

OFFICE FOR THE ADVANCEMENT OF TELEHEALTH

GRANTEE PROFILES

2013 - 2014

**Telehealth Network Grant Program
Telehealth Resource Center Grant Program
Telehomecare Grant Program
Licensure Portability Grant Program
Flex Rural Veterans Health Access Program**

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The editors would like to acknowledge the contributions of all OAT grantees, whose project descriptions serve as a valuable resource for others working in the field of telehealth.

Note: For the user of these profiles, definitions of some of the more commonly used acronyms and terms found throughout this material are provided.

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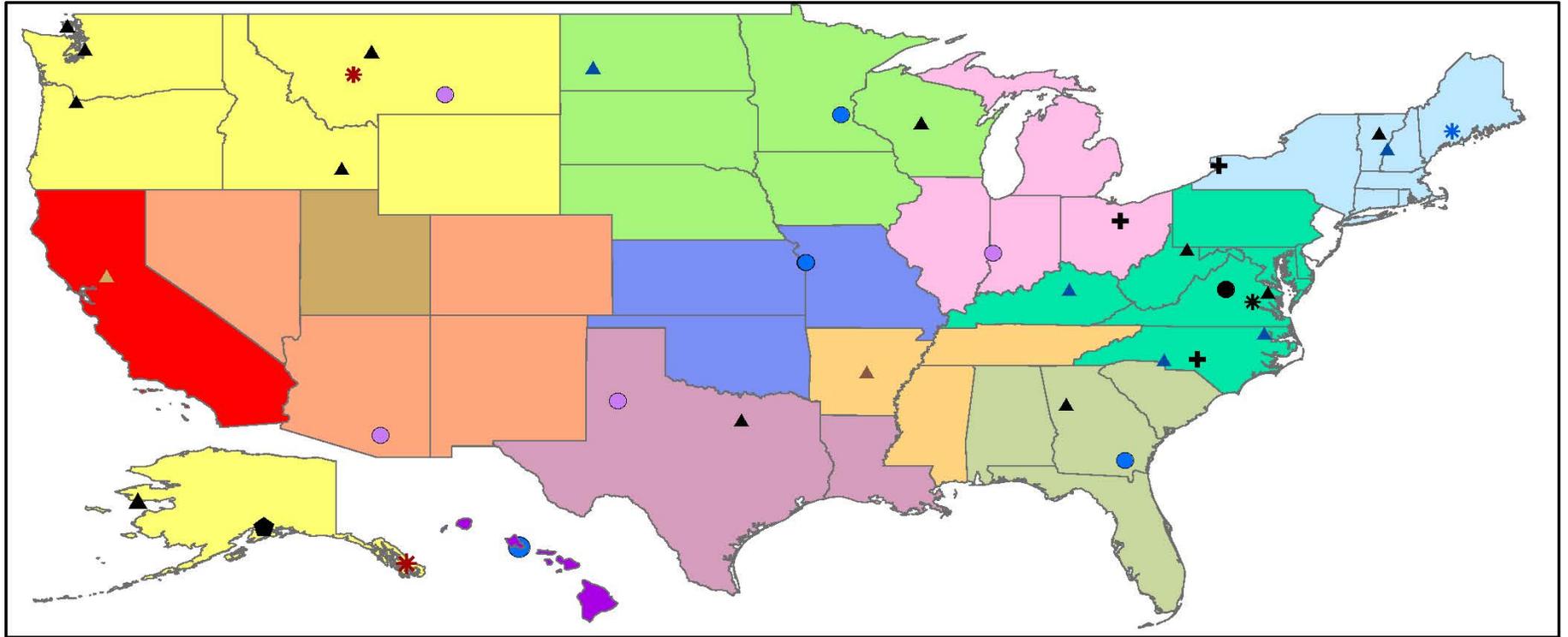
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FY 13-14 OAT Grantees

Telehealth Network Grant Program (TNGP), Telehomecare Grant Program (THC), Telehealth Resource Center Grant Program (TRCGP), Licensure Portability Grant Program (LPGP), Flex Rural Veterans Health Access Program (RVHAP)



Award Type (Years Awarded)

- | | | | | |
|--------------------|--------------------|---|--------------------|----------------------|
| ▲ LPGP (FY 12-15) | * RVHAP (FY 10-12) | ▲ TNGP (FY 12-15) | ● TRCGP (FY 11-14) | ◆ TRCGP-T (FY 12-15) |
| * RVHAP (FY 13-15) | ▲ TNGP (FY 12-15) | ▲ TNGP (FY 12-15), TRCGP (FY 13-15) | ● TRCGP (FY 12-15) | |
| | ▲ TNGP (FY 13-15) | ▲ TNGP (FY 13-15), TRCGP (FY 12-15), TRCGP-P (FY 13-15) | ● TRCGP (FY 13-15) | |
| | ▲ TNGP (FY 12-15) | | | |

TRC Coverage Areas

- | | | |
|--|---|---|
| Great Plains Telehealth Resource & Assistance Center | Pacific Basin Telehealth Resource Center | Upper Midwest Telehealth Resource Center |
| Heartland Telehealth Resource Center | South Central Telehealth Resource Center | Utah - Northwest Telehealth Resource Center/Southwest Regional Telehealth Resource Center |
| Mid-Atlantic Telehealth Resource Center | Southeastern Telehealth Resource Center | Western Regional Telehealth Resource Center |
| NorthEast Telehealth Resource Center | Southwest Regional Telehealth Resource Center | |
| Northwest Regional Telehealth Resource Center | TexLa Telehealth Resource Center | |

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Overview

Background

The Office for the Advancement of Telehealth (OAT) promotes the use of telehealth technologies for health care delivery, education, and health information services. Telehealth is defined as the use of telecommunications and information technologies to share information, and to provide clinical care, education, public health, and administrative services at a distance. The office is part of the Health Resources and Services Administration (HRSA) at the U.S. Department of Health and Human Services. HRSA's mission is to assure quality health care for underserved, vulnerable, and special needs populations.

Grants Overview

These profiles contain information about grant projects administered by OAT from October 1, 2011 through September 30, 2013. During this period, OAT administered 36 telehealth/telemedicine projects, totaling more than \$12.9 million in funds awarded.

Projects administered by OAT receive funds in one of five ways:

1. The Telehealth Network Grant Program (TNGP): This program replaced the Rural Telemedicine Grant Program (RTGP). The TNGP is a competitive grant program that funds projects that demonstrate the use of telehealth networks to improve healthcare services for medically underserved populations in urban, rural, and frontier communities. More specifically, the networks can be used to: (a) expand access to, coordinate, and improve the quality of health care services; (b) improve and expand the training of health care providers; and/or (c) expand and improve the quality of health information available to health care providers, patients, and their families. The primary objective of the Telehealth Network Grant Program (TNGP) is to help communities build the human, technical, and financial capacity to develop sustainable telehealth programs and networks. In 2013, six were funded through the TNGP as part of 3-year awards totally over \$4.4 million.
2. The Telehomecare Grant Program (THC): The THC is a competitive grant program within the Telehealth Network Grant Program that focuses on demonstrating how telehealth networks can improve healthcare through provision of clinical care and remote monitoring of patients in their place of residence using telehealth technologies. These projects provide a mechanism to evaluate the cost-effectiveness of telehomecare services and may include, but are not limited to, case management by physicians, hospitals, medical clinics, home health agencies, or other health care providers who supervise the care of patients in their homes. In 2012, three projects were funded through the THC as part of 4-year awards totally over \$3 million.
3. The Telehealth Resource Center Grant Program (TRC): The TRC is a competitive grant program that provides support for the establishment and development of Telehealth Resource Centers (TRCs). These centers are to assist health care organizations, health care networks, and health care providers in the implementation of cost-effective telehealth programs to serve rural and medically underserved areas and populations. In 2013, five Regional TRCs (RTRCs) were funded through the TRC as part of 3-year awards totaling almost \$2 million. Also, OAT awarded one National TRC focusing on telehealth policy issues for three years totaling almost \$900 thousand.
4. Rural Veterans Health Access Program (RVHAP): This program provides funding to enhance mental health services, including crisis intervention and diagnostic assessments, to detect post-traumatic stress disorder, traumatic brain injury, and other injuries associated with veterans of Operation Iraqi Freedom and Operation Enduring Freedom. RVHAP focuses on methods that utilize regional approaches, networks, health information technology, telehealth, or telemedicine to deliver services to individuals in rural areas. In 2013, three projects were funded through the RVHAP as part of 3-year awards totally almost \$2.7 million over a three year period.

Overview (Cont.)

5. Licensure Portability Grant Program (LPGP): The LPGP is a competitive grant program that provides support for State professional licensing boards to carry out programs under which licensing boards of various States cooperate to develop and implement State policies that will reduce statutory and regulatory barriers to telemedicine. In 2012, two projects were funded through the LPGP as part of a 3-year award totaling \$2.1 million. Also, in 2013 the two projects were awarded a supplement by the Bureau of Health Professions (BHPr) totaling \$140 thousand for a one year period.

OAT Grantee Organizations/Program Names

The Office for the Advancement of Telehealth’s (OAT) “Grantee Profiles 2013-2014” provides information about Grantee Organizations whose grants are administered by OAT. Projects included are those in an active status and/or ongoing projects receiving funding.

***FY 2011 is the period October 1, 2010 through September 30, 2011.**

***FY 2012 is the period October 1, 2011 through September 30, 2012.**

***FY 2013 is the period October 1, 2012 through September 30, 2013.**

This section contains a list of FY 2010–2012 OAT Grantee Organizations and their Program Names (descriptions).

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Grantee Organizations/Program Names

State	Organization/Program Name
AK	Alaska Native Tribal Health Consortium
	<ul style="list-style-type: none">• <i>National Telehealth Technology Assessment Resource Center (NRTC-T)</i>
AK	Norton Sound Health Corporation
	<ul style="list-style-type: none">• <i>The NSHC Telehealth Project</i>
AK	Alaska Department of Health and Social Services
	<ul style="list-style-type: none">• <i>Alaska's Flex Rural Veterans Health Access Program</i>
AR	University of Arkansas for Medical Sciences
	<ul style="list-style-type: none">• <i>RESTART: Reinvention and Expansion of the System to Access Rural Telecolposcopy</i>• <i>South Central Telehealth Resource Center</i>
AZ	Arizona Board of Regents, University of Arizona
	<ul style="list-style-type: none">• <i>Southwest Telehealth Resource Center</i>
CA	California Telehealth Network
	<ul style="list-style-type: none">• <i>California Telehealth Resource Center</i>
CA	Public Health Institute (NRTC-P)
	<ul style="list-style-type: none">• <i>National Telehealth Resource Center</i>
CA	University of California, Davis
	<ul style="list-style-type: none">• <i>Pediatric Emergency Assistance to Newborns Using Telehealth (PEANUT) Program</i>
GA	Association of State & Provincial Psychology Boards
	<ul style="list-style-type: none">• <i>Licensure Portability Grant Program</i>
GA	Georgia Partnership for Telehealth, Inc.
	<ul style="list-style-type: none">• <i>Southeastern Telehealth Resource Center</i>
HI	University of Hawai'i at Manoa
	<ul style="list-style-type: none">• <i>Pacific Basin Telehealth Resource Center</i>
ID	Public Hospital Cooperative, Inc.
	<ul style="list-style-type: none">• <i>Cooperative Telehealth Network: A Healthy You</i>
IN	Indiana Rural Health Association, Inc.
	<ul style="list-style-type: none">• <i>Upper Midwest Telehealth Resource Center</i>
KS	University of Kansas Medical Center Research Institute
	<ul style="list-style-type: none">• <i>Heartland Telehealth Resource Center</i>
KY	University of Kentucky
	<ul style="list-style-type: none">• <i>Kentucky Eye Network</i>
ME	Maine Department of Health and Human Services -
	<ul style="list-style-type: none">• <i>The Maine Flex Rural Veterans Health Access Program (MeRVHAP)</i>
ME	Medical Care Development, Inc.
	<ul style="list-style-type: none">• <i>Northeast Telehealth Resource Center (NETRC)</i>
MN	Reagents of the University of Minnesota
	<ul style="list-style-type: none">• <i>Great Plains Telehealth Resource and Assistance Center (gpTRAC)</i>
MT	Benefis Hospitals, Inc.
	<ul style="list-style-type: none">• <i>REACH/ER</i>
MT	St. Vincent Healthcare Foundation
	<ul style="list-style-type: none">• <i>Northwest Regional Telehealth Resource Center (NRTRC)</i>
MT	Montana Department of Public Health and Human Services
	<ul style="list-style-type: none">• <i>Increasing Services to Montana's Veterans through Training, Team Building and Technology</i>
NC	East Carolina University
	<ul style="list-style-type: none">• <i>TeleTEAM Care – A Telehealth Network Grant Program</i>
NC	FirstHealth of the Carolinas
	<ul style="list-style-type: none">• <i>Mid-Carolinas Telehomecare Network</i>
NC	Roanoke Chowan Community Health Center

Types Of Grants

This section contains a background of the types of grants administered through OAT.

Grantee organizations and their projects are delineated by the Telehealth Network Grant Program (TNGP), Telehomecare Grant Program (THC), Telehealth Resource Center Grant Program (TRCGP), Licensure Portability Grant Program (LPGP), and the Rural Veterans Health Access Program (RVHAP). Funding years for current grantees are also provided.

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Types of Grants

Telehealth Network Grant Program (TNGP)

FY 2013-15 Grantees

State	Name	Previously Funded
CA	University of California, Davis	TNGP 10-12
KY	University of Kentucky	TNGP 03-05
NC	East Carolina University	-
NC	Roanoke Chowan Community Health Center, Inc.	THC 10-12
ND	Saint Joseph's Hospital and Health Center	-
NH	Mary Hitchcock Memorial Hospital	-

Telehealth Network Grant Program (TNGP)

FY 2012-15 Grantees

State	Name	Previously Funded
AK	Norton Sound Health Corporation	-
AR	University of Arkansas for Medical Sciences	TNGP 09-11
ID	Public Hospital Cooperative, Inc.	TNGP 06-08
MT	Benefis Hospitals, Inc.	TNGP 03-05
OR	Providence Health & Service	-
VA	Bay Rivers Telehealth Alliance	-
VT	Bi-State Primary Care Association, Inc.	-
WA	San Juan County Public Hospital District No. 1	-
WA	University of Washington	-
WI	Marshfield Clinic Research Foundation	TNGP 03-05, 06-08, 09-11
WV	West Virginia University Research Corporation	-

Telehomecare Grant Program (THC)

FY 2012-14 Grantees

State	Name	Previously Funded
NC	FirstHealth of the Carolinas	TNGP 09-11
NY	Visiting Nursing Association of Western New York, Inc.	-
OH	Visiting Nurse Association of MidOhio	-

Telehealth Resource Center Grant Program (TRC)

FY 2013-15 Grantees

State	Name	Previously Funded
-------	------	-------------------

NTRC

CA	Public Health Institute (NTRC-P)	TRC 12-13
----	----------------------------------	-----------

RTRC

AR	University of Arkansas for Medical Sciences	TRC 10-12
GA	Georgia Partnership for Telehealth, Inc.	TRC 10-12, 11-14
HI	University of Hawaii	TRC 10-12
KS	University of Kansas Medical Center Research Institute, Inc.	TRC 10-12
MN	Regents of the University of Minnesota	TRC 11-14

Types of Grants

Telehealth Resource Center Grant Program (TRC)

FY 2012-15 Grantees

State	Name	Previously Funded
NTRC		
AK	Alaska Native Tribal Health Consortium (NTRC-T)	-
CA	Public Health Institute (NTRC-P) ***	TRC 12-13
DC	American Telemedicine Association (NTRC-P) ***	-
RTRC		
AZ	Arizona Board of Regents, University of Arizona	TRC 06-08, 09-11
CA	California Telehealth Network	TRC 12-13
IN	Indiana Rural Health Association, Inc.	TRC 11-14
MT	St. Vincent Healthcare Foundation, Inc.	TRC 06-08, 09-11
TX	Texas Tech University Health Sciences Center	-

*** Indicates one year award

Telehealth Resource Center Grant Program (TRC)

FY 2011-14 Grantees

State	Name	Previously Funded
AZ	Arizona Board of Regents, The University of Arizona	TRC 06-08
CA	California Health Foundation and Trust	-
GA	Georgia Partnership for Health.	TRC 10-12
IN	Indiana Rural Health Association, Inc. ***	-
ME	Medical Care Development, Inc.	-
MN	Regents of the University of Minnesota	-
VA	The Rector and Visitors of the University of Virginia	-

*** Indicates one year award

Licensure Portability Grant Program (LPGP)

FY 2012-2015 Grantees

State	Name	Previously Funded
GA	Association of State & Provincial Psychology Boards	-
TX	Federation of State Medical Boards of the United States, Inc.	LPGP 06-09, 09-11

Flex Rural Veterans Health Access Program (RVHAP)

FY 2013-15 Grantees

State	Name	Previously Funded
AK	State of Alaska, Department of Health and Social Services	RVHAP 10-13
ME	Maine Department of Health and Human Services	-

Types of Grants

MT Montana Department
of Public Health and Human Services RVHAP 10-13

Flex Rural Veterans Health Access Program (RVHAP)

FY 2010-12 Grantees

State	Name	Previously Funded
AK	State of Alaska, Department of Health and Social Services	-
MT	Montana Department of Public Health and Human Services	-
VA	Virginia Department of Health	-

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Telehealth Network Grant Program (TNGP)

The TNGP funds projects that demonstrate the use of telehealth networks to improve healthcare services for medically underserved populations in urban, rural, and frontier communities. More specifically, the networks can be used to: (a) expand access to, coordinate, and improve the quality of health care services; (b) improve and expand the training of health care providers; and/or (c) expand and improve the quality of health information available to health care providers, patients, and their families. The primary objective of the TNGP is to help communities build the human, technical, and financial capacity to develop sustainable telehealth programs and networks. (HRSA Activity Code H2A)

Interpreting Project Descriptions:

Previously
Funded Award



TNGP 10-12

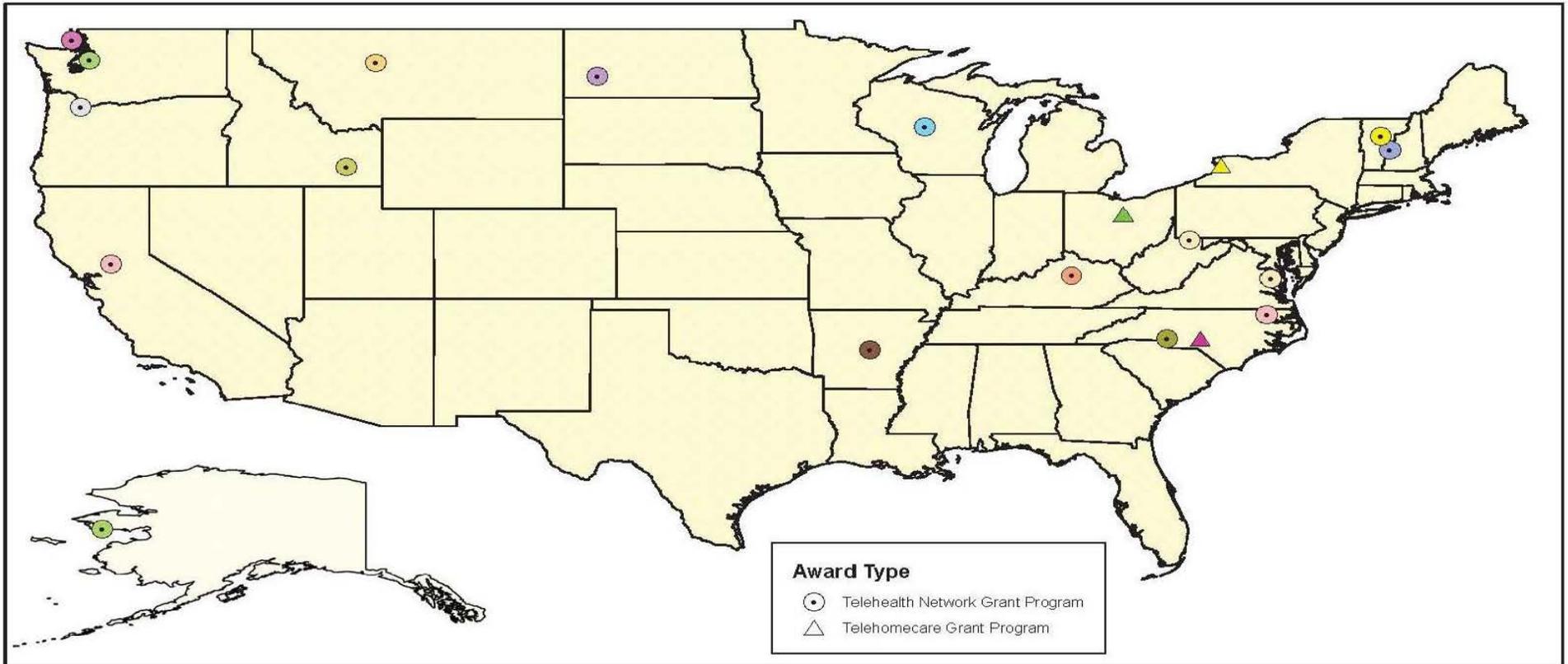
STATE, Location County

Name of Program

Organization Name (Current Award Years) _____

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FY 13-14 Telehealth Network Grant Program and Telehomecare Grant Program



Organization (Years Awarded)

- | | | |
|--|--|---|
| ○ Bay Rivers Telehealth Alliance (FY 12-15) | ● Norton Sound Health Corporation (FY 12-15) | ● University of Arkansas for Medical Sciences (FY 12-15) |
| ● Benefis Hospitals, Inc. (FY 12-15) | ○ Providence Health & Services (FY 12-15) | ● University of Kentucky (FY 13-15) |
| ● Bi-State Primary Care Association (FY 12-15) | ● Public Hospital Cooperative, Inc. (FY 12-15) | ● University of Washington (FY 12-15) |
| ● East Carolina University (FY 13-15) | ● Roanoke Chowan Community Health Center (FY 13-15) | ▲ Visiting Nurse Association of Mid-Ohio (FY 12-14) |
| ▲ FirstHealth of the Carolinas (FY 12-14) | ● San Juan County Public Hospital District #1 (FY 12-15) | ▲ Visiting Nursing Association of Western New York, Inc. (FY 12-14) |
| ● Marshfield Clinic Research Foundation (FY 12-15) | ● St Josephs Hospital Health Center (FY 13-15) | ● West Virginia University Research Corporation (FY 12-15) |
| ● Mary Hitchcock Memorial Hospital (FY 13-15) | ● UC Davis Children's Hospital (FY 13-15) | |

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Individual Project Maps

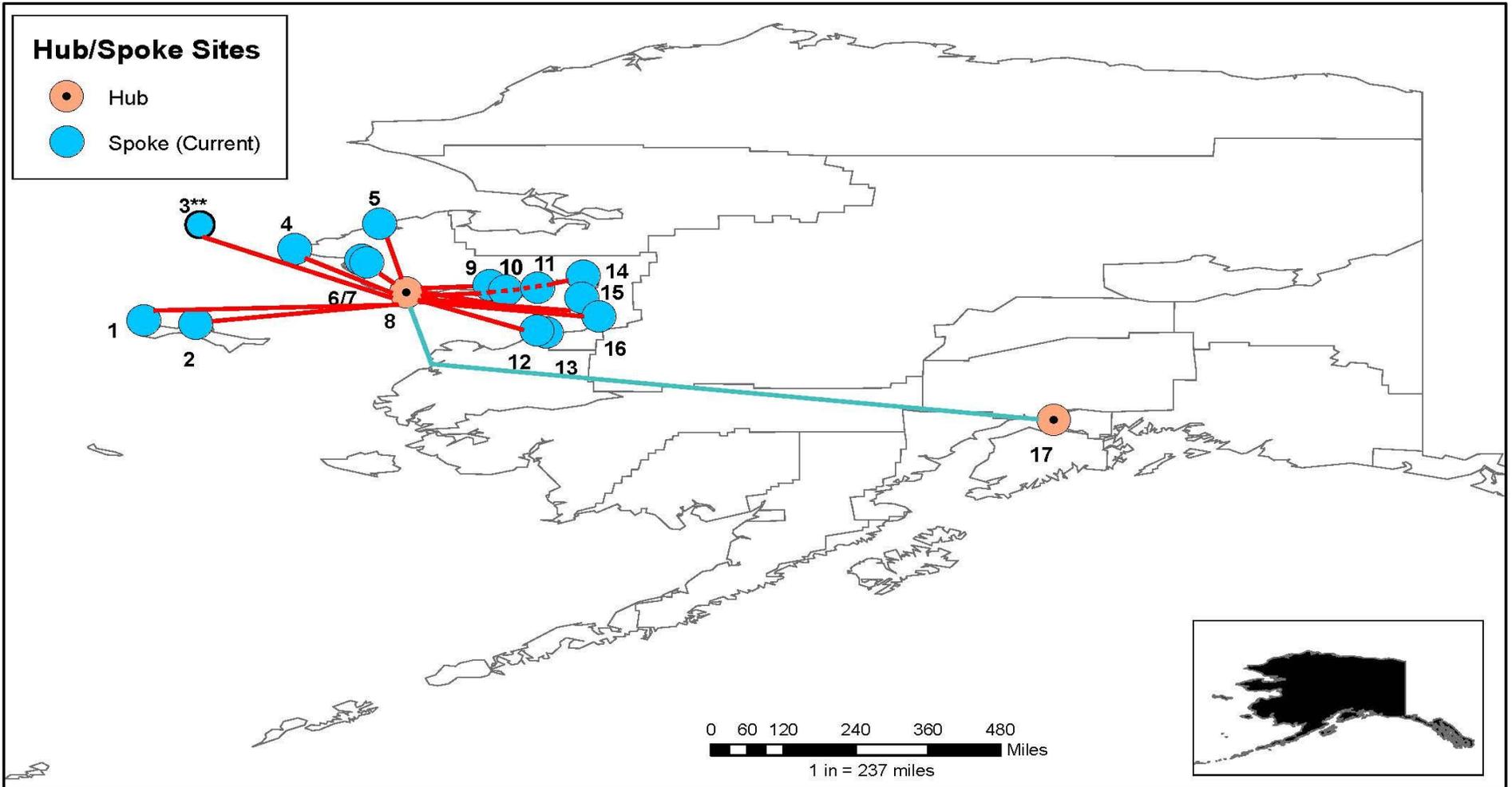
Telehealth Network Grant Program (TNGP)

This section provides Geographical Information System (GIS) illustrations demonstrating the reach each OAT grantee has with their individual project. Each representation shows the relationship of project Hub and Spoke sites within the state, region or across the nation.

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Telehealth Network Grant Program (TNGP)
 Norton Sound Health Corporation (FY12-15)
 The NSHC Telehealth Project

AK



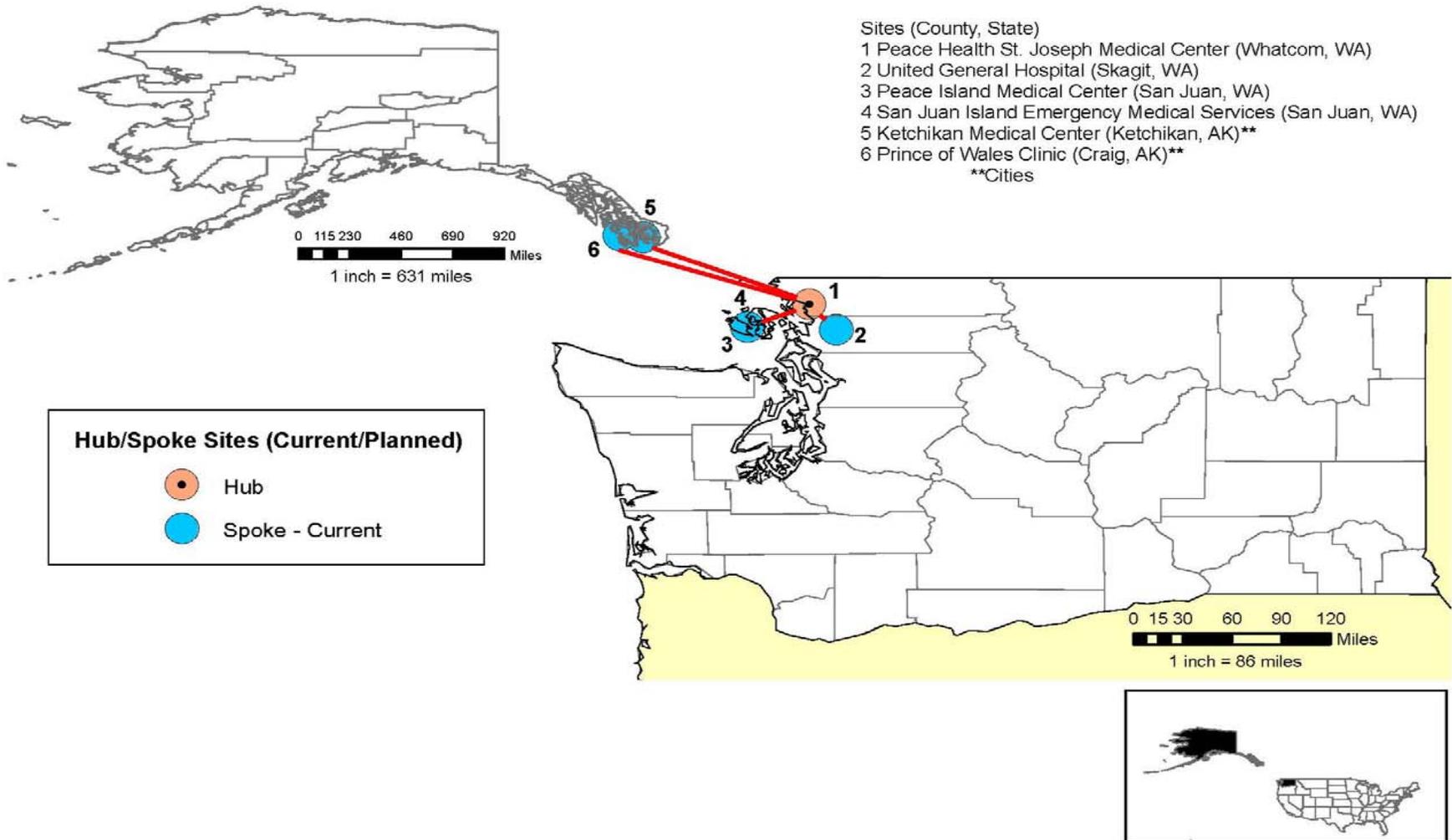
Sites (City/State)

- | | | |
|--|--|---|
| 1 Gambell Village Clinic (Gambell, AK) | 8 Norton Sound Health Corporation (Nome, AK) | 15 Shaktoolik Village Clinic (Shaktoolik, AK) |
| 2 Savoonga Village Clinic (Savoonga, AK) | 9 White Mountain Village Clinic (White Mountain, AK) | 16 Unalakleet Village Clinic (Unalakleet, AK) |
| 3 Diomedes Village Clinic (Diomedes, AK)** | 10 Golovin Village Clinic (Golovin, AK) | 17 Alaska Native Medical Center (Anchorage, AK) |
| 4 Wales Village Clinic (Wales, AK) | 11 Elim Village Clinic (Elim, AK) | |
| 5 Shishmaref Village Clinic (Shishmaref, AK) | 12 Stebbins Village Clinic (Stebbins, AK) | ** Approximate location - no geocode available |
| 6 Brevig Mission Village Clinic (Brevig Mission, AK) | 13 St. Michael Village Clinic (St. Michael, AK) | |
| 7 Teller Village Clinic (Teller, AK) | 14 Koyuk Village Clinic (Koyuk, AK) | |

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Telehealth Network Grant Program (TNGP)
San Juan County Public Hospital District No. 1 (FY 12-15)
Rural NW Washington & SE Alaska Telehealth Network

AK, WA



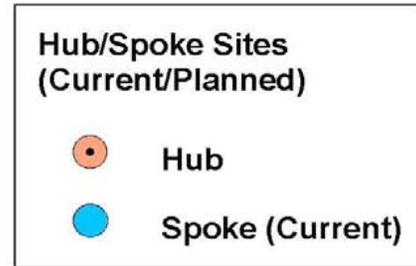
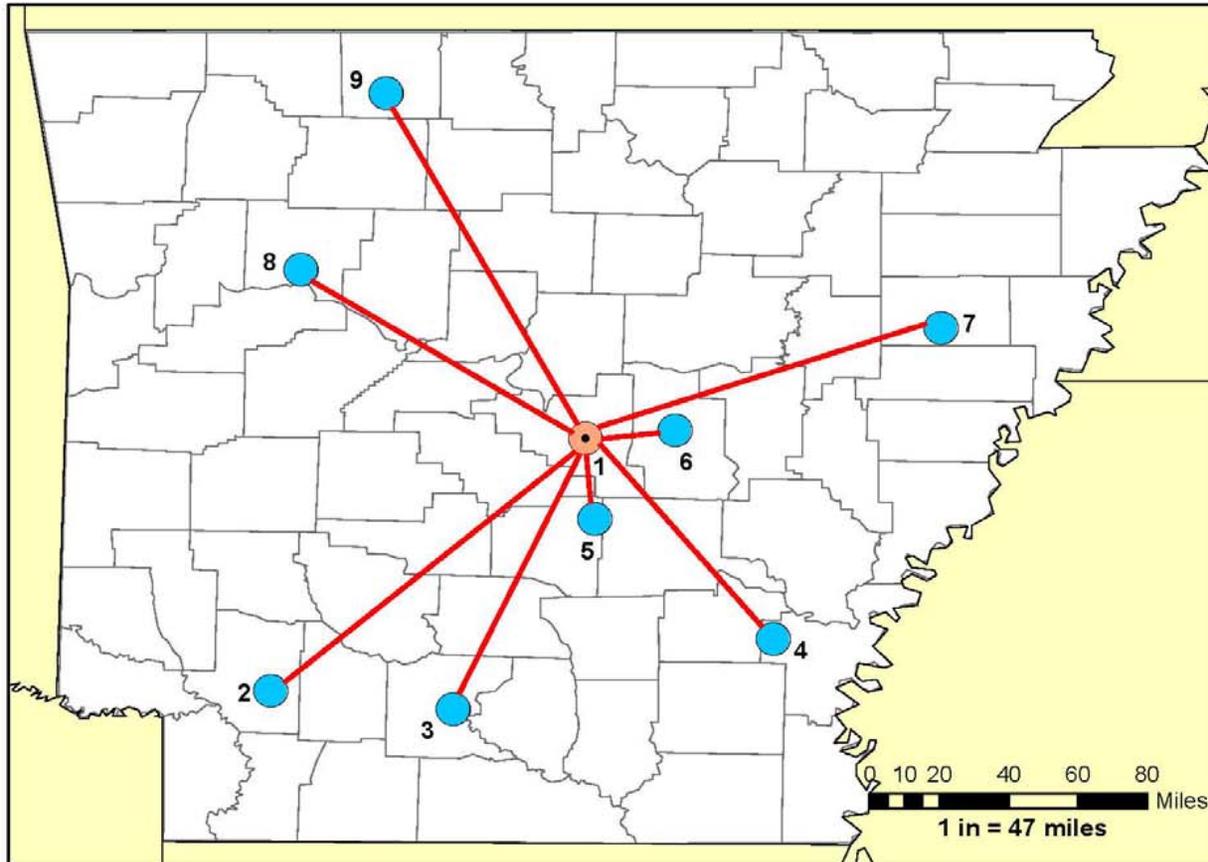
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Telehealth Network Grant Program (TNGP)

University of Arkansas for Medical Sciences (FY12-15)

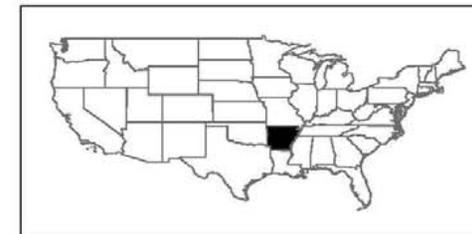
RESTART (Reinvention and Expansion of the System to Access Rural Telecolposcopy)

AR



Sites (County/State)

- 1 University of Arkansas for Medical Sciences (Pulaski, AR)
- 2 Hempstead County Health Department (Hempstead, AR)
- 3 Ouachita County Health Department (Ouachita, AR)
- 4 Desha County Health Department (Desha, AR)
- 5 Lawrence County Health Department (Lawrence, AR)
- 6 Lonoke County Health Department (Lonoke, AR)
- 7 Cross County Health Department (Cross, AR)
- 8 Johnson County Health Department (Johnson, AR)
- 9 Boone County Health Department (Boone, AR)



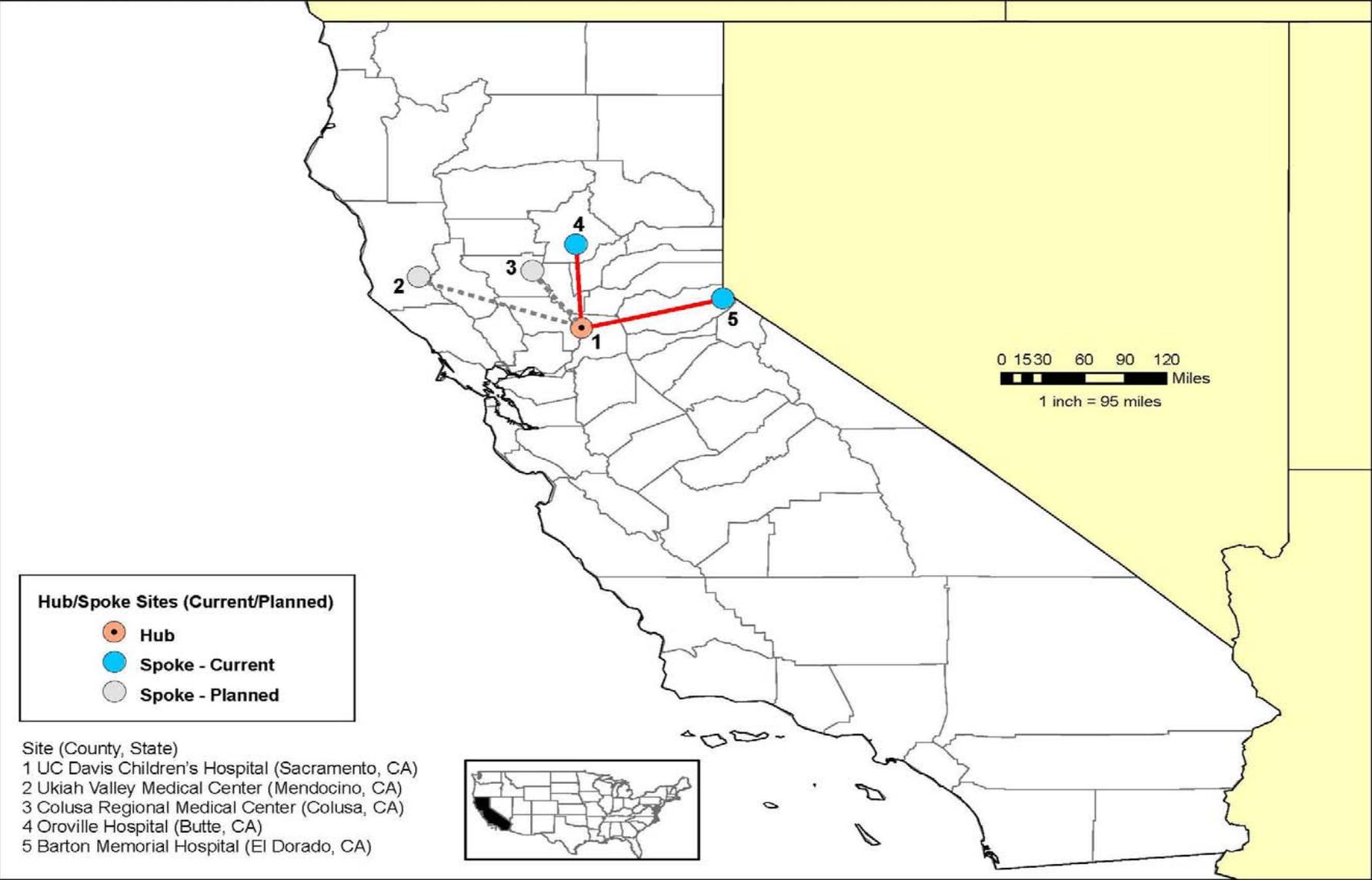
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Telehealth Network Grant Program (TNGP)

University of California, Davis (FY 13-15)

CA

Pediatric Emergency Assistance for Newborns using Telehealth (PEANUT) Program



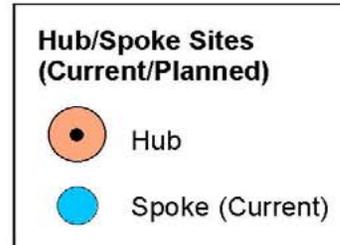
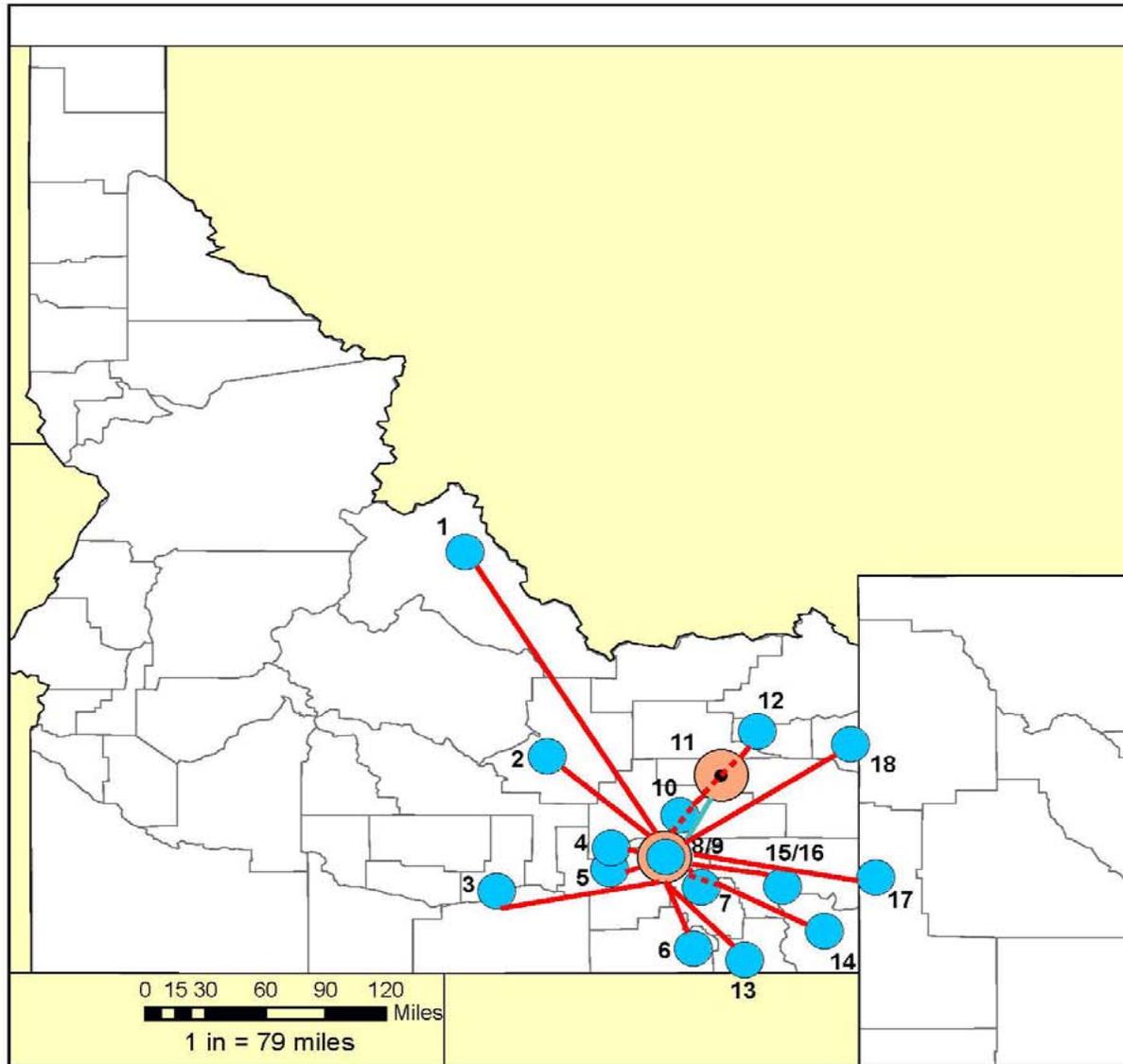
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Telehealth Network Grant Program (TNGP)

Public Hospital Cooperative, Inc. (FY12-15)

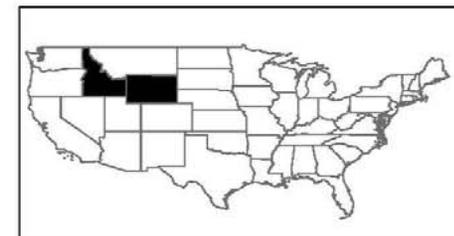
Cooperative Telehealth Network: A Healthy You

ID, WY



Sites (County/State)

- 1 Steele Memorial Medical Center (Lemhi, ID)
- 2 Lost Rivers Medical Center (Butte, ID)
- 3 Minidoka Memorial Hospital (Minidoka, ID)
- 4 HealthWest Clinic (Bingham, ID)
- 5 Power County Hospital District (Power, ID)
- 6 Oneida County Hospital (Oneida, ID)
- 7 HealthWest Clinic (Bannock, ID)
- 8 Portneuf Medical Center (Bannock, ID)
- 9 HealthWest Clinic (Bannock, ID)
- 10 Bingham Memorial Hospital (Bingham, ID)
- 11 Eastern Idaho Regional Medical Center (Bonneville, ID)
- 12 Madison Memorial Hospital (Madison, ID)
- 13 Franklin County Medical Center (Franklin, ID)
- 14 Bear Lake Memorial Hospital (Bear Lake, ID)
- 15 Caribou Memorial Hospital (Caribou, ID)
- 16 Southeastern Idaho Public Health (Caribou, ID)
- 17 Star Valley Medical Center (Lincoln, WY)
- 18 Teton Valley Hospital (Teton, ID)



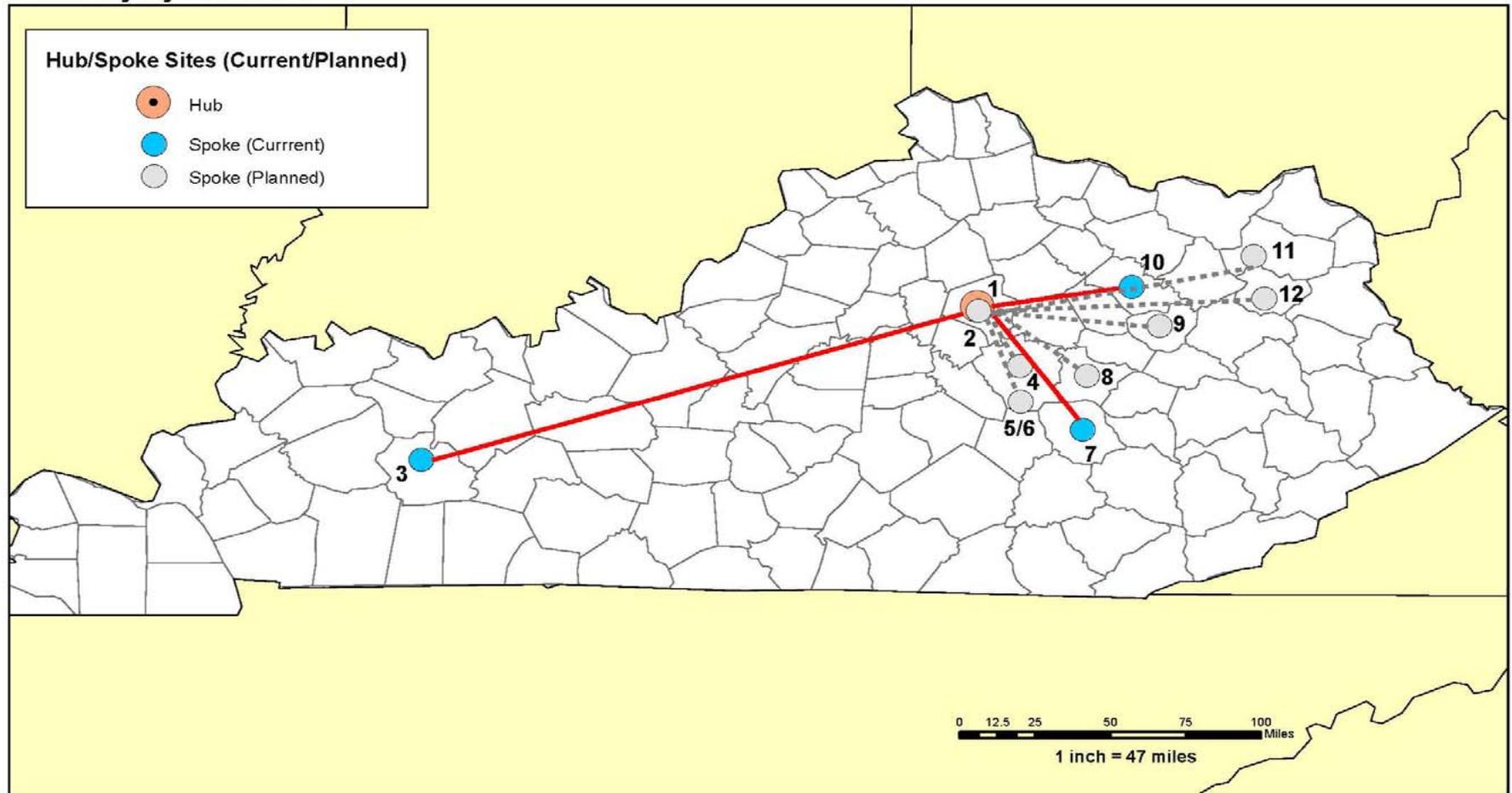
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Telehealth Network Grant Program (TNGP)

University of Kentucky (FY13-15)

Kentucky Eye Network

KY



Site (County, State)

- 1 University of Kentucky (Fayette, KY)
- 2 White House Clinic - Mt. Vernon (Rockcastle, KY)
- 3 St. Claire Family Medicine Clinic – Morehead (Rowan, KY)
- 4 White House Clinic – Richmond (Madison, KY)
- 5 White House Clinic - Berea 1 (Madison, KY)
- 6 White House Clinic - Berea 2 (Madison, KY)

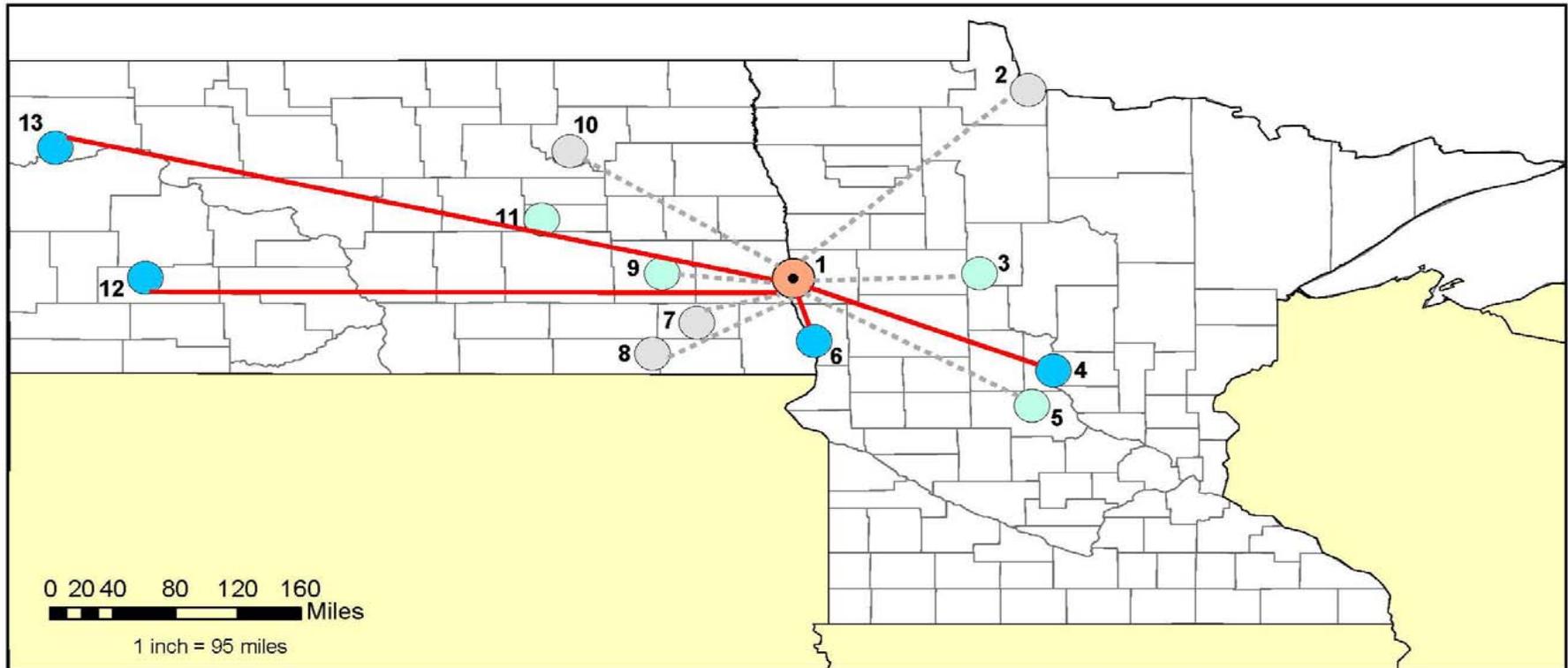
- 7 White House Clinic – McKee (Jackson, KY)
- 8 White House Clinic – Irvine (Estill, KY)
- 9 St. Claire Family Medicine – Frenchburg (Menifee, KY)
- 10 St. Claire Family Medicine Clinic – Owingsville (Bath, KY)
- 11 St. Claire Family Medicine Clinic - Olive Hill (Carter, KY)
- 12 St. Claire Family Medicine - Sandy Hook (Elliot, KY)



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Telehealth Network Grant Program (TNGP)
Saint Joseph's Hospital and Health Center (FY 13-15)
CHI-Fargo Division Tele-Behavioral Network

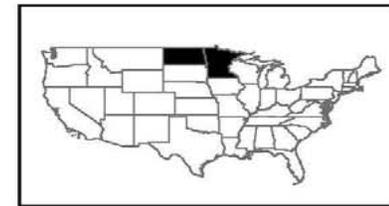
MN, ND



Hub/Spoke Sites (Current/Planned)

- Hub
- Spoke - Current
- Spoke - Planned 2nd yr
- Spoke - Planned 3rd yr

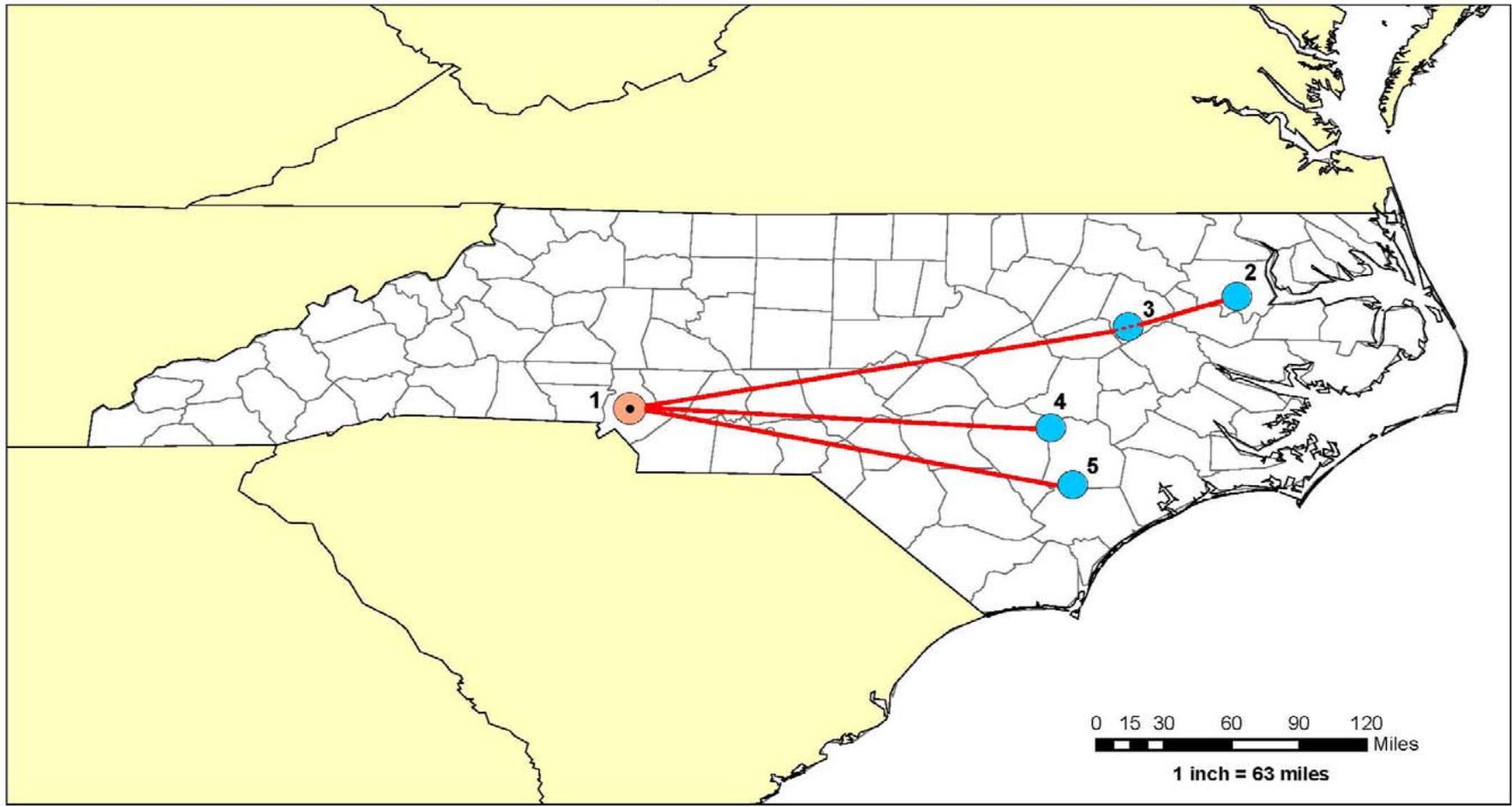
- Site (County, State)
- 1 CHI- Fargo Division Office- Project Coordination (Cass , ND)
 - 2 LakeWood Health and Care Center (Lake of the Woods, MN)
 - 3 St Josephs Area Health Services Hubbard, MN)
 - 4 St Gabriels Hospital Unity Family Healthcare (Morrison, MN)
 - 5 Albany Area Hospital (Stearns, MN)
 - 6 St Francis Health Care (Wilkin, MN)
 - 7 Lisbon Area Health Services (Ransom, ND)
 - 8 Oakes Community Hospital (Dickey, ND)
 - 9 Mercy Hospital (Barnes, ND)
 - 10 Mercy Hospital (Ramsey, ND)
 - 11 Carrington Health Center (Foster, ND)
 - 12 St Josephs Hospital Health Center (Stark, ND)
 - 13 Mercy Medical Center (Williams, ND)



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Telehealth Network Grant Program (TNGP)
 East Carolina University (FY 13-15)
 TeleTEAM Care – A Telehealth Network Grant Program

NC



Hub/Spoke Sites (Current/Planned)

- Hub
- Spoke (Current)

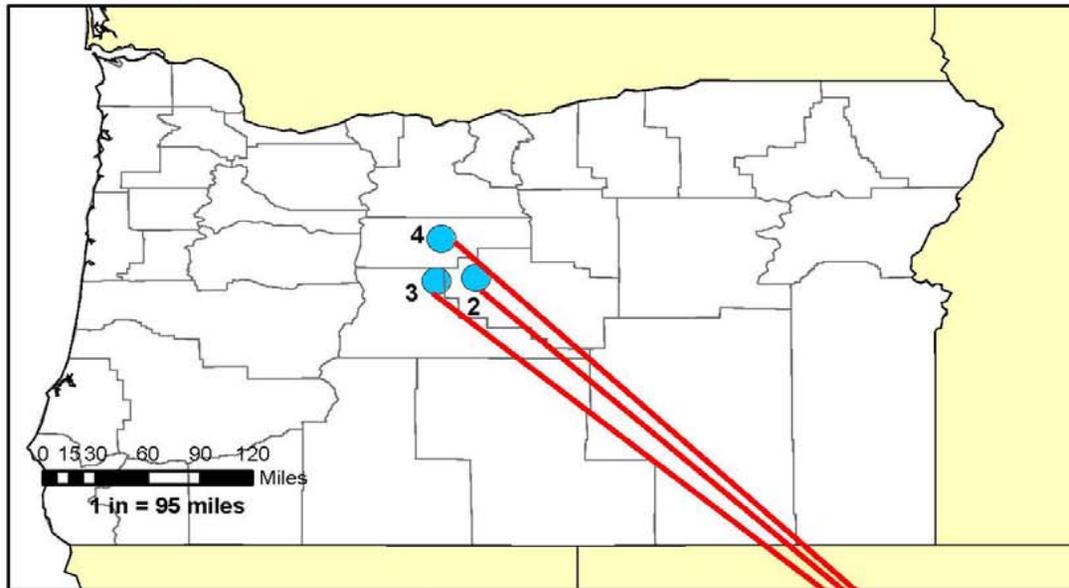
- Site (County, State)
- 1 - ECU Family Medicine (Pitt, NC)
 - 2 - Vidant Family Medicine – Windsor (Bertie, NC)
 - 3 - Vidant Family Medicine – Pinetops (Edgecombe, NC)
 - 4 - Goshen Medical Center – Faison (Duplin, NC)
 - 5 - Goshen Medical Center – Wallace (Duplin, NC)



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Telehealth Network Grant Program (TNGP)
Roanoke Chowan Community Health Center, Inc. (FY 13-15)
Central Oregon Telehealth Network

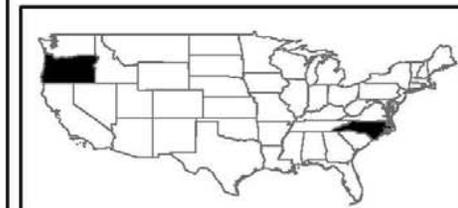
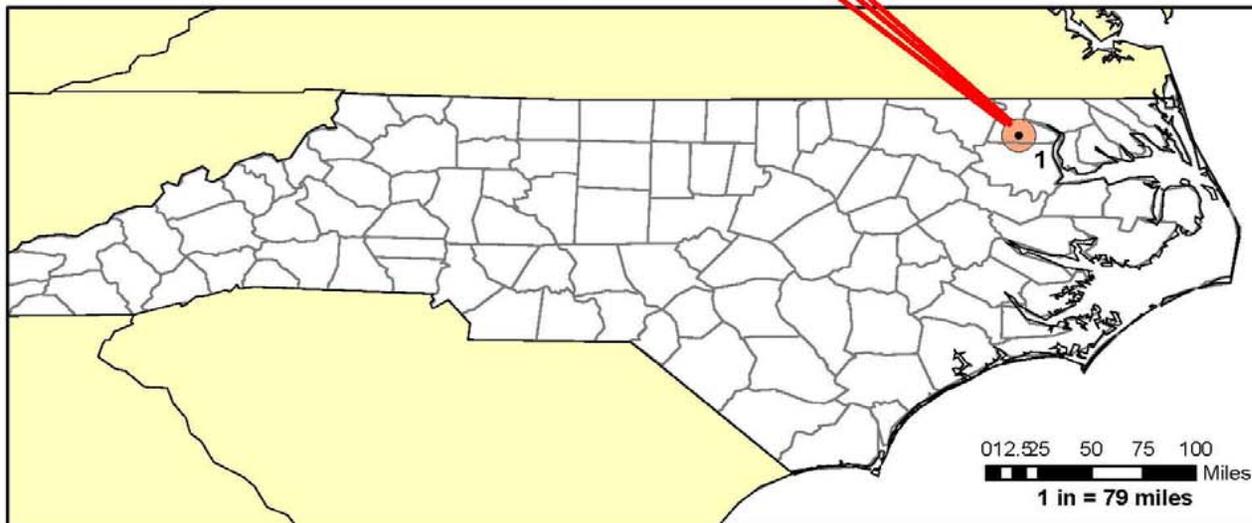
NC, OR



Hub/Spoke Sites (Current/Planned)

-  Hub
-  Spoke (Current)

- Sites (County, State)
- 1 Roanoke Chowan Community Health Center (Hertford, NC)
 - 2 Mosiac Prineville FQHC (Crook, OR)
 - 3 Mosiac Redmond FQHC (Deschutes, OR)
 - 4 Mosiac Madras FQHC (Jefferson, OR)



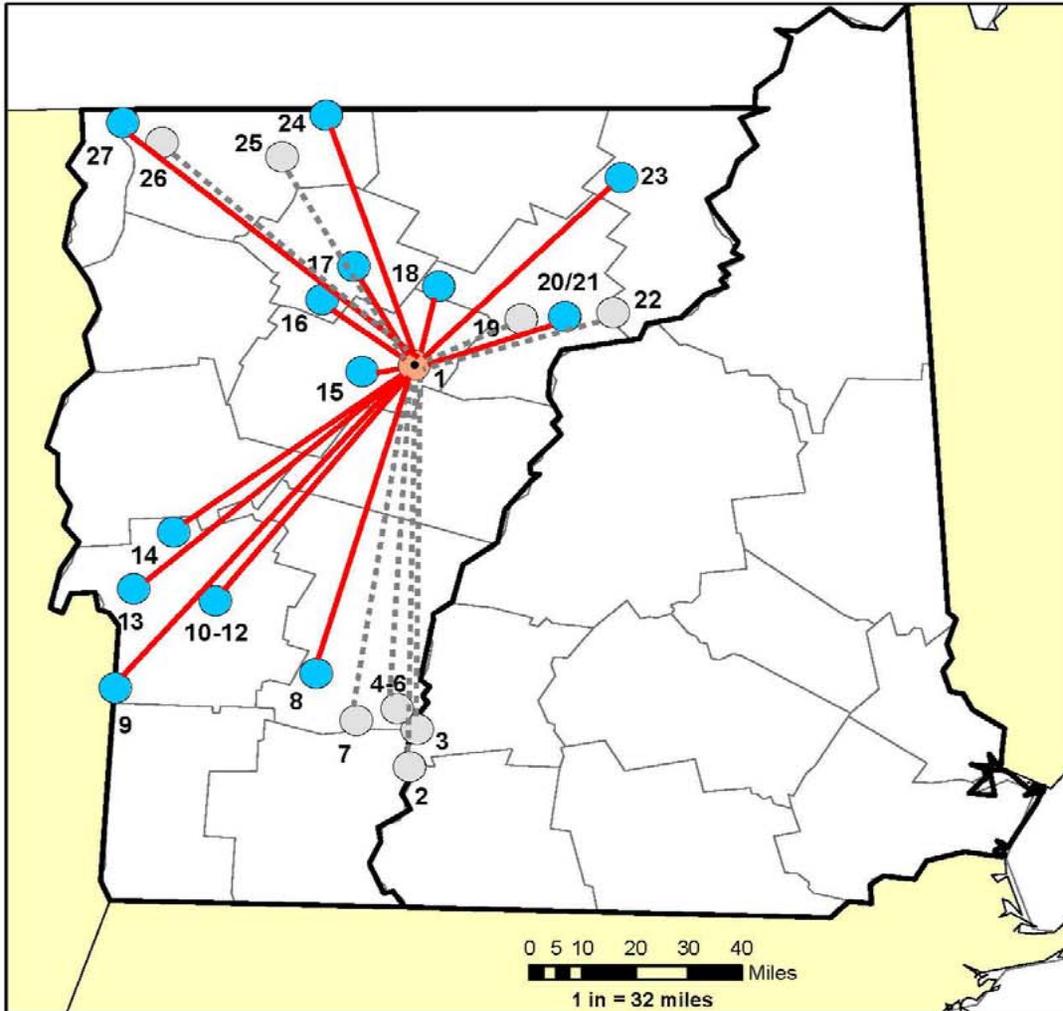
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Telehealth Network Grant Program (TNGP)

Bi-State Primary Care Association, Inc. (FY12-15)

VRHA Telehealth Network

NH, VT

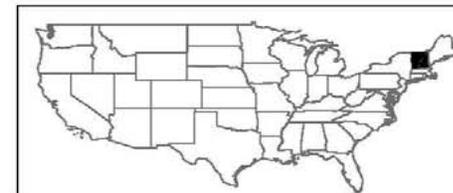


Hub/Spoke Sites (Current/Planned)

- Hub
- Spoke (Current)
- Spoke (Planned)

Site (County, State)

- 1 The Health Center (Washington, VT)
- 2 Rockingham Medical Group (Windham, VT)
- 3 Charlestown Family Medicine (Sullivan, NH)
- 4 Springfield Hospital (Windsor, VT)
- 5 Springfield Health Center (Windsor, VT)
- 6 Women's Health Center of Springfield (Windsor, VT)
- 7 Chester Family Medicine (Windsor, VT)
- 8 Ludlow Health Center (Windsor, VT)
- 9 Mettowee Valley Health Center (Rutland, VT)
- 10 Commons Street Health Center (Rutland, VT)
- 11 Rutland Community Health Center (Rutland, VT)
- 12 Rutland Pediatrics (Rutland, VT)
- 13 Castleton Family Health Center (Rutland, VT)
- 14 Brandon Internal Medicine (Rutland, VT)
- 15 Bi-State Primary Care Association (Washington, VT)
- 16 Stowe Family Practice (Rutland, VT)
- 17 Morrisville Family Health Center (Lamoille, VT)
- 18 Hardwick Health Center (Caledonia, VT)
- 19 Danville Health Center (Caledonia, VT)
- 20 Caledonia Internal Medicine (Caledonia, VT)
- 21 St. Johnsbury Family Health Center (Caledonia, VT)
- 22 Concord Health Center (Essex, VT)
- 23 Island Pond Health and Dental Center (Essex, VT)
- 24 Richford Health Center (Franklin, VT)
- 25 Enosburg Health Center (Franklin, VT)
- 26 Swanton Health Center (Franklin, VT)
- 27 Alburg Health Center (Grand Isle, VT)



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Telehealth Network Grant Program (TNGP)

Mary Hitchcock Memorial Hospital (FY 13-15)
 CREST and Tele-ED

NH, VT

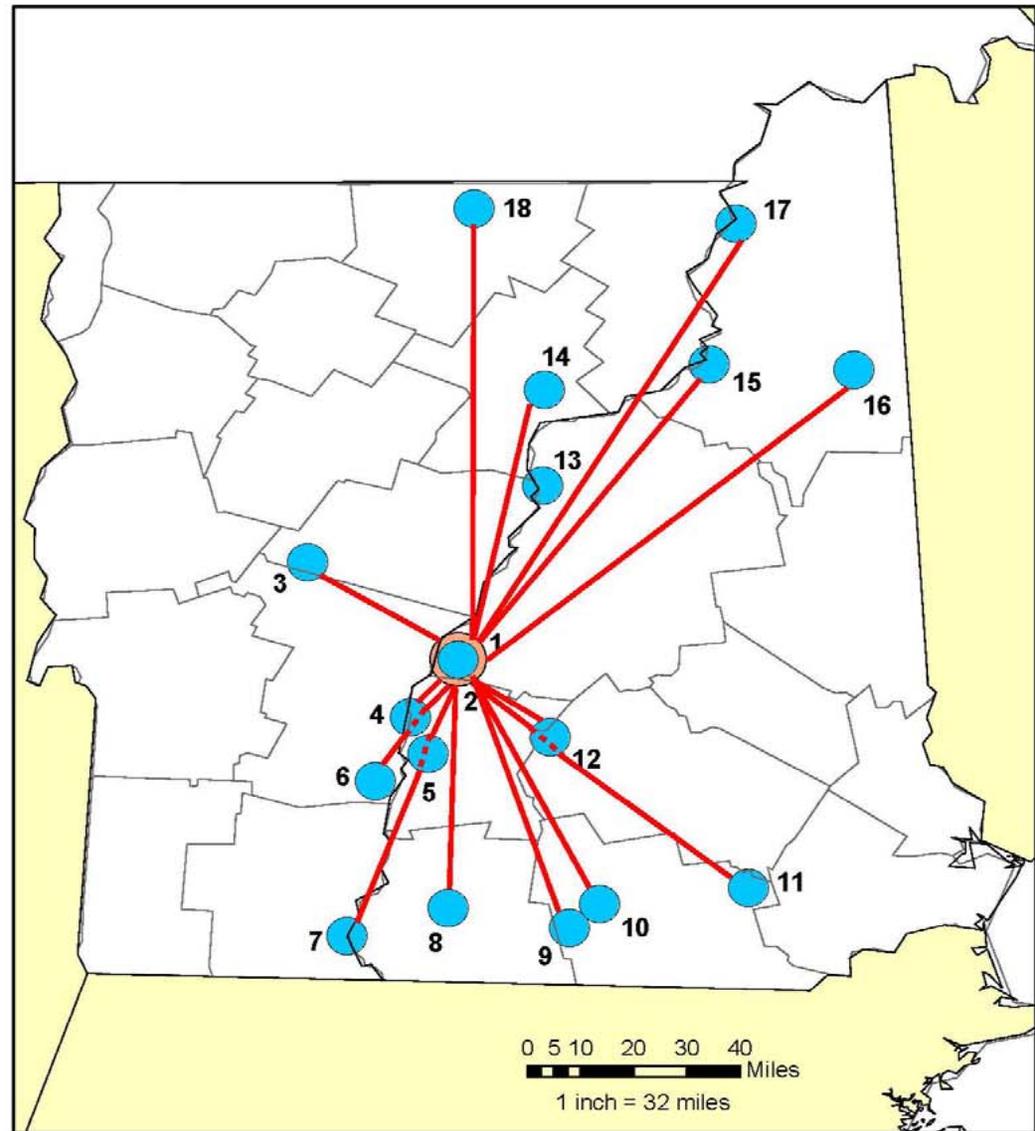
Hub/Spoke Sites (Current/Planned)

-  Hub
-  Spoke - Current



Site (County, State)

- 1 Dartmouth-Hitchcock Medical Center - Hub (Grafton, NH)
- 2 Alice Peck Day Memorial Hospital (Grafton, NH)
- 3 Gifford Medical Center (Orange, VT)
- 4 Mt. Ascutney Hospital and Health Center (Windsor, VT)
- 5 Valley Regional Hospital (Sullivan, NH)
- 6 Springfield Hospital (Windsor, VT)
- 7 Brattleboro Memorial Hospital (Windham, VT)
- 8 Cheshire Medical Center (Cheshire, NH)
- 9 Monadnock Community Hospital (Hillsborough, NH)
- 10 Crotched Mountain Rehabilitation Center (Hillsborough, NH)
- 11 Catholic Medical Center (Hillsborough, NH)
- 12 New London Hospital (Merrimack, NH)
- 13 Cottage Hospital (Grafton, NH)
- 14 Northeastern Vermont Regional Hospital (Caledonia, VT)
- 15 Weeks Medical Center (Coos, NH)
- 16 Androscoggin Valley Hospital (Coos, NH)
- 17 Upper Connecticut Valley Hospital (Coos, NH)
- 18 North Country Hospital (Orleans, VT)



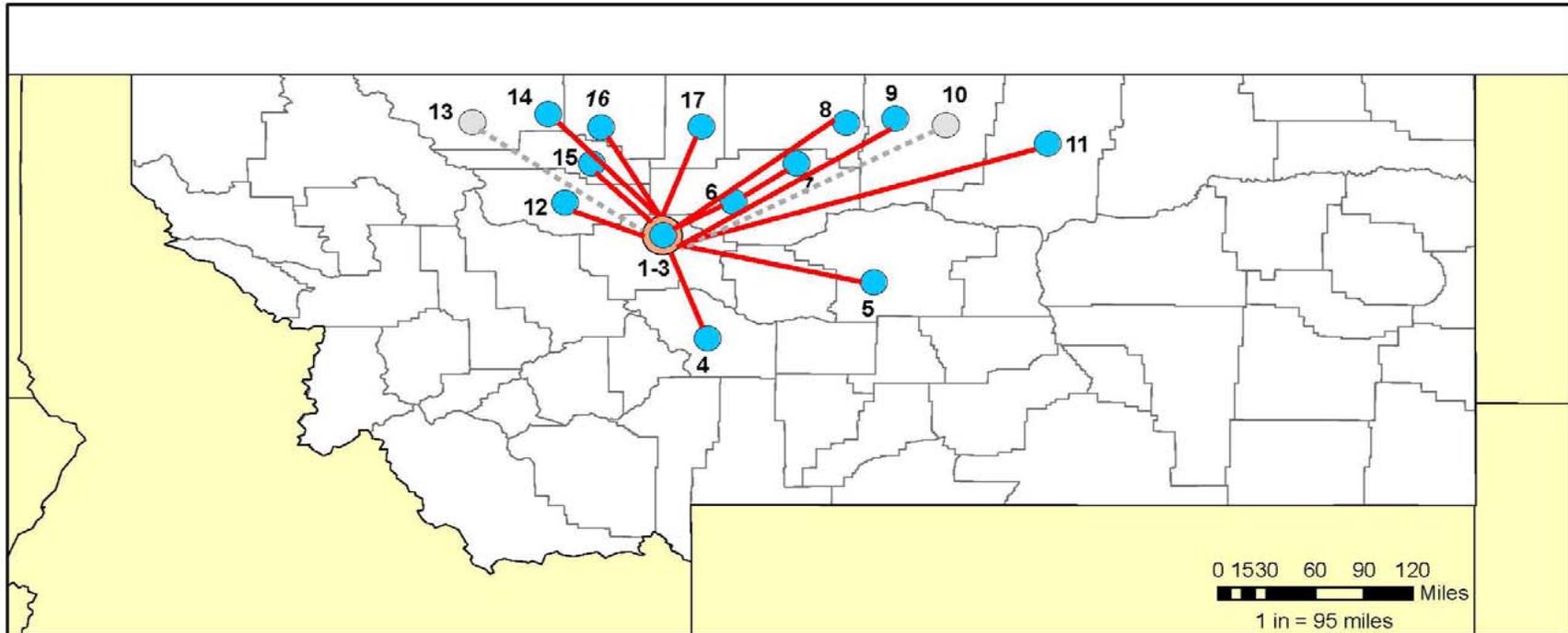
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Telehealth Network Grant Program (TNGP)

Benefis Hospitals, Inc. (FY12-15)

REACH/ER

MT

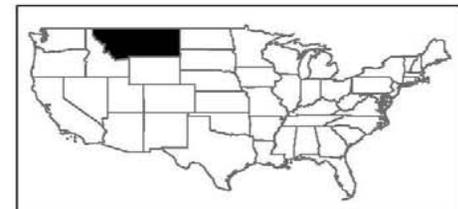


Site (County, State)

- | | |
|---|--|
| 1 Benefis Health System - East Campus (Cascade, MT) (Hub) | 9 Sweet Medical Center (Blaine, MT) |
| 2 Benefis Health System - West Campus (Cascade, MT) | 10 Fort Belknap (Blaine, MT) |
| 3 Sletten Cancer Institute (Cascade, MT) | 11 Phillips County Hospital (Phillips, MT) |
| 4 Mountainview Medical Center (Meagher, MT) | 12 Teton Medical Center (Teton, MT) |
| 5 Central Montana Medical Center (Fergus, MT) | 13 Blackfoot Community Hospital (Glacier, MT) |
| 6 Missouri River Medical Center (Choteau, MT) | 14 Northern Rockies Medical Center (Glacier, MT) |
| 7 Big Sandy Medical Center (Choteau, MT) | 15 Pondera Medical Center (Pondera, MT) |
| 8 Northern Montana Healthcare (Hill, MT) | 16 Marias Medical Center (Toole, MT) |
| | 17 Liberty Medical Center (Liberty, MT) |

Hub/Spoke Sites (Current/Planned)

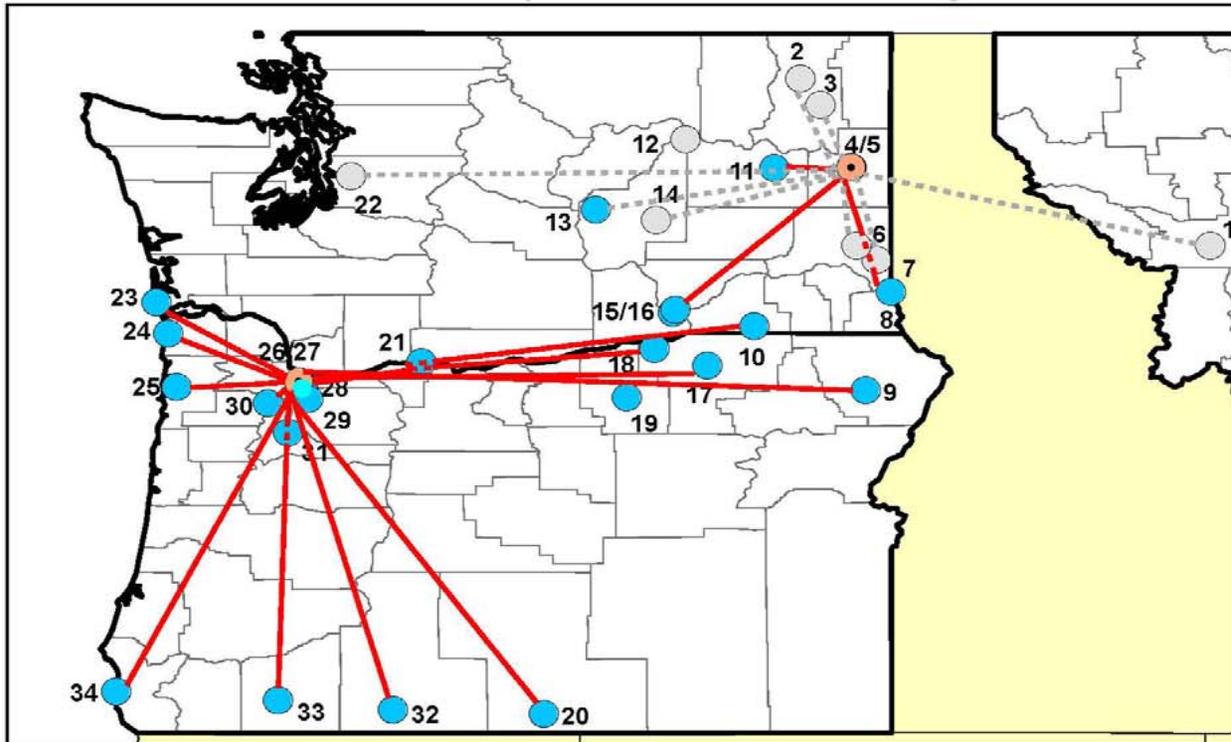
- Hub
- Spoke (Current)
- Spoke (Planned)



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Telehealth Network Grant Program (TNGP)
Providence Health & Services (FY12-15)
Northwest Telestroke Network Expansion and Evaluation Project

MT, OR, WA

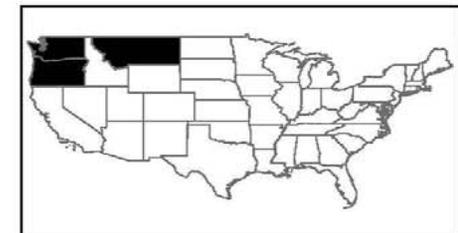


**Hub/Spoke Sites
(Current/Planned)**

- Hub
- Spoke (Current)
- Spoke (Planned)

Sites (County, State)

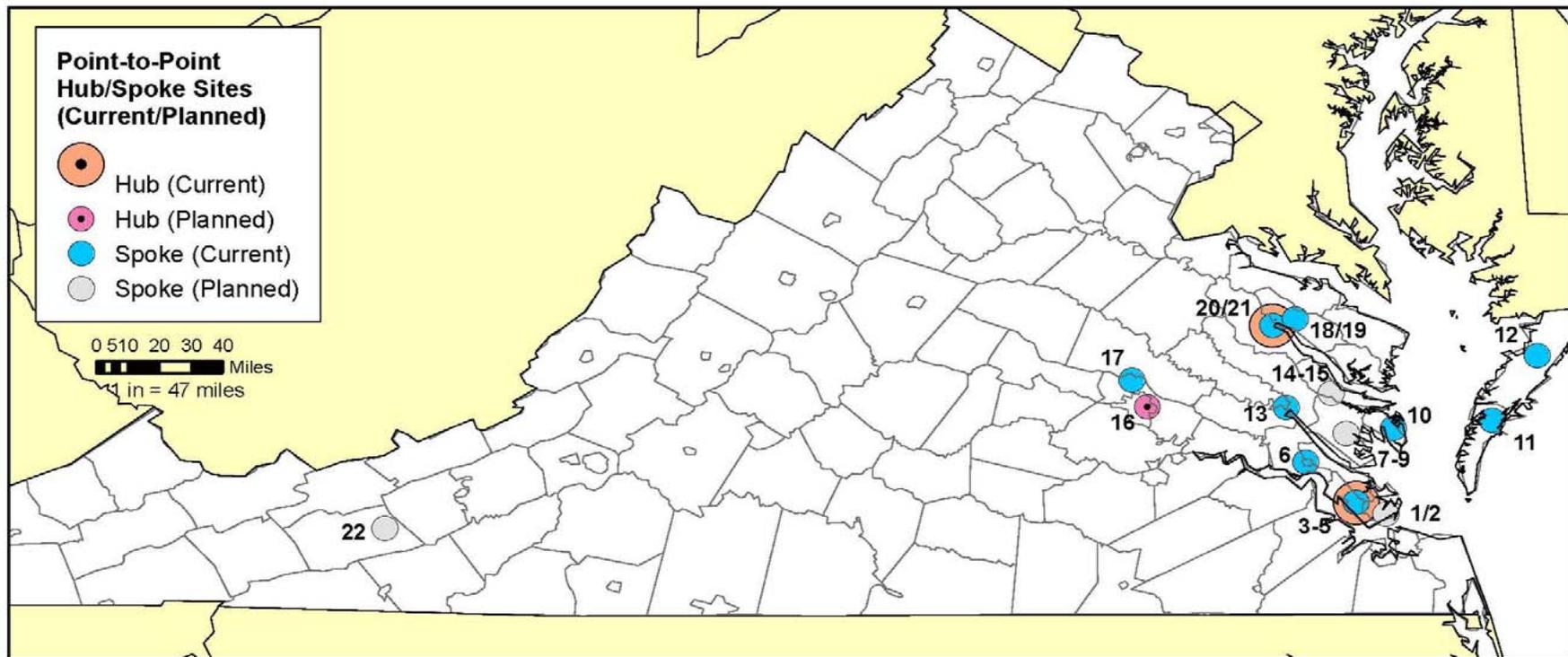
- | | | |
|---|---|--|
| 1 Providence St. Patrick Hospital (Missoula, MT) | 16 Lourdes Medical Center (Franklin, WA) | 31 Silverton Hospital (Marion, OR) |
| 2 Providence Mount Carmel Hospital (Stevens, WA) | 17 St. Anthony Hospital (Umatilla, OR) | 32 Sky Lakes Medical Center (Klamath, OR) |
| 3 Providence St. Joseph's Hospital – Chewelah (Stevens, WA) | 18 Good Shepherd Medical Center (Umatilla, OR) | 33 Providence Medford Medical Center (Jackson, OR) |
| 4 Providence Holy Family Hospital (Spokane, WA) | 19 Pioneer Memorial (Morrow, OR) | 34 Curry General Hospital (Curry, OR) |
| 5 Providence Sacred Heart Medical Center (Spokane, WA) | 20 Lake Health District Hospital (Lake, OR) | |
| 6 Whitman Hospital (Whitman, WA) | 21 Providence Hood River Memorial Hospital (Hood River, OR) | |
| 7 Pullman Regional Hospital (Whitman, WA) | 22 Newport Hospital (Pend Oreille, WA) | |
| 8 Tri-State Memorial Hospital (Asotin, WA) | 23 Ocean Beach Hospital (Pacific, WA) | |
| 9 Wallowa Memorial Hospital (Wallowa, OR) | 24 Providence Seaside Hospital (Clatsop, OR) | |
| 10 Providence St. Mary's Medical Center (Walla Walla, WA) | 25 Tillamook Regional Medical Center (Tillamook, OR) | |
| 11 Lincoln Hospital (Lincoln, WA) | 26 Providence Portland Medical Center (Multnomah, OR) | |
| 12 Coulee Medical Center (Grant, WA) | 27 Providence St. Vincent's Medical Center (Washington, OR) | |
| 13 Quincy Valley Medical Center (Grant, WA) | 28 Providence Milwaukie Hospital (Clackamas, OR) | |
| 14 Samaritan Hospital (Grant, WA) | 29 Providence Willamette Falls Medical Center (Clackamas, OR) | |
| 15 Kennewick General Hospital (Benton, WA) | 30 Providence Newberg Hospital (Yamhill, OR) | |



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Telehealth Network Grant Program (TNGP)
Bay Rivers Telehealth Alliance (FY 12-15)
Bridges to Behavioral Health

VA



Sites (County/State)

- 1 Riverside Behavioral Health Hospital (Hampton City, VA)**
- 2 Riverside PACE Center-Hampton (Hampton City, VA)**
- 3 Riverside Health System Data Center (Newport News City, VA)**
- 4 Riverside Regional Medical Center (Newport News City, VA)**
- 5 Riverside LifeLong Health: Geropsychiatry (Newport News City, VA)**
- 6 Center for Excellence in Aging and LifeLong Health (James, VA)
- 7 Riverside Walter Reed Hospital (Gloucester, VA)
- 8 Gloucester Counseling Center (Gloucester, VA)
- 9 MPNN CSB Mobile Emergency Service Team (Gloucester, VA)
- 10 Riverside Continuing Care-Mathews (Mathews, VA)
- 11 Riverside Shore Memorial Hospital (Northampton, VA)
- 12 Riverside Shore Rehabilitation Center (Accomack, VA)
- 13 Riverside Continuing Care-West Point (King William, VA)
- 14 Riverside Convalescent Center –Saluda (Middlesex, VA)

- 15 MPNN CSB Youth/Family Services (Middlesex, VA)
- 16 VCU Geriatric Services (Richmond City, VA)**
- 17 Alzheimer's Association, Greater Richmond Chapter (Henrico, VA)
- 18 Riverside Continuing Care-The Orchard (Richmond, VA)
- 19 Warsaw Counseling Center (Richmond, VA)
- 20 Bay Rivers Telehealth Alliance (Essex, VA)
- 21 Riverside Tappahannock Hospital (Essex, VA)
- 22 MPNN CSB Mitzpah Nursing Home (Middlesex, VA)

**Located in Independent Cities

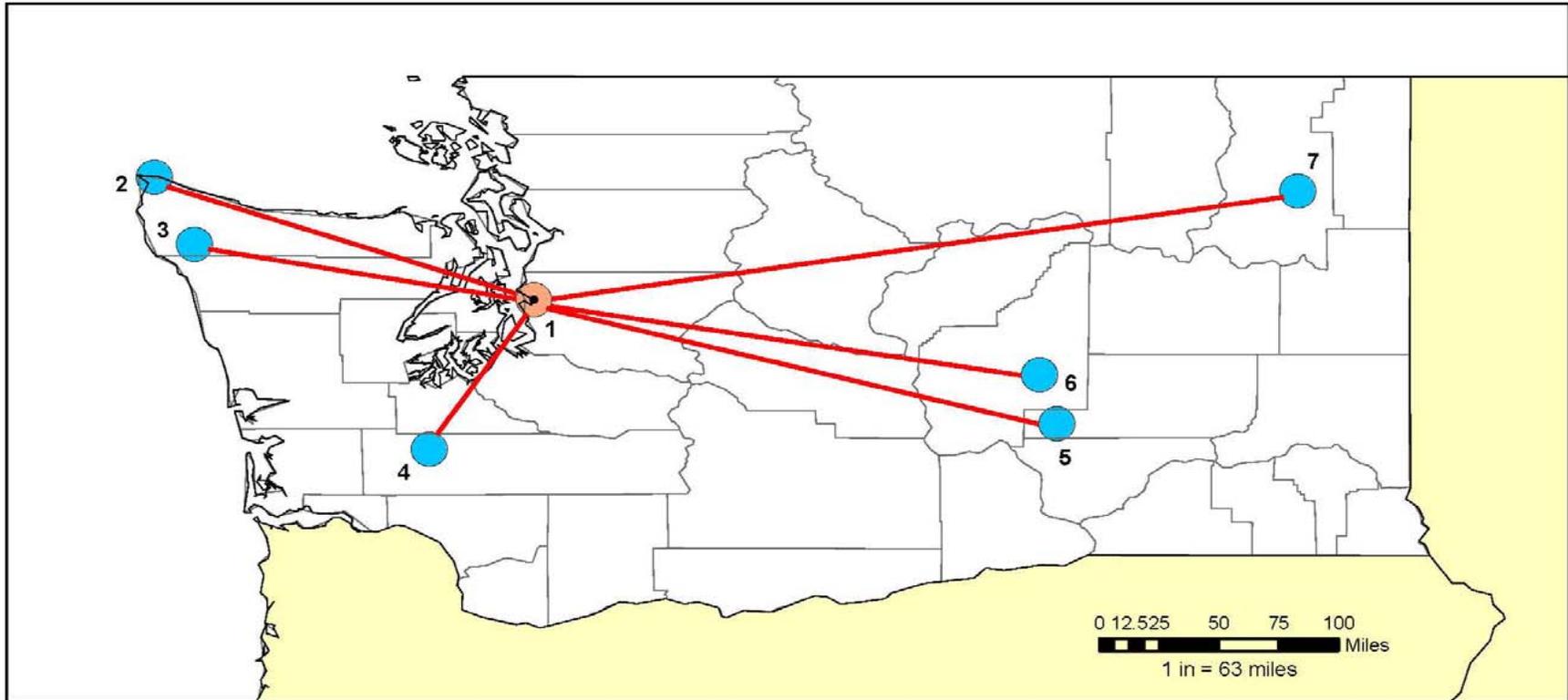


For the purposes of this illustration, “hub” refers to the recipient headquarters, data storage facility and specialty services available to the whole network.

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Telehealth Network Grant Program (TNGP)
 University of Washington (FY12-15)
 Telehealth Network Grant Program

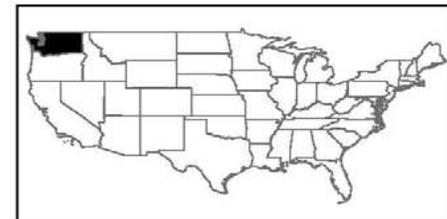
WA



**Hub/Spoke Sites
(Current/Planned)**

- Hub
- Spoke (Current)

- Sites (County, State)
- 1 University of Washington (King, WA)
 - 2 Makah Nation Sophie Trettevick Indian Health Center (Clallum, WA)
 - 3 Forks Community Hospital (Clallum, WA)
 - 4 Valley View Health Center (5 sites) (Lewis, WA)
 - 5 Columbia Basin Health Services (Adams, WA)
 - 6 Moses Lake Community Health Centers (2 sites) (Grant, WA)
 - 7 North East Washington Health Programs (7 sites) (Stevens, WA)



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Telehealth Network Grant Program (TNGP)

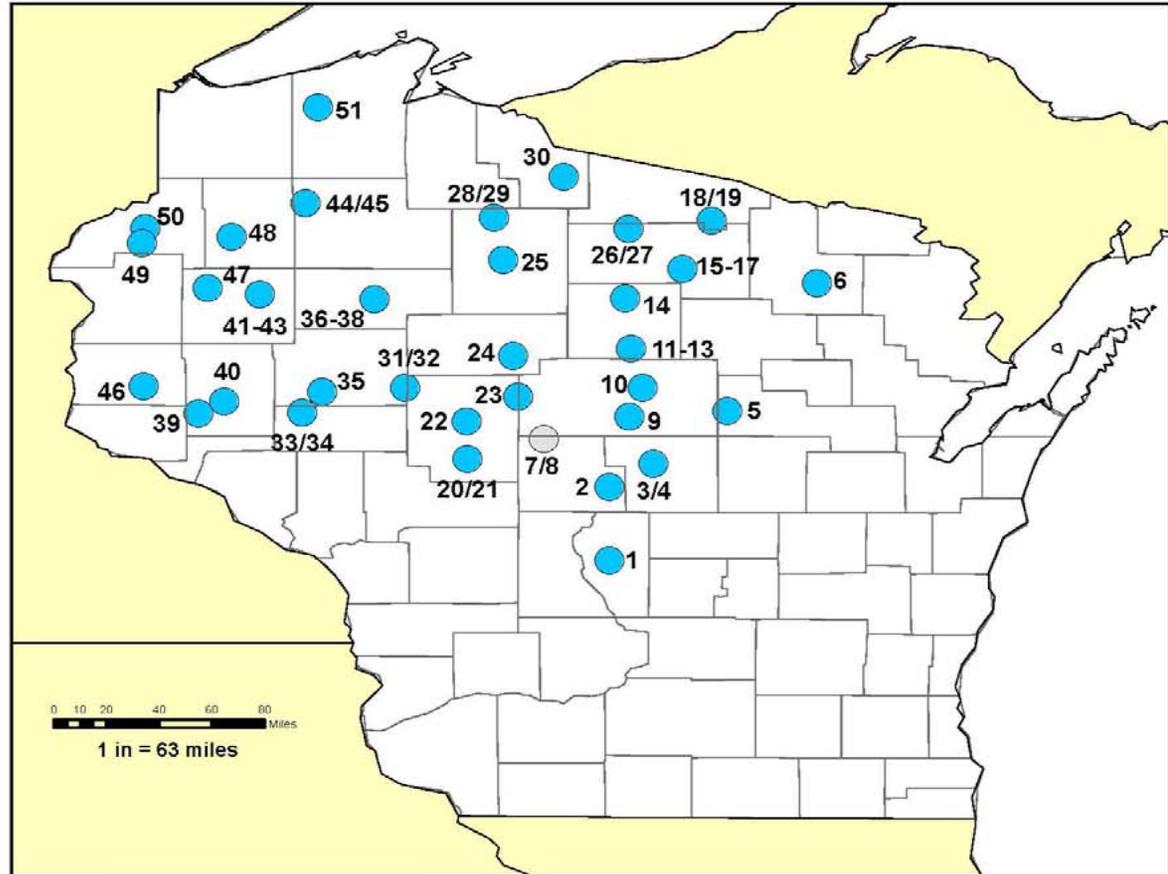
Marshfield Clinic Research Foundation (FY 12-15)

Population-Based Health Care

WI

Site (County, State)

- 1 Moundview Medical Center - Adams, WI
- 2 Marshfield Clinic - Wisconsin Rapids Center (Portage, WI)
- 3 Marshfield Clinic - Stevens Point - Rice Clinic (Portage, WI)
- 4 Marshfield Clinic - Stevens Point - Oncology (Portage, WI)
- 5 Marshfield Clinic - Wittenberg Center (Marathon, WI)
- 6 Nu-Roc Skilled Nursing Facility (Forest, WI)
- 7 Marshfield Clinic - Marshfield Center (Wood, WI)
- 8 St. Joseph's Hospital (Wood, WI) - Planned
- 9 Marshfield Clinic - Mosinee Center (Marathon, WI)
- 10 Marshfield Clinic - Wausau Center (Marathon, WI)
- 11 Marshfield Clinic - Merrill Center (Marathon, WI)
- 12 Pinecrest Skilled Nursing Facility (Lincoln, WI)
- 13 Good Samaritan Hospital (Lincoln, WI)
- 14 Sacred Heart Hospital (Lincoln, WI)
- 15 St. Mary's Hospital (Oneida, WI)
- 16 Ministry Medical Group (Oneida, WI)
- 17 James Beck Cancer Center (Oneida, WI)
- 18 Marshfield Clinic - Eagle River Center (Vilas, WI)
- 19 Eagle River Memorial Hospital (Vilas, WI)
- 20 Memorial Medical Center (Clark, WI)
- 21 Head Start - Neillsville (Clark, WI)
- 22 Head Start - Great Beginnings (Clark, WI)
- 23 Head Start - Little Stars (Clark, WI)
- 24 Head Start - Medford (Taylor, WI)
- 25 Marshfield Clinic - Phillips Center (Price, WI)
- 26 Marshfield Clinic - Minocqua Center (Vilas, WI)
- 27 Marshfield Clinic - Minocqua Behavioral Health (Vilas, WI)
- 28 Marshfield Clinic - Park Falls Center (Price, WI)
- 29 Park Manor Skilled Nursing Facility (Price, WI)
- 30 Marshfield Clinic - Mercer Center (Iron, WI)
- 31 Our Lady of Victory Hospital (Clark, WI)
- 32 Ministry Medical Group (Clark, WI)
- 33 Marshfield Clinic - Eau Claire Center (Eau Claire, WI)
- 34 Sacred Heart Oncology Pharmacy (Eau Claire, WI)
- 35 Marshfield Clinic - Chippewa Falls (Chippewa, WI)
- 36 Marshfield Clinic - Ladysmith Center (Rusk, WI)
- 37 Head Start - ICAA (Rusk, WI)
- 38 Head Start - Ladysmith (Rusk, WI)
- 39 Marshfield Clinic - Weston Center (Marathon, WI)
- 40 Marshfield Clinic - Menomonie Center (Dunn, WI)
- 41 Marshfield Clinic - Lakewoods Center (Barron, WI)
- 42 Rice Lake Convalescent Center, (Barron, WI)
- 43 Lakeview Memorial Hospital (Barron, WI)
- 44 Marshfield Clinic - Hayward Center (Sawyer, WI)
- 45 Head Start - Hayward (Sawyer, WI)
- 46 Baldwin Area Medical Center (St. Croix, WI)
- 47 Marshfield Clinic - Cumberland Center (Cumberland, WI)
- 48 Head Start - Spooner (Washburn, WI)
- 49 Head Start - Mina Copeland (Burnett, WI)
- 50 St. Croix Tribal Health Center (Burnett, WI)
- 51 The Lakes Community Health Center (Iron, WI)



Point to Point Sites

- Current
- Planned



* All sites are Point-to-Point. Each can operate as a Hub or Spoke throughout the Network.

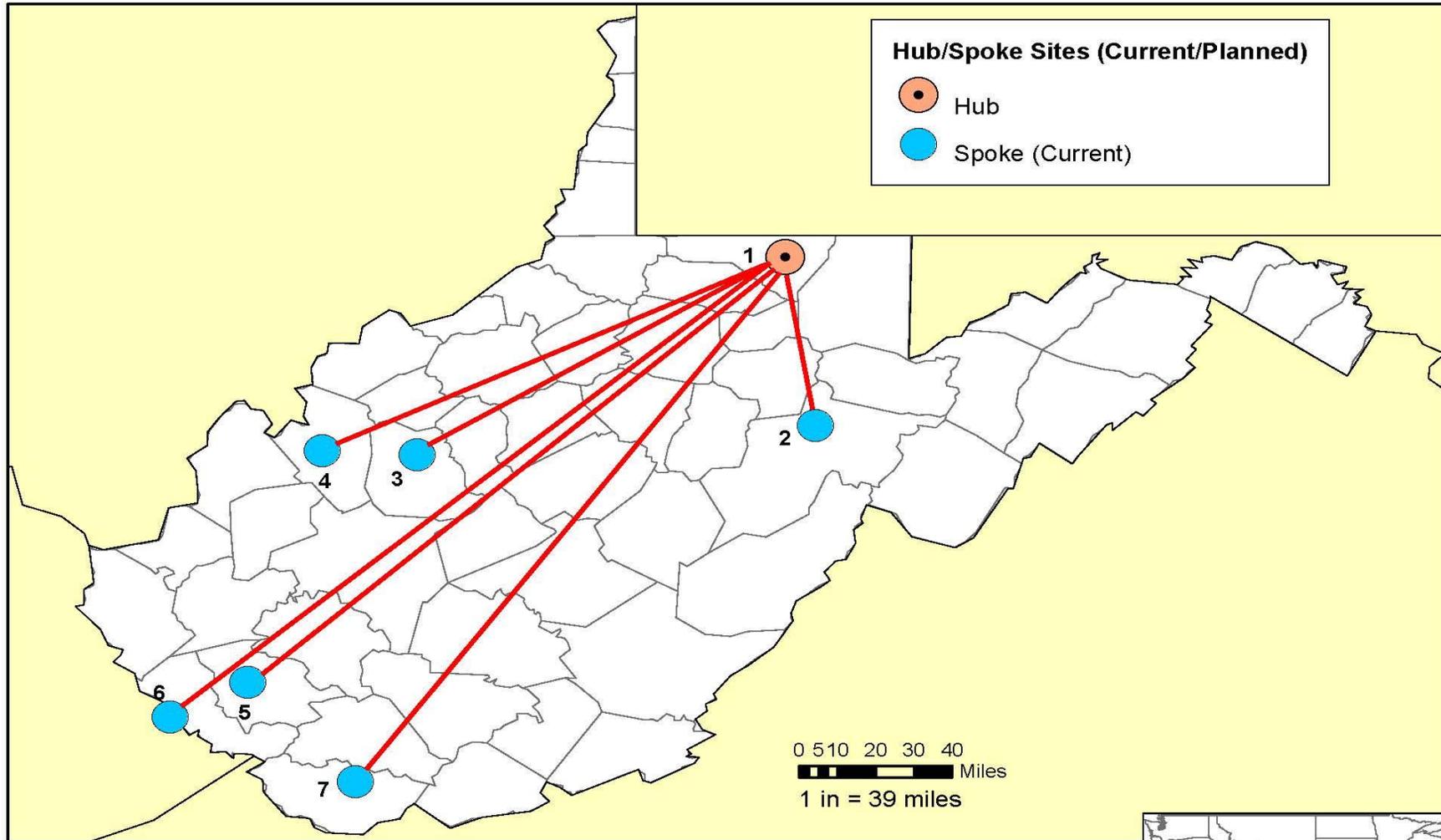
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Telehealth Network Grant Program (TNGP)

West Virginia University Research Corporation (FY12-15)

West Virginia Rural Telepsychiatry Expansion and Health Monitoring Project

WV



Sites (County, State)

1 West Virginia University (Monongalia, WV)

2 Appalachian Community Health Center (Randolph, WV)

3 Westbrook Health Services (Roane, WV)

4 Westbrook Health Services (Jackson, WV)

5 Logan-Mingo Area Mental Health (Logan, WV)

6 Logan-Mingo Area Mental Health (Mingo, WV)

7 Southern Highlands Community Mental Health Center

(McDowell, WV)

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Project Descriptions

Telehealth Network Grant Program (TNGP)

Each OAT grantee has provided a project profile describing their network. Each profile provides an Overview, Project Goals, Outcomes/Expected Accomplishments, Network Partners, Service Area and major Equipment used in their network.

Interpreting Project Descriptions Headings:

Previously
Funded Award



TNGP 10-12

STATE, Location County

Name of Program

Organization Name (Current Award Years)

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ALASKA, Nome County
The NSHC Telehealth Project
Norton Sound Health Corporation (FY 12-15)

Norton Sound Health Corporation
PO Box 964
Nome, AK 99762
www.nortonsoundhealth.org

Principal Investigator/ Project Manager
Philip Hofstetter, Au.D.
Primary Point of Contact: Angie Gorn
Primary Point of Contact Ph: 907-443-3286
Primary Point of Contact Fax: 907-443-4597
Email: agorn@nshcorp.org

Overview:

Purpose of this project is to maximize the use of the current telemedicine infrastructure to provide increased access of mental health services, cardiology, OB, audiology, ENT, pulmonology, dental and primary care. The project will focus on reinforcing the current network access within the region's 15 outlying remote villages and then systematically have dedicated healthcare providers to adopt the telemedicine model of care. The telemedicine access, either through store and forward or live video conferencing will reduce wait times for these services, eliminate access problems, to specialty care and provide a means to uphold the continuity of care.

Project Goals:

1. Dedicated telehealth providers will champion the expansion of telehealth.
2. The providers will access (through telehealth) specialty services to improve accurate diagnoses of disease (i.e. Otitis Media, Diabetes) and initiate treatment plans.
3. Telehealth providers will increase the referrals network for specialist partners located in both within the Norton Sound region and outside in Anchorage, Alaska.
4. Patient population monitoring: high-risk OB, diabetics, and COPD patients using available electronic vital signs, spirometry, and EKG's.

Outcomes Expected/Project Accomplishments:

1. Accurate number of patient encounters using telemedicine either through store and forward or video conferencing.
2. Measure of non-emergent on-call provider traffic versus non-emergent store and forward telemedicine cases. Comparison of both measure to determine reduction of on-call traffic.
3. Measure the use of store forward telemedicine as a tool to accurately diagnose otitis media through access of both audiologists and Ear, Nose, and Throat (ENT) specialties.

Network Partners:

- Alaska Federal Healthcare Access Network (AFHCAN), Anchorage, Alaska.
- Alaska Native Medical Center (ANMC), Anchorage Alaska.

Service Area:

Norton Sound Health Corporation, Nome Alaska and surrounding villages: Stebbins, St. Michael, Unalakleet, Shaktoolik, Koyuk, Elim, Golovin, White Mountain, Savoonga, Gambell, Diomede, Teller, Wales, Shishmaref.

Equipment:

Store and forward equipment systems and video conferencing in Nome and each village that include: tympanometry, EKG, spirometry, video otoscope, scanner, digital camera, stethoscope.

RESTART: Reinvention and Expansion of the System to Access Rural

Telecolposcopy

University of Arkansas for Medical Sciences (FY 12-15)

University of Arkansas for Medical Sciences
Office of Research and Sponsored Programs
4301 West Markham, Slot 812
Little Rock, AR 72205-7199
www.uams.edu/

Principal Investigator/ Project Manager
Wilbur C. Hitt, MD
Primary Point of Contact: Gordon Low, MSN
Primary Point of Contact Ph: 501-296-1277
Primary Point of Contact Fax: 501-526-5892
Email: whitt@uams.edu

Overview:

RESTART aims to utilize telemedicine to provide colposcopy, vulvoscopy, and anoscopy services to rural women throughout Arkansas who at risk of developing cervical, vulvar and anal cancer due to their poor access to local care. These evaluations are provided locally at 8-10 rural Health Department sites on a weekly basis by specially-trained nurse-practitioners who perform exams under the direct telemedicine supervision of an experienced OB-GYN physician. The 8-10 sites acts as a referral center for that region of the state. Patients identified with pre-cancerous or cancerous lesions requiring treatment are individually case-managed to ensure treatment is completed locally or at the Medical Center in Little Rock.

Project Goals:

RESTART aims to expand access to needed Colposcopy services for geographically-isolated women in rural Arkansas. In addition to the providing care for women at risk for cervical cancer, the project also aims to expand the services offered at these 8 distant sites by delivering screening and diagnostic interventions for both vulvar disorders and anal dysplasia related to HPV infection. By expanding both the geographic reach and diagnostic capabilities of the program, the leaders aim to reduce the burden of these diseases on these underserved regions of the state.

Outcomes Expected/Project Accomplishments:

The project expects to perform approximately 2400 exams annually, which we project will produce 480 women with high-grade cervical or vulvar lesions requiring treatment to prevent cancer; and identify 300-400 women annually requiring screening for anal dysplasia.

Network Partners:

8 Arkansas Department of Health sites.

Service Area:

Cross County Health Unit; Johnson County Health Unit; Hempstead County Health Unit;
Desha County Health Unit; Ouachita County Health Unit; Boone County Health Unit;
Lonoke County Health Unit; Lawrence County Health Unit.

Equipment:

Tandberg clinical teleconferencing systems. Welch-Allyn Video-colposcopes.

Pediatric Emergency Assistance to Newborns Using Telehealth (PEANUT) Program
University of California, Davis (FY 13-15)

Regents of the University of California
Office of Research and Sponsored Programs
1850 Research Park Drive, Suite 300
Davis, CA 95618

Principal Investigator/ Project Manager
Madan Dharmar, MBBS, PhD
Primary Point of Contact: Monique Fix, BS, CCRP
Primary Point of Contact Ph: 530-754-8113
Primary Point of Contact Fax: 530-752-0333
Email: mfix@ucdavis.edu

www.ucdmc.ucdavis.edu/children/clinical_services/pediatric_telemedicine/

Overview:

Project will establish the PEANUT Program Network at UC Davis Children's Hospital. UC Davis will serve as the specialist site and four rural hospital nurseries will be the originating/spoke sites. The purpose of the proposed program will provide access to the four most commonly needed pediatric subspecialties in the newborn nursery: neonatology, pediatric cardiology, pediatric genetics, and pediatric neurology. Program will also enhance the level of care provided to newborns in the rural hospitals by providing ongoing education and training to the healthcare providers and technologists.

Project Goals:

- To improve the level of healthcare provided at rural hospitals delivering babies,
1. Increase access to pediatric sub-specialists to infants born in rural hospitals nurseries,
 2. Improve appropriateness transfers from rural hospital nurseries to tertiary care hospitals,
 3. Improve the quality of care provided to newborns delivered in rural hospitals nurseries, and
 4. Reduce the cost of care and increase cost-benefit as consequence of improved quality and appropriate care provided to newborns delivered in rural hospitals nurseries.

Outcomes Expected/Project Accomplishments:

- Increased Access: Frequency of specialist consultation.
1. Appropriate Transfers: Disposition data, and neonatal illness severity measures such as Transport Risk Index of Physiologic Stability (TRIPS-II) and the Score for Neonatal Acute Physiology (SNAPPE-II).
 2. Cost Measures: Hospital charges and costs, and disposition data.

Network Partners:

Barton Memorial Hospital and Oroville Hospital.

Service Area:

Barton Memorial Hospital: El Dorado County and Oroville Hospital: Butte County.

Equipment:

Telemedicine units used for rural hospital nurseries will include a medical grade cart, with Cisco high-resolution video-conferencing unit, flat screen high resolution monitor to display video and a Uninterrupted Power Supply (UPS).

The Hospital Cooperative
500 South 11th Avenue, Ste. 503
Pocatello, ID 83201
www.hospitalcooperative.org

Principal Investigator/ Project Manager
Jon Smith
Primary Point of Contact: Jon Smith
Primary Point of Contact Ph: 208-239-1952
Primary Point of Contact Fax: 208-233-4644
Email: jon@hospitalcooperative.org

Overview:

1. This project provides telepsychiatry and mental health services to underserved counties.
 - a. Specific services include expansion of current adult psychiatry and creation of child/adolescent program.
 - b. The purpose of the project is to improve the mental health status in the region.
2. Additional services provided in Year 2 include use of counselors and psychologists.
3. Services planned for the future funding years may include neonatology and implementation of other health wellness programs.
4. Develop partnerships with other entities outside the network to provide needed clinical services such as the University of Utah.

Project Goals:

1. Improve availability and accessibility of mental health services for children and adolescents in rural and frontier Idaho/Wyoming communities.
2. Implement additional services as part of a whole body/family wellness approach to addressing child and adolescent behavioral health needs.
3. Improve the availability of Continuing Education content for healthcare practitioners and community health education programs in rural and frontier Idaho/Wyoming communities.

Outcomes Expected/Project Accomplishments:

1. Patient/Provider Satisfaction surveys (measure)—Survey Vitals 9G (tool).
2. Quantify Patient Usage of Services Provider (measure)—Performance Improvement Measurement System (PIMS).
3. Efficiencies Created (measure)—demographic information gathered (tool).

Network Partners:

Portneuf Medical Center (hub), Eastern Idaho Regional Center (proposed hub), Twelve hospitals throughout Southeast Idaho and West Wyoming (11 are CAHs). HealthWest (Federally Qualified Health Center).

Service Area:

Southeast Idaho and West Wyoming including the following counties: Bannock, Bear Lake, Bingham, Butte, Caribou, Franklin, Lemhi, Lincoln (WY), Madison, Minidoka, Oneida, Power, and Teton.

Equipment:

Cisco (previously Tandberg) endpoints including SX20, Edge 95 Series, 880 MXP Vendor neutral.

UKRF - Telehealth

University of Kentucky Research Foundation
500 S. Limestone, 109 Kinkead Hall
Lexington, KY 40526-001
www.mc.uky.edu/kytelecare

Principal Investigator/ Project Manager

Rob Sprang, MBA

Primary Point of Contact: Rob Sprang, MBA

Primary Point of Contact Ph: 859-257-6404

Primary Point of Contact Fax: 859-257-2881

Email: rsprang@uky.edu

Overview:

Project targets adults with diabetes who have not had an eye exam in the last 12 months. Patients will have retinal imaging done by the fully automated DRS Centervue retinal imaging camera in their primary care office. Images will be automatically sent to a secure server in the cloud and Ophthalmologists will read those images and write a report that will be sent to the primary care provider. All reports will be placed in the PCP EMR. Patients with referable pathology will be referred for treatment and those without referable pathology will be alerted the following year to have another screening exam.

Project Goals:

- Increase access, and ease of access, to annual diabetic retinal screening exams by placing cameras in PCP offices,
- Improve the number of diabetic patients who have annual retinal screening exams,
- Support the PCP medical home by importing retinal screening exam reports,
- Reduce undiagnosed eye disease rates in diabetic patients, and
- Increase access to vision-saving treatments for eye disease.

Outcomes Expected/Project Accomplishments:

- 90% compliance with annual eye exams with patients with Diabetes,
- 95% of patient eye exam results are in the PCP EMR, and
- 100% of patients who meet criteria for referral will be referred to an Ophthalmologist by the PCP.

Network Partners:

- White House clinics (6 Primary care centers).
- St. Claire Family Medicine Clinics (5 primary care centers).

Service Area:

- White House Clinics (Madison, Estill, Jackson and Rockcastle Counties).
- St. Claire Family Medicine Clinics (Rowan, Bath, Carter, Menifee and Elliott Counties).

Equipment:

Polycom CX5000 for videoconferencing and CenterVue DRS automated non-mydratric fundus.

REACH Montana Telehealth Network
1101 26th St. So.
Great Falls, MT 59405-5161
www.benefis.org

Principal Investigator/ Project Manager
Gene Kopyy
Primary Point of Contact: Cherry Loney
Primary Point of Contact Ph: 406-731-8207
Primary Point of Contact Fax: 406-731-8297
Email: cherryloney@benefis.org

Overview:

Serving residents in 14 rural and frontier counties in north central Montana, REACH/ER will improve access to quality health care services by expanding tertiary support for rural and frontier emergency care providers and increasing access to the number and types of specialty clinical care. Network directly responds to access barriers related to distance, geographic isolation, shortage of providers and specialty care, hazardous winter driving conditions, poverty, advanced age of the population, and significant health disparities. The 14 project sites include 10 critical access hospitals, one CHC, 2 Indian Health Service hospitals, a rural hospital, and a tertiary center. REACH/ER is the result of regional planning involving health care administrators, clinicians, and health care consumers.

Project Goals:

1.) Enhance communication and facilitate care continuity using telehealth to provide real time access to emergency and trauma expertise for rural health professionals during management of emergency trauma and critical care; 2.) Enable patients anywhere in north central Montana to have access to specialty care within a 45-minute drive or less; 3.) Assure overall success, REACH/ER will have a strong monitoring and quality assurance component; and 4.) Assure sustainability and continued growth of REACH/ER to meet health care needs.

Outcomes Expected/Project Accomplishments:

1.) Reduction in Unnecessary Emergency Transfers - Patient Transfer Acuity Assessment Tool; Length of Stay; Injury Severity Score 2.) Reduced Costs – Cost Savings Tracking Tool; Length of Stay 3.) Timely Access to Specialty Care – Wait Times Tracking Tool 4.) Increased Access to Specialty Care – Number/Types of Providers and Encounters Tracking Tool 5.) Improved Patient Outcomes – Clinical Outcome Measures 6.) User Satisfaction – Likert Scale.

Network Partners:

Sweet Medical Center, Fort Belknap and Blackfeet Indian Health Service Units, Big Sandy Medical Center, Missouri River Medical Center, Northern Rockies Medical Center, Northern Montana Health Care, Liberty Medical Center, Mountain View Medical Center, Phillips County Hospital, Pondera Medical Center, Teton Medical Center, Marias Medical Center, Central Montana Medical Center.

Service Area:

Benefis Hospitals: Blaine County, Cascade County, Choteau County, Fergus County, Glacier County, Hill County, Judith Basin County, Lewis and Clark County, Liberty County, Meagher County, Phillips County, Pondera County, Teton County, Toole County.

Equipment:

Added a Polycom RMX MCU, and will expand its capabilities. Will also add nine HD codecs and associated clinical tools. The RMX has been purchased from the vendor, AVI Systems.

NEW HAMPSHIRE, Grafton County
CREST and Tele-ED
Mary Hitchcock Memorial Hospital (FY 13-15)

Center for Telehealth
One Medical Center Drive
Lebanon, NH 03756-1000
www.dartmouth-hitchcock.org

Principal Investigator/ Project Manager
Sarah N. Pletcher
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Primary Point of Contact Ph: 603-653-0424
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Email: Sarah.N.Pletcher@Hitchcock.org

Overview:

Leverage existing resources, including Dartmouth-Hitchcock Medical Center (DHMC) as the only Level 1 Trauma, quaternary academic medical center in the region, the Center for Rural Emergency Services and Trauma (CREST) network of 18 Critical Access Hospitals (CAHs), and the Center for Telehealth at DHMC. Strengthen the healthcare system in rural Northern New England so that emergency patients have access to high-quality specialty care from the field, to their local hospital, and during transfer to a higher level of care. Project uses a population health and a value-driven comprehensive approach, integrating clinical telemedicine consults with innovative education, quality improvement, and collaborative approaches to best practice care.

Project Goals:

Expansion of telemedicine consult services so rural patients have access to quality specialty services at CAH Emergency Departments and support rural providers, the healthcare they deliver, and prevent unnecessary transfers. Expansion of educational services, to improve the quality of local care so where transfers may not be necessary. Help local providers base their front-end care on up-to-date, evidence-based clinical protocols and best practices. Telehealth and teleconferencing will be used to improve care for chronic condition patients at distant sites by providing educational support and systems improvements for local providers.

Outcomes Expected/Project Accomplishments:

- Improve clinical outcomes for stroke, trauma, psychiatry patients,
- Provide cost savings to the health care system,
- Improve access to acute specialty care for rural patients,
- Increase medical specialty support for rural emergency department staff,
- Reduce unnecessary and inappropriate modes of transfer,
- Improve quality of local care through chronic condition education, skills training, best practices, and quality improvement, and
- Expand a sustainable, replicable telehealth network through evaluation, reporting of outcomes, financial impacts, and network growth.

Network Partners:

Mayo Clinic Arizona, Northern Human Services, West Central Behavioral Health, Dartmouth-Hitchcock Psychiatric Associates.

Service Area:

Counties of Cheshire, Coos, Grafton, Hillsborough, Merrimack and Sullivan in New Hampshire. Counties of Caledonia, Orange, Orleans, Windham and Windsor in Vermont.

Equipment:

Telehealth videoconferencing equipment, including Vidyo, Cisco/Tandberg, and Polycom hardware and codecs. Also, Rubbermaid carts and fixed room systems, as well as software-based telehealth videoconferencing equipment (Vidyo Desktop), will be used.

NORTH CAROLINA, Hertford County
Central Oregon Telehealth Network
Rowan Chowan Community Health Center (FY 13-15)

Roanoke Chowan Community Health Center
120 Health Center Drive
Ahoskie, NC 27910
www.rcchc.org

Principal Investigator/ Project Manager
Kim Schwartz
Primary Point of Contact: Kim Schwartz
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Primary Point of Contact Fax: 252-209-9082
Email: kschwartz@rcchc.org

Overview:

Purpose of the Central Oregon Telehealth Network (COTN) project is to replicate the use of evidence-based telehealth remote patient monitoring to strengthen the ability of the Central Oregon Health Council (COHC) partners to more effectively and efficiently deliver community-wide care continuity services. COHC is a formal network of independent providers, safety net clinics, payers, community agencies, and hospitals serving Central Oregon – a vast geographically isolated rural area that includes 70,000 people eligible Medicare and Medicaid (with 30,000 more eligible in 2014).

Project Goals:

Project seeks HRSA support to leverage Roanoke Chowan Community Health Center's (Roanoke CHC) successful evidence-based Telehealth Remote Patient Monitoring (TRPM) and care coordination program, which is the basis of an independently validated statewide rollout across North Carolina. The goal will be to enable COHC's primary care medical home teams to enhance efficacy of clinical protocols through short-term remote patient monitoring interventions resulting in measurable improvements in health outcomes, patient engagement/compliance, and costs savings for target patients in the region.

Outcomes Expected/Project Accomplishments:

Expand access to cardiovascular disease, diabetes, hypertension and mental health patients in underserved rural Central Oregon, expand and improve the quality of health information to health care providers, patients and their families, decrease emergency room visits, hospitalizations, reduce health care expenditures and improve clinical outcomes.

Network Partners:

Mosaic Medical: Prineville, OR; Redmond, OR; Madras, OR.
Inscope Health, Central Oregon Health Council, OCHIN.

Service Area:

Mosaic Medical- Deschutes County, Crook County, Jefferson County.
Roanoke Chowan Community Health Center- Hertford County.

Equipment:

Ideal Life remote monitoring equipment. Currently using: Blood Pressure Manager, Scale, Transmitting POD, Pulse Ox.

NORTH CAROLINA, Pitt County
TeleTeam Care – A Telehealth Network Grant Program
East Carolina University (Greenville) (FY 13-15)

East Carolina University
2200 South Charles Blvd.
Greenville, NC 27858-4353
www.ecu.edu/

Principal Investigator/ Project Manager
Dr. Doyle M. Cummings
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Primary Point of Contact Ph: 252-744-2607
Primary Point of Contact Fax: 252-744-3079
Email: CUMMINGSD@ecu.edu

Overview:

Evaluate the clinical and pragmatic effectiveness and cost-efficiency of delivering team-based care for underserved patients with diabetes and co-morbid disease/behavioral challenges via a telehealth system directly into rural primary care practices at the time of the primary care visit. ECU will deliver team-based care (e.g., psychologist, dietitian, clinical pharmacist, nurse) to underserved patients with diabetes and co-morbid disease/behavioral challenges via telehealth systems directly into rural primary care practices at the time of primary care visits.

Project Goals:

Expand existing network by establishing new delivery sites in four rural federally-subsidized primary care practices in eastern North Carolina. Leverage the expanded network to improve the availability and accessibility of team based care for underserved patients with diabetes and co-morbid disease/behavioral challenges in rural federally-subsidized primary care practices and to facilitate the development of patient-centered medical homes (PCMH). Improve care outcomes in underserved patients with diabetes and co-morbid disease/behavioral challenges as well as health system cost and efficiency in rural federally-subsidized primary care practices through team-based care.

Outcomes Expected/Project Accomplishments:

1) Number of diabetic patients with co-morbid depression/behavioral problems, their baseline medical (e.g., HbA1c, BP) and behavioral (e.g., PHQ-9) measures, and % improved 1 year later by integrated care delivered via telehealth. 2) The % changes in medical (e.g., HbA1c, BP) and behavioral (e.g., PHQ-9) outcomes for patients with diabetes, and % change in minority and underserved patients. 3) Number of ER visits and hospital re-admissions for diabetics with co-morbid illness before and after telehealth program and compared to concurrent data from other Vidant hospitals 4) Estimated patient travel costs saved by telehealth visits 5) Relationship of outcome improvement to # team-based telehealth visits. 6) Presentations/publication of findings. 7) Development of toolkit and website for dissemination.

Network Partners:

Major sites: Goshen Medical Center - Faison, Faison, NC; Goshen Medical Center - Wallace, Wallace, NC; Vidant Family Medicine - Pinetops, Pinetops, NC; Vidant Family Medicine - Windsor, Windsor, NC.

Service Area:

Title 330 CHCs: Goshen Medical Center-Faison, Duplin County; Goshen Medical Center-Wallace, Duplin County; Rural health clinic in critical access hospital: Vidant Family Medicine-Windsor, Bertie County; Rural health clinic: Vidant Family Medicine-Pinetops, Edgecombe County.

Equipment:

Each of the four remote spoke sites will receive a Polycom HDX 4500 model telehealth unit with a partner premium warranty. Carts will be provided to those sites requesting a mobile roll-about to be utilized in multiple rooms. The ECU hub site will house three additional Polycom HDX 4500 model telehealth units (with warranties). All units have AES encryption capability.

NORTH DAKOTA, Stark County
CHI-Fargo Division Tele-Behavioral Network
St. Joseph's Hospital and Health Center (FY 13-15)

St. Joseph's Hospital and Health Center
30 W. 7th Street
Dickinson, ND, 58601-4399
www.stjoeshospital.org/

Principal Investigator/ Project Manager
Todd Lawley
Primary Point of Contact: Todd Lawley
Primary Point of Contact Ph: 701-237-8174
Primary Point of Contact Fax: 701-237-8186
Email: Todd.Lawley@catholichealth.net

Overview:

Project will provide Emergency Department tele-behavioral health coverage for our CAH Hospital's. Specific Services include 24/7 on call capability to provide physician and patient psychiatric consultation in hospital's Emergency Department.

Project Goals:

Improve patient access by creating a responsive mental health system for diagnosis, treatment, and follow-up with qualified mental health practitioners. Build a strong system of delivering psychiatric and behavioral health services across the service region of our hospitals.

Outcomes Expected/Project Accomplishments:

1. Improve behavioral health service access to individuals and communities.
2. Improve the ability to decrease the severity of mental health incidents seen hospital ER.
3. Engage reliability and trust for community professionals to utilize mental health services for referrals and consultations.

Network Partners:

Psychiatry Networks serves as the resource for tele-behavioral health clinical services. Dr. David Lopez MD, of Psychiatry is the company's founder and CEO and providing clinical oversight for all locations. Chris Feeley, serves as the company's VP and GM.

Service Area:

St Joseph's Hospital-Stark County, Mercy Medical Center-Williams County, Oakes Hospital-Dickey County, Lisbon Hospital-Ransom County, LakeWood Health Center-Lake of the Woods County, Carrington Health Center- Foster County, St Joseph's Health Center MN-Hubbard County, St. Francis Hospital-Wilkin County, Mercy Hospital-Barnes County, Albany Hospital-Sterns County, St. Gabriel Hospital-Morrison County, Mercy Hospital Devils Lake-Ramsey County.

Equipment:

PC Laptop computer, wireless keyboard and mouse, headset with microphone, video cart 22 inch monitor, webcam, speaker as necessary.

OREGON, Washington County
Northwest Telestroke Network Expansion and Evaluation Project
Providence Health & Services (FY12-15)

Providence Health & Services - Oregon
9295 SW Barnes Rd.
Portland OR 97225

Principal Investigator/ Project Manager
Elizabeth Baraban
Primary Point of Contact: Alexandra Lesko
Primary Point of Contact Ph: 503-216-1159
Primary Point of Contact Fax: 503-216-1085
Email: alexandra.lesko@providence.org

<http://oregon.providence.org/patients/programs/providence-telestroke-network/Pages/default.aspx>

Overview:

Project seeks to expand neurological services and stroke care to rural and urban underserved areas in Eastern Washington; to increase treatment rates, improve outcomes, and reduce unnecessary transfers. The project seeks to examine economic and community value derived by participating hospitals and to track patients' outcomes in a multi-state registry with an emphasis on sustainability.

Project Goals:

Goal 1: Improve patient safety, healthcare quality and patient outcomes for acute stroke patients in Eastern Washington by providing stroke neurology consults and nursing education. Goal 2: To expand the clinical registry for Oregon to include Eastern Washington to examine the clinical impact of the program on patient outcomes and communities across the regions by helping sites find resources to abstract stroke measures into a unified database. Goal 3: Develop strategies for sustaining telestroke in Washington and the Pacific Northwest by working with a health economist to examine cost-benefit and cost-impact analyses of Telestroke.

Outcomes Expected/Project Accomplishments:

All participants use the American Stroke Association's Get with the Guidelines online tool which is then pulled into a unified database to capture and review the following metrics for the network: patient demographics, time calculations (i.e. door to needle, door to CT), IV tPA & endovascular treatment rates, outcome measures (i.e. NIHSS), telestroke measures, and economic analyses.

Network Partners:

Providence St. Vincent Medical Center, Providence Portland Medical Center, Providence Sacred Heart Medical Center and 25 active partner (spoke) facilities across the network.

Service Area:

Lincoln Hospital, Lincoln County; Quincy Valley Medical Center, Grant County.

Equipment:

RP-7 Robot and 24-7 IT support from InTouch Health; American Stroke Association Get with the Guidelines Online Tool; Remedy Informatics Dashboard Reporting Tools.

**VERMONT, Washington County
Vermont Rural Health Alliance (VRHA) Telehealth Network
Bi-State Primary Care Association, Inc. (FY12-15)**

Bi-State Primary Care Association, Inc.
61 Elm St.
Montpelier, VT 05602
www.bistatepca.org

Principal Investigator/ Project Manager
Kate Simmons
Primary Point of Contact: Kate Simmons
Primary Point of Contact Ph: 802-229-0002
Primary Point of Contact Fax: 802-223-2336
Email: ksimmons@bistatepca.org

Overview:

Project provides dietitian services to patients with a BMI over 30 in rural counties of Vermont that include clinical patient exams, provider consultations, and educational opportunities for providers and patients. The network will adopt guidelines and protocols specific to the treatment of patients with a BMI >30, and two other chronic diseases such as hypertension and diabetes and will measure as a network access, quality, and cost of care. Network services will expand to five clinical offerings by year four, with services such as dermatology, psychiatry, and telehomecare being explored. Equipment including nine telemedicine units and tablets with encrypted videoconferencing software will be purchased for select spoke sites for services. Twenty eight spoke sites have access to the VRHA Telehealth Network opportunities.

Project Goals:

1. Increase telemedicine access to Registered Dietitians and other clinical services,
2. Increase use of telehealth equipment for professional, patient education, and networking,
3. Improve a) BMI documentation of patients, and b) follow-up plans for overweight/obese,
4. Maintain or improve patients with a) controlled blood pressure and b) Hba1c <=9%,
5. Maintain or improve patient provider satisfaction with VRHA Telehealth Network,
6. Reduce travel costs for network members, and
7. Maintain or reduce annual expenditure per capita (total cost of care).

Outcomes Expected/Project Accomplishments:

1. Improved clinical outcomes (FQHC UDS and Clinical Data Repository (CDR) reports),
2. Increased telemedicine services (quarterly reporting by FQHCs),
3. Satisfaction of providers and patients (evaluation survey), and
4. Reduced costs for travel (financial reports) and annual expenditure per capita (CDR reports).

Network Partners:

Twenty seven spoke sites at seven rural FQHCs (with The Health Center, Washington County, VT as the hub site) and one critical access hospital; Fletcher Allen Health Care; UVM Medical School.

Service Area:

The Health Center: Washington County (3 sites); Springfield Medical Care Systems: Windsor (5); Springfield Hospital: Windsor (1); CHC of the Rutland Region: Rutland (5); Northern Tier Center for Health: Grand Isle/Franklin (4); Northern Counties Health Care: Caledonia, Essex (6); Community Health Services of the Lamoille Valley: Lamoille (2).

Equipment:

17 (to be 21+ by end of year 4) Polycom HDX 6000 and 7000 telehealth and videoconferencing units; Tablets used with Polycom Realpresence and telehomecare equipment being tested also.

VIRGINIA, Essex County
Bridges to Behavioral Health
Bay Rivers Telehealth Alliance (FY 12-15)

Bay Rivers Telehealth Alliance
659 Hospital Road, Suite 104
Tappahannock, Virginia 22560-0000
www.bayriverstelehealth.org

Principal Investigator/ Project Manager
Edie McRee Bowles
Primary Point of Contact: Edie McRee Bowles
Primary Point of Contact Ph: 804-443-6286
Primary Point of Contact Fax: 804-445-3780
Email: ebowles@bayriverstelehealth.org

Overview:

The focus of the project is to improve and expand telehealth activities leading to the successful use of telehealth for the provision of behavioral health care to individuals in rural nursing homes, mental health clinics, and hospitals by linking them to distant specialists. Project targets older adults (45+) diagnosed with behavioral health disorders, dementia, depression, anxiety, delirium and other cognitive and neurological disorders. Services will include professional development and CME to rural community providers and the coordination and facilitation of collaborative care services among providers at network facilities.

Project Goals:

- Increase access to behavioral health services for aging adults (45+) who reside in underserved areas of Northern Neck, Middle Peninsula, and Eastern Shore of Virginia.
- Improve/expand training of behavioral healthcare providers in those areas.
- Improve/expand quality of behavioral health information to behavioral healthcare providers, patients, and their families in areas designated above.

Outcomes Expected/Project Accomplishments:

Adding telehealth capabilities to new rural sites at long-term care facilities, mental health clinics, specialty hospitals and geriatric practices will increase timely diagnosis/management of behavioral health conditions; improve access to health information; allow for earlier care for complications; improve quality of life; support more coordinated care between providers; and reduce hospital/ emergency room use, or reliance on higher levels of care.

Network Partners:

Riverside Health System; Center for Excellence in Aging and Life Long Health (CEALH); Middle Peninsula Northern Neck Community Services Board (MPNN CSB: regional mental health agency); Greater Richmond Chapter Alzheimer's Association; Virginia Commonwealth University Geriatrics Services (VCU Geriatrics).

Service Area:

Sites (Year 1 active)_serve 9 rural counties (Accomack, Essex, Gloucester, King William, Lancaster, Mathews, Middlesex, Richmond, Northampton, Westmoreland): Alzheimers' Assn; CEALH; Riverside HS Data Center; Riverside Geropsychiatry. Other sites: Riverside Shore Rehabilitation (Accomack, Northampton), Riverside PACE Center (Hampton city), Riverside Convalescent Center - Saluda (Middlesex, King William); Riverside Continuing Care- Orchard (Richmond, Essex, Lancaster, Westmoreland); Riverside Continuing Care-Mathews (Mathews, Gloucester), Riverside Continuing Care-West Point (King William).

Equipment:

Cisco TelePresence System EX 90 (10); Cisco TelePresence VX Clinical Assistant (7); Tandberg 880MXP Video Conferencing Unit (1), Elmo Visual Conferencing Presenter, 2000 (1), Diagnostic Stethoscopes (7), Laptops with Cisco Jabber software (3).

WASHINGTON, San Juan County
Rural NW Washington & SE Alaska Telehealth Network
San Juan County Public Hospital District #1 (FY 12-15)

San Juan County Public Hospital District #1
c/o Peace Island Medical Center
1117 Spring Street
Friday Harbor, WA 98250
www.peacehealth.org/peace-island

Principal Investigator/ Project Manager
Beth Williams Gieger
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Primary Point of Contact Fax: 360-378-1788
Email: BWilliams-gieger@peacehealth.org

Overview:

Build a strong and sustainable Hub and Spoke Northwest network of healthcare collaborating through telehealth technology to improve access, strengthen service delivery and quality to rural remote areas of the Pacific NW and Southeast Alaska, specifically in San Juan, Skagit and Whatcom counties of Washington State and Ketchikan and Craig Alaska. Network strategic planning involves monitoring demographic and healthcare trends and coordinating summaries of key findings in accordance with goals stated in the application and within the Network's strategic plan (VISTA): Value through the Triple Aim, Innovate through the ability to Adopt, Adapts and Spread, Serve communities and defined populations and Thrive through sustainability.

Project Goals:

1. Expand of telehealth services in rural spoke communities include: continued telepsychiatry and telebehavioral crisis management.
2. Expand telecardiology consults and tele-stroke services within the network to include tele-neurology consults.
3. Expand CAH services: tele-ICU, tele-emergency medical services, tele-hospitalist services.
4. Include first responder EMS shared data with CAH Emergency Departments.

Outcomes Expected/Project Accomplishments:

1. Promote the development of integrated primary and behavioral health services via telemedicine.
2. Promote a virtual ICU within the Network to support provider decisions to intubate short or long term and or the need to transfer.
3. Provide ED and inpatient physicians in rural locations in decision making with hospitalist support and transport decisions.
4. Provide patients in rural areas rapid and readily available access to a cardiologist and implement a cardiovascular telemedicine program for the network.

Network Partners:

SJIEMS and Peace Island Medical Center – San Juan County; Peace Health St. Joseph Medical Center – Whatcom County; United General Hospital in Skagit County; Ketchikan Medical Center and Craig Clinic in SE Alaska.

Service Area:

See Above.

Equipment:

1. No equipment OAT funded to-date. Existing telemedicine equipment is Polycom/Life Size and Tandberg.
2. Proposals currently under consideration are In-Touch Health and Reach Health.

**WASHINGTON, King County
Telehealth Network Grant Program
University of Washington (FY 12-15)**

University of Washington
4333 Brooklyn Avenue
Seattle, WA 98195
www.uwpsychiatry.org/

Principal Investigator/ Project Manager
Richard Veith
Primary Point of Contact: Richard Veith
Primary Point of Contact Ph: 206-543-3752
Primary Point of Contact Fax: 206-543-9520
Email: rcv@uw.edu

Overview:

Address critical shortages in mental health care and pain management in rural and underserved sites in Washington State. Address these disparities through a program of telehealth-based specialty consultations and provider/patient education. Direct clinical care will include videoconferenced patient evaluations, recommendations to patients' local primary care providers (PCPs), and systematic caseload supervision. In second-fourth years, the project will explore the feasibility of expanding telehealth sites in other WWAMI (Washington, Wyoming, Alaska, Montana, Idaho) states in the rural Pacific Northwest. Project will assess patient and provider satisfaction, clinical effectiveness and financial sustainability.

Project Goals:

Goal 1. Establish a collaborative and sustainable network of telepsychiatry consultation that supports underserved rural community health clinics in Washington. Goal 2. Expand existing telephone-based consultative programs to include videoconference patient-specialist consultations concerning chronic pain management, with a specific focus on prescription opioid use and misuse. Goal 3. Establish the acceptance and cost-effectiveness of telehealth for delivery of mental health and pain medicine care in rural primary care settings.

Outcomes Expected/Project Accomplishments:

Psychiatry consultations will be evaluated using an online registry that tracks clinical outcomes, e.g., PHQ-9 depression, GAD-7 anxiety, PEG for chronic pain. Pain consultation patient outcomes will be tracked using Pain Tracker, on-line outcome tool that employs multiple validated instruments (pain, mood, function, sleep, satisfaction); patient and provider satisfaction will be surveyed.

Network Partners:

Valley View Health Centers (5 clinics); North East Washington Health Program (7 clinics); Sea Mar Community Health Centers (1 clinic); Moses Lake Community Health Center (2 clinics); Columbia Basin Health Services (1 clinic); Forks Community Hospital; Makah Tribal Clinic.

Service Area:

Valley View Health Ctr. (Lewis County); North East WA Health Program (Stevens County); Sea Mar Community Health Ctrs. (Grays Harbor County); Moses Lake Community Health Ctr. (Grant County); Columbia Basin Health Services (Adams County); Forks Community Hospital (Clallum County); Makah Tribal Clinic (Clallum County).

Equipment:

Using USB desktop and laptop cameras, microphones and headsets to connect the hub and remote sites using Jabber software for videoconferencing. Hub site is contributing use of a video bridge.

WEST VIRGINIA, Monongalia County
West Virginia Rural Telepsychiatry Expansion and Health Monitoring Project
West Virginia University Research Corporation (FY12-15)

West Virginia University Research Corporation
866 Chestnut Ridge Road
Morgantown, WV 26505
www.hsc.wvu.edu/bmed

Principal Investigator/ Project Manager
Kari-Beth Law, MD

Primary Point of Contact: Ashley Six-Workman, BSN, RN-BC
Primary Point of Contact Ph: 304-293-5181
Primary Point of Contact Fax: 304-598-4860
Email: sixworkmane@wvuhealthcare.com

Overview:

Project provides telepsychiatry and mental health services to multiple underserved counties in West Virginia. Specific services include adult and child psychiatric as well as addiction psychiatric (i.e. Suboxone) clinics. The purpose is not only to provide easily accessible quality psychiatric care, but also to improve communication between primary care providers and mental health providers to minimize duplication of metabolic monitoring services. During the first year, project opened three expansion spoke sites. During Years 2-4, metabolic monitoring services and data collection at four spoke sites will be implemented.

Project Goals:

- Expand telepsychiatric services to underserved rural areas in WV to improve access to care.
- Compile, track, and analyze metabolic parameters in patients receiving antipsychotic medications through establishment of a metabolic registry.
- Enhance care coordination between primary care and mental health physicians.

Outcomes Expected/Project Accomplishments:

1. Establish Metabolic Registry; 2. Detection of new cases of Metabolic Syndrome with monitoring parameters –labs/vital sign monitoring; 3. Number of treatment interventions initiated to address metabolic syndrome – PCP collaboration; 4. Evaluate community satisfaction – patient surveys.

Network Partners:

1. Mountaineer Doctor Television (MDTV); 2. Appalachian Community Health Center
3. Logan-Mingo Area Mental Health; 4. Southern Highlands Community Mental Health Center;
5. Westbrook Health Services.

Service Area:

1. Appalachian Community Health Center (Randolph County); 2. Logan-Mingo Area Mental Health (Logan and Mingo Counties); 3. Southern Highlands Community Mental Health Center (McDowell County); 4. Westbrook Health Services (Jackson and Roane Counties).

Equipment:

Videoconferencing hardware (combination of Tandberg, Lifesize, and Polycom). Internet based videoconferencing software (Vidyo).

Marshfield Clinic TeleHealth
1000 N. Oak Avenue
Marshfield, WI 54449
www.marshfieldclinic.org/telehealth

Principal Investigator/ Project Manager
Nina M Antoniotti, RN, MBA, PhD
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Primary Point of Contact Ph: 715-389-3694
Primary Point of Contact Fax: 715-387-5225
Email: sixworkmane@wvuhealthcare.com

Overview:

Project provides services through TeleHealth that address the health care needs of rural and disparate populations by using TeleHealth between hospitals, specialists, PCPs, and outpatient clinics. Clinical services to be provided include primary and specialty health care (45 different specialties), pediatric critical care, falls education, prevention, and intervention, e-hospitalist, and care coordination. Each site will have full patient exam capabilities to provide care to acutely ill, chronically ill, and episodic care for patients of North Central Wisconsin. Evaluation focuses on quality of care by improving access, use of technology and technology performance; tracking the cost of care and how cost was impacted through the use of TeleHealth and improved access to care, and improvement in specific clinical outcomes.

Project Goals:

1) improving access to services not available in the local health care system, including falls prevention, hospitalist coverage, consultations with pediatric intensivists, care coordination for high risk populations, and primary and specialty care consultations and visits; 2) improve clinical outcomes in the areas of falls, days of stay for hospitalized adults and pediatric patients; 3) improvements in transfer times for acutely ill and injured children; and 4) decreasing hospitalization rates, readmissions, and emergency department visits in high risk populations.

Outcomes Expected/Project Accomplishments:

1) Improving access to care to on-site evaluations, and care coordination for rural underserved populations; 2) decreasing the rate of falls; 3) improving access to pediatric intensivists for children with acute medical and surgical conditions; and 4) improving access to hospitalist consultations and oversight for rural hospitalized patients. Will use population health analytics and data mining to achieve evaluation measures through statistical reporting methods.

Network Partners:

St. Joseph's Hospital, St. Mary's Hospital, Sacred Heart Hospital, The Lakes Health Center, St. Croix Indian Health Center, and Baldwin Area Medical Center as new sites and 42 other existing sites across North Central Wisconsin.

Service Area:

28 rural counties in Central and Northern Wisconsin with disparate populations over the age of 65, disabled, and living below the poverty level. Many communities in the service area have 1 health care provider, 1 critical access hospital, few if any dentists, and few community-based pharmacies. All are MUAs, and HPSAs, almost all counties Mental Health HPSAs or partial.

Equipment:

Proprietary network with minimum site network of 10meg connections. Video protocols are H.323, 264, and sip and uses primarily codec video endpoints, patient hand held cameras, fiberoptic otoscopes, and digital electronic stethoscopes for patient exams.

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Telehomecare Grant Program (THC)

The THC is a competitive grant program within the Telehealth Network Grant Program that focuses on demonstrating how telehealth networks can improve healthcare through provision of clinical care and remote monitoring of patients in their place of residence using telehealth technologies. These projects provide a mechanism to evaluate the cost-effectiveness of telehomecare services and may include, but are not limited to, case management by physicians, hospitals, medical clinics, home health agencies, or other health care providers who supervise the care of patients in their homes. (HRSA Activity Code H2A)

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Project Descriptions

Telehomecare Grant Program (THC)

Each OAT grantee has provided a project profile describing their network. Each profile provides an Overview, Project Goals, Outcomes/Expected Accomplishments, Network Partners, Service Area and major Equipment used in their network.

Interpreting Project Descriptions Headings:

Previously
Funded Award



TNGP 10-12

STATE, Location County

Name of Program

Organization Name (Current Award Years)

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NEW YORK, Chautauqua/Genesee Counties
Diabetes Telehomecare Program for Rural Western New York
Visiting Nursing Association of Western New York, Inc.

Visiting Nursing Association of Western New York, Inc.
2100 Wehrle Drive
Williamsville, NY 14221-7039
www.vnawny.org/

Principal Investigator/ Project Manager
Lisa Greisler
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Email: lgreisler@kaleidahealth.org

Overview:

A. This project provides telehealth services to Diabetic patients in underserved counties in New York State. B. Patients monitor their weight, blood pressure, heart rate and blood glucose values and transmit data directly from their home to the central hub which is reviewed by Telehealth nurses on a daily basis. Data is forwarded to MD at regular intervals between scheduled MD visits allowing for analysis of trends and interventions (med adjustments) by MD to occur more frequently than during scheduled office visits. C. Initial home visit provides instruction in use of glucose meter, telehealth unit, medication reconciliation, and assessment of diabetes educational needs. Either a home nurse or dietician visits patient at home every other month to assess needs, educate and identify barriers to improvement in self-management of DM. CDE contacts patient monthly to assess progress to goals and provide instruction/support for DM mgmt.

Project Goals:

1. Increase physician interventions for adult diabetic patients with A1c values > 7.5 in underserved rural areas through use of Telehealth.
2. Reduce patient A1c levels thereby lowering risk of complications and costs of care.
3. Reduce patient emergency room visits and inpatient hospital stays.
4. Increase patient knowledge of diabetes and self-management through the Telehealth program and education from the multidisciplinary team.

Outcomes Expected/Project Accomplishments:

At least 75% of participating patients will decrease average blood glucose and A1c levels by 1% point as measured by direct lab values from venous blood draws at one year. At least 90% of patients will increase knowledge of DM by questionnaire provided at initial visit and discharge. At least 90% patients will be satisfied with Telehealth as measured by patient satisfaction survey at discharge.

Network Partners:

Suwarna Naik, MD (Genesee County), Alan J. Barcomb, MD (Genesee County), Family Health Medical Services, Robert Berke, MD (Chautauqua County).

Service Area:

Visiting Nursing Association of WNY is the hub site for the grant. Physician spoke sites are in Genesee County (Dr. Naik; Dr. Barcomb) and Chautauqua County (Family Health Medical Services, Dr. Robert Berke).

Equipment:

75 Cardiocom Commander Flex telehealth units and accompanying accessory equipment (Scale, BP cuff, Glucometer cable), 75 Bayer Freestyle or J&J One Touch Glucometers.

FirstHealth of the Carolinas
181-A Westgate Dr.
West End, NC 27376
www.firsthealth.org

Principal Investigator/ Project Manager
Patty Upham, RN
Primary Point of Contact: Patty Upham, RN
Primary Point of Contact Ph: 910-255-3620
Primary Point of Contact Fax: 910-255-3715
Email: pupham@firsthealth.org

Overview:

Project purpose is to develop an effective means of delivering high quality, cost effective care to eligible patients across care settings using telehealth technology and other best practice strategies. The proposed expansion includes the creation of the *FirstHealth Center for Telehealth* which will provide home telemonitoring to patients enrolled in the regional Medicaid managed care network and also provide telemonitoring to patients participating in the regional PACE Program. Cost and impact of the project will be measured through reductions in hospitalizations, reductions in emergent care use, quality of life, patient/caregiver satisfaction and improvement in patient self- management and engagement in managing their healthcare. Evaluation findings will be used to create a sustainable and replicable payment model in providing centralized telemonitoring for the region and across care settings.

Project Goals:

Improve health outcomes among chronically ill patients by reducing barriers to care and improving treatment plan compliance through the establishment and use of a comprehensive regional telehomecare network for PACE program participants and Medicaid managed care. Added value includes improved access to care through telemonitoring, improvement in health outcomes, reduced costs of care, improved quality of life, and enhanced healthcare collaboration. Evaluation findings will be used to create sustainable payment models and program replication.

Outcomes Expected/Project Accomplishments:

- 20% improvement in Quality of Life – CDCs Health-Related Quality of Life Measure.
- 10% reduction in hospitalizations – Comparison with baseline data prior to project start.
- 15% reduction in emergent care use – Comparison with baseline data prior to project start.
- 90% patient satisfaction rate –Likert scale survey delivered via Telemonitoring System.

Network Partners:

Network will include: Community Care of the Sandhills (Community Care Networks of North Carolina), a Medicaid/dually eligible managed care entity and LIFE St. Joseph of the Pines PACE Program.

Service Area:

Eight counties located in south-central North Carolina. They are: Cumberland, Harnett, Hoke, Lee, Montgomery, Moore, Richmond, and Scotland. All or parts of each county are designated as either Medically Underserved Areas and/or Health Professional Shortage Areas.

Equipment:

80 Philips Home Monitoring Systems which includes telestation hub, blood pressure, pulse, blood oxygen (SpO2), and weight peripherals.

OHIO, Richland County
Mid-Ohio Remote CARE Network (MORE-CARE)
Visiting Nurses Association of Mid-Ohio

The Visiting Nurse Association of Mid-Ohio (VNA-MO)
105 North Main Street, Suite 205
Mansfield, OH 44902
www.vnaohio.org/mid-ohio-services.html

Principal Investigator/ Project Manager
Dana Traxler, Exec. Director
Primary Point of Contact: Bethany King RN, MSN
Primary Point of Contact Ph: 419-520-3924
Primary Point of Contact Fax: 419-522-9590
Email: bking@vnaohio.org

Overview:

Network addresses the need to expand home monitoring services to elderly patients in rural communities. The objective is to increase the patients served, improve chronic care management; reduce hospitalizations; and increase self-care and the overall quality of care. VNA Mid Ohio collaborates with the District 5 Area Agency on Aging to identify appropriate patients for telemonitoring of chronic illness, especially those recently discharged from the hospital, as well as those identified at risk of hospitalization. Care includes daily medical monitoring by a RN or LPN and medical intervention, follow-up and referral for physician or acute hospital care when required. Additional partner organizations will be recruited to further expand access to rural patients.

Project Goals:

Increase access to health care and provide health care access to new populations in rural, underserved areas. Assess increases in number of people served through telehomecare technology. Provide better coordination of health care services. Track trends in outcomes of patients receiving telemonitoring support from Network-affiliated clinicians. Improve capacity of the technology to monitor chronic diseases and improve interface capabilities. Improve quality of health care delivery. Reduce medical errors including patient misunderstandings of prescription instructions.

Outcomes Expected/Project Accomplishments:

Telemonitored patients will experience fewer hospital re-admissions, urgent care visits, unscheduled physician appointments and Emergency Center visits. Telemonitored patients will improve medication management (fewer errors/more compliant). Telemonitored patients will experience improved health outcomes, measured by “discharged with goals met.”

Network Partners:

District 5 Area Agency on Aging.

Service Area:

Ohio Counties: Ashland, Crawford, Huron, Knox, Marion, Morrow, Seneca, Wyandot. Rural areas Partially Eligible in Richland and Morrow Counties.

Equipment:

10 Genesis Touch monitors and 10 Genesis DM Pro BP monitors with videoconferencing capabilities.

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Charts

The following charts highlight each programs capabilities, focus areas and methods of telehealth funding (outside of OAT funding).

A. Components of the Project

B. Program Specialties

C. Program Settings

D. Sources of Reimbursement

E. Home Health

Note: This chart only applies to THC grantees.

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Components of the Project

All OAT grantees were asked to what capacity their projects were participating in the following areas:

- A. Clinical Telemedicine
- B. Health Education
- C. Electronic Health Records
- D. Mobile Health Monitoring
- E. Other Medical Devices or Remote Monitoring capabilities

Grantees' specific responses are provided in the following chart based on the definitions provided on the next page.

Electronic Health Records Definitions:

Key Data - Includes any of the following: Problem List, Procedures, Diagnoses, Medication List, Allergies, Demographics, Diagnostic Test Results, Radiology Results, Health Maintenance, Advance Directives, Disposition, and/or Level of Service.

Computerized Provider Order Entry - Includes availability of Electronic Prescribing, Laboratory, Microbiology, Pathology, Radiology, Nursing, Supplies, Consults, and Ancillary.

Electronic Billing - Using computerized systems for submission of paperless medical and related claims to insurers and other payers.

Electronic Prescribing – Ability to prescribe medication using electronic health records media.

Scheduling Management/ Patient Reminders - Ability schedule patient appointments and transmit reminders as needed.

Clinical Decision Support – Ability to improve health decisions using clinical knowledge and patient information to improve patient outcomes.

Reporting and Population Health Management - Ability to monitor patient outcomes and make clinical or health conclusions on a community or population based on reported patient data.

Results Reporting / Clinical Quality Measures - Ability to report on measures of processes, experience, and/or outcomes in relation to patient care.

Mobile Health Monitoring Definitions:

Texting Appointment Reminders – Text appointment reminders sent to patients.

One Directional Health Education Messaging – Health education related information opportunities are sent directly to patient.

Bi-Directional Text Messaging – Messaging is provided from provider/organization to patient or patient to provider/organization in a two way exchange.

Video Capability - Mobile video capability between health care organization and patient.

Patient Reminders – Reminders for patients to follow-up or schedule additional appointments.

Data Tracking - Ability to collect and track Key Data and /or Clinical Quality Measures using a mobile device.

Patient Exchange Directly with Provider – Patient/provider interaction conducted through the use of a mobile device.

Interactive Intervention - Mobile phone-based treatments or education provides interventions utilizing patient interaction to deliver specific information, approaches, and behavioral support. This can include text messaging or internet phone application. The treatment or education changes over time as determined by the progress of the patient (e.g. Smoking cessation, mental health, diabetes management etc.).

Components of the Project

ST	Grantee/ Program Name	Health Education		Electronic Health Records										Mobile Health Monitoring										Other Medical Devices (Please List/Describe)	Other Remote Monitoring Devices (Please List/Describe)
		Clinical Telehealth Services	Provider	Patient	Certified EHR Technology (as defined by the Office of the National Coordinator)	Computerized Provider Order Entry	Electronic Prescribing	Clinical Decision Support	Electronic Billing	Scheduling Management/ Patient Reminders	Reporting and Population Health Management	Results Reporting / Clinical Quality Measures	Key Data	Cell Phone											
														Texting Appointment Reminders	One Directional Health Education Messaging	Bi-Directional Text Messaging	Video Capability	Patient Reminders	Data Tracking	Patient Exchange Directly with Provider	Interactive Intervention				
AK	Norton Sound Health Corporation <i>The NSHC Telehealth Project</i>	X	X	X																					
AR	University of Arkansas for Medical Sciences <i>RESTART: Reinvention and Expansion of the System to Access Rural Telecolposcopy</i>	X																							
CA	University of California, Davis <i>Pediatric Emergency Assistance to Newborns Using Telehealth (PEANUT) Program</i>	X	X																						
ID	Public Hospital Cooperative, Inc. <i>Cooperative Telehealth Network: A Healthy You</i>	X	X																						
KY	University of Kentucky <i>Kentucky Eye Network</i>	X									X	X													
MT	Benefis Hospitals, Inc. <i>REACH/ER</i>		X	X	X	X	X	X	X		X	X	X												
NC	East Carolina University <i>TeleTEAM Care – A Telehealth Network Grant Program</i>	X	X	X		X			X	X	X	X	X												
NC	FirstHealth of the Carolinas <i>Mid-Carolinas Telehomecare Network</i>	X		X																					
NC	Roanoke Chowan Community Health Center <i>Central Oregon Telehealth Network</i>	X		X	X	X			X	X	X	X	X												
ND	Saint Joseph's Hospital and Health Center <i>CHI-Fargo Division Tele-Behavioral Network</i>	X		X	X		X	X						X		X			X						
NH	Mary Hitchcock Memorial Hospital <i>CREST and Tele-ED</i>	X	X		X						X	X	X												
NY	Visiting Nursing Association of Western New York, Inc. <i>Diabetes Telehomecare Program for Rural Western New York</i>	X		X				X	X		X	X	X												Cardiocom Commander Flex Unit. Has health messaging, education, Allows for linear or rotational messaging; two-way personalized messaging. Interoperable with our McKesson Horizon Homecare record with interface to HealthELink EHR. The units that we are using in the project are small stationary devices , portable in the home, although Cardiocom offers a mobile cell phone option.
OH	Visiting Nurse Association of Mid-Ohio <i>Mid-Ohio Remote CARE Network (MORE-CARE)</i>	X		X			X	X		X	X	X													
OR	Providence Health & Services <i>Northwest Telestroke Network Expansion and Evaluation Project</i>	X	X	X	X	X	X	X	X	X	X	X	X											RP-7 Robot	
VA	Bay Rivers Telehealth Alliance <i>Bridges to Behavioral Health</i>	X		X	X	X	X	X	X				X												
VT	Bi-State Primary Care Association, Inc. <i>Vermont Rural Health Alliance (VRHA) Telehealth Network</i>	X	X	X	X	X	X	X	X	X	X	X	X			X			X	X	X				
WA	San Juan County Public Hospital District #1 <i>Rural NW Washington & SE Alaska Telehealth Network</i>	X	X	X	X	X	X	X	X	X	X	X	X											X – Informational App for phones.	
WA	University of Washington <i>Telehealth Network Grant Program</i>	X	X	X	X	X	X	X	X	X	X	X	X												
WI	Marshfield Clinic Research Foundation <i>Population-Based Health Care</i>	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X	X		Digital Stethoscope, Hand held exam cameras	Blood pressure, pulse ox, glucose meter, weight scale, android tablet
WV	West Virginia University Research Corporation <i>West Virginia Rural Telepsychiatry Expansion and Health Monitoring Project</i>	X	X	X									X												

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Program Settings

For their respective projects, OAT grantees were asked to report their service settings most active in their OAT funded projects. Projects providing clinical telemedicine services and remote monitoring were asked how many sites are associated with the project in each program setting(s) Grantee responses are provided in the following chart.

*****Note: Grantees were asked to designate Planned Settings with (P).**

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Program Settings

ST	Grantee / Program Name	Assisted Living Facility	Community Health Center	Critical Access Hospitals	Health Department and Mental Health Agency	Hospital ER	Hospital In-Patient	Hospital Outpatient	Indian Health Clinic	Licensed Nursing Home	Mobile Unit	Non-Hospital Clinic (e.g. rural health clinic, migrant health clinic)	Patient's Home	Prison	Private Medical Practice or Physician's Office	Remote Monitoring		School
																Mobile Application	Home-Based	
AK	Norton Sound Health Corporation <i>The NSHC Telehealth Project</i>		15	1	1	P		P	15									
AR	University of Arkansas for Medical Sciences <i>RESTART: Reinvention and Expansion of the System to Access Rural Telecolposcopy</i>		2P		8													
CA	University of California, Davis <i>Pediatric Emergency Assistance to Newborns Using Telehealth (PEANUT) Program</i>						P											
ID	Public Hospital Cooperative, Inc. <i>Cooperative Telehealth Network: A Healthy You</i>			11	1			3				3						
KY	University of Kentucky <i>Kentucky Eye Network</i>											P/11						
MT	Benefis Hospitals, Inc. <i>REACH/ER</i>		1	10		2			2									
NC	East Carolina University <i>TeleTEAM Care – A Telehealth Network Grant Program</i>		2									2						
NC	FirstHealth of the Carolinas <i>Mid-Carolinas Telehomecare Network</i>																2	
NC	Roanoke Chowan Community Health Center <i>Central Oregon Telehealth Network</i>												1				1	
ND	Saint Joseph's Hospital and Health Center <i>CHI-Fargo Division Tele-Behavioral Network</i>			12		12				1								
NH	Mary Hitchcock Memorial Hospital <i>CREST and Tele-ED</i>			P/14		I/1												
NY	Visiting Nursing Association of Western New York, Inc. <i>Diabetes Telehomecare Program for Rural Western New York</i>																	75
OH	Visiting Nurse Association of Mid-Ohio <i>Mid-Ohio Remote CARE Network (MORe-CARE)</i>		P		P								5					
OR	Providence Health & Services <i>Northwest Telestroke Network Expansion and Evaluation Project</i>			I/13 P/2		I/25 P/8	I/25 P/8			I/1								
VA	Bay Rivers Telehealth Alliance <i>Bridges to Behavioral Health</i>	1		4		4	P			5	P							
VT	Bi-State Primary Care Association, Inc. <i>Vermont Rural Health Alliance (VRHA) Telehealth Network</i>		9/P	P														
WA	San Juan County Public Hospital District #1 <i>Rural NW Washington & SE Alaska Telehealth Network</i>	P	P/3	2	P/4	4	3	3		P/1		P/1	P		P	P	P	P
WA	University of Washington <i>Telehealth Network Grant Program</i>		16	1	2			1	1									
WI	Marshfield Clinic Research Foundation <i>Population-Based Health Care</i>			5		3	6	6	1	3	1		2		28			
WV	West Virginia University Research Corporation <i>West Virginia Rural Telepsychiatry Expansion and Health Monitoring Project</i>		3		3													

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Program Specialties

OAT Grantees were asked to indicate which services the project has implemented or is planning to implement (I) and indicate the number of planned sites under the service that is planned (P). All services listed are reported by OAT grantees on their annual Performance Improvement Measurement System (PIMS) report.

For a complete listing of all services offered by grantees, see the individual project descriptions.

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Sources of Reimbursement

OAT grantee organizations were asked to identify major sources of reimbursement for their projects available in their respective states. Their responses are indicated in this section.

N/A = Not Applicable/Not Available

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Sources of Reimbursement

ST	Grantee/ Program Name	Medicare	Medicaid	Private Payor (Please Specify)	Other Contract (Please Specify)	Other Source
AK	Norton Sound Health Corporation <i>The NSHC Telehealth Project</i>	X	X	Not Applicable		
AR	University of Arkansas for Medical Sciences <i>RESTART: Reinvention and Expansion of the System to Access Rural Telecolposcopy</i>			None Reported		
CA	University of California, Davis <i>Pediatric Emergency Assistance to Newborns Using Telehealth (PEANUT) Program</i>			Not Applicable		
ID	Public Hospital Cooperative, Inc. <i>Cooperative Telehealth Network: A Healthy You</i>	X	X	PacificSource, BlueShield, BlueCross (pilot)		
KY	University of Kentucky <i>Kentucky Eye Network</i>			Not Applicable	All sites are FQHC's or designated rural health centers and do not allow a the unique code for diabetic retinopathy screening.	
MT	Benefis Hospitals, Inc. <i>REACH/ER</i>			TriWest		
NC	East Carolina University <i>TeleTEAM Care – A Telehealth Network Grant Program</i>			None Reported		
NC	FirstHealth of the Carolinas <i>Mid-Carolinas Telehomecare Network</i>			Not Applicable		
NC	Roanoke Chowan Community Health Center, Inc. <i>Central Oregon Telehealth Network</i>			None Reported		
ND	Saint Joseph's Hospital and Health Center <i>CHI-Fargo Division Tele-Behavioral Network</i>			Blue Cross Blue Shield, Medica, Health Partners, Preferred One, Humana, Medicaid Prime West, Medicaid South Country		
NH	Mary Hitchcock Memorial Hospital <i>CREST and Tele-ED</i>	X	X	Anthem, Cigna, Harvard Pilgrim	Hub-Spoke Service Specific Contracts	
NY	Visiting Nursing Association of Western New York, Inc. <i>Diabetes Telehomecare Program for Rural Western New York</i>			Not Applicable		
OH	Visiting Nurse Association of Mid-Ohio <i>Mid-Ohio Remote CARE Network (MORe-CARE)</i>			Not Applicable		
OR	Providence Health & Services <i>Northwest Telestroke Network Expansion and Evaluation Project</i>			None Reported		
VA	Bay Rivers Telehealth Alliance <i>Bridges to Behavioral Health</i>	X	X	Anthem Blue-Cross Blue Shield, Aetna, Cigna, Sentara, Riverside, UnitedHealthcare, Va. Premier Health Plan (Va. state employees – self insured by state)		TriCare
VT	Bi-State Primary Care Association, Inc. <i>Vermont Rural Health Alliance (VRHA) Telehealth Network</i>			None Reported		
WA	San Juan County Public Hospital District #1 <i>Rural NW Washington & SE Alaska Telehealth Network</i>	X	X	North Sound Mental Health Administration		
WA	University of Washington <i>Telehealth Network Grant Program</i>			Not Applicable		
WI	Marshfield Clinic Research Foundation <i>Population-Based Health Care</i>	X	X	Aetna, Anthem, AARP, Blue Cross/Blue Shield, Cigna, IHS, Tricare, Workers Compensation	*Note: Grantee provided a list of over 100 Private Payors	
WV	West Virginia University Research Corporation <i>West Virginia Rural Telepsychiatry Expansion and Health Monitoring Project</i>			Not Applicable		

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Home Health Devices/Monitoring

OAT Telehomecare Grant Program (THC) were asked to indicate what devices are used for home health monitoring and what kind of services are being monitored. There were not enough responses from Telehealth Network Grant Program (TNGP) grantees to include in this chart.

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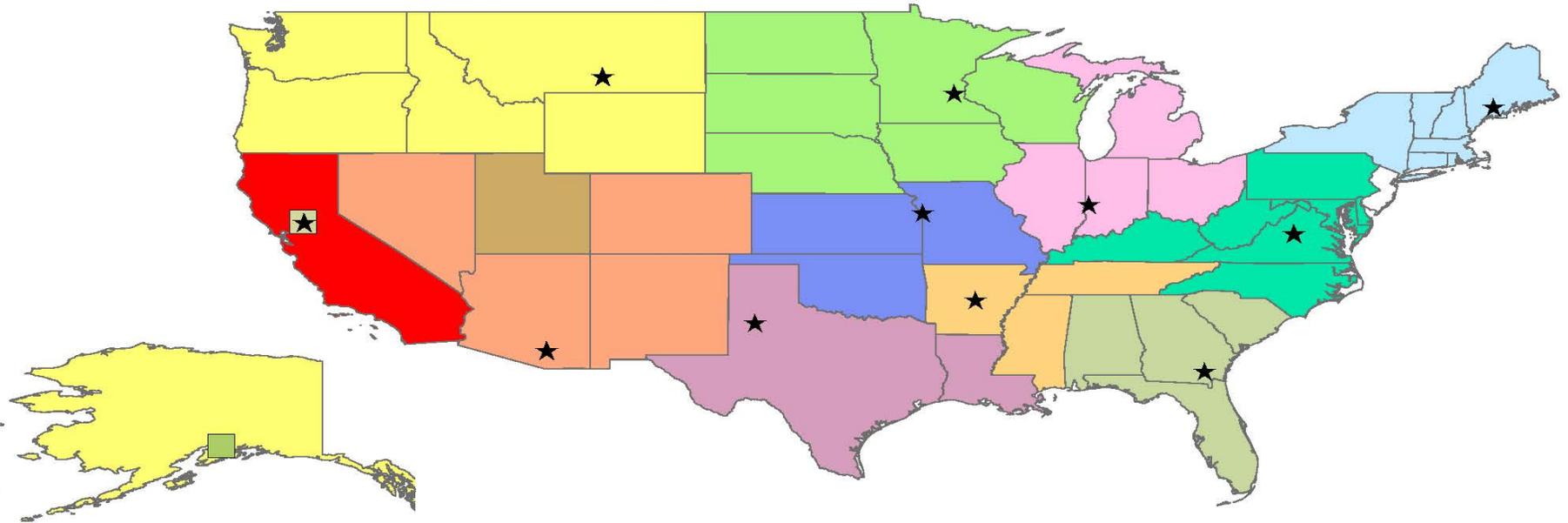
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Telehealth Resource Center Grant Program

Telehealth Resource Centers (TRCs) assist health care organizations, health care networks, and health care providers in the implementation of cost-effective telehealth programs to serve rural and medically underserved areas and populations. (HRSA Activity Code G22)

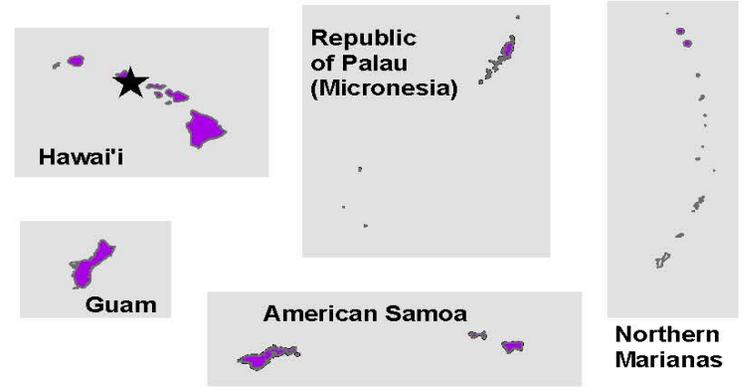
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FY 13-14 Telehealth Resource Center Grant Program (TRCGP)



Telehealth Resource Center Programs

- Great Plains Telehealth Resource & Assistance Center
- Heartland Telehealth Resource Center
- Mid-Atlantic Telehealth Resource Center
- NorthEast Telehealth Resource Center
- Northwest Regional Telehealth Resource Center
- Pacific Basin Telehealth Resource Center
- South Central Telehealth Resource Center
- Southeastern Telehealth Resource Center
- Southwest Regional Telehealth Resource Center
- TexLa Telehealth Resource Center
- Upper Midwest Telehealth Resource Center
- Utah - Northwest Telehealth Resource Center/Southwest Regional Telehealth Resource Center
- Western Regional Telehealth Resource Center



National Telehealth Resource Centers

- National Telehealth Resource Center - Policy (NTRC-P)
- National Telehealth Technology Assessment Resource Center (NTRC-T)

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Project Descriptions

Telehealth Resource Center Grant Program (TRCGP)

Each OAT grantee has provided a project profile describing their services and coverage areas. Each profile provides an Overview, Project Goals, Outcomes/Expected Accomplishments, Network Partners, Service Area and major Equipment used to support veterans health issues throughout their states.

Interpreting Project Descriptions Headings:

Previously
Funded Award



TNGP 10-12

STATE, Location County

Name of Program

Organization Name (Current Award Years) _____

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ALASKA, Municipality of Anchorage
National Telehealth Technology Assessment Resource Center (NTRC-T)
Alaska Native Tribal Health Consortium (ANTHC) (FY 12-15)

Alaska Native Tribal Health Consortium (ANTHC)
4000 Ambassador Drive
Anchorage, AK 99508
www.telehealthtechnology.org

Principal Investigator/ Project Manager
Kirt J Beck
Primary Point of Contact: Kirt J Beck
Primary Point of Contact Ph: 907-729-2282
Primary Point of Contact Fax: 907-729-2263
Email: kjbeck@anthc.org

Overview:

Project aims to create better-informed consumers of telehealth technology. By offering a variety of services in the area of technology assessment, TTAC (pronounced "tea-tac") is the place for answers to questions about selecting appropriate technologies for your telehealth program. TTAC creates freely accessible educational resources for the broad telehealth community. These materials fill the current need for unbiased technical information and process guidance. TTAC produces materials that teach fundamental concepts in device assessment and provides foundational information about clinical applications for telehealth technology to a broad national audience.

Project Goals:

1. Create an informed, knowledgeable and engaged community regarding telehealth technology and technology assessment processes.
2. Raise awareness of national standards surrounding telehealth technologies.
3. Facilitate the development of national policy and guidance for TRCs.
4. Work with national organizations for the continued development of technology standards.
5. Collaboration with the regional TRCs and the new National TRC-Policy.

Outcomes Expected/Project Accomplishments:

1. A more informed, knowledgeable and engaged telehealth community. Measured by website hits, survey results, and requested feedback..
2. Raise awareness of innovations in telehealth technology. Measured by website hits, speaking requests, survey results, and requested feedback.

Network Partners:

None

Service Area:

TTAC's laboratory space is funded by the grant, and is located in Anchorage, Alaska. As a national TRC, our service area is nationwide, and our resources accessed and used globally.

Equipment:

TTAC evaluates a myriad of technology that is donated / loaned by vendors, or purchased/rented with grant funding.

Arizona Board of Regents, University of Arizona
AZ Telemedicine Program
1609 N Warren, Bldg. 211, Rm. 112
Tucson, AZ 85724
www.southwesttrc.org/

Principal Investigator/ Project Manager
Elizabeth Krupinski, PhD
Primary Point of Contact: Elizabeth Krupinski, PhD.
Primary Point of Contact Ph: 520-626-4498
Primary Point of Contact Fax: 520-626-4376
Email: krupinski@radiology.arizona.edu

Overview:

Overall goal is to expand and enhance our training and advice services to effectively develop and sustain telemedicine programs in the Southwest where rural, medically underserved and culturally diverse populations are in great need of telemedicine solutions to efficiently and effectively address healthcare needs. Project uses on-site training programs, webinars, tool-kits, a Help Desk, and collaboration with the other TRCs to accomplish our goals. Project also uses established and developing evaluation tools to monitor our progress and effectiveness. There are core partners in each SWTRC state, working with HRSA FLEX programs, the AZ Department of Health Services and the other HRSA Telehealth Resource Centers.

Project Goals:

Expand and enhance our training and advice services to effectively develop and sustain telemedicine programs in the Southwest where rural, medically underserved and culturally diverse populations are in great need of telemedicine solutions to efficiently and effectively address healthcare needs. New goals include expanding services to facilitate adoption of telemedicine in practices outside academia. Training program will be brought to other Southwest states, as facilitated by ties with core partners in each state as well as participation in the Four Corners Telehealth Consortium.

Outcomes Expected/Project Accomplishments:

The main outcome is provision of advice and help that builds and expands telemedicine in the Southwest. The evaluation has two objectives: 1) determine what SWTRC outreach does (i.e., conduct x number of webcasts), and 2) determine the effect activities have on providers and communities. HRSA OAT Evaluation Metrics will be used.

Network Partners:

Collaborate with partners in AZ, CO, NM, UT and NV and the Four Corners Telehealth Consortium. Work with the AZ Rural Health Office, the AZ Rural Health Flexibility Program Attachment and the University of Arizona's College of Medicine.

Service Area:

Any organization needing assistance, training etc. in AZ, CO, NM, UT and NV.

Equipment:

Commercial videoconferencing equipment, dedicated telemedicine workstations with store-forward and real-time video capabilities, telemedicine peripheral devices, telecommunications technologies.

UAMS Center for Distance Health
4301 W. Markham St., #518
Little Rock, AR 72205
www.uams.edu/cdh
<http://www.learntelehealth.org>

Principal Investigator/ Project Manager
Sarah J. Rhoads, DNP, APN.
Primary Point of Contact: Sarah J. Rhoads, DNP, APN
Primary Point of Contact Ph: 855-664-3450
Primary Point of Contact Fax: 501-603-1447
Email: info@learntelehealth.org

Overview:

Project offers telehealth technical assistance to individuals, organizations, and groups representing a spectrum of healthcare and educational entities to promote and support telehealth integration in health care settings and classrooms throughout Arkansas, Mississippi, and Tennessee. Hands-on technical assistance and interactive training will work toward dissolving barriers to health care and enhancing telehealth efforts. In addition, existing and developing telehealth networks serving the south's medically underserved, rural populations will continue to receive tailored technical assistance (TA) and telehealth guidance and expert resources on how they may further their clinical and educational reach.

Project Goals:

- a) Telehealth Training Center Objectives – Exhibit increase in knowledge following technical assistance training; increase yearly volume of individuals served; take additional steps toward implementing or expanding telehealth services following technical assistance; and develop custom training curricula to be shared with other interested parties.
- b) SCTRC Website Objectives – Increase yearly visitor volume, available content, and site membership.
- c) SCTRC Virtual Conference Objectives – Increase yearly conference attendees; cover SCTRC developed curricula within instructional sessions; and secure an average satisfaction of 4 out of 5 on a Likert-type scale.

Outcomes Expected/Project Accomplishments:

- a) Telehealth Training Center Objectives – Evaluation data; pre/post test data.
- b) SCTRC Website Objectives – Google Analytics.
- c) SCTRC Virtual Conference Objectives – Evaluation data via GoToWebinar/SurveyMonkey Tools.

Network Partners:

The South Central Telehealth Resource Center will expand the University of Arkansas for Medical Sciences Center for Distance Health partnership with health care providers out to two additional states, Mississippi and Tennessee.

Service Area:

All counties in Arkansas, Mississippi, Tennessee.

Equipment:

CISCO and Polycom video-conferencing equipment, GoToWebinar.

Center for Connected Health Policy
1331 Garden Highway
Sacramento, CA 95833
www.cchpca.org
www.nationaltelehealthpolicy.us

Principal Investigator/ Project Manager
Mario Gutierrez/Mei Wa Kwong
Primary Point of Contact: Mario Gutierrez
Primary Point of Contact Ph: 916-285-1858
Primary Point of Contact Fax: 916-285-1866
Email: mariog@cchpca.org

Overview:

Project provides technical support in telehealth policy to 12 regional telehealth resource centers (RTRCs) nationwide, and serves as an independent national resource on telehealth policy issues. CCHP is working to build the capacity of 12 RTRCs, funded under the same federal program, which provide technical and informational support to telehealth providers and organizations nationwide. CCHP provides telehealth policy support for queries from constituents in their respective regions, and acts as a resource for identifying possible policy barriers that inhibit the use of telehealth in health care delivery. CCHP conducts policy research and analysis, and issues policy briefs and other forms of educational materials that serve to inform the public on the benefits of technology-enabled health care.

Project Goals:

Goal 1: Provide responsive, timely and targeted technical assistance to strengthen the capacity of the RTRCs.
Goal 2: Serve as a national telehealth policy center of excellence for RTRCs, HRSA Grantees, and key telehealth constituencies.

Outcomes Expected/Project Accomplishments:

The telehealth policy knowledge base of the TRCs and the general public will be increased. Additionally, CCHP will be increasingly utilized as a source of telehealth policy information. CCHP has produced a comprehensive 50 state survey of telehealth laws and Medicaid reimbursement policies.

Network Partners:

California HealthCare Foundation (CHCF), 12 Regional Telehealth Resource Centers & 1 National Telehealth Technical Resource Center.

Service Area:

CCHP serves all 50 states and the District of Columbia.

Equipment:

Not Applicable.

California Telehealth Network
2001 P Street, Suite 100
Sacramento, CA 95811
www.caltrc.org

Principal Investigator/ Project Manager
Kathy Chorba
Primary Point of Contact: Rebecca Roland
Primary Point of Contact Ph: 916.341.3373
Primary Point of Contact Fax: 916-341-3378
Email: rroland@caltelehealth.org

Overview:

This project will provide educational, programmatic and technical support services to new and expanding telemedicine programs throughout California. Specific services include consulting and training in all areas of telehealth program implementation from establishing a program from ground zero through full telehealth program integration and long-term sustainability. This project will also establish and update on-line tool kits, practice guides and multi-media resources, available free of charge by website. In addition, the CTRC will conduct annual telehealth workshops for coordinators plus one high level statewide telehealth conference.

Project Goals:

1. Provide technical assistance to new and established telehealth programs, technology developers, state, public and private health plans.
2. Coordinate statewide and regional telehealth conferences and implementation seminars.
3. Form and utilize a telehealth expert advisory panel to keep CTRC apprised of the needs of the state.
4. Develop and disseminate financial sustainability models for specialty and referring clinic sites.

Outcomes Expected/Project Accomplishments:

OAT Performance Measures.

Network Partners:

None.

Service Area:

State of California.

Equipment:

Not applicable.

Georgia Partnership for TeleHealth, Inc.
P.O. Box 1408, 914 Memorial Dr.
Waycross, GA 31501
www.gatelehealth.org / www.setrc.us

Principal Investigator/ Project Manager
Paula Guy, PI / Rena Brewer
Primary Point of Contact: Rena Brewer
Primary Point of Contact Ph: 229-291-0494
Primary Point of Contact Fax: 912-285-0938
Email: rena.brewer@gatelehealth.org

Overview:

SETRC provides technical assistance to help health care organizations, networks, and providers implement cost-effective telehealth programs serving rural and medically underserved areas and populations in the region with a coverage area of: AL, FL, GA, and SC. SETRC employs an applied approach to technical assistance services and telehealth education to health care providers, facilities, and organizations in order to grow telehealth services and technology in the region. SETRC accomplishments include the development of: State TeleHealth Workgroups to address barriers & promote state-wide collaboration, the launch of SETRC's virtual workforce training center, the National School of Applied TeleHealth, and regionalized TeleHealth Awareness Summits, Conferences, and Presentations.

Project Goals:

1. To employ a mindset of action in the application of technology knowledge transfer and systems deployment to ensure the long term success of new and existing telehealth networks in the region through technical assistance programs.
2. To maintain strong collaborative efforts with existing telehealth networks, TRC's and OAT.
3. To promote early adoption through the duplication of best practices.
4. To provide healthcare information and education through the development of a virtual School of Applied TeleHealth.

Outcomes Expected/Project Accomplishments:

3. Formation of four state TeleHealth Workgroups to address barriers and create an environment for state-wide collaboration between telehealth stakeholders. / surveys
4. Regional TeleHealth Summits, Conferences, and Presentations/surveys
5. Workforce Training: SETRC's education arm, the National School of Applied TeleHealth/surveys

Network Partners:

Not Applicable

Service Area:

Alabama, Florida, Georgia, South Carolina

Equipment:

Not Applicable

Telecommunications & Social Informatics
Research Program
Social Sciences Research Institute
2530 Dole Street
Sakamaki Hall, #D-300
Honolulu, HI 96822
tipg.org / pbtrc.org

Principal Investigator/ Project Manager
Sven-Erik Bursell, PhD/ Deborah Birkmire-Peters, PhD
Primary Point of Contact: Deborah Birkmire-Peters, PhD
Primary Point of Contact Ph: 808-692-1090
Primary Point of Contact Fax: 808-692-1250
Email: dbpeters@hawaii.edu

Overview:

Project purpose is to provide technical assistance and education to health care organizations, health care networks, and health care providers in the implementation of telehealth programs to serve rural and medically underserved areas and populations in Hawaii and the US Affiliated Pacific Islands.

Project Goals:

- Increase collaborative partnerships and opportunities on a regional basis.
- Promote telehealth and distance learning in Hawaii and the US Affiliated Pacific Islands.
- Expand the capacity and use of telehealth for clinical care.
- Increase the knowledge and visibility of telehealth and the PBTRC.
- Support the implementation of the State of Hawaii Telehealth Strategic Plan.
- Develop collaborative relationships with organizations working in the Pacific Basin.
- Business plans for sustainable Telehealth activities.

Outcomes Expected/Project Accomplishments:

1. Use of telehealth for clinical care – surveys.
2. Identify legislative and regulatory barriers to telehealth – surveys.
3. Use of distance learning for patient/provider education – surveys.

Network Partners:

Not applicable.

Service Area:

The Pacific Basin Telehealth Resource Center serves the State of Hawaii, the US territories of Guam and American Samoa, the Commonwealth of the Northern Mariana Islands (CNMI), and the countries of The Republic of the Marshall Islands, The Republic of Palua, and the Federated States of Micronesia (FSM).

Equipment:

Not applicable.

Upper Midwest Telehealth Resource Center (UMTRC)
c/o Indiana Rural Health Association
2901 Ohio Boulevard, Ste. 110
Terre Haute, IN 47803
www.umtrc.org

Principal Investigator/ Project Manager
Jonathan Neufeld, PhD
Primary Point of Contact: Becky Sanders
Primary Point of Contact Ph: 812-478-3919 x232
Primary Point of Contact Fax: 812-232-8602
Email: bsanders@indianarha.org

Overview:

UMTRC is a consortium of active Telehealth programs and health care organizations, headed by the Indiana Rural Health Association that provides a comprehensive set of clinical and technical assistance resources of value to rural providers and others involved in telehealth in the states of Illinois, Michigan, Indiana, and Ohio. UMTRC provides individual and group technical assistance, training, evaluation, research, and nationwide networking for organizations involved in the development and implementation of telehealth.

Project Goals:

The overall goals of the UMTRC are: (1) to provide a single point of contact that provides, coordinates, and distributes telehealth technical assistance resources across the Upper Midwest region through individual, group, and online services, (2) to develop, support, evaluate, and network with model telehealth implementation sites as a way of promoting best practices and stimulating new site and service development across the region, and (3) to provide an ongoing evaluation of the effectiveness of the UMTRC's services such that they can be continuously developed according to the needs of its constituents.

Outcomes Expected/Project Accomplishments:

The UMTRC anticipates providing 40+ individual TA encounters per quarter, 1-3 group TA presentations/trainings per quarter, 2-4 research publications per year, and 4+ large group/conference presentations per year at statewide, regional, or national meetings involving telehealth programs and interested organizations.

Network Partners:

Current partners include Indiana Rural Health Association, Indiana University Health, St. Vincent Health, Affiliated Service Providers of Indiana, Indiana Health Information Technology, Indiana Hospital Association, Illinois Hospital Association, The Ohio Council of Community and Behavioral Health Service Providers, and Health Policy Institute of Ohio.

Service Area:

The UMTRC serves all counties of the 4-state region. Offices are in Vigo, Marion, and Elkhart Counties in Indiana, with partners in various counties in the surrounding states.

Equipment:

This grant leases multi-way videoconferencing facilities and provides some equipment support to member organizations, but equipment purchases are minimal.

University of Kansas Medical Center Research Institute
Mailstop Code: MS 1039
3901 Rainbow Boulevard
Kansas City, KS 66103-2937
www.HeartlandTRC.org

Principal Investigator/ Project Manager
Ryan J Spaulding, PhD
Primary Point of Contact: Ryan J Spaulding, PhD
Primary Point of Contact Ph: 913-588-2081
Primary Point of Contact Fax: 913-588-2227
Email: rspaulding@kumc.edu

Overview:

Project provides telehealth technical assistance, operations and information dissemination, TRC program evaluation/research design, sustainability strategies and institutional planning. Other services include investigation of new telehealth awareness-generating activities, such as social media, telehealth educational programming and resource sharing and a national webinar series.

Project Goals:

Provide telehealth technical assistance and resources, primarily in Kansas, Missouri and Oklahoma; share resources and experiences with other regional TRCs; evaluate services for effectiveness, efficiency, and satisfaction; and leverage social media—Facebook and Twitter—to provide telehealth resources to health professionals and consumers.

Outcomes Expected/Project Accomplishments:

The HTRC expects to increase telehealth awareness among the rural populace and healthcare professionals in its tri-state service area, improve the level of telehealth services available in rural areas, evaluate successful telehealth resource strategies, and increase knowledge through the sharing of information among all other TRCs and the telehealth community.

Network Partners:

KU Center for Telemedicine & Telehealth, University of Kansas Medical Center.
Missouri Telehealth Network, University of Missouri, Columbia.
Oklahoma Center for Telemedicine, University of Oklahoma Health Sciences Center.

Service Area:

The tri-state region in the heartland formed by Kansas, Missouri and Oklahoma; other states in U.S. based on inquiries referred to HTRC by other TRCs that match HTRC expertise.

Equipment:

HTRC provides technical assistance for a variety of traditional conference room, desktop and mobile videoconferencing systems, with Polycom HDX, CMA-D, Vidyo, Zoom.us and RealPresence Mobile platforms; also tablets and smartphones using video and health applications. Canon Optura 600 and Canon DC40 are used by Missouri's network for still image (store-and-forward) photography and video recording.

MAINE, Kennebec County
NorthEast Telehealth Resource Center (NETRC)
Medical Care Development, Inc. (FY 11-14)

MCD Public Health
11 Parkwood Drive
Augusta, ME 04330
www.mcdph.org / www.netrc.org

Principal Investigator/ Project Manager
Margaret I. Gradie.
Primary Point of Contact: Kim Mohan
Primary Point of Contact Ph: 800-379-2021
Primary Point of Contact Fax: 207-622-3616
Email: kmohan@mcdph.org

Project Narrative:

Project is intended to respond to increased demand for telehealth services as IT infrastructure grows and makes the provision of Telehealth services to populations with limited access feasible. NETRC encourages growth of needed Telehealth programs and services through tailored technical assistance, increases local capacity through education and training promotes and supports a favorable environment for Telehealth through strategic planning and policy support and development of business plans for sustainability. The NETRC collaborates with the national network of Telehealth Resource Centers to enhance shared capacity to support the implementation of cost-effective Telehealth programs to serve rural and medically underserved people throughout the country.

Project Goals:

1. Service Delivery: Encourage growth and development of needed telehealth programs and services through technical assistance, literature, and clinical program guidance for interested health care providers and organizations.
2. Education and Training: Enhance local capacity to develop and implement Telehealth solutions through education and training.
3. Strategic Planning and Policy Support: Support a favorable regulatory and reimbursement environment for effective Telehealth modes of healthcare delivery through collaboration with health policy, planning, and advocacy groups in the Northeast and nationally.
4. Management: Maintain an effective and efficient management structure and service plan for the NETRC.

Outcomes Expected/Project Accomplishments:

- Increased capacity for Telehealth throughout the service area as evidenced by the establishment of new Telehealth programs and networks.
- Establishment of a regional Telehealth Advisory Group.
- Sponsorship of an annual regional conference.

Network Partners:

Fletcher Allen Health Care, Burlington, VT

Service Area:

Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, Vermont

Equipment:

Polycom interactive videoconferencing unit that allows for multi-party bridging.
Polycom m100 software for mobile interactive video conferencing.

University of Minnesota/IHI
505 Essex Street SE
330 Diehl Hall
Minneapolis, MN 55455
www.gptrac.org

Principal Investigator/ Project Manager
Stuart Speedie.
Primary Point of Contact: Mary DeVany
Primary Point of Contact Ph: 605-743-5902
Primary Point of Contact Fax: 612-626-7227
Email: medevany@gmail.com

Project Narrative:

Increase telehealth awareness and utilization among rural and frontier health care providers, facilities and organizations by breaking down both geographic and experiential barriers specifically in the six states of Minnesota, South Dakota, North Dakota, Wisconsin, Iowa and Nebraska. "Where do we begin?" is often the question responsible for much of the delay in developing and implementing telehealth programs. Helping to answer this question, in an unbiased, impartial manner, is a primary purpose of the gpTRAC. Alleviating barriers to service delivery through the dissemination of shareable resources, tools, and educational events support this purpose.

Project Goals:

gpTRAC has four major focus areas: Awareness - Build awareness of telehealth and gpTRAC through a multi-faceted marketing and communications effort; Education - Provide a range of telehealth-related educational opportunities for health care professionals; Consultation - Offer consulting services to individuals, groups and organizations seeking assistance in funding, building business cases, implementing services, and evaluating telehealth services; Data - Systematically track the growth and dissemination of telehealth throughout the region by implementing a regional telehealth utilization identification effort.

Outcomes Expected/Project Accomplishments:

Building awareness of telehealth and the gpTRAC within the region and assisting clients build a similar awareness within their own organizations; providing telehealth-related educational opportunities; offering consulting services to those seeking assistance in funding, building business cases, implementing, and evaluating telehealth services; and tracking data to understand the growth and dissemination of telehealth in the region. gpTRAC has established a database that allows tracking of the active client base and service reach.

Network Partners:

gpTRAC has no "official" network partners. However, we work in cooperation and collaboration with all other HRSA-funded telehealth resource centers (TRCs). Additionally, gpTRAC has had experience sharing information with the region's HIT Regional Extension Centers, other HRSA funded programs, as well as state rural health entities.

Service Area:

gpTRAC primarily serves the six-state area of North Dakota, South Dakota, Nebraska, Minnesota, Iowa and Wisconsin. Assistance is also provided to entities in other states as requested.

Equipment:

None.

St. Vincent Healthcare
Strategy & Business Development
1233 North 30th Street
Billings, MT 59101
www.svh-mt.org

Principal Investigator/ Project Manager
Doris T. Barta, MHA.
Primary Point of Contact: Bob Wolverton, Ed.D.
Primary Point of Contact Ph: 406-237-8651
Primary Point of Contact Fax: 406-237-8656
Email: doris.barta@svh-mt.org

Overview:

NRTRC is a region-wide (seven-state) consortium of healthcare organizations and educational institutions whose mission is to advance the development, implementation, and integration of telehealth through sharing information, leveraging resources and creating a synergistic telehealth community. The NRTRC assists healthcare organizations, networks, and providers implementing cost-effective telehealth programs serving rural and medically underserved populations, with a special emphasis on program development through shared training and expertise.

Project Goals:

Project goals include: 1) Utilize expertise available through the NRTRC membership to provide education and training for program development; 2) Increase collaborative partnerships and opportunities regionally and nationally; and 3) Facilitate communication and access between NRTRC members and regional and national healthcare organizations. Through these activities, NRTRC will ensure that federal investments in telehealth promote collaborative growth and opportunity development.

Outcomes Expected/Project Accomplishments:

The NRTRC continues to help provide improved access by enhancing the clinical care programs available to rural communities via telehealth. These programs include access to specialists for clinical consults, ongoing care management programs to support individuals with chronic conditions; and enhanced emergency care through programs that connect emergency room specialists with providers and patients in rural hospitals.

Network Partners:

An Advisory Board comprised of (2) representatives from each of the seven states served by the NRTRC make up the organizational leadership. Additional members include 35 telehealth networks who are engaged in the delivery and/or promotion of telehealth services in the seven states and who had expressed an interest in membership in the NRTRC.

Service Area:

NRTRC represents seven western states (Alaska, Idaho, Oregon, Montana, Utah, Washington and Wyoming).

Equipment:

Polycom video codecs from IP based Via Video to FX and custom VS4000 room systems, VCONN Executive IP systems, Accord Polycom MGC 100 MCU that incorporates audio, ISDN, and IP video bridging and data collaboration services, Panasonic 3 CCD cameras, and AMD general exam cameras.

TEXAS, Lubbock County
TexLa Telehealth Resource Center
Texas Tech University Health Sciences Center (FY12-15)

F, Marie Hall Institute of Rural and Community Health
3601 4th Street, Mail Stop 6271
Lubbock, TX 79430-6271
www.ttuhscc.edu/ruralhealth

Principal Investigator/ Project Manager
Billy U. Philips, Ph.D., M.P.H
Primary Point of Contact: Debbie Voyles, MBA/HOM
Primary Point of Contact Ph: 806-743-4440
Primary Point of Contact Fax: 806-743-4010
Email: debbie.voyles@ttuhscc.edu

Overview:

The TexLa TRC will provide technical and operational expertise to assist hospitals, clinics, public health offices, private practice healthcare providers, and other health care organizations in Texas and Louisiana with the implementation of cost-effective Telehealth programs to serve patients throughout the service region. The TLTRC will focus on several primary objectives with this project with the overall objective of developing a core outreach program to aid in the establishment and growth of Telehealth programs in Texas, Louisiana and across the nation.

Project Goals:

1. Provide technical assistance and resources to new/existing Telehealth programs.
2. Evaluate programs for delivery of services, efficiency, sustainability, and patient satisfaction.
3. Develop an interactive hands-on training center to provide guidance.
4. Educate policy makers about barriers to the use of Telehealth in Texas and Louisiana.
5. Work to improve reimbursement for Telehealth services with CMS and third party payers.
6. Collaborate with the other regional TRCs to share resources as well as lessons.

Outcomes Expected/Project Accomplishments:

1. Patient and Provider Satisfaction – Survey Tool.
2. Identification of Telemedicine/Telehealth providers in Texas and Louisiana.
3. Increase in Telehealth awareness throughout service region.
4. Work with policy makers and insurance providers for better reimbursement.

Network Partners:

Louisiana State University Health Care Services Division, Texas eHealth Alliance,
Texas A&M Rural and Community Health Institute.

Service Area:

Texas and Louisiana.

Equipment:

Not applicable.

VIRGINIA, Charlottesville County
Mid-Atlantic Telehealth Resource Center
The Rector and Visitors of the University of Virginia (FY 11-14)

UVA Center for Telehealth
PO Box 800711
Charlottesville, VA 22908-0711
<http://matrc.org/>

Principal Investigator/ Project Manager
Karen S. Rheuban, MD
Primary Point of Contact: Kathy H. Wibberly, PhD
Primary Point of Contact Ph: 434-906-4960
Primary Point of Contact Fax: N/A
Email: Kathy.Wibberly@virginia.edu

Overview:

MATRC was established as a regional TRC in September 2011 to provide technical assistance and other resources in the mid-Atlantic area. Project provides consultative services, web-based and educational resources, hosts an Annual Regional Telehealth Summit and provides assistance with statewide planning efforts in order to advance the adoption and utilization of telehealth. Also, MATRC works collaboratively with the other federally funded TRCs to provide the same services on a national scale.

Project Goals:

1. Establish a web portal as the hub for telehealth resources for the MATRC region. Provide technical support and consultative services to the MATRC region through a network for Consultative Service Partners.
2. Establish an Advisory Board to assess needs and shape direction, services and product offerings.
3. Host an annual regional telehealth summit.
4. Provide webinars and other on-line professional education resources.
5. Develop an inventory of telehealth providers within the MATRC region.
6. Engage in partnerships with other TRCs to develop resources and work on collaborative grant opportunities.
7. Provide outreach to constituents in the MATRC region through the use of social media and other online tools.

Outcomes Expected/Project Accomplishments:

1. Consumer satisfaction – evaluation survey.
2. Utilization of services – consultative service log, AWStats Logfile Analyzer 7.0 and Google Analytics, number of participants/attendees.
3. Number and location of telehealth sites – online data collection tool and site mapping.

Network Partners:

MATRC has established a network of Consultative Service Partners that includes: University of Kentucky – Kentucky TeleCare; Vidant Health; Center for Rural Health Innovation; Lehigh Valley Health Network, Broad Axe Partners, Inova Telemedicine program; UVA Center for Telehealth; VCU Health System Telemedicine Center; Virginia Telehealth Network; ToTier Technologies LLC and West Virginia Telehealth Alliance.

Service Area:

Delaware, Kentucky, Maryland, North Carolina, Pennsylvania, Virginia, West Virginia and the District of Columbia.

Equipment:

Not Applicable.

Rural Veterans Health Access Program

The Rural Veterans Health Access Program (RVHAP) is a competitive grant program that provides support to enhance mental health services, including crisis intervention and diagnostic assessments, to detect post-traumatic stress disorder, traumatic brain injury, and other injuries associated with veterans of Operation Iraqi Freedom and Operation Enduring Freedom. (HRSA Activity Code H3G)

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Individual Project Maps

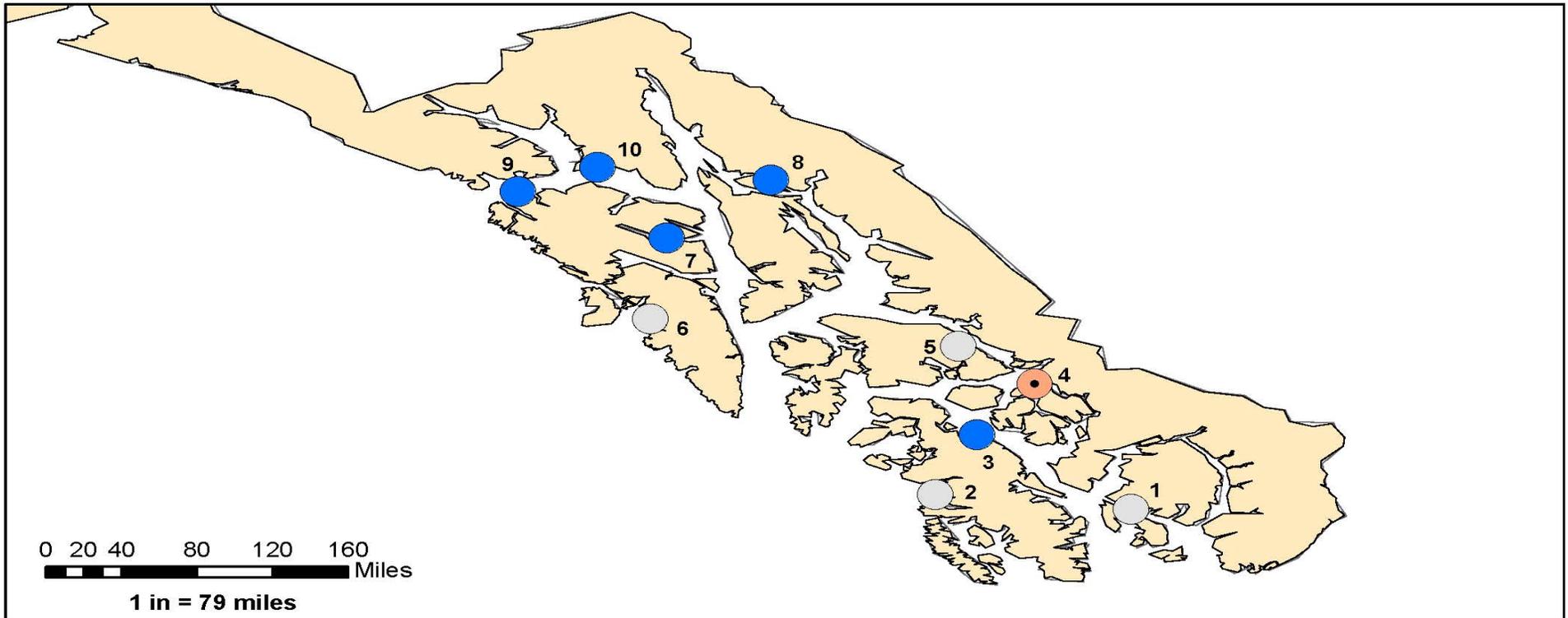
Rural Veterans Health Access Program (RVHAP)

This section provides GIS illustrations demonstrating the reach each RVHAP grantee has with their individual project. Each representation shows the relationship of project recipient to the sites the organization supports throughout the state.

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Flex Rural Veterans Health Access Program (RVHAP)
 Alaska Department of Health and Social Services (FY 13-15)
 Alaska's Flex Rural Veterans Health Access Program

AK

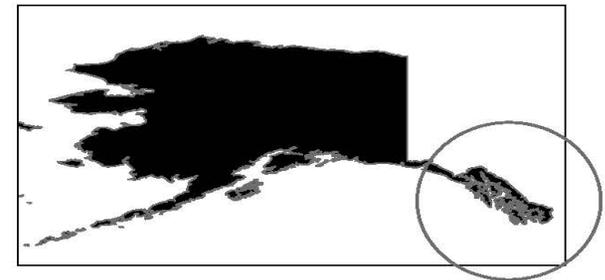


RVHAP Sites

-  Recipient
-  Supported Site (Current)
-  Supported Site (Planned)

- Sites (City, State)
- 1 PeaceHealth Medical Group – Ketchikan (Ketchikan, AK)
 - 2 PeaceHealth Medical Group – Craig (Craig, AK)
 - 3 Tideline Clinic (Coffman Cove, AK)
 - 4 Alaska Island Community Services (Wrangell, AK)
 - 5 Petersburg Mental Health Center (Petersburg, AK)
 - 6 Mountainside Family Healthcare (Sitka, AK)
 - 7 Tenakee Springs Health Center, Tenakee Springs, AK)
 - 8 Juneau Alliance for Mental Health, Inc. (Juneau, AK)
 - 9 Elfin Cove Community Association Clinic (Elphan Cove, AK)
 - 10 Gustavis Community Clinic (Gustavus, AK)

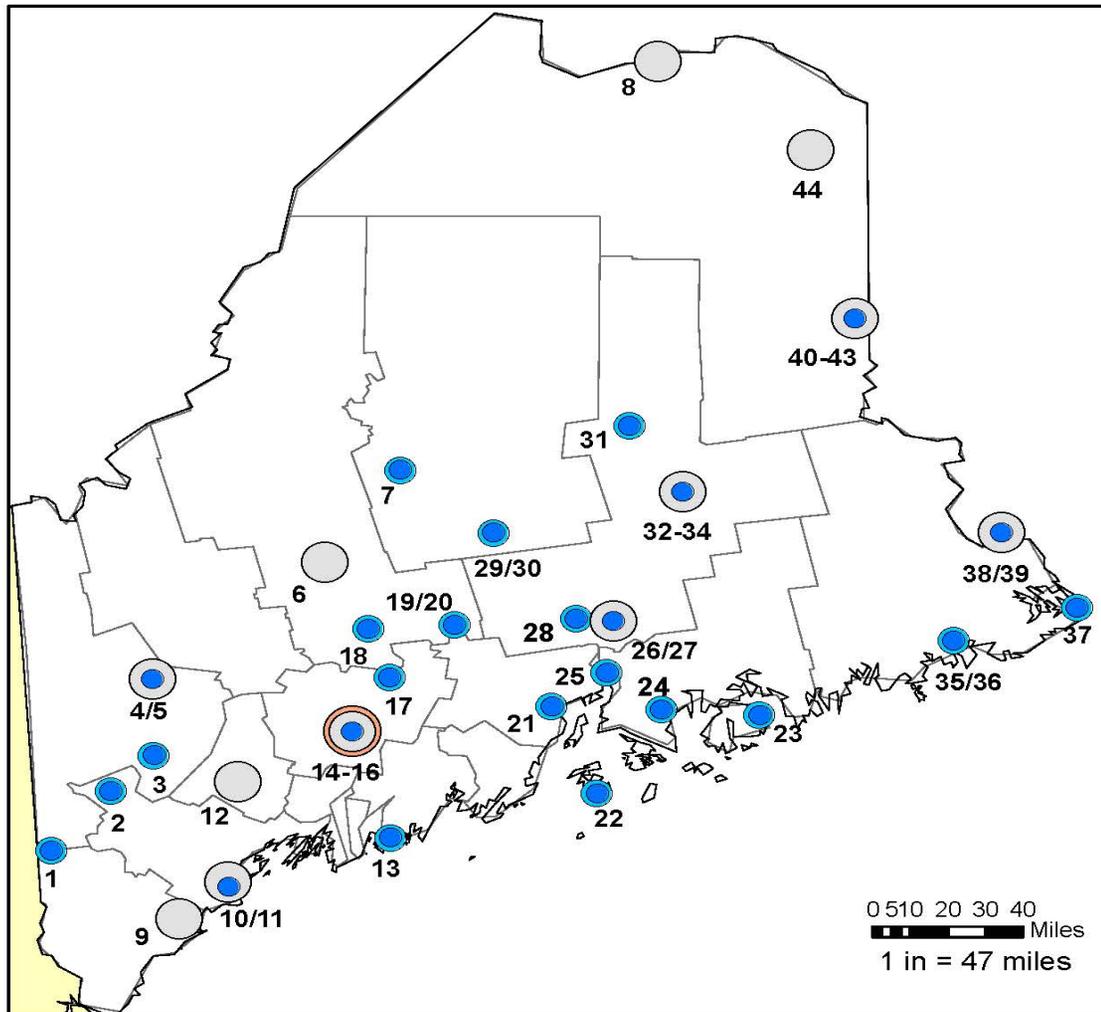
***Naukati Bay School (Naukati, AK) - Site unable to geocode.



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Flex Rural Veterans Health Access Program (RVHAP)
 Maine Department of Health and Human Services (FY 13-15)
 The Maine Flex Rural Veterans Health Access Program (MeRVHAP)

ME



Sites (County, State)

- 1 Sacopec Valley Health Center (FQHC) (Oxford, ME)
- 2 Bridgton Hospital (CAH) (Cumberland, ME)
- 3 Stephens Memorial Hospital (CAH) (Oxford, ME)
- 4 Rumford Community Based OP Clinic (VA Facility) (Oxford, ME)
- 5 Rumford Community Hospital (Oxford, ME)
- 6 Mobile Medical Unit (VA Facility) (Somerset, ME)
- 7 Charles A. Dean Memorial Hospital (CAH) (Piscataquis, ME)
- 8 Fort Kent Access Point Clinic (VA Facility) (Aroostook, ME)
- 9 Saco Community Based OP Clinic (VA Facility) (York, ME)
- 10 Portland Community Based OP Clinic (VA Facility) (Cumberland, ME)
- 11 Day One (MH) (Cumberland, ME)
- 12 Lewiston/Auburn Community Based OP Clinic (VA Facility) (Androscoggin, ME)
- 13 St. Andrews Hospital & Healthcare Center (CAH) (Lincoln, ME)
- 14 Maine Department of Health and Human Services (Kennebec, ME)
- 15 VA Maine Healthcare System - Togas (VA Facility) (Kennebec, ME)
- 16 Crisis & Counseling Centers, Inc. (MH) (Kennebec, ME)
- 17 Alternative Services Northeast (MH) (Kennebec, ME)
- 18 Redington-Fairview General Hospital (CAH) (Somerset, ME)
- 19 Sebasticook Family Doctors - Pittsfield (FQHC) (Somerset, ME)
- 20 Sebasticook Valley Hospital (CAH) (Somerset, ME)
- 21 Waldo County General Hospital (CAH) (Waldo, ME)
- 22 Islands Community Medical Services (FQHC) (Knox, ME)
- 23 Mt. Desert Island Hospital (CAH) (Hancock, ME)
- 24 Blue Hill Memorial Hospital (CAH) (Hancock, ME)
- 25 Bucksport Regional Health Center (FQHC) (Hancock, ME)
- 26 Bangor Community Based OP Clinic (VA Facility) (Penobscot, ME)
- 27 Penobscot Community Health Care (FQHC) (Penobscot, ME)
- 28 OHI Maine (MH) (Penobscot, ME)
- 29 Mayo Regional Hospital (CAH) (Piscataquis, ME)
- 30 The Charlotte White Center (MH) (Piscataquis, ME)
- 31 Millinocket Regional Hospital (CAH) (Penobscot, ME)
- 32 Lincoln Community Based OP Clinic (VA Facility) (Penobscot, ME)
- 33 Penobscot Valley Hospital (CAH) (Penobscot, ME)
- 34 Health Access Network (FQHC) (Penobscot, ME)
- 35 Down East Community Hospital (CAH) (Washington, ME)
- 36 Aroostook MH Centers (Machias OP) (MH) (Washington, ME)
- 37 Regional Medical Center at Lubec (FQHC) (Washington, ME)
- 38 Calais OP Clinic (VA Facility) (Washington, ME)
- 39 Calais Regional Hospital (CAH) (Washington, ME)
- 40 Houlton Satellite Clinic (VA Facility) (Aroostook, ME)
- 41 Houlton Regional Hospital (CAH) (Aroostook, ME)
- 42 Katahdin Valley Health Center (FQHC) (Aroostook, ME)
- 43 Aroostook MH Centers (Houlton OP) (MH) (Aroostook, ME)
- 44 Aroostook County Community Based OP Clinic (VA Facility) (Aroostook, ME)

RVHAP Sites

-  Recipient
-  Supported Site (Current)
-  Supported Site (Planned)



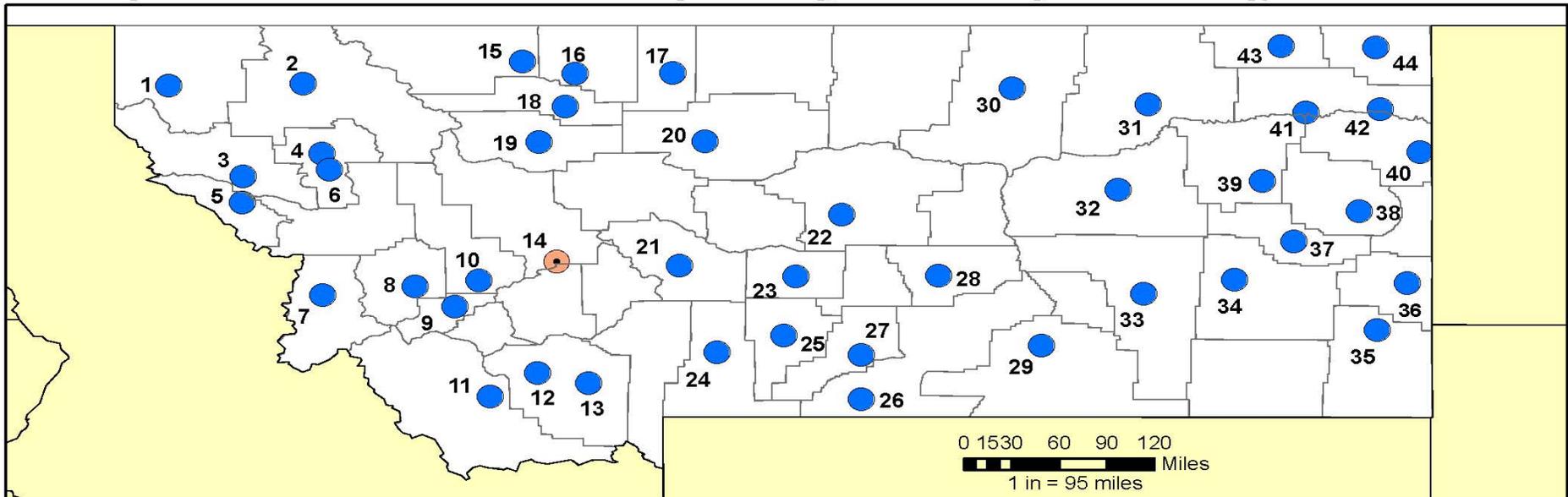
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Flex Rural Veterans Health Access Program (RVHAP)

Montana Department of Public Health and Human Services (FY 13-15)

Increasing Services to Montana's Veterans through Training, Team Building and Technology

MT



Sites (County/State)

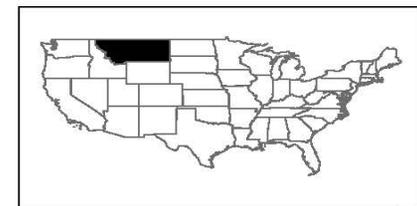
- 1 St. John's Lutheran Hospital (Lincoln, MT)
- 2 North Valley Hospital (Flathead, MT)
- 3 Clark Fork Valley Hospital (Sanders, MT)
- 4 St. Joseph Hospital (Lake, MT)
- 5 Mineral Community Hospital (Mineral, MT)
- 6 St. Luke Community Hospita (Lake, MT)
- 7 Marcus Daly Memorial Hospital (Ravalli, MT)
- 8 Granite County Memorial Hospita (Granite, MT)
- 9 Community Hospital of Anaconda (Deer Lodge, MT)
- 10 Powell County Memorial Hospital (Powell, MT)
- 11 Barrett Memorial Hospital (Beaverhead, MT)
- 12 Ruby Valley Hospital (Madison, MT)
- 13 Madison Valley Medical Center (Madison, MT)
- 14 Montana Department of Public Health and Human Servives (Lewis and Clark, MT)
- 15 Northern Rockies Medical Center (Glacier, MT)
- 16 Marias Medical Center (Toole, MT)
- 17 Liberty Medical Center (Liberty, MT)
- 18 Pondera Medical Center (Pondera, MT)
- 19 Teton Medical Center (Teton, MT)
- 20 Missouri River Medical (Choteau, MT)

- 21 Mountain View Medical (Meagher, MT)
- 22 Central Montana Medical (Fergus, MT)
- 23 Wheatland Memorial Healthcare (Wheatland, MT)
- 24 Livingston Healthcare (Park, MT)
- 25 Pioneer Medical Center (Sweet Grass, MT)
- 26 Beartooth Hospital & Health Center (Carbon, MT)
- 27 Stillwater Community Hospital (Stillwater, MT)
- 28 Roundup Memorial Healthcare (Musselshell, MT)
- 29 Big Horn Hospital Association (Big Horn, MT)
- 30 Phillips County Hospital (Phillips, MT)
- 31 Frances Mahon Deaconess Hospital (Valley, MT)
- 32 Garfield Community Health Center (Garfield, MT)
- 33 Rosebud Healthcare Center (Rosebud, MT)
- 34 Holy Rosary Healthcare (Custer, MT)
- 35 Dahl Memorial Healthcare Association (Carter, MT)
- 36 Fallon Medical Complex (Fallon, MT)
- 37 Prairie Community Hospital (Prairie, MT)
- 38 Glendive Medical Center (Dawson, MT)
- 39 McCone County Health Center (McCone, MT)
- 40 Sidney Health Center (Richland, MT)

- 41 Poplar Community Hospital (Roosevelt, MT)
- 42 Roosevelt Medical Center (Roosevelt, MT)
- 43 Daniels Memorial Hospital (Daniels, MT)
- 44 Sheridan Memorial Hospital (Sheridan, MT)

RVHAP Sites

- Recipient
- Supported Site



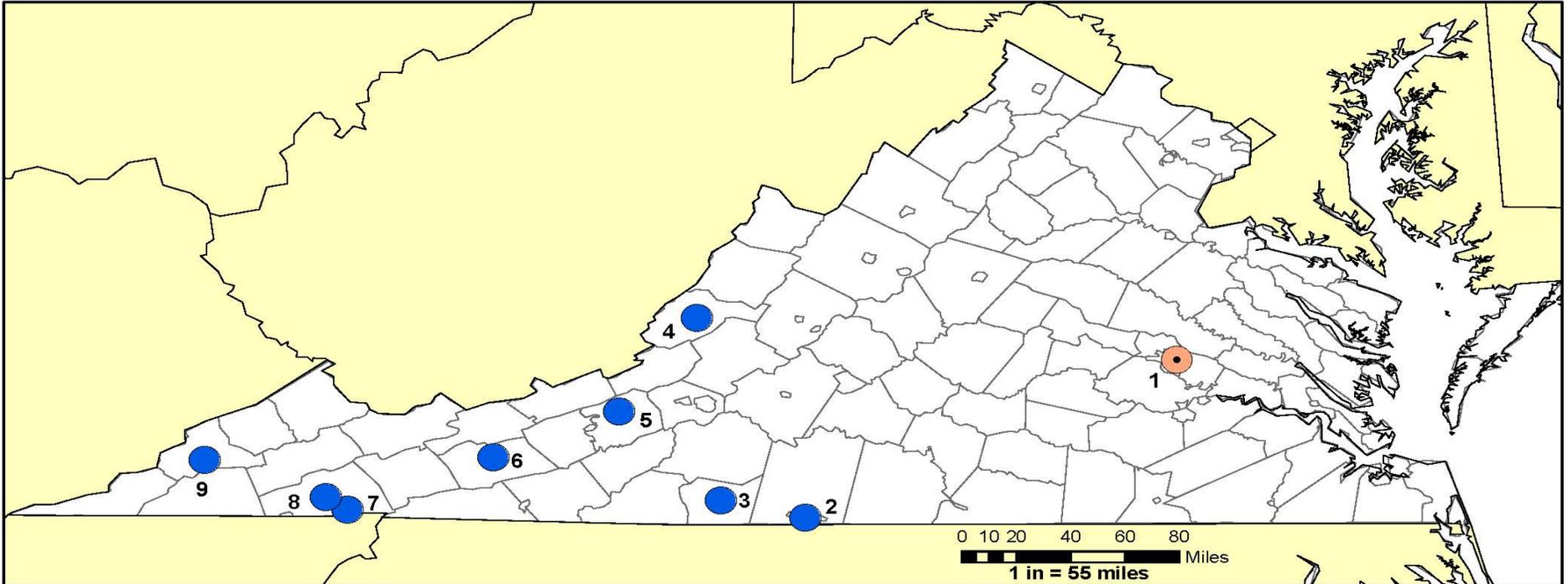
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Flex Rural Veterans Health Access Program (RVHAP)

Virginia Department of Health (FY 10-12)

Virginia Wounded Warriors Program (VWWP) Expansion

VA

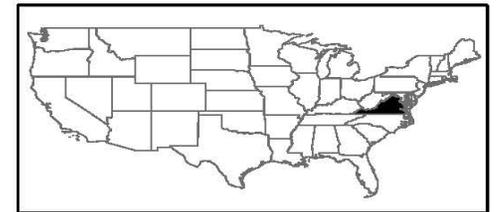


RVHAP Sites

- Recipient
- Supported Site

Sites (County, State)

- 1 Virginia Department of Health (VDH) (Richmond City, VA)
- 2 Danville-Pittsylvania CSB (Pittsylvania, VA)
- 3 Piedmont CSB (Henry, VA)
- 4 Alleghany Highlands CSB (Alleghany, VA)
- 5 New River Community Services Board (CSB) (Montgomery, VA)
- 6 Mount Rogers CSB (Wythe, VA)
- 7 Cumberland Mountain CSB (Tazewell, VA)
- 8 Highlands CSB (Washington, VA)
- 9 Planning District One CSB (Frontier Health) (Wise, VA)



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Project Descriptions

Rural Veterans Health Access Program (RVHAP)

Each OAT grantee has provided a project profile describing their network. Each profile provides an Overview, Project Goals, Outcomes/Expected Accomplishments, Network Partners, Service Area and major Equipment used to support veterans health issues throughout their states.

Interpreting Project Descriptions Headings:

Previously
Funded Award



STATE, Location County

Name of Program

Organization Name (Current Award Years)

TNGP 10-12

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*Alaska's Flex Rural Veterans Health Access Program***Alaska Department of Health and Social Services (FY13-15)**

Section of Health Planning and Systems Development
State Office of Rural Health
Post Office Box 110660
Juneau, AK 99811-0660

Principal Investigator/ Project Manager
Tracy Speier
Primary Point of Contact: Tracy Speier
Primary Point of Contact Ph: 907-269-2084
Primary Point of Contact Fax: 907-465-6861
Email: Tracy.Speier@alaska.gov

<http://dhss.alaska.gov/dph/HealthPlanning/Pages/about.aspx>

Overview:

This is a demonstration project to increase access to health care, specifically mental health services, through the use of telebehavioral health technology, in rural and remote communities in southeast Alaska (SE AK).

Project Goals:

- Implement demonstration project that provides access to and increases the delivery of quality mental health service and other healthcare services to Veterans in remote communities in southeast Alaska through (1) the development and deployment of a telehealth network, (2) use of electronic health information exchange, and (3) in-person and on-line health provider training/distant learning.
- Increase the number of veterans enrolled in VA benefits within demonstration area.
- Identify where and how existing networks such as: the state hospital and primary care associations, rural and critical access hospitals (CAH), federal qualified health centers (FQHC), community mental health centers (CMHC), community health centers (CHC) and other stakeholders can be improved, expanded, or can be linked to increase access to services that meet the mental health needs of rural veterans living in the selected demonstration area in southeast Alaska.
- Consulting with the state hospital and primary care associations, community mental health centers, community health centers and other possible stakeholders for the provision of services in the development of program activities.

Outcomes Expected/Project Accomplishments:

- Increase access to behavioral health services for veterans living in rural and remote communities of SE AK by enhancing existing TBH health infrastructure and capabilities.
- Pilot the “Ax the Fax” campaign for health services between the Alaska Veterans Administration (AVA) and the demonstration site in order to introduce the use of HIPAA compliant Direct Secure Messaging between rural providers and the AVA.
- Increase the quality of BH services provided to veterans by increasing the knowledge among first responders, primary care and BH providers in SE AK about military culture, the importance of assessing for VA status, PTSD, TBI and other common BH issues among veterans.
- Establish on-line on-demand VA approved trainings for distance delivery education through the Alaska Clearinghouse for Continuing Health Education Center (Alaska CACHE) as a means of addressing high-turnover rates and on-going training needs among BH providers in rural and remote communities and increase quality of mental health services provided to veterans in rural and remote areas of the state.
- Outreach to primary care and BH providers and associations state-wide to provide information about the availability of on-line training and tools aimed at improving delivery of health care to Veterans.
- Develop a community information campaign in clinical and non-clinical settings to increase veterans’ enrollment in VA services.

- Conduct a regional analysis of non-tribal health care facilities in SE AK that are not currently VA approved vendors. Consult with Alaska State Hospital and Nursing Home Association (ASHNA) and the Alaska Primary Care Association (APCA) to encourage these clinics to become VA approved vendors, and work collaboratively with the VA, to provide information and training on how to become a VA approved vendor and bill the VA for services (at no cost to the project).

Network Partners:

- The U.S. Department of Veterans Affairs Alaska VA Healthcare System.
- The University of Alaska Anchorage, Center for Rural Health, Alaska Area Health Education and Training Center (AHEC), coordinates and facilitates health care provider trainings.
- Alaska Island Community Services (AICS), a non-tribal CHC and rural CMHC serving rural and remote communities in SE AK and provides behavioral health and medical care to the catchment area of Wrangell, Gustavus, and several communities on northern Prince of Wales Island.
- Juneau Alliance for Mental Health, Inc., a non-tribal CMHC serving rural and remote communities in SE AK and provides behavioral health services to the catchment area of Juneau, Tenekee Springs, and Elfin Cove.
- University of North Dakota School of Medicine and Health Sciences, Center for Rural Health, provides technical assistance and evaluation services.

Service Area:

Southeast Alaska, including non-tribal CHC and CMHC clinics located in the rural communities of Ketchikan, Wrangell, Sitka, and Juneau, and remote communities including Northern Prince of Wales (POW) Island, Gustavus, Elfin Cove, and Tengekke Springs

Equipment:

Establishment of connectivity where there currently is none, purchase and deployment of video conferencing equipment.

MAINE, Kennebec County
The Maine Flex Rural Veterans Health Access Program (MeRVHAP)
Maine Department of Public Health and Human Services (FY 13-15)

Rural Health and Primary Care
Maine Center for Disease Control and Prevention
Maine Department of Health and Human Services
286 Water Street, 6th Floor, SHS #11
Augusta, Maine 04333-0011
www.maine.gov/dhhs/boh/orhpc/

Principal Investigator/ Project Manager
Cari Balbo
Primary Point of Contact: Cari Balbo
Primary Point of Contact Ph: 207-287-5427
Primary Point of Contact Fax: 207-287-5431
Email: Cari.Balbo@maine.gov

Overview:

Project will leverage health information technology to improve care coordination between the Veterans Administration (VA) and non-VA providers. While Maine's statewide Health Information Exchange (HIE) connects many non-VA providers, the project will include information from Maine's VA facilities in the statewide network. Due to the rural nature of much of the State of Maine, veterans are often cared for by both VA and non-VA providers, specifically Maine's 16 critical access hospitals (CAHs) and 6 rural hospitals. CAHs and rural hospitals see the effective use of health information technology as essential to coordinating care across Maine's many rural providers including CAHs, Federally Qualified Health Centers (FQHCs), mental health agencies and larger tertiary care centers.

Project Goals:

- Use statewide HIE to improve care coordination for veterans seen by VA and non-VA providers.
- Provide coordinated and collaborative support to VA providers implementing HIE connections.
- Make statewide HIE records available to veterans accessing their medical information online.

Outcomes Expected/Project Accomplishments:

Using the capabilities of Maine's HIE (managed by HealthInfoNet), the MeRVHAP initiative will result in bidirectional health information exchange between Maine's VA and non-VA providers, as well as access by veterans to their personal health information managed by the HIE.

- Make the HIE available and accessible to all 20+ VA clinics and Togus VA hospital.
- Coordinate with VA Maine, work closely with VA National to establish a bidirectional connection between the HIE and the Veterans Health Information Systems and Technology Architecture (Vista).
- Promote interoperability in compliance with VA privacy and security requirements.
- Provide direct notification of veterans' use of emergency room (ER) and other services to VA and non-VA care managers.
- Establish a Steering Committee to oversee and support the program activities.
- Identify technical barriers to integration.
- Develop and implement plan for workflow support.
- Monitor usage of the HIE by VA providers.
- Coordinate HIE activity with MH and primary care integration and patient centered home initiatives.
- Build mechanism for veterans to access their information contained in the HIE based on national standards.
- Support using established standards to allow VA patients to access their HIE records from within the VA "My HealtheVet" tools currently available to them.

Outcomes Expected/Project Accomplishments:

- Establish a bidirectional HIE connection to all 9 Maine VA clinics and Togus VA hospital.
- Electronically notify a veteran's care managers in real-time when the veteran uses certain services.

- Coordinate HIE activity with MH and primary care integration and patient centered home initiatives.
- Build mechanism for VA patients to access their HIE records from within the VA “My HealtheVet” tool.

Network Partners:

- 16 Critical Access Hospitals,
- 7 Federally Qualified Health Centers,
- The VA Maine Healthcare System, and
- 6 Mental Health Agencies.

Service Area:

- Although all providers (close to 450 sites) connected to the HIE will benefit from this project, it will focus on Maine’s CAHs, FQHCs, VA healthcare facilities and select mental health agencies.
- Counties served are all 16 in Maine including Androscoggin, Aroostook, Cumberland, Franklin, Hancock, Kennebec, Knox, Lincoln, Oxford, Penobscot, Piscataquis, Sagadahoc, Somerset, Waldo, Washington and York.

Equipment:

- HealthInfoNet’s HIE software and hardware.
- The VA Health Information Systems.

Increase Services to Montana's Veterans through Training, Team Building and Technology

Montana Department of Public Health and Human Services (FY 13-15)

Addictive and Mental Disorders Division
Post Office Box 202905
Helena, MT 59620-2905
<http://dphhs.mt.gov/amdd/>

Principal Investigator/ Project Manager
Deb Matteucci
Primary Point of Contact: Deb Matteucci
Primary Point of Contact Ph: 406-444-2013
Primary Point of Contact Fax: 406-444-4435
Email: dmatteucci@mt.gov

Overview:

Project increases access to health care services, including crisis intervention, for veterans in rural Montana through enhanced screening, improved clinical care, coordination of resources, increased enrollment in VA healthcare services and telehealth technology deployment. Training is provided to rural health care professionals and first responders on the identification and treatment of post-traumatic stress disorder, traumatic brain injury, suicide prevention and intervention, clinical nursing assessments, jail diversion and appropriate referral protocols. Coordination of statewide services is achieved through development of an online resource guide for behavioral health, employment, housing, veteran benefit and health care services into one central web portal for veterans, service members and families.

Project Goals:

1. Increase access to services, including crisis intervention, through training and education.
2. Improve screening, detection and treatment of post-traumatic stress disorder, traumatic brain injury and other combat related injuries and illnesses.
3. Increase referrals to U.S. Department of Veterans Affairs (VA) facilities and programs.
4. Reduce stigma and mobilize local coalitions to coordinate community resources.
5. Expand capacity of critical access hospitals to utilize existing telehealth networks and explore electronic health records exchange opportunities for rural veterans minimizing travel.

Outcomes Expected/Project Accomplishments:

1. Measure number of professionals trained: = 1,697 people project to date.
2. Measure enrollment of veterans enrolled in VA healthcare services: FY 09 (base year) = 44,498. FY 12: 46,440 (4% increase) FY 13 – TBD.
3. Measure # critical access hospitals with telemedicine capacity: = 35 system upgrades/ 8 complete systems. Total impact 43 CAHs now have 24/7 telemedicine capacity.
4. Measure # media impressions to decrease stigma & prevent suicide = TV/Radio – 688 impressions; Social Media: 13,427,681 impressions (reach 995,230).

Network Partners:

The VA, MT National Guard, MT Department of Military Affairs, MT Department of Labor & Industry, MT Department of Justice (Law Enforcement Academy); MT Hospital Association/ Montana Health Research and Education Foundation; MT Statewide Suicide Prevention Office.

Service Area:

Twenty-one rural counties with an average population density of adult veterans that exceeds both state (16.2%) and national (9.6%) ratios (approximately 34,000 MT veterans). In addition, numerous program initiatives are deployed for statewide impact and serve more than 108,000 veterans. Targeted counties include: Lake, Sanders, Lincoln, Mineral, Flathead, Valley, Daniels, McCone, Custer, Prairie, Dawson, Ravalli, Deer Lodge, Powell, Granite, Fergus, Meagher, Judith Basin, Musselshell, Chouteau and Wheatland.

Equipment:

Polycom Premium HDX7000 series, Polycom Practitioner Telehealth Carts, Polycom RealPresence Practitioner Cart 8000, HDX Practitioner Telehealth cart series, HDX8K Codec, camera, battery power system, LCD TV monitors, microphones, video conferencing camera shelves and mobile carts.

VIRGINIA, Richmond City
Virginia Wounded Warrior Program (VWWP) Expansion
Virginia Department of Health (FY 10-12*)

Minority Health & Public Health Policy
Primary Care & Rural Health
Virginia Wounded Warrior Program
109 Governor Street; Ste. 1016-East
PO Box 2448
Richmond, Virginia 23218-2448
www.vdh.virginia.gov/OMHHE/index.htm
www.wearevirginia veterans.org/

Principal Investigator/ Project Manager
Catherine A. Wilson
Primary Point of Contact: Catherine A. Wilson
Primary Point of Contact Ph: 804-371-4675
Primary Point of Contact Fax: 804-864-7440
Email: dmatteucci@mt.gov
Catherine.wilson@dvs.virginia.gov

Overview:

Project supports the establishment of an integrated, comprehensive and responsive system of services for veterans, Guardsmen and Reservists not in active federal service with combat/operational stress conditions or traumatic brain injury and their families through a network of public and private partnerships.

Project Goals:

- Improve access to quality and equitable behavioral healthcare, crisis intervention and primary care services to meet the needs of veterans and families in southwest Virginia.
- Provide timely assessment and referral to treatment
- Expand the VWWP Southwestern Virginia (Region III) existing network of providers via partnerships and coalitions with critical access hospitals, rural health clinics, home health agencies, Community Services Boards (CSBs), telehealth providers and network/private providers.
- Work with VWWP at the state level to consult with Virginia Hospital and Healthcare Association (VHHA), the Virginia Department of Health (VDH), the Virginia Association of Community Services Boards (VACSB) and other regional and statewide organizations for the development and expansion of health services in the region.
- Deploy telehealth networks with the goal of treating illness and disabilities of Veterans, particularly with respect to mental healthcare. The project will coordinate rural veterans care between rural providers and the Department of Veterans Affairs.
- To support ongoing efforts to develop electronic health records that are interoperable with the VA VISTA system by participating in Connect Virginia and the Virtual Lifetime Electronic Record (VLER).

Outcomes Expected/Project Accomplishments:

Electronic Health Records (EHRs)

- Cumberland Mountain Community Services Board (CSB) contracts directly with Salem Veterans Administration Medical Center (VAMC) to provide Telepsychiatry to veterans. Clinical information is shared between VAMC doctors and the VWWP Veterans Resource Specialist through a contract between the CSB and Salem VAMC.
- Veterans Resource Specialists within Alleghany Highlands CSB, Danville/Pittsylvania CSB, Piedmont CSB, New River CSB, Mount Rogers CSB, Highlands CSB, Planning District One CSB, Cumberland Mountain CSB, and Dickenson County CSB all work with either Salem VAMC, Beckley VAMC, or Mountain Home VAMC to provide veterans with care coordination. Standard VAMC release forms are signed by the veteran to allow sharing of clinical information.

** Indicates recipient is in an extension period*

Sites where linkages and sharing of clinical information with the VA is planned and types of sharing.

- Blue Ridge Behavioral Health (Roanoke and surrounding areas)
- Alleghany Highlands, Piedmont, Mount Rogers and Planning District to contract with Salem or Mountain Home VAMC through a Telehealth program.

Telehealth – Telepsychiatry

- Cumberland Mountain Community Services Board - Counties covered: Buchanan, Russell, Tazewell – Currently providing Telepsychiatry through a contract with Salem VAMC. Averaging 40 veterans per month. Upgraded equipment will be purchased.

Sites to be added:

- Alleghany Highlands Community Services Board - Counties covered – Alleghany and the City of Covington. – Negotiating contract with Salem VAMC to provide Telepsychiatry. Equipment purchase will occur once contract is finalized.
- Mount Rogers Community Services Board - Counties covered: Bland, Carroll, Grayson, Smyth, Wythe, and the City of Galax – Equipment purchased
- New River Valley Community Services – Counties covered: Floyd, Giles, Montgomery, Pulaski, and the City of Radford – Equipment to be purchased in May of 2013.
- Piedmont Community Services Board - Counties covered: Franklin, Henry, Patrick and the City of Martinsville – Equipment purchased
- Planning District One Community Services Board, Big Stone Gap, VA. - Counties covered: Lee, Scott, and Wise. – Equipment purchased

Network Partners:

Salem VAMC (Salem, VA), Alleghany Highlands Community Services (Covington, VA), Cumberland Mountain Community Services (Cedar Bluff, VA), Mount Rogers Community Services (Wytheville, VA), Piedmont Community Services (Martinsville, VA), New River Valley Community Services (Blacksburg, VA). Mountain Home VAMC (Johnson City, TN).

Service Area:

Covering the counties of Alleghany, Bland, Buchanan, Carroll, Dickenson, Floyd, Franklin, Giles, Grayson, Henry, Lee, Montgomery, Patrick, Pittsylvania, Pulaski, Russell, Scott, Smyth, Tazewell, Washington, Wise, Wythe and the cities of Covington, Danville, Galax, Martinsville, and Radford.

Equipment:

Alleghany Highlands, Cumberland Mountain, Mount Rogers and Planning District One:

- Polycom RMX 1500 bridge, Prime Call Maintenance, Polycom RMX 1500 interface card, Prime Call Maintenance for card.

New River Valley Community Services:

- 2 - Cisco Tandberg ex90, 2-12 months of Cisco's Cloud based bridge service, 2-12 months of dedicated T-1 service.

Piedmont Community Services

- T-1 Installation, EX90

Licensure Portability Grant Program

The LPGP program is a competitive grant program that provides support for State professional licensing boards to carry out programs under which licensing boards of various States cooperate to develop and implement policies that will reduce statutory and regulatory barriers to telemedicine across multi-jurisdictional areas. (HRSA Activity Code H1M)

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Project Descriptions

Licensure and Portability Grant Program (LPGP)

Each OAT grantee has provided a project profile describing their project. Each profile provides an Overview, Project Goals, Outcomes/Expected Accomplishments, Network Partners, Service Area and major Equipment used to enhance provider credentialing and licensing across multi-state jurisdictions.

Interpreting Project Descriptions Headings:

Previously
Funded Award



TNGP 10-12

STATE, Location County

Name of Program

Organization Name (Current Award Years) _____

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GEORGIA, Fayette County
Licensure Portability Grant Program
Association of State and Provincial Psychology Boards (ASPPB)

Association of State and Provincial Psychology Boards
170 Greencastle Road
Tyrone, GA 30290
<http://asppb.net>

Principal Investigator/ Project Manager
Stephen T. DeMers, Ed.D.
Primary Point of Contact: Janet Orwig
Primary Point of Contact Ph: 678-216-1175
Primary Point of Contact Fax: 678-216-1176
Email: jorwig@asppb.org

Overview:

The project entails the development and implementation of an online universal application, the Psychology Licensure Universal System (PLUS), which can be utilized by all psychology licensing boards in order to provide a mechanism to streamline the psychology licensure process as well as facilitate the use of technology in expanding access to care for underserved populations. B. Specific services include the gathering and primary source verifying of all credentials necessary for a psychologist to become licensed. C. Future funding will be used to expand the use of the PLUS as the means for licensure into additional states.

Project Goals:

- A. Reduce the time involved in processing psychology licensure applications by state psychology boards;
- B. Reduce the workload of psychology board staff by having ASPPB compile all licensure information prior to submitting to the licensing board for review;
- C. Provide primary source reviewed credentials to the licensing boards; and
- D. Provide resources to small state boards allowing them to utilize the same stringent requirements of boards with more funding.

Outcomes Expected/Project Accomplishments:

- A. Online application finalized (application has been developed and being pilot tested);
- B. All psychology licensing boards familiar with the PLUS by year end (surveys); and
- C. Four states piloting the PLUS by end of the first year. (Currently, 3 states piloting).

Network Partners:

Mississippi Board of Psychology; State of Nevada Board of Psychological Examiners, Oklahoma Board of Examiners of Psychologists, North Dakota Board of Psychologist Examiners and Advance Computer Technologies (software development of the PLUS).

Service Area:

ASPPB Tyrone, Georgia; Fayette County, North Dakota
Psychology Licensure: Mississippi, Nevada and Oklahoma.

Equipment:

Dell MD3200q SAN configured with raid 5 and 1 hot spare NS1 Server with Cisco ASA 5510 Firewall running ESX.

*Medical Licensure Portability to Facilitate Multi-State Telehealth Practice***Federation of State Medical Boards of the United States, Inc. (FSMB)**

Federation of State Medical Boards of the United States, Inc. Principal Investigator/ Project Manager
400 Fuller Wisser Road, Suite 300 Todd Phillips
Euless, TX 76039-3856 Primary Point of Contact Ph: 817-868-4056
www.fsmb.org Primary Point of Contact Fax: 817-868-4097
Email: tphillips@fsmb.org

Overview:

The purpose of this project is to reduce the redundancies that complicate and delay the process of obtaining medical licensure in multiple jurisdictions and to promote the utilization and expansion of telehealth services across state lines while not compromising the level of protection for patients that is provided by state licensure. The aim is to support state medical boards to improve established infrastructure and to identify and develop innovative means to increase inter-state license portability of physicians and physician assistants. This will be achieved by further improving timeliness and efficiency of the licensure process, increasing utilization and enhancements for the Uniform Application, building upon improvements in the Federation Credentials Verification Service to reduce credentialing redundancies among licensure jurisdictions, as well as working with state boards to develop and test licensure models to facilitate multi-state practice.

Project Goals:

Increase utilization and further enhance the Uniform Application (UA), build upon recent improvements in FCVS to reduce credentialing redundancies amongst licensure jurisdictions and to work with state medical boards to develop and test licensure models to facilitate multi-state practice.

Outcomes Expected/Project Accomplishments:

Reduced amount of time and paperwork required to issue a license. Enhanced online uniform application used by physicians to apply for licensure in multiple states. Increased utilization of centralized credentials verification process by state medical boards and physicians.

Network Partners:

State medical boards: Idaho, Indiana, Iowa, Kansas, Maine, Massachusetts, Minnesota, Montana, Nevada, New Hampshire, New Mexico, Ohio, Oklahoma, Rhode Island, South Dakota, Vermont, Washington, Wyoming; Administrators in Medicine; American Academy of Physician Assistants; University of Maine.

Service Area:

Physicians in all states and DC are potentially beneficially impacted by grant related initiatives. In particular, Idaho, Indiana, Iowa, Kansas, Maine, Massachusetts, Minnesota, Montana, Nevada, New Hampshire, New Mexico, Ohio, Oklahoma, Rhode Island, South Dakota, Vermont, Washington and Wyoming comprise the primary service area.

Equipment:

Not applicable.

Previously Funded Grantees

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Previously Funded Programs

Telehealth Network Grant Program (TNGP)

FY 2010-12 Grantees

State	Name	Previously Funded
CA	Regents of the University of California Davis Children's Hospital	-
GA	Ware County Health Department	TNGP 03-05, 06-08
IN	Union Hospital, Inc.	-
LA	Building Health Communities	-
ME	Eastern Maine Medical Center	TNGP 06-08
SD	Avera Health	TNGP 03-05

Telehomecare Grant Program (THC)

FY 2010-12 Grantees

State	Name	Previously Funded
IL	St. John's Hospital of the Third Order	-
NC	Roanoke Chowan Community Health Center, Inc.	-
UT	University of Utah	-

Telehealth Network Grant Program (TNGP)

FY 2009-11 Grantees

State	Name	Previously Funded
AR	University of Arkansas for Medical Sciences	TNGP 06-08
ID	St. Alphonsus Regional Medical Center	-
KS	University of Kansas Medical Center	TNGP 03-05, 06-08
MS	Delta Health Alliance, Inc.	-
MT	Billings Clinic Foundation	-
MT	St. Vincent Healthcare Foundation	-
NE	NE Hospital Association Research and Education Foundation	-
OK	Sequoyah County – City of Sallisaw Hospital Authority	-
TN	Community Health Network	-
VA	University of Virginia	-
WI	Marshfield Clinic Telehealth Network	TNGP 03-05, 06-08

Telehomecare Grant Program (THC)

FY 2009-11 Grantees

State	Name	Previously Funded
AK	Alaska Native Tribal Health Consortium	-
IA	Iowa Chronic Care Consortium	-
NC	FirstHealth of the Carolinas	-
OR	Asante Health System	-
TN	Mountain States Health Alliance	-

Previously Funded Programs

Telehealth Network Grant Program (TNGP)

FY 2006-08 Grantees

State	Name	Previously Funded
AR	University of Arkansas for Medical Sciences	-
CA	Northern Sierra Rural Health Network	-
GA	Ware County Board of Health	TNGP 03-05
HI	The Queen's Medical Center	-
ID	Public Hospital Cooperative, Inc.	-
IL	Illinois Department of Human Services	-
KS	University of Kansas Medical Center	TNGP 03-05
ME	Eastern Maine Healthcare Systems	-
MN	Tri-County Hospital, Inc.	-
NC	Duke University Medical Center	TNGP 03-05
OH	Children's Hospital Medical Center of Akron	-
WA	University of Washington	-
WI	Marshfield Clinic Telehealth Network	TNGP 03-05

Telehomecare Grant Program (THC)

FY 2006-08 Grantees

State	Name	Previously Funded
MO	Citizens Memorial Hospital District	-
MT	Saint Patrick Hospital & Health Foundation	-
PA	Home Nursing Agency & Visiting Nurse Association	-

Telehealth Network Grant Program (TNGP)

FY 2003-05 Grantees

State	Name	Previously Funded
AZ	Arizona Board of Regents, University of Arizona	-
GA	Ware County Health Department	-
KS	University of Kansas Medical Center	-
KY	University of Kentucky Research Foundation	RTGP 97-99
ME	Regional Medical Center at Lubec	RTGP 00-02
MN	University of Minnesota	-
MT	Benefis Healthcare Foundation	-
NC	Duke University Medical Center	-
NM	University of New Mexico Health Sciences Center	-
OH	Southern Consortium for Children	-
SD	Avera Health	-
TN	University of Tennessee Health Science Center	-
TX	University of Texas Health Science Center at San Antonio	-
WI	Marshfield Clinic Telehealth Network	-

Previously Funded Programs

Telehealth Resource Center Grant Program (TRC)

FY 2010-12 Grantees

State	Name	Previously Funded
AR	University of Arkansas for Medical Sciences	-
GA	Georgia Partnership for Telehealth, Inc.	-
HI	University of Hawai'i at Manoa	-
KS	University of Kansas Medical Center Research Institute	-

Telehealth Resource Center Grant Program (TRC)

FY 2009-11 Grantees

State	Name	Previously Funded
AZ	Arizona Board of Regents, the University of Arizona	-
CA	California Telemedicine & eHealth Center	TRC 06-08
DC	Center for Telehealth & E-Health Law	TRC 06-08
MN	Regents of the University of Minnesota	-
MT	Saint Vincent Healthcare Foundation	TRC 06-08

Telehealth Resource Center Grant Program (TRC)

FY 2006-08 Grantees

State	Name	Previously Funded
CA	California Telemedicine & eHealth Center	-
DC	Center for Telehealth & E-Health Law	-
ME	Regional Medical Center at Lubec	TNGP 03-05
MI	Marquette General Hospital, Inc.	-
MT	Saint Vincent Healthcare Foundation	-
SD	Avera Health	TNGP 03-05

Licensure Portability Grant Program (LPGP)

FY 2009-2011 Grantees

State	Name	Previously Funded
TX	Federation of State Medical Boards of the United States, Inc.	LPGP 06-09

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Acronyms And Glossary

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Acronyms

ADSL	Asymmetrical Digital Subscriber Line
ATM	Asynchronous Transfer Mode
BRI	Basic Rate Interface
CATV	Cable television
Dental HPSA	Dental Health Professional(s) Shortage Area
DSL	Digital Subscriber Line
DDN	Defense Data Network
DS	Digital telecommunications channels
Gbps	Gigabits per second
HF	High frequency
HPSA	Health Professional(s) Shortage Area
IP	Internet Protocol
ISDN	Integrated Services Digital Network
K	Kilo
Kbps	Kilobits per second
LAN	Local Area Network
MAN	Metropolitan Area Network
MB	Megabyte
Mbps	Megabits per second
MCU	Multipoint control unit
MHPSA	Mental Health Professional(s) Shortage Area
Mhz	Megahertz
MUA	Medically Underserved Areas
MW	Microwave
OC	Optical Carrier
PACS	Picture Archiving and Communications System
POTS	Plain Old Telephone Service
PRI	Primary Rate Interface
TCP/IP	Transmission Control Protocol/Internet Protocol
VLAN	Virtual local area network
VPN	Virtual Private Network
VTC	Video teleconference (ing)
WAN	Wide Area Network
WWW	World Wide Web

Glossary

Analog Signal

An electrical signal that varies constantly in voltage, unlike a digital signal which varies between two constant values (typically denoted as 0 and 1). The value of the analog signal varies all the time during transmission, whereas a digital signal changes only between two set values without intermediate variations.

Asymmetrical Digital Subscriber Line (ADSL)

ADSL refers to a pair of modems connected by a copper line that yields asymmetrical transmission of data.

Asynchronous Transfer Mode (ATM)

A way of transmission where a start signal precedes individual characters and one or more stop signals follow it. Due to this start/stop system, delays may occur between characters. Also denotes the complete system of protocols and equipment associated with cell-based communications networks. These networks have the ability to transmit voice, data, and video traffic simultaneously using a statistical multiplexing scheme. This type of switching is expected to bridge the gap between packet and circuit switching. ATM uses packets referred to as cells that are designed to switch cells so rapidly that there is no perceptible delay.

Audio-teleconferencing

Two-way electronic voice communication between two or more people at separate locations.

Backbone

The high-traffic density connectivity portion of any communications network. In packet-switched networks, a primary forward-direction path traced sequentially through two or more major relay or switching stations. Note: In packet-switched networks, a backbone consists primarily of switches and interswitch trunks.

Bandwidth

Measures the ability of a communications channel to carry information. The capacity of information increases relative to a higher megahertz (cycles per second) in an analog transmission, and in megabits/second (Mbps) for digital transmission.

Basic Rate Interface (BRI)

An ITU-T Integrated Services Digital Network (ISDN) multipurpose user interface standard that denotes the capability of simultaneous voice and data services provided over two clear 64 kilobits/second (Kbps) channels and one clear 16 kbps channel (2B+D) access arrangement to each user location.

Bit

Binary digit, the smallest possible unit of information making up a character or a word in digital code processed by computers.

Bridge

Device connecting two separate networks at the OSI Data Link Layer (Level Two Media Access Control Layer). Once bridging is accomplished, the bridge makes interconnected LANs look like a single LAN, passing data between the networks and filtering local traffic. There are two key classifications of bridge: those supporting Spanning Tree and, for Token Ring networks, those supporting Source Routing. Bridges connect networks using dissimilar protocols and do not interpret the data they carry. They control network traffic and security, filtering where necessary to boost network, performance and contain sensitive data to particular LAN areas.

Broadband

A general term for a telecommunications medium of sufficient capacity to transmit high quality voice, data, and video transmissions. Broadband has been defined in many ways; e.g., a Wide Area Network (WAN) providing bandwidth greater than 45 Megabits/sec (T3); voice, data, and/or video communications at rates greater than 1.544 Megabits/sec (T-1), but has been Federally defined as data transmission each way, of 200 kilobits/second or more.

Bundle(d)

A group of optical fibers or electrical conductors, such as wires and coaxial cables, usually in a single jacket. *Note:* Multiple bundles of optical fibers or electrical conductors may be placed in the same cable.

Byte

A string or cluster of eight bits to represent a character.

Cable

An assembly of one or more insulated conductors, or optical fibers, or a combination of both, within an enveloping jacket. Note 1: A cable is constructed so that the conductors or fibers may be used singly or in groups. Note 2: Certain types of communications cables, especially long submarine cables but also terrestrial cables, whether the communications media are metallic or optical fiber, may contain metallic conductors that supply power to repeaters (amplifiers).

Cable Modem

In CATV systems, a bidirectional high-speed digital communications interface located on a subscriber's or user's premises and used, for example, for Internet access or other digital communications.

Cable television (CATV)

A transmission system that distributes broadcast television signals and other services by means of a coaxial cable.

Codec

A "code/decode" electrical device that converts an analog electrical signal into a digital form for transmission purposes and then converts it back at the other end.

Dedicated T1

A permanent telephone line reserved exclusively for one patient, accessible during all hours of the day. These lines usually offer better quality than standard telephone lines, but may not significantly augment the performance of data communications. May also be known as "leased," or "private" lines.

Defense Data Network (DDN)

Used generally to refer to Milnet, Arpanet and the TCP/IP protocols those networks use. More specifically refers to Milnet and associated parts of the connected Internet that link military installations.

Dental Health Professional(s) Shortage Area (Dental HPSA)

An area that meets the following three criteria: 1. The area is a rational area for the delivery of dental services. 2. One of the following conditions prevails in the area:(a) The area has a population to full-time-equivalent dentist ratio of at least 5,000:1, or(b) The area has a population to full-time-equivalent dentist ratio of less than 5,000:1 but greater than 4,000:1 and has unusually high needs for dental services or insufficient capacity of existing dental providers. 3. Dental professionals in contiguous areas are over-utilized, excessively distant, or inaccessible to

the population of the area under consideration (*See*
<http://bhpr.hrsa.gov/shortage/hpsas/designationcriteria/dentalhpsacriteria.html>)

Digital Subscriber Line (DSL)

In Integrated Services Digital Networks (ISDN), equipment that provides full-duplex service on a single twisted metallic pair at a rate sufficient to support ISDN basic access and additional framing, timing recovery, and operational functions. Note: The physical termination of the DSL at the network end is the line termination; the physical termination at the customer end is the network termination.

Digital telecommunications channels (DS)

These channels are capable of transmitting high volume voice, data or compressed video signals. DS1 and DS3 are also known as T1 and T3 carriers. Transmission rates are 64 Kbps for DS0, 1.544 Mbps for DS1, and 45 Mbps for DS3.

Digitizer

A device that converts an analog signal into a digital representation of the analog signal. A digitizer usually samples the analog signal at a constant sampling rate and encodes each sample into a numeric representation of the amplitude value of the sample.

Direct Digital Imaging

Involves the capture of digital images so that they can be electronically transmitted.

DS1 (T1)

A digital carrier capable of transmitting 1.544 Mbps of electronic information; the general term for a digital carrier available for high-value voice, data, or compressed video traffic.

DS3 (T3)

A carrier of 45 Mbps bandwidth. One DS3 channel can carry 28 DS1 channels.

Duplex

A transmission system allowing data to be transmitted in both directions simultaneously.

Encryption

A system of encoding data on a Web page or e-mail where the information can only be retrieved and decoded by the person or computer system authorized to access it. Often used on the web to protect financial data.

Ethernet

A communications protocol that utilizes various types of cable at a rate of 10 Mbps.

Fiber optics

Hair-thin, flexible glass rods encased in cables that use light to transmit audio, video, and data signals.

Film Digitizer

A device that allows scanning of existing static images so that the images can be stored, manipulated, or transmitted in digital form.

Filmless Radiology

Use of devices that replace film by acquiring digital images and related patient information and transmit, store, retrieve, and display them electronically.

Fractional T1

A portion of the 1.544 Mbps (T1-aggregate) bit stream; the available fractions being determined by the type of multiplexer used to achieve the T1 aggregate bit stream.

Frame relay

Created to improve the rate of data transfer compared to previous transmission protocols, frame relay is a streamlined process of sending and acknowledging transmitted packets of data.

Full Duplex

A communication channel over which both transmission and reception are possible at the same time.

Full T1

See T1.

Gigabits per second (Gbps)

A measure of bandwidth and rate of data flow in digital transmission.

Health Professional(s) Shortage Area (HPSA)

Means any of the following which the Secretary determines has a shortage of health professional(s): (1) An urban or rural area (which need not conform to the geographic boundaries of a political subdivision and which is a rational area for the delivery of health services); (2) a population group; or (3) a public or nonprofit private medical facility (See <http://bhpr.hrsa.gov/shortage/hpsacrit.htm>).

Half-duplex

A communication channel over which both transmission and reception are possible, but only in one direction at a time.

H channel

The ISDN packet switched channel on Basic Rate Interface, designed to carry user information streams at different speeds, depending on type: H11=1536Kbit/s, H0=384Kbit/s and H12= 1920Kbit/s.

Hertz

A measure of radio frequency. One Hz = one cycle per second.

High frequency (HF)

Frequencies from 3 MHz to 30 MHz.

Image Processing

Use of algorithms to modify data representing an image, usually to improve diagnostic interpretation.

Informatics

The deployment of systems that collect, organize, and report health data to improve the quality and cost-effectiveness of health care, public health, and providers and consumers decision-making about health care management (e.g., electronic medical record, integrated health care management systems, disease tracking systems).

Integrated Services Digital Network (ISDN)

A completely digital telephone system that is slowly enjoying more popularity throughout the United States which permits the integrated transmission of voice, video, and data to users at a

higher speed than would be possible over typical telephone lines. It also provides connections to a universal network. It currently requires special installation and equipment.

Internet (1)

A group of networks that are interconnected so that they appear to be one continuous network, and can be addressed seamlessly at the Network Layer Three of the OSI model. Typical internets are built using routers, either to form a backbone network comprised of routers, or to link together LANs at the Network Layer.

Internet (2)

A collection of networks and gateways, including the Milnet and NSFNET, all using the TCP/IP protocol suite. It functions as a single, cooperative virtual network. The Internet provides universal connectivity and three levels of network services: connectionless packet delivery; full duplex stream delivery, and application level services, including electronic mail and EDI.

Internet Protocol (IP)

The messenger protocol of the TCP/IP (Transmission Control Protocol/Internet Protocol), describing software that tracks the Internet address of nodes, routes outgoing messages, and recognizes incoming messages. It facilitates the identification of the Internet Protocol Address (IP Address) of a computer or other device on the Internet (normally printed in dotted decimal form, such as 128.127.50.224).

Interoperability

The condition achieved among communications and electronics systems or equipment when information or services can be exchanged directly between them, their users, or both.

Kilo

1,000 = 10^3

Kilobits per second (Kbps)

A measure of bandwidth and rate of data flow in digital transmission. One Kbps is 1,024 kilobits per second.

Local Area Network (LAN)

A network of computers, generally small in number, whose reach is limited, typically within a building or campus, linked to allow access and sharing of data and computer resources by users. Differentiated from MAN and WAN by the size of the area, LAN is the smallest.

Medically Underserved Areas (MUA)

May be a whole county or a group of contiguous counties, a group of county or civil divisions or a group of urban census tracts in which residents have a shortage of personal health services. (see <http://bhpr.hrsa.gov/shortage/>)

Megabits per second (Mbps)

A measure of bandwidth and rate of data flow in digital transmission. One Mbps is equivalent to one million bits per second.

Mental Health Professional(s) Shortage Area (MHPSA)

An area is so designated if the following criteria are met:

- a) The area is a rational area for delivery of mental health services;
- b) Meet one of the following conditions:
 - a. a population-to-core-mental-health-professional ratio greater than or equal to 6,000:1 and a population-to-psychiatrist ratio greater than or equal to 20,000:1 or

- b. a population-to-core-professional ratio greater than or equal to 9,000:1, or
- c. a population-to-psychiatrist ratio greater than or equal to 30,000:1.
- c) The area has unusually high needs for mental health services, and has:
 - a. a population-to-core mental health professional ratio greater than or equal to 4,500:1, and a population-to-psychiatrist ratio greater than or equal to 15,000:1,
 - b. a population-to-core professional ratio greater than or equal to 6,000:1, or
 - c. a population-to-psychiatrist ratio greater than or equal to 20,000:1.
- d) Mental health professionals in contiguous areas are overutilized, excessively distant or inaccessible to residents of the area under consideration.

(See <http://bhpr.hrsa.gov/shortage/hpsas/designationcriteria/mentalhealthhpsaoverview.html>)

Metropolitan Area Network (MAN)

A network of computers whose reach extends to a metropolitan area. MANs may be used to link telemedicine applications at a data rate similar to DS1. In some cases, MANs may be used by cable companies to offer links to off-network services such as the Internet, airline reservation systems, and commercial information services, in addition to data exchange abilities. Compared to LAN and WAN, MAN is in between the two.

Megabyte (Mb)

A measure of computer storage and memory capacity. One Mb is equivalent to 1.024 million bytes, 1,024 thousand bytes, or 1.024 Kbs. However, this term is also applied to the more rounded term of 1 million bytes.

Megahertz (Mhz)

A measure of bandwidth and rate of information flow for analog transmission. One Mhz equals 10 to the sixth power cycles per second.

mHealth

Mobile application programs that run on smartphones and other mobile communications devices.

<http://www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/ConnectedHealth/MobileMedicalApplications/ucm255978.htm>

Microwave (MW)

Loosely, an electromagnetic wave having a wavelength from 300 mm to 10 mm (1 GHz to 30 GHz). Note: Microwaves exhibit many of the properties usually associated with waves in the optical regime, e.g., they are easily concentrated into a beam.

Modem (Modulator/De-modulator)

A device that translates digital signals to pulse tone (analog) signals to enable transmission over telephone lines and reconverts them to digital form at the point of reception, thus permitting a computer to communicate with another computer over a regular telephone line. These devices are usually identified by the speed (in bits per second, or bps) of communication they permit. The higher the bps, the faster the modem.

Multipoint Control Unit (MCU)

A multipoint device, by means of which two or more audiovisual terminals may intercommunicate in a conference call. *Note:* A "principal MCU" has been assigned a superior controlling function in a call where two or more MCUs in that call are termed "satellite MCUs". The physical realization of an MCU may be such that two or more independent conferences may be set up within the same unit; logically, however, there is no relationship between these conferences; the text of this definition refers to an MCU only as a logical entity pertinent to the particular call of concern.

Network

A set of nodes, points or locations which are connected via data, voice, and video communications for the purpose of exchanging information. Interconnected telecommunications equipment used for data and information exchange. Consists of different types, LAN, MAN, and, WAN being examples.

Open Systems Architecture

A design that permits the interconnection of system elements provided by many vendors. The system elements must conform to interface standards.

Optical Carrier (OC)

The nomenclature for the line rate of the optical transmission signal.

Optical Ri

A computer storage disk used solely for large quantities (Gbs) of data.

Peripheral

Any device that is attached to a computer externally. Scanners, mouse pointers, printers, keyboards, and monitors are all examples of peripherals. Scales, blood pressure cuffs, spirometers, and glucometers are also examples.

Picture Archiving and Communications System (PACS)

A system capable of acquiring, transmitting, storing, retrieving, and displaying digital images and relevant patient data from various imaging sources, and communicating the information over a network.

Platform

The type of computer on which a given operating system or application runs; the operating system in use on a given computer; or the application program in use on a given computer and operating system. The term cross-platform may be used to characterize an application program or operating system that may be run on more than one platform.

Primary Rate Interface (PRI)

An integrated services digital network (ISDN) interface standard that is designated in North America as having a 23B+D channels, in which all circuit-switched B channels operate at 64 kb/s, and in which the D channel also operates at 64 kb/s. *Note:* The PRI combination of channels results in a digital signal 1 (T1) interface at the network boundary.

Push

In networking, to send data from a server to a client in compliance with a previous request from (via) the client, as soon as the data are available.

Real Time

The capture, processing, and presentation of data, audio, and/or video signals at the time the data is originated on one end and received at the other end. When signals are received at rates of 30 frames per second, real time is achieved.

Redundant or Redundancy

Known as fault-tolerance, in data transmission, refers to characters and bits that can be removed from a transmission without affecting the message. In data processing and data communications, it means providing backup for components: should one of them fail, the system continues to run without operation. Total redundancy is usually impractical, but organizations with mission-critical applications attempt to install a high level of redundancy on the basis that downtime loses money, or possibly lives, depending on the business.

Router

In data communications, a functional unit used to interconnect two or more networks. Routers operate at the network layer (layer 3) of the ISO Open Systems Interconnection Reference Model. The router reads the network layer address of all packets transmitted by a network, and forwards only those addressed to another network.

Satellite

An electronic retransmission instrument serving as a repeater, which is a bi-directional device used to amplify or regenerate signals, placed in orbit around the earth in geostationary orbit for the purpose of receiving and retransmitting electromagnetic **ng (Disk)** signals. It typically receives signals from a single source and retransmits them over a wide geographic area, known as the satellite's "footprint."

Server

A network device that provides service to the network users by managing shared resources. The term is often used in the context of a client-server architecture for a local area network (LAN).

Slow scan video

A device that transmits and receives still video pictures over a narrow telecommunications channel.

Store-and-forward

Transmission of static images or audio-video clips to a remote data storage device, from which they can be retrieved by a medical practitioner for review and consultation at any time, obviating the need for the simultaneous availability of the consulting parties and reducing transmission costs due to low bandwidth requirements.

Streaming

A technique for transferring data (usually over the Internet) in a continuous flow to allow large multimedia files to be viewed before the entire file has been downloaded to a client's computer.

Switch

In communications systems, a mechanical, electro-mechanical, or electronic device for making, breaking, or changing the connections in or among circuits. Also known as the process by which one transfers a connection from one circuit to another. In a computer program, a conditional instruction and a flag that is interrogated by the instruction or a parameter that controls branching and that is bound, prior to the branch point being reached.

Synchronous transmission

The process by which bits are transmitted at a fixed rate with the transmitter and receiver synchronized, eliminating the need for start/stop elements, thus providing greater efficiency.

T1 (DS1)

A type of telephone line service offering high-speed data or voice access, with a transmission rate of 1.544 Mbps. It is also known as D1.

T3 (DS3)

A digital transmission system for high volume voice, data, or compressed video traffic, with a transmission rate of 44.736 Mbps. It is also known as D3.

Telecommunications

The use of wire, radio, visual, or other electromagnetic channels to transmit or receive signals for voice, data, and video communications.

Teleconferencing

Interactive electronic communication between multiple users at two or more sites which facilitates voice, video, and/or data transmission systems: audio, audiographics, computer, and video systems.

Teleconsultation

The physical separation between multiple providers during a consultation.

Telediagnosis

The detection of a disease as a result of evaluating data transmitted to a receiving station from instruments monitoring a remote patient.

Telehealth

The use of electronic information and telecommunications technologies to support and promote long-distance clinical health care, patient and professional health-related education, public health, and health administration.

Telematics

The use of information processing based on a computer in telecommunications, and the use of telecommunications to permit computers to transfer programs and data to one another.

Telemedicine

The use of electronic communication and information technologies to provide or support clinical care at a distance. Included in this definition are patient counseling, case management, and supervision/preceptorship of rural medical residents and health professions students when such supervising/precepting involves direct patient care.

Telementoring

The use of audio, video, and other telecommunications and electronic information processing technologies to provide individual guidance or direction. An example of this help may involve a consultant aiding a distant clinician in a new medical procedure.

Telemonitoring

The process of using audio, video, and other telecommunications and electronic information processing technologies to monitor the health status of a patient from a distance.

Telepresence

The method of using robotic and other instruments that permit a clinician to perform a procedure at a remote location, by manipulating devices and receiving feedback or sensory information, that contributes to a sense of being present at the remote site and allows a satisfactory degree of technical achievement. For example, this term could be applied to a surgeon using lasers or dental handpieces and receiving pressure similar to that created by touching a patient so that it seems as though s/he is actually present, permitting a satisfactory degree of dexterity.

Transmission Control Protocol/Internet Protocol (TCP/IP)

The underlying communications rules and procedures that allow computers to interact with each other on the Internet.

Transmission Speed

The speed at which information passes over a communications channel, generally given in either bits per second (bps) or baud.

Videoconferencing

Actual-time, generally two way transmission of digitized video images between multiple locations; uses telecommunications to bring people at physically remote locations together for

meetings. Each individual location in a videoconferencing system requires a room equipped to send and receive video.

Videophone

A telephone that is coupled to an imaging device that enables the call receiver or the call originator, or both, to view one another as on television, if they so desire; a military communications terminal that has video teleconference capability, is usually configured as a small desktop unit, designed for one operator, and is a single, integrated unit.

Video teleconference (ing) (VTC)

A teleconference that includes video communications, specifically pertaining to a two-way electronic communications system that permits two or more persons in different locations to engage in the equivalent of face-to-face audio and video communications. *Note:* Video teleconferences may be conducted as if all of the participants were in the same room.

Virtual Private Network (VPN)

The provision of private voice and data networking from the public switched network through advanced public switches. The network connection appears to the user as an end-to-end, nailed-up circuit without actually involving a permanent physical connection, as in the case of a leased line. VPNs retain the advantages of private networks but add benefits like capacity on demand.

Virtual Local Area Network (VLAN)

A computer network using inter-networks as data links that are transparent for users and that do not have restrictions on protocols, so that the network has the characteristics of a local area network.

Virtual Reality

A computer-based technology for simulating visual, auditory, and other sensory aspects of complex environments to create an illusion of being a three-dimensional world. The world is designed by the computer and viewed through a special headset that responds to head movements while a glove responds to hand movements. For example, while in a virtual room a person may move their hand up in order to fly or tap to change the color of a wall.

Wide Area-Network (WAN)

Data communication networks that links together distant networks and their computers to provide long-haul connectivity between separate networks located in different geographic areas.

Wireless

Descriptive of a network or terminal that uses electromagnetic waves (including rf, infrared, laser, visible light—and acoustic energy) rather than wire conductors for telecommunications.

World-Wide Web (WWW)

The universe of accessible information, including graphics, sound, text and video accessible through the Internet. The Web has a body of software, a set of protocols and defined conventions for accessing such information, including HTML (HyperText Markup Language), the Web's software language, and TCP/IP, a family of networking protocols providing communication across interconnected networks.

Original sources for this section were no longer available. OAT provides the links below for further reference:

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