

Blue Cross Blue Shield of North Dakota Rural Health Grant Awards

*Year 7 Projects
2009-2010*

St. Andrew's Health Center, Bottineau

This grant will aid in the *purchase and installation of computer radiography (CR)* for the Radiology Department to allow films to be obtained in a digital format. CR technology will significantly improve the availability of Radiologist's reports so that providers can proceed with appropriate patient treatment. This technology will allow this Critical Access Hospital to improve the quality of care to their patients and to improve the cost efficiency of providing that care.

Southwest Healthcare Services, Bowman

This grant will aid in the *purchase and installation of computer radiography (CR)*. The intent for this grant project is to improve the care for their patients and increase operational efficiencies while lowering the financial burden of implementing new and improved technology. By improving access to the images that are taken at their facility and also allowing them to see images that are taken at other facilities that are part of the network of the computed radiography (CR) system and the picture archiving and communication (PACS) system, patient care will improve. They want to increase the efficiency and the effectiveness on how they take images, how they are able to report final results of these images to practitioners, to their patients, and also to tertiary facilities that patients may be transferred to or from. This change should result in an improvement in the amount of time it takes to receive a final report after an exam is done from days to hours. They should also be able to realize this benefit seven days per week.

Altru Health System, Grand Forks

The grant funds will go towards implementing a *Regional PACS Network* between the Altru Health System and two Critical Access Hospitals, Northwood Deaconess, Northwood and Nelson County Health System, McVille. Involvement in the PACS Network concept give both the tertiary and the CAH "value added" components such as: back up with a failsafe option should the internet VPN become dysfunctional; Local systems and connections provide faster transmission with fewer bridges; Security can be established at a variety of levels determined by the local needs and comfort level; Facilities will enjoy local availability of images; Images are immediately delivered to the tertiary's PACS system and could be made available on a work list of physicians as identified in the Clinical Workstation (CW) patient management software, such as the ER physician list at the tertiary; a partnership is formalized which becomes the foundation for a regional patient referral process fostering enhanced efficiencies and timeliness of services for the rural patient; this system is a building block in the Electronic Medical Record; this relationship provides an opportunity to establish a link for future remote consultation capability; customized Provider training on the Amicas system is included and the tertiary's PACS administrator is experienced in equipment, software and the "resistive user" syndrome that challenges new processes and system acceptance; the tertiary's Information Systems personnel provides history and experience in the teleradiology area. Personnel will be available for problem solving and systems set-up with information on future upgrades, as well.

Kenmare Community Hospital, Kenmare

This grant will be used to implement a *telepharmacy project*. Like many other rural healthcare facilities, Kenmare Hospital is challenged with the inability to provide pharmaceutical care to patients due to the shortage of licensed pharmacists available in the state. This vital loss of a health care service has caused great concerns with patient safety and access to care for this community and the rural patients they serve. The intent of the telepharmacy project is to provide an alternative solution to restore and retain pharmacy services that will produce the same quality as the traditional method of pharmacy practice. This will lead to improved access, improved patient safety/quality, improved efficiency, and improved effectiveness. The hospital is requesting \$40,000 to help implement this project.

Nelson County Health System, McVille

This grant will be used to implement a *Computed Radiography (CR) and Picture Archiving and Communication Systems (PACS)*. Planning for the implementation of Computed Radiography (CR) and Picture Archiving and Communication Systems (PACS) began over 3 years ago, with discussions between CAH providers across the state. Several facilities received funding during Year 5 to implement these systems, and this health system has benefited by their experience. They then attended the conference presentation provided during the 2007 Dakota Conference on Rural and Public Health to understand the capabilities and implementation of CR/PACS in a tertiary facility, and the need to collaboratively work with a variety of facilities and providers in order to provide patient satisfaction and quality of care throughout the referral process. A tour of their projects, along with their implementation processes, provided the education and the realities needed to effectively and efficiently plan not only for this project, but to implement other IT projects and collaborations to ensure efficiencies, provide quality, be cost effective and subsequently improve care in our rural areas. Successful implementation of a central server to facilitate the sharing of all information was then started. In January 2008, a meeting was held to discuss the project, and included meetings with the appropriate county health system providers and staff, along with radiologists and our tertiary facilities. Onsite tertiary facility visits were completed, and the process for increasing the collaborative efforts between facilities continued. Contacts provided a list of their vendors, and a comparison of products currently being utilized in other rural facilities is currently in process—utilizing their recommendations, experiences, and financial comparisons. A discussion and demonstration with another CR/PACS tertiary and CAH network in the western part of the state was completed in March 2008. Additional onsite reviews have been completed at both the tertiary facilities, as well as onsite at the county health system. A review of service utilization, implementation costs, and staff efficiencies has been identified. Finally, vendors have been contacted and cost estimates have been obtained.

Northwood Deaconess Health Center, Northwood

This grant will be used to implement a *Computed Radiography (CR) and Picture Archiving and Communication Systems (PACS)*. By implementing CR/PACS, they will be able to provide support and improve quality diagnostic services and efficiencies of care and service; Improve and expand collaboration of rural health services and patient care between a variety of health care providers; increase utilization of existing services and programs; decrease healthcare risks related to patients, personnel, and the environment. Planning for the implementation of Computed Radiography (CR) and Picture Archiving and Communication Systems (PACS) began several years ago, with discussions between CAH providers across the state. Several facilities received funding during Year 5 to implement these systems, and this health system has benefited by their experience. They have had a tertiary and its rural providers present to us how their version of a very similar venture has worked. Both parties were extremely pleased with the

outcomes. Over 10 rural providers are part of this network. They have toured two Critical Access Hospitals in the area to see how their systems work. This provided the education and the realities needed to effectively and efficiently plan not only for this project, but to implement other IT projects and collaborations to ensure efficiencies, provide quality, be cost effective and subsequently improve care in our rural areas. This Critical Access Hospital is currently implementing an electronic health record and will have it in place by the end of 2008. The Critical Access Hospital is currently in a data center arrangement with two other Critical Access Hospitals. The 3 facilities information will be stored on a central server, hosted by a tertiary. This demonstrates some collaborative efforts currently underway. Vendors have been contacted and cost estimates have been obtained.

Presentation Medical Center, Rolla

This grant will aid in the *purchase and installation of computer radiography (CR)* for the Radiology Department to allow films to be obtained in a digital format. CR technology will significantly improve the availability of Radiologist's reports so that providers can proceed with appropriate patient treatment. This technology will allow this Critical Access Hospital to improve the quality of care to their patients and to improve the cost efficiency of providing that care.

Heart of America Medical Center, Rugby

This grant will aid in the *purchase and installation of computer radiography (CR)* for the Radiology Department to allow films to be obtained in a digital format. CR technology will significantly improve the availability of Radiologist's reports so that providers can proceed with appropriate patient treatment. This technology will allow this Critical Access Hospital to improve the quality of care to their patients and to improve the cost efficiency of providing that care.

Mountrail County Health Center, Stanley

This grant will aid in the *purchase and installation of computer radiography (CR)* for the Radiology Department to allow films to be obtained in a digital format. CR technology will significantly improve the availability of Radiologist's reports so that providers can proceed with appropriate patient treatment. This technology will allow this Critical Access Hospital to improve the quality of care to their patients and to improve the cost efficiency of providing that care.

Tioga Medical Center, Tioga

This grant will assist in the implementation of a *computed radiography (CR) system* to replace their current analog x-ray machine that was purchased new in 1980. This machine is still in place at the present time, but they have been advised to look at replacing this machine due to its age and the unavailability of replacement parts.

McKenzie County Health System, Inc., Watford City

This grant will aid in the *purchase and installation of computer radiography (CR)* for the Radiology Department to allow films to be obtained in a digital format. CR technology will significantly improve the availability of Radiologist's reports so that providers can proceed with appropriate patient treatment. This technology will allow this Critical Access Hospital to improve the quality of care to their patients and to improve the cost efficiency of providing that care.

*Year 6 Projects
2007-2009*

Beulah – Coal Country Community Health Center

This project is used to support the initial cost of the digital radiology imaging system. The project will improve quality of imaging, timeliness of reading of imaging, and quality of the initial reads, thus improving the quality of patient care. It is the intent to enhance quality, reduce errors, allow for increased exchange of health information, reduce duplicative and unnecessary testing and services, and complete one step in building an electronic health record system.

Elgin – Jacobson Memorial Hospital Care Center Inc.

This project will purchase a computed radiography (CR) system. Computed radiography will provide the opportunity to work with radiologists from the tertiary hospital in a more efficient manner. When there is an emergency at times they have sent people to a larger facility due to not knowing what is on the x-ray just in case it is a situation they cannot handle. Implementing digital radiology in the facility will allow them to keep the patient locally and get an accurate and timely reading.

Hazen – Sakakawea Medical Center

This project is a collaborative effort between Sakakawea Medical Center, 4 clinics, a Community Health Center, and two tertiaries to create an electronic medical records system that will be used to share information with other health care facilities, providers, and the patients they serve in their rural area. The rural hospital will build on the electronic medical records (EMR) system that they have already implemented by purchasing a Picture Archiving and Communication System (PACS) with the intent of improved patient safety, higher patient satisfaction, reduction in duplication, and be a single source of patient information. With the PACS the hospital will transmit and receive radiology results in minutes.

Hillsboro – Hillsboro Medical Center (HMC)/Hillsboro Medical Center Foundation

This project will develop an Integrated Health Information Technology System (wired and wireless network infrastructure) which will include the local hospital, nursing home, ancillary services and the future assisted living facility. The intent of this project is to have a fully integrated IT system that will result in providing clinicians with accurate and timely patient data, thus improving the care they provide to our patients and residents. A further result will be effectively meeting future federal mandates for Electronic Patient Records.

Kenmare – Kenmare Community Hospital

This project will purchase a digital radiology system for the hospital to access and network the Picture Archiving and Communication System (PAC) system with the Rural Outreach PACS Initiative. Currently, medical radiology images are driven over 50 miles to the tertiary on a daily basis to be read and interpreted. The turn-around time of the final interpretation is averaged between two and four days. The intent is to improve the overall care of patients, increasing operational efficiencies, and lowering the financial burden of delivering quality care.

Year 6 Projects (cont.)

Linton – Linton Hospital

This project will purchase and implement a computed (digital) radiography(CR) system for the hospital and associated clinics. Expected outcomes of this project are; enhanced networking with radiologist services, referral physicians and tertiary hospitals; reduction in the number of repeat x-rays; faster turnaround time for radiologist reading of x-ray and CT; reduction of operating cost associated with purchase, handling and storage of film. Decreased turnaround time for radiologist reading of x-ray and CT will provide more accurate and timely diagnostic and treatment of patients and is expected to reduce unnecessary transfer of patients to a large tertiary for care and service.

Northwood – Northwood Deaconess Health Center

assist Northwood is the lead applicant for a group of seven hospitals which, through this project, will build a centralized data center to be shared between the hospitals. By sharing a server they can better address and support technology issues in a more cost effective manner, for all members. The federal requirement of an electronic health record is not far away. This server will provide the backbone for the network of hospitals and in time, has the potential to support implementation of telemedicine, telepharmacy, and a PACS systems etc.

Turtle Lake – Community Memorial Hospital

This project will assist the hospital, two clinics and one tertiary in purchasing and implementing hardware and software for Computed Radiography (CR). Currently it takes a day or longer to get the x-rays back from the tertiary that they are sent to. The CR will result in less patients having to be sent away to a tertiary or choosing to go to the tertiary immediately if an x-ray is needed. The images will be stored within the tertiary's PACS. The images will also be able to be sent to 2 area clinics for viewing, and eventually to any facility for viewing.

Wishek – Wishek Community Hospital & Clinics

This project will purchase a computed radiography (CR) system which will provide the community and service area with immediate electronic submission of digital x-rays, CAT scans, and ultrasound images to be read and diagnosed by a radiologist in the tertiary. The project will allow greater quality of care as well as efficiency and cost savings by increased health information sharing between facilities. Unnecessary duplication of testing will become nonexistent and patient care will be able to be tracked from the rural to urban setting when needed and without delay.

*Year 5 Projects
2006-2008*

Bowman- Southwest Healthcare Services

This project will implement an Electronic Medical Records (EMR) system to improve the communication between professional healthcare staff and increase patient information for visiting specialists that travel to the facility. The facility goal is to significantly enhance quality of care by eliminating communication errors between physicians and staff and increasing the availability of information to the patient's caregivers.

Garrison- Garrison Memorial Hospital

This project is to purchase a computed radiography or CR system, which will allow images to be transmitted digitally to the radiologist's in Bismarck. Patients will have final radiologist reading within hours, rather than weeks. This will not only minimize the patient's waiting time, but the physicians will have the ability to diagnose and treat the patient closer to home, thereby ensuring patients have access to quality care and offer continuity of care.

Hettinger- West River Health Services

The project will focus on access to, and timely transmission of client health information of home bound individuals through the use of telehealth technology. This organization will purchase home telehealth units and notebook computers to monitor home care clients. The goal is to enhance and expand current telehealth usage to provide cost-effective comprehensive home care services in a frontier region

Langdon- Cavalier County Memorial Hospital

This project is to purchase a Picture Archiving and Communications System (PACS) which will allow this facility to communicate all radiology results to St. Paul Radiology, in St. Paul, Minnesota, and other provider systems. The facility will have radiologist interpretation within hours at most and minutes at best. Patients will have the ability to take a CD ROM or DVD with their own images to a facility of their choosing for additional care or a second opinion.

Park River - First Care Health Center

This project will focus on the purchase and implementation of a computed radiography system or CR, which will allow images to be transmitted digitally offsite via a T-1 line and can be read 24 hours a day, 365 days a year. The individual patient images will remain in the rural facility for access by their local physician. The CR will provide immediate access to information improving the quality of patient care.

Rolla - Presentation Medical Center

This project will include Presentation Medical Center, Rolla and St. Andrew's Health Center in Bottineau who will continue building an electronic medical record (EMR) by implementing order communications, specifically Computerized Physician Order Entry (CPOE) in each facility. The implementation of CPOE is intended to improve quality of care and provide cost effective health care.

*Year 4 Projects
2005-2007*

Dickinson- St. Joseph's Hospital and Health Center

This project will initiate an information and communications technology (ICT) web-based patient maintenance project which targets patients diagnosed with diabetes as a prototype -- with the idea that this web-based approach will be extended to other chronic conditions.

The goal is to create a unique web interface model that will allow rural patients with diabetes to receive ongoing diabetes care. Not only will the patient care be administered via the web between in-person visits, the project will also allow them to begin to develop an electronic medical records system that helps physicians' access patient information from a single electronic, web-based source.

Fargo- Prairieland Home Care

The Prairieland Home Care is a not-for-profit homecare agency. This agency will purchase additional telehealth units which will supplement the existing telehealth program located in Bottineau and will serve Harvey, Rugby, Carrington and Rolla. These units use a simple telephone line to connect the technology which can monitor daily a variety of patient conditions such as diabetes and heart disease. Illnesses can be managed and controlled in the comfort of ones' home using high-tech disease management, without having a nurse drive to the patient's home.

Hettinger - West River Health Services

The project will use funds to further develop electronic health record for the ambulatory and outpatient service areas including rural health clinics in Bowman, New England, Mott, Scranton, Lemmon, Buffalo. The project goal is to improve decision making and quality care for patients in the service area, through the use of EMR which will improve the timely transmission and access to health care information.

Lisbon- Lisbon Area Health Services

This facility will purchase a computed radiography or CR, and a Digital Subscriber Line (DSL) line which will allow images to be transmitted digitally to the radiologist's in Fargo. Patients will have final radiologist readings within hours, rather than a week, sent to their personal physician. The patient's films would also remain in the facility for availability to local physicians. Local physicians will have immediate access to information improving the quality of patient care.

Rolla- Presentation Medical Center

The project will include Presentation Medical Center, Rolla and St. Andrew's Health Center in Bottineau which will work together to research, analyze and select a Laboratory Information System (LIS). These facilities will share equipment and supplies in an effort to maintain access to services and reduce costs. This project proposes to expand quality improvement and the peer review process by sharing procedures and information.

Williston- Mercy Medical Center

Mercy Medical Center is partnering with nine smaller rural communities. They are requesting funding to create a regional Picture Archiving Communication System (PACS) that assists rural communities in maintaining radiological access and services to ensure access to adequate care in their communities that is cost-effective and increases the quality of patient care.