Developing Medical Homes on South Dakota's Pine Ridge Indian Reservation

South Dakota Division of Medical Services

Contact:
Larry Iversen, Director
Division of Medical Services
Department of Social Services
700 Governors Drive
Pierre, SD 57501

(605)773-3495
(605)773-5246 fax
larry.iversen@state.sd.us

As evidenced by the letter attached to the state's application, this proposal is supported by Larry Iversen, Director, South Dakota Division of Medical Services

Applicant Preference Request

Serving Rural or Underserved Medicaid Beneficiaries
This proposal will provide services to Medicaid beneficiaries in Shannon, Jackson and Bennett counties in South Dakota. All three counties are designated primary medical care Health Care Shortage Areas, and are Medically Underserved Areas by the Health and Resource Services Administration.

HPSA	ID#	Type	Score
113-Shannon County	146113	Single County	23
071-Jackson County	146071	Single County	23
007-Bennett County	146007	Single County	12
MUA/MUP	**ID#**	**Type**	
Shannon County	03151	MUA	
Jackson County	07591	MUA	
Bennett County	07026	MUA	

Partnership with Local Community Hospital
Delivery System Description
Since 1955, providing for the health care of approximately 1.43 million American Indians and Alaska Natives has been the responsibility of the Indian Health Service (IHS), an agency within the Department of Health and Human Services. The agency provides health care services to more than 457 federally recognized Indian tribes, tribal groups, and Alaska Natives.

The Aberdeen Indian Health Service was established to serve the Indian tribes in North Dakota, South Dakota, Nebraska, and Iowa. IHS brings health care to approximately 104,000 Indians living in rural areas as well as the urban Indian population in Rapid City. The Area Office in Aberdeen, SD, is the administrative headquarters for thirteen service units consisting of eight hospitals and five health centers.

Indian and tribal involvement is a major objective of the program, and several tribes do assume partial or full responsibility for their own health care through contractual arrangements with the Aberdeen Area IHS. Tribally managed facilities include the Carl T. Curtis Health Center in Macy, ND, an ambulatory care and nursing home facility, and health centers in Trenton, ND, and Tama, IA. Direct care and contract care expenditures are used to augment care not available in the local Indian Health Service facilities.

The Aberdeen Area IHS provides health care services on the Pine Ridge Indian Reservation. The 46-bed Pine Ridge Hospital, serving a Sioux Indian population of more than 17,000, is the largest in the Aberdeen Area. A 16-physician staff sees medical, obstetrical, pediatric, and surgical patients. The facility includes full service general surgery and an obstetrical ward. Dental care is provided at the main hospital as well as at four satellite clinics. In addition to the new 46-bed Pine Ridge facility, a nearby Health Center in Wamblee is staffed by a pharmacist, dentist, clinic nurse, a physician's assistant, and physician consultants. Also located on the Pine Ridge Reservation is the

new health center in Kyle, which brings much needed outpatient services to the area and accommodates approximately 18,000 annual visits.

Length of Operation

The Indian Health Service (IHS), an agency within the Department of Health and Human Services, is responsible for providing federal health services to American Indians and Alaska Natives. The provision of health services to members of federally-recognized tribes grew out of the special government-to-government relationship between the federal government and Indian tribes. This relationship, established in 1787, is based on Article I, Section 8 of the Constitution, and has been given form and substance by numerous treaties, laws, Supreme Court decisions, and Executive Orders. The IHS is the principal federal health care provider and health advocate for Indian people, and its goal is to raise their health status to the highest possible level. The IHS currently provides health services to approximately 1.5 million American Indians and Alaska Natives who belong to more than 557 federally recognized tribes in 35 states.

Impact to the Current Emergency Services Delivery System

This project will establish a primary care Mobile Health Clinic that will provide primary care to 700 children and prenatal care to 200 pregnant women on the Pine Ridge Reservation. Through use of the Mobile Health Clinic, emergency room usage at Pine Ridge IHS by children and pregnant girls under age 21 will be reduced by 25% by year three of the project.

Developing Medical Homes on South Dakota's Pine Ridge Indian Reservation

Abstract

The Pine Ridge Reservation, home to over 14,000 Oglala Sioux and other Native American people encompasses two million acres. Access to most health care services, including primary care, is limited due to health care professional shortages in the entire state. Shannon, Jackson and Bennett counties are part of the Pine Ridge Reservation, and each is a primary medical care Health Professional Shortage Area and is designated as Medically Underserved. A strong, culturally proud tribe of over 17,000 enrolled members, their reservation is located in the some of the poorest counties in the entire United States. Shannon County, home to 12,230 American Indian people, is the second poorest county in the entire nation. People who live on the Pine Ridge Reservation face challenges of poverty, lack of jobs, and great health disparities.

American Indians in South Dakota have many disparate health statuses compared to whites. The adolescent suicide is four times the national average. People on the Pine Ridge Reservation have among the shortest life expectancies of any group in the Western Hemisphere. The infant mortality rate is five times the US national average. South Dakota American Indians had the highest death rate of any race/ethic group in the nation. According to South Dakota Department of Health vital statistics, leading causes of death for American Indians in 2005 include heart disease (17%), cancer (15%), accidents (15%), diabetes (9%), lower respiratory illnesses (4%) and suicide (3%).

This project will provide medical homes to children and pregnant women on the Pine Ridge Reservation through a variety of innovative mechanisms. Recruiting additional providers is key to the proposal, as is developing the capacity to provide care in nontraditional locations. The geography of the reservation coupled with the stark poverty of the population results in needing to bring services to outlying communities via a Mobile Health Clinic. Medical homes will also be provided to children at schools located on the reservation, and the school clinic at Red Shirt will be operationalized to maximize access to regular primary care. Lastly, education on accessing available non-emergent health care services, wellness promotion, and prenatal care will be provided as part of this project to ensure that valued outcomes including decreasing inappropriate use of emergency rooms and increased health status outcomes are met.

The projected number of individuals who will be directly affected by the project is 4000 people. 900 children and pregnant women will receive health care directly through services provided by the project. They will receive services in a more appropriate setting and in a timelier manner. Additionally, education supported by the project will impact additional people, such as parents, spouses, partners, education faculty and community members. In addition people with true emergency needs will get attention in the emergency rooms quicker. Costs will be reduced to clients, insurance companies, and Medicaid because clients will be using a more cost appropriate service.

Developing Medical Homes on South Dakota's Pine Ridge Indian Reservation

Statement of Project/Need

The Pine Ridge Reservation, home to over 14,000 Oglala Sioux and other Native American people encompasses two million acres. It is located on three counties in southern South Dakota. A strong, culturally proud tribe of over 17,000 enrolled members, their reservation is located in the some of the poorest counties in the entire United States. Shannon County, home to 12,230 American Indian people, is the second poorest county in the entire nation. 38% live below the Federal poverty level. People who live on the Pine Ridge Reservation face challenges of poverty, lack of jobs, and great health disparities. Many families have no electricity, telephone, or running water. Reliance on public funding for health care is almost universal.

The climate of the reservation is typical of the Northern Great Plains with extremes during the summer and winter that vary from 105 to -30 F respectively. Distance, weather conditions, and the lack of automobiles are major deterrents to access to health care at Pine Ridge. There is no public transportation on the reservation. Almost all travel is by private car. However, not all residents have access to a car and must depend upon friends or relatives for rides. Many people walk to reach their destination, but the distance between communities and weather conditions limits this activity.

There are 9 main reservation districts, many very isolated from each other. The patient population is primarily served by the U.S. Indian Health Service at Pine Ridge located on the southern border of the reservation. In addition there are several satellite clinics on the reservation and a community health center and Bennett County Hospital in the community of Martin.

Access to most health care services, including primary care, is limited due to health care professional shortages in the entire state. Primary care Health Professional Shortage Areas exist in 55 of South Dakota's 66 counties or 83% of all counties. Furthermore, 47 entire counties are considered by the Health and Resource Services Administration to bed Medically Underserved. This represents 71% of the counties in the state. An additional 9 counties have Medically Underserved communities. Shannon, Jackson and Bennett counties are part of the Pine Ridge Reservation, and each is a Health Professional Shortage Area and is designated as Medically Underserved.

In state fiscal year 2007, 128,400 different people were covered by Medicaid for at least one month. American Indians are the largest racial minority in the state and comprise 8.8% of the population in South Dakota. 26% of the Oglala Sioux Tribe's population is age 4-16 and this segment of the population is rapidly growing.

American Indians have many disparate health statuses compared to whites. The adolescent suicide is four times the national average. People on the Pine Ridge Reservation have among the shortest life expectancies of any group in the Western Hemisphere: approximately 47 for males and in the low 50s for females. Infant mortality rate is five times the US national average. According to the 2005 Behavior Risk Factor Surveillance System survey, American Indians rate their general health as "fair" or "Poor" at a rate of 20%, compared to 13% of white South Dakotans. South Dakota American Indians had the highest death rate of any race/ethic group in the nation. According to South Dakota Department of Health vital statistics, leading causes for American Indians in 2005 include heart disease (17%), cancer (15%), accidents (15%), diabetes (9%), lower respiratory illnesses (4%) and suicide (3%).

Emergency room use is considered a primary way to get health care because of lack of transportation, people with no primary medical home, lack of understanding when one should use the emergency room, people working during the day, children who cannot leave school due to attendance policies resulting from No Child Left Behind expectations and limited care during clinics.

Consultation with tribal leaders, tribal health officials, IHS officials, education leaders and clients brought a resounding "yes" when asked if there was extensive use of the emergency room for non-emergent purposes. As noted above there are many reasons for this but the result is use of a very expensive medical option, no long term follow up for patients, and overcrowded emergency rooms.

Officials felt that the biggest impact for reducing unnecessary use of the emergency room would be by focusing on services for children and pregnant girls. This is because:

- Children and pregnant women are prime users of the emergency room. During the past 15 months, 70% of the visits to the nearest urban emergency room involved patients under age 24.
- The 2000-2005 aggregated rate for infant mortality for Shannon County was 13.5%.
- The demographic trend of a disproportionately younger population on the reservation.

This project will provide medical homes to children and pregnant women on the Pine Ridge Reservation through a variety of innovative mechanisms. Recruiting additional providers is key to the proposal, as is developing the capacity to provide care

in nontraditional locations. The geography of the reservation coupled with the stark poverty of the population results in needing to bring services to outlying communities via a Mobile Health Clinic. Medical homes will also be provided to children at schools located on the reservation, and the school clinic at Red Shirt will be operationalized to maximize access to regular primary care. Lastly, education on accessing available non-emergent health care services, wellness promotion, and prenatal care will be provided as part of this project to ensure that valued outcomes including decreasing inappropriate use of emergency rooms and increased health status outcomes are met.

Project Justification

Extensive discussion of what actions could reduce the non-emergent use of emergency rooms for children and pregnant girls input was received from reservation officials. There was strong consensus that a Mobile Health Clinic, an additional nurse midwife and pediatrician, longer clinic hours, equipping and staffing Red Shirt School clinic site (located 60 miles from Pine Ridge over marginal roads) and a portable Ultrasound would make the biggest difference in providing better health outcomes for people on the reservation. These services, provided through the Indian Health Service, would allow students and pregnant girls to have a medical home closer to their geographical one. They would be able to see consistent medical professionals instead of seeing a different person every time in a busy clinic situation. Their primary provider would be able to know them and able to guide them to good medical decisions on emergency room use and improving their overall health status. They would have a consequence for health decisions because consistent medical personnel would be monitoring it.

This project will allow children and pregnant girls to have a medical home by providing access for primary care for them at various locations on the reservation. This will address the issues of no transportation to the existing clinic, needing to be in school and education on appropriate use of the emergency room. These services will also reduce visits of costly emergency room visits.

Project Goals and Outcomes

The overall goal of the project is to establish medical homes for children and pregnant girls who currently do not have them and reduce the use of the emergency room for primary medical care. The circumstances of the population and the geography require that non-traditional locations of service delivery be provided.

***Goal 1*:** Establish a primary care Mobile Health Clinic that will provide primary care to 700 children and prenatal care to 200 pregnant women on the Pine Ridge Reservation.

Outcome: Through use of the Mobile Health Clinic emergency room usage at Pine Ridge IHS by children and pregnant girls under age 21 will be reduced by 25% by year three of the project. The cost of non-emergent care in the emergency room will be significantly reduced. Accessible, regular prenatal care for pregnant women will result in a reduction of the infant mortality rate and ensuring that visits to emergency room by pregnant women are for emergent reasons.

Goal 2: Provide non-emergent services at the Red Shirt School by operationalizing the existing school clinic and establishing school based medical homes served by the Mobile Health Clinic.

Outcome: Reduce use of the emergency room by students and community members served by new clinics. Reduce by 15% school absenteeism for medical appointments as per attendance records of 15 schools on the Pine Ridge Reservation

Goal 3: Educate individuals on the appropriate use of existing and new health care resources, and provide wellness education in a culturally competent manner by establishing an evening call-in talk show on the reservation radio station, providing school based classes for first aid, CPR and injury prevention in all 15 reservation schools, providing prenatal health classes at 5 schools, and providing chronic disease specific education, i.e. asthma.

Outcome: Increase appropriate use of the emergency room, prevent injuries, provide prenatal health classes, better control chronic diseases such as asthma in children, and provide culturally competent wellness education.

Estimate of Impact to Beneficiaries

The project area is the Pine Ridge Reservation, Shannon and Jackson Counties. The projected number of individuals who will be directly affected by the project is 4000 people. 900 children and pregnant women will receive health care directly through services provided by the project. They will receive services in a more appropriate setting and in a timelier manner. Additionally, education supported by the project will impact additional people, such as parents, spouses, partners, education faculty and community members.

In addition people with true emergency needs will get attention in the emergency rooms quicker. This is because many people currently using this service will be provided

it elsewhere and staffing could focus on those who are truly in an emergency situation. Pressure on an overworked staff in the emergency room will be reduced.

Costs will be reduced to clients, insurance companies, and Medicaid because clients will be using a more cost appropriate service.

Description of Magnitude of the Impact to Medicaid

The impact upon Medicaid of decreasing emergency room visits through improved primary care and preventive services on the Pine Ridge Indian Reservation is significant, in both financial and health outcomes. Statewide, 13% of all South Dakotans are on Medicaid. 46.6% of and 31.4% in Shannon and Jackson Counties respectively are on Medicaid. From May 2006 to April 2007, 3,812 Medicaid claims for emergency room services were made in Shannon County alone.

Because of grant activities costs will be reduced to Medicaid since clients will be using a more cost appropriate service. Because clients would have medical homes, control of chronic disease would be more efficient, health risks such as smoking, obesity, physical activity would be more closely monitored and health problems would be addressed at an earlier point. Prenatal medical care would be increased and utilized at an earlier point in a woman's pregnancy. The number of premature births would be reduced which would save significant medical costs.

Description of Sustainability of Project

For this project to reach its goals, long-term fiscal sustainability is essential. To sustain the services third party billing and collections are critical. This not only includes the appropriate timely billing but aggressive enrollment of all clients who are Medicaid eligible. The proposal includes an accounting technician and long-term mentoring

assistance from hospital partners. Tribal health and IHS staff will receive ongoing training in third party billing including establishment of eligibility for insurance resources. Staff from the state Medicaid program will also provide training on billing for Medicaid covered services. It is anticipated that all health care services will be sustainable after the project ends through existing funding mechanisms. The project will provide needed time to develop infrastructure to access these existing funding mechanisms.

Evaluation

Evaluation of the effectiveness of the project will have multiple facets. First, an independent evaluator will be selected by representatives of the implementation team through a competitive procurement process. The implementation team will include representatives of IHS, the tribal health committee, tribal schools, Department of Health and the state Medicaid program. A baseline statistical report will be completed including but not limited to pre and post grant use of the emergency room by children and pregnant women, severity of condition by those using the emergency room and school records of student absence rates for medical appointments. Birth outcomes for women receiving prenatal care through the project will also be measured. Data will be analyzed in the aggregate and by reservation district. Additional health outcome measurements will be determined in concert with the evaluator chosen for the grant.

The project evaluation will also include a cost analysis to determine the amount of fiscal savings in emergency room services for children and for pregnant women. Finally, satisfaction of health care users will be measured. An evaluation of emergency room satisfaction at Pine Ridge Hospital was completed in 2007 by the tribal health staff,

which will be used as a baseline. Upon completion of the grant activities, the survey will be repeated to see if there is significant change in satisfaction of those using the emergency room.

Description of Project Readiness

The implementation team will include representatives of IHS, the tribal health committee, tribal schools, Department of Health and the state Medicaid program. All involved systems and agencies are committed to this project, as indicated in the letters of support for the project.

Timeframe	Activity	Milestone
Month 1	Implementation team formed and meet to develop detailed work plan	Detailed grant work plan developed
Month 1	Community meetings in 9 districts to discuss project	Community input provided
Month 1-4	Recruit staff	Staff recruited
Month 1-2	Establish evaluation protocol	Protocol finalized
Month 2	Purchase portable ultrasound	Equipment purchased
Month 3	Purchase mobile unit	Unit purchased
Month 4	Hire staff and train	Staff retained and training completed
Month 4	Begin 3rd party billing training for accounting technician	Training plan outlined and commenced
Month 4-5	Clinics Begin	Clients served
Month 5	Radio Education begins	Community education provided
Month 6	School based first Aid/CPR classes begin	Community education provided
Month 13	Do initial data review and make program modification as necessary	Review completed and necessary changes made
Month 14	Do fiscal review and make fiscal procedure changes as necessary	Review completed and necessary changes made

BUDGET

	Year 1	Year 2	Total
Federal Grant	$900,202	$638,255	$1,538,457
In-Kind	$	$	$
Total	$900,202	$638,255	$1,538,457

Budget **Year 1**

			Federal Grant $
Personnel	*Salary*	*Time*	
Pediatrician	$ 195,799	0.75 FTE	$ 146,849
Nurse Midwife	$ 83,321	0.75 FTE	$ 62,491
Accounting Technician	$ 29,348	0.75 FTE	$ 22,011
Nurse	$ 45,875	0.75 FTE	$ 34,406
Driver/Operator Mobile Unit	$ 38,000	0.75 FTE	$ 28,500
Personnel sub-total			**$ 294,257**
Fringe Benefits			
Calculated @ 31%			$ 91,220
Fringe sub-total			**$ 91,220**
Travel			
Travel			$ 4,000
Travel sub-total			**$ 4,000**
Contractual			
Maintenance for mobile unit			$ 5,000
Grant Evaluation			$ 20,000
Advertising			$ 6,000
Contractual sub-total			**$ 31,000**
Supplies			
Medical/Admin Supplies			$ 7,000
Gas for mobile unit			$ 9,000
Supplies sub-total			**$ 16,000**

Equipment	
Mobile Clinic Vehicle	$ 287,536
Portable Ultrasound	$ 35,000
Medical Equipment	$ 55,000
Equipment Sub-total	**$ 377,536**
Other	
Recruitment Costs	$ 60,000
Other Sub-total	**$ 60,000**
Total Direct Charges	**$ 874,013**
Indirect	
Indirect Costs	$ 26,189
Indirect Sub-total	**$ 26,189**
TOTALS	**$ 900,202**

Year 1 Budget Narrative

Personnel – The budget includes a Pediatrician, Nurse Midwife, Accounting Technician, Nurse and a Driver/Operator for the mobile unit.

Fringe Benefits - Fringe benefits include a standard benefits package, including health insurance, retirement support, unemployment insurance, etc. Fringe benefits are estimated at 31.0% of salaries. **Travel -** $4,000 is budgeted for travel.

Contractual - $5,000 is budgeted for maintenance of the mobile unit. $20,000 is budgeted for grant evaluation. $6,000 is budgeted for advertising. **Supplies -** $7,000 is budgeted for standard medical and office supplies. This includes standard disposable clinic supplies including bandages, syringes, sutures, and a variety of medications. $9,000 is budgeted for gasoline for the mobile unit.

Equipment - $377,536 is budgeted for equipment. $287,536 is budgeted for a mobile clinic vehicle, Life Line's demonstration model. $35,000 is budgeted for a portable

ultrasound. $55,000 is budgeted for medical equipment such as exam tables, lamps, supply carts, etc.

Other - $60,000 is budgeted for costs associated with recruitment for clinical staff.

Budget			**Year 2**
			Federal Grant $
Personnel	*Salary*	*Time*	
Pediatrician	$ 203,631	1.00 FTE	$ 203,631
Nurse Midwife	$ 86,654	1.00 FTE	$ 86,654
Accounting Technician	$ 30,522	1.00 FTE	$ 30,522
Nurse	$ 47,710	1.00 FTE	$ 47,710
Driver/Operator Mobile Unit	$ 39,520	1.00 FTE	$ 39,520
Personnel sub-total			**$ 408,037**
Fringe Benefits			
Calculated @ 31%			$ 126,491
Fringe sub-total			**$ 126,491**
Travel			
Travel			$ 4,000
Travel sub-total			**$ 4,000**
Contractual			
Maintenance for mobile unit			$ 7,000
Grant Evaluation			$ 30,000
Advertising			$ 7,600
Contractual sub-total			**$ 44,600**
Supplies			
Medical/Admin Supplies			$ 7,000
Gas for mobile unit			$ 12,000
Supplies sub-total			**$ 19,000**
Total Direct Charges			**$ 602,128**
Indirect			

Indirect Costs	$ 36,127
Indirect Sub-total	**$ 36,127**
TOTALS	**$ 638,255**

Year 2 Budget Narrative

Personnel -A 4% cost of living adjustment is included for all salaries.

Fringe Benefits - Fringe benefits include a standard benefits package, including health insurance, retirement support, unemployment insurance, etc. Fringe benefits are estimated at 31.0% of salaries.

Travel - $4,000 is budgeted for travel.

Contractual - $7,000 is budgeted for maintenance of the mobile unit and ultrasound. $30,000 is budgeted for grant evaluation. $7,600 is budgeted for advertising.

Supplies - $7,000 is budgeted for standard medical and office supplies. This includes standard disposable clinic supplies including bandages, syringes, sutures, and a variety of medications. $12,000 is budgeted for gasoline for the mobile unit.

Equipment - None

Other - None