

Health Workforce Policy Brief

August 2017

Telemental Health Utilization and Training Needs Assessment in Nebraska

Shinobu Watanabe-Galloway, PhD, Howard Liu, MD, Brittany Smith, MPH
University of Nebraska Medical Center

BACKGROUND

Approximately one in five adult Americans experience a behavioral health disorder each year; however, limited reach of behavioral health services remains a pervasive problem in the United States,¹ especially among rural and underserved populations. In rural communities, the delivery of quality behavioral health services is limited by geographic isolation, low socioeconomic status of the population, and cultural and stigmatic barriers.² This is further compounded by the difficulty in recruiting and retaining professionals and staff in these geographically remote environments.³

Workforce shortage is a serious public health issue in rural states such as Nebraska.⁴ Using the U.S. Office of Management and Budget designation of metropolitan counties⁵ and the 2008 Department of Health and Human Services definition of frontier⁶ (i.e., less than or equal to 6 persons per square mile), there are nine metropolitan, 49 rural, and 35 frontier counties in Nebraska. Nebraska also has six Behavioral Health Regions (BHRs) as defined by LB 1083. Consistent with national workforce statistics, Nebraska's mental health workforce is underrepresented in rural and frontier parts of the state. For example, 88 of Nebraska's 93 counties are designated as federal mental health profession shortage areas (HPSAs). Eighty counties have a psychiatrist-to-population ratio below the federal HPSA ratio of 1:30,000. Seventy-eight counties have no practicing psychiatrists.⁴

Although telehealth is considered useful in providing behavioral health care in rural and underserved communities, there are variations across states with regard to the level of telehealth adoption. This study had three objectives: 1) investigate the variations in the use of telemental health across the six behavioral regions in Nebraska; 2)

CONCLUSIONS AND POLICY IMPLICATIONS

Main conclusions from this study may inform state and federal policies:

- Providers and administrators in rural communities reported that telemental health is an effective way to increase access to care.
- A small start-up grant may be provided to expand clinical sites in rural communities to host telemental health sessions.
- A brief in-person and e-module may be delivered by business managers and providers who already experienced the implementation of telemental health
- By incorporating telemental health and integrated care training in the medical school, nursing and physician assistant curricula, future health care providers will be more prepared to deliver these modes of services.

¹Center for Behavioral Health Statistics and Quality. (2016). Key substance use and mental health indicators in the United States: Results from the 2015 National Survey on Drug Use and Health (HHS Publication No. SMA 16-4984, NSDUH Series H-51). Retrieved from <http://www.samhsa.gov/data/>. August 31, 2017.

²MacDowell, M., Glasser, M., Fitts, M., Nielsen, K., and Hunsaker, M. (2010). A national view of rural health workforce issues in the US. *Rural and Remote Health*, 10(3), 1531.

³Substance Abuse and Mental Health Services Administration. (2013). Report to Congress on the Nation's Substance Abuse and Mental Health Workforce Issues. Retrieved from <https://store.samhsa.gov/shin/content/PEP13-RTC-BHWORk/PEP13-RTC-BHWORk.pdf>. August 31, 2017.

⁴Watanabe-Galloway, S., Trout, K., Deras, M., Naveed, Z., Chen, L. (2015). Nebraska's Behavioral Health Workforce-2000 to 2014. Retrieved from <https://unmc.edu/bhecnc/documents/BH-Workforce-Report-2015-FINAL.pdf>. August 31, 2017.

⁵Office of Management and Budget. (2015). Revised Delineations of Metropolitan Statistical Areas, Micropolitan Statistical Areas, and Combined Statistical Areas, and Guidance on Uses of the Delineations of These Areas. Retrieved from <https://obamawhitehouse.archives.gov/sites/default/files/omb/bulletins/2015/15-01.pdf>. August 31, 2017.

⁶National Center for Frontier Communities. (2014). Frontier Definitions List. Retrieved from <http://frontierus.org/frontier-definitions/>. August 31, 2017.

identify barriers and promoters of telemental health; and 3) identify the training and continuing education needs for telemental health to prepare for the optimal integrated care.

METHODS

We used a mixed-methods study design to collect information from providers and behavioral health service administrators. First, we used behavioral health workforce data collected from the Health Professions Tracking Service to describe the variations in the behavioral health workforce supply in the state. Second, we conducted semi-structured in-person and phone interviews with providers and administrators from each of the six BHRs. The total of 19 interviews were conducted among 28 individuals. The interview guide was developed based on interview and survey questions used in previous telehealth studies.^{7,8,9,10} The topics covered in the interviews included: 1) resources needed to establish the telemental health services in the region, 2) types of services provided, 3) barriers to service expansion, and 4) education and training needs. Lastly, we conducted an online survey of Medicaid providers to assess their use of telemental health and training and education needs.

KEY FINDINGS

Variations in Behavioral Health Workforce Supply across Regions

In 2016, there were a total of 164 psychiatrists actively practicing in Nebraska. The majority of psychiatrists were practicing in two urban regions (Regions 5 and 6) (Table 1), with highest concentrations in Sarpy and Douglas Counties (Region 6) and Lancaster County (Region 5) (Figure). Overall, the supply of psychiatrists has been mostly stable between 2010 and 2016 with the exception of Region 4 (-56%).

Table 1. Supply of Psychiatrists actively practicing in Nebraska: 2010-2016

Region	2010	2012	2014	2016	Difference 2010-2016	% Difference 2010-2016
1	5	3	3	3	-2	-40%
2	3	3	5	3	0	0.0%
3	11	10	10	10	-1	-9.1%
4	9	10	4	4	-5	-55.6%
5	33	32	32	33	0	0.0%
6	101	98	103	111	10	+9.9%
Total	162	156	165	164	2	+1.2%

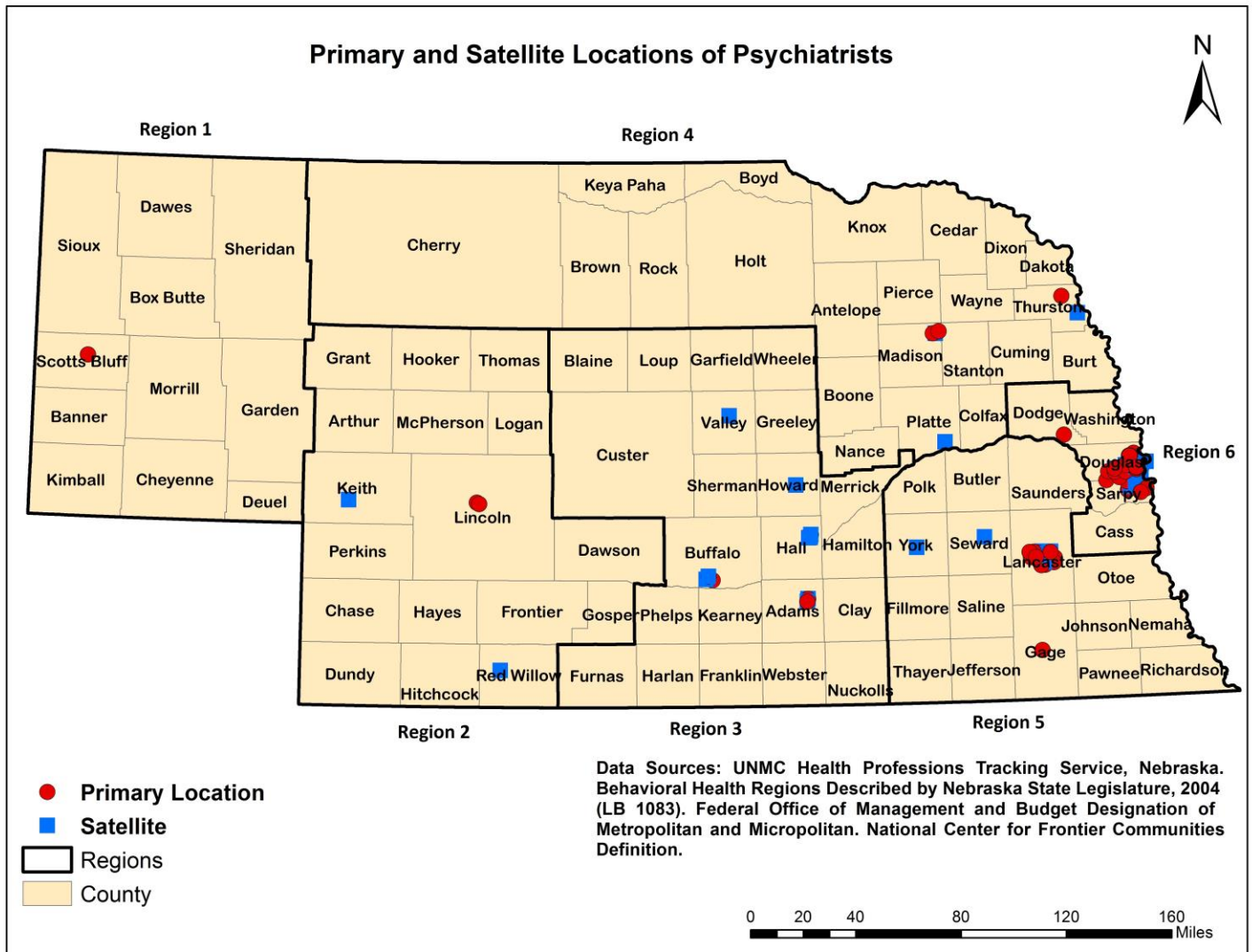
⁷ Jameson, J. P., Farmer, M. S., Head, K. J., Fortney, J., & Teal, C. R. (2011). VA community mental health service providers' utilization of and attitudes toward telemental health care: the gatekeeper's perspective. *The Journal of Rural Health, 27*(4), 425-432.

⁸ Barton, P. L., Brega, A. G., Devore, P. A., Mueller, K., Paulich, M. J., Floersch, N. R., ... & Hrincevich, C. (2007). Specialist physicians' knowledge and beliefs about telemedicine: a comparison of users and nonusers of the technology. *Telemedicine and e-Health, 13*(5), 487-500.

⁹ Adler, G., Pritchett, L. R., Kauth, M. R., & Nadorff, D. (2014). A pilot project to improve access to telepsychotherapy at rural clinics. *Telemedicine and e-Health, 20*(1), 83-85.

¹⁰ Nepal, S., Li, J., Jang-Jaccard, J., & Alem, L. (2014). A framework for telehealth program evaluation. *Telemedicine and e-Health, 20*(4), 393-404.

Figure. Primary and Satellite Locations of Psychiatrists in Nebraska



Variations in Telemental Health Adoption across Regions

Telemental health has been used widely in rural regions (BHRs 1-4) since 2010. In these regions, telemental health has been used for a variety of services including evaluation, medication management, outpatient therapy, and crisis response. One of the rural regions contracts with independent behavioral health providers, while the other three rural regions contract with health care systems or behavioral health agencies. Although there is no exhaustive list of telemental health providers, according to the interviews conducted for this study, it appears that most telemental health services are provided by two major health care systems in the state and a few agencies that specialize in telemental health services. One such agency interviewed for this study indicated that they expect to see a continuing increase in the demand for telemental health in Nebraska as well as other rural states.

Telemental health services were introduced more recently (past two years) in urban regions (BHRs 5 and 6) with limited scope. Although there are many more behavioral health care providers in urban areas compared to rural areas, the access to behavioral health care is still limited among underserved population groups in urban areas. In particular, a long waiting list for medication evaluation has been reported even in urban areas. Also, the need for increased level of crisis response has been indicated across all regions.

According to Region 5 and Region 6 administrators, they are currently focusing on more urgent issues (medication management and crisis response) but there is an interest in expanding telemental health services if more resources become available.

Populations Served

Due to lack of access to psychiatrists and other psychiatric prescribers, one of the main initial motivations for rural regions to start implementing telemental health services was to increase access to medication management especially for adults with serious mental illness. Nevertheless, in recent years, a wider range of services have been provided to individuals of all ages (children, adolescents, adults, and geriatric patients) living in the community settings as well as the criminal justice population. Most of services are geared toward people with mental disorders. Although some of these individuals also have substance use disorders, the focus has been assessment and treatment of mental disorders. There were mixed views among providers interviewed for this study on the perceived effectiveness of telemental health for substance use disorder treatment. The majority of providers indicated that telemental health was effective for all age groups except very young children. Some providers indicated that adolescents are often more comfortable communicating using technology compared to an in-person session. Overall, there has been very little resistance toward telemental health services among clients, including among older adults.

Technological, Administrative, and Financial Challenges

When BHRs in Nebraska started implementing telemental health services around 2010, there were many technical issues. In recent years, service interruptions during the telemental health sessions are rare because the technology is more reliable and internet services are more consistently available throughout the state. Most regions applied to state or private foundation grants to receive some start-up funds to purchase hardware and software. According to the interview of BHR administrators and health care system administrators, telemental health does not save money for the organization but the increased access to care among clients is seen as a huge benefit. Some indicated that in the long-run, telemental health could save money because it can reduce emergency room admissions or need for more costly care. A few administrators indicated that there may be some financial burden for the sites which host the telemental health sessions. These sites provide clinical space and personnel to manage paperwork. To maintain these sites and add more sites in rural communities, it was suggested to increase financial incentives.

Training and Education Needs

Providers and administrators interviewed for this study indicated that one of the major barriers to the expansion of telemental health is reluctance among providers (both primary care and behavioral health specialists) to use technology or to modify their clinical practice to incorporate telemental health. There are still some misunderstandings surrounding telemental health. Many physicians have not “bought into” the benefits of telemental health and mistakenly believe that it is very costly and time consuming. Many service providers indicated that they self-taught the use of telemental health by reading relevant materials on internet or sought help from the IT department. Interviewees indicated that a brief in-person or e-module on Telemental Health 101 may be beneficial.

CONCLUSIONS AND POLICY IMPLICATIONS

As the state workforce data shows, the supply of psychiatrists has not increased between 2010 and 2016. With an assumption that the behavioral health workforce shortage will continue for some time into the future, it is expected that telemental health will be increased to meet the demand. There are clear

geographic variations in the extent to which telemental health has been used in Nebraska; all four rural regions have been implementing a wide range of services since 2010, while two urban regions began implementing telemental health in limited scope about two years ago. Nevertheless, all regions expect to see more demand for telemental health because there are still many people with mental illness who do not have adequate access to needed care.

Technology is no longer considered to be a major barrier to implementation of telemental health services. However, there are some financial aspects that need to be addressed. For example, some financial incentives may be provided to health care clinics and behavioral health agencies to serve as the sites to host telemental health sessions. Currently, these sites are not adequately compensated for the services they provide to take care of initial paperwork, manage schedules and serve as the main contact between the client/patient and providers. While the hardware and software costs have decreased considerably over the years, a small grant may encourage more organizations to start implementing telemental health services. Overall, clients/patients have positively responded to telemental health including geriatric patients. However, there seems to be some reluctance among providers to incorporate telemental health into their clinical settings.

Several recommendations were made by interviewees and survey respondents. First, some of BHR administrators recommended having managers and providers from clinics where telemental health services have been successfully implemented share their experience (i.e., share success stories). These informational and educational sessions can be brief and may be provided as in-person sessions or e-modules. Second, psychiatrists and other behavioral health specialists emphasized the need to “start early.” The competencies surrounding the use of telemental health can be incorporated into the curricula for medical students and other health professionals. It is important to start early in their training to be exposed to this mode of health care delivery and to be supervised by clinicians who have adequate levels of experience to effectively deliver telemental health services. Such training can be done in the context of integrated care. In this way, the use of telemental health becomes more of a norm among new generations of providers and can help expand the use of telemental health services in the future.

This project is supported by the Substance Abuse and Mental Health Services Administration (SAMHSA) and the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under the Cooperative Agreement for Regional Center for Health Workforce Studies #U81HP29300. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by SAMHSA, HRSA, HHS or the U.S. Government.