

University of New Mexico

The Southwest Telehealth Access Grid

An Integrated Interstate Network of Networks Model for Telehealth

Quarterly Data Report for
April 1, 2012 – June 30, 2012

July 30, 2012



Southwest Telehealth Access Grid
RHCPP Quarterly Data Report for Fiscal Year 2011
April 1, 2012 – June 30, 2012

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Southwest Telehealth Access Grid

RHCPP Quarterly Data Report for Fiscal Year 2011/Q3

April 1, 2012 – June 30, 2012

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:
Hannah Byun, Associate Coordinator starting March 12, 2012
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).
 - University of New Mexico: Gil Gonzales, PhD (UNM 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 : Hannah Byun, Associate Project Coordinator starting March 12, 2012
 Mail Address : MSC11 6090, 1 University of New Mexico, Albuquerque, New Mexico 87131-0001
 Email: Hbyun@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 eventually integrate the high-speed Internet backbones offered by both Internet2 (I2) and National Lambda Rail (NLR) with appropriate security and quality of service.

The SWTAG was originally comprised of a consortium of twelve (12) stakeholders in New Mexico, Arizona, and one of the southwest IHS area offices. Since then Navajo, Phoenix, and Tucson HIS Area offices have formally withdrawn. Albuquerque Area with their affiliated tribes and sites remains a participant as well as several Navajo Nation healthcare service providers who are functioning independently via the "638 Act". Some other stakeholders continue to participate but will not be requesting funding, such as the Arizona Telehealth program (ATP) and LCF Research, managing the New Mexico Health Information Collaborative (NMHIC). The Project is being led by the Center for Telehealth and Cybermedicine Research at the University of New Mexico. The Project has also been 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 2011, project coordination efforts continued to be 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 and complete all required paperwork to encumber their funds and draw down those funds to which they're entitled. The Project's priority continues to be to support for the individual stakeholders in completing all steps in the development their networks. As of the end of this quarter, 7/12 stakeholders have their FCL, encumbering 62.3 % of eligible funds and all other stakeholders have had their required paperwork submitted for review needed to receive a FCL, that if sufficient will encumber 99.98% of all eligible funds.

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 have created major challenges, particularly when no funds are being provided for project management through the FCC RHCPP and while UNM has invested well over \$200,000 per year in administrative costs and significant workforce efforts on behalf of the SWTAG stakeholders. 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.

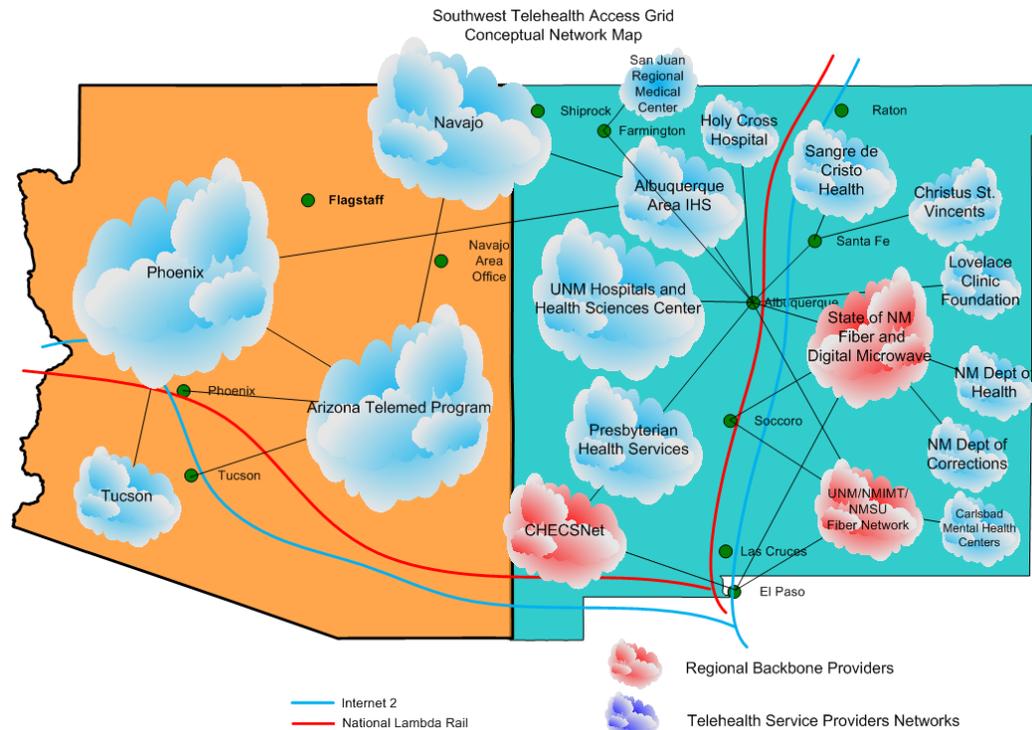
2. Identify all health care facilities included in the network.

- a. Provide address (including county), zip code, Rural Urban Commuting Area (RUCA) code (including primary and thirdary), 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 an originally intended Network Design Studies. These additional sites were to 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 could not proceed since LOAs were to be obtained for each potential SWTAG site to be included in that design study. To obtain LOA's from every potential site that might have been a member of a "network of networks", but could not have been determined without the actual design study, created too extensive of a challenge. Furthermore, 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 benefiting 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 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 unnecessary duplication of connectivity.

3. Network Narrative: In the third 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. For stakeholder SJRMC there are two parts to this project 1) Dedicated wireless network and 2) 100Mbps Internet connection

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. Again for SJRMC; 1) The wireless network is a 300Mbps radio channel on a licensed frequency. The two remote locations will connect to this wireless network via routers supplied by the project. 2) the 100Mbps Internet is fiber based back to the local Brainstorm CO building.

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

As of June 30 2012 a competitive bidding process has not yet been initiated for the overall network design of SWTAG. The intent was 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 has requested guidance from USAC to move directly to the 466A process in order to establish contracts for connectivity with each of these vendors. However, due to the requirement that LOAs be obtained from any site that might participate in a future network of networks, this component of the project has not been pursued.

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. Discussions are underway with USAC to determine the most appropriate means to proceed and the potential justification and application of the excess capacity scenarios provided by the FCC. These excess capacity scenarios can support sustainability and offset the required 15% cash match. Due to the complicated nature of applying these excess capacity scenarios appropriately, this may not pursued further.

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

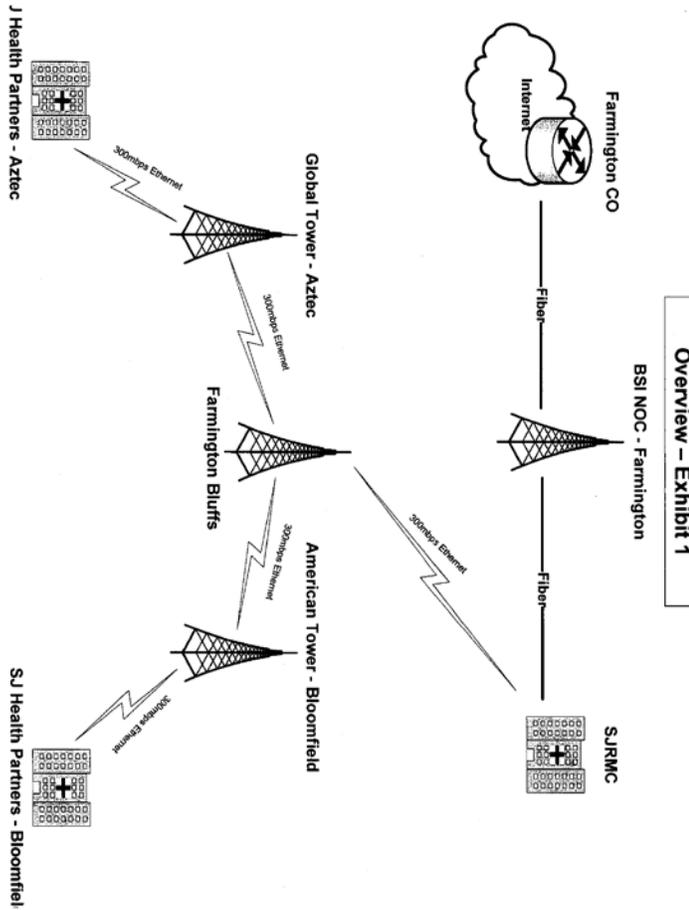
While the network design is still to be developed, the intent is that the network of networks will include one thousand (1000) miles of buried fiber.

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 2012 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** San Juan Regional Medical Center
- b. **Eligible provider (Yes/No);** Yes
- c. **Type of network connection (e.g., fiber, copper, wireless);** 1) Wireless, 2) Fiber
- d. **How connection is provided (e.g., carrier-provided service; self-constructed; leased facility);** 1) Self-constructed (by using a local vendor), 2) leased fiber
- e. **Service and/or speed of connection (e.g., DS1, DS3, DSL, OC3, Metro Ethernet (10 Mbps);** 1) 300Mbps, 2) 100Mbps
- f. **Gateway to NLR, Internet2, or the Public Internet (Yes/No);** Yes
- g. **Site Equipment (e.g., router, switch, SONET ADM, WDM), including manufacturer name and model number.** 1) Radio – Dragonwave, Routers – Cisco 2821, Switch – Cisco 3560G-24; 2) Routers – Cisco 2821, Switch – Cisco 3560G-24
- 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 2012.

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.

This last Quarter, SJRMC paid the first invoice for recurring costs for a total amount of \$12,240.03. See attached invoice from this quarter (Appendix C).

Presbyterian Health Services paid the initial (and final) invoice for network equipment including engineering and installation in the total amount of 140,926.51, representing 54% of their total award. No other stakeholders submitted an invoice this quarter. See attached invoice from this quarter (Appendix C).

a. Network Design

SWTAG has no recurring or non-recurring costs to report for Network Design for the quarter ending June 30, 2012.

b. Network Equipment, including engineering and installation

SWTAG stakeholder Presbyterian Health Services RFP 03 has begun invoicing for non-recurring costs for Network Equipment for the quarter ending June 30, 2012. (See Appendix C)

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

SWTAG has no recurring or non-recurring costs to report for Infrastructure Deployment/Outside Plant for the quarter ending June 30 2012.

d. Internet2, NLR, or Public Internet Connection

SWTAG has no recurring or non-recurring costs to report for Internet2, NLR, or Public Internet Connection for the quarter ending June 30 2012.

e. Leased Facilities or Tariffed Services

SWTAG stakeholder SJRMC RFP 04 is continuing to invoice for recurring costs for Network Service for the quarter ending June 30, 2012. (See Appendix C)

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 2012.

g. Other Non-Recurring and Recurring Costs

SWTAG has no other recurring or non-recurring costs to report for the quarter ending June 30 2012.

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 recurring and non-recurring costs to report for the quarter ending June 30 2012 for eligible sites and their connectivity. However, the apportionment of funds among the stakeholders will be reviewed by the SWTAG Project and Associate Project Coordinators and 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**

Costs to apportion for the quarter ending June 30 2012, the sources of funds to pay for any such costs, such as the 15% cash match, came from the eligible network participant as a s 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.**

Costs to apportion for the quarter ending June 30 2012 came directly from the 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.

Funding commitment letters have been issued, for FRP 3 and 4 As SWTAG RFPs move forward to USAC, the appropriate stakeholders have identified 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 with the exception of data centers and administrative hubs critical to the operations of the network for each stakeholder.

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: Melissa Crews, EdD appointment beginning October 11, 2010 through August 5, 2011. The acting associate coordinator is Denise Dion, PhD, starting August 6, 2011, ending March 11, 2012, the Program Operations Director at the Center for Telehealth and Cybermedicine Research, current APC as of March 12, 2012 is Hannah Byun.
- 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). These committees have not met this quarter as the focus has been on assisting each individual stakeholder actively participating in the SWTAG

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; Chaired by Dr. Elizabeth Krupinski (Arizona Telemedicine Program)

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. However, Navajo Nation sites have elected to participate independent of IHS through the 638 Act 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.

While these decisions are unfortunate for the development of a regional SWTAG, Dr. Alverson, and Hannah Byun 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.

- b. In the third 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.**

All SWTAG stakeholder RFP activities continue. As of this quarter, RFP 01, 03, 04, 05, and 07, have received their funding commitment letters and RFT 3 has begun invoicing, and RFP 4 has continued invoicing. A Total of 6 FCLs have been received to date for this quarter covering 6 of our 12 stakeholders (50%). Total amount of funding committed to the SWAG as of this quarter is \$7,173,988.76 of the total \$15,561,181 for which SWTAG is eligible (46%). SWTAG RFP06 and RFP 14 of UNMH, RFP 8, and RFP11of the Navajo Nation are currently under review by USAC for funding commitment award. (See Appendix B)

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 to 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 September30, 2011. It is anticipated that the SWTAG committees may 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. Third, an over-arching sustainability plan was 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. The overall SWTAG Sustainability Plan was accepted by USAC in September of 2011 establishing a milestone for the overall project and allowing for an additional year extension. The approved sustainability plan is as noted below:

Southwest Telehealth Access Grid Sustainability Plan

Introduction

The purpose of this sustainability plan is to describe how the Federal Communications Commission (FCC) subsidy of the South West Telehealth Access Grid (SWTAG) will lead to continued operation after the conclusion of the Rural Health Care Pilot Program (RHCPP). The plan must meet the conditions specified in the FCC letter of October 24, 2008, sent by Dana R. Shaffer, then Chief of the FCC Wireline Competition Bureau to the Universal Service Administrative Company (USAC) regarding eligible costs, restrictions on resale and sustainability. The heart of the SWTAG sustainability plan is to transition to the regular Universal Service Fund (USF) program for rural health care subsidy at the conclusion of the RHCPP.

SWTAG is designed as a network of networks. As such, each of the individual stakeholders will submit sustainability plans for their own networks. This plan addresses sustainability of the network of networks.

15% Matching Funds

Each of the individual stakeholders will be responsible for procuring funds for the 15% match. Details of where those funds are coming from and how they will be applied will be found in the individual stakeholders' sustainability plans.

Project Sustainability Period

The sustainability plan assumptions are that the continued funding from USAC's regular rural health care subsidy program for at least five additional years, for a total of ten years, with every expectation of further continuation beyond that time. Stakeholders will pay their own co-payments to their telecommunications vendors under the terms of the USAC subsidy program as it then exists. The individual stakeholders have developed sustainability plans for at least 10 years (in some cases longer). Details will vary with the stakeholder.

Principal Factors

There are several general points which can be made about sustainability and which pertain particularly 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.

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 care needs through telemedicine and should continue to maintain those efforts as noted below.

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 cannot 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 of 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 off 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 primary 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.

Telecommunications Costs

As noted below, each SWTAG stakeholder will be the customer of record with the telecommunications carriers. During the RHCPP, all stakeholders will pay the 15% co- payments for recurring service charges from telecommunications vendors for services to their facilities.

All stakeholders understand that after the RHCPP they will be responsible for paying 100% of the network charges to connect them to SWTAG. Some of the RHCPP subsidy will be for one-time construction and installation charges for getting broadband facilities to the premises of eligible SWTAG stakeholders. Once initial construction is completed, SWTAG anticipates that the monthly recurring charges at the end of the RHCPP will be affordable to stakeholders.

Rural stakeholders eligible to participate in the regular rural health care program of the Universal Service Fund (USF) expect to obtain some subsidy from that fund when the costs of telecommunications services to their eligible rural sites substantially exceed comparable costs to serve urban locations. However, they understand that the regular program may be changed and that there are no guarantees concerning how it will operate at the end of the RHCPP. For rural

stakeholders, the opportunity to receive telecommunications subsidies from the regular USAC rural health care subsidy program will be an important factor permitting sustainability. The states involved are very rural and include many sparsely populated “frontier” counties. Many rural sites that are eligible for subsidy under the regular USF rural health care program have not done so because of the cumbersome administrative process required to obtain the subsidy. Most rural clinics do not have staff with the skills and the time to work the process.

The continuing benefits for urban hospitals to justify financial support of SWTAG after the RHCPP include the ability to provide medical services to and receive patient referrals from the rural sites on the network. The advantages to them do not depend on a subsidy for telecommunications services. SWTAG will increase the network quality available for health applications. Current Internet Protocol networks, especially if they cross the public Internet, do not have the quality or reliability necessary for telemedicine consults or for some workforce development video applications. This increase in quality—particularly quality making videoconferencing reliable throughout the state—should result in significant travel cost savings and staff efficiencies, especially for hospital systems with more than one physical location. Substitution of telecom for travel should be easy with quality networks, especially when the networks come with an 85% subsidy. Some of the savings in telecommunications costs could be used to pay for additional user premises equipment that takes advantage of the new opportunities. The SWTAG technical plans should improve both SWTAG on-net and off-net Internet quality, making it easier to establish quality connectivity with employees (including physicians) working or on-call at home and with patients at their homes or assisted living facilities.

SWTAG will permit larger hospitals to expand their outreach to smaller hospitals and clinics throughout the state. Specialty consulting services in all branches of medicine could be offered to any hospital or clinic connected to SWTAG, without having to establish leased line telecom services to those locations prior to offering services. The additional revenues to major hospital systems through offering telemedicine services should result in better bottom line performance both from the consults themselves and any resulting referrals. Smaller hospitals should be able to provide more services to their patients in their local facility through telemedicine services offered by larger hospitals. Transfers of patients between hospitals should be more effective with videoconference pre-transfer consults between the hospitals.

SWTAG stakeholders will sign a “participation agreement” in which they state their intention to continue participation in SWTAG after the RHCPP is over. However, non-profit organizations, particularly those dependent on federal or state government funding, as most are, will not be able to enter into binding contractual commitments of funding for periods more than five years into the future.

As noted, SWTAG is structured so that participating entities are the customers of record with the telecommunications providers so that what is being obtained from the telecommunications providers is leased capacity. This arrangement should make it easy to transition from the RHCPP to the regular program that pays the difference between urban and rural rates or the non-urban portion of mileage-based rates for comparable service. Even though Internet services may be provided over the leased capacity, this arrangement is necessary to ensure that rural stakeholders are eligible for the full difference between urban and rural rates, not just the subsidy for Internet services that is capped at 25 percent. The network connections being leased under the RHCPP are all services with guaranteed capacity and network quality of service; Therefore, SWTAG anticipates that the same vendors will be eligible to provide subsidized services under the regular USF program without the 25% limit that applies to Internet-only services, provided that their service renewal options under the RHCPP subsidy program or a new lower bid price is the most cost-effective solution provided in a new round of competitive bidding.

One Time vs. Recurring Network Charges

Some of the SWTAG RHCPP subsidy funding will be used for the one-time charges (construction and installation fees) necessary to construct broadband facilities to reach eligible rural locations

that currently lack adequate broadband facilities. Once the telecommunications vendors have installed facilities needed to reach those sites, the recurring charges are expected to be affordable for most hospitals, clinics and colleges. As noted above, SWTAG stakeholders do understand that they are ultimately responsible for paying for the telecommunications connections needed to reach their facilities. The fact that they will be the customers of record with the telecommunications vendor serving them and are responsible for recurring cost co-payments during the RHCPP subsidy period underlines that responsibility.

There may be some turnover of participants during and after the RHCPP, but the network design permits both the addition of new sites and withdrawal of other sites without any negative impact on the network as a whole. Each of the networks is independent of other the other networks.

Estimating Standard USAC Rural Health Care Subsidy Amounts

Given the cost declining nature of the telecommunications industry this average price is likely to be lower five years from now. The amount of data capacity needed five years from now is likely to be more than what is needed today and the amount is likely to be different for different sites.

The significant fact learned from these estimates is that no matter how much data capacity is needed at each site five years from now, and no matter what the prices are five years from now, the percentage subsidy under the standard program is estimated to be equal to or greater than the 85% subsidy under RHCPP for all rural sites. SWTAG stakeholders, by stating in their SWTAG participation agreement their intention to continue after the RHCPP, will agree that the anticipated subsidy benefits after the RHCPP are likely to be sufficient for them to continue their participation.

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.

Terms of Membership in the Network

SWTAG is proposing to form an integrated interstate network of networks. This plan will leverage existing statewide and regional networking infrastructure initiatives and investments. It also makes the network more scalable and adaptable, in that participants can enter or leave without affecting the viability of the grid.

The individual stakeholders in the SWTAG already have or are developing sustainability plans for their components of the network. Because SWTAG is being built as a network of networks, there will be no formal network structure. The continuing evolution of the internet ensures that all of the participating stakeholders will be able to communicate with one and other for the foreseeable future. In the unlikely event that a stakeholder is unable to continue participating, this will have no effect of the rest of the network of networks.

All SWTAG members will be members of the *virtual* internet network of networks and will be responsible for their own internet network connectivity costs. There will be no additional individual stakeholder costs related to the South West Telehealth Access Grid (SWTAG) as a virtual network of networks. There are no plans to create an additional SWTAG Network Operations Center (NOC), including no other additional equipment or administrative costs to be part of this network of networks. Overall sustainability will be based on the stakeholders' needs for their networks to provide a platform for health information exchange and telehealth internally, and externally with other healthcare entities.

Most of the stakeholders will be participating in the New Mexico Health Information Collaborative (NMHIC). NMHIC is the name of New Mexico's growing Health Information Exchange (HIE) network, as well as the community collaborative that has supported its development with time and funding. The collaborative includes New Mexico stakeholders representing health care providers, payers, employers, state agencies, and consumers. NMHIC was created in 2004, and continues to be fully staffed and operated by LCF Research. Although Telehealth is not one of the ONC requirements in the State Health HIE CAP, Telehealth is a complementary and important HIT service. Health information in the form of Electronic Records (EHRs), and HIE are critical components of a telehealth encounter and can share the same network infrastructure being created through SWTAG. For example, patient data such as radiologic images are part of an integrated EHR, HIE and Telehealth in the form of Teleradiology that together further enable patient evaluation and management.

NMHIC includes stakeholders representing health care providers, payers, employers, state agencies and consumers. NMHIC collaborates with its stakeholders through scheduled meetings to define and implement technical assistance, guidance, and information on best practices to support and accelerate health care providers' efforts to become meaningful users of EHRs to enhance delivery, quality, and value of health care.

NMHIC is in the process of developing a business plan which will detail the terms of membership. Terms will almost certainly involve a membership fee, but it is undecided at this time how the fees will be divided among NMHIC's stakeholders. One scenario has payers being responsible for most of the fees.

Commitments from Network Members

As of early March 2011, approximately 25 eligible organizations requesting subsidized connections to eligible sites have signed letters of agency as indications of their intent to participate in SWTAG. Approximately 150 eligible sites will be reached once these connections are completed. Currently, some members of the Southwest Telehealth Access Grid are paying their own network costs and not requesting FCC RHCPP funds to continue as members in SWTAG. These include Arizona Telemedicine Program, Sangre de Cristo Community Health Partnership, and LCF Research New Mexico Health Information Collaborative (NMHIC). This decision to participate in SWTAG without requesting SWTAG funds demonstrates the commitment of the SWTAG stakeholders to the network and the added value that stakeholders perceive in the continued growth and sustainability of the network. If time permits, there may be other stakeholders that may join SWTAG if they meet the eligibility criteria, such as Navajo Nation sites. Stakeholders will be asked to sign participation agreements committing their participation for the duration of the RHCPP and indicating their intent to continue following the pilot program, as SWTAG transitions from the pilot program to the regular rural health care USF program. These organizations are the "early adopters".

Excess Capacity

None of the SWTAG stakeholders anticipates any excess capacity during the term of the project. Indeed, given increasing requirements for data interchange and increasing opportunities in telehealth, many will be seeking increased capacity after five years. No SWTAG telecommunications facilities or services subsidized by the RHCPP will be available for use by non-eligible entities.

Network Infrastructure Ownership

Each of the individual SWTAG stakeholders will be the owner of infrastructure necessary to connect their particular parts of the network. Also, each of them will be the customer of record with the telecommunications carriers.

Sources of Future Support

Sources of future support vary with the individual stakeholders. Some are dependent on third party payers, others are projecting cost savings. NMHIC will have some type of membership fee structure.

Network Management

All of the telecommunications links for SWTAG are leased by SWTAG stakeholders from telecommunications carriers that are responsible for meeting the Quality of Service (QoS) conditions specified in the Service Level Agreement (SLA) in the contract between the stakeholder and the selected telecommunications carrier. Therefore the carrier is responsible for management of that link in the network, with the SWTAG stakeholder responsible for overseeing the performance of its telecommunications contractor.

All SWTAG members will be members of the *virtual* internet network of networks and will be responsible for their own internet network connectivity costs. There will be no additional individual stakeholder costs related to the South West Telehealth Access Grid (SWTAG) as a virtual network of networks. There are no plans to create an additional SWTAG Network Operations Center (NOC), including no other additional equipment or administrative costs to be part of this network of networks. Overall sustainability will be based on the stakeholders' needs for their networks to provide a platform for health information exchange and telehealth internally and externally with other healthcare entities.

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 care needs through telemedicine and should continue to maintain those efforts as noted below.

We anticipate that our network of networks will be sustained and that each stakeholder will cover 100% of the costs after the FCC RHCPP funds have been exhausted. We expect the need for Health Information Exchange (HIE) and Telehealth will continue to increase as required value-added services prompting ongoing sustainability. When appropriate, our stakeholders will utilize the Rural Health Care Primary Program and other programs to subsidize those costs into the future. Each stakeholder has indicated their intent to sustain their portion of the network after the program is completed. Since each stakeholder will cover their own connectivity costs to be part of this internet-based Southwest Telehealth Access Grid (SWTAG) network of networks, as well as meeting their own internal network needs, we do not anticipate additional administrative costs of being part of the SWTAG nor the need for a network operating center (NOC).

Albuquerque, Area of the Indian Health (AAIHS) Service: AAIHS will be focusing on enhance connectivity for the several of the tribal sites it supports. . 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 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 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 developed sustainability plan for PCA.

Presbyterian Healthcare Services: Their sustainability plan was accepted as part of the overall network of networks sustainability plan.

Sangre de Cristo Community Health Partnership: They will participate without requesting funding. 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: Their sustainability plan was accepted as part of the overall network of networks sustainability plan. 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 Sustainability Challenges:

- Projecting Telecommunications Costs: Although we expect that the competitive bidding process for telecommunications services would result in rates that are significantly lower than those currently experienced in the region. However this has not generally been the case. 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.
- Organization Structure: As we have moved into the process of implementing the Grid, it has become increasingly clear to us that eventually 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 this period of major healthcare transformation and emerging new technologies and networks. 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 be 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 of 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 off 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 primary 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.

The new high speed wireless connections to their rural clinics in Aztec and Bloomfield have significantly increased the staff's efficiency to check in patients and process their electronic medical information. These new high speed circuits make it possible for us to convert over to a new electronic medical records system in June. Where at that time all patient information will be entered into the computer, and nothing will be on paper anymore. Another part of this project is to increase the speed of Internet connection up to 100Mbps. This increased speed has improved the performance of our services with other health care facilities such as the UNM Pediatrics ICU telemedicine service to SJRMC in Farmington, NM

- 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), now known as LCF Research (LCFR) and the associated New Mexico Health Information Collaborative (NMHIC) based in Albuquerque, NM.

LCFR/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 LCFR, had a series of significant accomplishments. LCFR/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, The Medical Director at LCF at that time 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.

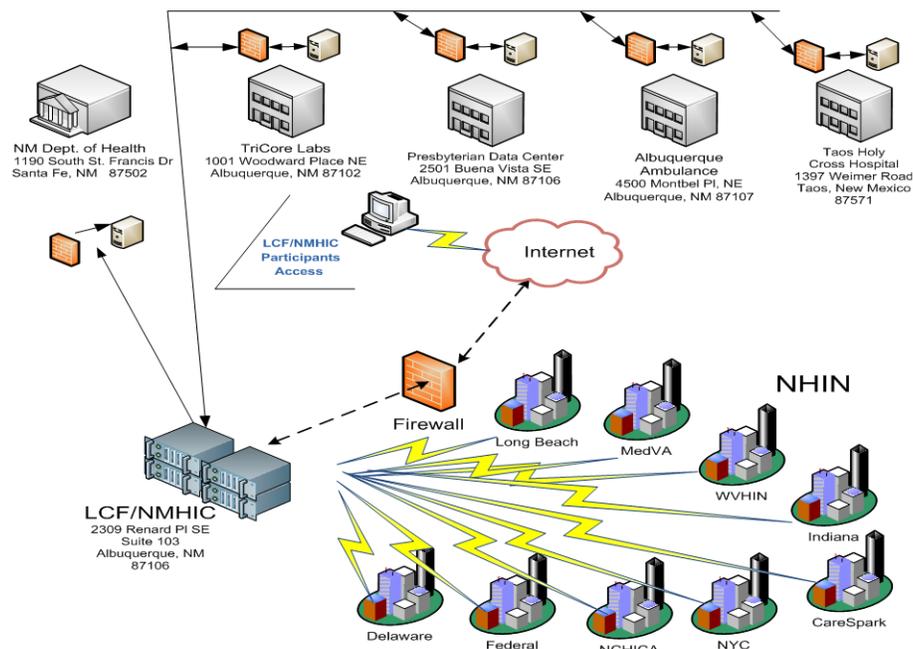
Notwithstanding these accomplishments, and as noted above in Question 8b(4), despite the intent of FCC Order 07-198 that RHCPPs reflect incorporation of the regional NHIN initiatives ("Explain how the supported network has supported the Nationwide Health Information Network (NHIN) architecture by coordinating activities with organizations performing NHIN trial implementations"), through ongoing communications with FCC and USAC, it had been 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 LCFR as part of the SWTAG Project was to support direct connectivity via the GigaPOP to significant data providers in the NMHIC. Currently LCFR 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. LCFR had already committed the requisite 15 percent matching funds that would be necessary to participate.

Therefore, this determination of ineligibility is unfortunate since LCFR/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 the HIE and providing models for overall sustainability.

The prior NM Governor, Bill Richardson, appointed LCFR/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 expanding role may qualify NMHIC as a critical network component supporting our SWTAG stakeholders and thus eventually be eligible for FCC funds as new rules are announced.

LCF Research 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 and Dr. Alverson now serves as their IT Medical Director. LCFR is transitioning to a new HIE platform (Orion) that should significantly enhance capabilities and better serve all stakeholders and more easily integrate with their existing electronic health records. Currently access to NMHIC in hospital emergency departments is demonstrating improved coordination of care, improved efficiency, and avoidance of unnecessary redundant testing and procedures, resulting in cost savings.

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

Creating a model, through trans-disciplinary collaboration and appropriate subject matter experts, has been suggested to design and test the integration of a network of networks and its functionality. The project would 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 would 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, if funded, 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.

Appendix A: SWTAG Sites, First Quarter 2011

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

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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

Appendix A: SWTAG Sites, First Quarter 2011

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

Appendix A: SWTAG Sites, First Quarter 2011

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

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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

Appendix A: SWTAG Sites, First Quarter 2011

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	

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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

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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

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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

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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

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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

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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

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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

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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 Continuum of Care	2350 Alamo Ave SE	Albuquerque	NM	Bernalillo	87106	1	0012.00	505-272-2345	Public	NPO	Eligible	1. Post-secondary educational
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

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Site Name	Address	City	State	County	ZipCode	RUCA Code	Census Tract	Phone #	Public or NonPublic
UNMH Center for Reproductive Health	1701 Moon NE	Albuquerque	NM	Bernalillo	87112	1	0001.23	505-925-4455	Public
UNMH Children's Psychiatric Center	1001 Yale Blvd. NE	Albuquerque	NM	Bernalillo	87106	1	0018.00	505-272-2890	Public
UNMH Digestive Disease Center for Excellence	1001 Dr. Martin Luther King Jr. Ave. NE	Albuquerque	NM	Bernalillo	87106	1	0019.00		Public
UNMH Family Health - Westside Clinic	4808 McMahon NW	Albuquerque	NM	Bernalillo	87114	1	0047.18	505-272-1754	Public
UNMH Lifeguard Air Emergency Services	2505 Clark Carr Loop SE	Albuquerque	NM	Bernalillo	87106	1	0012.00	505-272-2464	Public
UNMH Maternal & Family Planning Clinic - NW Valley	1231 Candelaria Rd. NW	Albuquerque	NM	Bernalillo	87107	1	0032.02	505-272-2158	Public
UNMH Maternal & Family Planning Clinic - South Broadway	1500 Walter SE	Albuquerque	NM	Bernalillo	87102	1	0013.00	505-272-2156	Public
UNMH Maternal & Family Planning Clinic - West Mesa	6900 Gonzales Rd. SW	Albuquerque	NM	Bernalillo	87121	1	0047.05	505-272-2154	Public
UNMH Operations for Patients & Employees (HOPE)	933 Bradbury SE	Albuquerque	NM	Bernalillo	87102	1	0012.00	505-272-6700	Public
UNMH Outpatient Surgery & Imaging Service (OSIS)	1213 University Blvd NE	Albuquerque	NM	Bernalillo	87102	1	0003.00	505-925-7680	Public
UNMH Physical Therapy Rehabilitation Services	1025 Medical Arts Dr. NE	Albuquerque	NM	Bernalillo	87102	1	0019.00	505-272-9020	Public
UNMH Psychiatric Center	2600 Marble NE	Albuquerque	NM	Bernalillo	87106	1	0018.00	505-272-2800	Public
UNMH Psychosocial Rehabilitation Program	2001-D El Centro Familiar Blvd SW	Albuquerque	NM	Bernalillo	87105	1	0045.02	505-272-5786	Public
UNMH Sleep Disorders Center	1101 Medical Arts Ave. NE, Building 2	Albuquerque	NM	Bernalillo	87102	1	0019.00	505-272-6110	Public

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UNMH Womens Faculty & Midwife Clinic	801 Encino Pl. NE, Suite E-1	Albuquerque	NM	Bernalillo	87102	1	0019.00	505-925-4940	Public
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
Ysleta del Sur Community Health Center	9314 Juanchido Lane	El Paso	TX	El Paso	79907	1	0040.02	915-858-1076	Public

Site Name	Address	City	State	County	ZipCode	RUCA Code	Census Tract	Phone #	Public or NonPublic
Zia Health Clinic	155 B Capitol Square Dr., (Zia Pueblo, Hwy 44)	San Ysidro	NM	Sandoval	87053	2	0101.01	505-867-5258	Public
Zuni PHS Indian Hospital	Route 301 North 'B' Street, P.O. Box 467	Zuni	NM	McKinley	87327	5	9402.00	505-782-4431	Public

SWTAG Status

6/27/2012

NM Organization	RFP #	Status
Carlsbad MHC	RFP01 Dani	No change, stakeholder working with vendor to begin services. Expect invoicing to begin in the next quarter.
Presbyterian Health Services	RFP03 Dani	No change.
San Juan Regional	RFP04 Dani	No change. Vendor Brainstorm currently billing quarterly for ongoing services.
First Choice (NMPCA)	RFP05 Dani	No change.
UNMH/HSC Sites	RFP06 Dani	Selected vendor: CenturyLink. 466 packet submission certified by USAC as complete. 6/27
Albuquerque Area IHS	RFP07 Dani	SWTAG has requested USAC rescind and reissue the FCL in a higher amount due to increased cost for equipment service contracts. All required documentation submitted to USAC prior to end of funding year.
Ft Defiance- Navajo Nation	RFP 08 Suhail	Selected vendor: Sentinel 466 packet submission certified by USAC as complete. 6/27
La Familia (NMPCA)	RFP09 Dani	No change.
NMPCA (ALL Others)	RFP 10 Dani	Draft FCL received 6/12, stakeholder approved 6/22.
Winsow - Navajo Nation	RFP 11 Suhail	Selected vendor: NTUAW 466 packet submission certified by USAC as complete. 6/27
Hardrock - Navajo Nation	RFP12 Rae	Withdrawn.
UNMH Dedicated Fiber Connections	RFP 14 Suhail	Selected vendors: Aquila and TIG. 466 packet submission certified by USAC as complete. 6/27

Rural Health Care Pilot Program Invoice

Project Name	Southwest Telehealth Access Grid
SPIN	143026450
Vendor Name	Brainstorm Internet, Inc.
Vendor Invoice Number	1534089
Invoice Date to RHCD (mm/dd/yy)	4/11/2012
Total Invoice Amount	\$12,240.03
ACL Amount Remaining Before This Invoice:	\$232,560.06
Funding Year	3: Year 2009
HCP Number	17256
FRN	53805

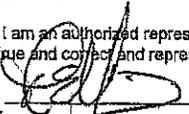
Choose return option:
 1) Email: RHCPIlot@usac.org
 2) Mail: RHC Pilot Program
 30 Lanidex Plaza West
 PO Box 685
 Parsippany NJ 07054-0685
 TEL: 973-500-0540

FOR RHCD USE ONLY	
Header Verification	
_____	RHCD Processed Date
_____	Number of Records
_____	Number of Records Approved
_____	RHCD Approved Total Amount
04/02/12	Generated Date
3/25/10	Template Build Date

Invoice ID	FRN	3: Category	4: Sub Category	5: Itemized Description Component	6: Itemized Description Speed	7: Comments	Items Requested This Invoice			RHCPP Support Amount		FRN Code
							12: Total # of Items / Months Requested	13: Total Actual Cost Per Item (100%) (as invoiced by vendor)	14: Total Eligible Cost (\$ - % Eligible)	15: RHC Funding % Requested (max 85%)	16: Support Amount to be paid by USAC (max 85%)	
1	1725634	6: Leased/Tariffed facilities or services	1: Recurring	15: Gateway to Public Internet	27: 100 Mbps	17256-04-0001	3	\$ 2,500.00	\$ 7,500.00	85%	\$ 6,375.00	53805
2	1725644	2: Network Equipment, including Engineering and Installation	1: Recurring	74: Network Shared Maintenance	16: N/A	17256-04-0001	3	\$ 766.67	\$ 2,300.01	85%	\$ 1,955.01	53805
3	1725654	2: Network Equipment, including Engineering and Installation	1: Recurring	74: Network Shared Maintenance	16: N/A	17256-04-0002	3	\$ 766.67	\$ 2,300.01	85%	\$ 1,955.01	53805
4	1725663	2: Network Equipment, including Engineering and Installation	1: Recurring	74: Network Shared Maintenance	16: N/A	17256-04-0003	3	\$ 766.67	\$ 2,300.01	85%	\$ 1,955.01	53805

Vendor Certification

I certify that I am an authorized representative of the above-named vendor, that I have examined the information provided in the Rural Health Care Pilot Program Invoice, and to the best of my knowledge, information and belief, all costs contained in this invoice are true and correct and represent actual incurred costs for network build-out or related services received by each participating health care provider.

Signature: 
 Print Name: RUSS ELLIOTT

Date: 4/11/12
 Email: RUSSE@brainstorminternet.net

Phone#: 970.247.1442 ex 108

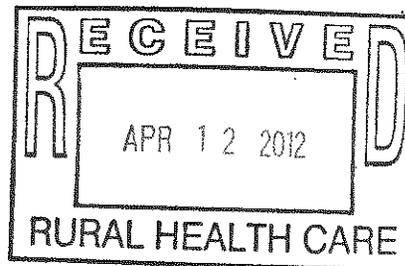
Project Coordinator Certification

I certify that I have examined the information provided in the Rural Health Care Pilot Program Invoice, and to the best of my knowledge, information and belief, the participating health care providers have received the network build-out or related services itemized on this invoice. I certify under penalty of perjury that the 15 percent minimum funding contribution for each item on this invoice required by the Rural Health Care Pilot Program rules was funded by eligible sources as defined in the rules and has been provided to the vendor.

Signature: 
 Print Name: DALE C. ALVERSON

Date: 4/2/12
 Email: dalverson@salus.vumc.edu

Phone#: 505-272-8633



Vendor Initial: 

PC Initial: 

Rural Health Care Pilot Program Invoice

Project Name	Southwest Telehealth Access Grid
SPIN	143024659
Vendor Name	INX Inc. - FKA Internetwork Experts
Vendor Invoice Number	135758-022712-C
Invoice Date to RHCD (mm/dd/yy)	4/20/2012
Total Invoice Amount	\$140,926.51
FCL Amount Remaining Before This Invoice:	\$256,585.50
Funding Year	3: Year 2009
HCP Number	17256
FRN	53600

Choose return option:
 1)Email: RHCPIlot@usac.org
 2)Mail: RHC Pilot Program
 30 Lanidex Plaza West
 PO Box 685
 Parsippany NJ 07054-0685
 973-269-5540

FOR RHCD USE ONLY	
Header Verification	
	RHCD Processed Date
	Number of Records
	Number of Records Approved
	RHCD Approved Total Amount
04/11/12	Generated Date
3/25/10	Template Build Date

DELETE	1. Invoice ID	2. NCW ID	3. Category	4. Sub-Category	5. Itemized Description, Component	6. Itemized Description, Speed	7. Comments	Items Requested This Invoice			RHCPP Support Amount		FRN Code
								12. Total # of Items / Months Requested	13. Total Actual Cost Per Item (100%) (as Invoiced by Vendor)	14. Total Eligible Cost (\$) (total actual cost * % eligible)	15. RHC Funding % Requested (max 85%)	16. Support Amount to be paid by USAC (max 85%)	
	1	1725611	2: Network Equipment, including Engineering and Installation	2: Non-recurring	32: Routers	16: N/A	17256-03-0002	1	\$ 12,328.05	\$ 12,328.05	85%	\$ 10,478.84	53600
	2	1725613	2: Network Equipment, including Engineering and Installation	2: Non-recurring	32: Routers	16: N/A	17256-03-0003	1	\$ 12,328.05	\$ 12,328.05	85%	\$ 10,478.84	53600
	3	1725615	2: Network Equipment, including Engineering and Installation	2: Non-recurring	32: Routers	16: N/A	17256-03-0004	1	\$ 12,328.05	\$ 12,328.05	85%	\$ 10,478.84	53600
	4	1725617	2: Network Equipment, including Engineering and Installation	2: Non-recurring	32: Routers	16: N/A	17256-03-0005	1	\$ 12,328.05	\$ 12,328.05	85%	\$ 10,478.84	53600
	5	1725619	2: Network Equipment, including Engineering and Installation	2: Non-recurring	32: Routers	16: N/A	17256-03-0006	1	\$ 3,448.55	\$ 3,448.55	85%	\$ 2,931.27	53600
	6	1725621	2: Network Equipment, including Engineering and Installation	2: Non-recurring	32: Routers	16: N/A	17256-03-0007	1	\$ 3,448.55	\$ 3,448.55	85%	\$ 2,931.27	53600
	7	1725623	2: Network Equipment, including Engineering and Installation	2: Non-recurring	32: Routers	16: N/A	17256-03-0008	1	\$ 3,448.55	\$ 3,448.55	85%	\$ 2,931.27	53600
	8	1725625	2: Network Equipment, including Engineering and Installation	2: Non-recurring	32: Routers	16: N/A	17256-03-0001	1	\$ 93,810.00	\$ 93,810.00	85%	\$ 79,738.50	53600
	9	172569	2: Network Equipment, including Engineering and Installation	2: Non-recurring	32: Routers	16: N/A	17256-03-0001	1	\$ 12,328.05	\$ 12,328.05	85%	\$ 10,478.84	53600

Vendor Certification

I certify that I am an authorized representative of the above-named vendor, that I have examined the information provided in the Rural Health Care Pilot Program Invoice, and to the best of my knowledge, information and belief, all costs contained in this invoice are true and correct and represent actual incurred costs for network build-out or related services received by each participating health care provider.

Signature: Cynthia McCarty
 Print Name: Cynthia McCarty

Date: 4-26-12
 Email: cmccarty@prosidio.com

Phone#: 469-549-3838

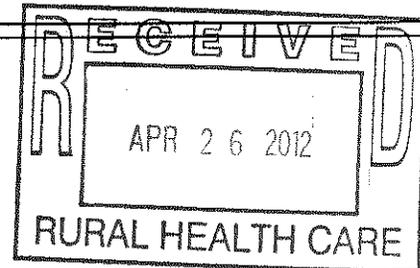
Project Coordinator Certification

I certify that I have examined the information provided in the Rural Health Care Pilot Program Invoice, and to the best of my knowledge, information and belief, the participating health care providers have received the network build-out or related services itemized on this invoice. I certify under penalty of perjury that the 15 percent minimum funding contribution for each item on this invoice required by the Rural Health Care Pilot Program rules was funded by eligible sources as defined in the rules and has been provided to the vendor.

Signature: Dale C. Alverson
 Print Name: DALE C. ALVERSON

Date: 4/18/12
 Email: dalverson@salud.vinnipedia.com

Phone#: 505-272-9633



Vendor Initial: CME

PC Initial: DA