

The Mental Health Workforce Shortage in Texas



Prepared to solicit policy recommendations, including feasibility and cost information, from
mental health stakeholders throughout the State of Texas
Pursuant to House Bill 1023, 83rd Legislative Session

Texas Department of State Health Services

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Purpose of the Report

House Bill (H.B.) 1023, 83rd Legislature Regular Session, charged the Health and Human Services Commission (HHSC) and subsequently the Department of State Health Services (DSHS) with submitting a report to the Legislature providing policy recommendations for addressing Texas' mental health workforce shortage. This report will include an assessment of the feasibility and cost of these recommendations. These recommendations are to be developed in consultation with offices within DSHS and HHSC, the Statewide Health Coordinating Council, and other nongovernmental entities with expertise in mental health workforce issues. The following sections provide background on Texas' mental health workforce shortage and salient issues to be considered while developing recommendations to alleviate this shortage.

Background on Texas' Mental Health Workforce Shortage

Nationally, 46.4% of adults experience mental illness in their lifetime and 26.2% of adults experience mental illness annually. On an annual basis, 5.8% of adults in the US experience a serious mental illness¹ (Hogg Foundation for Mental Health, 2011). Moreover, the aging of the US population requires behavioral health services with special knowledge and skills (Hoge, Stuart, Morris, Flaherty, Paris, & Goplerud, 2013).

Nationwide, only 39% of persons with mental illness and just 10.8% of persons with substance abuse issues receive needed mental health treatment (Hoge, Stuart, Morris, Flaherty, Paris, & Goplerud, 2013). In fact, a national study found that 66.8% of primary care physicians were unable to refer their patients to high quality mental health specialists. This is a far higher rate of unavailability than those seen for other specialty referrals, nonemergency hospital admissions, or high quality imaging services. This unavailability was most often attributed to either inadequate health coverage or a shortage of mental health providers (Cunningham, 2009).

Workforce-based explanations for a lack of mental health providers generally focus on insufficient numbers of mental health providers, high turnover (a national average of 18.5% annually), low compensation, minimal diversity, and little competence in evidence-based treatment (Hoge, Stuart, Morris, Flaherty, Paris, & Goplerud, 2013).

Describing these shortages quantitatively can be problematic as relevant data have not been universally collected and there is no consensus regarding what constitutes adequate supply. However, efforts to describe the mental health workforce shortage should consider both the population's need for mental health services and the number of practitioners available to provide these services (Thomas, Ellis, Konrad, Holzer, & Morrissey, 2009). Finally, despite the Patient Protection and Affordable Care Act's (PPACA) effort at expanding access to medical care, populations living in areas affected by a mental health workforce shortage will likely continue to have insufficient access (Cunningham, 2009). This is in part due to the expectation that PPACA will raise demand for services and thus exacerbate the practitioner shortage (Kirch, Henderson, & Dill, 2012)

¹ A serious mental illness has been defined as one involving a serious attempt at suicide, substantial limitation of work capabilities due to mental or substance disorder, psychosis, bipolar I or II, substance dependence with serious role impairment, a seriously violent impulse control disorder, or any mental disorder resulting in 30+ days of limited capacity in the past year (Kessler, Chiu, Demler, & Walters, 2005).

As a means of addressing the nation's mental health system problems, President George W. Bush convened the President's New Freedom Commission in 2002. The Commission's 2003 report called for the large scale transformation of the US mental health care system into a consumer-centered system focusing on recovery and delivering excellent care without disparities. Such a transformation demands the vast expansion of the workforce through training and initiatives aimed at the redistribution of duties among providers (Thomas, Ellis, Konrad, Holzer, & Morrissey, 2009).

The Need for Mental Health Services

As noted above, one part of describing a workforce shortage involves demonstrating the needs of the population for mental health services. A standard definition of mental health need is not available locally or nationally.

Children and Adolescents

As of February 2014, no reliable statewide survey data on mental health needs existed for children younger than high school age. Data from the DSHS Texas Youth Risk Behavior Surveillance System's (YRBSS) representative sample of 9th through 12th graders provide a baseline for establishing adolescent need for mental health services in Texas. Results from 2013 indicate that 28.3% of Texas' public and charter high school students reported feeling sad or hopeless almost every day for a two week period within the 12 months prior to being surveyed, similar to the national level. The proportion of females (36.8%) reporting these feelings was significantly higher than that of males (20.2%). Moreover, 16.7% of teens reported seriously considering a suicide attempt and 15.1% had a plan for how they would commit suicide. Rates for both of these measures were significantly higher among females than males. Finally, 10.1% of teens reported attempting suicide in the past year and 3.5% of teens had required medical intervention after doing so, with no significant differences between males and females. None of the above measures show any significant differences by race/ethnicity or grade level (Center for Health Statistics, 2013).

Adults

With respect to adults, DSHS' Texas Behavioral Risk Factor Surveillance System (BRFSS) reports that in 2012, 20.4% of adults reported having poor mental health for five or more days in the past 30 days. Additionally, the percentage of females (23.4%) reporting five or more days of poor mental health was significantly higher than that of males (17.3%). Significantly fewer college graduates reported poor mental health for five or more days (13.8%) than did those with some college (21.9%), high school grads (20.8%), and those with some high school (25.7%). Likewise, the proportion of people with five or more poor mental health days was lower among those making more than \$50,000 annually (14.0%) than those making \$25,000 to \$49,999 (20.0%) or those making less than \$25,000 (29.2%) (Center for Health Statistics, 2012).

The Mental Health Workforce

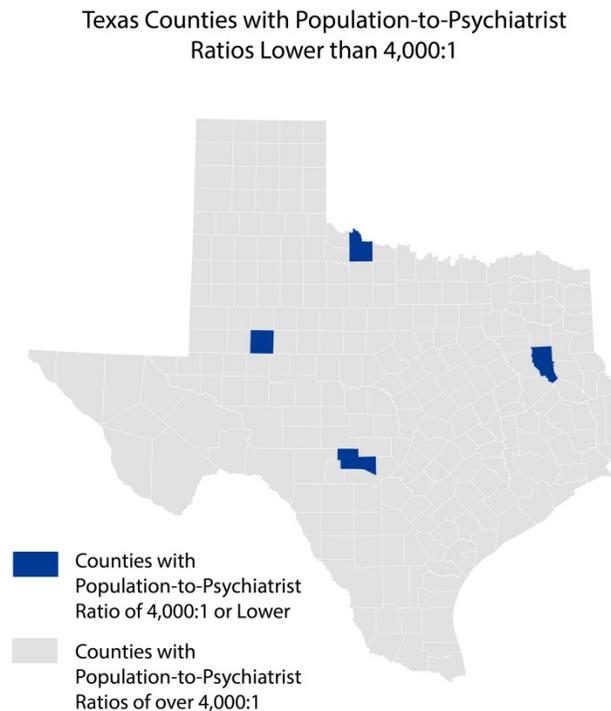
In addition to patient need, a shortage of providers determines the insufficiency of the mental health workforce. The supply of providers can be conceptualized as being composed of two broad determinants. The first is the entire number of practitioners qualified to serve in mental health and the second is the number of these committed to providing patient care and the percentage of their productive time committed to doing so (Murphy, Birch, MacKenzie, Alder,

Lethbridge, & Little, 2012). For the purpose of provider counts below, provider supply is limited to the number of providers giving direct patient care either full or part-time.² The state's shortage of supply is expected to worsen as many of the most skilled practitioners are nearing retirement age. At the same time, the state and the nation's educational institutions are not producing enough new graduates to meet predicted demand.

In addition to a shortage of providers, other sociodemographic factors contribute to the state's inadequate mental health workforce. For example, providers are not distributed evenly across the state resulting in differential access to care by region, especially in rural areas and along the border. Further, the provider workforce does not reflect the state's growing ethnic diversity and paucity of culturally competent mental health care.

Psychiatrists

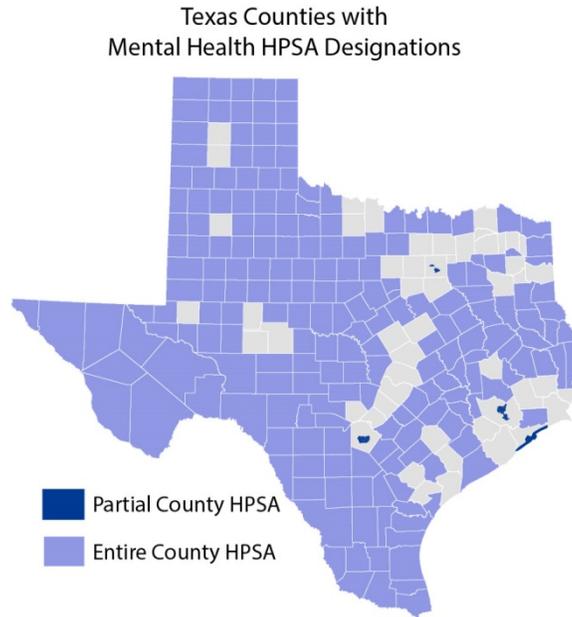
The most common method for measuring health workforce adequacy is to compare the size of the population and the number of health care providers. Cunningham (2009) has noted that the greater the ratio of population to psychiatrists, the less likely that a patient can obtain a quality psychiatric referral. Further, Cunningham suggests that a population-to-psychiatrist ratio of greater than 4,000:1 would likely impact the availability of mental health care, a threshold met by only four counties in Texas.



A statistical model accounting for patient need estimated that a national ratio of persons per psychiatrist not exceeding 3,681:1 was ideal, though provider need specific to Texas was not calculated (Konrad, Ellis, Thomas, Holzer, & Morrissey, 2009).

² This report utilizes the Health Professions Resource Center's provider statistics. More information on these data can be found at: <http://www.dshs.state.tx.us/chs/hprc/health.shtm>

By comparison to these models which directly consider patient need, the federal Health Resources and Service Administration's (HRSA) threshold for designation of a geographic area as a Health Professional Shortage Area (HPSA) for mental health is a ratio of 30,000 people to one psychiatrist. HPSA designations allow doctors and facilities to receive incentives meant to attract practitioners. In high needs areas (defined by HRSA as areas with high proportions of youth, elderly, low-incomes, or people with alcohol/substance abuse problems) the ratio required for federal designation is 20,000 people to 1 psychiatrist. The Primary Care Office within DSHS currently uses these population-to-psychiatrist measures to apply for mental health HPSA designations.



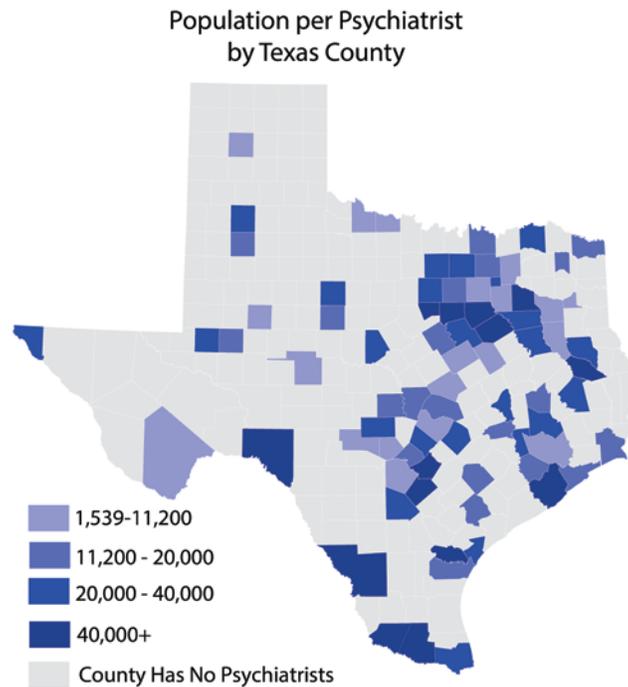
As of November 2013, 207 of Texas' 254 counties had whole or partial county Mental Health HPSAs and 241 counties had whole or partial county designation or at least one site-designated HPSA.³ Thus using the most lenient federal standard for HPSA designation, the vast majority of Texas counties lack a sufficient workforce of psychiatrists.

In addition to concern about the total number of psychiatrists, there is also a shortage of pediatric and geriatric psychiatrists. Only six states are considered to have an adequate supply of child and adolescent psychiatrists (Hoge, Stuart, Morris, Flaherty, Paris, & Goplerud, 2013), there is a national shortage of 22,000 child and adolescent psychiatrists and 2,900 geriatric psychiatrists, and only 325 new child psychiatrist graduates are produced nationally each year (Roberts, et al., 2013). The Institute of Medicine concluded that there was a major shortfall for professionals treating the mental health of aged populations. Currently, there are fewer than 1,800 geriatric psychiatrists in the US. By 2030, the national ratio of elderly persons with mental illness or substance abuse issues to geriatric psychiatrists will be 6,000:1 (Hoge, Stuart, Morris, Flaherty, Paris, & Goplerud, 2013).

³ HPSA site designations allow for a single site, such as a clinic, to benefit from HPSA designation based on either an insufficient number of physicians serving the same population as that site or a disproportionate share of low-income users being provided services at that site.

As of September 2013, 1,933 psychiatrists were actively licensed and offering direct patient care in Texas. Using 2013 population projections,⁴ this yields a ratio of 13,794.4 Texans per psychiatrist. However, Texas' five most populous counties (Harris, Dallas, Tarrant, Bexar, and Travis) had roughly 43.4% of the population and 63.0% of the state's psychiatrists (9,507:1 ratio) while the remainder of the state had a ratio of 21,081:1. Indeed, border and rural areas generally have far fewer psychiatrists per capita.⁵

Geographic Designation	Population per Psychiatrist
Metropolitan, Non-Border	12,032
Metropolitan, Border	29,849
Non-Metropolitan, Non-Border	30,219
Non-Metropolitan, Border	126,821
Texas	13,794



2,798,583 Texans (10.5% of the population) lived in counties with no psychiatrists, while 5,512,060 (20.7%) lived in counties eligible for designation under the most utilized federal guidelines as a mental health professional shortage area (ratios of 30,000:1 or higher). By comparison, 99.4% of Texans lived in counties with ratios higher than those recommended by the academic literature (Cunningham, 2009; Thomas, Ellis, Konrad, Holzer, & Morrissey, 2009).

⁴ All population is based on the 2012 projections of the 2013 Texas population offered by the Texas State Data Center: <http://txsdc.utsa.edu/Data/TPEPP/Projections/Data.aspx>

⁵ Texas' border counties are defined using the 1983 La Paz Agreement. Metropolitan and non-metropolitan counties are defined using the federal Office of Management and Budget's 2013 designations. For an accounting of each county, see Appendix 1.

From 2008 to 2013, there was an average annual growth of 3.64% among Texas’ active psychiatrists. However because of the state’s growing population, the ratio of population to psychiatrists improved by an average of 1.6% annually over these five years.

In addition to an overall shortage, the existing psychiatric workforce differed demographically from the population at-large. The composition of Texas’ population was estimated to be 43.4% whites, 39.1% Hispanics, 11.5% African-Americans, and 6.0% from other ethnicities. Yet 65.5% of the psychiatric workforce was white, with just 5.3% African-American and 9.7% Hispanic representation. 19.5% of the workforce was classified as being of another ethnicity, potentially through their status as an international medical graduate.

Texas faces the additional challenge of an aged psychiatric workforce. Nationwide, psychiatry is one of the top three specialties in terms of the number of practitioners over the age of 55 (Roberts, et al., 2013). Texas’ 2013 data indicate that 473 of the state’s 1,933 active psychiatrists (24.26%) were 65 years of age or older. An additional 532 were between the ages of 55 and 64, meaning that over half of the workforce (51.99%) would be 65 or older and of retirement age by 2023.

In 2013, only 681 graduates from US medical schools⁶ matched into psychiatric residencies nationwide. This number represented roughly half of the filled psychiatric residencies, with the remainder being filled by international medical graduates (Roberts, et al., 2013). Given this heavy reliance on international psychiatric residents, psychiatric care is expected to maintain reliance on international medical graduates for the foreseeable future (Boulet, Cassimatis, & Opalek, 2012). In 2013, 29.8% of Texas psychiatrists reported graduating from a medical school outside of the US with the most popular source countries being India (8.4%), Pakistan and Mexico (4.0% each).⁷ Compared with graduates of US and Canadian medical schools, a greater proportion of international medical graduates specialize in primary care, locate in areas of need, and care for poorer patients. Further, international medical graduates are more likely to live in areas with lower median incomes and greater proportions of people living in poverty, providing a gap-filling and safety net role (Boulet, Cassimatis, & Opalek, 2012).

2013 data from the Texas Higher Education Coordinating Board showed that there were 361 psychiatric residencies in the state. In 2008 there were 316, indicating a roughly 3.1% average annual growth over the past five years. Among specialties, there were 304 general psychiatric residencies, 53 child and adolescent psychiatry residencies, 3 addiction psychiatry residencies, and 1 geriatric psychiatry residency in 2013.

Type of Psychiatric Residency	2008	2013	Percent Change over 5 Years
General	263	304	+15.6%
Child/Adolescent	47	53	+12.8%

⁶ Graduation from a US or international medical school does not necessarily indicate citizenship or residency status. However, the academic literature does use this measure as a proxy for reliance on foreign-born workers and available data necessitates the use of this measure.

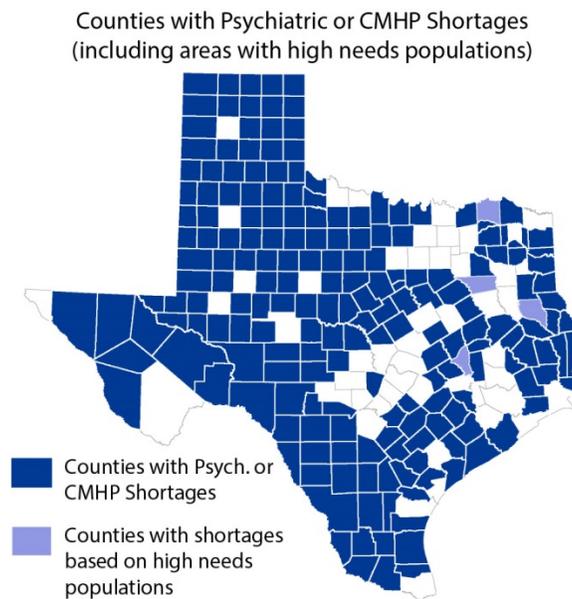
⁷ Among all direct patient care physicians in Texas, 25.1% graduate from medical schools outside of the US.

Type of Psychiatric Residency	2008	2013	Percent Change over 5 Years
Addiction	1	3	+300%
Geriatric	5	1	-80%
Total	316	361	+15.5%

Core Mental Health Professions

The federal provider ratios listed above account only for the number of psychiatrists serving a population. However, an alternative federal means for designating shortages in the mental health professions is to consider both psychiatrists and other related occupations, such as clinical psychologists, psychiatric nurses, clinical social workers, licensed professional counselors, and marriage and family therapists (Thomas, Ellis, Konrad, Holzer, & Morrissey, 2009). The federal HPSA designations including these core mental health providers (CMHP) require a population to CMHP ratio of 9,000:1 including psychiatrists or 6,000:1 CHMP excluding psychiatrists and 20,000:1 for psychiatrists. Incorporating these definitions, 23.3% of the 2013 Texas population lived in 199 different counties with mental health workforce shortages.

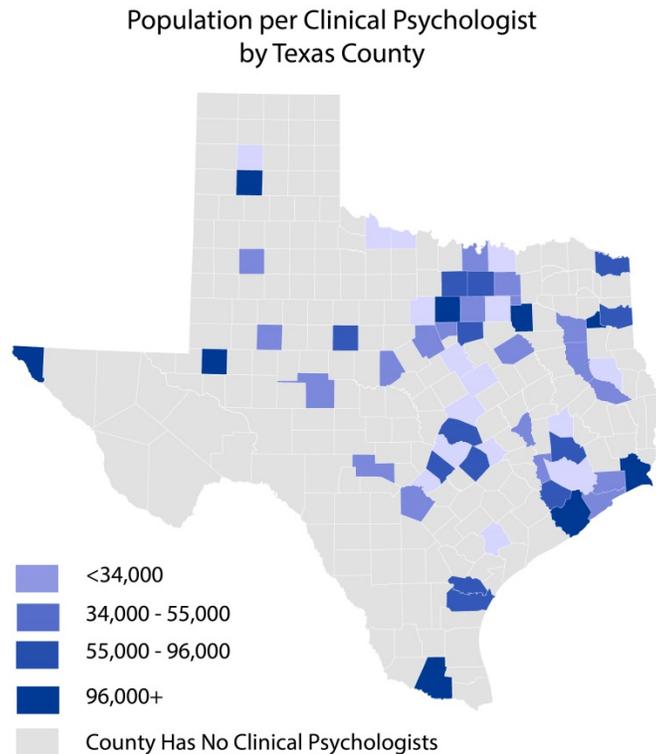
Finally, areas with greater than 20% of their population at or below the federal poverty level, high proportions of underage or geriatric populations, or levels of alcohol/substance abuse in the top quartile of national, state, or regional prevalence may be designated HPSAs with unusually high needs for mental health providers. In these areas, a population to psychiatrist ratio of 20,000:1, a population to CMHP ratio of 6,000:1, or a 4,500:1 population-to-CMHP (excluding psychiatrists) ratio and a 15,000:1 population-to-psychiatrist ratio are eligible for designation. This broader definition drew four more counties into the shortage, resulting in 203 counties and over 6.6 million Texans (24.9%) experiencing whole county shortages.



Clinical Psychologists

As of September 2013, there were 566 actively licensed psychologists in Texas indicating a clinical specialty. This provided a ratio of 47,111 Texans per clinical psychologist in the state. Over two-thirds (67.84%) practiced in Texas' five most populous counties (Harris, Dallas, Tarrant, Bexar, and Travis). These five counties had a combined ratio of 36,236 persons per clinical psychologist while the remainder of Texas had 86,277 persons per clinical psychologist. There were no practicing clinical psychologists in any of the rural border counties.

Geographic Designation	Population per Clinical Psychologist
Metropolitan, Non-Border	40,031
Metropolitan, Border	159,193
Non-Metropolitan, Non-Border	123,622
Non-Metropolitan, Border	-
Texas	47,111



Data to calculate annual growth rates of clinical psychologists were unavailable, but data did show that 21.0% of Texas' clinical psychologists were 65 or older while another 27.2% were between 55 and 64 years of age. Thus once more, a sizable proportion of the profession (48.2%) will be of retirement age by 2023.

Data for race/ethnicity were not available for clinical psychologists.

Psychologists (All)

HRSA definitions allow for only clinical psychologists to be considered as CMHPs. However, Texas' 2013 total psychology workforce was substantially larger than the clinical subset described above. In fact, there were 7,243 persons eligible to practice under at least one of the state's four license types in 2013. This number includes 3,009 specialists in school psychology, 1,041 licensed psychological associates, and 4,176 licensed psychologists.⁸

Geographic Designation	Population per Psychologist (All)
Metropolitan, Non-Border	3,190
Metropolitan, Border	10,428
Non-Metropolitan, Non-Border	7,618
Non-Metropolitan, Border	20,024
Texas	3,681

Among those licensed to practice psychology, 16.4% were 65 years old or older and 24.7% were between 55 and 64 years of age, percentages slightly lower than those of clinical psychologists.

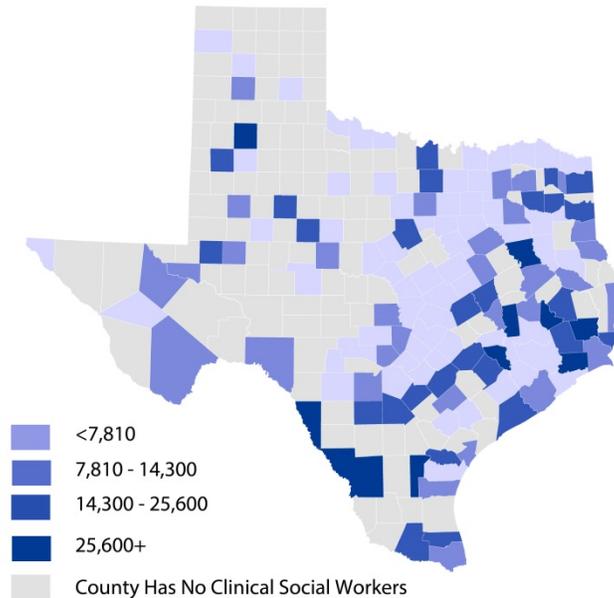
Clinical Social Workers

Clinical social work is the use of social work knowledge and skills to apply professional theory, knowledge, and methods to restore social, psychosocial, and bio-psychosocial functioning. In September 2013, there were 6,316 licensed clinical social workers in Texas. 4,119 (65.2%) of these were in the state's five most populous counties while the remainder were in Texas' other 249 counties, with corresponding population-to-provider ratios of 2,809:1 and 6,870:1, respectively.

Geographic Designation	Population per Clinical Social Worker
Metropolitan, Non-Border	3,642
Metropolitan, Border	9,950
Non-Metropolitan, Non-Border	11,056
Non-Metropolitan, Border	23,779
Texas	6,316

⁸ A single practitioner can be licensed under multiple license types.

Population per Clinical Social Worker
by Texas County



The number of clinical social workers in Texas increased at an average annual rate of 4.3% from 2008 to 2013, yet the effective annual growth rate was only 2.3% when population growth is considered.

In the case of clinical social workers in 2013, 19.1% were 65 or older while 29.5% were between 55 and 64. Thus, 48.6% of clinical social workers will be of retirement age within the following decade. Race/ethnicity data were not available for clinical social workers.

Social Workers (All)

HRSA definitions allow for only clinical social workers to be considered as CMHPs. However, Texas' total social worker workforce is also larger than the clinical subset described above. In fact, there were 18,785 social workers in 2013.

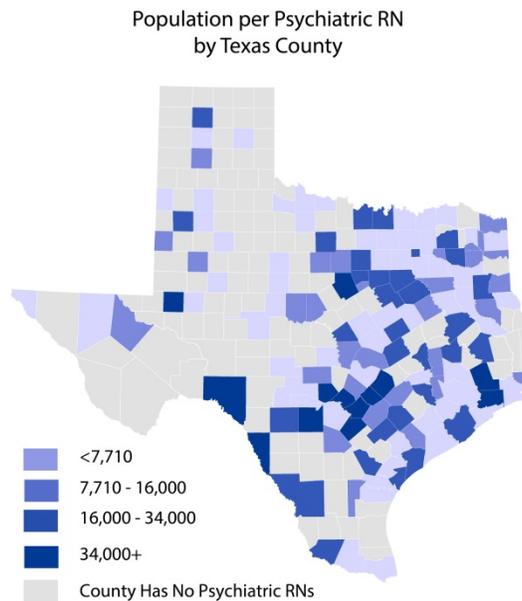
Geographic Designation	Population per Social Worker (All)
Metropolitan, Non-Border	1,300
Metropolitan, Border	2,076
Non-Metropolitan, Non-Border	2,158
Non-Metropolitan, Border	4,476
Texas	1,420

When considering all social workers, 11.3% were 65 years old or older and 23.4% were between 55 and 64 years of age. These percentages are lower than those of clinical social workers.

Psychiatric Nurses

Nationally, there has been a shortage of psychiatric/mental health nurses since the 1980s. The 2004 National Survey Sample of Registered Nurses showed that younger nurses preferred clinical over psychiatric/mental health settings, that fewer total younger nurses were entering the workforce, and that psychiatric/mental health nurses were older than the workforce at large (Delaney, 2012). As of September 2013, there were 188 clinical nurse specialists (CNS) in Texas⁹ specializing in psychiatry/mental health. These 188 CNSs would be recognized as CMHPs for mental health HPSA designations. There are an additional 274 nurse practitioners with psychiatric/mental health specialties. There are a total of 5,657 registered nurses (RN), including CNSs and NPs) reporting psychiatric/mental health/substance abuse as their practice specialty.

Geographic Designation	Population per Psychiatric RN
Metropolitan, Non-Border	4,499
Metropolitan, Border	7,003
Non-Metropolitan, Non-Border	4,525
Non-Metropolitan, Border	47,558
Texas	4,714



Among clinical nurse specialists and nurse practitioners specializing in psychiatry or mental health, 52.6% were aged 55 or more years and 20.6% were already 65 or older. Among all

⁹ The Texas Center for Nursing Workforce Studies, housed within DSHS' Center for Health Statistics, conducts ongoing research on the state's nursing workforce shortage. More information on this element can be obtained at www.dshs.tx.us/chs/cnws/.

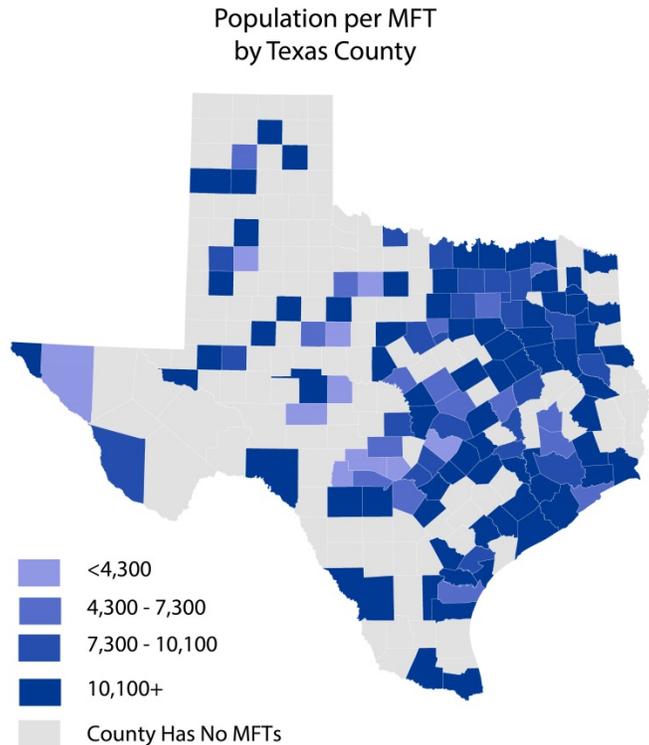
registered nurses with psychiatric specialties, 47.4% were 55 or older and 13.5% were 65 or older.

The vast majority of clinical nurse specialists and nurse practitioners with a psychiatric focus were white (72.3%), with African-American (10.4%) and Hispanic (10.0%) the next most common categories. Among registered nurses with a psychiatric focus, 60.8% reported being white, 18.3% reported being African-American, and 10.2% reported being Hispanic.

Marriage and Family Therapists

There were 3,062 marriage and family therapists (MFTs) practicing in Texas as of September 2013, giving a ratio of 8,708.2 persons per MFT. Within the state’s five most populous counties the population to MFT ratio was 6,442:1 while it was 11,923:1 in the rest of the state, comprising proportions of 41.35% and 58.65%, respectively.

Geographic Designation	Population per MFT
Metropolitan, Non-Border	7,435
Metropolitan, Border	32,269
Non-Metropolitan, Non-Border	19,998
Non-Metropolitan, Border	95,116
Texas	8,708



In 2013, 27.7% of MFTs were 65 or older and another 31.8% were between 55 and 64 years old, meaning that 59.6% of the workforce will be of retirement age by 2023. Finally, average annual

growth of the MFT workforce in Texas has been 1.8% from 2008-2013. Yet when considering population growth, there has been just 0.2% average annual growth.

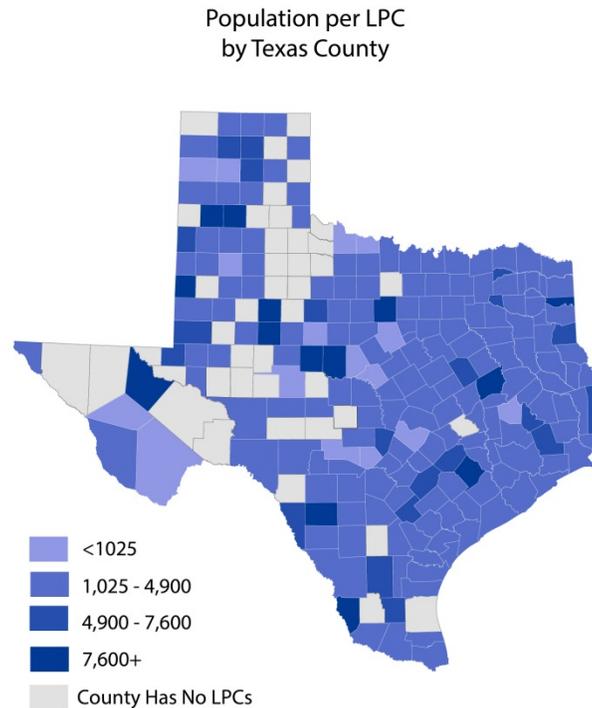
Other Licensed Mental Health Professions

Licensed Professional Counselors

Licensed professional counselors (LPCs) are licensed by DSHS and perform a wide range of counseling services that utilize wide-ranging methods and strategies to help clients achieve mental, emotional, physical, moral, social, educational, spiritual, and/or career development and adjustment (Title 22, Texas Administrative Code, Chapter 681).

In September 2013, there were 18,641 licensed professional counselors (LPCs) in the state, giving a population to provider ratio of 1,430. The five most populous counties had a population to provider ratio of 1,221 while the rest of Texas had a ratio of 1647.1.

Geographic Designation	Population per LPC
Metropolitan, Non-Border	1,290
Metropolitan, Border	2,674
Non-Metropolitan, Non-Border	2,190
Non-Metropolitan, Border	3,963
Texas	1,430



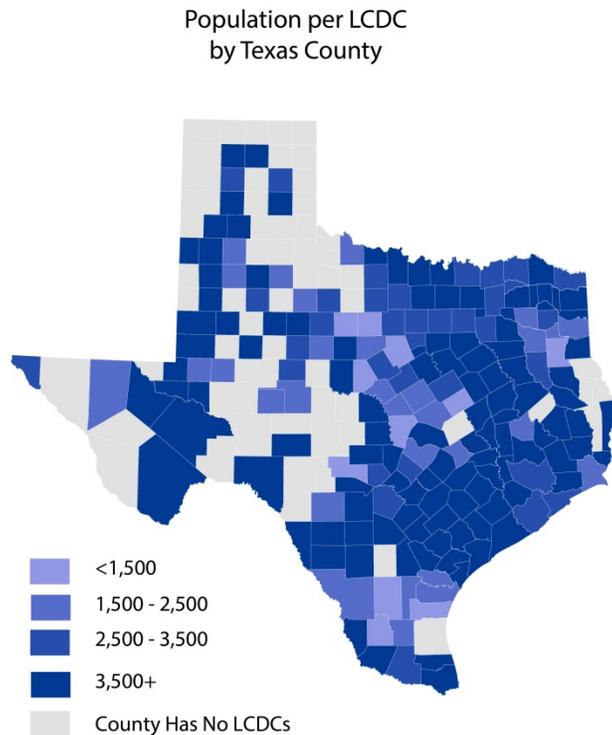
This field has had average annual growth of 5.47% from 2008 to 2013 and yearly growth over 5.5% from 2009 to 2013. Moreover, only 14.9% of the workforce was over 65 years old and just 22.9% was 55 to 64 years of age, meaning just 37.8% will be eligible for retirement by 2023.

Licensed Chemical Dependency Counselors

Licensed chemical dependency counselors are licensed by the Department of State Health Services and provide clients with a planned, structured, and organized chemical dependency program designed to initiate and promote a person's chemical-free status or to maintain the person free of illegal drugs (Title 25, Texas Administrative Code, Chapter 140).

There were 8,743 licensed chemical dependency counselors (LCDCs) in Texas in September 2013, with 3,974 of these (45.5%) practicing in Texas' five most populous counties. The corresponding population-to-provider ratios were 2,912 in these most populous counties and 3,165 in the rest of the state.

Geographic Designation	Population per LCDC
Metropolitan, Non-Border	2,986
Metropolitan, Border	3,069
Non-Metropolitan, Non-Border	3,421
Non-Metropolitan, Border	4,816
Texas	3,050



LCDCs have shown average annual growth of 4.7% from 2008 to 2013 with growth above 4.5% each year between 2009 and 2013. However, the population-to-LCDC ratio had lower average annual improvement of 2.5% over this period. In September 2013, 11.6% of the workforce was 65 years of age or older and 25.9% was between 55 and 64, totaling 37.5% eligible for retirement within ten years.

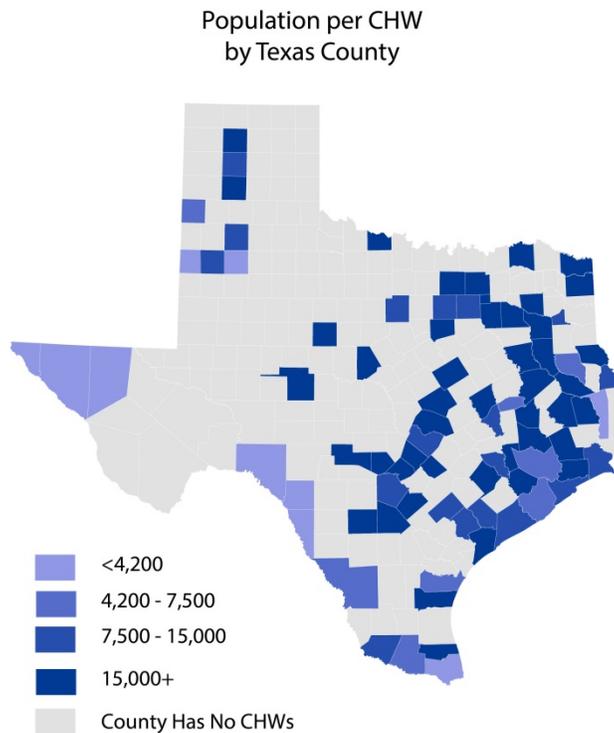
Unlicensed Mental Health Providers

Community Health Workers/Promotores

Community health workers (CHWs), or *promotores*, are certified by DSHS. These practitioners serve as liaisons between health and social services and community members, helping to bridge ethnic, linguistic, and socioeconomic divides. CHWs help community members access services and build capacity through a variety of activities.¹⁰

In 2013, there were 2,406 certified CHWs in Texas and annual growth was above 20% each year from 2009 to 2013. Over this same period, the ratio of population to CHW has improved an average of 22.4%

Geographic Designation	Population per CHW
Metropolitan, Non-Border	11,910
Metropolitan, Border	4,805
Non-Metropolitan, Non-Border	39,416
Non-Metropolitan, Border	6,137
Texas	11,083



Certified Peer Specialists

A growing national and state trend involves people in recovery from mental illness acting as certified peer specialists (CPS) to provide support to others in treatment. DSHS has helped fund

¹⁰ More information on CHW duties and certification can be found at: <http://www.dshs.state.tx.us/mch/chw.shtm>

ViaHope, an organization that provides training and certification to CPSs. According to ViaHope, there were 333 CPSs in January 2014 and the organization had conducted 19 total trainings in Austin, Dallas-Fort Worth, San Antonio, Houston and one in East Texas.

Certified Family Partners

Similar to CPSs, certified family partners (CFP) are parents or guardians experienced in raising a child with mental or emotional issues who are certified to help other parents navigate the system of care. ViaHope also runs the CFP training and certification program. This program has produced 99 CFPs as of January 2014.

Substance Abuse Recovery Coaches

Serving as a recovery coach (RC) is a form of strengths-based support for persons with substance use disorders or in recovery from alcohol or other drugs and who may also have other mental health issues. These trained individuals offer shared living experiences to assist persons with active addictions as well as persons in recovery.

DSHS' Substance Abuse Program Services Department developed the Recovery Coach Training of Trainers curriculum with the assistance of four non-profit organizations. These organizations assist trained individuals in obtaining paid or volunteer positions as RCs in places like treatment centers, hospital emergency rooms, and community and faith-based organizations. Using the DSHS curriculum and funding, these four organizations trained over 100 individuals in Fort Worth, San Antonio, Corpus Christi, and Beaumont. These 100 RC trainers have since trained over 300 individuals as recovery coaches as of February 2014. This on-going training process provides a supportive workforce for the healthcare industry.

Through DSHS' Substance Abuse Program's Texas Recovery Initiative, RCs have the opportunity to become certified as a Substance Abuse Peer Recovery Support Specialist through the Texas Certification Board of Addiction Professionals (TCBAP) upon meeting TCBAP requirements.

Policy Recommendations

A synthesis of workforce studies has identified five important areas to be targeted (Buerhaus & Retchin, 2013; Hogg Foundation for Mental Health, 2007). First, the state shortage of mental health providers should be addressed through improved employee recruitment and retention and the reorganization of service delivery. Second, there is a chronic maldistribution of the state's workforce requiring greater attention to the needs of rural and border areas. Third, the state's workforce will require greater cultural and linguistic diversity to serve its population. Fourth, the educational curriculum for health professionals should be reevaluated and updated in light of evolving advancements in health care. Fifth, there is currently an insufficient quantity and quality of data at the state and national level to fully inform workforce planning initiatives. Policy recommendations may be offered for any of these six areas or other areas as needed.

General Shortage of Mental Health Providers

As shown above, Texas faces sizable shortages in its mental health workforce. Given the nationwide shortage, it is unlikely that practitioners can be drawn here from other states

(Thomas, Ellis, Konrad, & Morrissey, 2012). Rather, it is incumbent upon the state to develop and maintain its own mental health workforce.

Incentives for Workers

Best practices in recruiting and retaining a workforce of specialists include early exposure to career opportunities in the field and the special populations served, mentoring by behavioral health specialists, training stipends, minority fellowships, loan repayment programs, and the development of career ladders. Paying wages commensurate with the education, experience, and responsibility required of such specialists appears to be a primary factor in the success or failure of recruitment and retention efforts (Hoge, Stuart, Morris, Flaherty, Paris, & Goplerud, 2013). The Hogg Foundation for Mental Health (2011) has further recommended that the state work to increase the number of intern sites across professions and address the problems of inadequate pay and reimbursement in the public system.

Expansion of Medical Education

The robust expansion of graduate medical education has the most potential to bolster the supply side of the physician workforce strategies, yet the availability of funded residency slots remains a concern (Kirch, Henderson, & Dill, 2012). There has been no substantial increase in the number of graduate medical education residency training positions since the 1997 federal Balanced Budget Act (Kirch, Henderson, & Dill, 2012). Yet more residency positions in psychiatry are needed and their funding needs to be made more secure (Roberts, et al., 2013). Further, research has shown that targeting graduate medical and undergraduate pre-medical students with specialty clerkships and curriculum tracks is effective in recruiting students into residencies of that specialty (Grobler, Maraias, Mabunda, Marindi, Reuter, & Volmink, 2009).

Reconsideration of Scope of Practice and Integrated Care

Research has indicated that existing practitioners should be deployed to use the best of their abilities and that each profession should be granted a maximum amount of reasonable responsibility. One essential attribute of future health workers will be the ability to recognize and employ suitable innovations, even if this causes a personal role change (Gorman & Brooks, 2009). The utilization of team-based care, collaborative care organizations, and medical homes have been cited as ideal models for improving outcomes and efficiency (Kirch, Henderson, & Dill, 2012). Medical, or health, homes have been presented as an appealing opportunity to offer integrated medical and behavioral health services (Beacham, Kinman, Harris, & Masters, 2011) while also potentially offering social service and housing programs (Mechanic, 2011).

Physicians might cede some of the simpler tasks and practice ‘at the top’ of their training, allowing other professions to fill in the gaps through role extension. Physicians may then provide leadership while working as members of health care teams, with well-specified and defined tasks for each profession (Gorman & Brooks, 2009). For example, the increased use of NPs and PAs has great potential to significantly address health care workforce shortages (Kirch, Henderson, & Dill, 2012). Federal programs (Caccavale, Reeves, & Wiggins, 2012) and the states of New Mexico and Louisiana have granted prescriptive authority to psychologists trained in psychopharmacology. Similar initiatives have recently been considered in New Jersey and Illinois, passing one legislative body in each state before stalling in the other. Responsible role expansion should continue to be considered.

Following the Annapolis Framework (SAMHSA's Action Plan on Behavioral Health Workforce Development), expanding the capacities and roles of other health care providers should also help ease the shortage. This may be accomplished through greater use of unlicensed, certified practitioners such as community health workers or the introduction of occupations like certified peer specialists (Hoge, Stuart, Morris, Flaherty, Paris, & Goplerud, 2013). More than 20 states are now reimbursing certified peer specialists under Medicaid while another 22 have indicated the intent to do so (Hoge, Stuart, Morris, Flaherty, Paris, & Goplerud, 2013). Many mental health programs are not taking advantage of these professionals, due in part to limited employer awareness of the positive outcomes associated with their use. The Hogg Foundation for Mental Health (2011) has recommended that CPSs be allowed to bill for their services.

Maldistribution of the Mental Health Workforce

As shown above, much of the state lacks suitable levels of mental health professionals, especially in rural and border areas. With an increase in insured patients and access to care under the PPACA, the existing health workforce shortage is likely to become more pronounced (Roberts, et al., 2013). Indeed, rural communities already lacking mental health professionals and primary care practitioners will find it more difficult to develop the multidisciplinary, integrated service models believed optimal for people with comorbid conditions (Talbot & Coburn, 2013). Given the nationwide shortage, it is unlikely that Texas can meet its staffing needs by recruiting practitioners from other states (Thomas, Ellis, Konrad, & Morrissey, 2012) and the extent of the mental health shortage is expected to worsen as the workforce continues to age (Hogg Foundation for Mental Health, 2011). Previous research on the mental health workforce shortage has shown that ameliorating policies should focus on 1) efforts to recruit health workers to these areas and retain them once they are practicing; and 2) provide the educational, regulatory, financial, personal, and professional support in which these practitioners can thrive (Dolea, Stromont, & Braichet, 2010).

Targeted Recruitment

In order to recruit and retain needed health care professionals to underserved areas, stable and rewarding personal and professional environments are necessities (Grobler, Maraias, Mabunda, Marindi, Reuter, & Volmink, 2009). Previous efforts at workforce recruitment have focused on temporary commitments from contracted providers, but research has shown that 'home-grown' products might be more sustainable (Talbot & Coburn, 2013). Specifically, professionals from rural backgrounds or who have served in rural areas in residence or early in practice are more likely to engage in long-term rural practice. For example, over 2/3 of graduates of the Physician Shortage Area Program in Pennsylvania and Delaware have continued to practice in the same rural area for over a decade. Importantly, this program contains clinical rotations in underserved areas and appropriate educational preparation for rural practice, creating more interest in rural service (Dolea, Stromont, & Braichet, 2010). Further, it has been suggested that the location of university departments and/or teaching clinics in rural areas, the provision of rural clinical experiences for medical students, and rural and scarce skills allowances for practitioners can boost the workforce (Grobler, Maraias, Mabunda, Marindi, Reuter, & Volmink, 2009).

Geriatric specialties may face even greater shortages in rural areas. Research suggests that multiple providers in an underserved area consider forming networks that would allow them to act as a single underserved site (Talbot & Coburn, 2013).

Telemedicine

Another option for addressing these shortages is to increase the use of telepsychiatry and tele-mental health services. Previous research has shown that telepsychiatry provides a link between urban areas, where psychiatrists are located, and allows them to interact with rural patients and primary care practitioners as needed (Chung-Do, Helm, Fukuda, Alicata, Nishimura, & Else, 2012). Telepsychiatry also has demonstrated diagnostic accuracy and service satisfaction relative to in-person practice. (Chung-Do, Helm, Fukuda, Alicata, Nishimura, & Else, 2012). Given this proven efficacy, the expansion of tele-mental health services may prove beneficial in increasing the geographic reach of the mental health workforce. The proposed expansion of telepsychiatry training is addressed below.

While current federal and state policy allow for the practice of telehealth and its payment reimbursement, there are in fact very few total mental health providers and clients in Texas. Medicare and Medicaid reimburse the tele-health services of psychiatrists, nurse practitioners, clinical nurse specialists, physician assistants, clinical psychologists, and clinical social workers. Further, Texas Insurance Code, Chapter 1455 prohibits the denial of payment on the basis of services having been provided through tele-health technology. The Texas Medical Board has established rules for out-of-state practitioners to practice telemedicine in Texas, but other relevant licensing boards do not. The Texas Health and Human Services Commission reported 98 tele-mental health providers serving 9,748 Medicaid clients in 2011. These numbers represented a 113% and 128% increase from 2009, respectively (Texas Health and Human Services Commission, 2012).

Lack of Diversity

Those patients with the least established links to the health care system are the first to suffer the effects of health care shortages (Kirch, Henderson, & Dill, 2012). Indeed, minority status is associated with negative social outcomes (less education, higher rates of uninsuredness, less English-language proficiency). These outcomes are subsequently linked to difficulties in accessing health services and receiving quality care, negatively affecting behavioral health. Previous studies have shown that greater percentages of whites in need of mental health services receive them and that minorities have greater levels of mortality from substance abuse (Hoge, Stuart, Morris, Flaherty, Paris, & Goplerud, 2013).

Given these outcomes, the low rates of diversity in the mental health workforce should be considered as minority practitioners are more likely to see minority patients than are white practitioners. It has also been shown that health care consumers have better therapeutic relationships and stronger retention rates when using a practitioner of their own race/ethnicity (Hoge, Stuart, Morris, Flaherty, Paris, & Goplerud, 2013). This lack of cultural and linguistic diversity in the workforce results in a shortage of providers with the knowledge, training, and skills to serve people who speak languages other than English or of racial/ethnic minority populations (Hogg Foundation for Mental Health, 2011)

Targeted Recruitment

Two means have been offered to increase the diversity in the workforce. First, efforts to recruit minorities into health professions training programs should be expanded. However increasing the numbers of minorities in the professions requiring greater education should be accompanied by efforts to improve the educational attainment of minorities at large (Gorman & Brooks, 2009).

Second, psychiatric care in the United States and Texas is and will continue to be dependent upon the services of international medical graduates. These workers have diverse backgrounds and sensitivity to the experiences of minorities, including cross-cultural issues, the recognition of and respect for other ethnic groups, and tolerance of non-English language proficiency (Boulet, Cassimatis, & Opalek, 2012).

Outdated Educational Content and Teaching Methods

As the PPACA heightens the shortage, leaders in health profession education must respond to this challenge (Kirch, Henderson, & Dill, 2012). Increasing expenditures on graduate medical education has proven insufficient to grow the physician workforce to the extent needed. Rather, there is a need for innovative practices, inter-professional collaboration, and improved quality of care. Current and projected shortages suggest that the roles and activities of health care workers must likely be reorganized to maximize the productivity of the workforce (Buerhaus & Retchin, 2013). This is likely to include expanding the roles of advanced practice nurses, physician assistants, and other professions including the lay workforce (see above) (Buerhaus & Retchin, 2013).

Curriculum Changes

Higher education programs and accrediting bodies can meet the needs these changes cause by updating their curriculum (Hoge, Stuart, Morris, Flaherty, Paris, & Goplerud, 2013). Further, academic medical centers must embrace the innovation imperative and address the projected workforce shortages (Kirch, Henderson, & Dill, 2012). Rather than relying on tradition or incremental change, these efforts should identify and employ ‘disruptive innovations’ that will spark true workforce growth and increased efficiency (Gorman & Brooks, 2009). It is known that programs will require additional faculty and greater leadership development among existing faculty to achieve the quality of education needed (Kirch, Henderson, & Dill, 2012), but they must also seek to align changing elements of the education system and health system with each other and with patient care needs (Gorman & Brooks, 2009).

Expanded Training in Clinical Settings

Within psychiatry, Roberts, et al. (2013) suggest a focus on the psychiatry curriculum and the development of innovative teaching strategies to attract and prepare new workers. Specifically, psychiatry clerkships and electives should be expanded and made available to students entering medical school who have not yet chosen a specialty. Further, researchers have recommended that psychiatry residents and fellows receive specific training in telepsychiatry delivery, including such diverse topics as program sustainability, model of health service delivery, program infrastructure development, legal and regulatory issues, administrative strategies, technical applications, quality of service, and clinical outcomes assessment. (Chung-Do, Helm, Fukuda, Alicata, Nishimura, & Else, 2012).

With respect to the role primary care practitioners fill in supplying mental health care, the American Academy of Pediatrics has recommended the inclusion of child psychiatry and developmental-behavioral pediatric training in residency. Despite this recommendation, it has been shown that few primary care practitioners feel capable of diagnosing or treating psychopathology in children or adolescents.

For psychologists, a greater concentration of academic training and workplace experience should occur in the clinical psychological setting, including the expansion of rotations for psychologists in the primary care setting (Beacham, Kinman, Harris, & Masters, 2011). Further, doctoral psychology training programs should: find ways to maximize the expertise of their faculty; provide greater teaching and supervisory remuneration; maximize the knowledge and skills of their students; and create and expand clinic relationships and affiliations. Community health centers have been presented as offering an ideal place for psychological training in primary care behavioral health as these efforts would be available to patients with fewest resources and greatest needs (Beacham, Kinman, Harris, & Masters, 2011). 33.6% of adults with serious and persistent mental illness received services through the community health system due in part to the shortage of physicians accepting Medicaid (Hogg Foundation for Mental Health, 2011). As a result of federal funding mechanisms, rural Community Mental Health Centers often provide a narrow range of services in tightly defined catchment areas (Talbot & Coburn, 2013), but these might be expanded through the targeted use of internships and clerkships.

Finally, nursing faculty should share and build new curricula for RNs entering psychiatric nursing (Delaney, 2012).

Insufficient Data to Inform Workforce Planning

The main finding of a recent systematic review on health workforce planning showed that there has been an absence of rigorously designed studies supporting the use of specific interventions addressing the shortage of health professionals (Grobler, Maraias, Mabunda, Marindi, Reuter, & Volmink, 2009). Traditional planning has been insufficient in accounting for population need, models of health care delivery, and workforce productivity. Effective planning must involve the sustained investment on iterative collection of data on each of these elements (Murphy, Birch, MacKenzie, Alder, Lethbridge, & Little, 2012). Definitions of workforce adequacy must consider population need and the available supply of mental health professionals (Thomas, Ellis, Konrad, & Morrissey, 2012).

Assessment of Mental Health Service Needs

As noted above, the first core requirement of assessing the suitability of a health workforce is to understand the needs of the population. Currently, sufficient demand models for Texas' mental health workforce do not exist, especially for small areas. These forward-looking predictive models should consider the local morbidity of mental illness, mental health service utilization rates for both patients with serious mental illness and the population at-large, and the proportion of mental health needs currently being met by primary care providers (Thomas, Ellis, Konrad, Holzer, & Morrissey, 2009). Such a model is especially important as the U.S. and Texas work to address a chronic lack of health care accessibility (Buerhaus & Retchin, 2013).

In addition to these more traditional considerations of need, patient socioeconomic status and cultural and linguistic diversity affect the accessibility and suitability of health care (Terry, Terry, Hoang, & Hannah, 2013). Indeed, there is a greater need to distinguish between spatial (geographic) barriers to care and aspatial (social organizational) variables in the description of patient need (Terry, Terry, Hoang, & Hannah, 2013; Wang, 2012). Indeed, measurements of shortage should conceptualize access using more nuanced means (Wang, 2012), including the prevalence of mental health disorders (variable by demographics), the extent of need among

those in need, the extent PCPs can meet mental health needs, and finally the mismatch between the level of need and the services provided (Konrad, Ellis, Thomas, Holzer, & Morrissey, 2009).

Workforce Development Data

Second, greater consideration of factors affecting workforce development and distribution are needed. More and better data should be collected on the level of service provided for different levels of health and illness and the productivity of providers should be measured (Murphy, Birch, MacKenzie, Alder, Lethbridge, & Little, 2012). Currently, there is no systematically and uniformly collected nationwide data on the mental health workforce (Hoge, Stuart, Morris, Flaherty, Paris, & Goplerud, Mental Health and Addiction Workforce Development: Federal Leadership is Needed to Address the Growing Crisis, 2013) and data quality in Texas varies by the licensing board and profession. Thus, greater investments on the activity and productivity of health workers are needed to ascertain the effectiveness of staffing levels (Murphy, Birch, MacKenzie, Alder, Lethbridge, & Little, 2012). Additionally, more extensive and complete minimum data requirements, including race, ethnicity, and languages spoken would allow a better understanding of provider ability to meet population needs. “Without these statistics, it is challenging to identify a plan for developing the mental health workforce skills and abilities needed to meet the state’s increasingly diverse mental health needs” (Hogg Foundation for Mental Health, 2011).

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