

Quarterly Data Report Requirements

APPENDIX D – Pages 73-75 of Federal Communications Commission FCC 07-198

WC Docket #: 02-60

Northwestern Pennsylvania Telemedicine Initiative

1. Project Contact and Coordination Information

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Organization that is legally and financially responsible for the conduct of activities supported by the award.

HAMOT HEALTH FOUNDATION

Explain how project is being coordinated throughout the state or region.

Representatives from the information systems departments at the primary hospital sites, as well as the satellite locations, have been communicating regularly with the Hamot Medical Center information systems department. From the standpoint of the Zito Media connectivity, the Kane Community Hospital, Kane Medical Park, Johnsonburg Health Center and Sheffield Area Medical Center, Charles Cole Memorial Hospital and Bradford Regional Hospital fiberoptic connections are in place. The Erie site was completed June 1, 2010. It should be noted that Bradford Regional Medical Center recently merged with a New York State-based organization. There was a complete turnover of administration with this merger. We have attempted to communicate with the new administration at the merged entity (Upper Allegheny Health System) regarding their decision as to whether or not the organization will proceed with this project. To date, the only communication back to Northwestern Pennsylvania Telemedicine Initiative has been an email stating that the administrative team has to evaluate this opportunity before they will agree. A letter of intent has been requested but no response has been received.

2. Identify all health care facilities included in the network.

- a. Provide address (including county), zip code, Rural Urban Commuting Area (RUCA) code (including primary and secondary), six-digit census tract, and phone number for each health care facility participating in the network.

Hamot Medical Center
201 State Street
Erie, Pennsylvania 16550
Erie County
Census Tract: 0004.00
RUCA: 1
814-877-6000
Not-for-profit, public and eligible

Bradford Regional Medical Center
116 Interstate Parkway
Bradford, Pennsylvania 16701
McKean County
Census Tract: 4204.00
RUCA: 4
814-368-4143
Not-for-profit, public and eligible

Kane Community Hospital
4372 Route 6
Kane, Pennsylvania 16735
McKean County
Census Tract: 4211.00
RUCA: 7
814-837-8585
Not-for-profit, public and eligible

Johnsonburg Health Center
81 Clarion Rd
Johnsonburg, Pennsylvania 15845
Elk County
Census Tract: 9905.00
RUCA: 7
814-837-4513
Satellite of Kane Community Hospital: Not-for-profit, rural health clinic, eligible

Kane Medical Park - Ridgway
225 South St
Ridgway, Pennsylvania 15853
Elk County
Census Tract: 9904.00
RUCA: 7
814-837-4513
Satellite of Kane Community Hospital: Not-for-profit, rural health clinic, eligible

Sheffield Area Medical Center

511 South Main St
Sheffield, Pennsylvania 16347
Warren County
Census Tract: 9712.00
RUCA: 5
814-837-4513
Satellite of Kane Community Hospital: Not-for-profit, rural health clinic, eligible

Charles Cole Memorial Hospital
1001 East 2nd Street
Coudersport, Pennsylvania 16915
Potter County
Census Tract: 9503.00
RUCA: 10
814-274-9300
Not-for-profit, public and eligible

3. Network Narrative: In the first quarterly report following the completion of the competitive bidding process and the selection of vendors, the selected participant must submit an updated technical description of the communications network that it intends to implement, which takes into account the results its network design studies and negotiations with its vendors. This technical description should provide, where applicable:

a) Brief description of the backbone network of the dedicated health care network, e.g., MPLS network, carrier-provided VPN, a SONET ring:

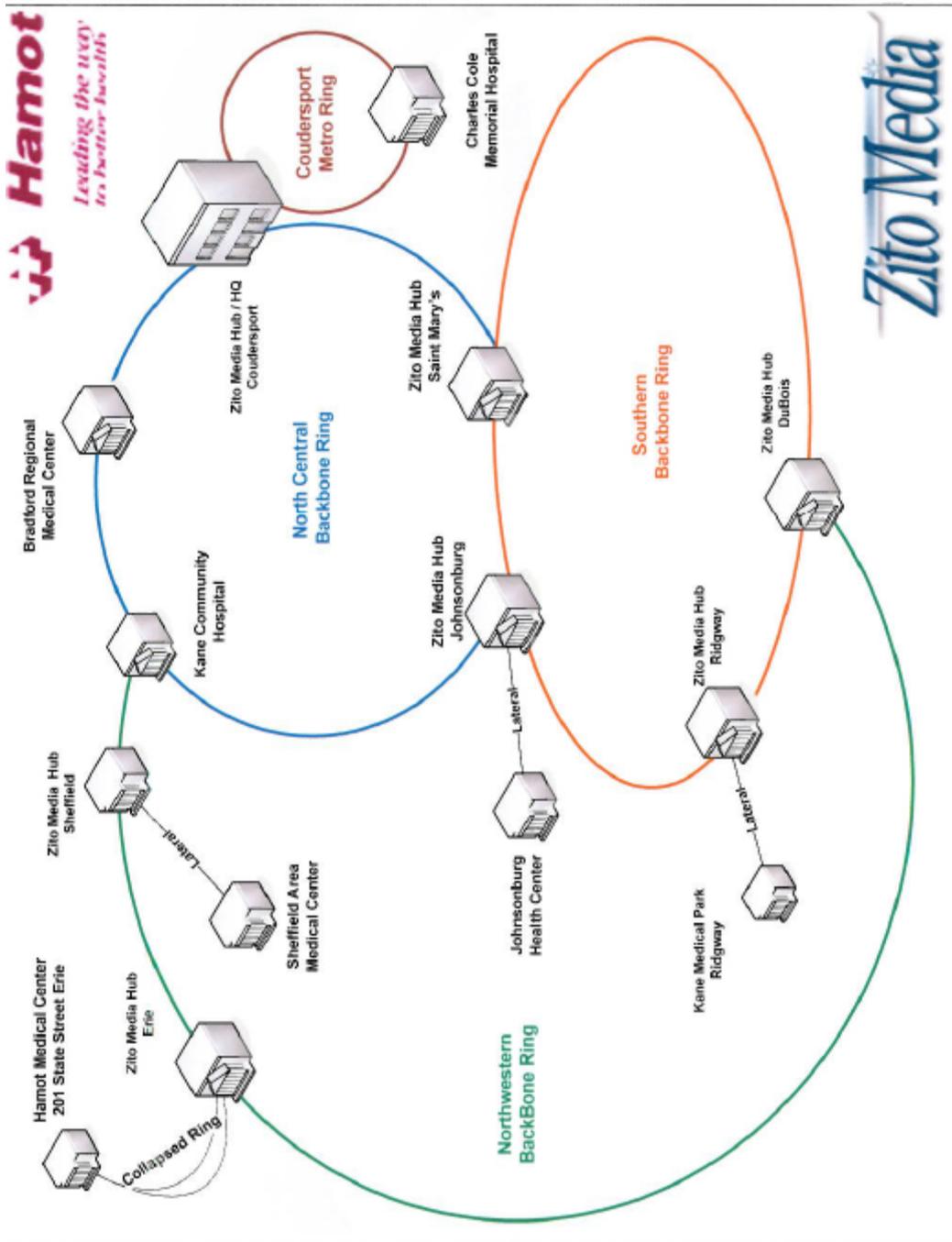
Zito Media Commercial Voice, LLC has provided a complete Optical WAN Data Connection from the telecommunication site at 201 State St, Erie, PA to the designated endpoints. The 201 State St, Erie location will have a 1 GIG connection. The following endpoints are served with a 100 MEG connection back to the 201 State St location: Kane Community Hospital, Bradford Regional Medical Center, Charles Cole Memorial Hospital, Kane Medical Park, Johnsonburg Health Center and Sheffield Health Center. The facility at 201 State St, Erie provides complete optical ring redundancy outside the city of Erie and throughout the distribution area. Redundant lateral is supplied into Kane Community Hospital, Bradford Regional Medical Center and Charles Cole Memorial Hospital. The remaining sites have been provided with a lateral from the local metro ring in the respective community.

b) Explanation of how health care provider sites will connect to (or access) the network, including the access technologies/services and transmission speeds:

Zito Media Commercial Voice, LLC provided an Ethernet handoff at each location to connect to their local premise-based LAN networks.

Each of the three (3) hospital partner locations (Kane Community, Bradford Regional, Charles Cole Memorial) already have Zito Media Commercial Voice optical fiber built into their premises. They will be supplied with diverse optical laterals into their building. The three (3) remaining locations will be supplied with lateral feeds either from the associated local Metro ring or directly out of the local hub (see diagram). The main termination site at 201 State St, Erie has a collapsed ring that will travel underground in protected conduits to the local POP. The 201 State St, Erie location will have a 1 GIG connection. The following endpoints are served with a 100 MEG connection back to the 201 State St location:

Kane Community Hospital, Bradford Regional Medical Center, Charles Cole Memorial Hospital, Kane Medical Park -Ridgway, Johnsonburg Health Center and Sheffield Health Center. All fiber is buried. The Erie fiber was built by Zito Media Commercial Voice after negotiations with a local provider failed. Zito Media Commercial Voice, LLC owns the McKean, Elk and Potter County infrastructure and last mile application. There will be no additional fiber construction involved with this project as it currently stands. This project was not charged with the fiber build.



c) Explanation of how and where the network will connect to a national backbone such as NLR or Internet2:

At this point, there are no plans to connect to a national backbone such as NLR or Internet 2.

- d) Number of miles of fiber construction, and whether the fiber is buried or aerial:
 The Northwestern Pennsylvania Telemedicine Initiative will be leasing existing fiber and that which was built by Zito Media Commercial Voice, LLC. The Northwestern Pennsylvania Telemedicine Initiative had no influence on the areas that were built. All fiber is buried. The Erie fiber was placed by Zito Media Commercial Voice after negotiations with a local provider failed. Zito Media Commercial Voice, LLC owns the McKean, Elk and Potter County infrastructure and last mile application. There will be no additional fiber construction involved with this project and the Northwestern Pennsylvania Telemedicine Initiative was not charged for that which was built.
- e) Special systems or services for network management or maintenance (if applicable) and where such systems reside or are based.

4. List of Connected Health Care Providers: Provide information below for all eligible and non-eligible health care provider sites that, as of the close of the most recent reporting period, are connected to the network and operational.

At present, all sites within this project have fiber connectivity physically in place. The interface equipment has been installed and configured at the Hamot Medical Center. Kane Community Hospital, Sheffield Area Medical Center, Johnsonburg Health Center and Kane Medical Park-Ridgway and Charles Cole Memorial Hospital have been installed and are operational. The connection with Bradford Regional Medical Center is in place but the information service departments is addressing issues with configuration.

5. Identify the following non-recurring and recurring costs, where applicable shown both as budgeted and actually incurred for the applicable quarter and funding year to-date.

- a) Network Design – no expenditures
 b) Network Equipment, including engineering and installation –

5/20/2010: Installation costs	
Base Regional and local WAN 1 GIG backbone	\$4000
Hamot Medical Center endpoint	\$4000
Remote endpoints (6) at \$2000/per	<u>\$12000</u>
	\$20,000
Aggregate Discount from Zito Media	<u>-\$5,000</u>
Total Installation Charges:	\$15,000 as budgeted

Cisco ASA 5520 (2) @ \$4157.50 each	\$8315
SMARTNET for ASA 5520 (2) @\$386.50 each	\$773
COSCP ASA 5505 (7) @ 517.43 each	\$3566.01
SMARTNET ASA 5505 (7) @ 48.29 each	\$338.03
USR Modem (7) @ \$250 each	\$1750
LMS 3.2 300 Device	\$6238
Software support for LIMS 3.2	<u>\$2575</u>

Total for firewalls (ASAs), modems, maintenance and software upgrade: \$23,611.04
 (not covered in the FCC grant)

- c) Infrastructure Deployment/Outside Plant – no expenditures

- i. Engineering
- ii. Construction
- d) Internet2, NLR or Public Internet Connection – no expenditures
- e) Leased Facilities or Tariffed Services (August, September, October 2010) – recurring costs

Base Regional and Local WAN 1 GIG backbone service:	\$6244 per month (\$18,732)
Hamot Medical Center 1 GIG collapsed ring connection:	\$1245.27 per month (\$3735.81)
Bradford Medical Center –Endpoint 100 MEG connection:	\$669 per month (\$2007)
Kane Community Hospital –Endpoint 100 MEG connection:	\$669 per month (\$2007)
Sheffield Medical Center–Endpoint 100 MEG connection:	\$669 per month (\$2007)
Kane Medical Park-Ridgway–Endpoint 100 MEG connection:	\$669 per month (\$2007)
Charles Cole Memorial Hospital–Endpoint 100 MEG connection:	\$669 per month (\$2007)
Johnsonburg Health Center–Endpoint 100 MEG connection:	\$669 per month (\$2007)
- f) Network Management, Maintenance and Operation Costs (not captured elsewhere) – no expenditures
- g) Other Non-Recurring and Recurring Costs.

6. Describe how costs have been apportioned and the sources of the funds to pay them:

Hamot Medical Center is assuming the monthly 15% cost of this connectivity. Kane Community Hospital, Sheffield Medical Center, Johnsonburg Health Center and Kane Medical Park-Ridgway are all affiliates of Hamot Medical Center, effective 11/09.

- a) Explain how costs are identified, allocated among and apportioned to both eligible and ineligible network participants
 - Maintenance costs, repairs and the cost of running cable within each facility has been the responsibility of each respective hospital.
 - Hamot Medical Center is supplying the initial start-up equipment for connectivity.
 - All participants are eligible network participants.
- b) Describe the source of funds from:
 - i. Eligible Pilot Program network participants – The funds will be utilized and built into the operational budget of the organization.
 - ii. Ineligible Pilot Program network participants – no ineligible participants at this point. If one should request participation, they would be responsible for their monthly “port access” fees.
- c) Show contributions from all other sources (eg. Local, state, and federal sources and other grants)
 - i. Identify source of financial support and anticipated revenues that is paying for costs not covered by the fund and by Pilot Program participants. Hamot Medical Center applied for and received a RUS Distance Learning and Telemedicine Grant, a matching grant which will assist in the purchase of telemedicine –related equipment for the facilities but does not apply for connectivity.

ii. Identify the respective amounts and remaining time for such assistance: \$112,400 remaining to be utilized over the next three years. It is only designated for equipment, not connectivity costs.

d) Explain how the selected participant's minimum 15 percent contribution is helping to achieve both the selected participant's identified goals and objectives and the overarching goals of the Pilot Program. By receiving assistance with the ability to engage fiberoptic connectivity, the partner hospitals in the Northwestern Pennsylvania Telemedicine Initiative will be able to enhance their clinical capabilities and educational opportunities. The responsibility for the 15 percent of the cost provokes a greater desire to "make the network work" as everyone has a financial piece to uphold. As for the development of a telemedicine program, the quality of service provided to their respective communities will be improved and the likelihood of recruiting and retaining higher quality physicians for the areas will be improved. The community hospitals are able to stabilize or advance their bottom line to the hospital through revenue generated from these ancillary services.

The prospect of telemedicine connectivity has already initiated discussions not only between Hamot Medical Center and the regional facilities but also among the regional facilities as well to explore synergies of care. More open communications and a shared network approach the overarching goals of the Pilot Program.

7. Identify any technical or non-technical requirements or procedures necessary for ineligible entities to connect to the participant's network.

At this point, we have no ineligible healthcare entities in our plans.

8. Provide on update on the project management plan, detailing:

The project and leadership team:

Steering Committee Members/Leadership:

John Malone
Gary Maras

CEO, Hamot Medical Center
Vice-President – Business Dev.
Director, Hamot Heart Institute
President/CEO, Charles Cole
Memorial Hospital

Ed Pitchford

CEO, Kane Community Hospital

J. Gary Rhodes

Overall Project Management:

Hamot Medical Center/Medicor Associates/Northshore

Valarie Jackson
David Wilcox
Mark Silvaggi
Linda Offner

Project Manager
Director, Information Systems
Information Systems
Northshore Clinical Associates,
Operations Director

Kane Community Hospital and Satellites

Margaret Twidale

Information Systems

Dino Cherry

Information Systems

Bradford Regional Medical Center

Jason Yaworsky

Chief Information Officer, Upper Allegheny Health System (merged entity)

Charles Cole Memorial Hospital

Netra Baker, RN

Director of Staff Development

Mark Close

Information Systems

Also listed in our FCC application was a desire to connect to the State Correctional Institutions to provide telemedicine evaluation. Currently, these facilities utilize ISDN capability to connect with each other and there is no ability to place a T-1 line. Therefore, an ISDN line will have to be obtained to allow for telemedicine consultation.

Project Task/Deliverable	Projected Completion Date	Explanation
Signed vendor contract	6/18/09	done
Zito Media complete fiber ring – McKean/Potter County	Kane, Johnsonburg, Sheffield, Ridgway Medical Park – “go live” 6/09 Bradford Regional Medical Center – 3/10 Charles Cole Memorial Hospital – 3/10	Done Done Done
Assessment of Fiber Assets in Erie	6/09	done
Network Engineering (Zito Media internal)	6/09	done
VPN connectivity/existing MPLS to establish and/or enhance telemedicine	Kane, Bradford Charles Cole – establish VPN Sheffield, Johnsonburg, Ridgway Medical Park	Maintain existing connectivity Done – 6/09 Done
Zito Media to contract with fiber lease provider, Sunesys for Erie ring connection	1/10	Failed. Zito Media decided to build their own “last mile”
Switch hardware for hand-off and optical conversion interface installation	2/10	Done 6/1/10
UPS power back up for respective endpoints	2/10	Done 6/1/10
Internal cabling for respective endpoints – responsibility of each facility	11/09	done
Installation of base regional	11/09	Done 5/20/10

and local facility		
Installation of Hamot (Erie) endpoint – Zito Media	12/09	Done 5/20/10
Installation of Kane Community endpoint – Zito Media	12/09	done
Installation of Sheffield endpoint – Zito Media	2/10	done
Installation of Johnsonburg endpoint – Zito Media	1/10	done
Installation of BRMC endpoint – Zito Media	2/10	Done (on hold)
Installation of Charles Cole endpoint – Zito Media	1/10	done
Installation of Kane Medical Park – Ridgway endpoint – Zito Media	3/10	done
Project Management and VLAN assist to test endpoints	4/22/10	Pending configuration of interface equipment at Bradford; other facilities have been completed
Initial internal IT design meetings were held to determine best options for connectivity, security, DMZ landing areas, and physical locations for equipment	6/1/10	done
Firewall/VPN configurations (Cluster for Hamot end and each remote site)	8/23/10	Completed
Final validation of security for Kane connection (and all other sites as well)	9/14/10	Completed
Installation of switches for Hamot DMZ redesign	7/30	7/30
Ship or deliver equipment to Kane for deployment	7/30/10	done
Manage cutover of existing VPN connection to Zito fiber		9/14/10
Power installation in Telephone switchroom for Zito equipment rack/switch		9/17/10
Completion of fiber path from HHI to Telephone switch room		9/10/10
Go Live – Erie site	5/10	9/14/10
Go Live – Kane Community	5/10	9/17/10

Hospital		
Go Live – Sheffield	6/10	10/4/10
Go Live – Johnsonburg	6/10	10/4/10
Go Live – BRMC	6/10	Pending configuration of interface equipment and permission to proceed from UAHS administration
Go Live – Charles Cole	6/10	10/22/10
Go Live – Kane Medical Park - Ridgway	6/10	10/6/10

9. Provide detail on whether network is or will become self sustaining. Selected participants should provide an explanation of how network is self sustaining.

The Telemedicine cost center at Hamot Medical Center has been recognized as an additional access point for specialty care and distance learning. Since the inception of the telemedicine pilot project in 2006, it has never been a revenue-generating cost center. Each year, monies are budgeted for capital and minor equipment, education, recurring telecommunications costs and equipment maintenance. With rare exception, Hamot Medical Center has absorbed the cost of everything to begin and sustain the telemedicine program. It is accepted within the hospital system that the benefit of having connectivity to provide rural hospital systems with needed specialty services and staff /physician education is a stronger relationship with these institutions. Tertiary referrals (primarily cardiac) generated from consultations that might not have otherwise taken place can provide indirect revenue to the Hamot Medical Center system and provide justification to continue to invest in the program. Procedural revenue generated from referrals from the telemedicine project will help to offset the costs of the proposed telemedicine program. For example, indirect revenue to Hamot Medical Center from cardiac procedures has been projected at an estimated:

- \$107,308 for the first year
- \$139,319 for the second year.

These figures are based upon results obtained from our rural outreach clinics regarding the number of patients seen and the diagnostic procedures and treatments (cardiac catheterization/intervention/cardiac bypass/valve surgery) that are generated as a result of those visits.

Regional hospitals will realize revenue from additional testing from the specialty evaluations and disease management programs. Laboratory tests, x-rays, EKGs, holter monitors, event monitors, EEGs, and CT/MRI scans may be ordered.

The rural/regional hospitals will realize savings from less travel expenses and overnight accommodations associated with CME programs.

At this point, there are no plans to charge participating hospitals for telemedicine-related services. Given the current economic climate, it makes the most sense to share those services – like distance learning – that are already prepared for programs at Hamot Medical Center. Hamot

Medical Center has regularly scheduled Grand Rounds, Nursing Lunch and Learns and Respiratory education. Other programs such as Leadership training have been requested by the administrative teams in the rural hospitals and will also be provided.

Rural Hospital Savings and Responsibilities

Two of the three major hospital systems participating in this project are looking for ways to better manage their costs, make an impact to their bottom line and align themselves with a larger hospital system. What started as a fairly focused telemedicine project has generated conversation and discovery about other services that may be conducted and shared across the telecommunication lines. For example, one such discovery was related to after-hours pharmacy coverage. Two of the hospital systems had contracts for service with other organizations. After discussions began to take place around clinical telemedicine, it was discovered that Hamot Medical Center could provide that same service for nearly \$50,000 less – a figure nearly equivalent to their bottom line. Hamot Medical Center had the technology and the staff but had never considered sharing services until recently. There are other such synergies in care and process that currently being discussed. Each will help streamline patient care and reduce the duplication in services that each facility currently has. None of this would have been considered without the pending implementation of telemedicine connectivity link.

Each partner hospital, of course, will provide space and renovations of that space to accommodate telemedicine activities. They also provide the personnel necessary to conduct the specialty evaluations. Each facility will be responsible for preparing their facilities for the connectivity line – routers, inside wiring, etc.

Grants

In addition to the FCC grant, Hamot Medical Center was able to secure a RUS grant that provides funding for equipment necessary to provide consultations and distance learning. It is a matching grant – totaling \$192,406 – that will be utilized over the next three years to purchase videoconferencing equipment and peripheral devices. Because it is a matching grant, Hamot Medical Center must demonstrate purchases exceeding \$192,406 in the telemedicine cost center. Hamot Medical Center will continue to pursue grants to ease the burden of providing telemedicine services.

Statement of Telecommunication Need and Current Experience

According to preliminary estimates regarding the cost of the telecommunications lines, Hamot Medical Center is prepared to budget for the cost of fiberoptic connectivity. In the original application to the FCC (and what was awarded), Hamot Medical Center had planned to utilize an MPLS network. The price of this connectivity was appreciably less than what fiberoptic connectivity may be. It is also recognized that fiberoptic connectivity carries significantly more bandwidth and, as such, does not limit or interfere with the services that can be provided across these connections. Currently, the RFP has not been submitted for bids regarding the network. Past conversations and experience with fiber connections have allowed Hamot Medical Center representatives to prepare a rough cost estimate regarding this network. Presently, MPLS (T-1) connectivity is used to support the on-going telemedicine initiatives at Kane Community Hospital and Bradford Regional Medical Center. Kane Community Hospital offers outpatient clinical evaluation and Bradford Regional Medical Center uses the technology in its cardiac catheterization laboratory. In the current situation, a total of three evaluations can be performed

simultaneously; if, however, a catheterization is being transmitted, the entire bandwidth is necessary and no other functions can occur. Obviously there is a need to upgrade the system and add more bandwidth to allow more than one application to take place. Both entities will have additional services added to their facility and will further compound the problem. Couple that with the additional sites desired and there is a definite need to expand. With the MPLS network, the cost per month to both of these facilities is approximately \$3100. Kane takes advantage of the Universal Services Funding to reduce the financial responsibility (last year was reimbursed \$855 on a bill of \$1613 per month); Bradford Regional Medical Center does not. To provide additional service and increased connectivity to each of the facilities outlined in the FCC project, it appears that \$12,000/month would be required. With the Universal Services Pilot program grant received, 85% of this cost would be covered – reducing Hamot Medical Center’s responsibility to approximately \$21,600 per year for the length of the grant. After the Pilot project has ended, it is anticipated that the network will participate in the existing RHC support mechanism. Past experience with the existing program usually has resulted in the cost reimbursement of 55-60% of the lines.

Medicaid Transportation Savings

Rural patients will save both time and money by eliminating the need to travel in order to receive healthcare consults. Because telemedicine improves access to a broad range of specialists and provides standardization of care, a substantial amount of medical care and services can be offered in the rural communities. Having the local care and service will also help to reduce the governmental expense related to the Medical Assistance Transportation Program (MATP). MAPT funding is allocated for each county to provide transportation to patients who would not otherwise have it. According to the Governor’s Executive Budget for the Fiscal Year 2008-2009, it is estimated that 9.091 million one-way non-emergent medical trips will occur and \$56.248 million has been set aside to cover the costs of these trips. This estimate reflects an increase of \$1.195 million from the previous year. In counties served by this telemedicine project, there are 11,649 individuals enrolled in Medicaid. Even if only 40% of those individuals would qualify for the MATP, they would account for 78,449 miles that must be reimbursed at \$0.25/mile. There are no public transportation options for the citizens of these counties – no bus programs, no taxis, etc. Reducing the number and distance of these trips and providing care via telemedicine could result in considerable savings to the government.

Rural patients and healthcare insurance may potentially save countless dollars by allowing patients to participate in prevention and wellness clinics that are not currently available to them. These clinics would help them manage chronic ailments such as heart disease rather than waiting until more drastic (and expensive) treatment is required.

Prison Health Contract

An agreement with the State Correctional Institution (Prison Health Systems) has been completed and will allow telemedicine evaluations to begin between specialists at Hamot Medical Center and the various State Correctional Institutions across Pennsylvania. Indirect procedural revenue from these evaluations (cardiac catheterization / intervention, electrophysiological studies, cardiac surgery) will help to off-set the cost of the ISDN connectivity necessary to conduct the evaluations.

SUMMARY

Cost savings will be realized by the rural hospitals and communities:

- Travel for CME will be reduced or entirely eliminated, providing tremendous cost savings for our rural healthcare sites
- Network management and infrastructure will be provided by Hamot Medical Center, ensuring successful connectivity and participation by the end user sites, without additional expense on their part
- Rural patients will save both time and money by eliminating the need to travel in order to receive healthcare consults
- Rural patients will potentially save countless dollars by participating in prevention and wellness clinics, helping them to manage chronic ailments such as heart disease rather than waiting until more drastic (and expensive) treatment is required
- Clinical and back-office functions may be shared among Hamot Medical Center and the rural hospitals
- Local care can continue to be provided locally rather than sending patients out of town
- Partnership with a tertiary care center

Community benefits that may be realized:

- Telemedicine connectivity will allow access to specialists which they do not currently have
- Disease management programs
- Community educational programs

Rural providers will benefit by:

- The availability of continuing medical education (CME)
- Reduced isolation
- Recruitment and retention of rural healthcare workers

The Northwestern Pennsylvania Telemedicine Initiative will strengthen the connection between rural community hospitals and their satellite facilities and Hamot Medical Center. There has been a long-standing relationship for over a decade with each of these facilities and, in the face of the economic crisis, sharing related services and resources makes good business sense. The implementation of telecommunication lines will greatly enhance the ability to share these services and resources. Significant cost reductions for the rural community hospitals will be demonstrated that are very near to their entire bottom line for just one project occurring across these lines. Coupled with savings that may be realized from reduced travel for CME and the revenue generated from specialty clinic testing, the rural community hospitals will find the telemedicine initiative beneficial. Hamot Medical Center will enjoy a more solid relationship with the community hospitals and staff. The investment in cost of the telecommunications lines will be off-set with tertiary care referrals as a result of the telemedicine initiative. Both are strong reasons to continue to sustain the services after the FCC grant is complete.

10. Provide detail on how the supported network has advanced telemedicine benefits:

There are three main goals and objectives of this proposed network:

- To improve access to a broad range of nationally recognized medical specialty services and help provide standardization of care for patients. A significant amount of the medical care and services can be offered in the rural communities, saving patients time and money

- To use telemedicine to encourage physicians, nurse, and allied health professionals to establish practices and services and remain in the rural communities. Telemedicine can provide increased collaboration and support by peers and improve access to quality continuing education opportunities.
- Telemedicine may also alleviate the financial burden on rural community hospitals having to recruit specialists to their facility.
- Promote the cooperation of smaller community hospitals to share services
- Allows for the transmission of diagnostic studies
- Enables sharing of back-office functions, after hours pharmacy coverage, etc for the rural community hospitals

Lessons that we learned from a pilot project with Kane Community Hospital were the basis of the desire to continue to expand telemedicine applications. Kane, Pennsylvania is located 95 east of Erie in the heart of the Allegheny Forest. There are no easily accessible major highways and the geographic climate of the area makes travel difficult nearly 6 months out of the year. In addition, there is no public transportation available for patients to get back and forth to their appointments.

Cardiologists from Hamot Medical Center have been traveling for many years to provide a regional cardiology clinic at Kane. There was a need for additional cardiology time – a need that could not be met by sending a cardiologist any more frequently than was already being done. Telemedicine enabled patients to be seen on a daily or near-daily basis by the cardiologist. After the telemedicine evaluation it was decided whether the patient required more advanced testing or if he/she could stay in their hometown for treatment. Once the outpatient evaluations caught on, physicians at Kane began to utilize the telemedicine unit for certain inpatient consultations. Rather than keep the patient longer than they should or transfer the patient unnecessarily, these physicians were able to confer with the specialist to determine the best possible avenue for care. In terms of distance learning and education, Grand Rounds and nursing Lunch and Learn programs were transmitted via telemedicine on a weekly basis. Physicians from the Kane Community Hospital system were able to participate and gain CME without the need to travel to acquire them.

A fiberoptic network would enable interconnectivity with all the healthcare systems in the Northwestern Telemedicine Initiative. As such, the system can be accessed during a national crisis and provide information simultaneously throughout the network to each of the affiliated hospital systems. The fiberoptic ring provides a redundant, comprehensive and complete optical fiber-based backbone for the regional and local hospitals to interconnect. The fiberoptic network is capable of deploying all of the telemedicine applications as well as eliminating the bandwidth restrictions.

Explain how the supported network has allowed health care providers access to government research institutions, and/or academic, public, and private health care institutions that are repositories of medical expertise and information

Rural health care providers will have access to various specialists and medical libraries of Hamot Medical Center through the telemedicine connectivity. Hamot Medical Center has a College of Anesthesia with students deployed in several rural institutions and is utilized to enable participating in further training without requiring that the students leave their host facility. Grand rounds events and requested trainings are held at Hamot with participants from each of the facilities joining. The live interaction allows participants to take part in the program without having to travel.

...enhanced the health care community's ability to provide a rapid and coordinated response in the event of a national crisis.

The network will enable the health care system to receive current information in the event of a national crisis. Hamot Medical Center has a command center location for the dispatch of information to the emergency crews, firemen and police. Physicians, nursing staff and administration will be able to communicate regarding emergency situations across the telemedicine network. Preparation for epidemic situations has already started between the regional network participants as discussions have started to take place. "Face to face" interactions will only enhance this involvement.

11. Provide detail on how the supported network has complied with HHS health IT initiatives:

Not applicable at this time.

Explain how the supported network has used health IT systems and products that meet interoperability standards recognized by the HHS Secretary The telemedicine program allows the various health IT systems to be utilized throughout the network. Although truly not interoperable, this is a step in the right direction for accessing health information records needed for the treatment of mutual patients.

Explain how the supported network has used health IT products certified by the Certification Commission for Healthcare Information Technology N/A

Explain how the supported network has supported the Nationwide Health Information Network (NHIN) architecture by coordinating activities with organizations performing NHIN trial implementations. N/A

Explain how the supported network has used resources available at HHS's Agency for Healthcare Research and Quality (AHRQ) National Resource Center for Health Information Technology. Several articles regarding emerging lessons from the website have been instrumental in the design of the health care network.

Explain how the selected participant has educated themselves concerning the Pandemic and All Hazards Preparedness Act and coordinated with the HHS Assistant Secretary for Public Response as a resource for telehealth inventory and for the implementation of other preparedness and response initiatives The planning checklist from the website has been reviewed. Articles regarding the above have been evaluated. The implementation team has collaborated with Hamot's command center team to work with the regional hospitals to facilitate this initiative. New specialty resources – emergency medicine and trauma – have started to participate in the telemedicine initiative, thus linking the regional hospital emergency rooms in the event of a pandemic event or public hazard.

Explain how the supported network has used resources available through HHS's Centers for Disease Control and Prevention (CDC) Public Health Information Network (PHIN) to facilitate interoperability with public health and emergency organizations. The Public Health Emergency Exercise Toolkit has been reviewed.

12. Explain how the selected participants coordinated in the use of their health care networks with the Department of Health and Human Services (HHS) and, in particular, with its Centers for Disease Control and Prevention (CDC) in instances of national, regional, or local public health emergencies (e.g., pandemics, bioterrorism). In such instances, where feasible, explain how selected participants provided access to their supported networks to HHS, including CDC, and other public health officials. Physicians, nursing staff and administration will be able to communicate regarding emergency situations across the telemedicine network. Preparation for epidemic situations has already started between the regional network participants as discussions have started to take place. "Face to face" interactions will only enhance this involvement.