health planning goals in Bernalillo County:

- Maternal and Child Health
- Chronic Disease, Depression and Substance Abuse
- Access to Primary Care
- Targeting Preventable Deaths
- Enhanced Elder Care Coverage and Services
- Ongoing Evaluation and Monitoring

Maternal and Child Health

There are a number of possible strategies that could be considered by the off-reservation community and stakeholders to address the disparities in maternal and child health outcomes. It is clear that getting young mothers into adequate pre-natal care early is a critical strategy to lower infant mortality and reduce the number of complicated births. Based on the data collected, American Indian women are utilizing the WIC program and services in large numbers. This program could be examined to determine if access to pre-natal care services could be coordinated through it. Further, there may be aspects in the delivery of WIC services that could be replicated by other providers to improve access and utilization.

The Commission assisted Native American Professional Parents Resources, Inc. to complete and submit a successful application for the tribal home visiting grant funded through Health and Human Services. One of just 13 sites that were funded across the nation, NAPPR will complete a needs assessment during the first year of the grant and implement a culturally appropriate, evidence-based home visiting model in the following year. The Commission expects that this grant will be an important step in improving health outcomes for off-reservation mothers and babies through increased availability of home visiting services. When results from this program are available, they can used to develop appropriate home visiting and prenatal programs targeting all Native American women in this state.

Other possible strategies and suggestions to consider might include:

- Adopting the Perinatal Periods of Risk (PPOR) Method for Bernalillo County
- Early pre-natal care services in a school-based setting
- Creation of a Medicaid-based Accountable Care Organization to incentivize early access to and utilization of prenatal care services

Chronic Disease, Depression, and Substance Abuse

Another area of strategic focus involves the elimination of the spiral caused by chronic disease, depression and substance abuse. By developing integrated models of care and breaking down silos within the health care system, it may be possible for multiple partners to join efforts to address all three conditions.
It is evident that a large number of youth are unable to access mental and behavioral health service once they are no longer eligible for Medicaid. While this problem may be alleviated due to the expansion of Medicaid to all individuals up to 133% poverty, community members and stakeholders might focus on strategies to ensure that community-based, culturally appropriate mental health are accessible to young adults.

Based on the outcomes from several community meetings facilitated by the Raincloud Local Collaborative and Native Health Initiative, there is a need for more locally accessible traditional healing and culturally competent care. A number of participants reported traveling to their home reservations to access traditional healing. Others expressed reluctance to seek services at local providers because of the perception that providers are indifferent to their needs. Some described their hesitancy to seek services at First Nations Community Healthsource due to fact that most of the patients are non-Native.

Possible strategies to address these issues might include employing a third party to facilitate a community-based approach to ensuring that local providers can create inviting, hospitable environments for American Indian patients. In addition, grass-roots organizations like the Raincloud Local Collaborative should be supported in their efforts to address the socio economic factors that are the root causes of chronic disease, depression, and substance abuse.

Access to Primary Care

The recognition that there is no single entity in Bernalillo County providing coordinated primary care services to a significant portion of the off-reservation community and that only relatively small numbers of people (primarily children covered by Medicaid) are accessing primary care is perhaps the most disturbing of all the Commission's findings. Very few users of Federally Qualified Health Centers and Public Health clinics in Bernalillo County are Native Americans. The Commission recommends that creating strategic partnerships between major providers and exploring innovative contracting opportunities could result in new points of access for primary care services. Some opportunities identified by the commission are:

- A tribe could contract with the Indian Health Service to provide services and partner with a local provider, making it possible to maximize Medicaid reimbursement and reinvest it to expand and strengthen the local primary care system.

- A partnership between local tribes to build another clinic on federal trust land, e.g. SIPI campus.

Currently the Commission is assisting the Native American Community Academy (NACA) in their efforts to apply for a New Access Point grant. NACA plans to build a new school in 2012 and it will be equipped with a school based health center. If funded, the grant will allow for the expansion of health care services to parents and staff and Native Americans living in Bernalillo County.

Care should be taken to ensure that providers have the capacity to provide services before contracts are initiated. Currently, the UNM Hospital contracts with the Indian Health Service and First Nations Community Healthsource, yet neither provider appears to have the capacity to see more patients.

The Commission intends to continue working closely with stakeholders and providers to improve access to primary care. It is believed that by working together, providers may recognize the need to ensure that their patient mix more closely resembles the demographics of the community they serve and take steps to increase the utilization of their services by off-reservation community members.

Health care reform offers some unique opportunities to improve access to preventative care for American Indians regardless of where they live. With the expansion of Medicaid and incentives for American Indians to enroll in low or no-cost health insurance coverage, the Commission could play a key role in ensuring that tribal members living off the reservation are maximizing opportunities available through the creation of a Health Insurance Exchange.

Targeting Preventable Deaths

The high number of preventable deaths due to pneumonia, influenza and accidents or alcohol use should be considered for targeted intervention. Including pneumonia vaccinations in conjunction with seasonal influenza vaccinations in targeted health care sites would be a cost effective way to address two major causes of disease and death in Native communities.

Community members and key stakeholders might examine the root causes of accidental and alcohol-related deaths to develop appropriate strategies and community-based interventions. Success has been evident in the improvement of children's immunization rates and it may be possible to replicate these strategies to reduce deaths from pneumonia and influenza.

Enhanced Elder Care Coverage and Services

Small numbers of elderly off-reservation community members receive care at local providers, but more data is needed to accurately determine the level of services currently being utilized. Based on the outcomes from several community meetings, it appears that more continuity and coordination of services for the elderly is necessary. In short, the needs of the elderly must become a priority for the community, providers, funding agencies, and policy-makers.

It is possible that with the reauthorization of the Indian Health Care Improvement Act, innovative partnerships with local tribes could be instrumental in creating more comprehensive approaches to providing long term care and home based services, e.g a Program of All-Inclusive Care for the Elderly or PACE program.

The Commission intends to partner with the California Rural Indian Health Board to access Medicare claim data at the County level to assist in more adequately assessing needs and supporting appropriate solutions. The issues related to Medicare eligibility must be addressed. The Commission will continue to explore options to eliminate barriers to Medicare coverage.

Monitoring and Evaluation

Continuous evaluation and monitoring of the local health care system is necessary to determine the success of any interventions that are developed. The Commission expects to monitor and evaluate the implementation of the strategic health plan and continue to play a key role in resource allocation and policy decisions as well as any state or county health planning efforts. Stronger partnerships with the Indian Health Service will be needed in order to access data. The Commission will need access to utilization and cost data on a consistent, annual basis and support for its efforts to develop the infrastructure necessary to become the primary entity to store, analyze, and interpret complex data sets to facilitate informed decision-making and resource allocation.

TERMS AND DEFINITIONS

Terms	Definitions
FFS	Fee for Service. This indicates that the provider received payment for each service provided to the individual patient.
Encounters	In the Medicaid Database, encounters reflect the type of service provided to clients enrolled in managed care either under Value Options (Behavioral Health) or Salud (Medical) programs. These plans are paid a flat rate for their enrollees, and are not compensated on a fee for service basis.
Claims	In the Medicaid database, claims are a proxy for "visits", and they reflect interventions for which payment was made.
ICD9Cm	International Classification of Diseases 9th Edition Clinical Modification. These codes categorize diseases and injuries with a alphanumeric system all providers and makes it possible to analyze visits.
V Codes	V codes within the ICD classification refer to visits that improve or manage health but may not indicate the presence of disease, e.g. well child visits, vaccinations, etc.
MDC	Major Diagnostic Category classifies similar diagnoses into groups that represent similar etiology or body system.
DRG	Diagnostic Related Groups (there about 500 of these) are applied to inpatient discharges and incorporate multiple ICD9 codes to reflect the presence of complications and comorbidities and to accurately reflect hospital resource use. They are intended to reflect the cost of admission as well as describe severity levels.
Primary Care	Primary Care interventions avert diseases from occurring such as immunizations, breastfeeding, health promotion/disease prevention education, building assets in youth, etc.
Secondary Care	Secondary prevention interventions detect and treat problems in their early stages to allow those with chronic conditions to lead a full life, prevent acute episodes from occurring.
Tertiary Prevention	Tertiary prevention interventions keep existing problems from getting worse, prevent hospitalizations, re-admissions, and repeat emergency visits.

APPENDIX A
REFERENCE MATERIAL FOR REPORT

The following pages provide references for the health disparities data used in this report. Where possible, data for Native Americans living in Bernalillo County has been collated. Where data specific to Bernalillo County were not available, New Mexico data was used.

American Indian Health Disparities In New Mexico

According to the 2009 Racial and Ethnic Health Disparities Report Card produced by the New Mexico Department of Health (http://www.nmhealth.org/dpp/dppr.htm) "*American Indians in New Mexico bear a disproportionate share of poor health status and disease. Of the 20 indicators in the 2009 Racial and Ethnic Health Disparities Report Card American Indians have the highest (worst) rates on 7 indicators.*"

Rates for American Indians in New Mexico are two or more times higher for deaths related to alcohol, deaths due to diabetes, late or no prenatal care, motor vehicle deaths, youth obesity, youth suicide. Statewide, American Indians also have high rates for pneumonia and influenza deaths.

HEALTH DISPARITIES RATES FOR AMERICAN INDIANS LIVING IN BERNALILLO COUNTY [27]

Vital Statistics (Birth Certificate Data):

	AI/AN1 rate per 100 live births (95% CI3)	General Population[2] per 100 live births (95% CI)
Late (3rd trimester)/No Prenatal Care	12.6 (11.1 – 14.2)	8.6 (8.3 – 8.9)
Smoking During Pregnancy	7.6 (6.5 – 8.8)	11.7 (11.4 – 12.1)
Mother age < 18	5.0 (4.2 – 5.9)	5.1 (4.9 – 5.3)
Preterm Birth	12.3 (11.0 – 13.6)	12.7 (12.3 – 13.0)

Source: US Centers for Health Statistics; years 2001-2005 combined; [1]American Indians and Alaska Natives

[2]Individuals of all races, including AI/AN; [3]95% Confidence Interval

[27] Analysis of Vital Statistics and Survey Data among American Indians & Alaska Natives Living in Bernalillo County, Seattle Urban Indian Health Institute, 2009

A critical set of health indicators is the "average age of death" for Native Americans living in Bernalillo County.

Single Years	Number of Deaths	Average Age at Death	95% CI LL	95% CI UL
Bernalillo County Native Americans, 2006	124	56.4	52	60.7
Total For All Bernalillo County Residents, All Races (2006)	4,841	71	70.5	71.6
All New Mexico Residents, All Races	15,229	70.2	69.9	70.5

Vital Statistics (Mortality Data):

	AI/AN rate per 100,000 (95% CI)	General Population per 100,000 (95% CI)
Age-adjusted total mortality	672.8 (612.1 – 738.6)	805.4 (794.9 – 816.1)
Age-adjusted diabetes mortality	38.4 (24.2 – 58.5)	24.8 (23.0 – 26.8)
Age-adjusted chronic liver disease mortality	31.0 (21.4 – 45.6)	13.6 (12.3 – 15.0)
Age-adjusted unintentional injury	86.9 (68.3 – 110.4)	62.8 (59.9 – 65.8)
Age-adjusted alcohol-related mortality	28.9 (19.5 – 43.4)	8.6 (7.6 – 9.7)
Age-adjusted suicide mortality	14.4 (8.4 – 25.8)	18.3 (16.8 – 19.9)

Source: US Centers for Health Statistics; years 2001-2005 combined

As noted earlier, the deaths due to alcohol, diabetes, motor vehicle deaths and youth suicide are the top causes of mortality for American Indians statewide. The top five causes of deaths among AI/AN living in Bernalillo County (rate and 95% CIs).

- Heart disease: 119.4 per 100,000 (92.4 – 152.2)
- Cancer: 97.4 per 100,000 (75.1 – 125.3)
- Unintentional injury: 86.9 per 100,000 (68.3 – 110.4)
- Diabetes: 38.4 per 100,000 (24.23 – 58.53)
- Chronic liver disease and cirrhosis: 31.0 per 100,000 (21.4 – 45.6)

Vital Statistics (Linked Birth-Infant Death Data):

	AI/AN rate per 1000 live births (95% CI)	**General Population per 1000 live births (95% CI)**
Total infant mortality	8.1 (5.7 – 11.2)	6.3 (5.8 – 6.9)

Source: US Centers for Health Statistics, Years 1995-2004 combined

BEHAVIORAL HEALTH

	AI/AN (Total n=221) (95% CI)	**Non-Hispanic White (Total n=5084) (95% CI)**
Report current tobacco use	23.5% (17.1 – 31.3)	17.0% (15.4 – 18.7)
Ever told by doctor that you have diabetes	9.5% (6.2 – 14.2)	5.5% (4.6 – 6.5)
Obese (BMI≥30 by self-reported height and weight)	24.3% (18.2 – 31.6)	16.7% (15.2 – 18.4)
No leisure time physical activity in past 30 days	29.1% (20.5 – 39.5)	15.7% (14.2 – 17.3)
No health insurance (respondents < age 65 years)	34.2% (24.7 – 45.0)	10.1% (8.5 – 12.0)

Source: Centers for Disease Control and Prevention, BRFSS, Years 2004 – 2008 combined

Mental Illness:
Nationally, the U.S. Surgeon General has reported that rates of co-occurring mental illness and substance abuse, especially alcohol, are higher among Native Americans, and that the suicide rate among American Indians and Alaska Natives is 50 percent higher than the national rate. Large-scale studies of mental disorders among older American Indians are lacking, but smaller studies have found rates of depression ranging from 10 to 30 percent[28].

Youth suicide is a huge issue for all NM American Indians (see DOH Report Card). Significantly more AI/AN youth reported attempting suicide. This report also goes

[28] http://www.tribalconnections.org/ehealthinfo/mentalhealth.html

on to note that we need improvement in health data for the AI/AN population involving data sharing between agencies at the federal, state and tribal levels.

HEALTH CARE NEEDS - BERNALILLO COUNTY NATIVE AMERICANS

The following data provide indicators that are useful in describing essential Medical and Behavioral Health needs for this community.

Maternity Services

From 1997-2006, there were 4,555 Native American women who gave birth in Bernalillo County; they were 6.1% of 42,990 births in New Mexico. The New Mexico Department of Health reported 662 Indian babies were delivered in Bernalillo County in 2007.[29] These represented 6.3 to 6.7 percent of all births in the county.

NM PRAMS 1997-2006[30]: Health Services Received during the Prenatal and Post-Partum Periods among women in Bernalillo County with a live birth.

Data from PRAMS specific to Bernalillo County was provided to this project. The surveys conducted of women in Bernalillo County showed that most Native American women did not access prenatal services during their pregnancy or postpartum:

- Pregnancy Breastfeeding class (No = 87.7%)
- Parenting Class (No = 81.8%)
- Counseling (No = 90.8%)
- Post Partum Breastfeeding (No = 86.5%)
- Home Visiting (No = 87.7%).

Hence 80% of Native American mothers in Bernalillo County responded that they had not accessed relevant pregnancy classes in breastfeeding and parenting (either pre natal or post partum), nor did they receive home visits either in preparation for their delivery or after delivery of their baby. (Neither Hispanic nor Non Hispanic Whites accessed these services at significantly higher levels: "No" was the response more than 80% of the time for all these populations).

In addition, more Native American mothers in Bernalillo County received Late or No prenatal care compared with the general population (12.6 versus 8.6).[31] Nationally,

[29] The State Center for Health Statistics and Bureau of Vital Records and Health Statistics, *New Mexico Selected Health Statistics Annual Report, Volume 1, Birth, Fetal, Death, Abortion, 2007*, page 25, available at http://www.health.state.nm.us/VitRecHealthStats/documents/2007_AR_Volume1MLok_111209awgraphs.pdf.
[30] Health Services Received during the Prenatal and Post-Partum Periods among women in Bernalillo County with a live birth, PRAMS 1997-2006

infant mortality is higher for Native American mothers (8.1 versus 6.3) than for the general population.

PRAMS data indicates that Native American women in Bernalillo county accessed WIC at much higher rates than other ethnic groups (61.7% in the survey said they had used WIC) – one positive indicator that WIC is reaching the community they are supposed to serve. [32]

[31] Source: US Centers for Health Statistics years 2001-2005 combined, Urban Indian Health Institute, Seattle, June 2009

[32] Provided to this project from NM PRAMS 1997-2006