Original Research

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Mental Health, Chronic Disease, and Substance Use: Findings From Rural Texas

Subi Gandhi, PhD
Tarleton State University, Stephenville, Texas, United States
🆔 https://orcid.org/0000-0003-0269-2082

Ryan Glaman, PhD
Tarleton State University, Stephenville, Texas, United States
🆔 https://orcid.org/0000-0003-4850-7719

Elizabeth Wachira, PhD
Texas A&M University—Commerce, College Station, Texas, United States
https://orcid.org/0000-0003-4219-7545

Muna Bashir, MA
Bastyr University, Kenmore, Washington, United States
🆔 https://orcid.org/0000-0001-9237-8139

Sushma Sharma, PhD
The Hospital and Health System Association of Pennsylvania, Harrisburg, Pennsylvania, United States

Chelsea Mowles, BSN
Texas Health Harris Methodist Hospital, Fort Worth, Texas, United States

Jasmine Luttrell, BS
Tarleton State University, Stephenville, Texas, United States

Contact: *gandhi@tarleton.edu*

Abstract

There are vital links among mental health conditions, chronic diseases, and substance use disorders. Simultaneous examination of the relationship among these three conditions is essential for providing well-integrated care to rural residents who have limited resources and for representing medically underserved areas. We aimed to assess the burden of behavioral health conditions and chronic diseases from a rural Texas community to garner context-specific insights and inform effective health promotion strategies in similar communities. We conducted a cross-sectional study among 181 residents from various zip codes in a rural Texas county. A self-administered, 18-item health-needs questionnaire was used to collect data from the participants. Of the total participants, 30.0% reported mental health conditions, 16.0% reported substance use disorders, and 44.2% reported having at least one type of chronic disease. Overall, mental health

conditions were associated with substance use disorders [OR: 1.58 (95% CI: 0.73–2.42)] and chronic disease [OR: 1.07 (95% CI: 0.39–1.75)], but no associations were observed between substance use and chronic disease [OR: 0.62 (95% CI: -0.20–1.43)]. The economic and accessibility barriers that rural residents commonly face call attention to the need for integrated care that combines primary care and behavioral health services.

Introduction

Rural residents in the U.S. increasingly face mental health disparities resulting in higher rates of suicide, depression, and substance abuse (Carpenter-Song & Snell-Rood, 2017; Gale et al., 2019). A study conducted by Walker and Druss (2017), demonstrated that 52.2% of U.S. adults reported having at least one of the following three types of conditions: mental illness, substance abuse/dependence, or chronic medical conditions. Additionally, 2.2% had both mental illness and substance abuse/dependence, while 1.2%, or 2.2 million people, had all three conditions (Walker & Druss, 2017; Yang et al., 2019). Moreover, the COVID-19 pandemic has further intensified the cumulative burden that rural America faces due to the co-occurrences and comorbidities of physical and behavioral health conditions (Hogg Foundation for Mental Health, 2020; Cromartie et al., 2020). The aim of our pilot study was to highlight the intercorrelations that exist between chronic medical conditions and behavioral health conditions among rural residents of Texas, while considering common barriers to care access faced by those living in such medically underserved areas.

Behavioral Conditions and Rural Health

Mental health conditions and substance use disorders, at times collectively referred to as behavioral health disorders, can disproportionately impact those living in rural areas (Centers for Disease Control and Prevention [CDC], 2017a; Gale et al., 2019; Hogg Foundation for Mental Health, 2020). These health disparities can be exacerbated by the geographical and socioeconomic barriers that rural residents commonly face in accessing timely and effective healthcare services (Andrilla et al., 2018; Carpenter-Song & Snell-Rood, 2017; CDC, 2017a; Chavez et al., 2018; Morales et al., 2020). Such challenges render the need to take a deeper look into rural health disparities and develop novel ways for resource allocation to improve rural health.

Three principal factors contribute to mental illness in rural areas. These are (1) inadequate access to mental health professionals, (2) lack of sufficient specialty training and coordination among healthcare providers, and (3) underutilization of mental health services due to stigma and limited awareness (Gamm et al., 2020). Minority groups, children, the poor, and the elderly living in rural areas are particularly at a disadvantage for gaining necessary treatment for diagnosable mental health conditions (Gale et al., 2019; Gamm et al., 2020; Jon-Ubabuco, 2019; Sorkin et al., 2016). Apart from structural and economic barriers, there are other factors impacting care utilization for mental health conditions among rural residents. These include the perception of need for mental health services, knowledge about available resources, the presence of social support—particularly within an individual's trusted network, and stigma associated with mental illnesses (Jon-Ubabuco, 2019; Sorkin et al., 2016). Moreover, the cumulative burden of rural living and behavioral conditions (i.e., mental illness and substance use disorders) can lead to poor health outcomes. This stresses the need to provide more equitable and accessible healthcare opportunities for those living in rural areas.

Chronic Conditions and Rural Health

According to data from the 2018 National Health Interview Survey, 51.8% of U.S. adults had at least one chronic condition from the 10 different conditions surveyed: arthritis, cancer, chronic pulmonary disease (COPD), coronary heart disease, hypertension, current asthma, diabetes, hepatitis, stroke, and weak or failing kidneys. Additionally, 27.2% of U.S. adults had multiple chronic conditions, with the highest prevalence among women, non-Hispanic white adults, adults aged 65 years or older, and those living in rural areas (Boersma et al., 2020). Those with multiple chronic conditions experience a worse health-related quality of life, higher healthcare utilization costs, and an increased risk of death compared to those without chronic conditions (Boersma et al., 2020). Moreover, chronic diseases are the leading cause of death and disability in the U.S., with 90% of the $3.8 trillion in annual healthcare expenditures going to people with chronic and mental health conditions (CDC, 2017b).

Rural residents are more likely to die prematurely from specific chronic conditions, such as heart disease, stroke, and chronic lower respiratory disease, compared with their urban counterparts (CDC, 2019). Even though the death rates for both heart disease and cancer have been falling since 1999, there is a glaring disparity in deaths associated with these two conditions among rural residents. For example, in 2019, the death rates from heart disease and cancer were 21% higher and 15% higher, respectively, in rural areas versus urban areas (CDC, 2021). The lack of or limited healthcare access, poor lifestyle habits, and demographic characteristics (e.g., older population) are some of the major drivers of mortality related to chronic conditions among rural residents (CDC, 2019; CDC, 2021). With fewer resources to prevent and treat chronic conditions, coupled with a higher incidence of multiple chronic conditions, chronic disease is a significant concern for rural health.

Association Between Behavioral Conditions and Chronic Conditions in Rural Health

There is a vital link between mental health disorders and chronic diseases. According to a recent report published by the National Institute of Mental Health (2021), there is a rise in mental health conditions among those who have chronic illnesses, such as cancer, heart disease, and diabetes, which adversely impact their mental well-being and day-to-day activities. This could be related to new diagnoses or to persisting medical conditions that the patients manage on an ongoing basis. Alternatively, individuals with depressive symptoms are at a higher risk of developing medical complications due to inflammation, circulatory issues, hormone abnormalities, and metabolic changes. Hence, examining the interrelationship between mental health and chronic disease is essential to reduce the burden of chronic disease among those with mental disorders and vice versa.

Chronic diseases like asthma, arthritis, cancer, and cardiovascular concerns also play a big role in the etiology of mental health disorders (Clark & Kurrie, 2009). On the other hand, a mental health disorder could be a predictive factor for many types of chronic health diseases. For instance, those living with major depressive disorders are twice as likely to suffer from a stroke within 10 years of diagnosis compared with those who demonstrate few depressive symptoms (Ohira et al., 2001). A community-based Framingham study indicated depressive symptoms as an independent risk factor for certain cardiovascular events (Salaycik et al., 2007).

Rural living can affect the accessibility of appropriate mental health care (Rost et al., 2002), with past research showing underutilization of mental health services in rural areas (Alegría et al., 2000). The untreated mental health conditions can directly impact the treatment of chronic health diseases causing premature death among the rural population (Gamm, 2020; Kessler, 2001).

Since there is a bidirectional relationship between behavioral health conditions and chronic diseases, it is imperative that this association be highlighted during clinical practice and health education sessions, especially for improving care delivery among rural residents. The objective of our study was to identify the

prevalence of both chronic and behavioral health conditions among rural residents of Texas and to recognize the barriers those residents typically face in accessing care for their physical and behavioral health needs.

Methods

Interventions targeted toward improving health outcomes in rural areas more effectively warrant a context-specific understanding that can help inform more appropriate health promotion strategies and solutions. Our cross-sectional study (Sedgwick, 2014) explored demographic variables, the prevalence and associations between certain physical and behavioral health conditions (i.e., chronic disease, substance use, and mental health conditions) and barriers to care access among participants in rural Texas.

Participants

Convenience sampling was used to collect data from 181 participants, aged 18 years or older, who lived in various zip codes of a rural Texas county. These participants were recruited from local businesses (e.g., grocery stores and convenience stores) and churches and were each provided with a small gift ($5 value) as incentive to participate in the study. Upon providing consent, the participants answered a self-administered, 18-item health needs questionnaire (Appendix). The participants were primarily Caucasian and female, encompassing a broad age range (Table 1).

Table 1. *Participants' Demographic Information*

Characteristic	*n* (%)
Age in years	
18–26	31 (17.1)
27–35	21 (11.6)
36–45	23 (12.7)
46–55	25 (13.8)
56–65	33 (18.2)
66–75	40 (22.1)
76–85	7 (3.9)
85 and above	1 (0.6)
Race/ethnicity	
African American	3 (1.7)
American Indian	5 (2.8)
Asian	2 (1.1)
Caucasian	142 (78.5)
Hispanic	27 (14.9)
Other	2 (1.1)
Gender	
Male	54 (29.8)
Female	127 (70.2)

Note: *N* = 181.

Instrumentation and Data Collection

The data were collected using an 18-item, self-reported health-needs questionnaire (Appendix) that was available in English and Spanish. All data analyses were conducted using participants' responses to individual items; no scale scores were calculated using this measure. The questions used either a multiple-choice or fill-in-the-blank response format. They addressed three main categories: substance use (i.e., drug, alcohol, and long-term medication use), mental health conditions, and chronic disease. Several questions were also dedicated to demographic characteristics (e.g., race/ethnicity, gender, and geographic location).

For the categories on substance use and mental health conditions, questions were focused on both the participants and their acquaintances. Questions concentrated on their (1) experience with the health conditions; (2) need for getting care for these conditions (but not receiving any) within the last 12 months, along with the reasons for not getting help; (3) experience regarding any barriers for getting help; and (4) ease of access or identification of locations for getting help.

For the chronic disease category, participants were asked whether they suffered from medical conditions, such as heart disease, diabetes, or cancer, and, if so, where they got help to manage those conditions.

Data Analysis

Data were analyzed using the SPSS (version 26) and JASP statistical packages. We explored the demographic variables and the questions regarding substance (drug/alcohol/long-term medication) use, mental health conditions, and chronic disease individually using frequencies. We also examined bivariate relationships among the substance use, mental health conditions, and chronic disease variables using a series of chi-square tests with an alpha level of 0.05.

Results

The prevalence of mental health conditions and substance (drug/alcohol/long-term medication) use among survey participants and their acquaintances is displayed in Table 2. Overall, participants most frequently reported knowing family members and friends who experienced mental health conditions (n = 94 [51.9%] and n = 71 [39.2%], respectively) and substance use (n = 102 [56.4%] and n = 71 [39.2%], respectively). The most frequent chronic diseases that participants suffered from, per self-report, were diabetes (n = 20 [11.1%]), other chronic conditions (n=37 [20.4%]), and heart disease (n = 15 [8.3%]).

Table 2. *Prevalence of Mental Health Conditions and Substance Use Among Participants and Acquaintances*

	Mental health problems	Substance use[a]
	n (%)	*n* (%)
Me	49 (27.1)	28 (15.5)
Family members	94 (51.9)	102 (56.4)
Friends	71 (39.2)	71 (39.2)
Person in my neighborhood	17 (9.4)	21 (11.6)
Other	6 (3.3)	6 (3.3)
No one	25 (13.8)	26 (14.4)
Participant does not know	14 (2.2)	9 (5.0)

Note. N = 181. Column percentages may exceed 100% because participants could select more than one option.
[a]Drug/alcohol/long-term medication use.

The survey participants responded to a series of questions regarding the level of support and care they were receiving for their health conditions as well as the difficulty in obtaining that care (Table 3). Twenty-one participants (12.0%) reported experiencing mental health conditions but not receiving help for them in the past 12 months. One participant (0.6%) reported experiencing substance abuse but not getting any help for it in the past 12 months. The most frequently cited reasons for not receiving necessary help for mental health conditions included not being able to afford care (n = 12 [6.6%]) and insufficient insurance (n = 10 [5.5%]). For substance use disorders, the top three cited reasons for not receiving necessary help were lack of intent (n = 2 [1.1%]), inability to afford care (n = 12 [6.6%]), and insufficient insurance (n = 2 [1.1%]). Although overall, only one participant reported experiencing substance abuse but not getting any help within the last 12 months, more than one participant provided reasons for why they did not receive help for substance abuse disorders. Despite this inconsistency, we chose to report the numbers as provided by the survey participants.

Table 3. *Reasons Why Participants Needing Help Within the Last 12 Months for Mental Health Conditions and Substance Use Disorders Did Not Get Any*

Reason	Mental health conditions n (%)	Substance use disorders n (%)
Cannot afford to go	12 (6.6)	2 (1.1)
Have trouble getting there	2 (1.1)	0 (0.0)
Insurance does not cover it or participant is uninsured	10 (5.5)	2 (1.1)
Long wait times at doctor/hospital/clinic	1 (0.6)	1 (0.6)
Participant does not know where to go	6 (3.3)	1 (0.6)
Afraid to go to the doctor	4 (2.2)	1 (0.6)
Participant does not want any help	1 (0.6)	5 (2.8)
Other	2 (1.1)	0 (0.0)

Note. N = 181.

Overall, 96 participants (53.0%) reported being able to get at least some level of help for mental health conditions or substance use disorders. However, 53 participants (29.3%) reported not knowing what kind of help they could get. Additionally, participants most frequently cited that is was most difficult to get help for mental health conditions. When citing barriers to accessing care for mental health conditions and substance use disorders, participants most frequently reported not being able to afford care and/or having insufficient insurance. Table 4 depicts an overview of the barriers survey participants reported facing when trying to access care.

Table 4. *Barriers to Accessing Care for Mental Health Conditions or Substance Use Disorders*

Barrier	n (%)
Cannot afford to go	50 (27.6)
Have trouble getting there	10 (5.5)
Insurance does not cover it	40 (22.1)
Participant does not have insurance	22 (12.2)
Long wait times at doctor/hospital/clinic/emergency room	23 (12.7)
Participant does not know where to go	36 (19.9)
Afraid to go to the doctor	23 (12.7)

Note. N = 181. Column percentages may exceed 100% because participants could select more than one option.

Survey participants also described where they would go to receive care for their mental health conditions, substance use disorder, and physical illness. As shown in Table 5, participants most frequently sought help for all three types of conditions from their primary care doctor. However, participants also frequently sought mental health counselors for help with mental health conditions, while 43 participants (23.8%) reported not knowing where to get help for substance use disorders.

Table 5. *Where Survey Participants Go to Receive Help for Mental Health Conditions, Substance Use Disorders, and Physical Illness*

Location	Mental health conditions	Substance use[a] disorders	Physical illness
	n (%)	n (%)	n (%)
Hospital/emergency room	21 (11.6)	20 (11.0)	13 (7.2)
Community or neighborhood organization	22 (12.2)	16 (8.8)	2 (1.1)
Mental health counselor	47 (26.0)	24 (13.3)	0 (0.0)
Primary care doctor	72 (39.8)	55 (30.4)	60 (33.1)
Drug-related organization	13 (7.2)	18 (9.9)	0 (0.0)
Participant does not have help in their neighborhood	5 (2.8)	2 (1.1)	1 (0.6)
Participant has to go outside their neighborhood for help	2 (1.1)	2 (1.1)	5 (2.8)
Friends and family	27 (14.9)	20 (11.0)	2 (1.1)
Other	16 (8.8)	9 (5.0)	10 (5.5)
Participant does not know	26 (14.4)	43 (23.8)	4 (2.2)

Note. N = 181. Column percentages may exceed 100% because participants could select more than one option.
[a]Drug/alcohol/long-term medication use.

Multiple bivariate relationships were explored using chi-square tests of independence (Table 6). Both the assumptions of independence of observations and expected cell frequencies being greater than 5 were met for all the explored relationships. Overall, the presence of a mental health condition was associated with

substance use [$\chi^2_{(1)}$ = 15.172, p < 0.001; OR: 1.58 (95% CI: 0.73–2.42)], with a larger than expected number of participants having either no mental health conditions or substance use disorders or having both mental health conditions and substance use disorders. There were fewer participants than expected who had just one type of condition or the other. Mental health conditions were also associated with chronic disease [$\chi^2_{(1)}$ = 9.903, p = 0.002; OR: 1.07 (95% CI: 0.39–1.75)], with a larger than expected number of participants having either no mental health conditions or chronic diseases or having both mental health conditions and chronic diseases. There were fewer participants than expected who had just one type of condition or the other. However, no associations were observed between substance use disorders and chronic diseases [($\chi^2_{(1)}$ = 2.250, p = 0.134); OR: 0.62 (95% CI: -0.20–1.43)].

Table 6. *Associations Between Various Physical and Behavioral Health Conditions*

	Substance use is absent O(E)[a]	Substance use is present O(E)	Row total	Chi-square values	P-values	Cramer's V
		Mental health conditions + substance use disorders				
Mental health condition is absent	120 (111.6)	12 (20.4)	132	$\chi^2_{(1)} = 15.172$	$p < .001^*$	0.290
Mental health condition is present	33 (41.4)	16 (7.6)	49			
Column total	153	28	181			
	Chronic disease is absent	Chronic disease is present	Row Total			
		Mental health conditions + chronic disease				
Mental health condition is absent	83 (73.7)	49 (58.3)	132	$\chi^2_{(1)} = 9.903$	0.002^*	0.234
Mental health condition is present	18 (27.3)	31 (21.7)	49			
Column total	101	80	181			
	Chronic disease is absent	Chronic disease is present	Row total			
		Chronic disease + substance use disorders		$\chi^2_{(1)} = 2.250$	0.134	0.111
Substance use is absent	89 (85.4)	64 (67.6)	153			
Substance use is present	12 (15.6)	16 (12.4)	28			
Column total	101	80	181			

Note. *Statistically significant at $p < 0.05$;
[a]O(E) = Observed and expected frequencies.

Discussion

Although co-occurrences of physical and behavioral comorbidities in the U.S. population are well-documented, these conditions are typically treated separately rather than holistically (Allen et al., 2014; Thorpe et al., 2017). Moreover, the vast majority of healthcare spending is attributed to addressing physical comorbidities (85%), while underlying behavioral disorders receive little attention (Thorpe et al., 2017). These disparities are more pronounced in the context of rural health. This is because rural residents typically face greater challenges in accessing care systems due to geographic isolation, lower socioeconomic status, reduced access to and engagement with appropriate providers, and a reluctance to seek help as a result of discrimination and stigma (Morales et al., 2020). Such barriers to accessing appropriate and sustainable care further exacerbate the already existing problem that rural residents face of living in medically underserved areas (Andrilla et al., 2018). A deeper understanding about the complexities involved with rural healthcare delivery, especially amid increasing comorbidities, can help to inform the development of more targeted strategies and solutions. Hence, our study aimed to understand the prevalence of both physical and behavioral health conditions, along with the barriers faced by rural residents living in those parts of Texas where healthcare access is limited, and resources are scarce (Hogg Foundation for Mental Health, 2020).

In our study population, the major reasons reported by the participants for not getting help for their mental health and substance abuse disorders were not being able to afford care (27.6%) and inadequate insurance status (i.e., 12.2% were uninsured while 22.1% were underinsured). Indeed, affordability is among the many challenges rural residents face when attempting to access behavioral health services (Gale et al., 2019; Han et al., 2017). Additionally, 7.6% of the participants reported having both mental health and substance abuse disorders. Despite current treatment guidelines, fewer than 10% of adults with co-occurring mental health and substance abuse disorders receive treatment for both disorders (Han et al., 2017). Although both urban and rural areas face illicit drug use problems, the drug overdose-related deaths are higher in rural areas than in urban areas (CDC, 2017a). Lack of nearby treatment facilities and education regarding life-saving measures (i.e., access to Naloxone) have amplified the issues associated with substance use in these areas even more (Andrilla et al., 2018; Faul et al., 2015).

Chronic diseases like asthma, arthritis, cancer, diabetes, and cardiovascular concerns also play a big role in the etiology of mental health disorders (Clarke & Currie, 2009). Alternatively, a mental health disorder could be a predictive factor in many types of chronic health outcomes. For instance, a Japanese study found that those living with major depressive disorders are twice as likely to suffer from a stroke within 10 years compared with those who demonstrate few depressive symptoms (Ohira et al., 2001). Also, a community-based Framingham study indicated depressive symptoms as an independent risk factor for incidence of stroke and transient ischemic attack among individuals below the age of 65 years (Salaycik et al., 2007). In our study, 22% of the participants reported having both chronic and mental health conditions. The untreated mental health conditions can directly impact the treatment of chronic health outcomes, increasing the risk for premature death in rural populations (Gamm et al., 2020; Kessler, 2000).

When our study participants were asked where they would go to get help for their mental health needs, 11.6% reported that they would get care through hospitals or emergency rooms, 12.2% reported they would get help from community or neighborhood organizations, 39.8% said they would receive care from their primary care doctor, and 26.0% said they would go to a mental health counselor, among other categories. This highlights the imminent complications that can arise among those with mental health disorders who fail to receive appropriate care from specialty-trained mental health professionals, such as psychiatrists and psychologists.

According to the 2019 Texas Statewide Behavioral Strategic Plan, more than 80% of Texas counties are deemed mental health professional shortage areas, where there are more than 30,000 residents per clinician

(Hogg Foundation for Mental Health, 2020). One recommended strategy to counter this deficit of mental health practitioners is to integrate mental health services into the primary care setting. Primary care is key to promoting good mental health as it leads to direct provision and referrals to specialized care. This integration seems logical given that up to 70% of patients are diagnosed and treated for the most prevalent mental health conditions (e.g., anxiety, mood, and substance use disorders) in primary care settings (Goodrich et al., 2013). Our study results further supported the need for this integration as 39.8% of participants reported they would seek help for their mental health needs from their primary care doctor.

There are a few limitations within our study that should be mentioned. Since the collected data was self-reported, there is potential for reporter bias. Our research only explored a single county in rural Texas, limiting the generalizability of the study. Other limitations of this cross-sectional design include the inability to measure incidence and make causal inferences. Nevertheless, this design is beneficial because multiple outcomes can be studied, which is useful for descriptive analyses. Further studies can examine the resulting associations in greater depth.

Implications for Rural Health Promotion

Rural communities face pre-existing barriers to effectively access general healthcare services, let alone mental health and substance abuse services. As such, the integration of mental health services into primary care settings provides a viable strategy that is cost effective, uses a team-based approach, and leads to improved patient outcomes (Goodrich et al., 2013; McClellan et al., 2020; Miller-Matero et al., 2016; Reiter et al., 2018). Telemedicine provides an avenue to link primary care providers with mental health practitioners in underserved areas. Even though having a stable internet connection can be an issue in many rural areas, there is evidence that telepsychiatry and telebehavioral approaches can facilitate care to improve health outcomes by leveraging scarce resources (Hilty et al., 2020). Using such strategies is even more critical with the current COVID-19 pandemic that has added yet another layer of complexity to the challenges that rural America already faces (Cromartie et al., 2020). Designing holistic models of care that minimize existing barriers to care access, integrate medical and behavioral services, and incorporate relevant technology can help improve the overall quality and delivery of healthcare services in rural settings.

Conclusion

The co-occurrence and cumulative burden of mental health conditions, chronic diseases, and substance use disorders further exacerbate the health disparities that rural residents experience due to geographical, structural, and socioeconomic barriers to care access. Integrating behavioral and medical services can help circumvent these common barriers and improve rural health outcomes. Our study highlights the need to focus increased attention and resources toward providing more equitable and accessible healthcare opportunities for rural residents. We suggest that robust studies be conducted in the future to corroborate the findings of our study.

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Appendix

1. What is your age?
   a. 18–26
   b. 27–35
   c. 36–45
   d. 46–55
   e. 56–65
   f. 66–75
   g. 76–85
   h. 85 and over

2. Please list your county_____

3. Please list your zip code_____

4. What is your race/ethnicity?
   a. African American
   b. American Indian
   c. Asian
   d. Caucasian
   e. East Indian
   f. Hispanic
   g. Other (please specify) _____

5. What is your gender?
   a. Male
   b. Female

6. Who do you know that has mental health (feeling blue) problems? (Check all that apply)
   a. Me
   b. Family member(s)
   c. Friends
   d. Person(s) in my neighborhood
   e. No one
   f. I don't know
   g. Other_____

7. Who do you know that uses drugs, alcohol, or long-term medication?
   a. Me
   b. Family member(s)
   c. Friends
   d. Person(s) in my neighborhood
   e. No one
   f. I don't know
   g. Other_____

8. In the past 12 months, have you needed to get help for mental health (feeling blue), but did not get any?
   a. Yes
   b. No
   c. Other

9. If you answered Yes to the last question (q8), why did you not get any help with mental health (feeling blue)? (Check all that apply)
   a. Can't afford to go
   b. Have trouble getting there
   c. Insurance doesn't cover it or you don't have insurance
   d. Long wait times at the doctor/hospital/clinic
   e. Don't know where to go
   f. Afraid to go to the doctor
   g. Don't want any help
   h. Other_____

10. In the past 12 months, have you needed to get help for drugs/alcohol/long-term medication consumption, but did not get any?
    a. Yes
    b. No
    c. Other

11. If you answered Yes to the last question (q10), why did you not get any help with drugs/alcohol/long-term medication consumption?
    a. Can't afford to go
    b. Have trouble getting there
    c. Insurance doesn't cover it or you don't have insurance
    d. Long wait times at the doctor/hospital/clinic
    e. Don't know where to go
    f. Afraid to go to the doctor
    g. Don't want any help

12. How easily you can get help for mental health (feeling blue)/personal problems or drug/alcohol/long-term medication consumption in your neighborhood?
    a. I am not able to get help
    b. I can get some help
    c. I can get all the help I need
    d. I don't know about the types of help I can get

13. If you needed help, which one of the following conditions or problems would be the hardest to get help with? (Check all that apply)
    a. Mental health (feeling blue)
    b. Drug/alcohol/long-term medication consumption
    c. None
    d. I don't know
    e. Other_____

14. If you needed to get help, what might get in your way? (Check all that apply)
    a. Can't afford to go
    b. Have trouble getting there
    c. Insurance doesn't cover it
    d. You don't have insurance
    e. Long wait times at the doctor/hospital/clinic/ER
    f. Don't know where to go
    g. Afraid to go to the doctor

15. Where do you go to get medical help in your neighborhood for mental health (feeling blue)? (Check all that apply)
    a. Hospital/emergency room
    b. Community or neighborhood organization
    c. Mental health counselor
    d. Primary care doctor
    e. Drug-related organization
    f. I don't have help in my neighborhood
    g. I have to go outside of my neighborhood to get help
    h. Friends and family
    i. I don't know
    j. Other_____

16. Where do you go to get help in your neighborhood for drug/alcohol/long-term medication consumption? (Check all that apply)
    a. Hospital/emergency room
    b. Community or neighborhood organization
    c. Mental health counselor
    d. Primary care doctor
    e. Drug-related organization
    f. I don't have help in my neighborhood
    g. I have to go outside of my neighborhood to get help
    h. Friends and family
    i. I don't know
    j. Other

17. Do you currently have any of the following health conditions?
    a. Heart disease
    b. Stroke
    c. Diabetes
    d. Epilepsy
    e. Multiple sclerosis
    f. Cancer
    g. Kidney disease
    h. Lung disease
    i. HIV/AIDs
    j. Parkinson's disease
    k. Systemic lupus erythematosus
    l. Rheumatoid arthritis
    m. Other_____

18. If you answered Yes to any of the health conditions in the last question (q17), where do you get medical help to manage your disease?
    a. Hospital/emergency room
    b. Community or neighborhood organization
    c. Primary care doctor
    d. I don't have help in my neighborhood
    e. I have to go outside of my neighborhood to get help
    f. Friends and family
    g. I don't know
    h. Other_____