FCC Rural Health Care Pilot Program
WC Docket No. 02-60

Quarterly Report
April - June 2011

Submitted by the

Michigan Public Health Institute (MPHI)
Jeffrey Taylor, Project Coordinator (PC)
Harry Levins, Assistant Project Coordinator (APC)

On July 27, 2011

Project Overview, History, and Current Status

The project is being managed by MPHI. The project consists of RFPs 00, 01, 02, 03, and 04. RFP 04 will not be pursued for reasons described below.

RFPs 00 and 01. Due to delays the main RFP 02 encountered (see below), MPHI decided to move forward with two small RFPs for the Thumb Rural Health Network (TRHN). The TRHN is a consortium of eight (8) RHCPP-eligible hospitals located in the thumb region of Michigan's Lower Peninsula. These two RFPs expanded an existing tower-based wireless network by adding four more towers (RFP 00) and purchasing telecomm equipment for all nine towers within the network (RFP 01).

- ***History of RFP 00 – TRHN Tower Construction***. This RFP built four telecommunications towers. RFP 00 was posted in early May 2009. Six qualified bids were submitted. A vendor (Thumb Radio Inc. of Bad Axe, MI)—the lowest bidder—was chosen in late June 2009, and a contract was signed on September 2. (The RFP requested quotes for five towers, but TRHN was unable to acquire the land for one of the five, so it decided to lease space on a nearby tower, reducing the number of towers to be built to four.) RFP 00's FCL was issued on September 24, 2009, and the Support Acknowledgement Letter was issued on October 2. Work on the towers was completed in early June 2010, and the final invoice was paid in mid-June 2010. Therefore, the RFP 00 project is complete.

- ***History of RFP 01 – TRHN Network Equipment***. This RFP purchased telecommunications equipment (radios, switches, routers, the network server, etc.) for the nine towers that are part of the TRHN network. RFP 01 was posted at the beginning of June 2009. Four bids were received, although two contained significant deficiencies. A vendor (CDW-Government, Inc.)—the lowest bidder among the four—was chosen in late July, and a contract was signed on September 15, 2009. RFP 01's FCL was issued on October 21, 2009, and the Support Acknowledgement Letter was issued on November 12. All of the equipment was delivered in December 2009, and the invoices were paid in January 2010. Therefore, the RFP 01 project is complete.

RFP 02 – Statewide Telecomm Network. This RFP will build a statewide healthcare network linking around 89 health care facilities throughout Michigan (with the exception of nine southeastern counties that include the metropolitan areas of Detroit, Flint, Lansing, Jackson, Ann Arbor, and Monroe). This network will use fiber optic cable (95 percent of the connections), T-1 lines, and other traditional "wired" technology.

- ***History and Current Status of RFP 02***. MPHI submitted its RFP 02 and the list of approximately 520 participating sites (draft Form 465 Attachment) to USAC for an informal review in late October 2008. The RFP received immediate approval, but review of the 520 sites took five months. The American Recovery and Reinvestment Act (ARRA) was announced in February 2009, and it soon became clear that funding would be made available to construct broadband

infrastructure. Once plans for Michigan's stimulus-funded, middle-mile broadband infrastructure—which RFP 02 intends to build upon—were clear, MPHI submitted the RFP 02 465 package. MPHI posted the RFP on November 10, 2009. Seven vendors submitted proposals on February 15, 2010. For the total, five-year cost of the project, the high bid was 431% larger than the low bid. The RFP 02 Evaluation Committee met in March 2010 and narrowed the competing vendors to two finalists (the two that had submitted the lowest cost bids). These vendors were given a two-week window during which they were permitted to adjust, or fine-tune, their cost figures to account for any networking or ARRA-funded project developments that had occurred in the first quarter of 2010. The revised cost figures were received on April 15, 2010. One vendor did not make any significant changes to its bid, while the other—already the low-cost bidder—dropped its aggregate five-year operating costs by another 9%. On April 19, the Evaluation Committee chose the latter vendor, Great Lakes Comnet (GLC) of East Lansing, MI, as the tentative winner.

Great Lakes Comnet's "Estimated Price" figures were provided to the HCPs in late April 2010. The HCPs were asked to determine which sites they wanted to keep in the project and commit to participation by signing a contract. Ninety (90) sites committed by early August. Great Lakes then calculated "Actual Prices" (final prices) based on the smaller size of the network, and MPHI communicated those prices to the HCPs. Seventeen (17) sites had the option to leave the project (without penalty) because their Actual Prices exceeded the corresponding Estimated Prices by more than 10 percent. Three (3) sites chose to opt out, although it is possible that some Michigan Department of Corrections sites could still opt out due to state budgeting issues and that InterCare's sites could still opt out of a contingency clause is not met.

During the fourth quarter of 2010, a construction schedule for the 89 sites, which is dependent on the MERIT-REACH 3MC, ARRA-funded project, was finalized. GLC and MPHI signed a contract on March 30, and "Network Construction and Service Agreements," to be signed by GLC and each of the participating HCPs, were mailed to the 27 participating HCPs (89 sites) on March 31. Twenty-three (23) HCPs, representing 72 sites, contractually committed.

MPHI submitted the FCC Form 466-A package in June 2011. On July 26 MPHI received notice that the official FCL would be released within a few days. The requested funding commitment is $7,988,067.60.

RFPs 03 and 04 – Fiber Build Project. MPHI's May 2007 application proposed creating "telehealth and telemedicine infrastructure and services in the areas of Michigan where the need is the most acute."[1] MPHI listed slightly less than 400 health care sites as

[1] "Pilot Program for Enhanced Access to Advanced Telecommunications and Information Services: Application to the Federal Communications Commission Submitted by the Michigan Public Health Institute," May 7, 2007, p. 31.

potential candidates for networking.[2] Three years later, it now appears that MPHI will be able to network only 93 sites: the eight sites networked by RFPs 00 and 01, and the 87 sites networked by RFP 02 (including two RFP 00/01 sites). The reasons for this shortfall are Michigan's poor economy, the three-year gap between the RHCPP announcement and RFP 02's marketing phase, the complexity of USAC programs in general and MPHI's RHCPP-funded statewide network in particular, and the high cost of the statewide network. To use the remaining RHCPP funding awarded to MPHI, to extend the statewide network created by RFP 02, and to help achieve the infrastructure goals of the RHCPP, MPHI has conceived an RFP 03, which will fund the installation of hospital-owned, fiber optic spans linking hospitals to their satellite sites and/or to other hospitals. The RFP 03 concept was marketed to Michigan HCPs during the fourth quarter of 2010. Five hospital systems (45 sites) committed to the project, two in Michigan's Upper Peninsula west of Marquette, and three in the central part of Michigan's Lower Peninsula.

USAC reviewed the RFP 03 scoping document and the 465 Attachment during January 2011, and the RFP was posted on February 2, 2011. On April 11, MPHI received bids from eight (8) vendors. Evaluation Committees for four hospitals met the week of April 18 and tentatively chose winning bidders; the fifth hospital withdrew from the project due to the high cost of the lone bid it received. Contract negotiations between each participating hospital system and the winning bidder began in May and are ongoing. Assuming contract negotiations are successful, MPHI plans to complete and submit four (4) separate FCC Form 466-A packages in August or September. The four projects will cover 34 sites under 20-year IRUs. The requested funding commitment is estimated to be approximately $10,774,000.

RFP 04 was planned as a companion to RFP 03 and would have covered the same sites as RFP 03, if construction firms had won the bidding. The plan was to help HCPs oversee the construction of the fiber networks that RFP 03 will build. Specifically, on behalf of the HCPs, RFP 04 would have engaged Quality Assurance Inspectors who, at the HCPs' discretion, would have been assigned to review the Contractor's route engineering and/or permitting work, inspect the purchased fiber and/or associated hardware to ensure that it meets Work Order Specifications, inspect the Contractor's construction activities on an ongoing basis, perform final testing and acceptance of fiber Spans, conduct educational seminars on outside plant (OSP) fiber optic construction to HCP employees involved with the project, etc. USAC reviewed RFP 04 in February, it was posted on March 4, and two bids were received on April 12. However, the RFP03 contract awards are almost certainly going to be IRU or IRU-like arrangements, which preclude the need for quality assurance oversight under RFP 04.

1. Project Contact and Coordination Information

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

[2] *Ibid*., pp. 34-38.

The Project Coordinator (PC) is Jeffrey Taylor, Executive Director, Michigan Public Health Institute (MPHI). The Assistant Project Coordinator (APC) is Harry Levins, Project Manager, MPHI. Jeff Shaw, the former APC, left MPHI's employment in late May.

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

The APC's (Harry Levins') contact information follows:

Michigan Public Health Institute
2436 Woodlake Circle, Suite 300
Okemos, MI 48864
Telephone: 517.324.6039
Fax: 517.324.6099
E-mail: hlevins@mphi.org

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

The Michigan Public Health Institute (MPHI) is legally and financially responsible for the conduct of activities supported by the award.

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

RFPs 00 and 01. RFPs 00 and 01 were coordinated through TRHN's executive director. (As noted above, TRHN is a consortium of eight hospitals.) The hospitals are kept informed by TRHN's executive director.

RFP 02. The following narrative refers to RFP 02, the statewide RFP.

Initial recruitment of HCPs to participate in the project was approached on a regional basis using representatives residing in each of five rural Medical Trading Areas (MTAs) covering 80 percent of the state (excluding only the southeastern quadrant of Michigan's Lower Peninsula). These regional representatives were employed by health care facilities and knew or were familiar with the HCPs located within their respective MTAs. Once the bulk of the LOAs had been received, MPHI assumed the task of obtaining missing information and resolving paperwork problems.

Initially, the MTA representatives handled most of the communication with the participating HCPs. Coordination with the regional reps was managed by telephone, e-mail, and teleconferences. However, as the LOA collection process progressed, MPHI assumed more responsibility for communicating directly with the HCPs. As part of this effort, MPHI launched a website dedicated to the Michigan RHCPP: http://fcc.mphi.org.

Representatives of each MTA; the Michigan Department of Technology, Management & Budget (DTMB); and the Michigan Department of Community Health (MDCH) formed an RFP 02 Review Team. The team met on a weekly basis, via teleconference, to develop and refine the RFP.

During the USAC site eligibility review process (early October 2008 through February 2009), MPHI coordinated the flow of data between USAC and the sites that applied for federal funding. MPHI submitted data to USAC in three batches: for the entire set of 551 sites in early October; for a third of the sites in mid-January; and, finally, for 37 sites in mid-February. USAC finalized the eligibility status of most sites (with three exceptions) on February 25, 2009. MPHI submitted 521 of these sites as part of its 465 package on November 4, 2009. By a letter dated November 6, USAC ruled three sites as ineligible for the federal subsidy. USAC posted the RFP on November 10. MPHI filed an appeal of the three ineligibility decisions on November 20. These appeals were resolved in March and April of 2010, with USAC ruling two sites eligible and the third site 33.2% eligible.

MPHI keeps the participating HCPs informed about the progress of the project. Examples of such activities follow.

- MPHI conducted a conference call with the regional representatives on April 14 and with the HCPs on April 17, 2009. Each regional representative and each participating HCP received a letter and an e-mail that summarized the project's history and invited them to attend the conference call.
- In late April 2009, by letter, MPHI formally notified the participating health care providers (HCPs) of the results of the eligibility review. If any site was deemed ineligible for federal funding, the specific FCC rationale was provided.
- MPHI posts updates on the aforementioned Michigan RHCPP website. For example, updates were posted on June 22 and October 12, 2009.
- A personalized e-mail update was sent to all RFP 02 participants on October 12-13, 2009.
- A personalized e-mail was sent to all participating HCPs on December 16-17, 2009. This e-mail solicited a telephone number for each site that could be used to determine what telecommunications equipment served each location.
- On August 24, 2010, MPHI conducted an e-mail survey to determine if there was sufficient interest to offer a second-round RFP 02 to add sites to the network that had not been listed on the original RFP 02's Form 465 Attachment.

The Governor of Michigan, DTMB, MDCH, and Michigan's Congressional delegation, all of whom are keenly interested in a successful implementation of the project, have been briefed on a regular basis. DTMB and MDCH officials are conferring with the APC and his project team on a bi-weekly basis.

On April 23, 2010, a package containing a letter detailing the next steps in the project, "Estimated Price" cost figures, and contracts were mailed to each of the points of contact for the 121 participating health care provider organizations. MPHI hosted a conference call for all participating HCPs on May 12 and 13, 2010. In May and June, MPHI made

hundreds of e-mail, voice mail, and conference call contacts with representatives of a large majority of the participating HCPs. On September 8, 2010, those HCPs that had committed sites to the network based on preliminary prices were informed by letter of the "Actual Price" (cost) to link each of their Participating Sites to the network. The letters identified sites that had the option to "opt out" because Actual Prices exceeded Estimated Prices by more than 10 percent. On Nov. 18, 2010, the final site construction schedule was e-mailed to the HCPs. On March 31, 2011, vendor-HCP contracts with cover letter were mailed to the participating HCPs; e-mails to the HCPs were also sent. Twenty-three (23) health care providers, representing 72 sites, signed.

RFP 03. The opportunity to participate in RFP 03 was marketed to Michigan's hospitals through the Michigan Health and Hospital Association (MHA). It was marketed to Michigan's community health centers through the Michigan Primary Care Association (MPCA). HCPs submitted their applications in late November and early December 2010, and the five (later reduced to four) participating HCPs have dealt directly with MPHI since then through almost daily e-mail and telephone contact with the project manager.

RFP 04. The opportunity to participate in RFP 04 was marketed through the Telecommunications Association of Michigan and the national Fiber Optic Association. An information session was hosted for interested bidders on March 23, 2011.

2. ***Identify all health care facilities included in the network.***
    a. ***Provide address (including county), zip code, Rural Urban Commuting Area (RUCA) code (including primary and secondary), six-digit census tract, and phone number for each health care facility participating in the network.***
    b. ***For each participating institution, indicate whether it is:***
        i. ***Public or non-public;***
        ii. ***Not-for-profit or for-profit;***
        iii. ***An eligible health care provider or ineligible health-care provider with an explanation of why the health care facility is eligible under section 254 of the 1996 Act and the Commission's rules or a description of the type of ineligible health care provider entity.***

Note: Public, as used here, means "owned by a local, state, or federal government." USAC's RHCPP Director and the RHCPP coaches have offered conflicting definitions of the term (e.g., on an October 14, 2009, national conference call). Until USAC publishes clear guidance, we intend to continue to use this definition.

RFPs 00 and 01

SITE	ADDRESS	CITY	COUNTY	STATE	ZIP CODE	CENSUS TRACT	RUCA	Public?	Non-profit	Pilot Eligible?	USAC "Eligible Entity TYPE"	Brief Explanation of Eligibility or Ineligibility	TEL.

Caro Community Hospital	401 North Hooper St.	Caro	Tuscola	MI	48723	9606.00	7.0	NO	TRUE	YES	5: Not-for-profit hospital	MI Nonprofit Critical Access Hospital	989-673-3141
Deckerville Community Hospital	3559 Pine St.	Deckerville	Sanilac	MI	48427	9704.00	10.6	NO	TRUE	YES	5: Not-for-profit hospital	Nonprofit community hospital	810-376-2835
Harbor Beach Community Hospital	210 South First St.	Harbor Beach	Huron	MI	48441	9512.00	10.6	NO	TRUE	YES	5: Not-for-profit hospital	MI Nonprofit Critical Access Hospital	989-479-3201
Hills & Dales General Hospital	4675 Hill St.	Cass City	Tuscola	MI	48726	9601.00	7.0	NO	TRUE	YES	5: Not-for-profit hospital	MI Nonprofit Critical Access Hospital	989-912-6275
Huron Medical Center - Bad Axe	1100 South Van Dyke Rd.	Bad Axe	Huron	MI	48413	9511.00	8.0	NO	TRUE	YES	5: Not-for-profit hospital	Nonprofit community hospital	989-269-8933
McKenzie Memorial Hospital	120 Delaware St.	Sandusky	Sanilac	MI	48471	9709.00	7.0	NO	TRUE	YES	5: Not-for-profit hospital	MI Nonprofit Critical Access Hospital	810-648-6125
Scheurer Hospital - Hospital	170 North Caseville Rd.	Pigeon	Huron	MI	48755	9507.00	10.0	NO	TRUE	YES	5: Not-for-profit hospital	MI Nonprofit Critical Access Hospital	989-453-5202
Marlette Regional Hospital	2770 Main St.	Marlette	Sanilac	MI	48453	9710.00	10.6	NO	TRUE	YES	5: Not-for-profit hospital	Nonprofit community hospital	989-635-4001

RFP 02

RFP 02's Form 465 Attachment listed 521 sites that had expressed interest in participating in the project. Seventy-two (72) sites have contractually committed to the project. The requested data for the 72 sites is shown at **Appendix A** to this quarterly report. Two sites are data centers that support multiple non-profit health care sites.

RFP 03

RFP 03's 465 Attachment lists 45 sites, but only 34 are involved in contract negotiations. The requested data for the 34 sites is shown at **Appendix B** to this quarterly report.

3. ***Network Narrative: In the first quarterly report following the completion of the competitive bidding process and the selection of vendors, the selected participant must submit an updated technical description of the communications network that it intends to implement, which takes into account the results its network design studies and negotiations with its vendors. This technical description should provide, where applicable:***
    a. ***Brief description of the backbone network of the dedicated health care network, e.g., MPLS network, carrier-provided VPN, a SONET ring;***
    b. ***Explanation of how health care provider sites will connect to (or access) the network, including the access technologies/services and transmission speeds;***
    c. ***Explanation of how and where the network will connect to a national backbone such as NLR or Internet2;***
    d. ***Number of miles of fiber construction, and whether the fiber is buried or aerial;***
    e. ***Special systems or services for network management or maintenance (if applicable) and where such systems reside or are based.***

RFPs 00 and 01 – Tower Construction and Equipment. The TRHN is a consortium of eight (8) "Pilot Eligible" hospitals located in the thumb region of Michigan's Lower Peninsula. The TRHN has expanded an existing, microwave tower-based, wireless network by adding four more towers.

(a) Brief description of the backbone network of the dedicated health care network. The TRHN has expanded an existing microwave, tower-based, wireless network by adding four more towers to the original four towers and leasing space on a ninth tower. RFP 00 constructed the four towers. RFP 01 purchased telecommunications equipment for all nine towers (one at each of the eight hospitals plus the centrally located, leased hub tower). Long-range, wireless, point-to-point "radios" were mounted on each of the nine towers and provide direct, line-of-sight communication between pairs of towers/hospitals.

(b) Explanation of how health care provider sites will connect to (or access) the network. The radios transmit data at 55 Mbps. They are linked to their associated hospitals by means of Ethernet networking and Cisco switches and routers.

(c) Explanation of how and where the network will connect to a national backbone such as NLR or Internet2. The TRHN regional network will connect to the larger statewide project (RFP 02 – see below), the Internet, and Internet2 at two tower sites.

(d) Number of miles of fiber construction. Since this is a wireless network, fiber optic cable will not be used.

(e) Special systems or services for network management or maintenance (if applicable) and where such systems reside or are base. The wireless network is monitored and managed using network monitoring (purchased by TRHN) and network management (Ipswitch WhatsUp Gold Premium) software running on a standard ProLiant Quad-Core Xeon server and under a Windows Server 2008 OS.

RFP 02 – Statewide Network. MPHI plans to build a network linking health care providers throughout Michigan (except for the southeastern urban area from Lansing to Detroit). This network's backbone will link to Internet2 in at least two locations.

(a) Brief description of the backbone network of the dedicated health care network. The network will be an MPLS fiber network built using a ring typology. It will be based on Great Lakes Comnet's (GLC's) Michigan-centered MPLS backbone. In other words, where possible, the network will be owned (rather than leased) by GLC, providing greater flexibility, management, and control.

(b) Explanation of how health care provider sites will connect to (or access) the network. Sites will access the network using router and firewall (VPN) equipment provided by GLC.

(c) Explanation of how and where the network will connect to a national backbone such as NLR or Internet2. The statewide network will connect to the public Internet through GLC's backbone at four locations, Chicago, Cleveland, Grand Rapids, and Southfield, MI. The statewide network will connect to Internet2 through GLC's backbone at two locations, Chicago and Cleveland.

(d) Number of miles of fiber construction. Much of the network will piggyback on the ARRA-funded, 2,000+-mile Merit REACH Michigan Middle Mile Collaborative (3MC) fiber optic infrastructure that will be built throughout Michigan from 2011 through 2013. In addition, GLC will build final-mile fiber to connect sites. MPHI will report GLC's mileage when that figure is available.

(e) Special systems or services for network management or maintenance (if applicable) and where such systems reside or are base. GLC's 24x7x365 network operations center (NOC) will monitor the network. Network maintenance will be handled by GLC technicians dispersed throughout the state. Spare equipment will be staged at the 19 Michigan ILECs that own GLC.

RFPs 03 and 04 – Fiber Build. MPHI plans to fund the construction of hospital-owned fiber networks for four (4) Michigan hospital systems. These networks will connect each system's main hospital(s) with its eligible satellite sites and, in several cases, other hospital systems.

(a) Brief description of the backbone network of the dedicated health care network. The five systems will be built as follows:

- Portage Health's network will employ (a) a ring topology that will connect five sites to Portage's main campus and (b) linear fiber spans that will connect three other sites (including Baraga County Memorial Hospital and Marquette General Hospital) to Portage's main campus.
- Covenant Medical Center will employ a linear topology that will connect Covenant's two hospitals and a third site.
- Memorial Healthcare will employ an almost pure hub and spoke topology, with nine satellite sites connected directly to the Main Campus, and two other satellite sites connected to two of the nine satellites.
- The Edward W. Sparrow Hospital Association will employ a mostly hub and spoke approach, with six satellite sites, including two rural hospitals, connected directly to the main Sparrow Hospital; a third

rural hospital connected to one of the other two rural hospitals; and another urban hospital (St. Lawrence) connected to a satellite site next door and already networked to the main Sparrow Hospital.

- The extant fiber infrastructure in Michigan, coupled with the privately owned fiber backbone infrastructure being constructed throughout Michigan with ARRA funding, will link the Upper Peninsula network to the three Lower Peninsula hospital systems.

(b) Explanation of how health care provider sites will connect to (or access) the network. Fiber will be terminated at each site. Each will access the hospital network using router and firewall (VPN) equipment owned by the hospital system.

(c) Explanation of how and where the network will connect to a national backbone such as NLR or Internet2. Not applicable. Connection to a national backbone is optional.

(d) Number of miles of fiber construction. The four hospital systems will lease approximately 400 miles of fiber cable.

(e) Special systems or services for network management or maintenance (if applicable) and where such systems reside or are base. Not applicable.

4. ***List of Connected Health Care Providers: Provide information below for all eligible and ineligible health care provider sites that, as of the close of the most recent reporting period, are connected to the network and operational.***
   a. ***Health care provider site;***
   b. ***Eligible provider (Yes/No);***
   c. ***Type of network connection (e.g., fiber, copper, wireless);***
   d. ***How connection is provided (e.g., carrier-provided service; self-constructed; leased facility);***
   e. ***Service and/or speed of connection (e.g., DS1, DS3, DSL, OC3, Metro Ethernet (10Mbps);***
   f. ***Gateway to NLR, Internet2, or the Public Internet (Yes/No);***
   g. ***Site Equipment (e.g., router, switch, SONET ADM, WDM), including manufacturer name and model number.***
   h. ***Provide a logical diagram or map of the network.***

<u>RFPs 00 and 01 – Tower Construction and Equipment</u>

Health Care Provider	City in MI	Eligible?	Connection Type	How Connection Is Provided	Bandwidth	Gateway to Internet2	Gateway to Public Internet	Site Equipment
Caro Community Hospital	Caro	Yes	Wireless	Self-constructed	55 mbps	Yes	Yes	See *
Deckerville Community Hospital	Deckerville	Yes	Wireless	Self-constructed	55 mbps	Yes	Yes	See *
Harbor Beach Community	Harbor	Yes	Wireless	Self-constructed	55 mbps	Yes	Yes	See

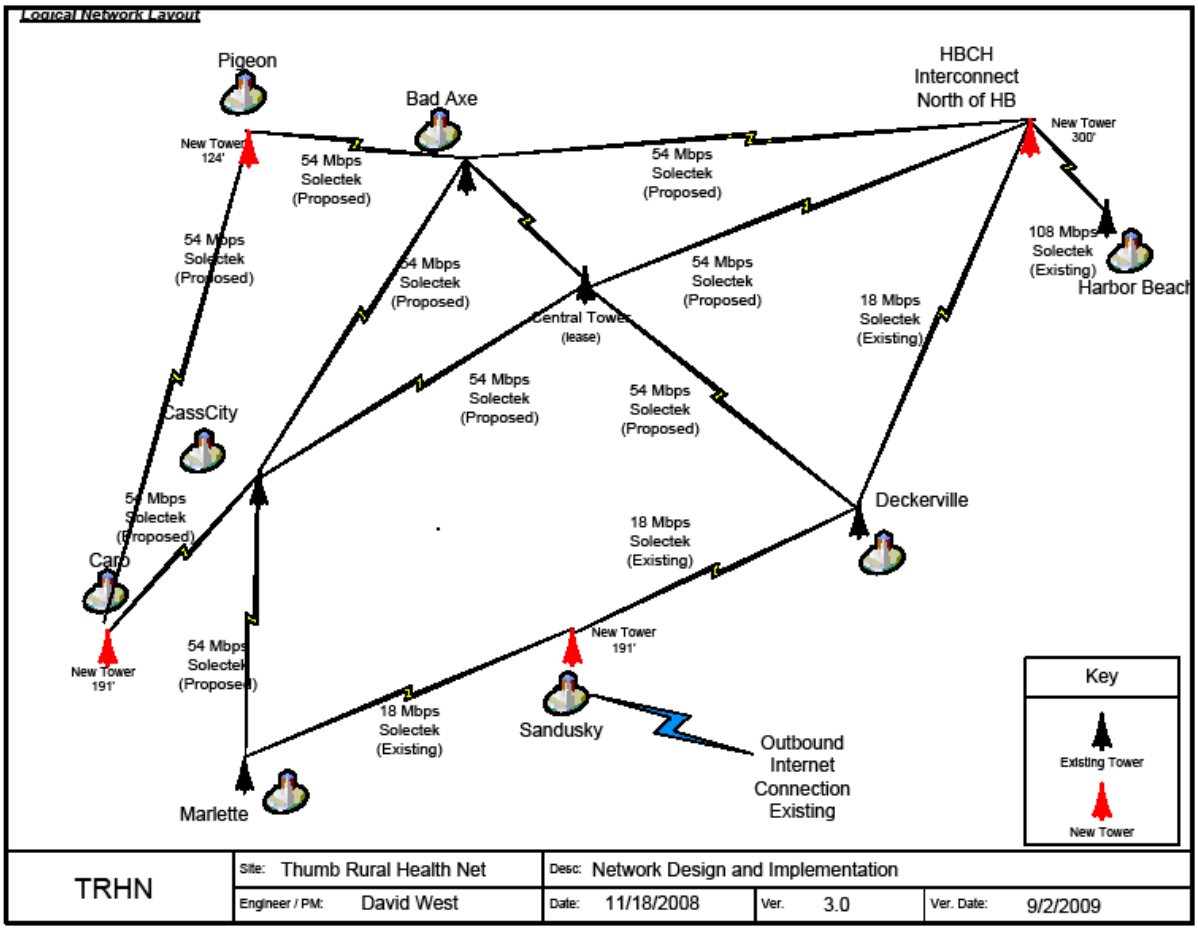
Hospital	Beach							*
Hills & Dales General Hospital	Cass City	Yes	Wireless	Self-constructed	55 mbps	Yes	Yes	See *
Huron Medical Center	Bad Axe	Yes	Wireless	Self-constructed	55 mbps	Yes	Yes	See *
Marlette Regional Hospital	Marlette	Yes	Wireless	Self-constructed	55 mbps	Yes	Yes	See *
McKenzie Memorial Hospital	Sandusky	Yes	Wireless	Self-constructed	55 mbps	Yes	Yes	See *
Scheurer Hospital	Pigeon	Yes	Wireless	Self-constructed	55 mbps	Yes	Yes	See *

* Tessco Airstream 4.9 long-range PTP wireless network kit

* Cisco Catalyst 3560 24 Layer 3 Ethernet Switch

* Black Box 8U wall-mounted rack enclosure

A network map follows.



RFP 02 – Statewide Network. No RFP 02 participants will be networked until the 4th quarter of 2011.

RFPs 03 – Fiber Build. No RFP 03 participants will be networked until the 4th quarter of 2011.

5. ***Identify the following non-recurring and recurring costs,[3] where applicable shown both as budgeted and actually incurred for the applicable quarter and funding year to-date.***
    a. ***Network Design***
    b. ***Network Equipment, including engineering and installation***
    c. ***Infrastructure Deployment/Outside Plant***
        i. ***Engineering***
        ii. ***Construction***
    d. ***Internet2, NLR, or Public Internet Connection***
    e. ***Leased Facilities or Tariffed Services***
    f. ***Network Management, Maintenance, and Operation Costs (not captured elsewhere)***
    g. ***Other Non-Recurring and Recurring Costs***

- ***RFP 00*** – MPHI budgeted $557,351.20 (both USAC & HCP shares) for construction of four towers. All of these costs were non-recurring, and all fit into category *c* above. All but $2,337.84 of the FCL was paid to the vendor ($471,410.68 was paid), and the HCP paid $83,190.12 (15 percent of the tower construction cost).

Invoice #	Incurred Costs (Invoice Amount)	HCP Payment	USAC Payment	Status of USAC Payment
88429	$47,870.00	$7,180.50	$40,689.50	Paid
88522	$104,746.20	$15,711.93	$89,034.27	Paid
88584	$68,345.00	$10,251.75	$58,093.25	Paid
88622	$36,141.00	$5,421.15	$30,719.85	Paid
88713	$80,049.60	$12,007.44	$68,042.16	Paid
88739	$38,620.00	$5,793.00	$32,827.00	Paid
88822	$40,857.00	$6,128.55	$34,728.45	Paid
88878	$53,880.00	$8,082.00	$45,798.00	Paid
88942	$43,636.00	$6,545.40	$37,090.60	Paid
88957	$40,456.00	$6,068.40	$34,387.60	Paid
Totals	$554,600.80	$83,190.12	$471,410.68	

[3] Non-recurring costs are flat charges incurred only once when acquiring a particular service or facility. Recurring costs are costs that recur, typically on a monthly basis, because they vary with respect to usage or length of service contract.

- ***RFP 01*** – MPHI budgeted $53,464.12 (both USAC & HCP shares) for network equipment mounted on nine towers (five towers were pre-existing). All of these costs were non-recurring, and all fit into category *b* above. All but 24 cents of the FCL was paid to the vendor ($45,444.35 was paid), and the HCP paid $8,019.62 (15 percent of the equipment cost).

- ***RFP 02*** – The budget for RFP 02 follows:
  - Network Design – N/A
  - Network Equipment, including engineering and installation – For purposes of this document, these costs are embedded in Infrastructure Deployment/Outside Plant. However, they will be broken out in the Network Cost Worksheet (NCW). They are a small percentage of the actual engineering and construction cost.
  - Infrastructure Deployment/Outside Plant: Engineering and Construction – The RHCPP will contribute $6,008,076.82 for 72 sites (approximately 85 percent of the actual cost). The HCPs will contribute an additional $1,060,248.85 (approximately 15 percent of the actual cost). Because some sites are less than 100% eligible, the 85-15 split is not precise.
  - Internet2, NLR, or Public Internet Connection – These costs are embedded in the monthly Operation Costs.
  - Leased Facilities or Tariffed Services – N/A
  - Network Management, Maintenance, and Operation Costs (not captured elsewhere) – The RHCPP will contribute $1,979,990.78 in monthly operating subsidies for 72 sites during the first 24 months of operation at each site (approximately 85 percent of the actual cost). The HCPs will contribute an additional $349,410.14 (approximately 15 percent of the actual cost). Because some sites are less than 100% eligible, the 85-15 split is not precise.
  - Other Non-Recurring and Recurring Costs – N/A

- ***RFP 03*** – The budget for RFP 03 follows:
  - Network Design – N/A
  - Network Equipment, including engineering and installation – RFP 03's participating hospitals will be purchasing 20-year IRUs (indefeasible right of use leases) or IRU-like arrangements. The hardware costs are embedded in the up-front, lump sum payment for the IRU.
  - Infrastructure Deployment/Outside Plant: Engineering and Construction – The infrastructure deployment/outside plant costs are embedded in the up-front, lump sum payment for the IRU.
  - Internet2, NLR, or Public Internet Connection – These costs are embedded in the up-front, lump sum payment for the IRU.
  - Leased Facilities or Tariffed Services – The RHCPP will contribute approximately $10,774,000 for the IRU and IRU-like arrangements (approximately 85 percent of the actual cost), and the HCPs will

contribute an additional $1.9 million (approximately 15 percent of the actual cost). Because one site is less than 100% eligible, the 85-15 split will not be precise.

- Network Management, Maintenance, and Operation Costs (not captured elsewhere) – These costs—over 20 years—are embedded in the up-front, lump sum payment for the IRU.
- Other Non-Recurring and Recurring Costs – N/A

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.

RFPs 00 and 01. The actual costs to serve a site were allocated to that site. All eight (8) network participants are eligible health care providers (hospitals) and received the full 85 percent subsidy.

RFP 02. The actual costs to serve a site are allocated to that site. If a site is fully eligible, it receives the full 85 percent subsidy. If a site is partially eligible, it receives a pro-rated subsidy and makes up the difference.

RFPs 03. The actual costs to serve a site are allocated to that site. If a site is fully eligible, it receives the full 85 percent subsidy. The single site that is partially eligible will receive a pro-rated subsidy and will make up the difference.

b. Describe the source of funds from:

i. Eligible Pilot Program network participants

ii. Ineligible Pilot Program network participants

RFPs 00 and 01. The source of the participating health care providers' 15 percent share was a HRSA grant obtained through their consortium, the Thumb Rural Health Network (TRHN). There were no recurring costs in this project; all costs were one-time construction or purchase.

RFP 02. The source of funds for the HCPs' match is the HCP itself, except in the case of a small group of InterCare sites that is seeking a grant to cover its 15 percent match.

RFP 03. The source of funds for the HCP's match is the HCP itself.

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.

RFPs 00 and 01. With the exception of sources described in 6.b. above, there were no other sources of funds.

RFP 02. There should be no other sources of funds, except for the aforementioned small group that is seeking a grant to cover its 15 percent match.

RFP 03. There should be no other sources of funds.

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.

RFPs 00 and 01. The participants' 15 percent contribution is helping to pay for a telecomm network that is critical for inter-hospital communication.

RFP 02. The participants' 15 percent contribution is helping to pay for a telecomm network that is critical for inter-site and inter-HCP intrastate communication.

RFP 03. The participants' 15 percent contribution is helping to pay for a hospital system telecommunications networks that are vital to these hospitals use of electronic health records (EHRs), health information exchange (HIE), and other forms of health information technology (HIT).

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

RFPs 00 and 01. All network participants are subsidy-eligible health care providers (hospitals).

RFP 02. All network participants except for two data centers are subsidy-eligible. Based on empirical evidence and a rational allocation, the data centers are 100% eligible at the FCC Form 466 stage of the process. If there were any entities eligible to participate but ineligible for the subsidy, they would pay 100 percent of the cost of participation (both one-time connection and monthly service).

RFPs 03. All participating sites are subsidy-eligible, although one is at a reduced rate. If there were any entities eligible to participate but ineligible for the subsidy, they would pay 100 percent of the cost of participation.

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

There has been no change from prior Quarterly Reports. For current project leadership, please refer to the response to question 1.

b. In the first quarterly report, the selected applicant should provide a detailed project plan and schedule. The schedule must provide a list of key project deliverables or tasks, and their anticipated completion dates. Among the deliverables, participants must indicate the dates when each health care provider site is expected to be connected to the network and

operational. Subsequent quarterly reports should identify which project deliverables, scheduled for the previous quarter, were met, and which were not met. In the event a project deliverable is not achieved, or the work and deliverables deviate from the work plan, the selected participant must provide an explanation.

RFP 00 – Tower Construction. This project schedule has been completed:

- April 2009. MPHI submitted the FCC Form 465 package for USAC review.
- May 2009. USAC finalized its review and posted the RFP.
- June 2009. Vendors submitted proposals, and MPHI selected a winning vendor.
- July - September 2009. A contract was negotiated and signed.
- September 2009. USAC reviewed and approved the FCC Form 466A package.
- September 24, 2009. USAC issued the FCL.
- Late September 2009. Construction began.
- October 2, 2009. USAC issued a Support Acknowledgement Letter.
- June 30, 2010. Construction is completed.
- December 2009 through July, 2010. Network equipment purchased through RFP 01 was mounted on the towers as they are completed.
- July 2010. All eight hospitals are linked to an operational network.

RFP 01 – Purchase of Network Equipment. This project schedule has been completed:

- May 2009. MPHI submitted the FCC Form 465 package for USAC review.
- June 2009. USAC finalized its review and posted the RFP.
- July 2009. Vendors submitted proposals, and MPHI selected a winning vendor.
- August - September 2009. A contract was negotiated and signed.
- September 2009. USAC reviewed and approved the FCC Form 466A package.
- October 2009. USAC issued the FCL.
- November 2009. USAC issued a Support Acknowledgement Letter.
- December 2009. All equipment was delivered.
- December 2009. The HCP paid its 15 percent share to the vendor.
- January 2010. USAC paid its 85 percent share to the vendor.
- December 2009 through July, 2010. Network equipment purchased through RFP 01 was mounted on the towers as they are completed.
- July 2010. All eight hospitals are linked to an operational network.

RFP 02 – Statewide Network

MPHI plans to network 89 HCP sites stretched across 80 percent of the state's geography. Participants will be classified into four categories: Tier 1 (large regional referral hospitals), Tier 2 (other hospitals), Tier 3 (large clinics with five or more clinicians), and Tier 4 (smaller clinics). All HCPs will be connected to the Internet2 backbone. Connection throughput; the number of virtual private network connections; the locus of equipment management; the uptime, response time, and repair time requirements; and other features will vary by Tier, with the most robust service being provided to Tier 1 HCPs.

A tentative project schedule follows:

- July-September 2008. The RFP was written; refined; and reviewed by a prominent telecommunications law firm. ***COMPLETED***
- October 2008 – The RFP was finalized. ***COMPLETED***
- November 2008 – USAC informally reviewed the RFP. ***COMPLETED***
- October 2008 through February 2009 – USAC informally reviewed the eligibility of sites for FCC funding. ***COMPLETED***[4]
- November 2009 – MPHI submitted the 465 package to USAC. ***COMPLETED***
- November 2009 – The RFP was posted on the USAC website. ***COMPLETED***
- February 2010 – Vendor proposals are received. ***COMPLETED***
- February - April 2010 – The Evaluation Committee evaluates proposals and selects a tentative winning bidder. ***COMPLETED***
- April 23 – Late July 2010 – Based on "estimated" cost data from the tentative winning bid, participating HCPs, by site, confirm their participation (by contract) or withdraw from the project. ***COMPLETED***
- Early August 2010 – A list of committed sites is compiled and provided to the tentative winning bidder. ***COMPLETED***
- September 2010 – The tentative winning bidder recalculates costs based on the list of committed sites and submits the "actual" costs to MPHI, which in turn communicates them to the HCPs. The HCPs have the right to withdraw a site if a site's actual costs exceed its estimated costs by more than 10%. ***COMPLETED***
- November 2010 – The tentative winning bidder creates a construction schedule. ***COMPLETED***
- ***October 2010 – March 2011*** – MPHI negotiates a signs a contract with the winning bidder, Great Lakes Comnet. ***COMPLETED***
- ***April – May 2011*** – Great Lakes Comnet and each of the 23 HCPs (representing 72 sites) sign a contract. ***COMPLETED***
- ***June 2011***. MPHI submits the 466 package to USAC for its approval. ***COMPLETED***

- ***4th Quarter 2011 through 3rd Quarter 2013*** – The winning bidder builds the network, with HCPs connected in a serial manner as quickly as possible.
- ***1st and 2nd years of network operation*** (timing will vary by HCP) – The monthly service costs during the first and second years of each HCP's participation in the network are subsidized by RHCPP funds (85%), with the balance being paid by the HCP.
- ***3rd through 5th years of network operation*** – The monthly service rates paid by the HCPs were set by the original contract. The HCPs pay 100 percent of those costs.

RFPs 03 – Fiber Build

[4] A decision on one "administrative" site is still outstanding a year after the initial submission of data.

RFP 03 will fund the installation of hospital-owned fiber optic spans linking hospitals to their satellite sites and/or to other hospitals. Four hospital systems, 11 hospitals, and a total of 34 sites are involved.

- December 2010-January 2011. MPHI submitted the RFP 03 FCC Form 465 package for an informal USAC review. ***COMPLETED***
- January 2011. MPHI submitted its RFP 03 FCC Form 465 package for USAC review. USAC posted the RFP on Feb. 2, with bids due on April 11. ***COMPLETED***
- February 2011. MPHI submitted its RFP 04 FCC Form 465 package for USAC review. USAC posted the RFP on March 4, with bids due April 12. ***COMPLETED***
- April 2011. An Evaluation Committee for each hospital system evaluated RFP 03 and RFP 04 bids and selected tentative winners. ***COMPLETED***

- May - August 2011. HCPs and MPHI negotiate contracts with potential contractors.
- August or September 2011. MPHI assembles RFP 03 Form 466 packages and submits them to USAC.
- Fall 2011. USAC issues RFP 03 FCLs.
- 2012 through summer 2013. Construction and formal acceptance of fiber spans. All hospital system fiber networks should be operational by the middle of 2013.

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

See the Sustainability Plan attached as **Appendix C**.

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;***
- ***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;***
- ***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;***
- ***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;***
- ***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.

Given that the RFP00/01 network has been in operation for less than a year and has not been formally evaluated, and that the RFP02 statewide network and RFP 03 fiber build projects will not be operational for at least a year, this section is not applicable at this point in time.

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;***
    b. ***Explain how the supported network has used health IT products certified by the Certification Commission for Healthcare Information Technology;***
    c. ***Explain how the supported network has supported the Nationwide Health Information Network (NHIN) architecture by coordinating activities with organizations performing NHIN trial implementations;***
    d. ***Explain how the supported network has used resources available at HHS' Agency for Healthcare Research and Quality (AHRQ) National Resource Center for Health Information Technology;***
    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***
    f. ***Explain how the supported network has used resources available through HHS' Centers for Disease Control and Prevention (CDC) Public Health Information Network (PHIN) to facilitate interoperability with public health and emergency organizations.***

Given that the RFP00/01 network has been in operation for less than a year and has not been formally evaluated, and that the RFP02 statewide network and RFP 03 fiber build projects will not be operational for at least a year, this section is not applicable at this point in time. However MPHI, the State of Michigan, and the participating HCPs are well aware of the HHS health IT initiatives and intend to incorporate them, as appropriate.

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.

Given that the RFP00/01 network has been in operation for less than a year and has not been formally evaluated, and that the RFP02 statewide network and RFP 03 fiber build projects will not be operational for at least a year, this section is not applicable at this point in time.

Completed by: Harry Levins, MPHI Project Manager, 7/27/2011

Appendix A - Health Care Facilities Included in the RFP 02 Statewide Network

Organization	Site	Address	City	County	State	Zip Code	Census Tract	RUCA	Public?	Non-profit	Pilot Eligible?	USAC "Eligible Entity Type"	Brief Explanation of Eligibility or Ineligibility	Tel.
AuSable Valley Community Mental Health	Tawas City	1199 West Harris Avenue	Tawas City	Iosco	MI	48763	9910.00	7.0	NO	TRUE	YES	4: Community mental health center	CMH Svc. Pgm. established by MI Mental Health Code	989-362-8636
AuSable Valley Community Mental Health	Oscoda	5805 North Cedar Lake Road	Oscoda	Iosco	MI	48750	9902.00	7.0	NO	TRUE	YES	4: Community mental health center	CMH Svc. Pgm. established by MI Mental Health Code	989-362-8636
AuSable Valley Community Mental Health	West Branch	511 Griffin Road	West Branch	Ogemaw	MI	48661	9505.00	10.0	NO	TRUE	YES	4: Community mental health center	CMH Svc. Pgm. established by MI Mental Health Code	989-362-8636
AuSable Valley Community Mental Health	Mio	42 North Mt. Tom Road	Mio	Oscoda	MI	48647	9704.00	10.0	NO	TRUE	YES	4: Community mental health center	CMH Svc. Pgm. established by MI Mental Health Code	989-362-8636
Bronson Healthcare Group	Bronson Methodist Hospital	601 John Street	Kalamazoo	Kalamazoo	MI	49007	0009.00	1.0	NO	TRUE	YES	5: Not-for-profit hospital	Nonprofit community hospital	269-341-6344
Bronson Healthcare Group	Bronson Lakeview Hospital	408 Hazen	Paw Paw	Van Buren	MI	49079	0117.00	2.0	NO	TRUE	YES	5: Not-for-profit hospital	MI Nonprofit Critical Access Hospital	269-341-6344
Central Michigan District Health Department	Reed City	4329 220th Avenue	Reed City	Osceola	MI	49677	9706.00	7.4	NO	TRUE	YES	3: Local health department or agency	District (multi-county) public health department	989-773-5921
Charlevoix Area Hospital	Boyne Area Medical Center	223 North Park Street	Boyne City	Charlevoix	MI	49712	9814.00	7.0	NO	TRUE	YES	6: Rural health clinic	Rural health clinic owned by a non-profit hospital	231-547-8500
Charlevoix Area Hospital	Charlevoix Area Hospital	14700 Lake Shore Drive	Charlevoix	Charlevoix	MI	49720	9804.00	10.6	NO	TRUE	YES	5: Not-for-profit hospital	MI Nonprofit Critical Access Hospital	231-547-8500
Charlevoix Area Hospital	Jordan Valley Rehabilitation Center	100 Main Street	East Jordan	Charlevoix	MI	49727	9811.00	10.6	NO	TRUE	YES	6: Rural health clinic	Rural health clinic owned by a non-profit hospital	231-547-8500
District Health Department No. 2	Harrisville	311 Lake Street	Harrisville	Alcona	MI	48740	9801.00	10.0	YES	TRUE	YES	3: Local health department or agency	District (multi-county) public health department	989-343-1806
District Health Department No. 2	Tawas City	420 West Lake Street	Tawas City	Iosco	MI	48763	9909.00	7.0	YES	TRUE	YES	3: Local health department or agency	District (multi-county) public health department	989-343-1806
District Health Department No. 2	West Branch	630 Progress Street	West Branch	Ogemaw	MI	48661	9505.00	10.0	YES	TRUE	YES	3: Local health department or agency	District (multi-county) public health department	989-343-1806
District Health Department No. 2	Mio	393 South Mt. Tom Road	Mio	Oscoda	MI	48647	9705.00	10.0	YES	TRUE	YES	3: Local health department or agency	District (multi-county) public health department	989-343-1806
Gratiot County Community Mental Health	Gratiot County Community Mental Heal	608 Wright Avenue	Alma	Gratiot	MI	48801	9904.00	4.0	NO	TRUE	YES	4: Community mental health center	CMH Svc. Pgm. established by MI Mental Health Code	989-466-4109
HealthSource Saginaw, Inc.	HealthSource Saginaw, Inc.	3340 Hospital Road	Saginaw	Saginaw	MI	48603	0103.02	1.0	NO	TRUE	YES - 33.2%	6: Rural health clinic	Non-profit rural health clinic	989-790-7888
Hillsdale Community Health Center	Reading	143 South Main Street	Reading	Hillsdale	MI	49274	0504.00	10.0	NO	TRUE	YES	6: Rural health clinic	Rural health clinic owned by a non-profit hospital	517-437-6204
Hillsdale Community Health Center	Howell	168 South Howell Street	Hillsdale	Hillsdale	MI	49242	0508.00	7.0	NO	TRUE	YES	5: Not-for-profit hospital	Nonprofit community hospital	517-437-6204
Hillsdale Community Health Center	Hidden Meadows	451 Hidden Meadows	Hillsdale	Hillsdale	MI	49242	0509.00	10.6	NO	TRUE	YES	6: Rural health clinic	Rural health clinic owned by a non-profit hospital	517-437-6204
InterCare Community Health Network	Benton Harbor	**RELOCATION** - 951 S. Fair Ave. (old location: 697 Weld St.)	Benton Harbor	Berrien	MI	49022	0021.00	1.0	NO	TRUE	YES	2: Community health center or health center pr	Federally Qualified Health Clinic	269-427-7937
InterCare Community Health Network	Claire	6270 West Main Street	Eau Claire	Berrien	MI	49111	0106.00	3.0	NO	TRUE	YES	2: Community health center or health center pr	Federally Qualified Health Clinic	269-427-7937
InterCare Community Health Network	Bangor - Charles	308 Charles Street	Bangor	Van Buren	MI	49013	0107.00	10.6	NO	TRUE	YES	2: Community health center or health center pr	Federally Qualified Health Clinic	269-427-7937
InterCare Community Health Network	Bangor - Industrial	50 Industrial Park Drive	Bangor	Van Buren	MI	49013	0107.00	10.6	NO	TRUE	YES	2: Community health center or health center pr	Federally Qualified Health Clinic	269-427-7937
InterCare Community Health Network	Pullman	5498 109th Avenue	Pullman	Allegan	MI	49450	0310.00	3.0	NO	TRUE	YES	2: Community health center or health center pr	Federally Qualified Health Clinic	269-427-7937
InterCare Community Health Network	Holland	285 James Street	Holland	Ottawa	MI	49424	0222.02	1.0	NO	TRUE	YES	2: Community health center or health center pr	Federally Qualified Health Clinic	269-427-7937
Thumb Rural Health Network	McKenzie Memorial Hospital - Sandusky	120 Delaware St.	Sandusky	Sanilac	MI	48471	9709.00	7.0	NO	TRUE	YES	5: Not-for-profit hospital	MI Nonprofit Critical Access Hospital	810-987-3622
Memorial Family Care Center	Memorial Family Care Center	5481 North 72nd Avenue	Hart	Oceana	MI	49420	0101.00	10.0	NO	TRUE	YES	6: Rural health clinic	Non-profit rural health clinic	231-845-2365
Memorial Medical Center of West Michigan	Memorial Medical Center of West Michi	One Atkinson Drive	Ludington	Mason	MI	49431	9504.00	7.0	NO	TRUE	YES	5: Not-for-profit hospital	Nonprofit community hospital	231-845-2365
Michigan Department of Corrections	St. Louis Correctional Facility	8585 North Croswell Road	St. Louis	Gratiot	MI	48880	9903.00	4.0	YES	TRUE	YES - 67.4%	2: Community health center or health center pr	Health clinic located in state correctional facility	517-373-3198
Michigan Department of Corrections	Saginaw Correctional Facility	9625 Pierce Road	Freeland	Saginaw	MI	48623	0101.00	1.0	YES	TRUE	YES - 67.4%	2: Community health center or health center pr	Health clinic located in state correctional facility	517-373-3198
Michigan Department of Corrections	Pugsley Correctional Facility	7401 East Walton Road	Kingsley	Grand Traverse	MI	49649	9903.00	4.0	YES	TRUE	YES - 67.4%	2: Community health center or health center pr	Health clinic located in state correctional facility	517-373-3198
Michigan Department of Corrections	Oaks Correctional Facility	1500 Caberfae Highway	Manistee	Manistee	MI	49660	9905.00	8.0	YES	TRUE	YES - 67.4%	2: Community health center or health center pr	Health clinic located in state correctional facility	517-373-3198
Michigan Department of Corrections	Alger Correctional Facility	6141 Industrial Park Drive	Munising	Alger	MI	49862	9801.00	10.0	YES	TRUE	YES - 67.4%	2: Community health center or health center pr	Health clinic located in state correctional facility	517-373-3198
Michigan Department of Corrections	Baraga Correctional Facility	13924 Wadaga Road	Baraga	Baraga	MI	49908	9502.00	10.0	YES	TRUE	YES - 67.4%	2: Community health center or health center pr	Health clinic located in state correctional facility	517-373-3198
Michigan Department of Corrections	Chippewa Correctional Facility	4269 West M-80	Kincheloe	Chippewa	MI	49784	9709.00	5.0	YES	TRUE	YES - 67.4%	2: Community health center or health center pr	Health clinic located in state correctional facility	517-373-3198
Michigan Department of Corrections	Ojibway Correctional Facility	N 5705 Ojibway Road	Marenisco	Gogebic	MI	49947	9504.00	8.0	YES	TRUE	YES - 67.4%	2: Community health center or health center pr	Health clinic located in state correctional facility	517-373-3198
Michigan Department of Corrections	Newberry Correctional Facility	3001 Newberry Avenue	Newberry	Luce	MI	49868	9601.00	7.0	YES	TRUE	YES - 67.4%	2: Community health center or health center pr	Health clinic located in state correctional facility	517-373-3198
Michigan Department of Corrections	Marquette Correctional Facility	1960 US 41 South	Marquette	Marquette	MI	49855	0010.00	10.0	YES	TRUE	YES - 67.4%	2: Community health center or health center pr	Health clinic located in state correctional facility	517-373-3198
Michigan Department of Corrections	Bellamy Creek Correctional Facility	1727 West Bluewater Highway	Ionia	Ionia	MI	48846	0306.00	4.2	YES	TRUE	YES - 67.4%	2: Community health center or health center pr	Health clinic located in state correctional facility	517-373-3198
Michigan Department of Corrections	Carson City Correctional Facility	10522 East Boyer Road	Carson City	Montcalm	MI	48811	9810.00	7.0	YES	TRUE	YES - 67.4%	2: Community health center or health center pr	Health clinic located in state correctional facility	517-373-3198
Michigan Department of Corrections	Handlon Correctional Facility	1728 Bluewater Highway	Ionia	Ionia	MI	48846	0317.00	4.2	YES	TRUE	YES - 67.4%	2: Community health center or health center pr	Health clinic located in state correctional facility	517-373-3198
Michigan Department of Corrections	Ionia Maximum Facility	1576 Bluewater Highway	Ionia	Ionia	MI	48846	0317.00	4.2	YES	TRUE	YES - 67.4%	2: Community health center or health center pr	Health clinic located in state correctional facility	517-373-3198
Michigan Department of Corrections	Michigan Reformatory	1342 West Main Street	Ionia	Ionia	MI	48846	0306.00	4.2	YES	TRUE	YES - 67.4%	2: Community health center or health center pr	Health clinic located in state correctional facility	517-373-3198
Michigan Department of Corrections	Boyer Road Correctional Facility	10274 East Boyer Road	Carson City	Montcalm	MI	48811	9810.00	7.0	YES	TRUE	YES - 67.4%	2: Community health center or health center pr	Health clinic located in state correctional facility	517-373-3198

Appendix A - Health Care Facilities Included in the RFP 02 Statewide Network

Organization	Site	Address	City	County	State	Zip Code	Census Tract	RUCA	Public?	Non-profit	Pilot Eligible?	USAC "Eligible Entity Type"	Brief Explanation of Eligibility or Ineligibility	Tel.
Michigan Department of Corrections	Brooks Correctional Facility	2500 South Sheridan Drive	Muskegon	Muskegon	MI	49444	0004.00	1.0	YES	TRUE	YES - 67.4%	2: Community health center or health center pr	Health clinic located in state correctional facility	517-373-3198
Munson Medical Center	Hospital	1105 Sixth Street	Traverse City	Grand Traverse	MI	49684	9914.00	4.0	NO	TRUE	YES	5: Not-for-profit hospital	Nonprofit community hospital	231-935-6171
Munson Medical Center	Data Center	49 Hughes Drive	Traverse city	Grand Traverse	MI	49686	9906.00	5.0	NO	TRUE	NO	11: Other (ineligible) entity	Data center supporting multiple non-profit health system	231-935-6171
Muskegon Family Care	Muskegon Heights	2201 South Getty Street	Muskegon Heigh	Muskegon	MI	49444	0013.00	1.0	NO	TRUE	YES	2: Community health center or health center pr	Federally Qualified Health Clinic	231-737-1754
Northpointe Behavioral Health Care	Kingsford	715 Pyle Drive	Kingsford	Dickinson	MI	49802	9506.00	4.0	NO	TRUE	YES	4: Community mental health center	CMH Svc. Pgm. established by MI Mental Health Code	906-779-0525
Northpointe Behavioral Health Care	Iron River	703 Second Avenue	Iron River	Iron	MI	49935	9803.00	7.0	NO	TRUE	YES	4: Community mental health center	CMH Svc. Pgm. established by MI Mental Health Code	906-779-0525
Northpointe Behavioral Health Care	Menominee	401 Tenth Avenue	Menominee	Menominee	MI	49858	9607.00	4.0	NO	TRUE	YES	4: Community mental health center	CMH Svc. Pgm. established by MI Mental Health Code	906-779-0525
Otsego Memorial Hospital	Hospital	825 North Center Avenue	Gaylord	Otsego	MI	49735	9503.00	7.0	NO	TRUE	YES	5: Not-for-profit hospital	Nonprofit community hospital	989-731-2400
Pathways Community Mental Health	Marquette - Spring	200 West Spring Street	Marquette	Marquette	MI	49855	0003.00	4.0	NO	TRUE	YES	4: Community mental health center	CMH Svc. Pgm. established by MI Mental Health Code	906-225-5138
Thumb Rural Health Network	Scheurer Hospital - Pigeon	170 North Caseville Road	Pigeon	Huron	MI	48755	9507.00	10.0	NO	TRUE	YES	5: Not-for-profit hospital	MI Nonprofit Critical Access Hospital	810-987-3622
South Haven Community Hospital Authority	South Haven Community Hospital Autho	955 South Bailey Avenue	South Haven	Van Buren	MI	49090	0104.00	7.0	NO	TRUE	YES	5: Not-for-profit hospital	Nonprofit community hospital	269-639-2841
Spectrum Health System	Sparta Family Practice	**RELOCATION** - 2111 12 Mile Rd. NW (old location: 25 Ida Red Ave.)	Sparta	Kent	MI	49345	0104.01	2.0	NO	TRUE	YES	10: Urban Health Clinic	Urban health clinic owned by a non-profit hospital	616-486-4235
Spectrum Health System	CTIS - Data Center	4690 60th Street, SE	Grand Rapids	Kent	MI	49512	0148.04	1.0	NO	TRUE	NO	11: Other (ineligible) entity	Data center supporting multiple non-profit health system	616-486-4235
Spectrum Health System	Butterworth Hospital	100 Michigan Street, NE	Grand Rapids	Kent	MI	49503	0020.00	1.0	NO	TRUE	YES	5: Not-for-profit hospital	Nonprofit community hospital	616-486-4235
Spectrum Health System	Blodgett Hospital	1840 Wealthy Street, SE	Grand Rapids	Kent	MI	49506	0124.00	1.0	NO	TRUE	YES	5: Not-for-profit hospital	Nonprofit community hospital	616-486-4235
Spectrum Health System	Kelsey Memorial Hospital & Northern M	418 Washington Street	Lakeview	Montcalm	MI	48850	9804.00	10.6	NO	TRUE	YES	5: Not-for-profit hospital	Nonprofit community hospital	616-486-4235
Spectrum Health System	United Memorial Healthcare Assn	615 South Bower Street	Greenville	Montcalm	MI	48838	9813.00	7.3	NO	TRUE	YES	5: Not-for-profit hospital	MI Nonprofit Critical Access Hospital	616-486-4235
Spectrum Health System	Reed City Hospital	300 North Patterson Road	Reed City	Osceola	MI	49677	9706.00	7.4	NO	TRUE	YES	5: Not-for-profit hospital	MI Nonprofit Critical Access Hospital	616-486-4235
Spectrum Health System	Holland Lakeshore Area Radiation Onco	12642 Riley Street	Holland	Ottawa	MI	49424	0222.02	1.0	NO	TRUE	YES	10: Urban Health Clinic	Urban health clinic owned by a non-profit hospital	616-486-4235
Spectrum Health System	Campustowne Professionals	4868 Lake Michigan Drive	Allendale	Ottawa	MI	49401	0234.00	1.0	NO	TRUE	YES	10: Urban Health Clinic	Urban health clinic owned by a non-profit hospital	616-486-4235
Spectrum Health System	AeroMed - Big Rapids	21325 18 Mile Road	Big Rapids	Mecosta	MI	49307	9605.00	4.0	NO	TRUE	YES	6: Rural health clinic	Rural health clinic owned by a non-profit hospital	616-486-4235
Thunder Bay Community Health Services	Onaway Clinic	21258 West M-68 Highway	Onaway	Presque Isle	MI	49765	9504.00	10.0	NO	TRUE	YES	2: Community health center or health center pr	Federally Qualified Health Clinic	989-358-3903
Thunder Bay Community Health Services	Onaway School	4549 South M-33 Highway	Onaway	Presque Isle	MI	49765	9504.00	10.0	NO	TRUE	YES	2: Community health center or health center pr	Federally Qualified Health Clinic	989-358-3903
Thunder Bay Community Health Services	Rogers City Clinic	205 South Bradley Highway	Rogers City	Presque Isle	MI	49779	9502.00	7.0	NO	TRUE	YES	2: Community health center or health center pr	Federally Qualified Health Clinic	989-358-3903
Van Buren/Cass District Health Department	Cassopolis	201 M-62 North	Cassopolis	Cass	MI	49031	0007.00	10.4	YES	TRUE	YES	3: Local health department or agency	District (multi-county) public health department	269-621-3143
Van Buren/Cass District Health Department	Dowagiac	520 Main Street, Suite B	Dowagiac	Cass	MI	49047	0004.00	7.3	YES	TRUE	YES	3: Local health department or agency	District (multi-county) public health department	269-621-3143
Van Buren/Cass District Health Department	Hartford	57418 County Road 681, Suite A	Hartford	Van Buren	MI	49057	0113.00	10.5	YES	TRUE	YES	3: Local health department or agency	District (multi-county) public health department	269-621-3143
West Shore Medical Center	Hospital	1465 East Parkdale Avenue	Manistee	Manistee	MI	49660	9904.00	7.0	NO	TRUE	YES	5: Not-for-profit hospital	Nonprofit community hospital	231-398-1188

Appendix B - Health Care Facilities Included in the Four (4) RFP 03 Hospital Fiber Network Projects

Organization	Site	Address	City	County	State	Zip Code	Census Tract	RUCA	Public?	Non-profit	Pilot Eligible?	USAC "Eligible Entity Type"	Brief Explanation of Eligibility or Ineligibility	Tel.
Covenant Medical Center, Inc.	Covenant Medical Center Cooper	700 Cooper Ave.	Saginaw	Saginaw	MI	48602	0018.00	1.0	NO	TRUE	YES	5: Not-for-profit hospital	Nonprofit community hospital	989-583-6714
Covenant Medical Center, Inc.	Covenant HealthCare Michigan	515 N. Michigan Ave.	Saginaw	Saginaw	MI	48602	0017.00	1.0	NO	TRUE	YES	5: Not-for-profit hospital	Nonprofit community hospital	989-583-6714
Covenant Medical Center, Inc.	Covenant HealthCare Mackinaw	5400 Mackinaw Rd.	Saginaw	Saginaw	MI	48604	0102.00	1.0	NO	TRUE	YES	10: Urban Health Clinic	Medical clinic, lab, & outpatient PT	989-583-6714
Memorial Healthcare	Main Campus	826 W. King St.	Owosso	Shiawassee	MI	48867	0304.00	4.2	NO	TRUE	YES	5: Not-for-profit hospital	Nonprofit community hospital	989-729-4734
Memorial Healthcare	Chesaning Outpatient Services	305 S. Saginaw St.	Chesaning	Saginaw	MI	48616	0127.00	10.4	NO	TRUE	YES	6: Rural health clinic	Lab, radiology, & outpatient PT staffed by licensed professionals	989-729-4734
Memorial Healthcare	Chesaning Family Practice	300 S. Chapman St.	Chesaning	Saginaw	MI	48616	0127.00	10.4	NO	TRUE	YES	6: Rural health clinic	Medical clinic	989-729-4734
Memorial Healthcare	State Road Outpatient Services	239 N. State Rd.	Owosso	Shiawassee	MI	48867	0317.00	4.2	NO	TRUE	YES	6: Rural health clinic	Medical clinic, lab, & radiology	989-729-4734
Memorial Healthcare	Durand Family Healthcare	9099 E. Lansing Rd.	Durand	Shiawassee	MI	48429	0319.00	2.0	NO	TRUE	YES	6: Rural health clinic	Medical clinic, lab, radiology, & dermatologist	989-729-4734
Memorial Healthcare	Laingsburg Primary Care	7200 N. Woodbury Rd.	Laingsburg	Shiawassee	MI	48848	0314.01	2.0	NO	TRUE	YES	6: Rural health clinic	Medical clinic	989-729-4734
Memorial Healthcare	Ovid Health Care	113 S. Main St.	Ovid	Clinton	MI	48866	0110.01	3.0	NO	TRUE	YES	6: Rural health clinic	Medical clinic	989-729-4734
Memorial Healthcare	Michigan Neurological Institute	503 E. Main St.	Owosso	Shiawassee	MI	48867	0305.00	4.2	NO	TRUE	YES	6: Rural health clinic	Medical clinic & specialist in neuro- diagnostics	989-729-4734
Memorial Healthcare	Arnold Clinic	812 Bradley St.	Owosso	Shiawassee	MI	48867	0306.00	4.2	NO	TRUE	YES	6: Rural health clinic	Medical clinic	989-729-4734
Memorial Healthcare	Woodard Station Physical Therapy	317 S. Elm St., Ste. 116	Owosso	Shiawassee	MI	48867	0306.00	4.2	NO	TRUE	YES	6: Rural health clinic	Outpatient PT staffed by licensed professionals	989-729-4734
Memorial Healthcare	Perry Family Practice	3337 W. Britton Rd.	Perry	Shiawassee	MI	48872	0315.00	2.0	NO	TRUE	YES	6: Rural health clinic	Medical clinic, lab, & radiology	989-729-4734
Memorial Healthcare	Perry Physical Therapy	3737 W. Lansing Rd.	Perry	Shiawassee	MI	48872	0315.00	2.0	NO	TRUE	YES	6: Rural health clinic	Outpatient PT staffed by licensed professionals	989-729-4734
Portage Health	Portage Health	500 Campus Dr.	Hancock	Houghton	MI	49930	9905.00	4.0	NO	TRUE	YES	5: Not-for-profit hospital	Nonprofit community hospital	906-483-1994
Portage Health	Rehab Calumet	56901 S. Sixth St.	Calumet	Houghton	MI	49913	9903.00	7.2	NO	TRUE	YES	6: Rural health clinic	Outpatient PT staffed by licensed professionals	906-483-1994
Portage Health	Medical Group Lake Linden	945 Ninth St., Bootjack Rd.	Lake Linden	Houghton	MI	49945	9904.00	5.0	NO	TRUE	YES	6: Rural health clinic	Medical clinic	906-483-1994
Portage Health	Western Upper Peninsula Health Dept.	540 Depot St.	Hancock	Houghton	MI	49930	9906.00	4.0	NO	TRUE	YES	3: Local health department or agency	District (multi-county) public health department	906-483-1994
Portage Health	Houghton Express Care	921 W. Sharon Ave.	Houghton	Houghton	MI	49931	9909.00	4.0	NO	TRUE	YES	6: Rural health clinic	Medical clinic staffed by licensed Physician Assistants	906-483-1994
Portage Health	University Center	600 MacInnes Dr.	Houghton	Houghton	MI	49931	9908.00	4.0	NO	TRUE	YES	6: Rural health clinic	Medical clinic	906-483-1994
Portage Health	Ontonagon Community Health Center	751 S. Seventh St.	Ontonagon	Ontonagon	MI	49953	9702.00	10.0	NO	TRUE	YES	6: Rural health clinic	Medical clinic	906-483-1994
Portage Health	Baraga County Memorial Hospital	18341 U.S. Highway 41	L'Anse	Baraga	MI	49946	9501.00	10.0	NO	TRUE	YES	5: Not-for-profit hospital	MI Nonprofit Critical Access Hospital	906-524-3207
Portage Health	Marquette General Health System	420 W. Magnetic St.	Marquette	Marquette	MI	49855	0004.00	4.0	NO	TRUE	YES	5: Not-for-profit hospital	Nonprofit community hospital	906-483-1994
Edward W. Sparrow Hospital Association	Sparrow Hospital	1215 E. Michigan Ave.	Lansing	Ingham	MI	48912	0014.00	1.0	NO	TRUE	YES	5: Not-for-profit hospital	Nonprofit community hospital	517-364-6600
Edward W. Sparrow Hospital Association	St. Lawrence Campus	1210 W. Saginaw St.	Lansing	Ingham	MI	48915	0005.00	1.0	NO	TRUE	YES	5: Not-for-profit hospital	Nonprofit community hospital	517-364-6600
Edward W. Sparrow Hospital Association	Medical Dental Building	2909 E. Grand River Ave., Ste. 204	Lansing	Ingham	MI	48912	0031.01	1.0	NO	TRUE	YES - 63.1%	10: Urban Health Clinic	Medical clinic & lab	517-364-6600
Edward W. Sparrow Hospital Association	Sparrow Professional Building	1200 E. Michigan Ave.	Lansing	Ingham	MI	48912	0065.00	1.0	NO	TRUE	YES	10: Urban Health Clinic	Medical clinic, pain center, lab, radiology, & outpatient PT	517-364-6600
Edward W. Sparrow Hospital Association	Thoracic Cardiovascular Institute	405 W. Greenlawn Ave., Ste. 400	Lansing	Ingham	MI	48910	0026.00	1.0	NO	TRUE	YES	10: Urban Health Clinic	Medical clinic & cardiology practice	517-364-6600
Edward W. Sparrow Hospital Association	Sparrow Okemos	1600 W. Grand River Ave.	Okemos	Ingham	MI	48864	0049.01	1.0	NO	TRUE	YES	10: Urban Health Clinic	Medical clinic, lab, & radiology	517-364-6600
Edward W. Sparrow Hospital Association	Mason Community Health Center	800 E. Columbia St.	Mason	Ingham	MI	48854	0063.00	1.0	NO	TRUE	YES	10: Urban Health Clinic	Medical clinic, lab, radiology, & outpatient PT	517-364-6600
Edward W. Sparrow Hospital Association	Sparrow Ionia Hospital	479 Lafayette St.	Ionia	Ionia	MI	48846	0317.00	4.2	NO	TRUE	YES	5: Not-for-profit hospital	MI Nonprofit Critical Access Hospital	517-364-6600
Edward W. Sparrow Hospital Association	Sparrow Clinton Hospital	805 S. Oakland St.	St. Johns	Clinton	MI	48879	0108.00	7.1	NO	TRUE	YES	5: Not-for-profit hospital	MI Nonprofit Critical Access Hospital	517-364-6600
Edward W. Sparrow Hospital Association	Carson City Hospital	406 E. Elm St.	Carson City	Montcalm	MI	48811	9810.00	7.0	NO	TRUE	YES	5: Not-for-profit hospital	Nonprofit community hospital	517-364-6600

Michigan Public Health Institute (MPHI)

Appendix C – Sustainability Plan

for RFPs 00 and 01 (8-hospital Thumb Rural Health Network),
RFP 02 (72-site State of Michigan Broadband Network), and
RFP 03 (Private Fiber Networks for Four Hospital Systems Encompassing 34 Sites)

As of July 19, 2011

Background

RFPs 00 and 01 – Tower-based Wireless Network. Due to delays MPHI's primary RFP (02) encountered (see below), MPHI decided to move forward with two small RFPs for the Thumb Rural Health Network (TRHN). The TRHN is a consortium of eight (8) RHCPP-eligible hospitals located in the thumb region of Michigan's Lower Peninsula. These two RFPs expanded an existing tower-based wireless network by adding four more towers (RFP 00) and purchasing telecomm equipment for all nine towers within the network (RFP 01). USAC's share of the cost was **$519,193**.

- ***History of RFP 00 – TRHN Tower Construction***. This RFP built four telecommunications towers. RFP 00 was posted in early May 2009. Six qualified bids were submitted. A vendor (Thumb Radio Inc. of Bad Axe, MI)—the lowest bidder—was chosen in late June 2009, and a contract was signed on September 2. (The RFP requested quotes for five towers, but TRHN was unable to acquire the land for one of the five, so it decided to lease space on a nearby tower, reducing the number of towers to be built to four.) RFP 00's FCL was issued on September 24, 2009, and the Support Acknowledgement Letter was issued on October 2. Work on the towers was completed in early June 2010, and the final invoice was paid in mid-June 2010. Therefore, the RFP 00 project is complete.

- ***History of RFP 01 – TRHN Network Equipment***. This RFP purchased telecommunications equipment (radios, switches, routers, the network server, etc.) for the nine towers that are part of the TRHN network. RFP 01 was posted at the beginning of June 2009. Four bids were received, although two contained significant deficiencies. A vendor (CDW-Government, Inc.)—the lowest bidder among the four—was chosen in late July, and a contract was signed on September 15, 2009. RFP 01's FCL was issued on October 21, 2009, and the Support Acknowledgement Letter was issued on November 12. All of the equipment was delivered in December 2009, and the invoices were paid in January 2010. Therefore, the RFP 01 project is complete.

RFP 02 – Statewide Broadband Network. This RFP will build a statewide healthcare network linking 72 health care facilities throughout Michigan (with the exception of nine southeastern counties that include the metropolitan areas of Detroit, Flint, Lansing,

Jackson, Ann Arbor, and Monroe). This network will use fiber optic cable (95 percent of the connections), T-1 lines, and other traditional "wired" technology.

MPHI submitted its RFP 02 and the list of approximately 520 participating sites (draft Form 465 Attachment) to USAC for an informal review in late October 2008. The RFP received immediate approval, but review of the 520 sites took five months. The American Recovery and Reinvestment Act (ARRA) was announced in February 2009, and it soon became clear that funding would be made available to construct broadband infrastructure. Once plans for Michigan's stimulus-funded, middle-mile broadband infrastructure—which RFP 02 intends to build upon—were clear, MPHI submitted the RFP 02 465 package. MPHI posted the RFP on November 10, 2009. Seven vendors submitted proposals on February 15, 2010. For the total, five-year cost of the project, the high bid was 431% larger than the low bid. The RFP 02 Evaluation Committee met in March 2010 and narrowed the competing vendors to two finalists (the two that had submitted the lowest cost bids). These vendors were given a two-week window during which they were permitted to adjust, or fine-tune, their cost figures to account for any networking or ARRA-funded project developments that had occurred in the first quarter of 2010. The revised cost figures were received on April 15, 2010. One vendor did not make any significant changes to its bid, while the other—already the low-cost bidder—dropped its aggregate five-year operating costs by another 9%. On April 19, the Evaluation Committee chose the latter vendor, Great Lakes Comnet (GLC) of East Lansing, MI, as the tentative winner.

Great Lakes Comnet's "Estimated Price" figures were provided to the HCPs in late April 2010. The HCPs were asked to determine which sites they wanted to keep in the project and commit to participation by signing a contract. Ninety (90) sites committed by early August. Great Lakes then calculated "Actual Prices" (final prices) based on the smaller size of the network, and MPHI communicated those prices to the HCPs. Seventeen (17) sites had the option to leave the project (without penalty) because their Actual Prices exceeded the corresponding Estimated Prices by more than 10 percent. Three (3) sites chose to opt out.

During the fourth quarter of 2010, a construction schedule, which is dependent on the MERIT-REACH 3MC, ARRA-funded project, was finalized. GLC and MPHI signed a contract on March 30, 2011 (with amendments dated May 16 and June 30). GLC then asked the 27 participating HCPs (89 sites) to sign "Network Construction and Service Agreements" that would finalize their participation. Four HCPs (17 sites) refused, citing financial difficulties or better offers from competing telecomm service providers. Contracts with the remaining 23 participating HCPs were finalized in May 2011. Seventy-two (72) sites are participating; two of those sites participate in the RFP 00/01 network, combining the RFP 00/01 and RFP 02 networks (which was the original goal).

With the exception of this Sustainability Plan, MPHI completed and submitted its FCC Form 466-A package on June 10, 2011. The requested funding commitment (column 20 of NCW) is **$7,988,068** (FCC's share of the cost of the project).

It is possible that MPHI could submit a second RFP 02 466 package in the late summer to add another five or six sites to the network.

RFP 03 – Private Fiber Networks for Four Hospital Systems. MPHI's May 2007 application proposed creating "telehealth and telemedicine infrastructure and services in the areas of Michigan where the need is the most acute."[1] MPHI listed slightly less than 400 health care sites as potential candidates for networking.[2] Three years later, it now appears that MPHI will be able to network only 78 sites: the eight sites networked by RFPs 00 and 01, and the 72 sites networked by RFP 02 (including two RFP 00/01 sites). The reasons for this shortfall are Michigan's poor economy, the three-year gap between the RHCPP announcement and RFP 02's marketing phase, the complexity of USAC programs in general and MPHI's RHCPP-funded statewide network in particular, and the high cost of the statewide network. To use the remaining RHCPP funding awarded to MPHI, to extend the statewide network created by RFP 02, and to help achieve the infrastructure goals of the RHCPP, MPHI conceived an RFP 03, which will fund the creation of hospital-owned or -leased, fiber optic spans linking hospitals to their satellite sites and/or to other hospitals.

The RFP 03 concept was marketed to Michigan HCPs during the fourth quarter of 2010. Five hospital systems initially committed to the project. USAC reviewed the RFP 03 scoping document and the 465 Attachment during January 2011, and the RFP was posted on February 2, 2011. On April 11, MPHI received bids from eight (8) vendors. Evaluation Committees for the four hospitals met the week of April 18 and tentatively chose winning bidders.

Four hospital systems (34 sites) remain committed to the project, one system in Michigan's Upper Peninsula west of Marquette, and three in the central part of Michigan's Lower Peninsula. In the Upper Peninsula, three hospitals and six satellite sites will be networked. The three hospital systems in the Lower Peninsula will network 12 sites, 10 sites, and 3 sites, including eight hospitals (four rural and four urban).

Contract negotiations between each participating hospital system are ongoing but are expected to result in signed contracts this summer. All four contracts will be 20-year IRU or IRU-like arrangements. MPHI plans to complete and submit four (4) FCC Form 466-A packages this summer. The requested funding commitment currently totals **$10,773,916**, although that is still subject to ongoing network adjustments and contract negotiations. This amount will cover the FCC's share of the 20-year IRU or IRU-like contracts.

How Do These Three Networks Interact?

[1] "Pilot Program for Enhanced Access to Advanced Telecommunications and Information Services: Application to the Federal Communications Commission Submitted by the Michigan Public Health Institute," May 7, 2007, p. 31.
[2] *Ibid*., pp. 34-38.

The eight RFPs 00/01 sites networked by the Thumb Rural Health Network's tower-mounted wireless radio network are directly connected to the 72-site, RFP 02 statewide network because two sites are members of both. This creates a 78-site network.

The 34 sites participating in RFP 03's four hospital system networks are connected to the 78-site RFPs 00/01/02 network through the Internet and the massive fiber backbone already constructed and being constructed within Michigan, most of it with ARRA funding

These 112 sites, in turn, are directly or indirectly connected to hundreds of other Michigan sites through public and private networks and health information exchanges (HIEs).

Minimum 15 Percent Funding Match

- ***RFPs 00 and 01 – Tower-based Wireless Network***. The Thumb Rural Health Network (TRHN), a consortium of eight (8) hospitals, paid the 15 percent match using a HRSA grant.
- ***RFP 02 – Statewide Broadband Network***. Each participating health care provider will be required to pay its 15 percent share. Partially eligible sites will be required to pay a larger share. To MPHI's knowledge, no state or federal funding will be used to pay the HCP's share of the costs.
- ***RFP 03 – Private Fiber Networks for Four Hospital Systems***. Each participating hospital system will be required to pay its 15 percent share. One partially eligible site will be required to pay a larger share. To MPHI's knowledge, no state or federal funding will be used to pay the hospital system's share of the costs.

Project Sustainability Period

- ***RFPs 00 and 01 – Tower-based Wireless Network***. The Thumb Rural Health Network (TRHN) owns and maintains the network. The ongoing maintenance costs (primarily replacing tower-mounted radios that are not functioning properly) are minimal. (See budget below.) The network has been operating for a full year. TRHN intends to use the network for the foreseeable future, so its lifespan is open-ended.
- ***RFP 02 – Statewide Broadband Network***. The initial commitment is for a period of five years. The vendor and the HCPs participating in the Michigan network are then free to negotiate contract renewals. However, the vendor has a financial incentive to retain the HCPs as customers, as the fiber optics built with Pilot Program funding must continue to be used for health care purposes. Factors favoring HCP renewal are the existence of the fiber capacity, the likelihood of attractive pricing, and the existing relationship with the service provider. (See budget below.)

- ***RFP 03 – Private Fiber Networks for Four Hospital Systems***. Each of the four networks will require a 20-year, IRU or IRU-like, contractual commitment.

Principal Factors & Budget

- ***RFPs 00 and 01 – Tower-based Wireless Network***. TRHN researched a number of technologies to network its eight hospitals and decided that a tower-mounted, wireless radio system was, long-term, the most cost-effective approach. Almost the entire lifetime cost of the system was expensed during the first year—tower construction and the purchase of the wireless radios and other hardware. Ongoing operating costs, by year, are estimated as follows. The TRHN's operating budget, funded by the eight member hospitals, will cover these costs.

Year	Estimated Annual Maintenance Costs (primarily repairing damage caused by lightning strikes and monitoring the system) for Nine-Tower Network
1	$31,000
2	$32,550
3	$34,178
4	$35,886
5	$37,681
6	$39,565
7	$41,543
8	$43,620
9	$45,801
10	$48,091
	Source: David West

- ***RFP 02 – Statewide Broadband Network***. MPHI is requiring the vendor to maintain the quoted cost structure for a minimum of five years. Each participating health care provider has contractually agreed to participate in the network for a minimum of five years. After the first two years of operation, each HCP site will be expected to pay 100 percent of the operating costs allocated to it. Prior to committing to the network, the HCP was informed of the costs so it could make an informed decision and budget accordingly. HCPs carefully considered the competing offers—if there were any in their mostly rural locations—before committing to the project.

  The economies of scale of negotiating a 72-site consortium have driven down the ongoing costs. MPHI will use Pilot Program funds to pay for the expensive capital investment up front and make the ongoing cost affordable for the sites. This cost is less than what the HCPs are currently paying for Internet service. In addition, the statewide health care network will be tailored to meet the *unique* requirements of the health care industry.

The annual operating budget follows. Costs are *not* expected to increase upon expiration of the five-year contract due to competitive pressure.

Year	Annual Operating Costs (all inclusive, including USF taxes) for 72 Sites (e = estimated)
1	$1,282,556
2	$1,282,556
3	$1,282,556
4	$1,282,556
5	$1,282,556
6	$1,282,556 e
7	$1,282,556 e
8	$1,282,556 e
9	$1,282,556 e
10	$1,282,556 e

- ***RFP 03 – Private Fiber Networks for Four Hospital Systems***. RFP 03 helps hospital systems obtain fiber optic *infrastructure*. Each of the four networks will be operated under a 20-year IRU or IRU-like contract. All construction and maintenance costs (over the 20-year life of the lease) will be prepaid in a single lump sum. Upon expiration of the contract, assets will be returned to the telecomm service provider. Given the nature of the contracts, the annual cost to *maintain* each hospital system's telecomm network during the next 20 years is expected to be close to zero. The only unpredictable *maintenance* costs are those of a *Force Majeure* nature, e.g., if a locality requires that all fiber optic cables be moved from one side of the street to the other.

Annual Maintenance Costs - Cost to *Maintain* the Fiber Optic Network Leased with Pilot Program Assistance
In all four cases, the source of the income used to defray the maintenance costs is the hospital's IT budget.

	Hospital System (differences based on cable mileage)			
Year	Covenant, Saginaw, MI	Memorial, Owosso, MI	Portage, Hancock, MI	Sparrow, Lansing, MI
1	$1,000	$10,000	$0	$14,000
2	$1,075	$10,750	$0	$15,050
3	$1,156	$11,556	$0	$16,179
4	$1,242	$12,423	$0	$17,392
5	$1,335	$13,355	$0	$18,697
6	$1,436	$14,356	$0	$20,099
7	$1,543	$15,433	$0	$21,606

8	$1,659	$16,590	$0	$23,227
9	$1,783	$17,835	$0	$24,969
10	$1,917	$19,172	$0	$26,841
11	$2,061	$20,610	$0	$28,854
12	$2,216	$22,156	$0	$31,019
13	$2,382	$23,818	$0	$33,345
14	$2,560	$25,604	$0	$35,846
15	$2,752	$27,524	$0	$38,534
16	$2,959	$29,589	$0	$41,424
17	$3,181	$31,808	$0	$44,531
18	$3,419	$34,194	$0	$47,871
19	$3,676	$36,758	$0	$51,461
20	$3,951	$39,515	$0	$55,321

Covenant Medical Center will own its fiber optic cable, which will be routed through a vendor-owned conduit system. The vendor is being prepaid to maintain both. Covenant is liable to repair problems caused by *Force Majeure* events and to share in the cost of fiber relocations that cannot be anticipated, e.g., by the mandate of local authorities.

Memorial Healthcare and the Edward W. Sparrow Hospital Association will lease their fiber strands under 20-year IRUs. The vendor is being prepaid to maintain both fiber networks. Memorial and Sparrow will be liable to repair problems caused by Force Majeure events and to share in the cost of fiber relocations that cannot be anticipated, e.g., by the mandate of local authorities.

Portage Health will lease service capacity through a 20-year IRU. The vendor will be responsible for maintaining the network under all circumstances, foreseen and unforeseen.

Terms of Membership in the Network

- ***RFPs 00 and 01 – Tower-based Wireless Network***. The Thumb Rural Health Network was required to sign two (2) three-way contracts. The first, to construct four towers, was with MPHI and Thumb Radio, which built the towers. The second was with MPHI and CDW-Government, which supplied the wireless radios and other hardware for the nine-tower network. Financial and other commitments are described elsewhere in this document. The system was built with enough capacity to handle TRHN's current and foreseeable bandwidth needs. The network includes only eligible HCPs.
- ***RFP 02 – Statewide Broadband Network***. Each participating HCP was required to sign a *Commitment Agreement* with MPHI. This contract more or less committed the HCP to participation while details of cost and network size were being determined. MPHI then signed a contract with the service provider, Great

Lakes Comnet (GLC); this contract finalized costs, network size, the construction schedule, etc. Finally, with those details known, GLC and each participating HCP signed a *Network Construction and Service Agreement with Addendum*. This contract irrevocably committed the HCP to participation. Financial and other commitments are described elsewhere in this document. Generally, each HCP purchased the largest bandwidth connection it could afford, consistent with its expected future needs. However, MPHI believes that, in all cases, bandwidth requirements will eventually outstrip the bandwidth purchased. The network includes only eligible HCPs.

- ***RFP 03 – Private Fiber Networks for Four Hospital Systems***. Each of the four hospital systems will sign a 20-year contract with its service provider. This contract will contain Pilot Program-specific clauses detailing the USAC invoicing process, etc. Financial and other commitments are described elsewhere in this document. Generally, each hospital system obtained enough fiber capacity to handle its telecomm bandwidth needs over the next 20 years. The network includes only eligible HCPs.

Excess Capacity

- ***RFPs 00 and 01 – Tower-based Wireless Network***. As the term is used by USAC, there is no excess capacity. The network was built for the sole use of the Thumb Rural Health Network. No unused capacity will be offered to organizations or sites that are not members of the TRHN.
- ***RFP 02 – Statewide Broadband Network***. As the term is used by USAC, there is no excess capacity. First, the network will be owned by the vendor, and the vendor will offer a well defined service to each HCP. Second, any surplus capacity or bandwidth supplied to an HCP will be reserved ***for its own use,*** as health care telecommunications requirements are expected to explode over time. Third, the vendor will not use Pilot Program funding to build excess bandwidth or capacity that will be offered to organizations that are not members of the network.
- ***RFP 03 – Private Fiber Networks for Four Hospital Systems***. As the term is used by USAC, there is no excess capacity. Each hospital network is being leased for the hospital's exclusive use. No unused capacity will be offered to sites that are not owned by the hospital system and explicitly listed in Pilot Program documents.

Ownership Structure

- ***RFPs 00 and 01 – Tower-based Wireless Network***. The Thumb Rural Health Network (TRHN) owns the towers, the wireless radios mounted on the towers, and all other hardware purchased to operate the network. As the network's owner, TRHN is responsible for operating and maintaining the network.
- ***RFP 02 – Statewide Broadband Network***. The telecomm network consists of at least five components: the fiber backbone located in the State of Michigan; the

last-mile fiber connections from the backbone to each participating site; the vendor equipment located at each site; the HCP equipment located at each site (traffic and VPN routers); and the network operations center and other infrastructure required to operate and maintain the network. MPHI considered many different ownership structures. After consultation with State government, the participating HCPs, and other health IT non-profits, MPHI decided that the best ownership structure was vendor ownership. The vendor is best positioned technologically to operate the network and will have appropriate contractual and financial incentives to maintain and upgrade the network as necessary. No other candidates appeared to have the technological and organizational sophistication to build and operate the network. In addition, Michigan state law forbids non-telecomm service providers from building in the public right-of-way, effectively eliminating ALL other candidates from constructing the network. Given all that, the RFP explained the envisioned ownership structure and made it a requirement for bidding. The vendor will own all components described above except the HCP equipment located at each site; that equipment will be owned by the vendor (so that the vendor is required to maintain it) *until* the end of five years or a site leaves the network (whichever occurs first), at which point ownership is transferred to the HCP.

- ***RFP 03 – Private Fiber Networks for Four Hospital Systems***. Each hospital system is signing a 20-year IRU or IRU-like agreement with a telecomm service provider. Two hospital systems are simply leasing fiber strands. The vendor will own everything between the fiber termination points at each pair of sites. One hospital system will purchase a fiber optic cable located inside a vendor-owned conduit system, but, due to the eventual obsolescence of the fiber, State law, and other factors, the fiber will likely revert to the vendor after 20 years. In practice, this arrangement will function almost exactly like a 20-year IRU. The fourth hospital system will have a 20-year, guaranteed service arrangement with a telecomm service provider. This will function exactly like a standard IRU, except a one Gbps capacity is being leased instead of actual fiber strands. This is due to the minimal competition among service providers in the Upper Peninsula of Michigan and, again, the state laws that require telecomm service providers to own any fiber placed in the public right-of-way. The telecomm service provider will own everything between the fiber termination points at each pair of sites.

  MPHI's preference would have been to build hospital-owned fiber for each of the four hospital systems, but State law forbids "private networks"—even those owned by not-for-profit hospitals—to use public right-of-way. MPHI protested to State government officials but was told that there was no recourse.

Sources of Future Support

- ***RFPs 00 and 01 – Tower-based Wireless Network***. The ongoing costs to operate the network—discussed above—are minimal. Dues paid by the member hospitals to the Thumb Rural Health Network will cover these minimal operating costs.

- ***RFP 02 – Statewide Broadband Network***. Each HCP's monthly operating costs will be paid from its general revenues. Given that (1) the health care sites are totally dependent on telecommunications to operate and (2) the fees being paid for participation in the Pilot Program network are historically less than what the HCPs have paid in the past for far lower bandwidth, the HCPs should be able to financially support the network. The HCPs are contractually committed for only five years, but, after that, the financial economies and operational utility of the Pilot-funded network should compel the HCPs to continue using it.

  Many of the Pilot-eligible, rural, not-for-profit health care providers participating in RFP 02 are eligible for the Primary Program. To help offset the network's ongoing cost, after the first two years of operation, eligible rural HCPs will be migrated from the Pilot Program into the traditional Rural Health Care Primary Program. To facilitate this, MPHI will be requesting that USAC grant "evergreen" status to the contracts that result from Michigan's RHCPP project. To MPHI's knowledge, once Pilot Program subsidies end, no state or federal funding (other than the FCC's RHC Primary Program) will be used to defray the HCP's telecomm network costs.
- ***RFP 03 – Private Fiber Networks for Four Hospital Systems***. Under the IRU and IRU-like arrangements currently being negotiated, there will be no ongoing costs for 20 years.

Management of the Network

- ***RFPs 00 and 01 – Tower-based Wireless Network***. The Thumb Rural Health Network operates and maintains the tower-based wireless network. It occasionally hires tower climbers to retrieve and install radios mounted at the tops of the towers, but, otherwise, it is operationally self-sufficient. The TRHN's operating budget covers this minimal cost.
- ***RFP 02 – Statewide Broadband Network***. The vendor, Great Lakes Comnet (GLC), will manage the network, and the cost will be incorporated into the participants' ongoing monthly service fees. MPHI's and the HCPs' contracts with GLC require it to operate the network. Those contracts contain a Service Level Agreement (SLA) and appropriate penalties for failing to abide by the SLA. The monthly service fees will be covered by each HCP's IT operating budget.
- ***RFP 03 – Private Fiber Networks for Four Hospital Systems***. The three hospital systems that own or lease actual fiber strands will manage their own networks. The telecomm service providers will be required to maintain the fiber, cable, conduit, pole attachments, and all other infrastructure and, under SLAs, ensure that any interruptions in service are immediately addressed. The hospital systems should not incur any significant operating costs over the 20 years.

  For the hospital system which is leasing one Gbps connections between its sites, the service provider will manage and maintain the system, again under an SLA with appropriate penalties.