University of New Mexico

The Southwest Telehealth Access Grid

An Integrated Interstate Network of Networks Model for Telehealth

Quarterly Data Report for

April 1, 2010 – June 30, 2010

July 30, 2010

Southwest Telehealth Access Grid
RHCPP Quarterly Data Report for Fiscal Year 2009/Q4
April 1, 2010 – June 30, 2010

Table of Contents

		Page
1	Project Contact and Coordination Information	1
2	All Health Care Facilities in the Network	3
3	Network Narrative	4
4	Connected Health Care Providers	5
5	Costs: Recurring and Non-Recurring	6
6	Cost Apportionment and Sources of Funds	7
7	Requirements for Ineligible Entities	7
8	Project Management Plan Updates	7
	8.a Leadership and Management Structure	7
	8.b Project Deliverables and Schedule	9
9	Sustainability	9
10	Telemedicine Benefits	14
11	Compliance with HHS Health IT Initiatives	15
12	Network Coordination for Emergency Preparedness	18

Appendices

Appendix A: SWTAG Sites, Fourth Quarter 2009	A-1
Appendix B: SWTAG Overall Project Timeline, Fourth Quarter 2009	B-1
Appendix C: SWTAG Overall Project Budget, Fourth Quarter 2009	C-1
Appendix D: SWTAG Stakeholder Commitment Letters	D-1

Southwest Telehealth Access Grid
RHCPP Quarterly Data Report for Fiscal Year 2009/Q4
April 1, 2010 – June 30, 2010

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

1. Project Contact and Coordination Information

a. Identify the project leader(s) and respective business affiliations.

- Project Coordinator and Principal Investigator:
  Name: Dale C. Alverson, MD
  Affiliation: University of New Mexico Center for Telehealth and Cybermedicine Research

- Co-Principal Investigator:
  Name: Gilbert R. Gonzales, PhD
  Affiliation: University of New Mexico Office of the CIO

- Associate Project Coordinator:
  Name: Elizabeth (Liz) A. Jenkins, MPA
  Affiliation: University of New Mexico Center for Telehealth and Cybermedicine Research

- SWTAG Participants and Designated Contacts:
  - Albuquerque Area Indian Health Service: Leonard Thomas, MD (Acting Area Director) and Joseph F. Lucero (Director of Information Management Service)
  - Arizona Telemedicine Program: Ronald Weinstein, MD (Director)
  - Carlsbad Mental Health Center: Noel Clark (Chief Executive Officer) and DJ Woodfield (Technology and Facilities Manager)
  - Christus St. Vincent Regional Medical Center: Alex Valdez (Chief Executive Officer)
  - Holy Cross Hospital: Peter Hofstetter (Chief Executive Officer) and Kelley Shull Tredwin (Development Officer)
  - LCF Research: Margaret Gunter, PhD (President and Executive Officer), David Perry (Chief Information Officer), Jeffrey Blair (Director of Health Informatics), and Robert White, MD (Director of Medical Informatics)
  - New Mexico Primary Care Association: Robert Longstreet (Chief Information Officer)
  - Presbyterian Healthcare Services: Paul Briggs (Senior Vice President and Chief Financial Officer) and Marcia Birmingham (Network Communications Manager)
  - San Juan Regional Medical Center: Rick Wallace (President and CEO), Joe Dohle (Chief Information Officer), J. Michael Philips (Chief Strategy Officer), and Dr. Robert Fabrey (Chief Medical Officer)
  - Sangre de Cristo Community Health Partnership: Arturo Gonzales, PhD (Executive Director), Paul Nelson (Chief Financial Officer), and Tony Gallegos (Information Technology Specialist)
  - Tucson Area Indian Health Service: Karen Wade (Chief Information Officer)
  - University of New Mexico: Gil Gonzales, PhD (UNM CIO), Ronald Margolis (UNM Hospital CIO) and Moira Gerety (Deputy CIO, Information Technology Services)

b. Provide a complete address for postal delivery and the telephone, fax, and email address for the responsible administrative official.

- Project Coordinator:
  Name: Dale C. Alverson, MD
  Title: Medical Director, Center for Telehealth and Cybermedicine Research
  Mail Address: MSC11 6090, 1 University of New Mexico, Albuquerque, New Mexico 87131-0001
  Email: dalverson@salud.unm.edu
  Phone: (505) 272-8633
  Fax: (505) 272-0800

- Associate Project Coordinator:
  Name: Elizabeth (Liz) A. Jenkins
  Title: Sr. Program Manager, Center for Telehealth and Cybermedicine Research
  Mail Address: MSC11 6090, 1 University of New Mexico, Albuquerque, New Mexico 87131-0001
  Email: ejenkins@salud.unm.edu
  Phone: (505) 272-8633
  Fax: (505) 272-0800

c. Identify the organization that is legally and financially responsible for the conduct of activities supported by the award.

University of New Mexico through the Project Coordinator, Dale C. Alverson, MD (Medical Director, Center for Telehealth and Cybermedicine Research).

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

The Southwest Telehealth Access Grid (SWTAG) is an integrated interstate network of networks built upon the extensive experience of key participants in rural telemedicine and rural healthcare. A primary goal is to extend and leverage existing and planned statewide networking infrastructure initiatives and investments to create this telehealth access grid of rural healthcare telemedicine systems and integrate the high-speed Internet backbones offered by both Internet2 and National LambdaRail with appropriate security and quality of service.

The SWTAG is comprised of a consortium of twelve (12) stakeholders in New Mexico, Arizona, and two of the southwest IHS area offices; Albuquerque Area and Tucson Area with their affiliated tribes and sites. The Project is being led by the Center for Telehealth and Cybermedicine Research at the University of New Mexico. The Project is also being coordinated through five committees; 1) Governance, 2) Network Engineering, 3) Health Services, 4) Health Information Exchange, and 5) Evaluation, with representatives from the stakeholders participating in the Project.

During the fourth quarter of 2009, project coordination efforts were concentrated on assisting SWTAG stakeholders specify their high-speed broadband needs and their expectations for meeting those needs via the Rural Health Care Pilot Program. The primary focus was to support the RFP development for individual stakeholder infrastructure needs, as opposed to the SWTAG's overall network of networks. The Project's overall Form 465 was approved by USAC in January 2010 and priority continues to be to support for the development of RFPs and Form 465 packets for the SWTAG stakeholders most ready to proceed. The allowed period for bidding closed for two SWTAG RFPs (SWTAG RFP01 and SWTAG RFP03) during the quarter. With the guidance of the University of New Mexico's Purchasing Department proposal review processes

were then initiated by Carlsbad Mental Health Center and Presbyterian Healthcare Services and continue actively.

Interactions continued during this quarter to coordinate the SWTAG Project with several state and regional organizations working on other broadband architectural initiatives and health delivery programs, particularly with the New Mexico Telehealth Alliance. Unfortunately, due to budgetary constraints, the project's web portal was discontinued in August 2009, however project information is available via the UNM Center for Telehealth's website (http://hsc.unm.edu/som/telehealth/swtag.shtml).

In a program of this size and magnitude, the project management requirements, project administration and coordination create major challenges, particularly when no funds are being provided for project management through the FCC RHCPP. While navigating this dynamic environment is a challenge for project coordination, there is still cautious optimism that the RHCPP will provide tangible benefit to the region.

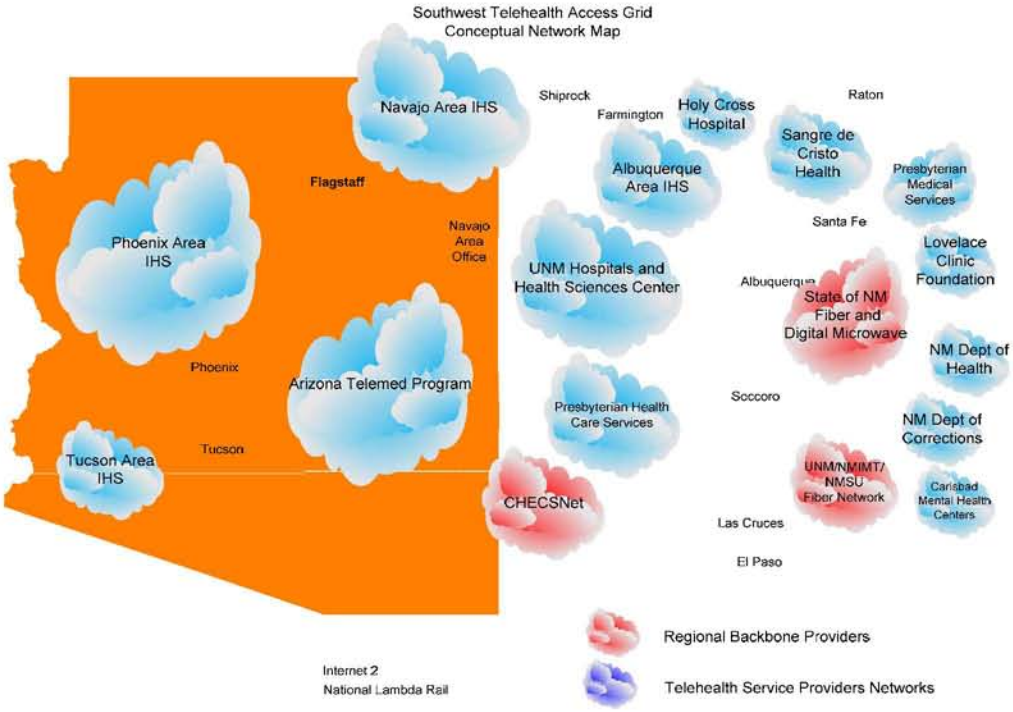
2. Identify all health care facilities included in the network.

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.

b. For each participating institution, indicate whether it is:
- **i. Public or non-public;**
- **ii. Not-for-profit or for-profit;**
- **iii. An eligible health care provider or ineligible health-care provider with an explanation of why the health care facility is eligible under section 254 of the 1996 Act and the Commission's rules or a description of the type of ineligible health care provider entity.**

See Appendix A (attached). This data has been provided by each SWTAG stakeholder with their agreement to provide accurate information compliant with the FCC and USAC requirements. Any questions regarding the content reported here will be referred back to the appropriate stakeholder entity. Note that the sites listed are those that are anticipated to request RHCPP funding support for their connectivity.

Some of the other SWTAG sites are already connected within existing networks and are proposed to be incorporated into the overall 'network of networks' as part of the pending Network Design Studies. These additional sites will be identified within the Network Design Studies RFP, even though they will not be requesting funding for upgrades as part of the RHCPP. As previously reported, the Network Design Studies RFP has been drafted but per USAC rules cannot proceed until LOAs are obtained for each potential SWTAG site to be included in that study. The original intent of the SWTAG's RFP was to obtain a design for connecting the hubs of each individual stakeholder networks as a "network of networks" (as shown below), as opposed to each and every spoke site, since each stakeholder already had their individual internal network design.



Those sites in the network of networks that are not requesting FCC RHCPP funds will not be providing an LOA since no paper work would be submitted on their behalf, they have existing connectivity, are not requesting enhancements or ongoing operational support, do not require FCC RHCPP funding support, and would not be signing service provider contracts under the FCC RHCPP. Although USAC is requiring an LOA from every eligible site or cluster of sites with decision making authority and benefitting from enhanced connectivity, the original intent was to obtain an LOA from the health provider organizations that have general oversight of their networks, and which had prior experience in developing mass purchasing agreements on behalf of their constituents in order to that provide an economy of scale and better price points, as opposed to individual requests for proposals. Obtaining an LOA from each individual site is atypical of current stakeholder arrangements that have involved coordinated group purchasing. This individual LOA requirement has added confusion, further burden and delays to the process of completing the form 465 package and RFP on behalf of the constituents in each stakeholder network and has been contrary to the intent of obtaining the lowest cost or best value for the broadband connectivity through group purchasing and coordination via an oversight organization. It is unfortunate that this element of the project's scope of work remains "on hold."

In addition, we acknowledge that some locations currently receive telehealth services from more than one SWTAG stakeholder. The pending Network Design Studies are intended to help resolve any potential duplication of connectivity.

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;

Although the competitive bidding process for the overall network design of SWTAG has not yet occurred, the intent is that the SWTAG be a hybrid IP-based network of networks that is integrated with both the Internet2 (I2) and National Lambda Rail (NLR) backbones. This hybrid infrastructure will build upon existing and new infrastructure, as well as use combinations of existing and new land-lines, fiber, and wireless network technologies.

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

As a result of the pending competitive bidding process, we anticipate that the health care providers will generally connect into using secure IP point to point or multi-point IP addresses through bridging and the appropriate Internet Service Provider. Connection to I2 and NLR backbones will occur through development of a GigaPOP connector in compliance with the rules, guidelines and standards of the stakeholders. Transmission speeds will generally be at a minimum of 384 kbps depending upon the health service being provided and overall resolution requirements of the health applications. The I2 and NLR backbone will be used to facilitate inter-connectivity across networks, handle higher traffic and larger data files as indicated.

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

As of June 30, 2010 a competitive bidding process has not yet been completed for the overall network design of SWTAG. However, the intent is that the network of networks will generally connect to I2 and NLR through the GigaPOP located in Albuquerque. Because the SWTAG pre-selected both I2 and NLR, the Project is requesting guidance from USAC to move directly to the 466A process in order to establish contracts for connectivity with each of these vendors.

The University of New Mexico proposes to establish and extend national research and health care connectivity at ABQG (i.e. the University's common carrier location for New Mexico) for both I2 and NLR. UNM is currently a Class A sustaining member of NLR. In addition, UNM, in cooperation with other New Mexico institutions, shares a 1G connection to I2 through Front Range GigaPOP in Denver. The University proposes to increase the capacity of I2 connectivity by delivering health-related services in Albuquerque via a 10G network connection. It also proposes to sustain its NLR 10G national network connection in support of health-related services.

d. Number of miles of fiber construction, and whether the fiber is buried or aerial;

While the network design is still to be developed, the intent is that the network of networks will include one thousand (1000) miles of buried fiber.

e. Special systems or services for network management or maintenance (if applicable) and where such systems reside or are based.

This will be determined as a result of the overall network design studies for SWTAG, as well as the selection of the most appropriate service provider. As of June 30, 2010 a competitive bidding process has not yet been completed for the overall network design of SWTAG.

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.

a. Provider name
b. Eligible provider (Yes/No);
c. Type of network connection (e.g., fiber, copper, wireless);

d. How connection is provided (e.g., carrier-provided service; self-constructed; leased facility);
e. Service and/or speed of connection (e.g., DS1, DS3, DSL, OC3, Metro Ethernet (10 Mbps);
f. Gateway to NLR, Internet2, or the Public Internet (Yes/No);
g. Site Equipment (e.g., router, switch, SONET ADM, WDM), including manufacturer name and model number.
h. Provide a logical diagram or map of the network.

None of the SWTAG Health Care Providers have been connected to the network of networks as of June 30, 2010.

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

SWTAG has no recurring or non-recurring costs to report for Network Design for the quarter ending June 30, 2010.

b. Network Equipment, including engineering and installation

SWTAG has no recurring or non-recurring costs to report Network Equipment for the quarter ending June 30, 2010.

c. Infrastructure Deployment/Outside Plant
i. Engineering
ii. Construction

SWTAG has no recurring or non-recurring costs to report Infrastructure Deployment/Outside Plant for the quarter ending June 30, 2010.

d. Internet2, NLR, or Public Internet Connection

SWTAG has no recurring or non-recurring costs to report Internet2, NLR, or Public Internet Connection for the quarter ending June 30, 2010.

e. Leased Facilities or Tariffed Services

SWTAG has no recurring or non-recurring costs to report Leased Facilities or Tariffed Services for the quarter ending June 30, 2010.

f. Network Management, Maintenance, and Operation Costs (not captured elsewhere)

SWTAG has no recurring or non-recurring costs to report for Network Management, Maintenance, and Operation Costs for the quarter ending June 30, 2010.

g. Other Non-Recurring and Recurring Costs

SWTAG has no other recurring or non-recurring costs to report for the quarter ending June 30, 2010.

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

a. Explain how costs are identified, allocated among, and apportioned to both eligible and ineligible network participants.

There are no costs to apportion at this time since SWTAG has no recurring or non-recurring costs to report for the quarter ending June 30, 2010. However, the apportionment of funds among the stakeholders will be reviewed by the SWTAG Governance Committee as outlined in the original project proposal. On shared sections of the network, it is anticipated that network costs will be apportioned by bandwidth and distance, plus complexity such as special security requirements, etc.

b. Describe the source of funds from:
- **i. Eligible Pilot Program network participants**
- **ii. Ineligible Pilot Program network participants**

Since there are no costs to apportion for the quarter ending June 30, 2010, the sources of funds to pay for any such costs have not yet been reported by SWTAG stakeholders.

c. Show contributions from all other sources (e.g., 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.**
- **ii. Identify the respective amounts and remaining time for such assistance.**

There are no costs to apportion for the quarter ending June 30, 2010. Thus the sources of funds, and any conditions related to those potential sources, have not yet been reported by SWTAG stakeholders.

Committee members are participating with no reimbursement from SWTAG. Their time and effort are being contributed by their home organization.

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.

As of June 30, 2010 a competitive bidding process has not yet been completed for SWTAG or any of its stakeholders. Thus there are no costs to apportion for the quarter. As SWTAG RFPs move forward to USAC, the appropriate stakeholders will identify the required 15 percent matching fund contributions that will support the costs, goals, and objectives of the SWTAG.

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

The vast majority of SWTAG stakeholder entities are eligible participants. As the Project evolves, any ineligible sites will be identified and will be required to contribute 100 percent of their costs to be connected into the network of networks.

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

a. The project's current leadership and management structure and any changes to the management structure since the last data report; and

Current SWTAG Project Leadership and Management Structure:

- Project Coordinator and Principal Investigator: Dale C. Alverson, MD (UNM)
- Co-Principal Investigator: Gilbert R. Gonzales, PhD (UNM)
- Associate Project Coordinator: Liz Jenkins, MPA (UNM). In late June 2010 Ms. Jenkins announced her retirement from the University of New Mexico after 26 years in higher education. Her last day will be July 30, 2010.

- Five Committees with stakeholder representation provide the basis for moving the Project forward in a manner consistent with the FCC RHCPP Order to design, model, implement and operate an enhanced broad band network that will support rural telemedicine, health information exchange, and evaluate its effectiveness in meeting health care needs in the region, development of protocols for emergency preparedness and disaster response that can serve as a model for a national network of networks, consistent with the objectives of the Nationwide Health Information Network (NHIN) and the Public Health Information Network (PHIN).

  1) Governance; Co-chaired by Dr. Dale C. Alverson (UNM Center for Telehealth and Cybermedicine Research) and Dr. Gilbert R. Gonzales (UNM CIO)

  2) Network Engineering; Chaired by Gary Bauerschmidt (UNM ITS)

  3) Health Information Exchange; Chaired by Dr. Dale C. Alverson (UNM Center for Telehealth and Cybermedicine Research)

  4) Evaluation; Co-chaired by Dr. Elizabeth Krupinski (Arizona Telemedicine Program) and Denise Wheeler (UNM Center for Telehealth and Cybermedicine Research)

  5) Health Services: Chairperson position is vacant.

SWTAG Stakeholder Changes:

The news that the FCC decided to extend the RHCPP for an additional year was received well by most of the members of the SWTAG. Unfortunately, Navajo Area Indian Health Services decided to end their involvement in this project in mid-April 2010. In addition, and as a result of discussions with USAC, in late April 2010 each of the remaining stakeholders was asked to provide a written statement about their plans to continue in the SWTAG and RHCPP given the overall program extension. Previously, those SWTAG members in inactive status had released their budget allocations so that those funds could be made available for use by other SWTAG members. Therefore, each of the stakeholders was asked to formally reaffirm their planned participation so that project management could determine if any of the inactive members might chose to re-activate their participation and access their original budget allocations. The outcome of this inquiry was that four (4) additional stakeholders decided to withdraw from this project:

- New Mexico Institute of Mining and Technology
- New Mexico State University
- Phoenix Area Indian Health Services
- Presbyterian Medical Services

While these decisions are unfortunate for the development of a regional SWTAG, Dr. Alverson and Ms. Jenkins continue to offer assistance to all remaining SWTAG stakeholders as each reassesses the appropriate ‘fit’ in meeting their current technical needs via the RHCPP in light of the additional time remaining. Appendix C displays the current overall SWTAG budget allocations. Appendix D contains the correspondence from each stakeholder confirming their commitment to SWTAG and the RHCPP.

b. In the first quarterly report, the selected applicant should provide a detailed project plan and schedule. The schedule must provide a list of key project deliverables or tasks, and their anticipated completion dates. Among the deliverables, participants must indicate the dates when each health care provider site is expected to be connected to the network and operational. Subsequent quarterly reports should identify which project deliverables, scheduled for the previous quarter, were met, and which were not met. In the event a project deliverable is not achieved, or the work and deliverables deviate from the work plan, the selected participant must provide an explanation.

SWTAG stakeholder RFP activities continue, but are lagging. The allowed period for bidding closed for two SWTAG RFPs (SWTAG RFP01 and SWTAG RFP03) during the fourth quarter 2009. With the guidance of the University of New Mexico's Purchasing Department proposal review processes were then initiated by Carlsbad Mental Health Center and Presbyterian Healthcare Services and continue actively. Six other RFPs have been started and await completion by the stakeholders so that USAC prereviews can be requested. The SWTAG Project Timeline dates displayed in Appendix B have been updated with estimates based on the most recent communications between project staff and each stakeholder.

The UNM Center for Telehealth staff members continued their extensive support of the SWTAG efforts during the past quarter. The focus was on working individually with each stakeholder group to provide assistance with developing RFPs and addressing any barriers to full participation in this RHCPP opportunity. Ongoing work focused on RFP development and creating various templates and aids to assist meet the USAC requirements. Additional coordination and communications occurred, as well as active planning for specific telehealth applications.

Given the focus on individual stakeholders support, SWTAG's five committees have been on hiatus since the Fourth Quarter of 2008. No committee meetings were held during the quarter ending June 30, 2010. It is anticipated that the SWTAG committees will continue to play an important role as the project implementation progresses.

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

In October 2008 the SWTAG formed an Ad Hoc Work Group on Sustainability. It met through June 2009 to develop plans so that the outcomes from the SWTAG Project can be self sustaining. Given the 'network of networks' goal, there are two levels of sustainability that must be addressed. First a sustainability plan designed for the 'local' level is a requirement for each of our stakeholders and these are actively under review and revision given the new FCC requirements. Second, an over-arching sustainability plan will be necessary to sustain the aggregation of these local systems into the network of networks for our region. The Ad Hoc Work Group's efforts were to develop a coordinated, multi-level approach to sustainability that will assist in providing direction and opportunities for sustainability. A uniform template was developed that represented a suitable sustainability plan ready for customization by the individual stakeholders, as well as used for the network of networks being created as part of this Project. This template was distributed to each stakeholder in May 2009 for their utilization.

There are several general points which can be made about sustainability and which pertain to SWTAG. As has been mentioned before in numerous settings, the ultimate criterion for the sustainability of a telehealth network is the provision of needed services. If the network provides services which are perceived as valuable to the rural communities and the providers and patients within the region, it will be sustainable. Continued adoption and investment in the Grid by the rural communities and the health care provider organizations will be based on perceived and demonstrable value in improved access, more effective distribution and sharing of health care services.

In a related manner, we expect that use of the network will result in measurable improvements in health outcomes. Objective evidence of these improvements will justify the continued investment. Reimbursement by third party payers for health services provided via telemedicine over the Grid will generate additional revenue for the rural users. Sharing the SWTAG among many stakeholders and avoiding silo systems offers economies of scale to assist in maintaining this network of networks.

The individual stakeholders in the SWTAG already have or are developing sustainability plans for their component of the network. As reflected in the New Mexico Health Information Collaborative/Lovelace Clinic Foundation (NMHIC/LCF) Business Plan with scenario options, as well as for the Arizona Telemedicine Program, sustainability will be related to formally developing an identity to maintain and operate the network of networks. Approaches under exploration include coordination through some defined entity (such as LCF, the New Mexico Telehealth Alliance, or other entity), and using a subscriber membership model along with the subsidy provided in the traditional FCC/USAC Telemedicine program. Options here involve using the comparable urban rate or continuation of the 15 percent / 85 percent approach currently in place with FCC RHCPP.

In addition, overall sustainability of the SWTAG will depend upon a high volume of utilization and quality of telemedicine services that meet the defined health care needs of the rural communities, their providers and patients within the region. Continued adoption and investment in the Grid by the rural communities and the health care provider organizations will be based on perceived and demonstrable value in improved access, more effective distribution and sharing of health care services. It is intended that the SWTAG Health Services Committee will update the health services grid with current and pending health service applications from each of the stakeholder groups involved in health care provision. This information will be used in the consolidation of services and to provide a “menu” of potential services for sharing, as well as for grant applications and other potential sources of funding.

Furthermore, objective evidence of improvements in health outcomes will justify the continued investment, as well as reimbursement by third party payers for health services provided via telemedicine over the Grid. Sharing the SWTAG among many stakeholders and avoiding silo systems also offers the economy of scale to assist in maintaining this network of networks. In addition, if the SWTAG proves to offer enhanced reliability, quality of service (QoS), security, surge capacity, and appropriate redundancy that provides means for disaster recovery, local, state, and federal agencies will more likely provide additional resources and funding to maintain the Grid so that the system will be in place to meet the needs for homeland security, emergency preparedness and disaster response.

The SWTAG also offers cost savings to the health care system through improved sharing of resources, effective distribution and access to health services that lead to decreased travel costs for patients, families and providers. Further, this enhanced access can provide improvements in continuity of care that provides prevention of subsequent complications and more expensive health services, particularly for patients with chronic disease. Those values will lead to continued sustainability and integration of telemedicine into the health care system.

Several of the stakeholders have indicated that the capital investment generated by the grant will result in ongoing cost savings sufficient to cover maintenance and replacement for their portions of the system. In addition, individual stakeholders and potential health care provider entities have demonstrated track records for sustainability that are meeting critical health acre needs through telemedicine and should continue to maintain those efforts as noted below.

Albuquerque, and Tucson Areas of the Indian Health Service: Sustaining I2 access beyond the two-year pilot period is a challenge for the area IHS offices. The Tucson area network will be 100 percent self-sustaining and I2 connectivity, along with local circuit access, will continue to

be funded and supported beyond the pilot period. Similar to the existing FCC Rural Health Program, the Pilot Program establishes funding support for broadband I2 access that would otherwise be unaffordable for participating IHS Areas and regional IHS/Tribal facilities. The IHS Southwest Telehealth Consortium and each area office will carefully monitor project development and assess regional improvements to access to health care resources to IHS and Tribal facilities. Ongoing analysis will help determine the potential for continuance of regional I2 access beyond the pilot funding period. Importantly, I2 access for Southwest Tribal and IHS facilities will be standardized from the "edge" of the IHS WAN in Albuquerque and Rockville, MD. Such standardized access will offer benefit to other IHS and Tribal facilities nationally. Based on experience gained with Internet2-based network-to network connections for enhanced telemedicine service delivery, Indian health facilities in the southwest and across the country may elect to develop a cost-sharing model that will permit project continuance beyond the pilot period.

Carlsbad Mental Health Center: It is within the scope of the Strategic Plan of Carlsbad Mental Health Center to continue to grow fee for service (FFS) psychiatric and telehealth services over the next twenty years. Because of our rural area, technology will provide a critical link between those we serve and the professionals we can employ and contract for service delivery. Furthermore, it is important to rural areas that healthcare is integrated and accessible and CMHC will use technology to leverage service delivery and build efficiency and accountability into the structure of behavioral health. As such, the sustainability of this project is supported by the development of this FFS business model and the delivery of behavioral health and integrated healthcare to our rural communities.

New Mexico Primary Care Associates: Sustaining the pilot program past the two-year funding period will be a challenge. The majority of NMPCA's member organizations is currently or has utilized the traditional USAC program. The inherent challenge to future sustainability is that both the pilot and traditional programs are predicated on the idea that high-speed telecom service to rural areas is cost prohibitive. For the purposes of developing our sustainability plan we are assuming that the traditional USAC program, at the least, will continue, and strongly encourage the FCC to consider the continuation of the pilot program's funding structure past the life of the pilot. NMPCA's funding request for this project is not comprised of large one-time costs for equipment or an expensive build out of fiber facilities, but rather mainly for the monthly recurring cost of high-speed telecommunications service. As the project progresses, we expect to more completely develop our sustainability plan.

Presbyterian Healthcare Services: We are working on the requested sustainability plan and our network will be sustained. We are gathering data and will submit this with the RFP now under development.

Sangre de Cristo Community Health Partnership: We are working on the requested sustainability plan. We are gathering data and workload statistics from our partner clinics in an effort to make fiscal predictions towards the amount of possible revenue from client and patient care. These data are vital to the revenue projections that may be available after the FCC funding has been exhausted. We are working with other interested parties like the New Mexico Primary Care Association and the UNM ECHO Program to see if there is any synergy towards collaboration of resources between the networks. These types of collaboration will be essential if the FCC funding is not available in the future.

San Juan Regional Medical Center: We are working on the requested sustainability plan and how their network will be sustained. We are gathering data and will submit this with the RFP under development.

UNM: The current, low speed network is already self-sustaining. We intend to work collaboratively with the other universities along the Rio Grande Corridor backbone and consider the purchase of dark fiber and equipment with one-time, capital funding to eliminate the monthly

fees for some of the existing circuits. The savings will be used to offset the increases in maintenance and long haul (e.g., I2) costs. All of the network backbone and a majority of the connected sites will use this approach. A draft business plan has been developed to recover costs of connectivity. This plan will be completed and implemented based on available capital funding for the network expansion. The new network would only lease circuits where dark fiber was not available. This lower cost approach enables us to continue the self-sustaining model. Ultimately, the ongoing costs of the network are borne by customers using the new services. Our experience has shown that rural areas will readily pay for service that they could not otherwise obtain.

UNM Hospital (UNMH) and Health Science Center (HSC) Clinics: UNM's Hospital and HSC Clinical sites will integrate the improvements in telehealth capacity created in this project into their overall mission of extending health-related services. Using enhanced broadband connectivity and operations supported through the FCC RHCPP SWTAG funding will allow continued or additional participation in telehealth-supported clinical services, education and training of health professionals, as well as community-based participatory health research in New Mexico and Arizona This will also leverage programs funded by a broad base of local and federal sources. These potentially eligible sites are currently supported and the connectivity managed by UNMH and/or in collaboration with HSC as the centralized decision making authorities and would be consistent with the SWTAG intent and scope of work to enhance the telehealth network of networks and extension of healthcare services to remote or rural locations within our state and region.

SWTAG Issues to be Resolved: Several major issues must be resolved before SWTAG can develop a detailed sustainability plan.

- Projecting Telecommunications Costs: We expect that the competitive bidding process for telecommunications services will result in rates that are significantly lower that those currently experienced in the region. Because of the major changes in rates which this will bring about, it is next to impossible to estimate on-going telecom costs for the Grid. When we have better picture of these costs, we will be able to be more concrete about our sustainability plans.

- Organization Structure*:* As we have moved into the process of implementing the Grid, it has become increasingly clear to us that some more formal type of coordinating organization will be necessary to sustain the network. As was mentioned above, several segments are or will become self-sustaining, but the membership will have to collectively address the other components that will require additional support. Discussions continue regarding the shape of the proposed organization and the structure of dues and fees which will be necessary to maintain the Grid. The general approach will be to quantify the cost savings noted above and to set a fee structure which takes these into account.

- Aggregation of ICT Broadband Services: There is mounting evidence that aggregation of broadband services is likely to lead the telecommunication industry's interest in greater investment into community connectivity and realization of Return on Investment (ROI). This in turn can lead to better price points for sustainability. Creating “”silos” for healthcare networks and so called “air tight boxes” can be a barrier to developing sustainable ubiquitous broadband that should support a full spectrum of services. In addition charging for the level of broadband independent of distance or geographic location is a concept that can level the playing field for all stakeholders and end users.

- Predicting the Future: It is a significant challenge to predict the future of ICT, HIT, and Healthcare Delivery Systems beyond five years during a period of major transformation and emerging new technologies. We are in a period of unprecedented change in networking technology and transformation in our country's healthcare delivery system. This is underscored by the HITECH components of ARRA, the recently passed PPACA, CMS and

ONCHIT meaningful use criteria, as well as the Department of Commerce's NTIA BTOP program, and USDA's RUS BIP program that allocated billions of dollars to broadband enhancements in the United States. Predicting how the RHCPP investments will be sustained beyond the initial five years creates a daunting challenge for our overall project and for our individual stakeholders, particularly in this dynamically changing telecommunication and healthcare environment. Ongoing adoption of telemedicine, HIT, EHR, and HIE will likely increase the demand for affordable broadband. Sustainability will depend upon the production of evidence that these HIT systems improve health outcomes and save money. Data that still needs to be accumulated even though there appears to mounting evidence that telemedicine and HIT can accomplish those goals of achieving improved health outcomes at a lower cost. Predicting sustainability beyond five years and an ROI on the RHCPP is a best guess at most. This has created difficulty in having our stakeholders realistically comply with this post hoc requirement, particularly in a pilot program that should allow experimentation and encompass successes and failures in sustainability.

UNM's Center for Telehealth has had considerable experience in developing business plans, in conjunction with the University of New Mexico's Anderson Schools of Management, for many of our Telehealth projects and applications and is contributing our expertise to the work of the SWTAG Ad Hoc Work Group. In the plans previously completed we have projected significant cost savings to health care provider organizations and third-party payers, including New Mexico's Medicaid program. Those business plans have demonstrated cost savings through travel avoidance for both providers and patients. For example NM Medicaid pays for travel and per diem costs of clients who can not receive their covered health care needs within 65 miles of their place of residence. Those costs alone are $10-15 million per year and we have projected a cost saving by slightly more than 5 percent travel avoidance (NM Medicaid Business Plan available upon request). As of August 2007, they have endorsed reimbursement of all covered services that can be accomplished through telehealth (NM Medicaid announcement available upon request). In addition, the Center also prepared a business plan for the New Mexico Corrections Department regarding integration of telehealth within their system and demonstrated a cost savings of more than $1 million after the first year of deployment through improved access to needed health care services, cost savings through avoidance of moving inmates out of their prison location, and avoidance of serious public safety events if an inmate escapes (Corrections Services Business Plan available upon request). This resulted in full deployment of a telehealth network throughout the corrections system in New Mexico with connections to several health care provider organizations including the University of New Mexico's Health Science Center. That telemedicine system has added predicted value and has been sustained for over four years. Similar business plans are being developed for other telehealth applications, such as for tele-dermatology, to predict sustainability and value added to both the specialty consultant and referring physician in a rural community.

In addition, telemedicine is providing improved continuity of care for patients in rural communities through improved access to care locally, particularly for patients with chronic disease or complicated health problems, such as diabetes, chronic congestive heart failure, emphysema, or asthma, resulting in less use of expensive emergency care services or hospitalization, as well as avoidance more expensive complications related to those diseases. Furthermore, the patients can improve their functionality at home and in the work place, and also avoid time of work for their families or friends who provide supportive care or even transportation to urban medical centers. A healthier community results in a healthier workforce and improves overall economic development in those rural communities. In addition, health care facilities, clinics and hospitals, can be economic drivers in their own communities, providing employment and other benefits, such as the local economic impact from money spent locally on goods and services (as well as employees' wages). Nationally, it is estimated that every dollar spent by a hospital supports more than two dollars in other business activities, a so-called "ripple effect".

All of these factors add significant value to the health care provider organizations and the communities that they serve and promote sustainability of an enhanced telehealth network after the FCC RHCPP investment. This premise is the core concept as we move forward with the development of a detailed sustainability plan for our network of networks and the individual stakeholder network components.

Primary approaches for sustainability of the network of networks include working with our states in developing strategies for aggregation of services enhanced through broadband infrastructure that meet a spectrum of community interests beyond telemedicine and healthcare, such as connecting schools, libraries, government agencies and offices, business and other applications that address overall community needs. This strategy aggregates demand, volume of services, and is likely to achieve the best price point from service providers for more affordable and sustainable broadband services, encouraging service providers to invest in enhanced broadband build-out and continued operations after the initial FCC RHCPP investment. Continuation of the traditional FCC/USAC urban rate discount program for telemedicine connectivity will also likely play a continued critical role in sustained operations of broadband particularly in rural remote sites with lower volume of activity. Any aggregation strategy will cost allocate the portion of the broadband and FCC RHCPP 85% support used purely for health related services as required in this pilot program.

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

a. Explain how the supported network has achieved the goals and objectives outlined in selected participant's Pilot Program application;

Although the SWTAG Project has not yet been implemented, the goals and objectives set forth in the original proposal still stand to support and enhance current telemedicine services and add additional services.

The Health Services Committee initiated the development of a comprehensive inventory of current and planned telehealth services being offered over the telemedicine networks of the stakeholders. A survey instrument was developed to identify those services and current volume of activity as a baseline for evaluating the impact of the enhanced SWTAG infrastructure in increasing and sharing those telemedicine activities, as well as adding new needed health services as the SWTAG is implemented. The evaluation component of this Project will measure those changes over the period of the Project.

b. Explain how the supported network has brought the benefits of innovative telehealth and, in particular, telemedicine services to those areas of the country where the need for those benefits is most acute;

Planned health services are being outlined that can be expanded or added to meet defined needs of providers and patients in the region over the enhanced SWTAG network of networks. The Health Services Committee will conduct surveys to determine current and planned health services that will run over the SWTAG to provide telemedicine services.

c. Explain how the supported network has allowed patients access to critically needed medical specialists in a variety of practices without leaving their homes or communities;

Our current stakeholders are providing or receiving telemedicine services over the existing networks. This Project should facilitate expanding the delivery of telemedicine services and would allow patients to have access to medical specialists.

d. 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;

SWTAG Project stakeholders include universities in New Mexico and Arizona and one of the NHIN national demonstration projects.

e. Explain how the supported network has allowed health care professional to monitor critically ill patients at multiple locations around the clock, provide access to advanced applications in continuing education and research, and/or enhanced the health care community's ability to provide a rapid and coordinated response in the event of a national crisis.

The SWTAG project plan includes offering 24/7 telemedicine services and development of protocols for using the SWTAG for emergency preparedness and disaster response. This will allow health care providers the ability to more easily monitor critically ill patients. Furthermore, components of the broadband expansion will incorporate appropriate redundancy that addresses network disaster recovery and redundant pathways for critical health care services when components of the network fail.

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

a. Explain how the supported network has used health IT systems and products that meet interoperability standards recognized by the HHS Secretary;

The SWTAG includes a Health Information Exchange Committee with representatives involved in HIE initiatives in our region to address interoperability standards as recognized by the HHS Secretary.

b. Explain how the supported network has used health IT products certified by the Certification Commission for Healthcare Information Technology;

The SWTAG includes a Health Information Exchange Committee to address these issues regarding use of health IT products certified by the Certification Commission for HIT.

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

The SWTAG Project's Health Information Exchange Committee includes representatives from one of the NHIN trial implementations through the Lovelace Clinic Foundation (LCF) and the associated New Mexico Health Information Collaborative (NMHIC) based in Albuquerque, NM.

LCF/NMHIC is collaborating with SWTAG with respect to health information exchange among the health service provider stakeholders, some of which are already part of the health information exchange projects currently underway, such as the University of New Mexico Health Sciences Center and Holy Cross Hospital in Taos, New Mexico. Furthermore, as part of the NHIN project, a business plan has been developed to address sustainability which is applicable to sustainability planning for the SWTAG (NMHIC copy available upon request).

During 2008, the NMHIC, which is staffed and operated by LCF, had a series of significant accomplishments. LCF/NMHIC implemented a robust network infrastructure, established network interfaces with major health care provider organizations, and successfully demonstrated the exchange of test patient information over the NHIN. These live demonstrations involved nineteen

health information networks, including seven states, Kaiser Permanente, the Veterans Health Administration, the Department of Defense Military Health System, and other major health information networks.

On September 23, 2008, Dr. Robert White, Director of Medical Informatics at LCF used the NMHIC health information exchange network to access a fictitious patient record from a healthcare provider in Albuquerque, New Mexico, and then gathered important additional information about the same patient from the Long Beach Network for Health (LBNH) in California. The audience for this demonstration included Secretary of Health and Human Services Michael Leavitt, the American Health Information Community (AHIC) workgroup, and all those across the country who watched the demonstration as it was broadcast live over the internet. The health care organizations that participated with NMHIC in the September demonstration of the NHIN Trial Implementation included Presbyterian Healthcare Services and TriCore Reference Labs.

On December 15 and 16, 2008, at the NHIN Forum in Washington, D.C., LCF/NMHIC achieved additional national recognition:

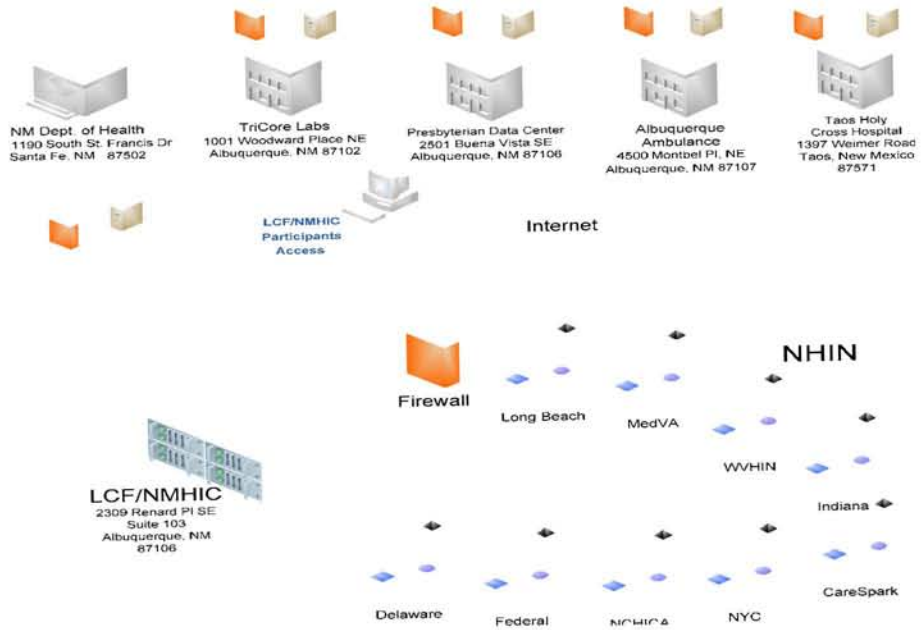
- NMHIC demonstrated transfer of live (but fictitious) emergency responder information from Albuquerque Ambulance to the emergency department at Presbyterian Hospital, and to the New Mexico Department of Health. The presenters in this demonstration included: Dr. Robert White and Dave Perry of LCF/NMHIC, Mike Jambrosic and Dr. Phil Froman of Albuquerque Ambulance, and Dr. Chad Smelser of the New Mexico Department of Health. The participating organizations in the demonstration included Albuquerque Ambulance, Presbyterian Healthcare Services, TriCore Reference Labs, the New Mexico Department of Health, Taos Holy Cross Hospital, the Department of Veterans Affairs, the Long Beach Network for Health, and the Health Information Exchange of New York.
- Also, NMHIC participated in the demonstration of the Wounded Warrior Use Case, along with the Military Health System of the Department of Defense, the Veterans Health Administration, and several other regional health information exchange networks.
- NMHIC's Director of Health Informatics, Jeff Blair, was featured in three sessions: 1) summarizing the "lessons learned" from the NHIN demonstrations, 2) describing the process of developing a community network business plan, and 3) describing how specifications for NHIN data content were developed. Mr. Blair was also chosen to serve on a workgroup that will define the governance and operations of the NHIN.

Notwithstanding these accomplishments, and as noted above in Question 8b(4), despite the intent of FCC Order 07-198 that RHCPPs reflect incorporation of the regional NHIN initiatives ("Explain how the supported network has supported the Nationwide Health Information Network (NHIN) architecture by coordinating activities with organizations performing NHIN trial implementations"), through ongoing communications with FCC and USAC, it has been recently determined that the LCF/NMHIC is considered ineligible for funding as a "data center" and will need to pay its fair share to connect into the SWTAG network of networks. The rationale is that even though LCF/NMHIC does connect to some eligible health care provider sites in the SWTAG, there are other local, regional and national sites to which they also connect as part of their NHIN demonstration project funded through the U.S. Department of Health and Human Services' ONCHIT. Based upon the recently released FCC FAQs it is difficult to demonstrate that LCF/NMHIC is an "eligible network component" as part of an "air-tight box" within our network of networks, since it serves several different eligible health care providers or links to other data centers both regionally and nationally. LCF/NMHIC doesn't appear to meet the criteria outlined in FAQ #5; "If a data center is connected (e.g., transmits data to and receives data from) to an eligible health care provider, the data center may qualify for funding as an eligible network component. For example, the Rural Wisconsin Health Cooperative Consortium is appropriately using Pilot Program funding for an electronic healthcare records (EHRs) data center connected to numerous eligible health care providers. Rural Wisconsin's Pilot Program application, which explains its shared EHR system, may be accessed at:

http://fjallfoss.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6519409890."

Also LCF/NMHIC may be construed as a "stand alone data center" since they are not part of any single health care provider organization but serve several eligible health care provider organizations to facilitate HIE and again may lack eligibility and not qualify to receive FCC funds based on FCC FAQ #5; "Data centers, however, do not qualify as eligible health care providers under section 254(h)(7)(B) of the Communications Act and FCC rules. Examples of eligible health care providers are included in the answer to FAQ # 4 above. Accordingly, a stand-alone data center (not connected to an eligible health care provider) is not eligible for Pilot Program funding." Furthermore LCF/NMHIC links into an Internet "cloud" which creates difficulties in cost allocation for non-SWTAG health care provider sites that, although eligible, are not unique and specific to the SWTAG Pilot Program sites. Again as noted in FCC FAQ #5; "If a product or service contains both eligible and ineligible components, costs should be allocated to the extent that a clear delineation can be made between the eligible and ineligible components. See 2007 RHCPP Selection Order, para 76. Thus, costs associated with data centers that are unique and specific to the Pilot Program projects may be reimbursed with Pilot Program funds, whereas data centers that handle traffic for eligible health care providers as well as traffic for other entities could receive funding for a portion of the use of such data center (i.e., the portion that relates to eligible use.)"

LCF/NMHIC Technical Overview



The specific need for RHCPP support for LCF as part of the SWTAG Project was to support direct connectivity via the GigaPOP to significant data providers in the NMHIC. Currently LCF is using basic Internet via two bonded T1 lines and will need to expand in order to more effectively, efficiently and securely transmit visual diagnostic images (such as digital x-rays), other large data files, and increased data traffic. Early estimates indicate the costs to address these needs meet the eligibility definitions and can be incorporated within the SWTAG

approved total budget of $15,561,181 for the overall Project. LCF has already committed the requisite 15 percent matching funds that would be necessary to participate.

Therefore, this determination of ineligibility is unfortunate since LCF/NMHIC plays a critical, exemplary, and highly regarded role in the NHIN and HIE at the statewide, regional and national levels and they particularly serve a major role as an important network component for HIE in the overall SWTAG network of networks. However, LCF/NMHIC has chosen to stay engaged and involved in the SWTAG despite the conclusion of their ineligibility. They will continue to contribute significantly in facilitating HIE and providing models for overall sustainability.

Most recently, NM Governor Richardson has appointed LCF/NMHIC to coordinate HIE throughout the state. In that role NMHIC is developing formal agreements with many key health provider stakeholders, including those involved in the SWTAG, to facilitate HIE utilizing the telemedicine network of networks. This expanded role may qualify NMHIC as a critical network component supporting our SWTAG stakeholders and eligible for FCC RHCPP funds.

LCF has formally changed its name to LCF Research and has received two large grants from the Office of the National Coordinator (ONC) to implement HIE across the state and as a Health Information Technology Regional Extension Center (HITREC) with additional funding of more than $13 million. The UNM Center for Telehealth also participates as a stakeholder on the Board of LCF Research and NMHIC.

d. 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;

The SWTAG's Health Information Exchange Committee will address these issues regarding use of HHS's AHRQ National Resource Center for HIT.

e. 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; and

The SWTAG has access to the Pandemic and All Hazards Preparedness Act document which is being reviewed and discussed so as to allow the SWTAG to coordinate with the HHS Assistant Secretary for Public Response and be used as a resource for the telehealth inventory for the implementation of preparedness and response initiatives. Furthermore, the SWTAG has been in contact with the state Divisions for Disaster Response, Emergency Preparedness and Homeland Security to coordinate the use of the network of networks and other IP Architectural plans.

f. 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 SWTAG's Health Information Exchange Committee will address these issues regarding use of the developed network as an available resource to HHS's CDC PHIN as well as facilitating interoperability with public health and emergency organizations.

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.

As noted previously, the SWTAG Project has formed a Health Information Exchange Committee to address these issues and develop a system and appropriate protocols for using the SWTAG as part of a national network in case of local public health, regional, national health emergencies such as pandemics, or acts of terrorism. In addition, this project will create a model for the SWTAG network of networks to provide a platform for simulations related to disasters or health emergencies, address disaster recovery and appropriate redundancy in the network, security and QoS. This will also assist in determining how best to design the network of networks and provide iterative improvements as indicated. As part of the network design and modeling efforts, protocols will be developed for emergency and disaster response use of the SWTAG, working with local, state and national PHIN initiatives, as well as the states' departments of Homeland Security and Emergency Management. Furthermore, as noted previously, the Lovelace Clinic Foundation New Mexico Health Information Collaborative (NMHIC) demonstrated transfer of live (but fictitious) emergency responder information from Albuquerque Ambulance to the emergency department at Presbyterian Hospital, and to the New Mexico Department of Health. The participating organizations in the demonstration included Albuquerque Ambulance, Presbyterian Healthcare Services, TriCore Reference Labs, the New Mexico Department of Health, Taos Holy Cross Hospital, the Department of Veterans Affairs, the Long Beach Network for Health, and the Health Information Exchange of New York, demonstrating how the networks can be used in emergency response, situational awareness, and situational management. Also, NMHIC participated in the demonstration of the Wounded Warrior Use Case, along with the Military Health System of the Department of Defense, the Veterans Health Administration, and several other regional health information exchange networks.

We have continued to have ongoing dialogue with CDC regarding the PHIN and the Federal Health Architecture (FHA) regarding NHIN initiatives in creating a network infrastructure model as proposed in our project that can be used for standard telehealth transactions and, using appropriate protocols, provide a platform for emergency response during a national or regional disaster, pandemic influenza, or terrorism. That modeling approach can provide opportunities for testing, simulation of a spectrum of scenarios, iterative improvements in the network of networks, training of users and performance assessment. As a self-provisioned component of the SWTAG and given the requirement for competitive bidding, this proposed modeling initiative creates an additional challenge for implementation through the FCC RHCPP process.

The overall concept for modeling the PHIN and integrating the NHIN is a nationwide network of networks to meet health, emergency and disaster needs as part of a Federal Communications Commission/Nationwide Health Information Network/Public Health Information Network Collaborative. This part of the SWTAG related to the following:

I. Public Health Priorities

In the medical environment the reliable exchange and management of patient and public health information is a critical requirement for modern society. To support this aim, a wide range of *nationwide* and *public health information networks* initiatives are underway. As an example, new priorities were recently established for public health by the Centers for Disease Control and Prevention (CDC); 1) improving support to states and localities, 2) strengthening surveillance and epidemiology, 3) strengthening CDC's global health work, 4) improving policy effectiveness, 5) positioning CDC to address health reform.

The United States is increasingly relying on a network of networks to support our health community with activities like information exchanges, the use of telemedicine, appropriate access to public health information, access to quality health care services, and public and professional sharing of knowledge quickly, effectively and efficiently. This is because Public Health needs systems that allow enhanced surveillance, early detection, situational awareness, consequence management, dissemination of information, and mitigation of events.

The U.S. is creating and has created a plethora of networks to address specific needs from the commodity Internet to focused public health information networks. Network infrastructures have been built out over the years, spanning across local, regional, and national domains. The casual assumption is that these networks will work together to meet a specific situation. Unfortunately, it has been shown in too many disaster settings that networks do not always interoperate and that the characteristics of one network can have a negative effect on another network. Since these networks have become a critical resource in meeting our countries health needs and play a critical role in disaster situations, a means of addressing the ability of the combined networks to meet the needs of the health community is requisite.

II. Fundamental Foundations for Public Health Priorities Through Collaboration

The Nationwide Health Information Network (NHIN) efforts as part of the Federal Health Architecture (FHA) and the NHIN Connect project are providing a platform for health information exchange and public health collaboration initiatives along with several federal, public and private partners. The Public Health Information Network (PHIN) can be integrated into that program while addressing specific public health priorities.

At the same time, the Federal Communications Commission (FCC) has created a Rural Health Care Pilot Program (RHCPP) to design, build, and operate regional and state broadband infrastructure that can support telemedicine, health information exchange, and public health. To further address these issues, the Federal Government has formed a National Broadband Taskforce being led by the FCC. One of the specific goals of this planning is because broadband can facilitate provision of medical care to unserved and underserved populations through remote diagnosis, treatment, monitoring, and consultations with specialists.

Current information communication technologies, networks, and systems and their ongoing development tend to focus on specific needs that can create silos or barriers to effective and efficient information exchange, surveillance, situational awareness, consequence management, and dissemination of knowledge. Existing and emerging new public health issues and threats, chronic disease management, and economic constraints all require significant transformations in the health care system including improved communication, coordination, and collaboration.

Thus there is a need for a reliable, efficient, secure network for health information that supports standard transactions and access to health services through and can also serve to support emergency or disaster response nationwide. Connecting national, regional, and local sites at the grass roots level with adequate broadband will facilitate bi-directional communication, dissemination of knowledge and sharing of information.

III. Creating a Model for the NHIN and PHIN

A model for the NHIN/PHIN Information Communication Technology (ICT) Infrastructure can support the needs for overall health information exchange and provide a platform for simulation of a variety of scenarios and use cases. The model can build upon current enterprise architecture design, be used to evaluate and identify gaps or points of failure in the infrastructure and lead to iterative improvements and creates ability to provide adequate redundancy and disaster recovery within the network. A model provides a platform for simulation, a safe environment to make mistakes, as well as provide opportunities for dynamic iterative improvement and refinement of the network of networks.

A model is a representation that shows the workings of an object, system, or concept. This gives us the ability to understand the underlying dynamics of a complex system. These insights are needed to assess whether the assumptions of a model are correct and complete and will also help us to facilitate the design and operation of the networks.

The model will be used for individual and team training and performance assessment of users and integrate protocols to quickly transition from standard transactions to emergency response. A

model will provide visualization of simulated events and improve understanding of how the network of networks enhances human situational awareness, consequence management and mitigation. Networks continue to evolve, driven by continuing demand, growth, such as with telehealth and the regular emergence of new networking technologies (e.g., wireless, Internet, optical). As a result there is a pressing need to study the overall performance of NHIN/PHIN infrastructures, e.g., in terms of network transfer capabilities, end-user experiences, reliability, scalability, cost, etc. Also there is a need to characterize the response of these NHIN/PHIN network operation under wide-range stressor conditions arising from events such as natural disasters (earthquakes, hurricanes, floods, pandemics) and/or man-made disasters (terrorist attacks, cyber-attacks, etc). Indeed, these scenarios will provide vital design inputs for helping scale these infrastructures and ensure effective operation under a wide range of real-world conditions.

IV. Initial Implementation

A model, created through trans-disciplinary collaboration and appropriate subject matter experts, will be used to design and test the integration of a network of networks and its functionality. The project will be done in phases with scalability of the model from representative states to nationwide, over a 2-3 year period. The model will build upon existing network initiatives and interests. It will encompass the NHIN FHA Connect efforts, the FCC RHCPP and Broadband Strategic Planning, US Department of Commerce and Department of Agriculture broadband programs, Office of the National Coordinator for Health Information Technology, Internet 2, and CDC in order to use this modeling effort as a "force multiplier", as well as a tool for testing and improving the enterprise architecture and cost-effective design.

To accomplish these aims, this effort proposes to conduct a detailed modeling and performance evaluation study of current and emerging NHIN/PHIN infrastructures. The work to create this model will be conducted over a period of 2-3 years by a team of investigators and subject matter experts. The proposed effort will follow a structured set of technical tasks. As part of the proposed methodology a team will conduct detailed modeling and analysis of NHIN/PHIN infrastructures and applications under various operational and stressor scenarios. Part of this collaboration will rely upon the participants to share network information for the modeling team. Specifically, this effort will focus on the application of discrete event simulation techniques and will pursue a well-structured agenda comprising of the following key phases: 1) NHIN/PHIN repository design, 2) NHIN/PHIN user traffic modeling, 3) network stressor modeling, and 4) network simulation and analysis. Based upon the original New Mexico FCC RHCPP Southwest Telehealth Access Grid proposal, it would also include Arizona and the regional IHS Area offices; Albuquerque, Navajo, Phoenix, and Tucson. Based upon available resources, this modeling project could be scaled to include other states working with CDC PHIN or FCC RHCPP, such as Washington, Indiana, New York, North Carolina and several others.

Site Name	Address	City	State	County	ZipCode	RUCA Code	Census Tract	Phone #	Public or NonPublic	NPO or For-Profit	Eligible or Not Eligible HCP	Reason
Acoma-Canoncito-Laguna PHS Indian Hospital	I-40 W., Exit 102 (Acoma Exit), P.O. Box 130	San Fidel	NM	Cibola	87049	5	9745.00	505-552-5300	Public	NPO	Eligible	5. Not-for-profit hospital
Alamo Health Center	30 Mi NW Magdalena, Hwy 169, P.O. Box 907	Magdalena	NM	Cibola	87825	10.6	9782.00	575-854-2604	Public	NPO	Eligible	6. Rural health clinic, including mobile clinics
Albuquerque Healthcare for the Homeless	1217 1st St. NW	Albuquerque	NM	Bernalillo	87102	1.0	0027.00	505-242-4644	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
Albuquerque Healthcare for the Homeless - Albuquerque Opportunity Center	715 Candelaria Rd NE	Albuquerque	NM	Bernalillo	87107	1.0	0034.00	505-344-2323	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
Albuquerque Healthcare for the Homeless - Albuquerque Rescue Mission	525 2nd Street SW	Albuquerque	NM	Bernalillo	87102	1.0	0014.00	505-346-4673	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
Albuquerque Healthcare for the Homeless - Cuidando Los Ninos	1500 Walter St SE	Albuquerque	NM	Bernalillo	87102	1.0	0013.00	505-843-9408	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
Albuquerque Healthcare for the Homeless - Good Shepard Center	218 Iron Ave SW	Albuquerque	NM	Bernalillo	87102	1.0	0014.00	505-243-2527	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
Albuquerque Healthcare for the Homeless - Joy Junction	4500 2nd Street SW	Albuquerque	NM	Bernalillo	87105	1.0	0040.01	505-877-6967	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
Albuquerque Healthcare for the Homeless - Metropolitan Assessment & Treatment Services	5901 Zuni SE	Albuquerque	NM	Bernalillo	87108	1.0	0005.00	505-468-1555	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants

Site Name	Address	City	State	County	ZipCode	RUCA Code	Census Tract	Phone #	Public or NonPublic	NPO or For-Profit	Eligible or Not Eligible HCP	Reason
Albuquerque IHS Dental Clinic	9169 Coors Rd. NW (at SIPI Health Center), P.O. Box 67830, 87114	Albuquerque	NM	Bernalillo	87120	1	0047.29	505-346-2306	Public	NPO	Eligible	6. Rural health clinic, including mobile clinics
Albuquerque PHS Indian Health Center	801 Vassar Dr. NE	Albuquerque	NM	Bernalillo	87106	1	0018.00	505-248-4000	Public	NPO	Eligible	5. Not-for-profit hospital
Ben Archer Health Care - Alamogordo	2150 South U.S. Highway 54	Alamogordo	NM	Otero	88310	4.0	0005.00	575-443-8133	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
Ben Archer Health Care - Columbus	626 Taft Street	Columbus	NM	Luna	88029	5.0	0004.00	575-531-2172	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
Ben Archer Health Care - Deming	125 Chaparral SW	Deming	NM	Luna	88030	5.0	0004.00	575-546-4800	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
Ben Archer Health Care - Dona Ana	1600 Thorpe Rd.	Dona Ana	NM	Dona Ana	88012	1.0	0013.01	575-382-9292	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
Ben Archer Health Care - Hatch	255 Highway 187	Hatch	NM	Dona Ana	87937	10.4	0014.00	575-267-3088	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
Ben Archer Health Care - Radium Springs	12080 L.B. Lindbeck Rd.	Radium Springs	NM	Dona Ana	88054	1.0	0013.01	575-526-6200	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
Ben Archer Health Care - Truth or Consequences	1960 N. Date Street	T or C	NM	Sierra	87901	7.0	9822.00	575-894-7662	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants

Site Name	Address	City	State	County	ZipCode	RUCA Code	Census Tract	Phone #	Public or NonPublic	NPO or For-Profit	Eligible or Not Eligible HCP	Reason
Capitan Clinic	330 Smokey Bear Blvd.	Capitan	NM	Lincoln	88316	10.3	9803.00	575-354-0057	Public	NPO	Eligible	6. Rural health clinic, including mobile clinics
Carlsbad Mental Health Center	914 N. Canal St.	Carlsbad	NM	Eddy	88220	4	0003.00	575-885-4836	Public	NPO	Eligible	4. Community mental health center
Carrizozo Clinic	710 E Avenue	Carrizozo	NM	Lincoln	88301	10.6	9802.00	575-648-2317	Public	NPO	Eligible	6. Rural health clinic, including mobile clinics
Christus St. Vincent Regional Medical Center	455 St. Michael's Dr.	Santa Fe	NM	Santa Fe	87505	1	0010.01	505-983-3361	Public	NPO	Eligible	5. Not-for-profit hospital
Cochiti Health Clinic	255 Cochiti St., Bldg C , P.O. Box 1005	Cochiti Pueblo	NM	Sandoval	87072	2	9401.00	505-465-2587	Public	NPO	Eligible	6. Rural health clinic, including mobile clinics
Colfax General Hospital	615 Prospect Ave.	Springer	NM	Colfax	87747	10	9507.00	575-483-3300	Public	NPO	Eligible	5. Not-for-profit hospital
Corona Clinic	471 Main St.	Corona	NM	Lincoln	88318	10.6	9802.00	575-849-1561	Public	NPO	Eligible	6. Rural health clinic, including mobile clinics
Dan C. Trigg Memorial Hospital	301 E. Miel De Luna	Tucumcari	NM	Quay	88401	7	9586.01	575-461-7000	Public	NPO	Eligible	5. Not-for-profit hospital
Denver Indian Health and Family Services	3749 S King St.	Denver	CO	Arapahoe	80236	1	0055.52	303-781-4050	Public	NPO	Eligible	
El Centro Family Health - Chama Clinic	211 North Pine	Chama	NM	Rio Arriba	87520	10.0	0005.00	575-756-2143	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
El Centro Family Health - Coyote Clinic	State Road 96, #3396	Coyote	NM	Rio Arriba	87012	10.0	0005.00	575-638-5487	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
El Centro Family Health - Embudo Clinic	State Road 68, No. 2243	Embudo	NM	Rio Arriba	87531	4.0	0003.00	575-579-4255	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
El Centro Family Health - Espanola	111 North Railroad	Espanola	NM	Rio Arriba	87532	4.0	9407.00	575-753-7218	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants

Site Name	Address	City	State	County	ZipCode	RUCA Code	Census Tract	Phone #	Public or NonPublic	NPO or For-Profit	Eligible or Not Eligible HCP	Reason
El Centro Family Health - Espanola Clinic	620 Coronado Street	Espanola	NM	Rio Arriba	87532	4.0	9407.00	575-753-7395	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
El Centro Family Health - Espanola Dental	608B La Joya	Espanola	NM	Rio Arriba	87532	4.0	9407.00	575-747-9454	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
El Centro Family Health - Espanola Wellness Clinic	711 Bond Street	Espanola	NM	Rio Arriba	87532	4.0	9407.00	575-753-9503	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
El Centro Family Health - Highland University Student Clinic	Baca & 9th Street	Las Vegas	NM	San Miguel	87701	4.0	9573.00	505-425-3218	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
El Centro Family Health - La Loma Clinic	Hwy 84. Bldg. 6	Anton Chico	NM	Guadalupe	87711	7.0	9616.00	575-427-5036	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
El Centro Family Health - Las Vegas Clinic	1235 8th Street	Las Vegas	NM	San Miguel	87701	4.0	9573.00	505-425-6788	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
El Centro Family Health - Las Vegas Dental Clinic	3031 Hot Springs Blvd	Las Vegas	NM	San Miguel	87701	4.0	9578.00	505-425-6677	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
El Centro Family Health - Penasco Clinic	15136 Highway 75	Penasco	NM	Taos	87553	4.0	9527.00	575-587-2204	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants

Site Name	Address	City	State	County	ZipCode	RUCA Code	Census Tract	Phone #	Public or NonPublic	NPO or For-Profit	Eligible or Not Eligible HCP	Reason
El Centro Family Health - Roy Clinic	858 Wagon Mound Hwy	Roy	NM	Harding	87743	10.0	0001.00	575-485-2583	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
El Centro Family Health - San Miguel Clinic	St. Rd 3, Bldg. 2	Ribera	NM	San Miguel	87560	2.0	9577.00	575-421-1113	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
El Centro Family Health - Springer Clinic	400 Prospect Street	Springer	NM	Colfax	87747	10.0	9507.00	575-483-0282	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
El Centro Family Health - Truchas Clinic	State Road 76, #60	Truchas	NM	Rio Arriba	87578	4.0	0001.00	575-689-2461	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
El Centro Family Health - Wagon Mound Clinic	604 Catron Ave	Wagon Mound	NM	Mora	87752	10.5	9552.00	575-666-2288	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
Espanola General Hospital	1010 Spruce St.	Espanola	NM	Rio Arriba	87532	4	9407.00	505-753-7111	Public	NPO	Eligible	5. Not-for-profit hospital
First Choice Community Healthcare - Alameda	7704-A Second St. NW	Albuquerque	NM	Bernalillo	87107	1.0	0035.01	505-890-1458	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
First Choice Community Healthcare - Alamosa	6900 Gonzales Rd. SW	Albuquerque	NM	Bernalillo	87121	1.0	0047.05	505-831-2534	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants

Site Name	Address	City	State	County	ZipCode	RUCA Code	Census Tract	Phone #	Public or NonPublic	NPO or For-Profit	Eligible or Not Eligible HCP	Reason
First Choice Community Healthcare - Belen	120 South Ninth St.	Belen	NM	Valencia	87002	4.2	9708.00	505-865-4618	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
First Choice Community Healthcare - Edgewood	8 Medical Center Rd.	Edgewood	NM	Santa Fe	87015	2.0	0103.06	505-281-3406	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
First Choice Community Healthcare - Los Lunas	1259 Highway 314	Los Lunas	NM	Valencia	87031	2.0	9704.01	505-865-4618	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
First Choice Community Healthcare - North Valley	1231 Candelaria Rd. NW	Albuquerque	NM	Bernalillo	87107	1.0	0032.02	505-345-3244	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
First Choice Community Healthcare - Rio Grande High School	2300 Arenal Rd. SW	Albuquerque	NM	Bernalillo	87105	1.0	0044.02	505-873-2049	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
First Choice Community Healthcare - South Broadway	1316 Broadway SE	Albuquerque	NM	Bernalillo	87102	1.0	0015.00	505-768-5450	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
First Choice Community Healthcare - South Valley Health Center	2001 North Centro Familiar Blvd. SW	Albuquerque	NM	Bernalillo	87105	1.0	0045.02	505-873-7400	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
First Nations Community Health Source	5608 Zuni Road SE	Albuquerque	NM	Bernalillo	87108	1	0009.03	505-262-2481	Public	NPO	Eligible	

Site Name	Address	City	State	County	ZipCode	RUCA Code	Census Tract	Phone #	Public or NonPublic	NPO or For-Profit	Eligible or Not Eligible HCP	Reason
Hidalgo Medical Services - Animas Valley Clinic	1 Panther Blvd.	Animas	NM	Hidalgo	88020	10.6	9881.00	575-548-2742	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
Hidalgo Medical Services - Bayard Community Health	805 Tom Foy Blvd.	Bayard	NM	Grant	88023	7.2	9846.00	575-537-5068	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
Hidalgo Medical Services - Cliff/Gila Community Health Center	411 State Highway 211	Cliff	NM	Grant	88028	10.2	9842.00	575-535-4384	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
Hidalgo Medical Services - Cobre Health Clinic	1107 Tom Foy Blvd.	Bayard	NM	Grant	88023	7.2	9846.00	575-537-5069	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
Hidalgo Medical Services - Copper Medical Center	3185 North Leslie Rd.	Silver City	NM	Grant	88061	4.0	9843.00	575-388-3393	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
Hidalgo Medical Services - Lordsburg	530 DeMoss St	Lordsburg	NM	Hidalgo	88045	7.0	9882.00	575-542-8384	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
Hidalgo Medical Services - Med Square Clinic	114 W. 11th St.	Silver City	NM	Grant	88061	4.0	9844.00	575-388-1511	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
Hidalgo Medical Services - Mimbres Valley Clinic	2743B Highway 35 N	Mimbres	NM	Grant	88049	5.0	9841.00	575-536-3990	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants

Site Name	Address	City	State	County	ZipCode	RUCA Code	Census Tract	Phone #	Public or NonPublic	NPO or For-Profit	Eligible or Not Eligible HCP	Reason
Hidalgo Medical Services - Silver City Mental Health Clinic	301 W. College Ave.	Silver City	NM	Grant	88061	4.0	9844.00	575-313-8222	Public	NPO	Eligible	4. Community mental health center
Hidalgo Medical Services - Silver High School Wellness Center	3200 Silver St.	Silver City	NM	Grant	88061	4.0	9843.00	575-534-1015	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
Holy Cross Hospital	1397 Weimer Road	Taos	NM	Taos	87571	4	9527.00	575-758-8883	Public	NPO	Eligible	5. Not-for-profit hospital
Isleta Health Clinic	Tribal Rd. #61, Bldg 3, P.O. Box 580	Isleta	NM	Bernalillo	87022	1	9402.00	505-869-3200	Public	NPO	Eligible	6. Rural health clinic, including mobile clinics
Jemez PHS Health Center	110 Sheepspring, P.O. Box 256	Jemez Pueblo	NM	Sandoval	87024	2	0101.02	575-834-7413	Public	NPO	Eligible	6. Rural health clinic, including mobile clinics
Jicarilla Service Unit	12000 Stone Lake Road, P.O. Box 187	Dulce	NM	Rio Arriba	87528	10	9409.00	575-759-3291	Public	NPO	Eligible	6. Rural health clinic, including mobile clinics
La Casa Family Health - Clovis Clinic	1521 West 13th Street	Clovis	NM	Curry	88101	4.0	0002.02	575-769-0888	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
La Casa Family Health - Portales Clinic	1515 West Fir	Portales	NM	Roosevelt	88130	4.0	0002.00	575-356-6695	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
La Casa Family Health - Roswell Clinic	1511 Grand Street	Roswell	NM	Chaves	88201	4.0	0003.00	575-623-3255	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
La Casa Family Health - Roswell Pediatric Clinic	200 W. Wilshire Blvd, Suite A	Roswell	NM	Chaves	88201	4.0	0010.00	575-623-3255	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants

Site Name	Address	City	State	County	ZipCode	RUCA Code	Census Tract	Phone #	Public or NonPublic	NPO or For-Profit	Eligible or Not Eligible HCP	Reason
La Clinica de Familia, Inc. - Anthony Clinic	855 Anthony Dr.	Anthony	NM	Dona Ana	88021	1.0	0018.03	575-882-5706	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
La Clinica de Familia, Inc. - Chaparral Clinic	510 E. Lisa Dr.	Chaparral	NM	Otero	88081	2.0	0009.00	575-824-0820	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
La Clinica de Familia, Inc. - East Mesa Clinic	8600 Bataan Memorial E	Las Cruces	NM	Dona Ana	88011	1.0	0012.01	575-373-9202	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
La Clinica de Familia, Inc. - Las Cruces	1100 South Main Street	Las Cruces	NM	Dona Ana	88005	1.0	0006.00	575-526-1100	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
La Clinica de Familia, Inc. - Las Cruces Medical Center	1160 Mall Dr., Suite B	Las Cruces	NM	Dona Ana	88001	1.0	0012.02	575-521-7181	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
La Clinica de Familia, Inc. - San Miguel Clinic	18424 South Highway 28	San Miguel	NM	Dona Ana	88058	2.1	0016.00	575-233-3830	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
La Clinica de Familia, Inc. - Santa Teresa	100 Strauss	Santa Teresa	NM	Dona Ana	88008	1.0	0017.01	575-874-9338	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
La Clinica de Familia, Inc. - Sunland Park Clinic	2625 McNutt Rd.	Sunland Park	NM	Dona Ana	88063	1.0	0017.04	575-589-0887	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants

Site Name	Address	City	State	County	ZipCode	RUCA Code	Census Tract	Phone #	Public or NonPublic	NPO or For-Profit	Eligible or Not Eligible HCP	Reason
La Clinica Del Pueblo de Rio Arriba Health Center	Hwy. US 84, CR324, House 14	Tierra Amarilla	NM	Rio Arriba	87575	10.0	0005.00	575-588-7252	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
La Familia Medical Center - Alto Street	1035 Alto Street	Santa Fe	NM	Santa Fe	87501	1.0	0008.00	505-982-4599	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
La Familia Medical Center - Healthcare for the Homeless	818 Camino Sierra Vista	Santa Fe	NM	Santa Fe	87505	1.0	0007.00	505-988-1742	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
La Familia Medical Center - Southside Center	2145 Caja del Oro Grant Road	Santa Fe	NM	Santa Fe	87501	1.0	0012.02	505-438-3195	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
Las Clinicas Del Norte - Abiquiu Clinic	Hwy. 84 #185	Abiquiu	NM	Rio Arriba	87510	10.5	0004.00	575-685-4479	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
Las Clinicas Del Norte - El Rito	St. Rd 571, Bldg. 28	El Rito	NM	Rio Arriba	87530	10.5	0004.00	575-581-4728	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
Las Clinicas Del Norte - Ojo Caliente Clinic	Hwy. 285 # 35282	Ojo Caliente	NM	Taos	87549	5.0	9523.00	575-583-2191	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
LCDF - Anthony	855 N Main	Anthony	NM	Dona Ana	88021	1	0018.03	575-882-5706	Public	NPO	Eligible	
LCDF Admin - Las Cruces	1100 South Main	Las Cruces	NM	Dona Ana	88005	1	0006.00	575-526-1105	Public	NPO	Eligible	
LCDF Chaparral	510 Lisa	Chaparral	NM	Dona Ana	88081	2	0018.04	575-824-0820	Public	NPO	Eligible	
LCDF East Mesa - Las Cruces	8600 Bataan Memorial East	Las Cruces	NM	Dona Ana	88011	1	0012.01	575-373-9202	Public	NPO	Eligible	
Lincoln County Medical Center	211 Sudderth	Ruidoso	NM	Lincoln	88345	7	9808.00	575-257-8200	Public	NPO	Eligible	5. Not-for-profit hospital

Site Name	Address	City	State	County	ZipCode	RUCA Code	Census Tract	Phone #	Public or NonPublic	NPO or For-Profit	Eligible or Not Eligible HCP	Reason
Marvin Watts Center/Treasure House	302 N. Main	Carlsbad	NM	Eddy	88220	4	0001.00	575-885-0986	Public	NPO	Eligible	4. Community mental health center
Mescalero PHS Indian Hospital	318 Abalone Loop (#1 Abalone Loop), P.O. Box 210	Mescalero	NM	Otero	88340	10.6	0008.00	575-464-4441	Public	NPO	Eligible	5. Not-for-profit hospital
Milestones Wellness Center	1700 W. Main, Suite A2	Artesia	NM	Eddy	88210	4	0010.00	575-746-8890	Public	NPO	Eligible	4. Community mental health center
Mora Valley Community Health Services - Mora Valley Medical Center	Highway 518- Mile Marker 26	Mora	NM	Mora	87732	10.5	9552.00	575-387-2201	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
New Mexico Health Choice Network	4206 Louisiana Blvd NE	Albuquerque	NM	Bernalillo	87109	1.0	0037.07	505-880-8882	Public	NPO	Not Eligible	11. Other (ineligible) entity
New Mexico Health Choice Network	9064 NW 13 Terrace	Miami	FL	Dade	33172	1.0	0090.10	305-599-1015	Non-Public	NPO	Not Eligible	11. Other (ineligible) entity
NM Technet - ABQ	5921 Jefferson NE	Albuquerque	NM	Bernalillo	87109	1	0037.34	505-247-1345	Public	NPO	Eligible	
Pasqua Yaqui Contract Health Service	300 West Congress Street	Tucson	AZ	Pima	85701	1	0001.00	520-295-2568	Public	NPO	Eligible	
Pasqua Yaqui Health Center	7490 S. Camino de Oeste	Tucson	AZ	Pima	85746	1	0051.00	520-883-5020	Public	NPO	Eligible	6. Rural health clinic, including mobile clinics
Pecos Valley Medical Center	521 Hwy. 50	Pecos	NM	San Miguel	87552	2.0	9576.00	575-757-6366	Public	NPO	Eligible	2. Community health center or health center providing health care to migrants
Pecos Valley Medical Center	PO Box 710	Pecos	NM	San Miguel	87552	2	9576.00	505-753-7218	Public	NPO	Eligible	
Pine Hill Indian Health Center (Ramah)	BIA Rte. 125, P.O. Box 310, 87357	Pine Hill	NM	Cibola	87014	6	9458.00	505-775-3271	Public	NPO	Eligible	6. Rural health clinic, including mobile clinics
Plains Regional Medical Center	2100 N. Thomas	Clovis	NM	Curry	88101	4	0002.01	575-769-2141	Public	NPO	Eligible	5. Not-for-profit hospital
Public Health - Raton	226 E 4th. Ave	Raton	NM	Colfax	87740	7	9505.00	575-445-3601	Public	NPO	Eligible	
Public Health - Taos	1499 Weimer Road	Taos	NM	Taos	87571	4	9527.00	575-758-2073	Public	NPO	Eligible	
San Felipe Health Clinic	18 Cougar Rd. Mailing: P.O. Box 4344 87001	San Felipe	NM	Sandoval	87004	10.2	0103.02	505-867-2739	Public	NPO	Eligible	6. Rural health clinic, including mobile clinics
San Juan Regional Bloomfield Clinic	100 N. Church St.	Bloomfield	NM	San Juan	87413	2	0007.04	505-632-1807	Public	NPO	Eligible	6. Rural health clinic, including mobile clinics
San Juan Regional Medical Center	801 W. Maple	Farmington	NM	San Juan	87401	1	0004.02	505-609-2000	Public	NPO	Eligible	5. Not-for-profit hospital

Site Name	Address	City	State	County	ZipCode	RUCA Code	Census Tract	Phone #	Public or NonPublic	NPO or For-Profit	Eligible or Not Eligible HCP	Reason
San Juan Regional Outpatient Diagnostic Center	2300 E. 30th St., Building C	Farmington	NM	San Juan	87401	1	0002.02	505-609-6160	Public	NPO	Eligible	
San Juan Regional Urgent Care Center	4820 E. Main	Farmington	NM	San Juan	87401	1	0002.02	505-609-6495	Public	NPO	Eligible	
San Simon Indian Health Center	Tucson-Ajo Highway 86 & BIA Route 21, PO Box 8150 Route 8 HC01	Sells	AZ	Pima	85634	10.6	9407.00	520-362-7000	Public	NPO	Eligible	6. Rural health clinic, including mobile clinics
San Xavier Indian Health Center	7900 S. J. Stock Rd.	Tucson	AZ	Pima	85749	1	9409.00	520-741-2550	Public	NPO	Eligible	6. Rural health clinic, including mobile clinics
Sandia PHS Health Center	203 Sandia Day School Rd, Hwy. 313, P.O. Box 6008	Bernalillo	NM	Sandoval	87004	2	9404.00	505-867-5600	Public	NPO	Eligible	6. Rural health clinic, including mobile clinics
Sangre de Cristo Health Partnership	1441 S. St. Francis Dr.	Santa Fe	NM	Santa Fe	87505	1	0010.01	505-983-8011	Public	NPO	Eligible	
Santa Ana PHS Health Clinic	02 C Dove Rd., P.O. Box 37	Bernalillo	NM	Sandoval	87004	2	0105.02	505-867-2497	Public	NPO	Eligible	6. Rural health clinic, including mobile clinics
Santa Clara Health Center	State Rd. 30 Los Alamos Hwy., RR5, Box 446	Espanola	NM	Los Alamos	87532-9614	4	9408.00	505-753-9421	Public	NPO	Eligible	6. Rural health clinic, including mobile clinics
Santa Fe PHS Indian Hospital	1700 Cerrillos Rd.	Santa Fe	NM	Santa Fe	87501	1	0010.02	505-988-9821	Public	NPO	Eligible	5. Not-for-profit hospital
Santa Rosa Indian Health Center	BIA Highway 15 & 34, Star Route, Box 71	Sells	AZ	Pima	85634	10.4	9406.00	520-361-2261	Public	NPO	Eligible	6. Rural health clinic, including mobile clinics
Santo Domingo Health Center	1/4 Mi. into Village Turn Left, P.O. Box 340	Santo Domingo	NM	Sandoval	87052	2	9402.00	505-465-2996	Public	NPO	Eligible	6. Rural health clinic, including mobile clinics
Sells Indian Hospital	SW of State Highway 86, BIA Highway 19 on Topawa Rd., PO Box 548	Sells	AZ	Pima	85634	10.4	9408.00	520-383-7200	Public	NPO	Eligible	5. Not-for-profit hospital
Socorro General Hospital	1202 Highway 60 West	Socorro	NM	Socorro	87801	7	9783.01	575-835-1140	Public	NPO	Eligible	5. Not-for-profit hospital
Southern Colorado Ute Service Unit	123 Weeminuche (Hwy 172), P.O. Box 899	Ignacio	CO	La Plata	81137	10.5	9403.00	970-563-4581	Public	NPO	Eligible	6. Rural health clinic, including mobile clinics
Taos/Picuris PHS Service Unit	1090 Goat Springs Road, P.O. Box 1956	Taos	NM	Taos	87571	4	9524.00	575-758-4224	Public	NPO	Eligible	6. Rural health clinic, including mobile clinics
To'hajillee Health Center	P.O. Box 3528	Canoncito	NM	Cibola	87026	2	9401.00	505-352-8980	Public	NPO	Eligible	
Tucson Indian Center	97 East Congress Street	Tucson	AZ	Pima	85701	1	0001.00	520-884-7131	Public	NPO	Eligible	
UNM Hospital	2211 Lomas Blvd. NE	Albuquerque	NM	Bernalillo	87106	1	0018.00	505-272-2111	Public	NPO	Eligible	5. Not-for-profit hospital
UNM HSC Assertive Community Treatment (ACT)	622 Manzano NE	Albuquerque	NM	Bernalillo	87110	1	0004.02	505-925-4044	Public	NPO	Eligible	10. Urban health clinic

Site Name	Address	City	State	County	ZipCode	RUCA Code	Census Tract	Phone #	Public or NonPublic	NPO or For-Profit	Eligible or Not Eligible HCP	Reason
UNM HSC Cancer Research & Treatment Center	1201 Camino de Salud NE	Albuquerque	NM	Bernalillo	87106	1	0012.00	505-272-4946	Public	NPO	Eligible	1. Post-secondary educational institution offering health care instruction, teaching hospital, or medical school
UNM HSC Cancer Research & Treatment Center	715 Dr. Martin Luther King Jr. Ave. NE, Suite 102	Albuquerque	NM	Bernalillo	87102	1	0020.00	505-272-4946	Public	NPO	Eligible	1. Post-secondary educational institution offering health care instruction, teaching hospital, or medical school
UNM HSC Center for Development and Disability	2300 Menaul NE	Albuquerque	NM	Bernalillo	87107	1	0034.00	505-272-3000	Public	NPO	Eligible	1. Post-secondary educational institution offering health care instruction, teaching hospital, or medical school
UNM HSC Center for Disaster Medicine	2704 Yale SE	Albuquerque	NM	Bernalillo	87106	1	0012.00	505-272-6240	Public	NPO	Eligible	1. Post-secondary educational institution offering health care instruction, teaching hospital, or medical school
UNM HSC Center for Rural and Behavioral Health	2301 Yale SE Suite F1	Albuquerque	NM	Bernalillo	87106	1	0012.00	505-272-6238	Public	NPO	Eligible	1. Post-secondary educational institution offering health care instruction, teaching hospital, or medical school

Site Name	Address	City	State	County	ZipCode	RUCA Code	Census Tract	Phone #	Public or NonPublic	NPO or For-Profit	Eligible or Not Eligible HCP	Reason
UNM HSC Continum of Care	2350 Alamo Ave SE	Albuquerque	NM	Bernalillo	87106	1	0012.00	505-272-2345	Public	NPO	Eligible	1. Post-secondary educational institution offering health care instruction, teaching hospital, or medical school
UNM HSC Dental Clinic	4208 Louisiana NE	Albuquerque	NM	Bernalillo	87109	1	0037.07	505-272-4513	Public	NPO	Eligible	1. Post-secondary educational institution offering health care instruction, teaching hospital, or medical school
UNM HSC Health Sciences & Services Bldg.	2500 Marble NE	Albuquerque	NM	Bernalillo	87106	1	0018.00	505-272-5849	Public	NPO	Not Eligible	11. Other (ineligible) entity
UNM HSC House of Prevention Epidemiology Clinic (HOPE)	1816 Sigma Chi Rd. NE	Albuquerque	NM	Bernalillo	87106	1	0018.00	505-277-1572	Public	NPO	Eligible	1. Post-secondary educational institution offering health care instruction, teaching hospital, or medical school
UNM HSC Truman Street Health Services	625 Truman NE	Albuquerque	NM	Bernalillo	87110	1	0004.02	505-2272-1312	Public	NPO	Eligible	10. Urban health clinic
UNM HSC Zuni Health Initiative Clinic	33 Pincion St.	Zuni Pueblo	NM	McKinley	87327	5	9403.00	505-782-2578	Public	NPO	Eligible	1. Post-secondary educational institution offering health care instruction, teaching hospital, or medical school
UNM Novitski Hall Switch Room	900 Yale NE	Albuquerque	NM	Bernalillo	87106	1	0018.88	505-272-4513	Public	NPO	Not Eligible	11. Other (ineligible) entity
UNMH Alcohol and Substance Abuse Programs (ASAP)	2450 Alamo SE	Albuquerque	NM	Bernalillo	87106	1	0012.00	505-925-2400	Public	NPO	Eligible	10. Urban health clinic

Site Name	Address	City	State	County	ZipCode	RUCA Code	Census Tract	Phone #	Public or NonPublic	NPO or For-Profit	Eligible or Not Eligible HCP	Reason
UNMH Center for Reproductive Health	1701 Moon NE	Albuquerque	NM	Bernalillo	87112	1	0001.23	505-925-4455	Public	NPO	Eligible	10. Urban health clinic
UNMH Children's Psychiatric Center	1001 Yale Blvd. NE	Albuquerque	NM	Bernalillo	87106	1	0018.00	505-272-2890	Public	NPO	Eligible	10. Urban health clinic
UNMH Digestive Disease Center for Excellence	1001 Dr. Martin Luther King Jr. Ave. NE	Albuquerque	NM	Bernalillo	87106	1	0019.00		Public	NPO	Eligible	10. Urban health clinic
UNMH Family Health - Westside Clinic	4808 McMahon NW	Albuquerque	NM	Bernalillo	87114	1	0047.18	505-272-1754	Public	NPO	Eligible	10. Urban health clinic
UNMH Lifeguard Air Emergency Services	2505 Clark Carr Loop SE	Albuquerque	NM	Bernalillo	87106	1	0012.00	505-272-2464	Public	NPO	Eligible	1. Post-secondary educational institution offering health care instruction, teaching hospital, or medical school
UNMH Maternal & Family Planning Clinic - NW Valley	1231 Candelaria Rd. NW	Albuquerque	NM	Bernalillo	87107	1	0032.02	505-272-2158	Public	NPO	Eligible	10. Urban health clinic
UNMH Maternal & Family Planning Clinic - South Broadway	1500 Walter SE	Albuquerque	NM	Bernalillo	87102	1	0013.00	505-272-2156	Public	NPO	Eligible	10. Urban health clinic
UNMH Maternal & Family Planning Clinic - West Mesa	6900 Gonzales Rd. SW	Albuquerque	NM	Bernalillo	87121	1	0047.05	505-272-2154	Public	NPO	Eligible	10. Urban health clinic
UNMH Operations for Patients & Employees (HOPE)	933 Bradbury SE	Albuquerque	NM	Bernalillo	87102	1	0012.00	505-272-6700	Public	NPO	Not Eligible	11. Other (ineligible) entity
UNMH Outpatient Surgery & Imaging Service (OSIS)	1213 University Blvd NE	Albuquerque	NM	Bernalillo	87102	1	0003.00	505-925-7680	Public	NPO	Eligible	10. Urban health clinic
UNMH Physical Therapy Rehabilitation Services	1025 Medical Arts Dr. NE	Albuquerque	NM	Bernalillo	87102	1	0019.00	505-272-9020	Public	NPO	Eligible	10. Urban health clinic
UNMH Psychiatric Center	2600 Marble NE	Albuquerque	NM	Bernalillo	87106	1	0018.00	505-272-2800	Public	NPO	Eligible	10. Urban health clinic
UNMH Psychosocial Rehabilitation Program	2001-D El Centro Familiar Blvd SW	Albuquerque	NM	Bernalillo	87105	1	0045.02	505-272-5786	Public	NPO	Eligible	10. Urban health clinic
UNMH Sleep Disorders Center	1101 Medical Arts Ave. NE, Building 2	Albuquerque	NM	Bernalillo	87102	1	0019.00	505-272-6110	Public	NPO	Eligible	10. Urban health clinic
UNMH Womens Faculty & Midwife Clinic	801 Encino Pl. NE, Suite E-1	Albuquerque	NM	Bernalillo	87102	1	0019.00	505-925-4940	Public	NPO	Eligible	10. Urban health clinic
Ute Mountain Ute PHS Indian Health Center	232 Rustling Willow, Complex D, PO Box 49	Towaoc	CO	Montezuma	81334	10.3	9410.00	970-565-4441	Public	NPO	Eligible	6. Rural health clinic, including mobile clinics
Ysleta del Sur Community Health Center	9314 Juanchido Lane	El Paso	TX	El Paso	79907	1	0040.02	915-858-1076	Public	NPO	Eligible	

Site Name	Address	City	State	County	ZipCode	RUCA Code	Census Tract	Phone #	Public or NonPublic	NPO or For-Profit	Eligible or Not Eligible HCP	Reason
Zia Health Clinic	155 B Capitol Square Dr., (Zia Pueblo, Hwy 44)	San Ysidro	NM	Sandoval	87053	2	0101.01	505-867-5258	Public	NPO	Eligible	6. Rural health clinic, including mobile clinics
Zuni PHS Indian Hospital	Route 301 North 'B' Street, P.O. Box 467	Zuni	NM	McKinley	87327	5	9402.00	505-782-4431	Public	NPO	Eligible	5. Not-for-profit hospital

Appendix B - SWTAG Overall Project Timeline, Fourth Quarter 2009

ID	Task Name	Start	Finish	2008	2009	Jan 10	Feb 10	Mar 10	Apr 10	May 10	Jun 10	Jul 10	Aug 10	Sep 10	Oct 10	Nov 10	Dec 10	Jan 11	Feb 11	Mar 11	Apr 11	May 11	Jun 11
1	SWTAG Stakeholder RFP Development & Form 465 Preparation	1/23/2008	9/10/2010																				
2	AAIHS Router Upgrades	5/1/2010	12/31/2010																				
3	AAIHS AAO Interface with I2/NLR	5/1/2010	12/31/2010																				
4	CMHC New Connections	1/21/2010	9/30/2010																				
5	NMPCA New Hardware/Upgrades	5/1/2010	12/31/2010																				
6	NMPCA New Connections/Upgrades	5/1/2010	12/31/2010																				
7	PHS Redundant WAN	3/11/2010	12/31/2010																				
8	SJRMC New/Upgraded Connections	5/1/2010	12/31/2010																				
9	TAIHS New Hardware/Upgrades	5/1/2010	12/31/2010																				
10	TAIHS New Connections/Upgrades	5/1/2010	12/31/2010																				
11	TAIHS Interface with I2/NLR	5/1/2010	12/31/2010																				
12	UNMH & HSC New & Upgraded Connections	7/1/2010	4/30/2011																				
13	Network Design Studies RFP Development & Form 465	1/23/2008	1/10/2010																				
14	Competitive Bid Process	3/1/2011	4/30/2011																				
15	Network Design Studies	5/1/2011	6/30/2011																				
16	Network Modeling Layers 1, 2, 3	5/1/2011	6/30/2011																				
17	Layer Simulations	6/1/2011	6/30/2011																				
18	Disaster/Emergency Simulations	6/1/2011	6/30/2011																				
19	Initial Network Design Finalized	6/30/2011	6/30/2011																				♦
20	Final Recommendations from Model Team	6/1/2011	6/30/2011																				

June 2010 (Q4, FY2009)

Appendix C - FCC Rural Healthcare Pilot Program - SWTAG Budget

	Original				Adjusted			
Stakeholder Name	**Budget**	**Match**	**Total**	**% Match**	**Budget**	**Match**	**Total**	**% Match**
UNM:								
CfTH UNMH HSC sites	$443,500	$0	$443,500	**0%**	$2,077,221	$366,568	$2,443,789	**15%**
ECE	$581,435	$0	$581,435	**0%**	$0	$0	$0	
ITS / 3 Universities: UNM	$4,750,000	$1,866,667	$6,616,667	**28%**	$3,527,500	$622,500	$4,150,000	**15%**
3 Universities: NMT	$1,000,000	$466,667	$1,466,667	**32%**	$0	$0	$0	**0%**
3 Universities: NMSU	$2,500,000	$466,667	$2,966,667	**16%**	$0	$0	$0	**0%**
Arizona Telemedicine Program	$878,866	$291,355	$1,170,221	**25%**	$0	$0	$0	**0%**
Carlsbad Mental Health	$0	$0	$0	**0%**	$58,951	$10,403	$69,354	**15%**
Christus St. Vincent's RMC	$0	$0	$0	**0%**	$0	$0	$0	**0%**
Holy Cross Hospital	$105,000	$15,750	$120,750	**13%**	$105,000	$15,750	$120,750	**13%**
Lovelace Clinic Foundation	$0	$0	$0	**0%**	$0	$0	$0	**0%**
NM Primary Care Assn	$0	$0	$0	**0%**	$5,547,749	$979,015	$6,526,764	**15%**
Presbyterian Hospitals	$0	$0	$0	**0%**	$3,302,420	$1,533,780	$4,836,200	**32%**
Presbyterian Medical Services	$1,805,000	$361,400	$2,166,400	**17%**	$0	$0	$0	**0%**
Sangre de Cristo Community Health Partnership	$450,510	$36,153	$486,663	**7%**	$450,510	$36,453	$486,963	**7%**
San Juan Regional Medical	$0	$0	$0	**0%**	$0	$0	$0	**0%**
Indian Health Service								
Albuquerque Area	$169,830	$29,970	$199,800	**15%**	$169,830	$29,970	$199,800	**15%**
Navajo Area	$2,230,000	$410,000	$2,640,000	**16%**	$0	$0	$0	**0%**
Southwest Consortium, Phoenix Area	$325,040	$29,580	$354,620	**8%**	$0	$0	$0	**0%**
Tucson Area	$322,000	$48,300	$370,300	**13%**	$322,000	$48,300	$370,300	**13%**
SWTAG Total	$15,561,181	$4,022,508	$19,583,689	**21%**	$15,561,181	$3,642,739	$19,203,920	**19%**

Notes:
UNM ECE withdrew
NMT inactive/reduced to zero
NMSU withdrew
ATP reduced to zero
LCF ineligible per USAC
PMS withdrew
NAIHS withdrew
PAIHS inactive/reduced to zero

UNM HEALTH SCIENCES CENTER

Center for Telehealth and Cybermedicine Research

Appendix D: SWTAG Stakeholder Commitment Letters

April 22, 2010

Stakeholder
Stakeholder
Street Address
City, State, Zipcode

Reference: Rural Health Care Pilot Program, FCC Docket No. 02-60

Dear Stakeholder:

As you are aware, on February 18, 2010 we received the welcome news that the Federal Communications Commission (FCC) extended the Rural Health Care Pilot Program (RHCPP) nationally for an additional year. As a formal stakeholder in the RHCPP, the Southwest Telehealth Access Grid (SWTAG), this extension presents an additional opportunity to implement your proposed plans to extend and leverage existing and planned networking infrastructure initiatives and investments for your health care facilities. This extra time is a benefit both for the active and inactive members of the SWTAG, since it is an opportunity for each of us to renew our participation within the original total budget allocation.

However, in addition to being an opportunity, the SWTAG now faces a significant challenge from the FCC that requires your response, along with each of the stakeholders in SWTAG.

In the Extension Order (DA-10-263), the FCC encouraged existing pilot program participants to make progress such that there will be benefits flowing to health care consumers by June 2011. The FCC also reserved the right to determine successors for those pilot programs that fail to make progress. The Universal Services Administrative Company (USAC) has been charged with outreach efforts to the projects to assist the FCC determine what action, if any, is appropriate. We have just been contacted by USAC to discuss whether the SWTAG will access the allotted $15.5 million prior to the new program deadline.

We need to quickly ascertain whether [Stakeholder] plans to continue active participation in this federal program, meaning accessing the budgeted 85% federal funding set-aside and meeting the upcoming deadlines required to maneuver the USAC-driven procurement process.

We are asking for a written statement of your plans to participate in this RHCPP. Please send this to our office no later than May 31, 2010. If we do not hear from you by that date, we will assume that you no longer want to be involved and we must then release your budget allocation.

We appreciate your support of telehealth and ask for your expeditious attention to this request.

Sincerely,

Dale C. Alverson, MD
Project Coordinator, FCC RHCPP SWTAG
Professor of Pediatrics and Regents' Professor
Medical Director, Center for Telehealth and Cybermedicine Research
University of New Mexico Health Sciences Center
e-mail: dalverson@salud.unm.edu

Cc: Liz Jenkins, Associate Project Coordinator

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Albuquerque Area Indian Health Service
5300 Homestead Rd. NE
Albuquerque, New Mexico 87110

July 15, 2010

Dale C. Alverson, MD
Project Coordinator, FCC RHCPP SWTAG
Professor of Pediatrics for Telehealth and Cybermedicine Reasearch
University of New Mexico Health Sciences Center
E-mail: dalverson@salud.unm.edu

RE: Rural Health Care Pilot program, FCC Docket NO. 02-06

Dear Dr. Alverson:

The Albuquerque Area Indian Health Service does indeed plan to continue its participation in this program.

We are in the process of finalizing the "Request for Proposal" and have developed an initial equipment list.

As you know, the AAO's budget consists of: $169,830(RHCCP) + $29,970(AAO contribution) = $199,800

We have received an estimate of $160,505.00 for purchase cost for the equipment and we will modify our equipment list to come as close to the $199,800 total.

We anticipate a 2 to 3 week turnaround on the submission of the RFP.

Quantity	Product	Description
6	Cisco 3845-SEC/K9	3845 Security Bundle, Adv Security
8	VWIC2-WMFT-T1/E1	Cisco 2-Port 2nd Gen Multiflex Trunk Voice/WAN Int Card – T1/E1
6	MEM3800-256U1024D	256 TO 1024MB DDR DRAM factory upgrade for Cisco 3800
6	MEM3800-64U512CF	64 TO 512MB Compact Flash factory upgrade for 3800 Series
1	PWR-3845-AC/2	Cisco 3845 redundant AC power supply
6	CON-SNT-3845SEC	SMARTNET 8X5XNBD 3845 Security Bundle
6	WIC-1DSU-T1-V2	Cisco T1 WIC's
3	NM-1T3/E3	Cisco T3 Cards
2	GLC-LH-SM	GE-SFP, LC Connector LX/LH tranceiver
1	ASA5550-BUN-K9	ASA 5550 Appliance w/SW, HA, 8GE+1FE, 3DES/AES
1	CON-SNT-AS5550B	SMARTNET 8X5XNBD ASA 5550
1	WS-C4503-E	Cat4500 E-Series 3-Slot Chassis
2	PWR-C45-1400AC	Catalyst 4500 1400W AC Power Supply
1	WS-X45-SUP6L-E	Catalyst 4500 E-Series Sup 6-E Lite, 2x10GE(x2) w/Twin Gig
1	MEM-X45-1GB-LE	Catalyst 4500 1GB SDRAM Upgrade for Sup6-LE-6
1	WS-X4424-GB-RJ45	Catalyst 4500 24-port 10/100/1000 Module RJ45
1	CON-SNT-4503E	SMARTNET 8X5XNBD Cat4500 E-Series 3-Slot Chassis
3	WS-C3750G-24TS	Catalyst 3750G 24 10/100/1000 + 4 SFP
3	CON-SNT-3750G-24TS	SMARTNET 8X5XNBD

Sincerely,

Leonard Thomas, MD

Leonard Thomas, MD
Albuquerque Area Chief Medical Officer

ARIZONA TELEMEDICINE PROGRAM

Ronald S. Weinstein, M.D.
Director
(520) 626-2971
FAX (520) 626-4774
ronaldw@u.arizona.edu

Richard A. McNeely
Co-Director
(520) 626-7343
FAX (520) 626-2145
rmcneely@biocom.arizona.edu

June 21, 2010

Dale C. Alverson, M.D., Director
Center for Telehealth
University of New Mexico Health Sciences Center
MSC11 6000
Albuquerque, NM 87131-0001

Dear Dr. Alverson:

This serves as the Arizona Telemedicine's Program's letter of commitment to continue to partner with the University of New Mexico on its SWTAG Rural Healthcare Pilot Project. The Arizona Telemedicine Program's goals with respect to the SWTAG Rural Healthcare Pilot project are to participate in the upgrading of its existing wide area network infrastructure to enable increased security of telemedicine communications and to implement modern quality of service technologies that are critical to telemedicine communications. By implementing modern telecommunications carrier class network backbone technologies, ATP will be well positioned to interoperate with regional network partners via national high-speed backbone networks such as Internet2 or NLR. ATP plans to use its existing connectivity to Internet2 through the University of Arizona to link with regional or national peers to enable telemedicine services and research. As part of the Southwest Telehealth Access Grid (TAG), ATP plans to collaborate, via Internet2/NLR and potentially other networks, with other TAG participants in the modeling, testing and deployment of network communications architectures and services that are tailored for optimal use of network communications during times of disaster or emergency.

ATP originally requested funding in the amount of $878,866 which included plans to upgrade core and edge routing and firewall equipment, and covering the costs of some backbone and private line services that are not eligible under the Universal Service Fund for Rural Healthcare program. ATP is no longer seeking funding from the SWTAG Rural Healthcare Pilot Project and has released its budget allocation in the SWTAG project. ATP, due to a shortened timeline with respect to compliance requirements and discontinuation of vendor support for current network infrastructure, has, through its own funding and at a significantly lower cost, implemented network upgrades enabling increased security of telemedicine communications and modern quality of service technologies that were originally stated as ATP goals with respect to the SWTAG Rural Healthcare Pilot Project. ATP has also modified its leased network service agreements resulting in significantly reduced bandwidth costs.

Nevertheless, we wish to remain an active partner, without funding, in the SWTAG Rural Healthcare Pilot project. The ATP certainly benefits from this partnership and significantly adds to the footprint of the SWTAG grid. We continue to strongly support the missions of the Four Corners Telehealth Consortium which we co-founded as well.

Congratulations on moving this critically important SWTAG Rural Healthcare Pilot project forward.

Best wishes,

Ronald S. Weinstein, M.D.

Ronald S. Weinstein, M.D.
Director, Arizona Telemedicine Program

RSW/ah
Cc: Michael Holcomb
Kristine Erps
Elizabeth Jenkins

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Navajo Area
Indian Health Service
P.O. Box 9020
Window Rock, Arizona 86515-9020

91 3408 2133 3931 6258 5204

April 12, 2010

University of New Mexico
Center for Telehealth & Cybermedicine Research
1005 Columbia NE
Albuquerque, NM 87106

RE: Collaborative Agreement No. NAV-CA-09-0016
ATTN: Elizabeth A. Jenkins

Dear Ms. Jenkins:

Please be advised pursuant to Section X (Term to Termination) of subject agreement, the Navajo Area Indian Health Service is providing thirty (30) day written notice of its withdrawal from the Southwest Telehealth Access Grid (SWTAG) projects and termination of Collaboration Agreement No. NAV-CA-09-0016.

Sincerely yours,

John Hubbard, Jr., Area Director
Navajo Area Indian Health Service

Cc: Floyd Thompson, EO, NAIHS
Mike Belgarde, CIO, NAIHS
Frank Dayish, Chief Contracting Officer, DAMC, NAIHS

New Mexico
PRIMARY CARE ASSOCIATION
4206 Louisiana NE • Albuquerque, New Mexico 87109-1841 • (505) 880-8882 • Fax: (505) 880-8885 • www.nmpca.org

May 13, 2010

Dale Alverson, MD
Project Coordinator, FCC RHCPP SWTAG
Center for Telehealth and Cybermedicine Research
1005 Columbia NE
Albuquerque NM 87106

Reference: Rural Health Care Pilot Program, FCC Docket No. 02-60

Dear Dr. Alverson,

In response to your letter dated April 22, 2010, it is the intention of the New Mexico Primary Care Association (including the following members: El Centro Family Health, Las Clinicas del Norte, La Familia Medical Center, Hidalgo Medical Services, Pecos Valley Medical Center, La Clinca del Pueblo de Rio Arriba, Mora Valley Community Health Services, Ben Archer Health Center, La Casa de Buena Salud, and La Clinica de Familia) to continue active participation in the Rural Health Care Pilot Program so that our rural communities can benefit from this wonderful program.

Sincerely,

David Roddy
Executive Director
New Mexico Primary Care Association

UNM HEALTH SCIENCES CENTER

Center for Telehealth and Cybermedicine Research

June 10, 2010

Robert W. Tacker, Director of ISD (retired)
New Mexico Tech
801 Leroy
Socorro, NM 87801

Reference: Rural Health Care Pilot Program, FCC Docket No. 02-60

Dear Mr. Tacker:

On April 22, 2010 I sent you a request to determine whether New Mexico Tech plans to continue active participation in the Federal Communications Commission's (FCC) Rural Health Care Pilot Program (RHCPP) the Southwest Telehealth Access Grid (SWTAG). Because this program was recently extended for an additional year to June 2011, I requested a written statement describing your participation plans. In the Extension Order (DA-10-263), the FCC encouraged existing pilot program participants to make progress such that there will be benefits flowing to health care consumers by June 2011. The FCC also reserved the right to determine successors for those pilot programs that fail to make progress. We have been contacted by the Universal Services Administrative Company (USAC) to determine whether the SWTAG will access the allotted $15.5 million prior to the new program deadline and each stakeholder's input was critical to our response.

Therefore, in the April 22d letter we also provided notice that if we did not receive a response from you before May 31, 2010, we would need to assume that New Mexico Tech would no longer continue its involvement in the SWTAG.

I am very sorry that we did not receive a response from your office. Therefore this is a formal notice confirming the withdrawal of New Mexico Tech from the SWTAG.

While it is unfortunate that this opportunity to work together was not possible, I appreciate your support of telehealth and hope to collaborate with you and your organization in the future.

Sincerely,

Dale C. Alverson, MD
Project Coordinator, FCC RHCPP SWTAG
Professor of Pediatrics and Regents' Professor
Medical Director, Center for Telehealth and Cybermedicine Research
University of New Mexico Health Sciences Center
e-mail: dalverson@salud.unm.edu

Cc: Liz Jenkins, Associate Project Coordinator

NM STATE UNIVERSITY

Information & Communication Technologies
Office of the Chief Information Officer and Associate Vice President
MSC 3AT
New Mexico State University
P.O. Box 30001
Las Cruces, NM 88003-8001
575-646-2026, fax: 575-646-4560

April 29, 2010

Dale C. Alverson, M.D., Director
Center for Telehealth
University of New Mexico Health Sciences Center
MSC11 6090
Albuquerque, NM 87131-0001

Dear Dr. Alverson,

This serves as New Mexico State University's (NMSU) request to withdraw from the FCC Rural Healthcare Pilot program under the direction of the University of New Mexico.

While NMSU supports the efforts by the FCC and UNM in their efforts to support rural healthcare in New Mexico, the subsequent rules tied to the funding in the pilot program limited NMSU's ability to take advantage of this innovative federal initiative.

We appreciate the efforts you have made in making this effort a reality in New Mexico. If there is anything NMSU can do to help with this effort, please let me know.

Thank you,

Shaun H. Cooper, Ph.D.
Associate Vice President for Information Technology
Chief Information Officer
New Mexico State University

UNM HEALTH SCIENCES CENTER

Center for Telehealth and Cybermedicine Research

June 10, 2010

Mark Carroll, M.D., Telehealth Initiative Coordinator
Phoenix Area Indian Health Service
1215 N. Beaver St., Suite 201
Flagstaff, AZ 86001

Reference: Rural Health Care Pilot Program, FCC Docket No. 02-60 and PAIHS Collaborative Agreement PHX-CA-09-0001

Dear Dr. Carroll:

We have received your May 26, 2010 email response to my April 22, 2010 request about whether Phoenix Area Indian Health Service plans to continue active participation in the Federal Communications Commission's (FCC) Rural Health Care Pilot Program (RHCPP) Southwest Telehealth Access Grid (SWTAG).

I understand that the Phoenix Area Indian Health Service does not intend to reactivate its status in the SWTAG. Therefore, under the terms of PAIHS Collaborative Agreement PHX-CA-09-0001, this is a formal notice to terminate this Collaborative Agreement.

While it is unfortunate that this opportunity to work together was not possible, I appreciate your support of telehealth and hope to collaborate with you and your agency in the future.

Sincerely,

Dale C Alverson

Dale C. Alverson, MD
Project Coordinator, FCC RHCPP SWTAG
Professor of Pediatrics and Regents' Professor
Medical Director, Center for Telehealth and Cybermedicine Research
University of New Mexico Health Sciences Center
e-mail: dalverson@salud.unm.edu

Cc: Liz Jenkins, Associate Project Coordinator

MSC11 6090 • 1 University of New Mexico • Albuquerque, New Mexico 87131-0001 • Phone 505.272.8633 • Fax 505.272.0800
1005 Columbia NE • Albuquerque, NM 87106 • http://hsc.unm.edu/som/telehealth

PMS®

PRESBYTERIAN MEDICAL SERVICES

Building a Healthier State®

May 3, 2010

Dale C. Alverson, M.D.
Project Coordinator, FCC RHCPP SWTAG
University of New Mexico
MSC11 6090
1 University of New Mexico
Albuquerque, New Mexico 87131-0001

Re: Rural Health Care Pilot Program

Dear Dr. Alverson:

Thank you for your letter of April 22 regarding the Rural Health Care Pilot Program. It is good news that the program will be extended. I regret, however, that Presbyterian Medical Services will be unable to continue participation. Upon consideration of the challenges which lie in the coming year, we are making very careful plans to utilize resources.

Please accept my best wishes for the continued success of this endeavor. Do not hesitate to contact me at 505-820-3470 if you have questions.

Sincerely,

Steven C. Hansen
President & CEO

1422 Paseo de Peralta, Bldg. 3 ■ P.O. Box 2267 ■ Santa Fe, NM 87504 ■ (505) 982-5565 ■ (505) 986-8299
www.pms-healthierstate.org

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Indian Health Service
Tucson Area Office
7900 S.J Stock Road
Tucson, AZ 85746-9352

April 29, 2010

Reference: Rural Health Care Pilot Program, FCC Docket No. 02-60

Dear Dr. Alverson:

We are also pleased to hear about the FCC extension. We have struggled over the past year stabilizing our internal network. Good timing as our network engineer recently finalized an inventory, analysis, and we finally have an internal network design we can proceed with. Our proposals are enclosed along with a status of our current plans.

I was concerned about building a network that no one will use. We have engaged our medical staff in this effort and are communicating services that may be obtained through this effort. Over this past year we have implemented Tele-Nutrition between the four of our IHS sites. We are engaged with the University of Arizona for Tele-Trauma services. We have Tele-Radiology running and planning implementation of Veterans Administration Vista Imaging for both document scanning & Radiology. We have planned and are proceeding with a number of additional Tele-Health projects such as Electronic Dental Record, Tele-Cardiology, Tele-Dermatology, and Behavioral Health Video Consultations. We also recently added digital Ophthalmology.

Our network engineer will soon begin work on SWTAG and RHCPP network design. Infrastructure upgrades are critical to our success. Tucson is hereby committed to this SWTAG project. You will see an increase in participation over the next six months to one year.

Engaged in this effort are the following Tucson Area Staff:

Karen Wade - Executive
Chief Information Officer
520-295-2523
karen.wade@ihs.gov

Jerry Tsosie – Infrastructure Manager
Information Systems Coordinator
520-295-2419
jerry.tsosie@ihs.gov

Cedric Guyton
Clinical Applications Coordinator – Tele-Health Project Manager
520-295-2415
cedric.guyton@ihs.gov

John Tracey (Contractor) – Network Design
Sr. Network Engineer
602-377-3958
john.tracey@ihs.gov

Please add Cedric & John to the distribution list.

Please let us know if you have any questions regarding our commitment or proposals.

Sincerely,

Karen Wade

Karen Wade

cc: Tucson Area Director

Enclosures:
RHCPP Project Plan.doc
RHCPP SWTAG Router Quote.xls
Current Status_RHCPP Participation.doc
SWTAG Internet2 Project Plan.doc
Verizon Networxs DS3 Quote Q1 2010.xls