THE TEXAS MENTAL HEALTH WORKFORCE: CONTINUING CHALLENGES AND SENSIBLE STRATEGIES

APRIL 2016

MENTAL HEALTH HAS EMERGED AS ONE OF THE MOST IMPORTANT PUBLIC HEALTH CONCERNS OF OUR TIME.

The individual and societal benefits of achieving mental wellness are significant. The need for mental health services is high.[1] In 2014, 18.1 percent of adults in the U.S. reported experiencing a mental health condition at some point during the prior year.[2] An estimated 4.2 percent reported serious mental illness.[3] The economic value of providing appropriate mental health services can be measured in the avoided costs of hospital admissions, emergency department visits, criminal and juvenile justice involvement, homelessness, and more. Providing appropriate mental health services has also been shown to reduce lost workdays and improve workplace productivity.[4] More importantly, access to the right services at the right time offers hope to individuals that they can achieve recovery and live meaningful lives.

Meeting the mental health needs of Texans requires an adequate mental health workforce. A number of variables must be considered when analyzing the current state of the Texas workforce including: shortages of various types of mental health professionals, appropriate training for primary care physicians, the refusal of existing providers to accept Medicaid patients, the lack of diversity and linguistic competency of mental health providers, the maldistribution of workers, and much more. With the Texas population growing rapidly, the administrative and legislative actions taken to date to address the mental health workforce challenges will have only limited impact on the problem. The lack of action is not due to a lack of concern, but because few quick or simple solutions exist.

ACCESS TO MENTAL HEALTH AND SUBSTANCE USE SERVICES MATTERS

Mental health and substance use challenges can affect a person's thinking, feeling, decision making, or mood.[5] An individual experiencing a mental health condition may be less productive at work and less involved with family, friends, and the community. However, recovery from mental health and substance use conditions is not only possible, it is probable with proper supports and services. Recovery outcomes improve when an individual who is experiencing a mental health condition engages early in achieving mental wellness. Early engagement is more likely when individuals have adequate access to treatment and prevention services and supports. Although treatment options vary widely depending on an individual's recovery plan, services with a mental health professional are typically a starting point to achieving mental wellness.

A comprehensive 2007 Milken Institute study shows the tremendous costs associated with chronic illnesses, including the costs associated with mental health conditions. The study, Unhealthy America: The Economic Burden of Chronic Diseases, lays out both national data as well as direct costs and indirect impacts of mental illness by state. The data reveal that the nation's total expenditures for mental health conditions in 2003 were $45.8 billion and are expected to rise to $135.2 billion by 2023. The total direct cost of mental health care in Texas in 2003 was $2.06 billion and is expected to rise to $7.48 billion by 2023. Additionally, the indirect impact to Texas (lost productivity and lost work days) in 2003 was $10.51 billion, and it is expected to increase to $40.08 billion by 2023.[6]

According to a number of researchers, reduced access to mental health and substance use professionals typically will not decrease costs to the state. Often, costs are transferred to more expensive alternatives such as incarceration, hospitalization, emergency department admissions, and homelessness.[7] [8] [9] Additional costs to Texas include lost productivity, unemployment, job absenteeism, and lack of involvement in the community.

Ensuring access to adequate mental health and substance use treatment and services requires a robust and diverse mental health workforce. Mental health providers include:

- Certified peer specialists
- Certified substance use recovery coaches
- Certified family partners
- Community health workers or promoters
- Licensed clinical social workers
- Primary care physicians
- Physician's assistants
- Licensed professional counselors
- Licensed marriage and family therapists
- Licensed dependency addiction counselors
- Psychiatric nurses
- Psychiatrists
- Psychologists
- Advance nurse practitioners

These professionals work with individuals in a variety of settings to help them achieve recovery and mental wellness. In addition to increasing the quantity and quality of mental health practitioners in these professions, it is also important to increase diversity in the workforce as well as improve the cultural and linguistic competency of the mental health workforce.

Colleen Horton, Policy Program Officer | www.hogg.utexas.edu | colleen.horton@austin.utexas.edu | (512) 471-5041

When looking at the entire population, two-thirds of people with significant behavioral health conditions receive no treatment at all.[10]

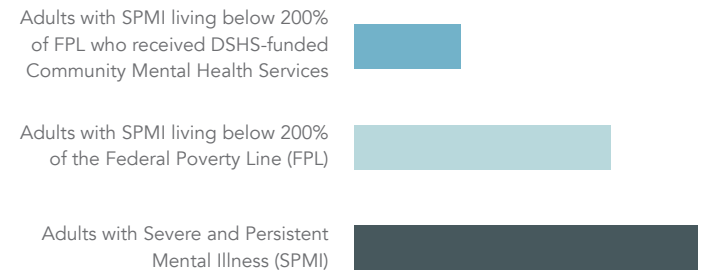
TEXAS SNAPSHOT

Mental health workforce challenges are not new to Texas or to the nation. Challenges include insufficient reimbursement rates, lack of residency slots and internship sites, an aging mental health workforce, and inadequate mental health training for primary care providers. A number of factors make it difficult to address these challenges including the diverse Texas population, the lack of cultural and linguistic competency, the lack of license reciprocity, and the unwillingness of providers to accept patients with Medicaid.

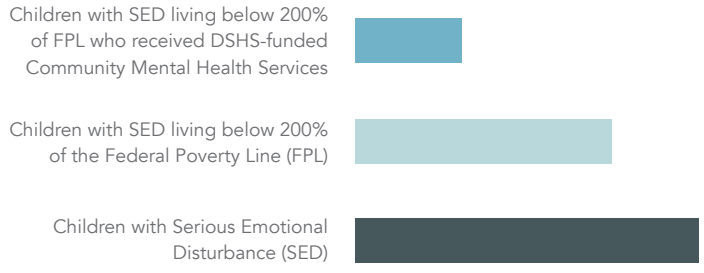
The federal government's measure of health care workforce shortages is known as Health Professional Shortage Areas (HPSA). The federal government uses a ratio of 1 psychiatrist for every 30,000 individuals in the general population as the threshold for designating a Mental Health HPSA, and this ratio is considered a valid measure of mental health workforce adequacy.[11] Texas'

UNMET NEEDS FOR COMMUNITY MENTAL HEALTH SERVICES

Texas Adult Population (Age 18+) in 2014: 19,841,346



Texas Child Population (Age 9-17) in 2014: 3,550,357



Data obtained from the Texas Department of State Health Services.
"Presentation to Select Committee on Mental Health: The Behavioral Health System" PowerPoint slides, February 18, 2016. Retrieved from: http://www.legis.state.tx.us/tlodocs/84R/handouts/C3822016021810001/5fc9614b-41a4-436e-9eba-67b14f00ad22.PDF

Colleen Horton, Policy Program Officer | www.hogg.utexas.edu | colleen.horton@austin.utexas.edu | (512) 471-5041

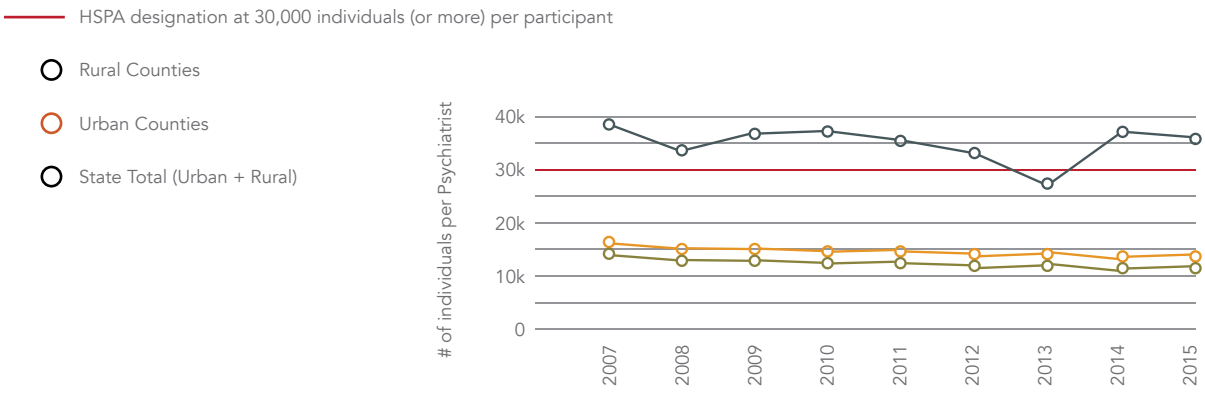
growing population and widespread rural geography have created an environment where mental health professional shortage areas far outnumber areas of adequate access. The maldistribution of mental health providers across Texas demands unique strategies.

As of July 2015, 206 out of 254 (81.1%) Texas counties were designated as full or partial Mental Health HPSAs. Partial HPSA designations typically occur in large metropolitan areas, such as Harris and Travis counties, where there is disproportionate access to mental health services in different parts of the city.[12] Since the publication of Crisis Point: Mental Health Workforce Shortages in Texas in 2011, 25 counties that were not previously designated as Mental Health HPSAs now hold the designation, and 181 other counties that were Mental Health HPSAs in 2010 still held that designation in 2015.[13] Further, 185 Texas counties did not have a single psychiatrist in 2015, which left more than 3 million Texans in counties without access to a psychiatrist.[14] The rates are better for psychologists and social workers, but still far below what is needed. In 2015 there were 149 counties without a single licensed psychologist, and 40 counties did not have a licensed clinical social worker.[15] [16]

Considering only psychiatrists, the graph above shows the drastic difference in the number of psychiatrists available in urban versus rural communities. This graph also highlights the reality that, due to the fact that urban areas have the vast majority of Texas' population, focusing only on statewide data can hide the true severity of the problem in rural counties.

Texas has not adequately invested in developing a strong mental health workforce, and the consequences are increasingly evident. Critical shortages will likely continue unless Texas prioritizes the mental health workforce shortage and develops a comprehensive plan to address capacity problems.

MENTAL HEALTH PROFESSIONAL SHORTAGES: *Distribution of Psychiatrists in Texas, 2006-2015*

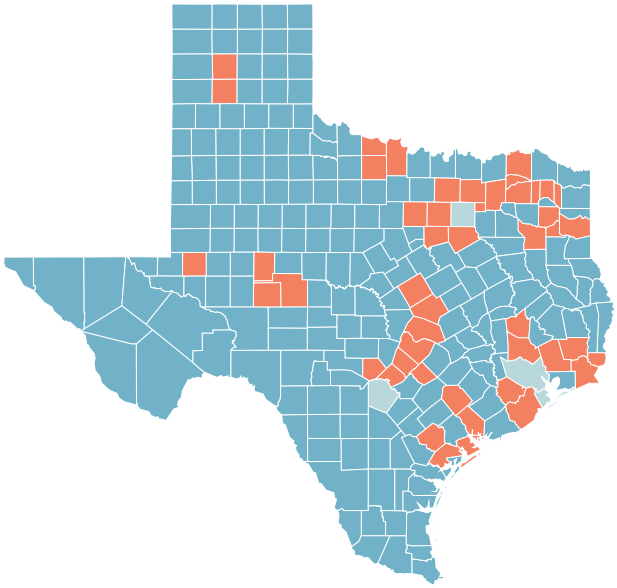


Source: Texas Dept. of State Health Services. "County Supply and Distribution Tables - Psychiatrists." 2015). Available: https://www.dshs.state.tx.us/chs/hprc/PSY-ink.shtm;

Texas Dept. of State Health Services. "Definitions of County Designations." (2015). Available: https://www.dshs.state.tx.us/chs/hprc/counties.shtm

Colleen Horton, Policy Program Officer | www.hogg.utexas.edu | colleen.horton@austin.utexas.edu | (512) 471-5041

FEDERALLY DESIGNATED MENTAL HEALTH PROFESSIONAL SHORTAGE AREAS AS OF JULY 2015



Full Mental Health Professional Shortage Area

Partial Mental Health Professional Shortage Area

Not designated as a Mental Health Professional Shortage Area

Source: U.S. Dept. of Health and Human Services, "Health Professional Shortage Area Data Download." Health Resources and Services Administration Data Warehouse, (2015). Available: http://datawarehouse.hrsa.gov/data/datadownload/hpsaDownload.aspx

Contributing Factors to the Workforce Challenges

Many variables converge to create mental health workforce challenges including an aging mental health workforce, the unwillingness of mental health providers to accept patients with Medicaid, inadequate reimbursement rates, insufficient internship sites and residency slots, insufficient retention and recruitment practices, outdated education and training practices, linguistic and cultural barriers, and more. These issues will need to be addressed collectively in order to make a significant impact.

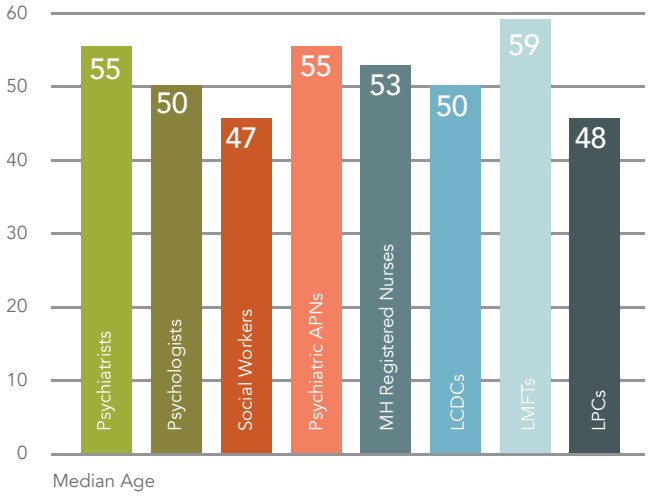
The percentage of mental health providers accepting Medicaid continues to decline, making it difficult for managed care organizations to build adequate networks of providers. In 2014, 76 percent of psychiatrists in Texas reported not accepting new clients who are recipients of Medicaid.[17] To increase the number of practicing mental health care providers willing to provide services to consumers with Medicaid, reimbursement rates should be evaluated and improved. While reimbursement rates are not the only incentive available to attract Medicaid providers, low rates are the most frequently identified barrier to expanding network participation.[18]

Additionally, the state is experiencing a massive shift in the mental health workforce as a large number of skilled mental health providers reach retirement age.[19] The median age is above 45 years for the majority of mental health professions in Texas.[20] At the same time, educational institutions are not producing enough graduates in mental health fields to meet the predicted demand.[21]

The composition of our psychiatric workforce does not mirror the Texas population. It is important that the state builds a diverse workforce to meet the needs of Texans, including ensuring a shared experiential base. Only 9.8 percent of psychiatrists in Texas are Hispanic/Latino, and 5.7 percent are black/African American. However, Hispanics/Latinos make up 39.5 percent of the Texas population and 11.5 percent are black/African American.[22] There is evidence that health care consumers who share a culture and race with a provider develop a stronger therapeutic alliance and have higher treatment retention rates.[23] One way to prioritize culturally relevant care is to assist

Colleen Horton, Policy Program Officer | www.hogg.utexas.edu | colleen.horton@austin.utexas.edu | (512) 471-5041

AGING MENTAL HEALTH WORKFORCE IN TEXAS



Source: Statewide Health Coordinating Council. "2015-1016 Update to the State Health Plan". (2015). Retrieved from: https://www.dshs.state.tx.us/chs/shcc/SHPUpdate2015.pdf

mental health providers in developing a sensitivity to cultural differences in perceptions about illness, treatment, and recovery, as well as their ability to adapt care to the personal goals, cultural beliefs, and primary language of each consumer.[24]

PATHWAY FORWARD

In 2013, the Texas Legislature passed HB 1023 (83rd/Burkett), requiring the Department of State Health Services (DSHS) to conduct a study and develop a legislative report on the mental health workforce. The HB 1023 report, published in 2014, confirmed the critical workforce environment and offered recommendations. Additionally, both the Texas House and Senate were assigned interim charges targeting the mental health workforce. Although much attention has been paid to the issue, only limited legislative actions have resulted. SB 239 (84th/Schwertner) directed the development of a loan repayment program for certain mental health professionals who work in Health Professional Shortage Areas (HPSAs) for mental health and those providing services to recipients of Medicaid, CHIP, or individuals in state juvenile or adult correctional facilities. Additionally, HB 1430 (84th/S. King) requires that materials provided to students on health and science careers include information about mental health career pathways. While these statutes alone will not solve the mental health workforce shortage, they have set the momentum for future legislative action.

There is no quick fix to the problem, but ignoring it will not make it go away. There are short-term, mid-term and long-term strategies that Texas should implement, starting with the development of a clear path forward. The solutions may not be simple, but they are attainable.

Create a Comprehensive Strategic Plan for Mental Health and Substance Use Workforce Development

Various legislative initiatives, agency reports, and advocacy efforts have offered recommendations for addressing workforce challenges across the various mental health disciplines. However, without a thoroughly conceived and well-developed plan for workforce analysis, policy implementation,

Colleen Horton, Policy Program Officer | www.hogg.utexas.edu | colleen.horton@austin.utexas.edu | (512) 471-5041

and outcome evaluation, advances will probably be limited and difficult to measure. HHSC should formulate a comprehensive plan that includes an analysis of relevant data and recommendations, implementation strategies, monitoring processes, and evaluation methods. Timelines should be developed in conjunction with the comprehensive plan outlining short-, mid-, and long-term objectives to ensure a framework for accountability.

Although HHSC should be responsible for developing the plan, participation from other agencies providing mental health services and supports, and those training individuals to provide those services, is crucial. The process should include active participation from agencies responsible for higher education, public education, criminal justice, juvenile justice, the Texas workforce, child welfare, public health, insurance, housing, and others. This could be the responsibility of the existing Behavioral Health Coordinating Council or a task force appointed to specifically address this issue.

Improve Integrated Health Care

Effective integrated health care is the comprehensive coordination of mental health, substance use, and primary care services.[25] Sixty-eight percent of adults with a mental health condition also have one or more chronic physical conditions such as high blood pressure, heart disease, or diabetes.[26] The integration of primary care and behavioral health services allows health professionals to better coordinate treatments so that neither physical nor mental health care needs are neglected.[27] Integrated models of service delivery have been used to prevent service fragmentation and poorly coordinated care.[28] Integrated care has been shown to produce positive outcomes and is an effective approach to caring for people with complex health care needs.[29] In addition to improving outcomes, integrated health care can help expand and optimize the workforce:

1) by enabling primary care physicians to address mental health needs of their patients directly,

2) through consultation with a mental health professional, and

3) by referring the individual to a mental health/substance use provider.

The state has been moving toward implementing integrated care models, notably with the passage of SB 58 (Nelson/84th) that directed HHSC to integrate behavioral health into the state managed care system. The legislation also directed the creation of the SB 58 Behavioral Health Integration Advisory Committee. As a result of SB 58, the funding that previously went directly to the local mental health authorities for Medicaid mental health and substance use services now goes to the managed care organizations who then contract with service providers. While the funding for mental health services has been integrated into the managed care system, actual integration of behavioral health and acute care services is still very limited.

In order to meet both the physical health and mental health needs of individuals with mental health and substance use conditions, opportunities to receive mental health care alongside primary care need to be expanded.[30] Many individuals do not seek specialty mental health care to address their behavioral health needs.[31] In order to increase the opportunity for access to mental health care, integrated care should be the cornerstone of the health system throughout the state. The SB 58 Behavioral Health Integration Advisory Committee developed recommendations to create a more truly integrated system of care. The

Colleen Horton, Policy Program Officer | www.hogg.utexas.edu | colleen.horton@austin.utexas.edu | (512) 471-5041

Health and Human Services Commission in Texas should consider implementing these recommendations.

Improve Training of Primary Care Physicians

Many Texans see primary care physicians for mental health concerns before seeing a mental health professional, and primary care providers deliver more than half of the mental health treatment in the country.[32] Additionally, approximately 25 percent of people seeking primary care have a mental health condition, most commonly, anxiety and depression.[33] [34] Reliance on primary care physicians for mental health treatment is often due to the stigma associated with seeing a mental health professional, the lack of awareness surrounding mental health conditions, and the limited availability of psychiatrists or other mental health providers throughout the state.[35]

A COPY OF THE ADVISORY COMMITTEE REPORT IS AVAILABLE AT

https://www.hhsc.state.tx.us/about_hhsc/AdvisoryCommittees/bhiac-docs/BHIAC-Phase-II-recommendations.pdf.

Primary care providers will, in some instances, be the only known health provider for a consumer experiencing a mental health condition.[36] Yet, primary care physicians have limited training and experience in behavioral health and recovery-focused treatment. Primary care physicians often become de facto mental health providers and should have the benefit of an appropriate level of recovery-focused mental health and substance use training, including symptom recognition, screening, assessments, and treatment options.

Training primary care physicians as another resource in the mental health field is a logical option. Training curriculum for physicians and other primary care providers such as physician's assistants and advance nurse practitioners should be modified to include meaningful behavioral health education and training. The establishment of new medical schools in Texas offers unique opportunities to focus medical training on integrated practices.

Evaluate and Improve Mental Health Reimbursement Rates

Many mental health professionals only accept patients who are able to pay cash for their services. Only half of Texas psychiatrists accept private insurance, compared with nearly 90 percent of other physician types.[37] According to the Texas Medical Association, only 21 percent of Texas psychiatrists will accept Medicaid patients compared with all other physician types where 37 percent will accept a patient with Medicaid.[38] Additionally, many other mental health professionals refuse to bill Medicaid, Medicare or other insurance payers.[39] To increase the number of practicing mental health care providers willing to provide services to consumers with Medicaid, HHSC should evaluate and consider increasing reimbursement rates. Although reimbursement rates are not the only incentive available to attract Medicaid providers,

Colleen Horton, Policy Program Officer | www.hogg.utexas.edu | colleen.horton@austin.utexas.edu | (512) 471-5041

low rates are the most frequently identified barrier to expanding network participation.[40] If appropriate reimbursement rate changes are made, it will help incentivize more mental health professionals to provide services to Medicaid clients. Texas should also study other options for increasing provider participation (recruitment and retention) in public behavioral health programs, including reduction of administrative requirements and options for requiring service to Medicaid participants when state funds are used to support the professional's education and training.

Increase Access to Support Services Provided by Certified Peer Specialists

Peer support services are an evidence-based mental health model of care where peers who have a history of lived experience with mental illness or substance use their personal recovery and specialized training to help guide other individuals experiencing a behavioral health condition in their own recovery. Peer services are cost effective and can be used in criminal justice facilities, emergency rooms, state hospitals, community clinics, and other mental health provider locations to supplement traditional mental health services and add value to treatment and recovery teams. Currently in Texas peers are approved providers of mental health "rehabilitation services," which are typically provided at the local mental health authorities. The services that certified peer specialists provide do not always fit well under the rehabilitation services umbrella. "Peer services" are not Medicaid billable services, because they are currently not defined in statute or rules. Expanding access to evidence-based support services from certified peer specialists and substance use recovery specialists is one step Texas could take to help address the shrinking mental health workforce.[41] Another parallel service that should be developed more thoroughly is that of certified family partners. These are typically family members who have a child who has experienced serious emotional disturbance and can support other families as they go through similar experiences.

HHSC and the Texas Legislature should continue to refine rules to expand access to these cost-effective services that have been shown to reduce hospital admissions, emergency department visits, and improve overall mental health costs.[42]

Expand Funding for Loan Repayment Programs, Internship and Residency Slots

The Loan Repayment Program legislated through SB 239 (84th/Schwertner) will fund mental health professionals working in underserved areas that meet certain criteria. The 84th Legislature allocated $2 million to fund the program, which will provide loan repayment for an estimated 100 mental health professionals working in federally recognized health professional shortage areas. This is a positive step for incentivizing behavioral health professionals to work in rural and underserved areas. Outcomes from this pilot program should be monitored and evaluated by the Texas Higher Education Coordinating Board to determine whether additional funding would further address the workforce shortage.

Additionally, due to an insufficient number of psychology, social work, and counseling internship sites and medical residency slots, many students educated in Texas must leave the state to obtain the additional required training.[43] Once these students leave Texas, they often don't return to Texas

Colleen Horton, Policy Program Officer | www.hogg.utexas.edu | colleen.horton@austin.utexas.edu | (512) 471-5041

to practice their profession. It is critically important that Texas evaluate the available internship and residency slots in relation to the need and develop options that encourage students of all mental health professions to remain in Texas.

EXPAND USE OF TECHNOLOGY

As technology changes every day, it is important to look for effective ways to include technological tools to support individuals living with mental health or substance use conditions. Technology can be useful to support individuals in areas of the state that have significant mental health professional shortages. It can also be used to offer information and support to individuals and family members in times of crisis, as well as help individuals adhere to their recovery plans.

Telehealth/Telemedicine

Telemedicine and telehealth mental health and substance use services are medical services or behavioral health treatments and supports that are provided to distant locations using advanced telecommunication technologies that connect a remote patient with a psychiatrist or other mental health professional.[44] Several mental health services can be administered through this technology and are currently billable under Texas Medicaid, including psychiatric diagnostic evaluations, psychotherapy, and outpatient visits that include counseling.[45] Telemedicine can be used to provide services that have been shown to be as effective and equally preferred by consumers as traditional face-to-face visits, especially if the alternative is receiving no mental health services at all.[46] Despite concerns in earlier research, telemedicine services that use video conferencing (e.g., Skype) have been shown to be effective for consumers experiencing symptoms of psychosis.[47]

Telemedicine/telehealth services cannot solve the mental health professional shortage by directly adding any new workers to the field, but it can help to more equitably and efficiently redistribute the mental health professionals currently available in the workforce. Telemedicine can be especially helpful in expanding access to specialty providers for individuals who traditionally have issues with transportation and access to appropriate care, such as older adults, children, individuals with hearing impairments, and rural residents. [48] [49] Texas should continue to examine telemedicine and telehealth as a way to improve access to the existing mental health workforce. Although telemedicine services are a viable option to more evenly distribute access to providers and reduce overall healthcare costs through improved efficiencies, debate continues about:

- Which mental health professions should provide telemedicine services;
- How electronic health data should be securely transmitted and stored; and
- What safety protocols should be in place for both the remote provider and the health professional accompanying the consumer at the patient site facility, if applicable.

It is important for Texas to build on existing telehealth and telemedicine infrastructure and expertise, identify continuing barriers, and develop strategies to use technology to increase access to mental health and substance use services.

Colleen Horton, Policy Program Officer | www.hogg.utexas.edu | colleen.horton@austin.utexas.edu | (512) 471-5041

Mobile Apps

With more than 1.5 million applications available for smartphone users, it is no surprise that a number of apps have been developed with mental wellness in mind.[50] These applications can be helpful for individuals experiencing a mental health crisis who aren't sure where to seek help. Additionally, mobile apps potentially have a role to play in supporting individuals on their road to recovery. Applications are available to help users focus on mindfulness, wellness, and mood, while others offer suicide helplines, tips for coping with anxiety, and ways to reach out if you or a loved one is in immediate crisis.[51] The Substance Abuse and Mental Health Services Administration (SAMHSA) and other government agencies have created several mobile apps including Suicide Safe, a suicide prevention app for healthcare providers, which is available free for use by the public.[52] Technology apps can also be useful for reaching individuals who do not have time or resources for traditional mental health treatment, but may feel comfortable using an app to improve their quality of life. Although mental health mobile apps are not commonly considered replacements for direct care, Texas should study the applications currently available as well as those developed in the future to determine how they may be used to support individuals in crisis and those working toward recovery.

Crisis Text Services

An increasing amount of communication takes place via text message on mobile phones. This may be another tool for people in crisis when other supports or services are not immediately available or when texting is the preferred method of communication. Crisis Text Line is an example of a nationwide nonprofit that provides crisis services via text message, serving as a lifeline for people who are experiencing immediate crisis.[53] A trained crisis counselor responds immediately to each text message, helping people move from a crisis point to a calm mental state in order to stay safe and healthy.[54] When needed, the counselors refer individuals to professionals using a secure platform. Although this is not a replacement for treatment, services such as this can be useful for helping people in moments of intense crisis, including times when traditional services cannot be accessed (weekends, holidays, evening hours). Policymakers and stakeholders should consider how technology such as crisis text services can assist in supplementing traditional mental health services.

Evaluate Reciprocity and Scope of Practice Rules to Ensure Maximum Utilization of Providers

The large gap between demand for mental health services and supply of mental health providers suggests that the specialist workforce alone will not be able to meet anticipated future needs.[55] Currently, only certain professions qualify as mental health professionals under Texas Code. However, with the current workforce shortage, we recognize that many individuals have sought care from people who are not traditional mental health professionals. Included in this group are professionals such as occupational therapists, advanced practice nurses, and physician's assistants who may already interact with someone seeking mental health care. Lawmakers should explore ways to maximize each professions' skills and expertise to better serve individuals in crisis and those

Colleen Horton, Policy Program Officer | www.hogg.utexas.edu | colleen.horton@austin.utexas.edu | (512) 471-5041

needing services on an ongoing basis. Another option to ensure maximum utilization of providers would be to examine cross-state reciprocity options. Some states have reciprocity agreements that allow for licensed psychologists to move to new jurisdictions without the requirement of obtaining a separate credential or paying any extra fees.[56] Allowing some flexibility for provider licensure may increase the number of practicing mental health providers in the state. This is currently at the discretion of provider licensing boards, but could provide options for expanding the mental health workforce in the state.

CONCLUSION

Texas' mental health workforce challenges are very real. The solutions are not always easy to implement, and they often require additional resources. However, the cost of ignoring the problem will be great. The growing Texas population coupled with the aging workforce will continue to strain the behavioral health workforce. The Hogg Foundation for Mental Health will continue to work with policymakers and advocates to identify solutions, implement strategies, and monitor effectiveness.

(April 2016)

Colleen Horton, Policy Program Officer | www.hogg.utexas.edu | colleen.horton@austin.utexas.edu | (512) 471-5041

REFERENCE

[1] Roll, J.M., Kennedy, J., Tran, M., Howell, D. (2013) Disparities in unmet need for mental health services in the United States, 1997-2010. Psychiatric Services, 80-82.

[2] Substance Abuse and Mental Health Services Administration. (2015). Behavioral Health Trends in the United States: Results from the 2014 National Survey on Drug Use and Health. Retrieved from http://www.samhsa.gov/data/sites/default/files/NSDUH-FRR1-2014/NSDUH-FRR1-2014.pdf

[3] Ibid.

[4] Klachefsky, M. (2013). Hidden costs, productivity losses of mental health diagnoses. Benefits Magazine. Retrieved from http://workplacepossibilities.com/wp-content/uploads/Hidden_Costs_Productivity_Losses_of_Mental_Health_Diagnoses.pdf

[5] National Alliance on Mental Illness. (2015). Mental Health Conditions. Retrieved from http://www.nami.org/Learn-More/Mental-Health-Conditions

[6] DeVol, R., Bedroussian, A. (2007). Unhealthy America: the economic burden of chronic disease – charting a new course to save lives and increase productivity and economic growth. Milken Institute. Retrieved from http://assets1c.milkeninstitute.org/assets/Publication/ResearchReport/PDF/chronic_disease_report.pdf

[7] Weinstein, et al. (2013). A primary care – public health partnership addressing homelessness, serious mental illness, and health disparities. Journal of the American Board of Family Medicine. 29 (2), 279-287.

[8] Hawthorne, et al. (2012). Incarceration among adults who are in the public mental health system: rates, risk factors, and short-term outcomes. 63 (1), 26-32.

[9] Bazelon Center for Mental Health Law. (n.d.) Mental illness and the need for health care access reform. Retrieved from http://www.bazelon.org/LinkClick.aspx?fileticket=Tgq0Qq-w6_c%3D&tabid=220

[10] Kathol, R.G., deGruy, F., & Rollman, B. (2014). Value-based financially sustainable behavioral health components in patient-centered medical homes. Annals of Family Medicine, 12(2), 172-175.

[11] U.S. Department of Health and Human Services, Health Resources and Services Administration. (2015). Shortage Designation: Health Professional Shortage Areas & Medically Underserved Areas/Populations. Retrieved from http://www.hrsa.gov/shortage/

[12] U.S. Department of Health and Human Services, Health Resources and Services Administration. (2015).Health Professional Shortage Area Data Download. Retrieved from http://datawarehouse.hrsa.gov/data/datadownload/hpsaDownload.aspx
[13] Ibid.

[14] North Texas Regional Extension Center. (2015). The Physician Workforce in Texas. Retrieved from http://www.merritthawkins.com/UploadedFiles/MerrittHawkings/Surveys/Merritt_Hawkins_NTREC_Physician_Workforce_Survey.pdf

[15] Center for Health Statistics. (2015). Social Workers by County of Practice, 2015. Retrieved from http://www.dshs.state.tx.us/chs/hprc/tables/2015/15SW.aspx

[16] Center for Health Statistics. (2015). Licensed Psychologists by County, 2015. Retrieved from http://www.dshs.state.tx.us/chs/hprc/tables/2015/15LP.aspx

[17] Texas Medical Association. TMA 2014 Physician Survey Research Findings [PowerPoint Slides].

[18] Glans, M. (2014) Research and Commentary: Reimbursement Flaws in Medicaid and the ACA. The Heartland Institute. Retrieved from https://www.heartland.org/policy-documents/research-commentary-reimbursement-flaws-medicaid-and-aca

[19] Statewide Health Coordinating Council. "2015-1016 Update to the State Health Plan". (2015). Retrieved from https://www.dshs.state.tx.us/chs/shcc/SHPUpdate2015.pdf

[20 21] Ibid.

[22] Statewide Health Coordinating Council. "2015-1016 Update to the State Health Plan". (2015). Retrieved from https://www.dshs.state.tx.us/chs/shcc/SHPUpdate2015.pdf

[23] Hoge, M. A., Stuart, G. W., Morris, J., et al. (2013). Mental Health and Addiction Workforce Development: Federal Leadership is Needed to Address the Growing Crisis. Health Affairs, 32(11), 2005-2012.

[24] Ibid.

[25] SAMHSA-HRSA Center for Integrated Health Solutions. (2013). A standard framework for levels of integrated healthcare. Retrieved from http://www.integration.samhsa.gov/integrated-care-models/A_Standard_Framework_for_Levels_of_Integrated_Healthcare.pdf

[26] SAMHSA-HRSA Center for Integrated Health Solutions. (2015) Retrieved from http://www.integration.samhsa.gov/CIHS_Integration_Infographic_PowerPoint

[27] SAMHSA, (2012). Understanding Health Reform. Retrieved from http://www.integration.samhsa.gov/integrated-care-models/2012-07-23UnderstandingHealthReform.pdf

[28] Planner, C., Gask, L., & Reilly, S. (2014) Serious mental illness and the role of primary care. Psychiatry in Primary Care. 16 (458).
[29] SAMHSA-HRSA Center for Integrated Health Solutions. (2015) Retrieved from http://www.integration.samhsa.gov/CIHS_Integration_Infographic_PowerPoint

[30 31] Ibid.

[32] Reiger, D., Narrow, W., Rae, D., et al. (1993). The de facto US mental and addictive disorders service system: epidemiologic catchment area prospective 1-year prevalence rates of disorders and services. Archives of General Psychiatry, 50, 85–94.

[33] Ibid.

[34] U.S. Dept. of Health and Human Services. (2001). Report of a Surgeon General's working meeting on the integration of mental health services and primary health care. Rockville, MD: author. http://www.ncbi.nlm.nih.gov/books/NBK44335/

[35] Cohn, J. (2015). The long and winding road of mental illness stigma. The Milbank Quarterly. 9 (3), 480-483.

[36] Planner, C., Gask, L., & Reilly, S. (2014) Serious mental illness and the role of primary care. Psychiatry in Primary Care. 16 (458).

[37] JAMA Psychiatry, (2014). Acceptance of insurance by psychiatrists and the implications for access to mental health care. Retrieved from http://archpsyc.jamanetwork.com/article.aspx?articleid=1785174

[38] Texas Medical Association. TMA 2014 Physician Survey Research Findings [PowerPoint Slides].

[39] Cunningham, P.W. (2013). Loophole for mental health care. Politico. Retrieved from http://www.politico.com/story/2013/03/reform-law-expands-access-to-mental-health-care-088347

[40] Glans, M. (2014) Research and Commentary: Reimbursement Flaws in Medicaid and the ACA. The Heartland Institute. Retrieved from https://www.heartland.org/policy-documents/research-commentary-reimbursement-flaws-medicaid-and-aca

[41] Ibid.

[42] Phyllis Solomon, (2004). Peer Support/Peer Provided Services Underlying Processes, Benefits, and Critical Ingredients. Psychiatric Rehabilitation Journal. 27, (4), 393. Retrieved from http://www.parecovery.org/documents/Solomon_Peer_Support.pdf

[43] Crocker, T. & Guzmán, M.R. (2015). Texas Behavioral Workforce Solutions [PowerPoint Slides].

[44] Telligen Health Information Technology Regional Extension Center and Great Plains Telehealth Resource and Assistance Center. Telehealth Start-Up and Resource Guide Version 1.1. (2014). Retrieved on Jan. 12, 2016, at http://healthit.gov/sites/default/files/telehealthguide_final_0.pdf

[45] American Medical Association. Texas Medicaid Provider Procedures Manual, Volume 2: Telecommunication Services Handbook. (2015). The Texas Medicaid and Health Partnership. Retrieved from http://www.tmhp.com/tmppm/tmppm_living_manual_current/Vol2_Telecommunication_Services_Handbook.pdf

Colleen Horton, Policy Program Officer | www.hogg.utexas.edu | colleen.horton@austin.utexas.edu | (512) 471-5041

[46] Shealy, K.M., Davidson, T.M, Jones, A.M., et al. (2015). Delivering an Evidence-Based Mental Health Treatment to Underserved Populations Using Telemedicine: The Case of a Trauma-Affected Adolescent in a Rural Setting. Cognitive and Behavioral Practice. 22(3), 331-344.

[47] American Telemedicine Association. (2013). Practice Guidelines for Video-Based Online Mental Health Services. Retrieved from http://www.americantelemed.org/docs/default-source/standards/practice-guidelines-for-video-based-online-mental-health-services.pdf?sfvrsn=6

[48] Glover, J. A., Srinivasan, S., Bouknight, J. G., & Campbell, J. (2014). Psychiatric Fact Time: Telehealth for Technology-Driven Innovations in Dementia Care. Alzheimer's & Dementia: The Journal of the Alzheimer's Association, 10(4), 574.

[49] Wilson, J. A., & Schild, S. (2014). Provision of mental health care services to deaf individuals using telehealth. Professional Psychology: Research and Practice, 45(5), 324-331.

[50] Statista. (2015). Number of apps available in leading app stores as of July 2015. Statista. Retrieved from http://www.statista.com/statistics/276623/number-of-apps-available-in-leading-app-stores/

[51] McCann, A. (2015). Smartphone shrink: 5 apps to help your mental health. Popular Mechanics. Retrieved from http://www.popularmechanics.com/science/health/g775/smartphone-shrink-5-apps-to-help-your-mental-health/

[52] SAMHSA. (2015). Suicide Safe: The suicide prevention app for health care providers. Retrieved from http://store.samhsa.gov/apps/suicide-safe/

[53] Crisis Text Line. (2015). FAQ. Retrieved from http://www.crisistextline.org/faq/

[54] Ibid.

[55] Hoge, M. A., Stuart, G. W., Morris, J., et al. (2013). Mental Health and Addiction Workforce Development: Federal Leadership is Needed to Address the Growing Crisis. Health Affairs, 32(11), 2005-2012.

[56] DeAngelis, T. (2006). License to Move. Retrieved from http://www.apa.org/monitor/julaug06/license.aspx

Colleen Horton, Policy Program Officer | www.hogg.utexas.edu | colleen.horton@austin.utexas.edu | (512) 471-5041

This report brought to you by:

Hogg Foundation *for* Mental Health