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## INCREASE USE AND REACH OF TELEMEDICINE FOR DELIVERY OF PRIMARY AND SECONDARY CARE

### UT CoPHII's Recommendations:

- Increase use of telemedicine to address health disparities and gaps in care coverage for rural populations.
- Identify and address community telemedicine use and acceptability to ensure reach and acceptance of telehealth care model.
- Train providers and clinical leadership to advance the use of telemedicine and telementoring across Texas.
- Develop and maintain telemedicine technology to address population health priorities, including the collection of reach and implementation data.

## INCREASE USE AND REACH OF TELEMEDICINE FOR DELIVERY OF PRIMARY AND SECONDARY CARE

### Access to Care

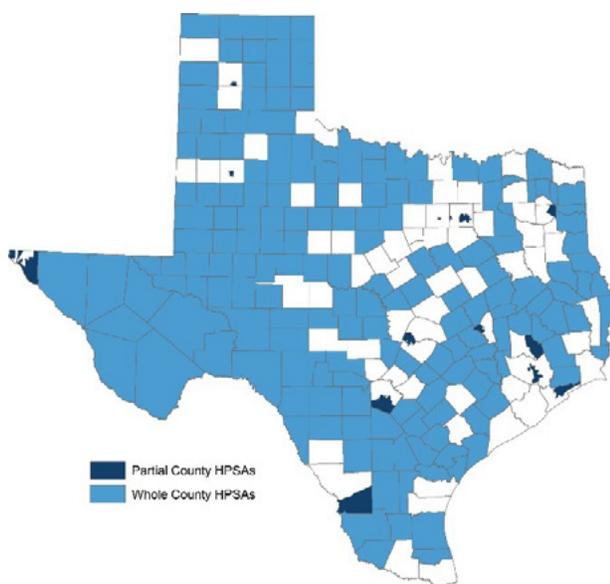
Access to quality health care continues to be a major barrier and challenge for the uninsured or underinsured. The lack of access to care contributes to disparate outcomes in Black, Hispanic and poor populations across Texas and is largely linked to place of residence and to distance from care, particularly in rural areas.

Texas is the second largest state in the United States, with 261,797

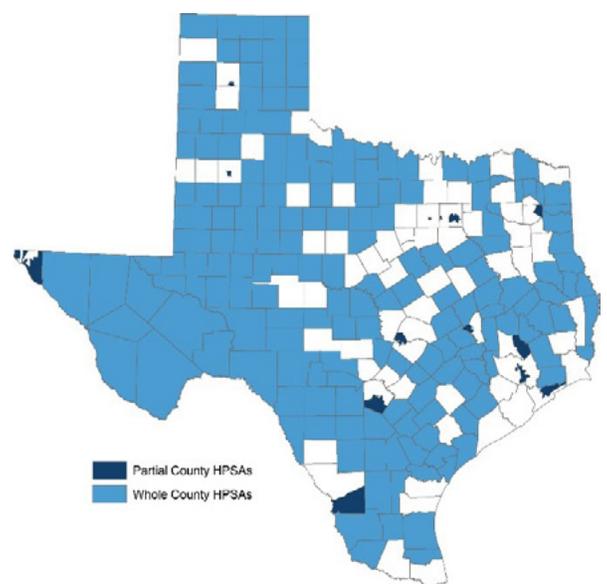
square miles of land, and is a mix of urban, rural and frontier areas. People in rural areas often must travel considerable distances for a single health care appointment. This distance from providers increases the difficulty many people have in obtaining and maintaining access to health care. This in turn can lead to more acute care needs, uncontrolled chronic illnesses, and late-stage diagnoses of cancer. In addition, the supply of health professionals relative to population is lowest in rural and border areas.

In 2017, out of the 254 counties in Texas, 179 were designated as whole county primary care Health Professional Shortage Areas (HPSAs) due to primary care doctor to patient ratios of 1:3,500 or less. Even more Texas counties (205) were designated as whole county mental health HPSAs (see Figs. 3-1 and 3-2).

In addressing these issues of access, the integration and promotion of telehealth is vital. Telehealth is an overarching term that includes both telemedicine, in which



**Fig 3-1.** In 2017, 179 out of the 254 counties in Texas were designated as whole county primary care Health Professional Shortage Areas (HPSAs)



**Fig 3-2.** In 2017, 205 out of 254 counties in Texas were designated as whole county mental health Health Professional Shortage Areas (HPSAs).

high-quality clinical services are delivered remotely to individual patients, and telementoring, which involves the remote provision of expertise to professional peers. The prefix “tele” conveys that the activities are distant, typically employing communication technologies, such as teleconferencing or videoconferencing, rather than direct, face-to-face communications. The goal is to overcome barriers of geography and limited access so as to provide necessary clinical services and specialized care.

## Telemedicine

Telemedicine, the use of technology to deliver health care to patients from a distance, is a proven effective strategy for overcoming certain barriers to care, particularly for communities located in rural and remote areas. Telemedicine models for addressing chronic illness, cancer screening and treatment, mental and behavioral health needs, and specialized peer care, coupled with flexible cloud-based telemedicine platforms,

can increase access to care, improve quality of care, and decrease costs while building local capacity and addressing physician and provider shortages.

## Telementoring

Telementoring is a peer-to-peer program of support offered by academic subspecialists to community-based providers in the delivery of new drugs, devices, or clinical practices of relevance and interest to their practices and patient populations. A prominent example, Project ECHO (Extension for Community Healthcare Outcomes), was developed at the University of New Mexico in 2003 to try to overcome referral challenges related to hepatitis C screening and management. The program forges partnerships between academic experts and community-based front-line providers in order to advance the dissemination of new and emerging standards of care, assist local communities in confronting complex or unusual cases, and increase local

self-efficacy. In Texas, MD Anderson Cancer Center has developed ECHO programs to reach underserved populations in the areas of cervical cancer screening and pre-cancer management, tobacco cessation, cancer survivorship, palliative care, and skin cancer screening.

## Models and Evidence Base

Telemedicine and telementoring programs are already showing impact across the U.S. and within Texas. Programs have resulted in reduced hospital admissions and re-admissions, reductions in symptoms for chronically ill patients (specifically symptoms of heart disease, diabetes, Parkinson’s disease, and psychiatric distress), reduced emergency room mortality rates, and improved Global Assessment of Functioning psychological ratings.

Johns Hopkins University, for example, developed a “Hospital at Home” model, using telemedicine for Medicaid and Medicare Advantage members, and found a 19% savings over similar patients using traditional inpatient services.

A variety of studies document cost savings from telehealth programs ranging from 8% to 25% as compared to matched inpatient comparisons. One explanation for the savings relates to earlier identification of acute issues and shorter hospital stays when inpatient care is required.



A patient being examined at the telemedicine clinic at the UT System building in downtown Austin, which connects Austin-based employees to clinicians at UT Medical Branch (UTMB) in Galveston.

**As next steps in increasing the use and reach of telemedicine, the members of UT CoPHII recommend the following:**

- Increase use of telemedicine to address health disparities and gaps in care coverage for rural populations.
- Identify and address community telemedicine use and acceptability to ensure reach and acceptance of telehealth care model.
- Train providers and clinic leadership to advance the use of telemedicine and telementoring across Texas.
- Develop and maintain telemedicine technology to address population health priorities, including the collection of reach and implementation data.

**Methods to achieve these goals:**

- Expand the availability of telemedicine technology to reach and serve rural and urban populations across Texas.
- Provide training in, and promote the use of, telemedicine by mental health and specialty care physicians.
- Promote the use of telemedicine as a rigorous and quality care strategy within communities.
- Identify opportunities to use the Project ECHO model of telementoring in additional specialties.
- Integrate telemedicine as a standard option for care delivery and training in practice through telementoring.
- Assist rural and urban underserved clinics and rural hospitals with the development and integration of telehealth technology.

## Examples

- MD Anderson Cancer Center is designated as a Project ECHO “Oncology Superhub” and credentialed to deliver ECHO training to other health institutions and systems wishing to establish Project ECHO efforts in their institutions to address compelling needs of their catchment area populations. To date, MD Anderson has trained nine clinical care groups or organizations as ECHO hubs to replicate and further extend the model. Project ECHO has great potential to extend clinical oncology care services across the spectrum of cancer, including all aspects of screening, diagnosis, treatment, and survivorship. It also holds the potential to facilitate the delivery of clinical services in all realms of population health, and to help remedy disparities.
- In 2016, UT System working with UTMB, created the UT Virtual Health Network (VHN). The VHN is designed to create a telehealth infrastructure connecting all eight of the UT medical centers and schools to each other and to other academic medical centers as a mechanism to provide crucial specialty services across the state. Each UT Health Science Center and Medical School will serve as a hub, leveraging its areas of clinical expertise to serve patients at other facilities who normally would not have access to its health care facilities. An important feature of the VHN construct is a centralized approach to administration that empowers regional and local

health care facilities to expand their clinical service offerings by utilizing telehealth technologies to access a multiplicity of clinical care services at other hubs. The hub institutions are also equipped to provide coordinated telemedical services to settings such as other hospitals and clinics, nursing facilities, schools, employee work sites, and patient residences.

- Clinicians from UTHealth in Houston are providing behavioral health services to residents at both the Vernon and Wichita Falls locations of the North Texas State Hospital via a contract with

Texas Health and Human Services Commission. The potential for future expansion of the network is immense, though future clinical partners will still need to be equipped with the technology to support telemedicine from their end.

