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Rural Health
INFORMATION



Introducing the Rural Telehealth Toolkit

Housekeeping

- Q & A to follow – Submit questions using Q&A area
- Slides are available at <https://www.ruralhealthinfo.org/webinars/telehealth>
- Technical difficulties please call 866-229-3239

Featured Speakers



Luciana Rocha, MPH, Principal Research Analyst at the NORC Walsh Center for Rural Health Analysis



Susan Maley, MPH, PhD, Managed the Rural Veterans Health Access Program from 2014 to 2018



David Scott, MPH, PhD, RPh, Professor of Pharmacy Practice at the School of Pharmacy, NDSU College of Health Professions



Danielle Louder, Program Director for the Northeast Telehealth Resource Center (NETRC)

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Rural Telehealth Toolkit



June 5, 2019

Luci Rocha, MPH

NORC Walsh Center for Rural Health Analysis

The Walsh Center for Rural Health Analysis

NORC AT THE UNIVERSITY OF CHICAGO



Rural Health Outreach Tracking and Evaluation Program

- Funded by the Federal Office of Rural Health Policy (FORHP)
- NORC Walsh Center for Rural Health Analysis
 - Michael Meit, MA, MPH
 - Alana Knudson, PhD
 - Alycia Bayne, MPA
- University of Minnesota Rural Health Research Center
 - Ira Moscovice, PhD
 - Amanda Corbett, MPH
 - Carrie Henning-Smith, PhD, MSW, MPH
- National Organization of State Offices of Rural Health
- National Rural Health Association

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Outreach Authority and Office for the Advancement of Telehealth

- Programs funded by the Outreach Authority of Section 330A of the Public Health Service Act seek to expand rural health care access, coordinate resources, and improve quality of care.
- The Office for the Advancement of Telehealth (OAT) promotes the use of telehealth technologies for health care delivery, education, and health information services.

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Rural Evidence-Based Toolkits

1. Identify evidence-based and promising community health programs in rural communities

2. Study experiences of these programs including facilitators of their success

3. Disseminate lessons learned through Evidence-Based Toolkits



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RURAL HEALTH
RESEARCH CENTER

Evidence-Based Toolkit on Telehealth

- Rural communities are developing, expanding, and sustaining telehealth programs.
- These programs aim to:
 - Improve Workforce Development
 - Improve Care Delivery
 - Increase Access to Care Among Specific Populations
- The toolkit is designed to disseminate promising practices and resources.

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Rural Telehealth Toolkit



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IN THIS TOOLKIT

Modules

- 1: Introduction
- 2: Program Models
- 3: Program Clearinghouse
- 4: Implementation
- 5: Evaluation
- 6: Sustainability
- 7: Dissemination
- About This Toolkit

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Rural Telehealth Toolkit



Welcome to the Rural Telehealth Toolkit. The toolkit compiles evidence-based and promising models and resources to support organizations in identifying and implementing telehealth programs to address common challenges experienced in rural communities across the United States.

The modules in the toolkit contain resources and information focused on developing, implementing, evaluating, and sustaining

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RELATED RHIhub CONTENT

[Telehealth Use in Rural Healthcare Topic Guide](#) – Provides resources and answers frequently asked questions related to telehealth in rural areas.

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Organization of the Toolkit

IN THIS TOOLKIT

Modules

- 1: Introduction
- 2: Program Models
- 3: Program Clearinghouse
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- About This Toolkit



2: Program Models

- Models for Workforce Development
- Models for Care Delivery
- Models for Specific Populations

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Models to Improve Workforce Development

1. In telehealth models that **Promote Workforce Education and Training**, rural providers use telehealth to receive face-to-face instruction, demonstrate skills they have acquired, or participate in telementoring.
2. Telehealth can also **Promote Workforce Recruitment and Retention** by allowing rural communities to implement alternative staffing models and avoid burnout.



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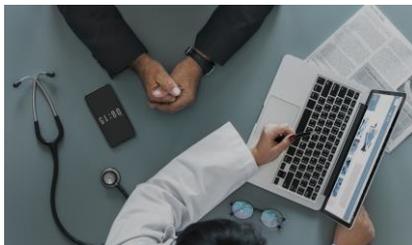
Models to Improve Care Delivery

1. Models that **Increase Access to and Engagement with Care Outside of Healthcare Settings** can involve reaching patients in their homes through remote patient monitoring.
2. Models that **Increase Access to Specialty Care** connect patients and providers to specialized medical services that may otherwise be unavailable in their community.
3. Models that **Increase Access to Pharmacy Services** help rural communities retain, restore, or gain access to timely pharmaceutical services.

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Models to Increase Access to Care Among Specific Populations

1. Models that **Increase Access to Care Among Children** use telehealth to address common pediatric health issues, including developmental conditions and dental care.



2. Models that **Increase Access to Behavioral and Mental Health Treatment** help alleviate the shortages of licensed mental health providers and lack of treatment facilities in rural areas.

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Lessons Learned

- Key barriers to telehealth in rural areas:
 - Licensing and credentialing
 - Connectivity
- Rural telehealth programs may have unique liability concerns
- Planning for sustainability during program development is critical
- Marketing telehealth programs is important for success
- Considerations for different populations

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Contact Information

Alana Knudson, PhD

Co-Director
Walsh Center for Rural Health Analysis
(301) 634-9326
knudson-alana@norc.org

Alycia Bayne, MPA

Principal Research Scientist
Walsh Center for Rural Health Analysis
(908) 431-5438
bayne-alycia@norc.org

Michael Meit, MA, MPH

Co-Director
Walsh Center for Rural Health Analysis
(301) 634-9324
meit-michael@norc.org

Luci Rocha, MPH

Principal Research Analyst
Walsh Center for Rural Health Analysis
(301) 634-9557
rocha-luciana@norc.org

Toolkit Project Team

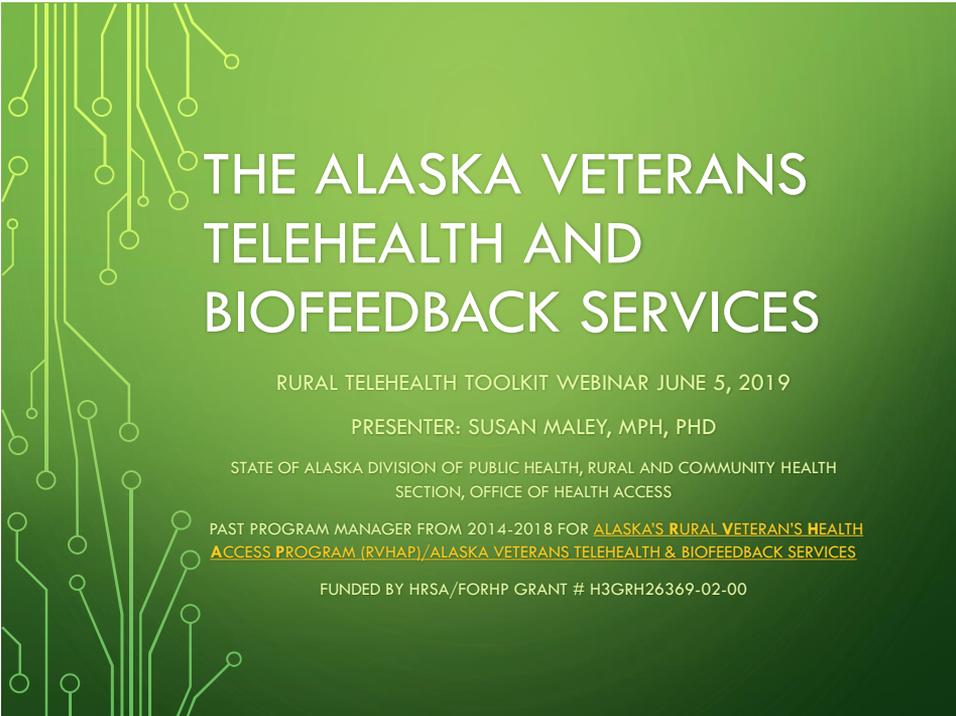
Alexa Siegfried and Molly Powers

walshcenter.norc.org  [@WalshCenter](https://twitter.com/WalshCenter)

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**THE ALASKA VETERANS
TELEHEALTH AND
BIOFEEDBACK SERVICES**

RURAL TELEHEALTH TOOLKIT WEBINAR JUNE 5, 2019

PRESENTER: SUSAN MALEY, MPH, PHD

STATE OF ALASKA DIVISION OF PUBLIC HEALTH, RURAL AND COMMUNITY HEALTH
SECTION, OFFICE OF HEALTH ACCESS

PAST PROGRAM MANAGER FROM 2014-2018 FOR [ALASKA'S RURAL VETERAN'S HEALTH
ACCESS PROGRAM \(RVHAP\)/ALASKA VETERANS TELEHEALTH & BIOFEEDBACK SERVICES](#)

FUNDED BY HRSA/FORHP GRANT # H3GRH26369-02-00

FOCUS OF THIS PRESENTATION IS THE STATE-WIDE PILOT PROJECT FOR THE 2ND FUNDING CYCLE FROM FY 16-18

CHALLENGES AND POPULATION TO BE SERVED BY PILOT PROJECT

- Rural Veterans have higher rates of mental health concerns and suicide rates and less access to services.
- Rural areas have fewer trained behavioral health providers.
- Rural communities are closely connected and that causes confidentiality concerns and lack of privacy about seeking mental health services.
- Lack of transportation contributes to less access.
- Geographic distribution of a rural population of 239,204 spread over 571,951 miles with a limited road system in Alaska contributes to rural isolation.
- Only 50% of Alaska Veterans are enrolled in the VA Healthcare System

ALASKA MAP WITH MAIN ROAD SYSTEM IN RED



CONCERNS OF VETERANS IN SEEKING PTSD AND STRESS-RELATED SYMPTOM TREATMENTS AND SERVICES

- **General stigma of 'mental health/mental illness'.**
- **Military culture's emphasis on being strong, self-reliant and able to 'be there' for your comrades.**
- **An expressed aversion by veterans to 'talk-therapy' because they:**
 - **Had previous bad experiences or were unfamiliar with it and uncertain about what would happen in counseling sessions.**
 - **Did not want to revisit traumatic experiences.**
 - **Were wary of the negative professional repercussions of having a 'mental health diagnosis' with impact on their:**
 - **Ability to own firearms.**
 - **Be employed as a 1st responder.**
 - **Security clearances if in the reserves or National Guard.**

ALASKA'S RURAL VETERANS HEALTH ACCESS PILOT PROJECT APPROACH TO ADDRESS THESE CONCERNS

- **Services were available to all rural veterans, both those enrolled in the VA healthcare system and unenrolled.**
- **Development and delivery of statewide Telehealth free 8 week stress reduction and skill building series of hourly 1 hour sessions with**
- **Contracted licensed counselors trained and certified in a specific method of building resilience biofeedback techniques. Two counselor's training and a percent of their time paid for by the RVHAP.**
- **ZOOM HIPPA-compliant software used for weekly video-conference sessions which veterans could access from their computers, tablets or smartphones**
- **Handheld Biofeedback devices provided at no-cost to each participating veteran (with emphasis that they had 'already paid' for the services and device through their military services)**

ALASKA'S RURAL VETERANS HEALTH ACCESS PILOT PROJECT APPROACH TO ADDRESS THESE CONCERNS CONTINUED

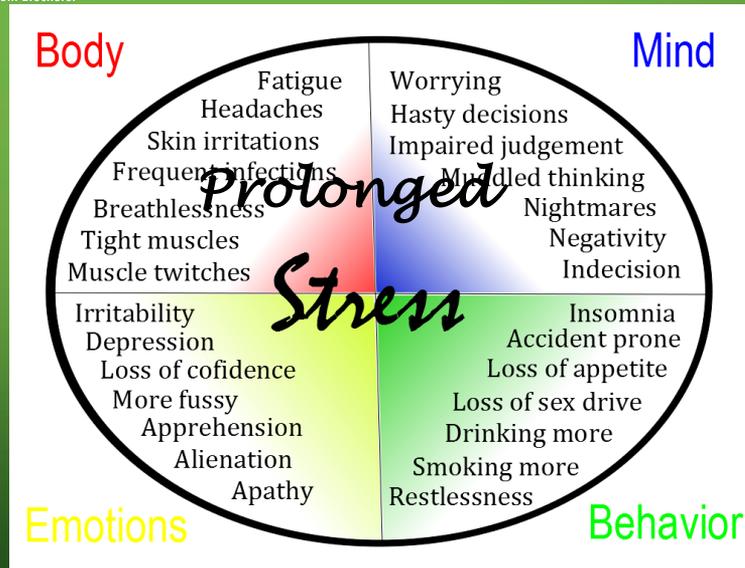
- Thorough screening procedures which were in alignment with VA Tele- Mental Health Intake screening protocols and developed in consultation with Vision 20's Director of Telehealth and VA psychologist with five year's tele-mental health experience.
- Extensive series of paid social-media sponsored posts, newspaper and radio announcements by a veteran who was the first participant in the pilot project.
- Strong emphasis on Skill building and physiological effects of stress to 'destigmatize' the process.
- NO diagnosis with a focus on issues bothering the veterans that were consistent with the spectrum of PTSD and stress-related symptoms.

NEUROBIOLOGY OF STRESS EXPLAINED TO VETERANS AND ILLUSTRATED IN PROGRAM BROCHURE

- **Trauma and prolonged stress physically & chemically alter the brain**
 - Neurons shrink, altering physical and chemical connection and communication pathways
 - Altered pathways affect thoughts, feelings, & behaviors
- **The brain operates on patterns, positive or negative**
 - The more a pattern is found, the more the pathway is reinforced, resulting in negated alternative pathways ("what fires together wires together")
 - Dysfunctional patterns created by stress can become normalized, causing re-traumatization and flashbacks
 - Lessening stress and using biofeedback as visual reinforcement can help reset previously destroyed healthy patterns

EXAMPLES OF PROGRAM MATERIALS FOCUSING ON SPECIFICS OF STRESS EFFECTS AND PROCESSES

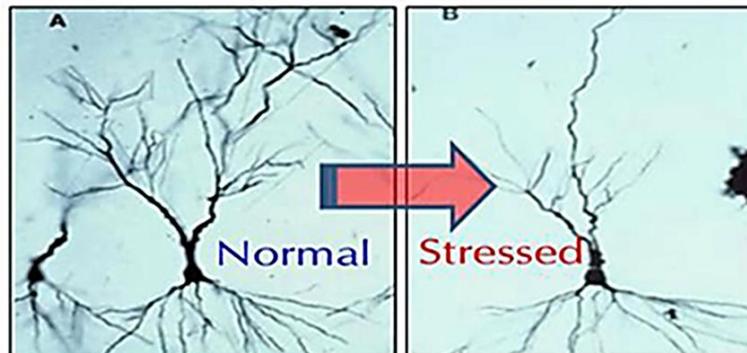
From Brochure:



REBUILDING HEALTHY NEURAL PATHWAYS

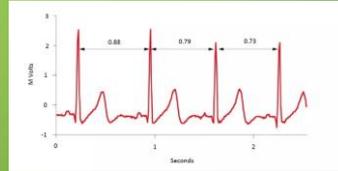
Decreasing stress allows healthy neural pathways to be regrown with the learning of new skills and enables re-patterning

Stress Shrinks Brain Networks



HOW DOES BUILDING RESILIENCE WORK USING BIOFEEDBACK TOOLS AND TECHNIQUES?

- An external visual representation of some internal process(es)
 - Thermometer
 - EEG/EKG
 - Heart Rate Variability



Enables manipulation of the internal process(es)

- Enhances individual's awareness
- Develop effective regulatory skills

WHY BIOFEEDBACK?

- **Clinically proven efficacy in reducing negative symptoms related to:**
 - Depression, anxiety, stress, PTSD and other trauma,
 - Heart disease, pain management, diabetes
 - Cognitive challenges related to ADD/ADHD, mood regulation, spiraling thoughts, etc.
- Effective at improving sleep and mood regulation
- Appropriate for use with numerous populations
 - Military personnel, first responders, those exposed to vicarious trauma, teens, children, families, couples, and groups

WHY BIOFEEDBACK, CONTINUED

- Evidence-based, non-invasive method of correction to achieve desired outcome(s)
- Can use via remote connection/telehealth, accessing un(der)served populations
- Alternative to “more meds”
- Empowering
- Not contraindicated w/ other modalities and can be combined
- Low cost, ongoing benefits that are cumulative w/ continued, regular use
- Works w/ client/patient schedule, virtually an anytime/anywhere therapy

RATIONALE FOR CHOICE OF TRAINING PROGRAM TO BUILD RESILIENCE

- The method chosen was HeartMath based on its training experience with active military and veterans. expertise with heart-rate variability monitoring devices and building resilience training. It was recommended by one of the RVHAP's Community Mental Health Center partners who used it for in-person counseling sessions.
- HeartMath Institute (HMI) offers Veteran-focused services and free resources and has been used in many military settings with documented efficacy.
- It also offered discounts on biofeedback equipment for the RVHAP program (and all veterans).

THE EQUIPMENT: INNER BALANCE OR EMWAVE2



- Connects to phone via Bluetooth then sync's to HeartCloud via WiFi
- Expansive application on phone/tablet/Kindle, includes tutorials
- Ear sensor capability only
- Enables view of *power spectrum* for clinician
- Use w/ Android or iPhone (separate purchase)
- Connects to desktop/laptop computer or stand-alone (then sync via cable)
- Can be used discretely in pocket/purse w/ thumb sensor
- Choice of ear, finger (with additional equipment) or thumb to take reading
- Games/visualizers through desktop application

PILOT PROJECT'S RESULTS

- The project was successfully integrated into contracted community mental health center's service delivery within one year and moved to the sustainability phase.
- Alaska VA strongly supported referrals to the community mental health center for the 8-week series for veteran from their primary care and mental health clinicians. The VA's [Whole Health program](#) opens reimbursement options for rural health providers as does the new [VA Anywhere to Anywhere Telehealth Initiative](#).
- In 9 months 15 veterans participated in the project with 9 completing. The other participants had all gave positive feedback but dropped out because of other medical issues, spouse's medical issues, move out of state or job time conflicts.
- All completing participants had the top two of five ratings for the benefits they experienced. Three examples follow:

VETERAN FEEDBACK ABOUT RVHAP PROGRAM & SERVICES

- Veteran who served multiple tours in Iraq:
 - Family noticed the difference in him when practicing vs. not practicing and would encourage his practice
 - Helped him with chronic pain resulting from a combat wound
 - Improved focus lost from his TBI
 - Allowed self-regulation and trigger avoidance while talking to other veterans
 - Only technique that enables self-regulation in the moment

VETERAN FEEDBACK CONTINUED

- After 3 sessions, decrease in reactivity, anger, and improved sleep after 30 years of other therapies w/o results: Veteran's quote "I've been angry for 25 years, had 15 jobs and now after 4 sessions I can sleep without taking another medication.
- Able to function in public w/o debilitating anxiety
- Able to process prior trauma, family issues, and loss of loved ones
- Successfully completed the 8 week program but continues w/ weekly biofeedback assisted therapy

VETERAN FEEDBACK CONTINUED

- A veteran who successfully completed 8 week biofeedback program reported:
 - Significantly decreased marijuana use, no longer using for coping w/ stress or pain
 - Physical pain from injuries has lessened and is not even noticeable at times
 - Anxiety and depression are decreasing and ability to self-regulate emotions has increased
 - Able to calm and regulate with and without equipment
 - Improved sleep and family relations
 - Feeling an overall sense of betterment

CHALLENGES

- **Community mental health centers deal with people in crisis on a daily basis and maintaining scheduled contacts for this project required juggling.**
- **Continued stigma and reluctance of veterans (and the general population) to seek services**
- **Development of effective outreach which is one of the necessary processes of a pilot project**
- **Lack of sufficient band-width for video counseling sessions in some rural areas where there were veterans wanting services.**

FACILITATORS

- **Strong commitment to the project from the community mental health center clinicians who developed increased coping skills from the HeartMath biofeedback training for themselves for the stresses and secondary caregiver traumas of their positions.**
- **Clinicians engagement with the project deepened when the veterans participating all made significant gains. This in turn motivated the clinicians to hone their skills.**
- **Strong support from the Alaska Veterans Healthcare System (AVHS) Director of Rural Health over the course of the project and from the AVHS Director for the biofeedback program once the veterans began reporting results.**
- **Strong support from a VA Clinical Psychologist whose patients referred for the 8 week biofeedback program made more rapid progress in their group and individual therapy sessions.**

LESSONS LEARNED

- **Listening to Veterans to learn what services they do (and do not) want is critical to construct a program that will be used and of benefit. Their input through direct contact (outreach events, focus groups, etc.) is vital. Telehealth is a mode of delivery that expands healthcare delivery but what is being delivered has to fill a perceived need and be acceptable, accessible and affordable.**
- **Developing and maintaining strong relationships with partners delivering services and referring veterans is essential.**
- **A short-term biofeedback program within a community mental health program can be assimilated into on-going services and broaden the patient base through an expansion into providing alternatives to talk-therapy.**

Webinar for FORHP Rural Telehealth Toolkit - **Wednesday, June 5 at 12 pm** (Central)

The North Dakota Telepharmacy Project

David M. Scott, BPharm, M.P.H., Ph.D.

Professor

College of Health Professions

North Dakota State University

Fargo, North Dakota

(ND Telepharmacy 2019)

<https://www.ndsu.edu/telepharmacy/>

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Telepharmacy Challenge:

- Target Population
 - ND has a population of 755,000 (2019)
 - Very rural, much is consider frontier (< 6 people/square mile)
 - ND has a rural health care crisis
- Why is telehealth necessary?
 - 26 rural community pharmacy closings
 - 12 additional pharmacies at risk of closing
 - ND pharmacist shortage - retirements - no replacement
- Above factors lead to a negative impact on rural health

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ND Telepharmacy Project

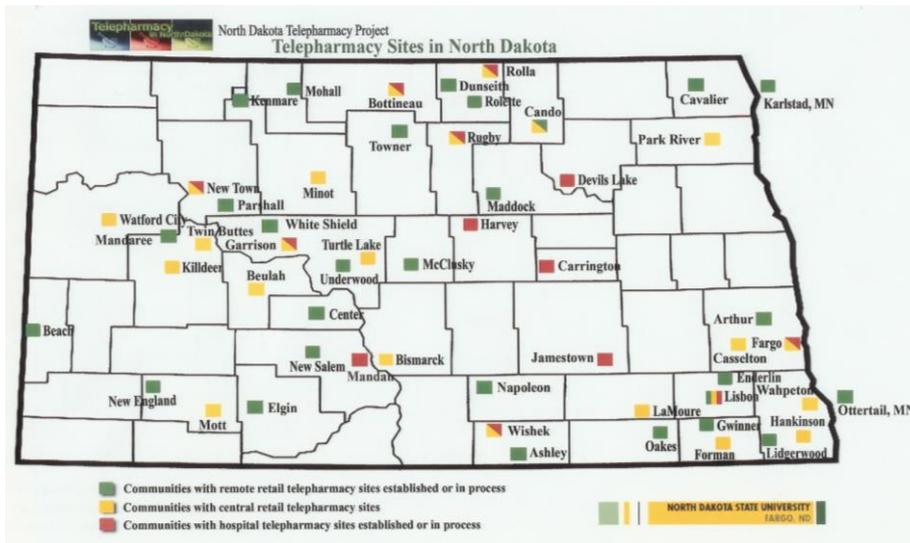
- **Program funding**
 - Funded by the Office for the Advancement of Telehealth (OAT), of the U.S. Dept. of Health and Human Services
 - First Initiated: 2002
 - Approximately \$2.5 million federal support through 2012
- **Partners (Facilitators of our success)**
 - NDSU School of Pharmacy
 - North Dakota State Board of Pharmacy
 - ND State Pharmaceutical Association
 - Licensed rural community pharmacies

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Goals of Telepharmacy Grant:

- **RESTORATION** - restore pharmacy services in rural communities which have lost their services
- **RETENTION** - retain pharmacy services in rural communities which are at risk of losing their services
- **ESTABLISH** – establish pharmacy services in rural communities which have previously not had services

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North Dakota Telepharmacy Project: A Historical Look

Fiscal Year	Sept 2002-Aug. 2003	Sept 2003-Aug. 2004	Sept 2004-Aug. 2005	Sept 2005-Aug. 2006	Sept 2008-Aug. 2009
Central Sites	4	7	11	21	24
Remote Sites	6	11	17	36	48
Total Sites	10	18	28	57	72
Retail Sites	10	18	25	44	51
Hospital Sites	0	0	3	13	21
Interstate Sites	0	0	1	2	2

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Pharmacy Technician: Remote Telepharmacy Site

- **Training Requirements:**
 - ASHP accredited training program or equivalent
 - Registered with ND Board of Pharmacy
 - Minimum of one year experience in dispensing prescriptions
 - Salaries are \$15/hour or more
- **Responsibilities:**
 - Obtains medication order from the patient
 - Enters medication order into computer
 - Performs product filling, labeling and billing
 - Operates connecting audio/video link to the central-site pharmacist
 - Uses document camera to provide digital images of the written medication order, drug, and label for verification by the pharmacist

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Pharmacist Responsibilities

- Performs final check of technician product preparation
 - Performs medication profile review
 - Performs final order verification and approval and releases medication for dispensing to patient
- Provides professional consultations to patients and physicians upon request
- Remote site visits

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Telepharmacy in a Community Pharmacy Setting

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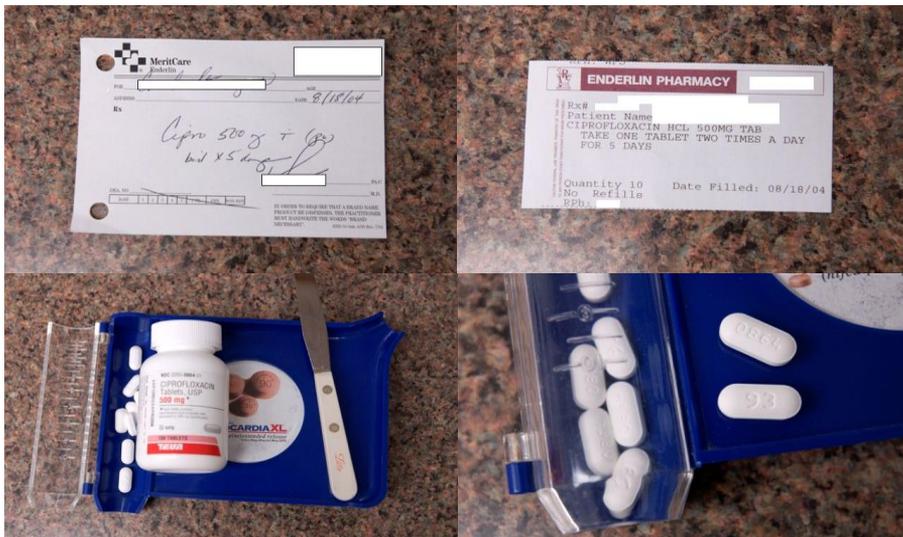
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Cost of Telepharmacy Technology

(note: 2008 technology and costs)

- Grant assisted telepharmacy start-up costs
 - 50% OAT Grant/50% ND Pharmacy owners
- Standard PC's with Pharmacy Software (**\$18,050 TOTAL COST/site**)
 - \$2,000 PC Computer, \$850 2-XGA Computer Monitors
 - \$500 Printer/Fax Machine
 - \$2,400 Dukane Document Camera
 - \$1,800 DSL Connectivity to Internet/year
 - \$1,000 Sonic Firewall
 - \$8,500 Polycom VSX 7000
 - \$1,000 Equipment Installation & Configuration

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Telepharmacy Outcomes Research

- **Economic Outcomes**
 - 2008, Cost Study: Determine Financial Viability of a Telepharmacy
 - 2017, Sustainability Study of ND Community Telepharmacy
- **Clinical Outcomes**
 - 2011, Medication Dispensing Error Study: Compare Error Rates Between Telepharmacy and Traditional Pharmacy Services
- **Humanistic Outcomes**
 - 2009, Patient Satisfaction Study: Determine the Level of Customer Satisfaction with Telepharmacy Services

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Sustainability of ND Community Telepharmacy

Scott DM, Friesner D, et al. Sustainability of Community Telepharmacy in North Dakota. *JAPhA*. 13-May-2017 DOI information: 10.1016/j.japh.2017.02.005.

Objectives: To assess the sustainability of the business model underlying the North Dakota Telepharmacy Project (NDTP).

Setting: Of the 38 community pharmacy organizations (14 central, 24 remote), 27 organizations (11 central and 16 remote sites) provided a useable set of responses (71.1% response rate). A twelfth organization (community pharmacy) ceased operations over the study's time frame and was not included in the data analysis.

Evaluation: The questionnaire was administered from December 2015 to February 2016 to all NDTP community telepharmacy owners-managers. Thus, 1 participant (owner-manager) addressed both central and remote-site locations served by a pharmacy.

Results: Most respondents reported that their telepharmacy sites (especially remote sites) generate small positive financial returns for the organization. Respondents also reported that the closure of their remote sites would significantly harm the communities they serve.

Conclusion: NDTP aims of restoration and retention have been achieved via the investment and shared decision-making with ND pharmacy owners. The telepharmacy model is sustainable, even if it does not generate significant economic profit.

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Lessons learned from ND Telepharmacy Project:

- Maintain/improve access to pharmacy services in underserved rural areas
 - Provides pharmacists relief staffing for covering routine hours, evenings, weekends, vacations, sick days, and professional meetings
 - The ABCs of pharmacy must be on the same page
 - ND community pharmacy ownership law,
 - Progressive and leadership from the Board of Pharmacy
- **Potential sites:** PHS IHS, rural states, high medical/pharmacy need areas

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Telepharmacy References

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- Scott DM, Friesner D, Undem T, Anderson G, Sem K, Peterson CD. Sustainability of Community Telepharmacy in North Dakota. *JAPhA*. 13-May-2017 DOI information: 10.1016/j.japh.2017.02.005.
- <https://www.ndsu.edu/telepharmacy/>

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Appendix A.

Telepharmacy in a Hospital Setting

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Current Challenges Facing Rural Hospitals

- 35% of rural hospitals have a pharmacist on-site for less than 40 hours each week.
 - 46% have 1.0 FTE or less pharmacist staffing
 - 33% with 0.5 FTE or less pharmacist staffing share a pharmacist with another hospital
 - 8% have a pharmacist on-site for 2 hours or less each week

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Hospital Telepharmacy Models

- A community pharmacist delivers pharmacy services to a rural hospital
- Hospital telepharmacy network – several hospitals share pharmacists staffing
- Hospital pharmacist delivers services from home
- Urban medical center with 24 hour pharmacist staffing serves a rural hospital
- Central pharmacy operation with 24 hour pharmacist staffing dedicated to supervising remote telepharmacy sites
 - Mobile telepharmacy cart

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Hospital Telepharmacy Network

Heart of America Medical Center, Rugby, ND (John Skwiera – PIC) – Central Site

Mercy Hospital, Devils Lake, ND – Remote Site (Carol Manbeck, R.Ph.)

St. Aloisius Hospital, Harvey, ND – Remote Site (Toni Bromley, R.Ph.)

Presentation Medical Center, Rolla, ND – RS (Pam Kaleva, R.Ph.)

Carrington Health Center, Carrington, ND – RS (Cindy Herk, R.Ph.)

SCCI Hospital, Mandan, ND – RS (Joan Galbraith, R.Ph.)

Towner County Medical Center, Cando, ND - RS
(Ruthann Held, R.Ph.)

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Demographics of Hospital Sites

Site	Rugby	Devils Lake	Harvey	Rolla	Carrington	Cando
Number of beds	38	50	25	25	25	20
Doses filled per month	10,000	11,000	8,500	23,000	9,000	7,000
Staffing	1 FTE RPh 1FTE Tech 1 PT Clerk	1 FTE RPh 1FTE Tech 1 PT Clerk	1 FTE RPh 1PT Tech	1 FTE RPh 1FTE Tech	1 FTE RPh 1FTE Tech	1 FTE RPh 1FTE Tech
Hours of Service	8am-4:30pm, M-F 9am-Noon, Sat. & Sun.	8:30am- 5pm, M-F	8:30am- 4:30pm, M- F	8am-5pm, M-F	8am- 5pm, M-F	8am-5pm, M-F

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Appendix B.

“Do Remote Community Telepharmacies have Higher Medication Error Rates than Traditional Community Pharmacies? Evidence from the North Dakota Telepharmacy Project”

David Scott, Dan Friesner.
North Dakota State University,
Fargo, North Dakota

Acknowledgement of Partners:
NDSU School of Pharmacy
North Dakota State Board of Pharmacy
ND State Pharmaceutical Association
Licensed rural community pharmacies

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Accuracy Rates of 50 Community Pharmacies. Implications for Community Practice

Flynn, Barker. JAPhA 2003.

- **Error Rate Implications for Community Practice**
 - 98% accuracy rate or an 2% error rate.
 - 6 errors per day in 300 Rx/day pharmacy.
 - 64 million errors on 4 billion prescriptions/year filled in U.S.
 - 4.1 million/year potentially clinically important errors.

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Components of the Pharmacy Quality Commitment (PQC) System

- **Quality Related Events (QRE)**
 - **Error**
 - Mistake that gets to the patient.
 - **Near Miss**
 - Mistake that is corrected before it gets to the patient.
- Both are important to track and analyze.

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PQC Reporting Tools



You may logout at any time without losing any of your data.

Store Open for Date: 5/13/2002

No records returned.

[Enter Audit Reports](#)
[Nothing to Report](#)
[Did Not Report](#)

Quality Management Tools



[Error % by Day of Week](#)



[What Type of Mistake Was Made?](#)



[Tabulation of Reports Submitted](#)



[Where was the mistake \(QRE\) discovered?](#)



[QRE Causes](#)



[Error New VS Refill](#)



[USP Severity Code](#)

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Peer Review Audit Form

Confidential PLEASE PRINT This audit is for Continuous Quality Improvement Peer Review Committee purposes. The information contained is confidential. PLEASE PRINT **Confidential**

TO: Peer Review Consultant & Committee
 On the date shown I/we conducted an audit of prescriptions filled at a measure of quality. I/we corrected any prescriptions found incorrect, if applicable. I/we noted the number of new prescriptions filled for the day.
 As a result of this audit, I/we found the following:

Pharmacy Name and #: _____
 Reporting Pharmacist: _____
 Day: _____ Date: _____
 Total Rx Filled: (new) _____ (refill) _____

New Rx	Refill Rx	Mistake caught during...	What type of mistake was it?	Where was the mistake made?	Received by patient? YES NO	Quality Related Event (QRE) Pharmacy Notes: What happened and why; May also note any steps that will be taken to avoid future incidents	Drug(s) Involved	
							Prescribed	Dispensed
X		1	B	12		EXAMPLE DATA ----- Pulled incorrect stock bottle from shelf; We decided to emphasize NDC check	Warfarin 2.5	Warfarin 5
		4	5	6	7	8		9
								10

Mistake caught during...
 [1] First pharmacist check
 [2] Patient check
 [3] Will-call audit
 [4] Patient Discovery
 [5] Other
 [6] Entry
 [7] Filling
 [8] Counseling
 [9] Delivery

What type of mistake was it?
 A = Wrong Drug
 B = Wrong Strength
 C = Wrong Directions
 D = Failure to Counsel
 E = Excessive Refill
 G = Generic Substitution
 K = Safety Cap
 L = Confidentiality
 O = Other (explain)
 P = Failure in Drug Review
 RD = Refill info Omitted

Where was the mistake made?
 Receiving the Rx
 1. information incomplete
 2. other (explain in column above)
 Entry Process
 3. selected wrong drug
 4. selected wrong patient
 5. selected wrong strength
 6. entered wrong directions
 7. incorrect or omitted refill information
 8. profile not attached to new scripts
 9. inappropriate response to DUR alert
 10. other (explain in column above)
 Filling Process
 11. selected wrong drug
 12. selected wrong strength
 13. placed incorrect label on container
 14. incorrect quantity
 15. mixing up order
 16. using non-safety cap w/o patient release
 17. missing or inappropriate auxiliary labels
 18. other (explain in column above)
 Pharmacists Drug Review
 19. explain in column above
 Counseling
 20. explain in column above
 Delivery
 21. bag "mix-up"
 22. wrong patient
 23. other (explain in column above)
 Telephone
 24. explain in column above
 Intervention
 25. discovered doctor error
 26. discovered nurse error
 27. other (explain in column above)

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Table 1. Medication Dispensing Mistakes

Variable	Remote Site TP	Comparison pharmacies
Total Prescriptions filled	47,078	123,346
Pharmacy-discovered QREs (mistake)	553	877
Patient-discovered QREs (mistake or error)	78	125
Total mistakes, or QREs	631	1,002
% Prescriptions that are QREs	1.34%	0.81%
% QREs that did not reached patient (“near miss”)	1.17%	0.71%
% QREs that did reached the patient (“errors”)	0.17%	0.10%

Flynn 2003 national study found an 2% average error rate for community pharmacies.

ND study reports an overall 1% average error rate (QREs = “near misses” & “errors”).

ND study reports a slight error difference between remote telepharmacy (1.3%) sites and comparison (0.8%) pharmacies.

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Conclusion

- National studies in community pharmacies show an average error rate of 2%.
 - ND Telepharmacy error rate is 1%.
- ND study reported a lower overall rate and a slight difference in medication dispensing error rates between remote telepharmacy sites and comparison pharmacies.
 - Source: Friesner DL, Scott DM, Rathke AM, Peterson CD, Anderson HA. JAPhA. 2011;51(4).

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June 6, 2019
Rural Telehealth Toolkit

**Intro: Telehealth
Resource Centers**

**Key Contacts,
Services and
Resources**



TelehealthResourceCenters.org

The map displays 14 Telehealth Resource Centers (TRCs) across the United States, each with a unique color and logo:

- NRTRC** (Northwest Rural Telehealth Resource Center) - Blue
- gpTRAC** (General Practice Telehealth Resource Center) - Green
- HTRC** (Heartland Telehealth Resource Center) - Light Green
- NETRC** (Northeast Telehealth Resource Center) - Grey
- CTRC** (California Telehealth Resource Center) - Orange
- UMTRC** (Upper Midwest Telehealth Resource Center) - Purple
- SWTRC** (Southwest Telehealth Resource Center) - Brown
- SCTRC** (South Central Telehealth Resource Center) - Red
- MATRC** (Mid-Atlantic Telehealth Resource Center) - Light Blue
- PBTRC** (Pacific Basin Telehealth Resource Center) - Light Blue
- TextLa** (Texas Telehealth Resource Center) - Green
- SETRC** (Southeast Telehealth Resource Center) - Orange
- TTAC** (Telehealth Technology Assessment Center) - Blue
- Center for Connected Health Policy** - Orange

2 National Resource Centers

12 Regional Resource Centers

Mission & Aim

The TRCs are funded by the Federal Office of Rural Health Policy (FORHP), under HRSA's Office for the Advancement of Telehealth...

Our Mission

Foster the use of telehealth technologies to provide health care information and education for health care providers who serve rural and medically underserved areas and populations.

Our Aim

Connecting rural communities and helping them overcome geographic barriers to receive quality healthcare services.





Technical Assistance
We provide expert technical assistance to help build and enhance telehealth programs across the nation. Key focus areas include but are not limited to: telehealth policy, technology, business planning, workflow, etc.

Development
We develop educational materials and resources for health systems, providers and patients. Includes: designing/executing needs assessments, identifying funding sources, and assisting with telehealth technology selection are also among our specialties.

Business strategy
We connect telehealth leaders at local, state, and federal levels to raise awareness and collaboratively produce specialized tools and templates for telehealth programs and providers.

www.netrc.org

Updated NCTRC Website



Revamped NCTRC website in 2018 - many of our resources are available here:

www.telehealthresourcecenter.org

Reaching us is easy, just use our online form!

TRC Fact Sheets



Annual Report 2018
A report on our 2018 year of service.



Framing Telehealth
There are various ways to interpret telehealth. This fact sheet will help shape your perspective.



15 Step Business Model
15 key steps for creating a business proposal to implement telemedicine.



Telehealth Policy Issues
Existing policy barriers on both federal and state levels contribute to the limited use of telehealth.

These are just a few!

www.netrc.org

NCTRC Webinar Series

Schedule

Every 3rd Thursday of the month from 2PM – 3PM (EST), the National Consortium of Telehealth Resource Centers provides a free webinar for those interested in telehealth.

Content

The TRCs have an expansive network of professionals in the field of telehealth. Monthly topics encompass diverse areas ranging from policy, business models, clinical workflow, telehealth program development, etc.





Hands-On Training



Education



Networking

Regional Conferences

TRCs host conferences year-round.

Take a look at what's coming up in your region:

<https://www.telehealthresourcecenter.org/events/>

www.netrc.org

Tips to Get Started

- Find a **champion**
- Think big, **Start small**
- Focus time, effort and \$ on **program development and a sustainable business model**, then choose technology that fits your plan
- **Keep technology simple** when possible – what fits your needs and budget?
- **Lead or support advocacy efforts** for program development and policy growth
- **Reach out** to your Telehealth Resource Center!



www.netrc.org

Contact Us



NCTRC Contact Page:

<https://www.telehealthresourcecenter.org/contact/>

Sign up for our [NCTRC Newsletter!](#)

Check out our YouTube channel: <https://www.youtube.com/c/NCTRC>

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<https://twitter.com/TheNCTRC>



Danielle Louder

Program Director, Northeast Telehealth Resource Center

Co-Director, MCD Public Health

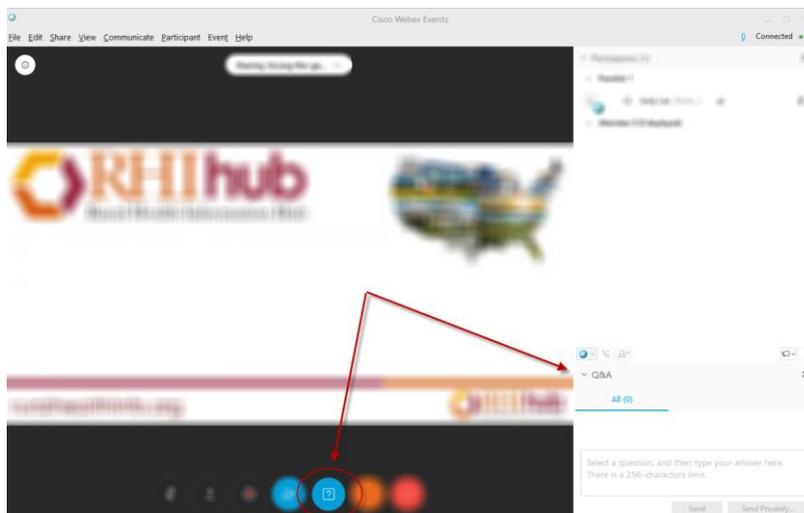
Email: DLouder@mcdph.org

Phone: 207-622-7566 ext. 225



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Questions?



ruralhealthinfo.org



Thank you!

- Contact us at ruralhealthinfo.org with any questions
- Please complete webinar survey
- Recording and transcript will be sent to you
 - Slides are available at <https://www.ruralhealthinfo.org/webinars/telehealth>

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