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ORIGINAL PAPER

An Academic and Practice Partnership to Assess the Behavioral Health Needs of Nebraska

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Abstract

Schools of Public Health have a commitment to engage in practice-based research and be involved in collaborative partnerships. In 2016 the faculty, staff, and students from the University of Nebraska Medical Center College of Public Health and the Nebraska Department of Health and Human Services, Division of Behavioral Health collaborated to develop and administer a comprehensive assessment of the mental health and substance use disorder services provided by the Division of Behavioral Health. The purpose of this paper is to describe the process used to develop the trusting and mutually beneficial partnership and the data tools that were created and used to assess and determine the behavioral health needs. It is unrealistic to think that practitioners could undertake a project of this magnitude on their own. It is essential to have identified processes and systems in place for others to follow.

Keywords Needs assessment · Behavioral health · Practice based research

Introduction

The U.S. Department of Health and Human Services has issued a call to action to strengthen and transform the public health infrastructure by moving to a new model of public health called Public Health 3.0. Transitioning to public health 3.0 will require public health agencies to address the following five areas: (1) strong leadership and workforce, (2) strategic partnerships, (3) flexible and sustainable funding, (4) timely and locally relevant data, metrics, and analytics, and (5) foundational infrastructure (Office of the Assistant Secretary for Health U.S. Department of Health and Human Services 2017).

It is unrealistic to think that public health practitioners can do this on their own. Schools of Public Health have a commitment to engage in practice-based research and be involved in collaborative partnerships. The goal of practice-based research for public health is to develop new knowledge that can be translated into evidence-based strategies to assure the conditions in which all people can be healthy (Association of Schools of Public Health, Council of Public Health Practice Coordinators 2006). Achieving this goal is more than simply doing research in a practice or community setting. It requires building a trusting and mutually beneficial partnership that will inform and improve health

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outcomes in a defined community. The purpose of this paper is to explain the process used to develop a practice- based research project between the University of Nebraska Medical Center (UNMC) and the Nebraska Department of Health and Human Services (NE DHHS) Division of Behavioral Health. In addition, the paper will discuss how these types of collaborations can build capacity and assist practitioners in moving toward Public Health 3.0.

Objectives

In a given year, approximately one in five adults in the U.S. experiences mental illness (National Institute of Mental Health 2017). In Nebraska, over 17% of adults experience mental illness, which translates to approximately 325,000 adults affected by some type of mental illness each year (Substance Abuse and Mental Health Services Administration 2014). Mental health issues affect both adults and youth. In 2014, one in three Nebraska high school students reported feeling depressed in the past year, and about one in five high school students reported that they seriously considered attempting suicide in the past year (Nebraska Department of Education & Nebraska Department of Health and Human Services 2015). Among young adults (18–25 years) in Nebraska, about one in five reported using an illicit drug in the past month (Substance Abuse and Mental Health Services Administration 2014). Although mental health and substance use disorders are very common in the general population, the use of treatment remains low for a variety of reasons, including the stigma associated with these conditions and limited access to care (Substance Abuse and Mental Health Services Administration 2016). Less than half of adults with a mental illness and only about 15% of those aged 12 or older who have a substance use disorder received treatment in a given year in the U.S. and in Nebraska (Substance Abuse and Mental Health Services Administration 2016).

The UNMC College of Public Health (COPH) is the only accredited College of Public Health in Nebraska. The Division of Behavioral Health (DBH) is one of six divisions within NE DHHS. The Division includes 993 employees across six Behavioral Health Regions throughout Nebraska and it provides funding, oversight, and technical assistance to the six local Behavioral Health Regions. The Regions contract with local programs to provide public inpatient and outpatient care, emergency services, community mental health services, and substance abuse prevention and treatment. Each year, about 30,000 children and adults in Nebraska receive services through the DBH funded public behavioral health system. At the beginning of 2016, the Nebraska State Legislature allocated funds to complete a comprehensive assessment of the mental health and substance use disorder services provided by the Division.

Because of the time, resources, and capacity needed to complete this project, the DBH and the UNMC COPH developed a practice-based research partnership to develop a statewide behavioral health needs assessment. The purpose of the assessment was to provide data and information to complete a strategic plan for the Division and strengthen Nebraska's public behavioral health system. The specific objectives of the assessment were to:

1. Estimate the burden of behavioral health problems in Nebraska
2. Identify strengths and gaps in Nebraska's public behavioral health system
3. Identify the needs of special populations such as persons with developmental disabilities, persons involved in the criminal justice system and the homeless population
4. Describe the the current status of the behavioral health workforce in Nebraska and identify areas for improvement
5. Discuss national and state-level initiatives for integrated care
6. Engage consumers, families, and stakeholders to understand their perspectives of the behavioral health system in Nebraska.

Methods

The needs assessment process was a collaborative effort between the DBH and the UNMC COPH. The project received an IRB exemption from the University of Nebraska Medical Center because it was a quality improvement initiative. The project leadership team used the principles of practice-based systems research, which includes improving the quality, performance, efficiency, and effectiveness of public health systems that impact health outcomes (Association of Schools of Public Health, Council of Public Health Practice Coordinators 2006). In addition to using practice-based research methods, the research team used the EDIC method for the project. The four steps of the EDIC method are: (1) Engage Stakeholders, (2) Develop Assessments/Data Collection Methods, (3) Identify Needs and (4) Create Plans and Recommendations (Grimm et al. 2016). The authors have no known conflicts of interest, and certify responsibility for this manuscript.

Data Collection

Data were collected using both quantitative and qualitative methods. Using a mixed methods approach allowed the UNMC COPH team to draw diverse interpretations

and make concrete recommendations about the findings (Creswell 2015).

Secondary Data Collection

The first step of the process was to identify what behavioral health data already exists for the state. An overview of the data sources used for secondary data analysis is located in Table 1.

Primary Data Collection

In addition to secondary data analysis, the team collected primary date through qualitative focus groups and quantitative surveys.

Focus Groups

Nebraska is divided into six behavioral health regions. A total of 24 focus groups were organized, with at least one

Table 1 Secondary data collection tools

Governmental sources	Description/use
U.S. Census Bureau	The Census Bureau is a principal agency of the U.S. Federal Statistical System, responsible for producing data about the American people and economy. Examples of data collection activities by the Bureau include: Decennial Census of Population and Housing, Census of Governments, and Economic Census, American Community Survey (ACS)
National Survey on Drug Use and Health (NSDUH)	Annual nationwide survey involving interviews with approximately 70,000 randomly selected persons aged 12 and older (Substance Abuse and Mental Health Services Administration 2016). These data provide national and state-level estimates on the use of tobacco products, alcohol, illegal drugs and mental health in the United States. NSDUH is sponsored by the Substance Abuse and Mental Health Services Administration
Behavioral Risk Factor Surveillance System (BRFSS)	This is a health-related telephone survey funded by the Centers for Disease Control and Prevention (CDC), which collects state data on adults 18 years old and older about their behavior-related health risks, chronic health conditions, and use of preventative services. BRFSS completes more than 400,000 randomly selected adult interviews continuously throughout the year. Interviewers use a standardized core questionnaire and optional modules selected by each state (Centers for Disease Control & Prevention 2014)
Youth Risk Behavior Survey (YRBS)	This survey is conducted every two years by states and submitted to the CDC. The survey includes a representative sample of 9th-12th grade students throughout the nation, and the results are used to monitor health risk behaviors that contribute to the leading causes of death and disability among youth and adults in the United States (Centers for Disease Control & Prevention 2017)
Statewide sources	**Description/use**
Substance Abuse, Mental Illness and Associated Consequences in Nebraska	An Epidemiological Profile by the Nebraska Department of Health and Human Services (Nebraska Department of Health and Human Services, Division of Behavioral Health, Office of Health Disparities and Health Equity 2015)
Nebraska's Behavioral Health Workforce Report 2000 to 2014	A behavioral health workforce profile of the state. Identifies gaps of the behavioral health workforce (Watanabe-Galloway et al. 2014)
Nebraska's Health Dipartites Report	A report examines the health disparities that exist in Nebraska including those related to behavioral health issues (Nebraska Department of Health and Human Services, Division of Public Health, Office of Health Disparities and Health Equity 2015)
Health Status of American Indians in Nebraska	A report that examines the health disparities that exist in Nebraska's American Indian population (Nebraska Department of Health and Human Services, Division of Public Health, Office of Health Disparities and Health Equity 2012)
Hospital discharge data	De-identified hospital discharge data for the period between 2007 and 2014 was provided by the Nebraska Department of Health and Human Services, Division of Public Health (DPH). There are two types of hospital discharge records—emergency department and inpatient. Hospital discharge records contain information on the date of admission, date of discharge, patient's age, gender, county of residence, and diagnosis codes

consumer focus group (those individuals and families who are utilizing behavioral health services) and one stakeholder focus group (criminal justice, primary care, public health, service agencies, Behavioral Health Regions, Board of Mental Health, and advocacy organizations) in each region. Participant recruitment strategies relied heavily on leveraging existing relationships between the Behavioral Health Regions, the stakeholders operating in each region and the consumers receiving services. Building on the credibility of the Behavioral Health Regions allowed researchers to quickly establish a necessary level of trust with focus group participants.

The interview format and guide for the focus groups was co-created by the Division and the UNMC COPH and followed the steps outlined by Berg (2009). A trained faculty member from UNMC facilitated each focus group. The facilitation protected consumers' privacy by only asking for the participant's first name when signing in to the session. Stakeholders who participated in the sessions were asked to provide both their name and organization. Additionally, data was reported in aggregate.

Surveys

Three surveys were developed targeting three types of respondents: (1) consumers and their family members; (2) stakeholders, including those who provide services directly to consumers and those whose work involves interacting with people with serious mental illness and/or substance use disorders; and (3) the public. One electronic survey containing all the questions was developed and screening questions were used to direct respondents to the appropriate set of questions. The surveys were distributed via existing email lists and listservs by the each of the behavioral health regions and DBH. UNMC COPH also distributed the survey to a select group of professional organizations such as the Nebraska Sheriff's Association, the Nebraska Association of Behavioral Health Organizations, and the Nebraska Association of Local Health Directors. Questions for surveys were developed first by reviewing existing surveys and assessments, including:

- Legislative Performance Audit Committee Report (Tri-West Health and Human Service Evaluation and Consulting 2015)
- Consumer Assessment of Healthcare Providers and Systems (CAHPS) Experience of Care and Health Outcomes (ECHO) Survey from the Agency for Healthcare Research and Quality (AHRQ 2016)
- Mental Health Statistics Improvement Program Consumer Survey (MHSIP) from the Substance Abuse and Mental Health Services Administration (SAMHSA 2018)

After the review of the tools, the Division and the UNMC COPH collaborative discussed which questions should be included. Additional questions were also added based on the preliminary results of the consumer and stakeholder focus groups conducted as part of the community engagement portion of this assessment.

Results

In this section, we present some of the findings from the behavioral health needs assessment.

Burden of Behavioral Health Problems

To estimate the burden of behavioral health problems in Nebraska, we used five indicators obtained from BRFSS (Table 2) (Nebraska Department of Health and Human Services, Division of Public Health 2017). Taking depression as an example ("Ever told they have depression"), we see that females are more likely than males to report depression (22.14 vs. 12.45%). This summary table also shows that individuals from the lowest income category (< $15,000), individuals with less than a high school education, and American Indian/Alaska Natives are at higher risk for depression. The behavioral health needs assessment further reported the burden of binge drinking in the state. In 2015, Nebraska ranked 47th in the nation for adult binge drinking, with a prevalence of 20.3%. By contrast, West Virginia was ranked 1st with a prevalence less than 10% (Nebraska Department of Health and Human Services, Division of Behavioral Health 2013). The situation is worse for young adults and teenagers; about 40% of Nebraskans aged 18–25 years had a binge drinking experience in the past month (Nebraska Department of Health and Human Services, Division of Behavioral Health 2013).

Assessment of Behavioral Health Workforce

At the time of the Behavioral Health Needs Assessment, 2010–2014 data were available for analysis. To assess geographic access to behavioral health services, we mapped the locations of psychiatrists and the areas designated as Federal Health Professional Shortage Areas (Fig. 1). Only 12 of 93 counties in Nebraska had psychiatrists. We also identified priority counties using the Substance Abuse and Mental Health Servcies Administration's definition of areas with "ununsually high needs for mental health services": (1) 20% of the population (or of all households) in the area had incomes below the poverty level; (2) the ratio of the number of children under 18 to the number of adults of ages 18–64 (youth ratio) exceeded 0.6; and (3) the ratio of the number of persons aged 65 and over to the number of adults of ages

Table 2 Behavioral health problem indicators in Nebraska: annual averages based on 2011–2014 behavioral health risk factor surveillance system data

	Ever told they have depression (%)	Average days MH was not good in past 30 days	Mental health was not good ≥ 14 days in past 30 days (%)	Average days poor physical and/or mental health limited usual activity	Poor physical and/or mental health limited usual activities ≥ 14 days in past 30 days (%)
U.S.	17.31 (17.20–17.41)	3.78 (3.75–3.80)	11.71 (11.61–11.81)	2.56 (2.54–2.58)	8.19 (8.11–8.27)
Nebraska	17.38 (16.98–17.80)	3.0	8.81 (8.50–9.13)	1.9	5.97 (5.73–6.22)
Gender					
Male	12.45 (11.91–13.01)	2.43 (2.32–2.54)	7.06 (6.64–7.51)	1.71 (1.61–1.79)	5.30 (4.96–5.66)
Female	22.14 (21.55–22.75)	3.48 (3.37–3.59)	10.49 (10.04–10.96)	2.05 (1.96–2.13)	6.62 (6.28–6.97)
Age					
18–24	15.68 (14.32–17.14)	3.71 (3.43–3.98)	10.07 (8.95–11.32)	1.29 (1.11–1.46)	3.41 (2.70–4.29)
25–34	18.62 (17.47–19.82)	3.34 (3.13–3.54)	9.88 (9.05–10.78)	1.3 (1.28 (1.15–1.42)	3.55 (3.04–4.13)
35–44	18.45 (17.38–19.57)	3.18 (2.96–3.39)	9.38 (8.58–10.24)	1.61 (1.45–1.76)	5.05 (4.45–5.72)
45–54	19.24 (18.30–20.21)	3.23 (3.04–3.43)	10.2 (9.43–10.95)	2.22 (2.05–2.36)	7.20 (6.59–7.87)
55–64	19.51 (18.66–20.38)	2.78 (2.63–2.93)	8.56 (7.97–9.19)	2.43 (2.28–2.58)	8.18 (7.59–8.82)
65–74	15.06 (14.25–15.91)	1.90 (1.75–2.04)	5.53 (5.00–6.12)	2.13 (1.98–2.27)	6.97 (6.43–7.56)
75+	11.21 (10.45–12.01)	1.7 (1.58–1.85)	5.15 (4.66–5.69)	2.5 (2.28–2.64)	8.54 (7.86–9.27)
Income					
< $15,000	33.04 (31.16–34.96)	6.73 (6.27–7.19)	23.31 (21.58–25.14)	5.56 (5.15–5.97)	19.70 (18.13–21.36)
$15,000–$24,999	24.93 (23.62–26.28)	4.53 (4.26–4.80)	14.32 (13.28–15.43)	2.84 (2.65–3.04)	9.31 (8.54–10.14)
$25,000–$34,999	19.49 (18.07–20.99)	3.27 (2.98–3.57)	9.97 (8.90–11.16)	2.05 (1.85–2.26)	6.79 (5.94–7.76)
$35,000–$49,999	16.20 (15.15–17.30)	2.69 (2.51–2.87)	7.66 (6.94–8.46)	1.47 (1.35–1.60)	4.32 (3.83–4.87)
$50,000–$74,999	14.75 (13.74–15.82)	2.36 (2.18–2.55)	6.56 (5.81–7.42)	1.29 (1.14–1.44)	3.76 (3.19–4.44)
$75,000+	11.79 (10.96–12.68)	1.81 (1.65–1.96)	4.53 (3.90–5.26)	0.90 (0.80–0.10)	2.48 (2.02–3.05)
Education					
Less than high school	20.75 (19.05–22.55)	4.31 (3.92–4.69)	14.16 (12.74–15.70)	3.08 (2.77–3.39)	10.58 (9.40–11.88)
High school/GED	17.67 (16.87–18.50)	3.23 (3.07–3.38)	9.87 (9.25–10.52)	2.00 (1.87–2.12)	6.42 (5.95–6.93)
Some college	19.20 (18.44–19.98)	3.22 (3.07–3.36)	9.64 (9.06–10.25)	1.89 (1.78–1.20)	5.99 (5.56–6.44)
College graduate	13.85 (13.21–14.52)	2.08 (1.98–2.19)	5.33 (4.87–5.83)	1.22 (1.13–1.30)	3.51 (3.15–3.90)
Race/ethnicity					
White, NH	17.97 (17.50–18.44)	2.98 (2.89–3.07)	8.74 (8.39–9.11)	1.74 (1.68–1.80)	5.45 (5.19–5.71)
African American, NH	15.16 (13.05–17.54)	3.79 (3.25–4.34)	12.05 (10.10–14.32)	2.98 (2.46–3.50)	10.60 (8.68–12.89)
Asian, NH	8.12 (5.61–11.60)	1.72 (1.26–2.19)	5.36 (3.59–7.94)	1.04 (0.70–1.38)	2.20 (1.20–3.99)
American Indian/ Alaska Native, NH	27.14 (22.41–32.46)	5.12 (4.19–6.06)	16.91 (13.17–21.44)	3.45 (2.66–4.24)	12.48 (9.28–16.59)
Other, NH	17.50 (11.07–26.55)	4.75 (2.29–7.21)	15.12 (8.34–25.87)	2.81 (1.08–4.54)	9.38 (4.89–17.25)
Multi-racial, NH	30.91 (25.94–36.37)	5.55 (4.49–6.60)	17.59 (13.83–22.11)	3.50 (2.61–4.40)	11.54 (8.60–15.32)
Hispanic	14.30 (12.74–16.01)	2.58 (2.26–2.89)	7.68 (6.56–8.98)	1.85 (1.57–2.13)	5.62 (4.67–6.76)

NH non-Hispanic

Numbers in parentheses are 95% confidence intervals

18–64 (elderly ratio) exceeded 0.25 (Table 3) (Watanabe-Galloway et al. 2014).

Use of Integrated Primary Care

We used 2016 HPTS survey data to identify behavioral health providers currently practicing in an integrated care setting. The behavioral health professionals included in the study were: (1) psychiatrists, (2) advanced practice registered nurses (APRNs) practicing psychiatry, (3) physician assistants (PAs) practicing psychiatry, (4) psychologists, (5) licensed independent mental health practitioners (LIMHPs), (6) licensed mental health practitioners (LMHPs) and (7) licensed alcohol and drug counselors (LADCs). Overall,

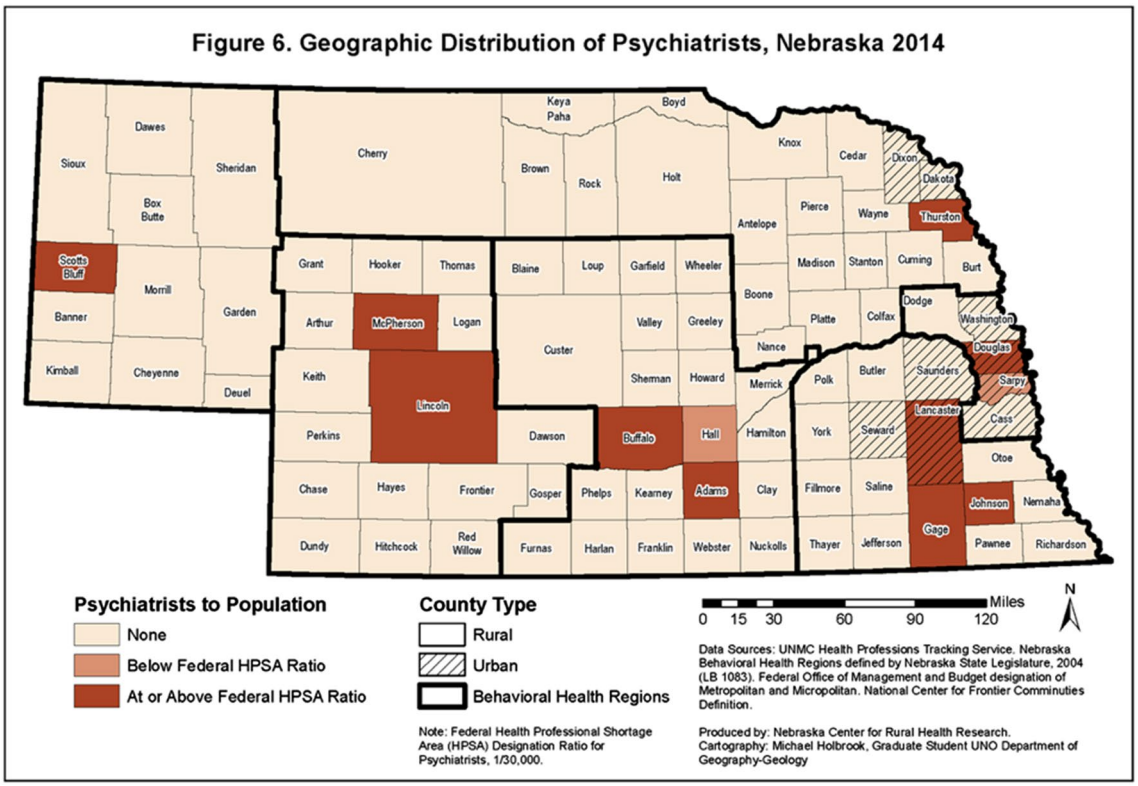

Fig. 1 Geographic distribution of psychiatrists, Nebraska 2014

33% of urban and 23% of rural behavioral health providers who responded to this question indicated that they were practicing integrated care. Within urban areas, the practice of integrated care was most common among LADCs (63%), physicians (46%), and psychologists (45%). In rural areas, the practice was most common among Certified Master Social Workers (CMSWs) (50%), LADCs (36%), and psychologists (27%).

Discussion

As stated earlier, it is unrealistic to think that practitioners could undertake a project of this magnitude on their own. Developing trusting and mutually beneficial partnerships between academe and practice was essential. These relationships assure that the process is grounded in science and practice (Grimm et al. 2016). For example, faculty, staff, and students were familiar with the available secondary data and had the skills and background to develop primary data collection tools. Additionally, faculty, staff, and students could also objectively collect and analyze the data without having any bias. Serving as a natural convener also allowed for unguarded dialogue during the focus groups; thus making it possible for the COPH team to report unbiased results back to the Division and other stakeholders. These factors are very important for practitioners to consider, so that there is a greater level of trust and respect for the outcomes of the assessment.

Equally as important is the engagement of the practice partner. In many instances, a local or state health department will provide a contract to an academic institution and ask them complete the objectives without much communication between the start and finish of the project. During this project, there was a high level of engagement from DBH staff. For example, weekly meetings were scheduled between UNMC and DBH to discuss the timeline, process, and work progress. Additionally, DBH staff shared data, assisted in the development of assessment tools, sent the assessment tools to partners for review, reviewed draft reports, and gave constructive feedback throughout the process. This type of engagement assured that the final report and recommendations would fit the needs of DBH.

Finally, academic and practice partnerships are essential to achieving public health 3.0. DBH implemented three of the five recommendations by participating in this partnership. The first recommendation met was #2, *public health departments should engage with community stakeholders from both the public and private sectors to form structured, cross-sector partnerships*. The second recommendation met was #4, *timely, reliable, granular and actionable data should be made accessible to communities…and clear*

Table 3 Counties with unusually high needs for mental health services, Nebraska 2014. Reproduced with permission from U.S. Census Bureau, 2009–2013 5-Year American Community Survey

Region I	Region II	Region III	Region IV	Region V	Region VI
Box Butte	Arthur[b]	Adams	Antelope	Butler	Dodge
Cheyenne	Chase[b]	Blaine[b]	Boone	Fillmore	
Dawes[b]	Dundy[b]	Clay	Boyd[b]	Gage	
Deuel[b]	Frontier[b]	Custer[b]	Brown[b]	Jefferson	
Garden[b]	Gosper[b]	Franklin[b]	Burt	Johnson	
Kimball[b]	Grant[b]	Furnas[b]	Cedar	Nemaha	
Morrill[b]	Hayes[b]	Garfield[b]	Cherry[b]	Otoe	
Scotts Bluff	Hitchcock[b]	Greeley[b]	Cuming	Pawnee[b]	
Sheridan[b]	Hooker[b]	Hamilton	Dixon[a]	Polk	
Sioux[b]	Keith	Harlan[b]	Holt[b]	Richardson	
	Lincoln	Howard	Keya Paha[b]	Saunders[a]	
	Logan[b]	Kearney	Knox	Seward[a]	
	McPherson[b]	Loup[b]	Nance	Thayer	
	Perkins[b]	Merrick	Pierce	York	
	Red Willow	Nuckolls	Platte		
	Thomas[b]	Phelps	Rock[b]		
		Sherman[b]	Thurston		
		Valley			
		Webster[b]			
		Wheeler[b]			

An area was considered to have unusually high needs for mental health services if one of the following criteria was met: (a) 20 percent or more of the population (or of all households) in the area had incomes below the poverty level; (b) the youth ratio, defined as the ratio of the number of children under 18 to the number of adults of ages 18–64, exceeded 0.6; and (c) the elderly ratio, defined as the ratio of the number of persons aged 65 and over to the number of adults of ages 18–64, exceeded 0.25 (Health Resources and Services Administration, n.d.)

[a]Metropolitan county. Federal Office of Management and Budget designation, 2009

[b]Frontier county (< 7 persons/square mile). National Center for Frontier Communities definition, U.S. Census Bureau 2010 Intercensal Estimates

metrics to document success in public health practice should be developed. Based on the statewide behavioral health assessment findings, the DBH published "One Nebraska! One Plan!" a 3-year strategic plan (2017–2020). The plan included three goals and cover 30 indicators set the goals to increase the access and outcomes of behavioral health services (Nebraska Department of Health and Human Services, Division of Behavioral Health 2017). The report and recommendations that were developed from this partnership were shared statewide and will be used strengthen the behavioral health system and set clear objectives for success. The final recommendation that was met was #1, *public health leaders should embrace the role of chief health strategist for their communities* (Office of the Assistant Secretary for Health U.S. Department of Health and Human Services 2017). The information from the report was presented to the Nebraska State Legislature. This provided a platform for DBH staff to be recognized as the chief health strategists for Nebraska.

Collaborations between academic and practice settings are not new. However, we believe that the relationship should be more intentional and collaborative. It is essential that a practice-based research model be used to assure that there is equal participation by researchers and practitioners throughout the project. Using a practice-based research model also assures that the results of the research will be translational. Practice-based research emphasizes the importance of translating the data into action that will advance and improve the public's health (Association of Schools of Public Health, Council of Public Health Practice Coordinators 2006). It is recommended that more academe and practice partnerships be established. The methods outlined here can be used by other state health departments that are interested in implementing a large-scale behavioral health needs assessment. Continuing to establish these types of partnerships are imperative as we work to transform the public health system and improve health outcomes.

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Compliance with Ethical Standards

Conflict of interest The authors have no potential conflict of interest to disclose.

Informed Consent Informed consent was waived by the University of Nebraska Medical Center Institutional Review Board because this study qualified as a quality improvement initiative.

Research Involving Human Participants this study was approved by the University of Nebraska Medical Center Institutional Review Board. All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

References

Agency for Healthcare Research and Quality. (2016). *CAHPS® experience of care and health outcomes (ECHO®) survey*. Retreived September 23, 2016, from http://www.ahrq.gov/cahps/surveys-guidance/echo/instructions/index.html.

Association of Schools of Public Health, Council of Public Health Practice Coordinators. (2006). *Demonstrating excellence in practice-based research for public health*. Retreived from http://www.aspph.org/educate/models/demonstrating-excellence-in-practice-based-research-for-public-health/.

Berg, L. B. (2009). *Qualitative research methods for the social sciences* (7th ed.). Boston: Pearson Education Inc.

Centers for Disease Control & Prevention. (2014). *About BRFSS*. Retreived from http://www.cdc.gov/brfss/about/index.htm.

Centers for Disease Control & Prevention. (2017). *Youth risk behavior surveillance system (YRBSS) overview*. Retreived from http://www.cdc.gov/healthyyouth/data/yrbs/overview.htm.

Creswell, J. W. (2015). *A concise introduction to mixed methods research*. Thousand Oaks: SAGE.

Grimm, B. L., Brandert, K., Palm, D., & Svoboda, C. (2016). The EDIC method: An engaging and comprehensive approach for creating health department workforce development plans. *Health Promotion Practice, 18*(5), 688–695.

National Institute of Mental Health. (2017). *Any mental illness (AMI) among U.S. adults*. Retreived from http://www.nimh.nih.gov/health/statistics/prevalence/any-mental-illness-ami-among-us-adults.shtml.

Nebraska Department of Education & Nebraska Department of Health and Human Services. (2015). *2014 Youth risk behavior survey results*. Lincoln: University of Nebraska-Lincoln.

Nebraska Department of Health and Human Services, Division of Behavioral Health. (2013). *Nebraska young adult alcohol opinion survey: 2010–2013 state summary report*. Lincoln: Nebraska Department of Health and Human Services, Division of Behavioral Health.

Nebraska Department of Health and Human Services, Division of Behavioral Health. (2017). *One Nebraska! One Plan! Strategic Plan, 2017–2020*. Retreived from http://dhhs.ne.gov/Reports/Behavioral%20Health%20Strategic%20Plan%202017-2020.pdf.

Nebraska Department of Health and Human Services, Division of Behavioral Health, Office of Health Disparities and Health Equity. (2015). *Profile of the minority population in Nebraska*. Lincoln: Nebraska Department of Health and Human Services.

Nebraska Department of Health and Human Services, Division of Public Health. (2017). *Nebraska behavioral risk factor surveillance system (BRFSS): reports*. Retreived from http://dhhs.ne.gov/publichealth/Pages/brfss_reports.aspx.

Nebraska Department of Health and Human Services, Division of Public Health, Office of Health Disparities and Health Equity. (2012). *Health status of American Indians in Nebraska*. Lincoln: Nebraska Department of Health and Human Services.

Nebraska Department of Health and Human Services, Division of Public Health, Office of Health Disparities and Health Equity. (2015). *Nebraska health disparities report*. Lincoln: Nebraska Department of Health and Human Services.

Office of the Assistant Secretary for Health U.S. Department of Health and Human Services. (2017). *Public health 3.0: A call to action to create a 21st century public health infrastructure*. Retreived from https://www.healthypeople.gov/sites/default/files/Public-Health-3.0-White-Paper.pdf.

Substance Abuse and Mental Health Services Administration. *National survey on drug use and health*. Retreived from https://nsduhweb.rti.org/respweb/homepage.cfm.

Substance Abuse and Mental Health Services Administration. (2014). *2010–2012 National survey on drug use and health substate age group tables*. Retreived from https://www.samhsa.gov/data/sites/default/files/substate2k12-AgeGroupTabs/NSDUHsubstateAgeGroupTabs2012.htm.

Substance Abuse and Mental Health Services Administration. (2016). *Behavioral health barometer: Nebraska 2015*. Rockville: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (2018). *Mental health statistics improvement program (MHSIP) consumer survey (draft version 1.2)*. Retreieved from http://www.samhsa.gov/data/.

TriWest Health and Human Service Evaluation and Consulting. (2015). *Omaha area adult behavioral health system assessment: Final summary of findings and recommendations*. Boulder: TriWest Health and Human Service Evaluation and Consulting.

United Health Foundation, America's Health Rankings. (2018). *Binge drinking: United States*. Retreived from http://www.americashealthrankings.org/ALL/Binge.

Watanabe-Galloway, S., Trout, K., Deras, M., Naveed, Z., & Chen, L. (2014). *Nebraska's behavioral health workforce—2000 to 2014*. Omaha: University of Nebraska Medical Center.