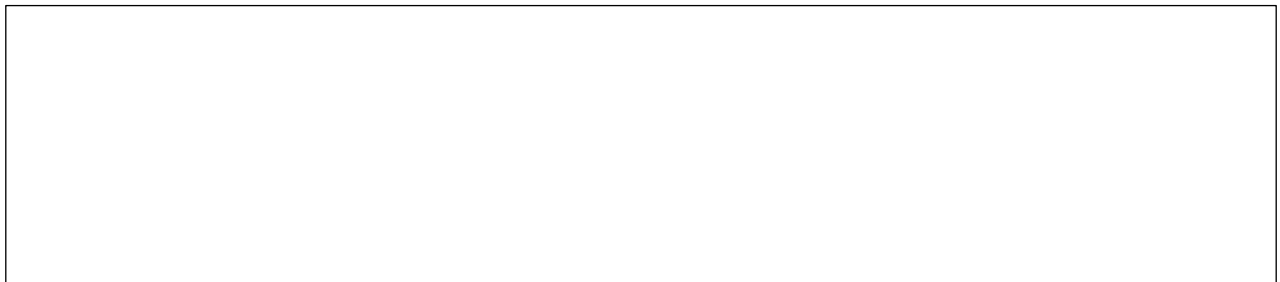


Access to Mental Health Services in Rural Pennsylvania

By:

**Juliana Svistova, Ph.D., Ahyoung Lee, Ph.D., Christopher Harris, Ph.D.,
Juyoung Song, Ph.D., Jillian Horton, M.S., Barbe Fogarty, DSW,
Julia Hansen, MSW, and Carlie Mills, MSW
Kutztown University of Pennsylvania**

January 2022



EXECUTIVE SUMMARY

Key Findings

- The most common barriers to supplying mental health services in rural Pennsylvania were shortages of professionals, issues with professional qualifications and credentialing, fragmented levels of care, flaws in interagency collaboration, and funding and insurance challenges.
- Six core challenges in accessing mental health services faced by rural residents, especially youth and the elderly, were: (1) transportation issues, (2) health insurance as an access issue, (3) stigma and mental health acceptance, (4) distance and travel time and conflicting work hours, (5) family engagement and the role of family, and (6) telehealth, internet access, and technology issues.
- Older rural residents had more mental health care needs than their urban counterparts.
- In the resident survey sample, about 35 percent of parents said their children had, at some point, been diagnosed with a mental health disorder by a health professional.
- In the resident survey sample, 45 percent of parents said their children had a history of mental health treatment, and about 46 percent said their children had seen a mental health professional within a year.
- Survey respondents with more unmet mental health needs were typically male, not married, and had lower educational attainment levels.

Key Policy Considerations

- Address transportation barriers related to long travel distances, affordability, and the Medical Assistance Transportation Program (MATP).
- Attract qualified mental health professionals to rural areas and facilitate staff credentialing and education to ensure availability of providers.
- Promote the de-stigmatization of mental health through education, prevention, and normalization.
- Expand and fund telehealth, case management services, and in-home and mobile therapy to address rural service access barriers.
- Amplify the role of schools in addressing youth mental health and expand school-based therapy.
- Integrate physical and behavioral health for prevention and early intervention purposes.
- Improve and strengthen interagency collaboration for streamlined communication and resources sharing.
- Bridge gaps in the levels of care to access appropriate services based on mental health needs.
- Address budgetary concerns for mental health prevention and service delivery.
- Ease state regulations around licensure, consumer rights, and age-specific requirements.

Research Background

This research assessed the demand for mental health services in rural Pennsylvania with a focus on youth and the elderly. It identified challenges these populations face in accessing mental health care to provide options for improving and expanding mental health care services for underserved rural Pennsylvanians.

The research team conducted secondary data analysis, surveys of rural residents, focus groups with mental health service providers and health insurance providers, and in-depth, individual interviews with mental health service recipients. Specifically, the team analyzed state-level data from the 2017 and 2019 Pennsylvania Youth Surveys (PAYS) and the 2017 Behavioral Risk Factor Surveillance System (BRFSS) to assess the needs of mental health services among youth and the elderly in rural areas. The team collected online and in-person surveys with rural residents to examine mental health status, mental health literacy, service use, and any challenges accessing mental health services including stigma, transportation, insurance, and more. The final sample size of the resident survey was 307. Among respondents, there were 190 parents of youth and 117 older adults. The team conducted 25 online focus groups with mental health service providers (n=119) and six online focus groups with insurance providers (n=28). In addition, the team conducted 15 in-depth, individual interviews with mental health service recipients (n=15) to explore barriers to accessing mental health services in rural areas and to identify policy recommendations.

Research Findings

This study yielded several significant findings. The secondary data analysis of 2017 BRFSS data revealed that older rural residents had more mental health care needs than their urban counterparts. Older rural adults showed higher frequency of mental distress, lack of affordable services, and lack of family doctors when compared to their urban peers. The research found no statistically significant results among school-aged children when examining variables related to mental health in the 2017 and 2019 PAYS data sets.

The resident survey results revealed that parents of youth in rural areas have substantially high mental health care needs for their children. More than a third of the parents (35 percent) reported their children had at one point been diagnosed with a mental health disorder by a health professional. Slightly more than 45 percent of parents said their children had a history of mental health treatment. Furthermore, 46 percent said their children had seen a mental health professional within a year. Still, about 18 percent of respondents (34 people) reported that there was a time in the past 12 months when at least one of their children needed mental health care but could not or did not get it.

Most parents selected a solution to improve access to mental health care in rural areas as “increasing the number of mental health service providers,” followed by “mental health promotion programs in schools,” “public education campaigns about mental health awareness in general,” “community-based population health promotion programs (to teach life skills, coping, etc.),” “mental health service providers practicing in hospitals,” and other options.

Regarding the level of resource-oriented mental health literacy, 59 percent of parents reported that they know where to go to receive mental health services. However, less than half of parents agreed that they know how to contact a mental health clinic in their area. Also, only about 55 percent of parents knew where to get useful information about mental illness.

Although not at the same level as youth, older adults also revealed mental health care needs in rural areas. About 17 percent reported that they had been diagnosed with a mental health disorder by a health professional, and 25 percent reported that they have a history of mental health treatment. About 7 percent of respondents (nine people) reported that there was a time in the past 12 months when they needed mental health care, such as medications and/or counseling, but could not or did not get it.

For solutions to improving access to mental health care in rural areas, older respondents selected a top preventive option of “Community-based population health promotion programs to teach life skills, coping, etc.” These were followed by transportation services, mental health promotion programs in schools, an increase in the number of mental health service providers, and other suggestions. Regarding the level of resource-oriented mental health literacy, 70 percent of respondents reported that they know

how to get the number of a suicide prevention hotline. However, only about half reported that they know how to contact a mental health clinic in their area.

Based on the qualitative data analysis, themes were identified surrounding the supply and delivery of mental health services, challenges and barriers associated with accessing mental health services, and possible strategies to improve and expand mental health services.

Five key themes emerged based on the conversations with service providers and insurance company representatives that relate to the *supply of mental health services* in rural Pennsylvania: (1) availability of providers and shortage of professionals, (2) staffing and organizational issues, such as education and credentialing, (3) intensity of and levels of care, (4) interagency collaboration, and (5) funding and insurance challenges. There was agreement among service providers and insurers that a major barrier for delivering mental health services to rural clients is shortage of qualified professionals and finding clinicians that have the appropriate level of credentialing approved by insurance companies for the types of services provided.

Six themes emerged based on the conversations with service providers and insurance company representatives as well as interviews with service users that concerned *challenges in accessing mental health services* faced by rural residents, especially youth and the elderly: (1) transportation issues, (2) health insurance as an access issue, (3) stigma and mental health acceptance, (4) distance and travel time and conflicting work hours, (5) family engagement and the role of family, and (6) telehealth, internet access, and technology issues. Participants across all focus groups consistently brought up transportation as the single biggest barrier playing a large role in accessing mental health services in rural areas. Both focus group and interview participants also reported insurance as another primary challenge in accessing mental health services in rural Pennsylvania.

Table of Contents

INTRODUCTION	8
GOALS AND OBJECTIVES	11
METHODOLOGY	12
Phase I: Secondary Data Analysis	12
BRFSS Data Set	12
PAYS Data	14
Phase II: Resident Surveys	14
Phase III: Qualitative Data	16
(1) Focus Groups with Service Providers and Health Insurance Providers	16
(2) In-depth Interviews with Mental Health Service Users	19
RESULTS	20
Secondary Data Analyses	20
(1) BRFSS Data Set	20
(2) PAYS Data Set	25
Residents' Survey	26
(1) Youth	26
(2) Older Adults	32
Qualitative Data	38
Supply and Delivery of Mental Health Services	38
(1) Availability of Providers and Shortage of Professionals	38
(2) Staffing and Organizational Issues: Education and Credentialing	39
(3) Intensity of Care/Levels of Care	41
(4) Interagency Collaboration	44
(5) Funding and Insurance Challenges	46
Challenges in Accessing Mental Health Services	48
(1) Transportation Issues	48
(2) Health Insurance as an Access Issue	50
(3) Stigma and Mental Health Acceptance	51
(4) Distance and Travel Time and Conflicting Work Hours	53
(5) Family Engagement and the Role of Family	55
(6) Telehealth, Internet Access and Technology Issues	56
POSSIBLE STRATEGIES AND POLICY CONSIDERATIONS	57
(1) Addressing Transportation Barriers	58
(3) Promoting De-stigmatization through Education, Prevention, and Normalization	61
(4) Expanding and Funding Telehealth, Case Management Services and In-Home Mobile Therapy	62
(5) Amplifying the Role of School in Youth Mental Health and Expanding School-Based Therapy	67
(6) Integrating Physical and Behavioral Health	70
(7) Improving and Strengthening Interagency Collaboration	75
(8) Bridging the Gaps in the Levels of Care	77
(10) Easing State Regulations around Licensure, Consumer Rights, and Age-specific Requirements	79

REFERENCES	82
APPENDIX 1: PAYS RESULTS	86
APPENDIX 2: YOUTH QUESTIONNAIRE.....	90
APPENDIX 3: OLDER ADULT QUESTIONNAIRE.....	97
APPENDIX 4: FOCUS GROUP GUIDE	105
APPENDIX 5: INTERVIEW GUIDE	117
APPENDIX 6: DEMOGRAPHIC CHARACTERISTICS OF OLDER ADULTS	120

List of Tables

Table 1. Rural/Urban Differences in Key Variables Among Older Adults in Pennsylvania Based on BRFSS Data (%).....	21
Table 2. Bivariate Correlation Among Study Variables.....	21
Table 3. Frequent Mental Distress by Demographic Variables (categorical variables).....	22
Table 4. Health and Mental Health Care Needs in rural Pennsylvania counties as identified in BRFSS data (aged 65 and older) (%)	23
Table 5. Demographic Characteristics of Parents of Youth (n=190).....	26
Table 6. Descriptive Statistics of the Key Variables (Youth).....	29
Table 7. Rank Order of Solutions for Improving Access to Mental Health Services in Rural Areas (Youth).....	30
Table 8. Level of Resource-Oriented Mental Health Literacy (Jung et al., 2016).....	31
Table 9. Demographic Characteristics of Older Adults (n=117)	32
Table 10. Descriptive Statistics of the Key Variables (Older Adults)	35
Table 11. Rank Order of Solutions to Improve Access to Mental Health Services in Rural Areas (Older Adults)	36
Table 12. Level of Resource-oriented Mental Health Literacy (Jung et al., 2016).....	37

INTRODUCTION

Research estimates that about 2.6 million rural adults suffer from depression (Probst, Laditka, Moore, Harun, Powell, Baxley, 2006). Rural residents are reported to show similar rates of depression and anxiety as their urban counterparts (Probst et al., 2006). Hauenstein and colleagues (2006) reported that increased rurality is related to deteriorated mental health symptoms. However, there is disparity in mental health service use in rural areas. Rural residents across the United States report access to quality health care as their top priority emphasizing emergency department care, insurance coverage, and adequate mental health care as three of the top five health concerns (Bolin et al., 2015).

Rural residents are significantly less likely to receive any mental health treatment than urban residents (Wang et al., 2005; Fortney, Rost, Zhang, & Warren, 1999). Only one third of those with diagnosable disorders seek mental health treatment services (Kessler et al., 2005). Rural residents face many barriers accessing mental health services related to “availability, accessibility, and acceptability” (Hogan, 2003; Weaver & Himle, 2017). First, there are fewer mental health providers available in rural areas (Thomas, Macdowell, & Glasser, 2012; Thomas, Ellis, Konrad, Holzer, & Morrissey, 2009). Most mental health professionals practice in metropolitan areas (Ellis et al., 2009), and, as a result, more than 60 percent of rural Americans live in designated mental health provider shortage areas (Health Resources and Services Administration, 2017). Consequently, rural residents have greater transportation needs accessing mental health services out of town (Weaver & Himle, 2017). Other factors that make it hard for rural residents to access mental health services include levels of insurance coverage (uninsured or underinsured) and persistent poverty rates that create substantial cost barriers (Newkirk & Damico, 2014; Weaver & Himle, 2017). Finally, the stigma of seeking mental health services still exists in rural areas. Traditional values like self-reliance and independence also prevent rural residents from seeking professional help (Fontanella et al., 2015; Rost, Fortney, Fisher, & Smith, 2002).

Youth and the elderly are vulnerable populations with specific mental health needs, such as loneliness, depression, and anxiety (Qualter et al., 2015). The National Alliance on Mental Illness

estimates that about 21 percent of youth ages 13-18 have experienced a severe mental disorder. Anxiety and depression are the most common child and youth mental health disorders, which can be detrimental with related outcomes of disrupted relationships, school failure, lifelong psychiatric disorders, and suicide-related behavior (Bennett, Courtney, Duda, Henderson & Szatmari, 2018). Access to mental health services varies by socioeconomic status. Youth from economically impoverished areas have the highest risk of ongoing mental health problems (Reiss, 2013). However, they often receive ineffective psychological treatment (Garland et al., 2013). Kodet and colleagues (2019) pointed out inadequate and subpar services and inadequate access to resources, such as transportation, as possible explanations of the problem.

The older population is particularly vulnerable. About 6 percent of older adults have depression and 10 percent have anxiety (Blegen, 2016; Schuurmans & van Balkom, 2011), and thus depression and anxiety are regarded as critical public health concerns (Aguiñaga et al., 2018). These conditions significantly decrease quality of life in older adults and threaten the rapidly increasing older population. Older rural adults are less likely to use formal services than their urban counterparts (Sun, 2011). The growing number of people aged 65 and older who suffer from serious mental illness exceeds the capacity of trained geriatric treatment professionals to screen and treat this specific population (Institute of Medicine, 2012; American Psychological Association, 2014). The geriatric population continues to grow with the number of adults aged 65 and older growing by 33 percent in the past 10 years (Administration on Aging, Administration for Community Living, 2018). The population of people aged 85 and older is expected to grow by 129 percent by 2040 (U.S. Census Bureau, 2017).

In Pennsylvania, approximately one quarter of the population lives in rural areas (Center for Rural Pennsylvania, n.d.). Seventy-one percent of rural municipalities have 2,000 or fewer people (Center for Rural Pennsylvania, n.d.) Over half of the people suffering from mental illness in Pennsylvania did not receive treatment in 2017 (Joint State Government Commission, 2020). This lack of services is especially felt in rural Pennsylvania, where accessibility, acceptability, and availability make that treatment even harder to obtain (Hall & Gjesfjeld, 2013). There are many challenges to living in a rural

county in Pennsylvania. For example, 20 percent of rural households do not have reliable internet access (U.S. Census Bureau, 2018). Additionally, the poverty rate in rural Pennsylvania is higher than urban Pennsylvania at about 13 percent (Elser, Upton, & Gann, 2020). Most notably, the quality of healthcare in rural Pennsylvania is significantly diminished compared to urban areas. Rural physicians must account for more clients than their urban counterparts (Center for Rural Pennsylvania, n.d.). This is even more notable for mental healthcare providers, as there is a below average number of mental health providers in the state (Joint State Government Commission, 2020). Additionally, over half of those who suffer from mental illness went without treatment in 2017 (Joint State Government Commission, 2020). In rural counties, the suicide rate on the whole is higher than in more urban counties (National Advisory Committee on Rural Health and Human Services, 2017; Pennsylvania Department of Health, n.d.).

State governments play a vital role in delivering mental health services through state legislation, regulations, and funding of mental health services. Pennsylvania has created various programs to address the needs of children and older adults, such as the Child and Adolescent Social Service Program, Student Assistance Program, A Call for Change Towards a Recovery-Oriented Mental Service System for Adults, and the Community Support Program, managed by the Department of Human Services. Despite these efforts, disparities in access to mental health services still exist. In Pennsylvania, there are more than 1 million adults who experienced serious psychological distress in the previous year (Heun-Johnson, Menchine, Goldman, & Seabury, 2017). While the prevalence is high, there are significant unmet mental health care needs in Pennsylvania. In 2018, Pennsylvania had 24 Mental Health Professional Shortage Areas (HPSA). Mental Health HPSAs are federally designated areas that demonstrate a critical shortage of mental health providers. Among the 24 areas, only one area was non-rural and the rest were rural or partially rural, as defined by the metric that HRSA uses for these designations (Pennsylvania Department of Health, 2018).¹ To solve this problem, Heun-Johnson and colleagues (2017) reported that “44 full-time

¹ HRSA references the U.S. Census and Office of Management and Budget. The U.S. Census defines rural as any area that is not urban (areas with a population of 50,000 or more people). The OMB defines geographic areas consisting of 50,000 people or more as “not rural,” and areas with any population less than 10,000 people are considered rural. The Center for Rural Pennsylvania’s definition is based on population density, which is calculated by dividing the total population of a specific area by the total number of square land miles of that area.

providers are needed in addition to the current workforce in designated “shortage areas” to reach an acceptable provider-to-patient ratio in PA.” In addition, Pennsylvania has one of the nation’s lowest Medicaid-to-Medicare fee ratios of 0.67 (Newkirk & Damico, 2014), and it can limit physicians’ willingness to accept Medicaid patients, creating another barrier for these patients accessing mental health services.

Despite reported barriers, there is no known comprehensive research conducted in rural Pennsylvania to address the issue of access to mental health services. It is important to understand mental health service use among rural residents to ensure that their needs are met. The purpose of this research was to identify mental health needs of rural residents, especially youth (under the age of 18) and the elderly (age 65 and older), who are vulnerable populations with specific mental health needs.

GOALS AND OBJECTIVES

The overarching goal of this study was to assess the demand for mental health services in rural Pennsylvania, with a focus on youth and the elderly, and to identify the challenges these populations face in accessing mental health care. Doing so would help identify options for improving and expanding mental health care services for underserved rural Pennsylvanians. The specific aims were:

- To assess the demand of mental health services in rural Pennsylvania, with a focus on youth and the elderly.
- To obtain in-depth information on challenges rural Pennsylvanians face in accessing mental health care for underserved populations, including youth (under age 18) and the elderly (age 65 and older).
- To explore options for improving and expanding mental health services for rural Pennsylvanians and make relevant public policy recommendations.

To accomplish these aims, the research team conducted secondary data analysis, resident surveys, focus groups with mental health service providers and health insurance providers, and in-depth, individual interviews with mental health service recipients.

Objective 1. Analyze state level data (2017 and 2019 Pennsylvania Youth Survey, or PAYS data, and 2017 Behavioral Risk Factor Surveillance System, or BRFSS data) to assess the needs for mental health services among youth and the elderly in rural areas.

Objective 2. Conduct online and in-person surveys with Pennsylvania rural residents in three rural counties – Venango, Clinton, and Schuylkill – to examine mental health status, mental health literacy, service use, and challenges in accessing mental health services including stigma, transportation issues, insurance concerns, and more.

Objective 3. Conduct online focus groups (n=25) with mental health service providers (n=119), six on-line focus groups with insurance providers (n=28), and in-depth, individual interviews with mental health service recipients (n=15) to explore barriers in accessing mental health services in rural areas and to identify relevant policy recommendations.

METHODOLOGY

Phase I: Secondary Data Analysis

BRFSS Data Set

Research design and participants. This secondary survey research design was based on the 2017 Pennsylvania Behavioral Risk Factor Surveillance System (BRFSS) surveys conducted by the U.S. Center for Disease Control and Prevention (CDC). The BRFSS is a national system of annual health-related surveys that collect “state data about U.S. residents regarding their health-related risk behaviors, chronic health conditions, and use of preventive services” (CDC). To assess the demand for mental health services among the elderly in Pennsylvania, respondents aged 65 years and older were included in data analyses. According to the U.S. Census Bureau (2019), people over age 65 make up about 19 percent of Pennsylvania’s population.

Measures. For this study, the following information was selected for analysis from the 2017 BRFSS dataset for analysis: Frequent mental distress (FMD) was calculated using the following question: “Thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?” Respondents reported the number of days from one to 30. Respondents reporting 14 or more days of not having good mental health were identified as having FMD (Zahran et al., 2004). The variable was recoded as having FMD =1 and not having FMD=0. Depression was measured by asking “Have you ever been told that you have a depressive disorder, including depression, major depression, dysthymia, or minor depression?” It was coded as Yes (1) and No (2). Health coverage was assessed by asking “Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare, or Indian Health Service?” It was coded as Yes (1) and No (2). Regular checkups were assessed by asking “About how long has it been since you last visited a doctor for a routine checkup? [A routine checkup is a general physical exam, not an exam for a specific injury, illness, or condition.]” It was recoded as 1= Within past year (anytime less than 12 months ago), 2= Over 12 months ago. Lack of affordability was measured by asking “Was there a time in the past 12 months when you needed to see a doctor but could not because of cost?” The answer was coded as 1=Yes, 2=No. Having a personal doctor was assessed by asking “Do you have one person you think of as your personal doctor or health care provider?” The variable was coded as 1=Having one or more personal doctor, and 0=not having a personal doctor.

Data analysis. The data analysis procedure was guided by the research questions to be addressed. First, descriptive information was reported in terms of mental health status in rural and urban areas. The weights were adjusted accordingly using information on the weighting methodology for the dataset, which can be found at https://www.cdc.gov/brfss/annual_data/2017/pdf/weighting-2017-508.pdf. The final weight was based on the following formula (Design Weight= $_STRWT * (1/NUMPHON2) * NUMADULT$). All statistical analyses were performed using SPSS 26.0.

PAYS Data

Data description and sample. PAYS has been conducted in Pennsylvania every other year since 1989. The biennial survey focuses on students in grades 6, 8, 10, and 12, and PAYS data gather information about youth knowledge, attitudes, and behaviors towards alcohol, tobacco, mental health, and drug use. A total of 265,751 public and private school students throughout the state participated in the 2017 PAYS, and a total of 280,944 students participated in the 2019 PAYS. Due to the high number of data, the research team chose three rural counties (Schuylkill, Clinton, and Venango) and one urban county (Dauphin) to conduct preliminary data analysis. Dauphin County was selected as an urban counterpart to balance the number of respondents in rural and urban respondents in the PAYS dataset. Three rural counties were chosen for this secondary analysis based on the matching counties in the resident survey.

Measurements and data analysis. The key mental health measurements for the analysis were: “I do the opposite of what people tell me, just to get them mad,” “In the past 12 months, have you felt depressed or sad MOST days, even if you felt OK sometimes?”, “Sometimes I think that life is not worth it,” “At times, I think I am no good at all,” and “All in all, I am inclined to think that I am a failure.” Five questionnaires were scaled as NO!=1, no=2, yes=3, and YES!=4. The subsample consisted of three rural counties (Schuylkill, Clinton, and Venango) and one urban county (Dauphin). Descriptive statistics and subsample t-test analysis was conducted to report the comparison between in the rural and urban areas. Since there were no statistically significant results in the PAYS data, we present these results in the Appendix.

Phase II: Resident Surveys

Sampling and Recruitment. Rural resident surveys were conducted to understand the mental health needs and challenges of rural Pennsylvanians in accessing mental health services. In this phase, the target population was rural residents who are parents of youth or older adults (aged 65 and older). To be specific, the eligibility criteria to participate in the survey included being a parent/caregiver/guardian of

minors under age 18, or people aged 62 and over who reside in rural Pennsylvania. Due to the unforeseen COVID-19 pandemic that persisted throughout the duration of the study, various strategies were used to survey rural residents including outreach via online platforms, the telephone, mass mailings, and in-person. Online survey links were developed on the Survey Monkey website. The study was advertised using flyers through a Facebook page, school districts, housing authorities, Area Agencies on Aging, senior centers, and churches. The contact list was created through online searches.

First, three representative counties were selected based on population density – Clinton, Venango, and Schuylkill counties – for the resident survey. The process of selecting these three counties was the following. First, Pennsylvania was divided into three regions: western, central, and eastern. Next, the population densities of counties in each region were reviewed. In the western region, most counties had middle population density, so a middle density county was selected from the region. In the central region, most counties had low population density, thus a low density county was represented from the region; and in the eastern region, a high density county was selected. Finally, in each region, counties with median population density among the same categories (low, middle, high) were selected. As a result, Clearfield and Venango counties were selected from the western region. From the central region, Clinton was selected. From the eastern region, Schuylkill was selected. Since Clearfield and Clinton are contiguous, Venango County was chosen.

The COVID-19 pandemic required significant and frequent changes to the main data collection processes. The original plan of in-person surveys shifted to mainly online, direct mail (for older adults) and telephone surveys. The online survey was advertised through the study's Facebook page, and it reached more than the three counties originally selected. Also, due to the low survey return rate in the three selected counties and with the permission of the Center for Rural Pennsylvania, the sampling frame was expanded to all rural counties. School districts, (senior) housing facilities, and senior centers were contacted in all rural counties to encourage support for the study. As a result of these efforts, the final sample includes more rural counties than were initially proposed. As an incentive, all survey participants were eligible for a chance to win a \$25 store gift card. A total of 20 people were randomly selected to

receive the gift cards, and the cards were delivered. The final sample size of the resident survey was 307 participants, a total of 190 parents of youth and 117 older adults. The response rate for the direct mail surveys of older adults was 2.5 percent and 2.4 percent for telephone surveys of both populations from all *answered* calls (0.5 percent of completed surveys from *all completed* calls). Telephone surveying occurred in three rounds.

Measurement. Two versions of questionnaires were developed for parents of youth and older adults (See Appendices 2 and 3). The questionnaires included questions about demographics, mental health needs, health coverage, mental health service use, barriers to mental health services, and opinions for improving mental health care in rural areas.

Data Analyses. Descriptive statistics were calculated with demographic and key variables using the SPSS statistical software program.

Phase III: Qualitative Data

(1) Focus Groups with Service Providers and Health Insurance Providers

Sampling and recruitment. Mental health service providers were sampled through a service provider list found on the Office of Mental Health and Substance Abuse Services webpage on the Department of Human Services website, through the “Human Services Provider Directory” (<http://www.dhs.pa.gov/dhsassets/providerdirectory/index.htm>). Recruitment of the mental health service providers consisted of: 1) developing a list of contact information of each provider listed on the latter directory, 2) initial phone and email outreach to the providers to identify the correct person to speak to regarding the study, and 3) follow up calls and emails to facilitate scheduling of the focus groups. Health insurance providers were identified using the National Committee for Quality Assurance (NCQA) report card for health plans (<https://reportcards.ncqa.org/#!/health-plans/list?p=3&state=Pennsylvania>). Each provider who agreed to participate was asked to identify administrators, clinicians/direct care providers, and case managers. There was widespread recruitment from various agencies, including Area Agencies on Aging, Children and Youth Services, outpatient mental and behavioral health programs, inpatient and

residential treatment facilities, outpatient/inpatient substance abuse treatment programs, school-based mental health programs, multisystemic treatment programs, and crisis intervention, protective, and county mental health services.

Only Health Choices Managed Care Organizations (MCO) agreed to participate in this study and identified care managers to join the focus groups. Several attempts to recruit commercial insurance providers were unsuccessful due to expressed legal and proprietary concerns. Twenty mental health service providers who participated in the focus groups were randomly selected to receive a \$25 gift card as an incentive for participation.

Participants and data collection. Twenty-five focus groups with 119 service providers and six focus groups with 28 public insurance providers from all regions of Pennsylvania (representing all public insurance companies in Pennsylvania) were conducted between June and October 2020. Discussions included a wide representation of roles and responsibilities that focus group participants performed at their agencies. Among the administrative roles represented were: deputy directors, directors of long-term care, directors of county mental health, vice president chief officer, director of quality compliance, contract administrators, program and clinical director for an extended acute care program, a CEO, directors of mental and behavioral health, director of crisis services, director of case management, administrator for the mental health early intervention and intellectual developmental disabilities, drug and alcohol program director, director of substance abuse services who also manages the Student Assistance Program, director of children services, and the director of rural and emergency services.

Frontline and direct care staff identified their roles as: case managers, workers, and management supervisors, Child and Adolescent Social Service Program (CASSP) coordinators, protective services workers, investigators, supervisors, clinical supervisors of different mental and behavioral health programs, supervisors of crisis programs, CHIP coordinators, discharge case managers, care managers representing insurance companies, care management supervisors serving citizens aged 60 and older, after-care specialist, crisis intake supervisor, clinical manager of human services, counselors, multisystemic treatment therapists, mental health program specialist, housing program specialist, community liaison for

three mental health agencies, crisis intervention workers and crisis supervisors, and senior program specialist.

The focus groups were conducted online in real time using Zoom teleconferencing technology and lasted approximately 1 to 1.5 hours. Each session was managed by a team consisting of a trained facilitator, a person managing technology and message boards, and a research assistant taking field notes. Each session was audio-recorded and auto-transcribed through Zoom software. Each transcript was then reviewed and cleaned to prepare it for analysis in NVivo 12 qualitative analysis software. Saturation was achieved at the completion of all focus groups confirming repetitive emerging themes and conclusions and assuming that further data collection would yield similar results. The focus group guide is provided in Appendix 4.

Data analysis. Throughout the research, the codebook was developed on an ongoing basis while all focus groups were completed. One research assistant coded all transcripts using open and focused coding. After a norming session, the intercoder reliability assessment was based on two coders coding the same seven transcripts (23 percent of the total documents). This coding sample is in line with the literature suggesting that samples of 10-25 percent of data is acceptable for conducting intercoder process (Campbell, Quincy, Osserman, & Pedersen, 2013). A coding comparison was conducted after two separate coders completed coding all seven transcripts using NVivo 12. The coding comparison produced the following results: the percent agreement over seven transcripts was 97 percent. The literature suggests that a minimum of 80 percent agreement is required (Wilson-Lopez, Minichiello, & Green, 2019) or a range of 74-94 percent agreement is necessary to be considered acceptable (Campbell et al., 2013). Calculated based on the coding comparison results, the overall Cohen's kappa was 0.588, reflecting moderate agreement (Burla et al., 2008). This, in part, can be explained by sensitivities related to occasionally selecting different units of meaning while coding, as well as the influence of the diverse professional backgrounds of the coders (clinical or non-clinical backgrounds).

(2) In-depth Interviews with Mental Health Service Users

Mental health service users were recruited through several means, including: 1) the service providers who participated in the focus groups; 2) mass emails through the statewide National Alliance on Mental Illness and Pennsylvania Community Providers Association organizations; 3) flyer distribution in senior housing facilities and through the Meals on Wheels program; 4) the study's Facebook page; 5) survey participants who shared experiences using mental health services; and 6) word of mouth. Interviews were scheduled at certain times and days, and potential participants were invited to call or Zoom in to participate at a convenient time. The final sample consists of 15 participants, nine were parents of youth and six were older adults. All interviews were conducted online through the Zoom video conferencing platform and lasted for 1 hour, on average. The interview guide is provided in Appendix 5. Each interview was video recorded and auto-transcribed by Zoom. Each Zoom transcription was reviewed by a research team member, cleaned for linguistic accuracy and to eliminate any identifying information, and uploaded into NVivo 12 qualitative analysis software.

One research assistant coded all the transcripts; the second coder coded seven transcripts equaling about 47 percent of the total documents. This coding sample is in line with the literature suggesting that samples of 10-25 percent of data are acceptable for conducting the intercoder process (Campbell, Quincy, Osserman, & Pedersen, 2013). The coding comparison in NVivo produced the following results: the percent agreement over seven transcripts was 91 percent, which is considered acceptable (Campbell et al., 2013). Cohen's kappa was 0.515, reflecting moderate agreement (Burla et al., 2008). This, again, can be explained by sensitivities related to the researchers occasionally selecting different units of meaning while coding as well as the professional backgrounds of the coders (clinical/non-clinical background).

RESULTS

Secondary Data Analyses

(1) BRFSS Data Set

Sociodemographic Characteristics and Mental Health Status of Older Adults in PA

Appendix 6) presents the descriptive information of sociodemographic characteristics of the sample when comparing urban and rural Pennsylvania. There were more female participants in both urban and rural areas (about 58 percent and 55 percent, respectively). Non-Hispanic white were the majority of survey participants, and the ratio was higher in rural areas than in urban areas (about 94 percent vs. 86 percent). Education levels were higher in urban areas. Rural participants were more likely to report an income of less than \$15,000 a year. Urban/rural comparison were all significant at 0.001 level.

Estimation of the Demand for Mental Health Services in Rural Pennsylvania

Table 1 presents the descriptive information of mental health status of the sample with the rural and urban comparison. Rural older residents had a slightly higher ratio of health care coverage (98.3 percent) than their urban counterparts (98.2 percent). Older rural residents also had more regular check-ups than older urban adults (91.4 percent vs. 90.1 percent). However, older rural residents reported frequent mental distress compared to their urban counterparts (33.7 percent vs. 31.8 percent). Older rural residents also reported more difficulties in affordability of medical care (3.9 percent vs. 3.2 percent) and had less access to personal doctors (95.9 percent vs. 97.5 percent). All of these differences were statistically significant ($p < 0.001$), pointing to a higher need and demand for mental health services in rural Pennsylvania. Finally, there was no statically significant difference with regard to rates of depression between urban and rural older adults (12.9 percent vs. 12.8 percent, respectively). In sum, older rural residents showed higher frequency of mental distress, lack of affordability, and lack of personal doctors when compared to their urban counterparts.

Table 1. Rural/Urban Differences in Key Variables Among Older Adults in Pennsylvania Based on BRFSS Data (%)

Variables	Urban	Rural	X ²
Frequent Mental Distress	31.8	33.7	185.2/ df=1, p<0.001
Depression	12.9	12.8	1.26/ df=1, Ns
Health Care Coverage	98.2	98.3	45.13/ df=1, p<0.001
Regular Check-up	90.1	91.4	904.01/ df=1, p<0.001
Lack of Affordability	3.2	3.9	710.70/ df=1, p<0.001
Personal Doctor	97.5	95.9	3851.76/ df=1, p<0.001

Note: Ns= not significant

To further investigate FMD vulnerability, bivariate correlation analyses and chi-square analyses were conducted (Table 2). The variables were sex (1=male, 2=female), education level (2= elementary, 3= some high school, 4= high school graduate, 5= some college or technical school, 6= college graduate), marital status (married=1, not married=0), income (1= Less than \$15K, 2=\$15K to less than \$25K, 3=\$25K to less than \$35K, 4=\$35K to less than \$50K, 5=\$50K or more), FMD (1=yes, 0= no), depressive disorder (1=yes, 2= no), health coverage (1= yes, 2= no), regular checkup (1=yes, 2= no), lack of affordability (1= yes, 2= no), personal doctor (1=yes, 0=no), urban/rural (1=urban, 2=rural).

Table 2. Bivariate Correlation Among Study Variables

	Sex	Age	White	Ed level	Married	Income	FMD	Depressive disorder	Insurance	Regular checkup	Lack of affordability	Personal doctor
Age	.097***											
White	.015***	.092***										
Educ level	-.046***	-.229***	.129***									
Married	-.210***	-.184***	.109***	.163***								
Income	-.202***	-.224***	.119***	.478***	.448***							
FMD	-.042***	-.025***	.055***	-.096***	.110***	.082***						
Depressive disorder	-.040***	.031***	-.037***	.030***	.033***	.045***	-.264***					
Hlth coverage	-.037***	.015***	-.046***	-.097***	.045***	-.106***	-.078***	.041***				
Regular checkup	.021***	-.100***	.053***	.033***	-.011***	.015***	.097***	-.013***	-.008***			
Lack of affordability	.005***	.034***	.114***	.087***	.038***	.159***	-.105***	.017***	-.011***	-.017***		
Personal doctor	.020***	.054***	-.005***	.039***	.045***	.069***	-.031***	-.041***	-.063***	-.280***	.046***	
Rural/urban	-.028***	-.056***	.120***	-.072***	-.007***	-.099***	.019***	.001	-.005***	-.021***	-.018***	-.042***

Note: *** p < 0.001

Bivariate correlation analyses revealed that having FMD was related with being male, younger, and white, with fewer years of education, married, a higher income, and living in rural area. As shown in Table 3, 35.8 percent of males reported FMD while 31.6 percent of females reported FMD. Fewer non-whites (26.3 percent) reported FMD than whites (34 percent). Thirty-eight percent of married people reported FMD while 27.6 percent of non-married people reported FMD. All these differences were statistically significant in 0.001 level.

Table 3. Frequent Mental Distress by Demographic Variables (categorical variables)

Variables	Frequent Mental Distress
Gender	
Male	35.8
Female	31.6
Marital Status	
Married	38.0
Not Married	27.6
Race	
White	34.0
Non-white	26.3

Identification of Counties in Pennsylvania with Higher Mental Health Needs

Table 4 shows the mental health needs among older residents in rural Pennsylvania counties identified by the key variables in the 2017 BRFSS data. Based on the information, it is hard to distinguish counties with the highest mental health needs because there can be many different ways to identify them. This report, however, highlights the counties with higher mental health needs as defined by the following criteria: addresses needs in five or more out of six categories.

Table 4. Health and Mental Health Care Needs in rural Pennsylvania counties as identified in BRFSS data (aged 65 and older) (%)

Rural County (N)	FMD (N)*	Depression diagnosis	Lack of Health Care Coverage	No Regular check-up	Lack of affordability	Lack of Personal Doctor
Adams (17,107)	17.8 (3,347)	17.6	0	0	0	0
Armstrong (18,080)	0 (1,725)	5.2	0	7.6	0	0
Bedford (26,438)	79.1 (6,949)	10.4	0	8.1	20.8	0
Blair (22,473)	12.5 (5,863)	26.9	0	3.6	21.3	3.6
Bradford (12,620)	100.0 (2,214)	22.4	0	9.9	7.8	18.2
Butler (23,036)	0 (1,278)	4.7	0	25.4	0	6.3
Cambria (24,642)	53.3 (3,573)	18	0	0	0	0
Cameron (891)	-	0	0	0	0	0
Carbon (22,205)	9.0 (7,307)	15.3	0	1.8	0	1.8
Centre (15,094)	0 (2,545)	13.1	7.1	10.7	0	0
Clarion (10,692)	0 (901)	0	0	3.2	0	0
Clearfield (17,457)	71.1 (2,826)	9.2	0	0	10.8	0
Clinton (3,796)	0 (305)	0	0	0	0	0
Columbia (16,002)	41.0 (3,114)	8.7	0	5.5	9.8	1.2
Crawford (17,944)	15.6 (3,894)	13.9	0	0	1.2	16.2
Elk (5,811)	0 (231)	20.9	0	23.8	16.8	0
Fayette (24,906)	55.3 (8,075)	13.5	0	21.8	0	0

Forest (2,137)	0 (1,693)	0	0	0	20.8	0
Franklin (35,973)	7.6 (7,843)	13.1	17	8.2	4.7	4.1
Fulton (709)	-	0	0	0	0	0
Greene (11,835)	36.3 (3,230)	29.5	0	13.3	8.5	0
Huntingdon (8,875)	100.0 (842)	0	0	0	0	0
Indiana (18,469)	0 (4,822)	6	0	0	0	0
Jefferson (10,083)	43.0 (1,624)	0	0	28.5	0	0
Juniata (6,697)	0 (4,902)	73.2	0	0	0	0
Lawrence (19,068)	29.1 (2,905)	3.9	0	14.2	14.2	14.2
Lycoming (26,227)	24.4 (6,606)	20.2	4.6	13.2	0.4	2.6
McKean (8,788)	0 (3,460)	18	0	11.9	0	0
Mercer (18,715)	41.1 (7,117)	22.7	2.7	6.2	7.8	10.7
Mifflin (13,247)	0 (5,228)	0	0	0	0	0
Monroe (27,216)	82.7 (7,879)	8.2	0	6.9	0	0
Montour (3,045)	0 (159)	5.2	0	40.1	0	0
Northumberland (19,501)	62.6 (2,856)	13.2	1.7	5.3	4.1	0
Perry (4,458)	0 (777)	17.4	0	0	0	0
Pike (16,397)	53.7 (3,022)	12.8	0	20.6	0	15.6
Potter (3,120)	72.4 (1,321)	0	0	0	27.9	0

Schuylkill (27,305)	100 (3,637)	19.6	0	17.6	0	17.6
Snyder (11,965)	25.2 (1,282)	19.9	0	6.9	5.5	6.9
Somerset (15,734)	42.4 (3,389)	17.7	8.4	12.3	0	8.4
Sullivan (1,095)	-	0	0	0	0	0
Susquehanna (12,734)	32.1 (1,685)	9.3	0	0	0	18.0
Tioga (10,174)	100.0 (1,396)	0	0	9.2	4.7	8.3
Union (6,519)	51.8 (2,278)	18.1	0	13.5	0	0
Venango (10,913)	48.0 (3,906)	25	10.9	8.3	0	10.2
Warren (6,680)	0 (1,726)	0.0	0	10.2	0	10.2
Washington (52,624)	0 (6,366)	6.3	0	12.3	1.7	2.2
Wayne (13,084)	-	2.6	0	0	0	0
Wyoming (5,101)	0 (1,886)	28.6	0	0	0	0
Total	33.7	12.8	1.7	8.6	3.9	4.1

Note. FMD= frequent mental distress, -: missing data. All sample sizes are presented as weighted. FMD had a lot of missing responses and thus, its sample sizes are presented separately.

(2) PAYS Data Set

Due to the lack of significant findings, results from the PAYS data set are presented in Appendix 1.

Residents' Survey

(1) Youth

Demographic Characteristics

The final sample size of parents of youth survey was 190. About 42 percent of the respondents were male and 58 percent were female. The average age was 35.47, with an age range of 18 to 66 years old, and 68.4 percent were married. About two thirds were white and 35.8 percent reported a college degree as their highest education level. A majority (75.5 percent) were working full-time, and said their children were covered by health insurance (91.6 percent). See Table 5.

Table 5. Demographic Characteristics of Parents of Youth (N=190)²

	N	%
County		
Clinton	44	23.2
Venango	64	33.7
Schuylkill	20	10.5
McKean	20	10.5
Lycoming	10	5.3
Montour	13	6.8
Other	19	10.0
Gender		
Male	79	41.6
Female	110	57.9
Marital Status		
Married	130	68.4
Living with partner	16	8.4
Widowed	9	4.7
Divorced	8	4.2
Separated	1	0.5
Never married	26	13.7

² The totals do not add up to 100 percent.

Race		
White	126	66.3
African American or Black	41	21.6
Hispanic	8	4.2
Indigenous People	6	3.2
Kanaka Maoli, or Pacific Islander	3	1.6
Asian	4	2.1
Education level		
Less than high school	9	4.7
High school completed	35	18.4
Post high school, business or trade school	21	11.1
Some college	37	19.5
College completed	68	35.8
Post graduate school	20	10.5
Work status		
Working full-time	134	70.5
Working part-time	32	16.8
Unemployed	15	7.9
Retired	5	2.6
Disabled	4	2.1
Family income		
Less than \$25,000	12	6.3
\$25,000 but less than \$50,000	60	31.6
\$50,000 but less than \$75,000	55	28.9
\$75,000 but less than \$100,000	38	20.0
\$100,000 or more	17	8.9
Prefer not to answer	8	4.2
Religion		
Protestant	25	13.2
Catholic	39	20.5
Jewish	14	7.4

Buddhist	12	6.3
Hindu	2	1.1
Islamic	20	10.5
Other	20	10.5
Prefer not to answer	6	3.2
None	52	27.4
Internet access		
Yes	189	99.5
Internet use		
Yes	184	96.8
Health insurance (youth)		
Yes	174	91.6

Health and Mental Health Status

As shown in Table 6, 61.6 percent of respondents reported that their children had a routine checkup within a year, with 31.1 percent indicating that their children had a routine medical checkup in more than 1 year but less than 2 years. More than a third of the respondents (35.3 percent) reported that their children had at one time been diagnosed with a mental health disorder by a health professional, and 45.3 percent said their children had a history of mental health treatment. Furthermore, 45.8 percent said their children had seen a mental health professional within the past year. Still, about 18 percent of respondents (34 people) reported that there was a time in the past 12 months when at least one of their children needed mental health care but could not or did not get it. The reasons for not able to getting the service were “lack of providers in my area” (11), “I did not know where to go for help” (10), “Could not find time to meet with a mental health provider because of work/school schedules” (10), “insurance (underinsured, uninsured)” (8), “travel distance was too far” (7), “It would take too much time roundtrip” (4), “lack of transportation” (4), “worried someone I know will find out (anonymity issues)” (3), and “Concern about the social stigma attached to receiving mental health care” (1). The number in the parenthesis represents the number of respondents.

Table 6. Descriptive Statistics of the Key Variables (Youth)³

About how long has it been since your child last visited a doctor for a routine checkup?	N	%
Anytime less than 12 months ago	117	61.6
At least 1 year ago but less than 2 years ago	59	31.1
At least 2 years ago but less than 5 years ago	8	4.2
5 or more years ago	1	0.5
Don't know/Not sure	5	2.6
Have any of your children ever been diagnosed with a mental health disorder by a health professional?	N	%
Yes	67	35.3
No	119	62.6
Do any of your children have a history of mental health treatment including but not limited to taking medications for anxiety and/or depression, etc., and/or attending therapy or going to counseling?	N	%
Yes	86	45.3
No	100	52.6
In the past 12 months, have any of your children seen a mental health professional?	N	%
Yes	87	45.8
No	103	54.2
Was there a time in the past 12 months when at least one of your children needed mental health care such as medications and/or counseling but could not/did not get it?	N	%
Yes	34	17.9
No, we sought mental health care as needed.	66	34.7
No, my children did not need any mental health care.	90	47.4

Parents' unmet needs regarding their children's mental health needs were also examined by conducting bivariate correlation analyses. As a result, being male ($r = -.162, p < .05$), not married ($r =$

³ The totals do not add up to 100 percent.

-.244, $p < .001$), and having lower educational levels ($r = -.261, p < .001$) were related to having more unmet mental health needs. Additionally, their children having a history of mental health diagnosis was associated with reporting unmet mental health needs ($r = .384, p < .001$). Having a history of mental health treatment was associated with more unmet needs as well ($r = .403, p < .001$). These indicate that, even if the children were diagnosed and treated, they still showed higher levels of unmet mental health needs. It can be speculated that families with mental health needs were diagnosed but failed to receive proper treatment, or they received treatment but failed to receive follow-up care.

When asked, “When thinking about the rural community you live in, how important are each of the following factors in improving access to mental health services?,” respondents were given choices of “a great deal, somewhat, and/or not at all.” The percentages of “a great deal” were calculated for each of the options and are presented in Table 6. The top solution was “increasing the number of mental health service providers,” followed by “mental health promotion programs in schools,” “public education campaign about mental health awareness in general,” “community-based population health promotion programs (to teach life skills, coping, etc.),” “mental health service providers practicing in hospitals,” and other options. See Table 7.

Table 7. Rank Order of Solutions for Improving Access to Mental Health Services in Rural Areas (Youth)

Rank	Solutions for improving access to mental health services in rural areas	N	%
1	Increasing the number of mental health service providers	84	44.2
2	Mental health promotion programs in schools	82	43.2
3	Public education campaigns about mental health awareness in general	72	37.9
4	Community-based population health promotion programs (to teach life skills, coping, etc.)	69	36.3
5	Mental health service providers practicing in hospitals	64	33.7
6	More options for individuals with serious mental illnesses (e.g., group homes)	64	33.7
7	Public education campaigns about where to access mental health services	63	33.2
8	Expanded evening and weekend treatment office hours	59	31.1
9	Dual-diagnosis care facilities (e.g., mental health and substance abuse)	59	31.1
10	Expansion of Medicaid	56	29.5

11	Expanded use of telehealth technology	56	29.5
12	Vouchers and discounted service rates	55	28.9
13	Discreet access to services (e.g., in-home visits)	53	27.9
14	Transportation services	50	26.3
15	Mental health help from faith-based organizations such as churches	42	22.1
16	Bilingual (English/Spanish) mental health service services	34	17.9

Note: Percentage of “A Great Deal” responses for each option. Therefore, numbers do not add up to 100 percent.

Stigma toward mental health was another variable that was examined in this study. In bivariate analyses, it was found that higher levels of stigma were correlated with being male ($r=-0.388, p<0.001$), being a racial/ethnic minority ($r=-0.472, p<0.001$), having lower educational levels ($r=-0.198, p<0.001$), and holding lower help-seeking attitudes ($r=-0.433, p<0.001$).

Resource-oriented mental health literacy was measured using four items and respondents were asked to choose “agree,” “disagree,” and “not sure” for each item. About 59 percent of parents said they know where to go to receive mental health services. However, less than a half of parents agreed that they know how to contact a mental health clinic in their areas. Also, only about 55 percent of the parents knew where to get useful information about mental illness. Sixty-two percent of the parents knew how to find the number of a suicide prevention hotline, but it is uncertain if youth knew how to find the hotline number. See Table 8.

Table 8. Level of Resource-Oriented Mental Health Literacy (Jung et al., 2016)

	% Agree
I know where to go to receive mental health services.	58.9
I know how to get the number of a suicide prevention hotline.	62.1
I know where to get useful information about mental illness.	54.7
I know how to contact a mental health clinic in my area.	47.9

Note: The number shows percentage of “agree” in each item. Therefore, it does not add up to 100 percent.

Finally, resource-oriented mental health literacy was measured by calculating the sum of each item above. In the calculation, “agree” was coded as 1 and “disagree” and “not sure” were coded as 0. Then, bivariate correlation analyses were calculated with demographic and other key variables. As a

result, being female ($r=0.40, p<0.001$), being white ($r=0.44, p<0.001$), having a higher level of education ($r=0.34, p<0.001$), having more people in the household ($r=0.25, p<0.001$), and less stigma toward mental health ($r=-0.43, p<0.001$) were associated with higher level of resource-oriented mental health literacy. Therefore, one can conclude that being male, being an ethnic/racial minority, having lower levels of education, having fewer people living together, and having higher levels of mental health stigma are the risk factors for the lack of knowledge of where and how to seek help when there are mental health needs among parents of youth.

(2) Older Adults

Demographic Characteristics

Older respondents' demographic characteristics are presented in Table 9. Out of 117 respondents, the majority (89.4 percent) came from the initial three targeted study counties. The majority of respondents (60.7 percent) were female, and 38.5 percent were male. The average age was 72.96, with an age range of 62 to 95 years old, 34.2 two percent of respondents were married, and 96.6 percent were white. The highest level of education for 37.6 percent of respondents was a high school graduate. The majority of respondents (68.4 percent) were retired, had an annual family income of \$50,000 or less (64.1 percent), and had health insurance (92.3 percent), including Medicare and Medicaid.

Table 9. Demographic Characteristics of Older Adults (N=117)⁴

	N	%
County		
Clinton	37	31.6
Venango	13	11.1
Schuylkill	55	47.0
Other	12	10.3
Gender		
Male	45	38.5

⁴ The totals do not add up to 100 percent.

Female	71	60.7
Marital Status		
Married	40	34.2
Living with partner	2	1.7
Widowed	29	24.8
Divorced	21	17.9
Separated	6	5.1
Never married	19	16.2
Race		
White	113	96.6
Education level		
Less than high school	12	10.3
High school completed	44	37.6
Post high school, business or trade school	17	14.5
Some college	12	10.3
College completed	15	12.8
Post graduate school	17	14.5
Work status		
Working full-time	6	5.1
Working part-time	10	8.5
Unemployed	3	2.6
Retired	80	68.4
Disabled	17	14.5
Family income		
Less than \$25,000	44	37.6
\$25,000 but less than \$50,000	31	26.5
\$50,000 but less than \$75,000	18	15.4
\$75,000 but less than \$100,000	6	5.1
\$100,000 or more	3	2.6
Prefer not to answer	15	12.8

Religion		
Protestant	61	52.1
Catholic	34	29.1
Hindu	1	0.9
Islamic	1	0.9
Other	12	10.5
Prefer not to answer	3	2.6
None	5	4.4
Veteran		
Yes	16	13.7
Internet access		
Yes	75	64.1
No	42	35.9
Internet use		
Yes	73	62.4
No	43	36.8
Health Coverage		
Yes	108	92.3

Health and Mental Health Status

Eighty-one percent of respondents had received a routine checkup within a year. Seventeen percent reported that they have been diagnosed with a mental health disorder by a health professional, and 24.8 percent reported that they have a history of mental health treatment. About 8 percent of respondents (nine people) reported that there was a time in the past 12 months when they needed mental health care, such as medications and/or counseling, but could not or did not obtain it. The reasons given for not receiving mental health services was “Travel distance was too far” (n=4), “Insurance (underinsured, uninsured)” (n=3), “I believe mental health is a personal issue” (n=3), “Lack of transportation” (n=2), “I did not know where to go for help” (n=2), “lack of providers in my area” (n=1), “It would take too much

time roundtrip” (n=1), “Could not find time to meet with a mental health provider because of work/school schedules” (n=1), and “Concern about the social stigma attached to receiving mental health care” (n=1).

Table 10. Descriptive Statistics of the Key Variables (Older Adults)⁵

About how long has it been since you last visited a doctor for a routine checkup?	N	%
Anytime less than 12 months ago	95	81.2
1 year but less than 2 years ago	7	6.0
2 years but less than 5 years ago	7	6.0
5 or more years ago	4	3.4
Don't know/Not sure	3	2.6
Never	1	0.9
Have you ever been diagnosed with a mental health disorder by a health professional?		
Yes	20	17.1
No	93	79.5
Do you have a history of mental health treatment including but not limited to taking medications for anxiety and/or depression, etc., and/or attending therapy or going to counseling?		
Yes	29	24.8
No	88	75.2
Was there a time in the past 12 months when you needed mental health care such as medications and/or counseling but could not/did not get it?		
Yes	9	7.7
No, I received the treatment I sought.	18	15.4
No, I did not need any mental health care.	90	76.9

Older adults’ unmet mental health needs were also examined with other variables using bivariate correlation analyses. The data showed that higher levels of unmet mental health needs were related with older age ($r=0.194, p <0.05$) and a smaller number of people in the household ($r= -0.217, p <0.05$). Other demographic variables were not related to unmet mental health needs. Additionally, having unmet mental

⁵ The totals do not add up to 100 percent.

health needs was negatively associated with history of mental health diagnosis ($r = -0.495, p < 0.001$) and mental health treatment ($r = -0.460, p < 0.001$). It indicates that people with unmet needs were not able to enter the healthcare system, thus failing to be diagnosed and treated by professionals.

Demand for Services

Older adults’ responses to the question “How important are each of the following factors in improving access to mental health services?” are listed in Table 11. Community-based population health promotion programs to teach life skills, coping, etc. had the highest level of agreement followed by transportation services, mental health promotion programs in schools, increasing the number of mental health service providers, and other suggestions. It is noteworthy that both populations (parents of youth and older adults) pointed out the following three key suggestions for improving mental health access in rural areas—increasing the number of mental health service providers, mental health promotion programs in schools, and community-based population health promotion programs to teach life skills, coping, etc. Other than increasing mental health service providers, more preventive options were preferred.

Table 11. Rank Order of Solutions to Improve Access to Mental Health Services in Rural Areas (Older Adults)

Rank	Solutions to improve access to mental health services in rural areas	N	%*
1	Community-based population health promotion programs (to teach life skills, coping, etc.)	44	37.6
2	Transportation services	41	35
3	Mental health promotion programs in schools	40	34.2
4	Increasing the number of mental health service providers	39	33.3
5	More options for individuals with serious mental illnesses (e.g., group homes)	36	30.8
6	Public education campaign about mental health awareness in general	36	30.8
7	Vouchers and discounted service rates	35	29.9
8	Expanded use of telehealth technology	35	29.9
9	Public education campaigns about where to access mental health services	34	29.1
10	Mental health help from faith-based organizations such as churches	34	29.1

11	Expanded evening and weekend treatment office hours	33	28.2
12	Dual-diagnosis care facilities (e.g., mental health and substance abuse)	33	28.2
13	Expansion of Medicaid	30	25.6
14	Discreet access to services (e.g., in-home visits)	29	24.8
15	Mental health service providers practicing in hospitals	25	21.4
16	Bilingual (English/Spanish) mental health service services	19	16.2

Note: Percentage of “A Great Deal” responses for each option. Therefore, the total does not add up to 100 percent.

Next, regarding level of resource-oriented mental health literacy, 70.2 percent of respondents reported that they know how to get the number of a suicide prevention hotline. However, only 54.9 percent reported that they know how to contact a mental health clinic in their area. See Table 12.

Table 12. Level of Resource-oriented Mental Health Literacy (Jung et al., 2016)

	% of Agree
I know where to go to receive mental health services.	60.0
I know how to get the number of a suicide prevention hotline.	70.2
I know where to get useful information about mental illness.	66.3
I know how to contact a mental health clinic in my area.	54.9

Note: The number shows percentage of “agree” in each item. Therefore, the total does not add up to 100 percent.

Bivariate correlation analyses were conducted using the resource-oriented mental health literacy variable and demographic characteristics including age, gender, marital status, race/ethnicity, educational level, income, number of people in the household, familiarity to social service agencies, and veteran status. Only age was associated with the level of mental health literacy. Younger respondents were showing higher levels of mental health literacy. Therefore, it appears that younger respondents know better where to seek help when they have mental health service needs. Additionally, the data showed that stigma was negatively associated with resource-oriented mental health literacy ($r=-0.295$, $p<0.01$). That is, people with high levels of stigma toward mental health were less informed on where and how to seek help when they need mental health services.

Qualitative Data

Based on the qualitative data analysis, themes were identified surrounding 1) supply and delivery of mental health services, 2) challenges and barriers associated with accessing mental health services, and 3) possible strategies to improve and expand mental health services.

Supply and Delivery of Mental Health Services

Five key themes emerged based on conversations with service providers and insurance company representatives that relate to the supply of mental health services in rural Pennsylvania: (1) availability of providers/shortage of professionals; (2) staffing and organizational issues, including education and credentialing; (3) intensity of care/levels of care; (4) interagency collaboration; and (5) funding and insurance challenges.

(1) Availability of Providers and Shortage of Professionals

Focus group participants frequently mentioned the challenge posed by the lack of mental health professionals in rural areas. The shortage of psychiatrists and licensed mental health professionals was seen as negatively impacting access to services. Participants identified these impacts as including: long wait times/wait lists to see professionals, fewer professionals to serve specialized populations (such as older adults, children with autism, and clients with co-occurring diagnoses), delays in receiving diagnoses, and limited in-person interaction. The high rates of turnover were attributed to low pay rate, billable hours, and time spent completing paperwork, which is not billable to insurance. Rurality appeared to be perceived as a central factor in the compilation of all these challenges.

Both insurance and service providers noted the impact that the shortage of mental health professionals had on access to services. For example, fewer providers and limited choices in rural areas require consumers to travel long distances to find appropriate service providers. In addition to longer travel times, the lack of mental health providers results in delayed appointment scheduling and longer wait times for consumers. The lack of psychiatrists particularly was identified by service providers as

having a negative impact on consumers’ experiences and quality of care, including delays in receiving diagnoses and limited in-person interactions with mental health providers. Both service providers and insurers commented on the shortage of professionals in rural areas to serve specialized populations and cater to their age-related needs. A number of service providers perceived the rural context of service provision as an impediment to recruiting and retaining specialized and properly credentialed staff and resultant overall shortage of professionals.

In summary, both service providers and insurers frequently commented on the issue of shortages of licensed mental health professionals and the ways in which those shortages impacted consumer choice, access to services, timeliness, quality of care, and recruitment and retention of qualified staff.

(2) Staffing and Organizational Issues: Education and Credentialing

Education and credentialing are two important aspects of human services, but each present challenges for access to mental health services in rural Pennsylvania. Insurers and service providers discussed the difficulty they have encountered finding and keeping appropriately educated and licensed professionals in rural settings. Some noted that new professionals enter the field without useful degrees or an appropriate background in specialized fields (e.g. geriatrics and autism). Service providers, in particular, commented on the financial challenges of recruiting and retaining qualified and credentialed staff in rural areas, especially those clinicians capable of performing the initial evaluation for services. The length of time and amount of paperwork it takes for service providers to credential new clinicians with managed care organizations is another area of difficulty reported by service providers.

<p>Difficulties with education, training, and qualifications</p>	<p>One area of difficulty for insurers and service providers is the level of preparation new professionals receive in their undergraduate and graduate programs that does not adequately prepare them for practice. Insurance and service providers noted that many new professionals entering the field have little to no understanding of the skills and knowledge required for the positions for which they are applying. Some providers discussed having a difficult time finding professionals with either the appropriate education levels or a degree that allows for licensure. Unfortunately, this is a problem that is not easily addressed once the person has graduated. Coupling the lack of training with the stress level of direct care jobs and low compensation, turnover is high for the recently graduated.</p>
---	---

	<p>The pursuit of licensure is also impacted by the lack of availability of clinical supervision by clinicians with the advanced licenses required by state licensure boards to supervise clinicians in training and low pay. It is difficult, however, to become licensed if one is not receiving supervision from a licensed professional. Even with a master’s degree, some professionals find it difficult to pursue jobs in their field due to low pay. Service providers noted the difficulty hiring unlicensed professionals due to the lack of reimbursement for their services. In addition to recruitment challenges, retaining specialized and licensed professionals, in part due to organizational financial constraints and inability to pay competitive salaries, were cited as creating added pressures for service providers in addressing staffing needs.</p> <p>Finally, service providers noted a broad lack of training regarding the older adult population. They discussed concerns with crisis workers or doctors when an older adult experiences a mental health crisis. Police officers conducting welfare checks were also noted to need improved training on dealing with this population. Notably, county mental health organizations were reported to struggle to work with the mental health concerns of the aging, instead directing concerns to the Area Agency on Aging.</p>
<p>Insurance Credentialing</p>	<p>A similar struggle to state licensure board credentialing is the credentialing process that practitioners must go through to bill insurance. Many service providers and insurers reported that a major barrier for accessing mental health services for their clients is finding clinicians that have the appropriate level of credentialing approved by insurance companies for the types of services provided. Focus group participants explained that Medicaid, Medicare, and private insurers differ in their requirements related to the level of education and credentialing required for reimbursement. Whereas Medicare and private insurance typically require advanced licensure, such as Licensed Clinical Social Work (LCSW), Licensed Professional Counselor (LPC), and Licensed Marriage and Family Therapist (LMFT), for reimbursement, Medicaid usually only requires the person to be a licensed social worker (LSW) and will allow bachelor level staff, without licensure, to bill for some services. It is easier for providers to recruit people with a bachelor’s degree or LSW than LCSW’s, LPC’s, and LMFT’s.</p> <p>Licensed providers, specifically licensed clinical social workers (LCSW), were mentioned multiple times to be a rare find within the rural mental health field, making it harder for agencies to find mental health providers that insurance companies will approve. A lack of LCSWs means rural agencies are unable to help rural elderly who have Medicare as their primary insurance or working families whose private insurance requires LCSW licensure.</p> <p>In addition, service providers noted that they must go through a long and complicated credentialing process for each insurance company individually, which adds to their overhead costs and makes it difficult to accept new clients. Multiple providers stated that the requirement of having an LCSW to provide services to clients who have Medicare or Medicaid is often a barrier for older adults over age 65 and children under age 18 to receive mental health services. Several providers noted that Medicare only credentials psychologists and licensed clinical social workers, leaving LPCs and unlicensed practitioners with no way to be compensated. This limits the number of clinicians that can treat Medicare clients. In short, complex and time consuming licensing requirements affect a provider’s bottom line and reduce access to mental health and substance abuse services.</p>

(3) Intensity of Care/Levels of Care

The focus group discussions often focused on the lack of appropriate levels of care in rural settings. Participants explained that this shortage results in long wait times and waitlists. They also elaborated on how this shortage serves as a barrier to service delivery and access for both the elderly (such as nursing home care, aging in place or mental health and substance treatment abuse services) and youth 18 and younger (such as residential treatment facilities, intermediate care, and aging out services).

<p>Waitlists and Wait Times</p>	<p>Service providers and insurers frequently noted a problem with waitlists for some levels of care. Waitlists result in service users remaining in more expensive levels of care longer than necessary until an appropriate opening is available. This is especially true for specialized services for people with complex physical and mental health needs. Service providers and insurers alike discussed the complexities of navigating various levels of care for older adults and children and spoke at length about problems associated with helping children and older adults as they transition from one level of care to another. This is a common problem for community-based, residential, and in-patient hospital levels of care. Insurers and service providers both reported that services are fragmented and incomplete leading to delays in treatment that increases the risk of relapse, job loss, economic hardship, and increased family stress.</p>
<p>Older Adults: Mental Health and Substance Abuse</p>	<p>According to focus group participants, older adults with serious health problems can have difficulty finding a bed in a psychiatric and/or substance abuse treatment facility that can accommodate their healthcare needs resulting in higher costs associated with remaining in a higher level of care for longer periods of time. Providers consistently identified problems finding available beds at substance abuse rehabilitation facilities when an elderly adult has a medical problem.</p> <p>Providers also remarked that it can be difficult to find nursing home beds for older adults who have a mental illness. Part of the problem, according to service providers, is that crisis intervention avoids involuntary psychiatric commitments (302) of older adults if they believe the problem is due to the dementia. Sometimes hospitals believe the mental health problem is due to a medical problem.</p> <p>Older adults residing in nursing homes face a similar problem accessing in-patient psychiatric care when their nursing home sends them to the emergency room for an emergency psychiatric evaluation because, often, they are unable to obtain a psychiatric consult unless the patient is admitted to an in-patient psychiatric facility. This can result in older adults remaining in the emergency room, a high level of care, for several days until they are returned to their nursing home without a psychiatric consult. Providers and insurers also reported that nursing homes will sometimes refuse to readmit someone that was sent to the emergency room due to mental health or dementia related problems. Older populations have complex needs where substance abuse, mental health, and declining health status intersect. Hospitals have difficulty finding facilities willing to accept people with complex health, mental health, and substance abuse histories.</p>

<p>Medicare Requirements for Nursing Home Level of Care</p>	<p>Physical healthcare needs of older adults intersect with their mental health needs, putting additional strain on their ability to live in their homes. Insurers and providers both report that mental health problems are underreported by the elderly. A common issue identified by county service providers is the criteria Medicare requires to pay for nursing home level of care. Medicare requires a three-day hospital stay to qualify for Medicare to pay for skilled nursing home coverage. Providers report that insurers approve 23-hour observation admissions instead of a full admission. Observation admissions do not count toward the three-day admission requirements for Medicare, therefore Medicare will not pay for a skilled nursing home at discharge from the hospital. For someone with an underlying mental health condition, this can be extremely stressful. If the older adult does not have another type of insurance and cannot afford to pay out of pocket, "...they can't find someplace for them to go, they'll just discharge them back out into the community...". Unfortunately, the mismatch between what the older adult can afford and the services available in the community can lead to readmission to the hospital. It was reported that these cycles of admission and discharge from the hospital can put a strain on the limited resources of the Area Agency on Aging, whose services are often not enough for those older adults in need of a higher level of care. This can exacerbate mental health and substance abuse symptoms as older adults attempt to cope with the stress of meeting their healthcare needs while trying to remain in their home.</p>
<p>Aging in Place</p>	<p>Older adults who wish to remain in their homes rather than enter a higher level of care were reported to have difficulty understanding and working through the paperwork necessary to get the services to help them stay in their home. The "Aging Waiver" (waiver) program is designed to help pay for nursing-home-level of services needed to maintain older adults in their own home. The process for obtaining services is complex and can be difficult for the elderly to navigate. If an older adult is unable to access the services necessary to stay in their home, they may be forced to move to a higher level of care. Aging protective services reported struggling with acute onset of severe symptoms that require intensive care in the home. If the client cannot afford private care from a qualified home health provider, the family may be left to provide the care themselves. Often, successfully completing all the paperwork needed to qualify for services is only the beginning. Finding in-home help for an ailing parent who has a mental health, substance abuse, or dementia diagnosis was reported to be very challenging even when the Area Agency on Aging is helping. Providers report that home health agencies lack the staff necessary to provide care and some also allow home health aides to choose which clients they work with in the community. This makes it difficult for people with dementia related behavior problems to find people willing to help in the home because dementia-related behavior can be difficult for the aide to deal with every day. If community-based services cannot be found, the family and older adult must seek out personal care homes or nursing homes.</p>
<p>Residential Treatment Facilities (RTF)</p>	<p>There are limited resources available to children whose family cannot provide the care the children need in their home but who also do not need a residential treatment facility (RTF) which is expensive and not usually located near the family. The distance between family and the RTF decreases the amount of work the treatment facility can do with the family. Providers and insurers alike agreed that the primary reason children are placed far from home is a lack of bed availability. One insurer reflected this problem clearly: "There's only a certain number of residential treatment facility programs in Pennsylvania, and they are full." As a result, some children are</p>

	<p>being held in expensive in-patient psychiatric units waiting for an opening in an appropriate level of care.</p> <p>Children's services also experience significant waitlists and wait times when attempting to access residential treatment facilities (RTF) for mental health care. According to service providers and insurers, RTF beds are not located near families so the family cannot easily engage in the treatment process providers cannot do home visits to work on skill transfer with the parents. The result is that skills are not transferred to the parents from one level of care to the next.</p> <p>Moreover, wait lists for children with autism are particularly long. The following statement about children with autism was shared, in some form, by multiple providers, "Finding hospitalization for that group [autistic patients]...we've had children sit in the emergency room for three days, maybe more, waiting for a bed...They may be waiting even longer, and might not get the most appropriate hospitalization."</p>
<p>Lack of Intermediate Care Options</p>	<p>There is a lack of intermediate care options for teenagers who cannot return home but do not meet medical necessity criteria for a residential treatment program. This is especially problematic in rural communities as one provider noted, "[T]here's outpatient, at least in this area, and then there's hospitalization and there's really nothing in between." Several service providers discussed the need to bring back group homes as a licensed level of care to provide housing and the ability to engage in community-based services, as well as work and attend their regular school. Residential treatment facilities are often located far from the family, and thus removes the child from their natural community supports.</p>
<p>Medicaid Time Constraints</p>	<p>Service providers report problems accessing community-based levels of care due to Medicaid time constraints. Children's services require a psychological evaluation which can take 3-4 months to schedule due to a lack of psychologists, especially in rural communities. Psychological evaluations are valid for 90 days, however, parents have a hard time coordinating out-patient appointments due to transportation issues and conflicts with their work schedules to complete all of the Medicaid paperwork in the 90-day time frame.</p> <p>Additionally, some levels of care providers are struggling to maintain enough clients in their programs to maintain programs. The normal referral process for bringing children into the mental health system has been disrupted since the start of the COVID-19 pandemic. A large proportion of children and families entering mental health and substance abuse services are referred by schools, children and youth services, and the criminal justice systems. These systems are not as engaged with families as they were previously. Adjudications of children are down significantly, which means families are not being referred for treatment by the court system. This has resulted in a decline in families being identified and entering needed services. Agencies are affected by the disruption too. The decline in referrals means agencies cannot afford to maintain staffing for some levels of care. Lower levels of care depend on the referrals from higher levels of care. This is not always occurring because the normal mechanism for identifying and referring children to these programs was disrupted by Covid-19. The lack of clients at one level of care affects all levels of care, since agencies cannot always depend on revenue sources to maintain agency staffing.</p>
<p>Specialized Needs</p>	<p>Eating disorders are another issue lacking sufficient levels of care for addressing the continuum of psychiatric and health needs of children. The standard of care for</p>

	treating eating disorders includes residential treatment, but Pennsylvania lacks residential programs that specialize in treating eating disorders. According to one insurer, “If you are...under 18 years old and... recommended to have residential treatment for your eating disorder, there isn't a single program in Pennsylvania...So that's a huge access issue.” According to insurers, there is no intermediate residential level of care between in-patient hospitalization and partial hospitalization for children and older adults with eating disorders.
Aging Out	Another serious problem identified by multiple service providers and insurers is the difficulty children have when they turn 18 years old. Children turning 18 years of age must transition to adult services, however, adult levels of care do not offer the same types and intensities of services as those they received as children. This mismatch leads to children turning 18 without a comparable level of care in the adult mental health system.
Level of Care Decisions	Service providers and insurers commented on the difference between Medicaid and private insurance with regards to the types of services and ease of access to those services. Service providers and insurers report that, in their experience, private insurance offers fewer levels of care than Medicaid. Another service provider pointed to the various levels of community-based services that exist for children and families with Medicaid that do not exist for those covered by most private insurance: “There are more providers identified under Medicaid when it comes to in-home support for example, family based behavioral health, wraparound, functional family therapy (FFT), multisystemic therapy (MST), things of that nature...commercial insurance typically only fund outpatient therapy.” The general consensus among providers throughout the focus groups was that children and families covered by Medicaid had better access to various levels of community-based programs than their peers who had private insurance.

(4) Interagency Collaboration

Interagency collaboration was discussed in focus groups as any collaboration, or lack thereof, among service providers, insurers, and county or state administration. It was noted as both a positive way to address access barriers as well as a barrier within itself. The importance of ongoing communication and relationship building was highlighted by both insurers and service providers alike. Both also discussed the many ways that collaborations are conducted from interagency meetings to address individual clients with statewide committees on telehealth. Within these collaborations, problems with county cohesion were noted. Some limitations to interagency collaboration were reported, as many experience the siloed nature of the field, which leads to a lack of communication. In particular, the uneasy interactions of the Mental Health and other county agencies (e.g. Area Agency on Aging and Children and Youth) were discussed by service providers.

<p>Communication and Relationship Building</p>	<p>Both insurers and providers noted the importance of communication which takes many forms. Insurers spoke about communicating directly with counties and Child and Adolescent Service System Program (CASSP) coordinators to ensure that everyone’s efforts were coordinated. Service providers focused more on treatment collaborations, noting the importance of communication to coordination of care. Without this communication, there is a lack of continuity of care. Service providers also expressed the view that there was inadequate cooperation and coordination between them and insurance providers, and this served as a barrier to the delivery of and access to mental health services. They reported that unlike Medicare, Medicaid for behavioral health insurance was different for each county, and getting in touch with the insurance companies and helping people navigate their insurance was difficult.</p> <p>Also, a lack of communication was noted to hinder the processes of both insurers and providers at multiple levels. A lack of communication among providers was also identified, as many noted not always being aware of all the most up-to-date offerings in their areas. COVID-19 also negatively impacted communication, as providers were not always clear about their programming during the pandemic.</p> <p>In addition to good communication, the development of good relationships was noted as valuable by insurers and service providers alike. Many participants, both insurers and service providers, have positive relationships with their Managed Care companies (both physical and behavioral), providers, the county, and the community at large. These relationships are developed over years and may rely heavily on “who you know and how can you forge a relationship” as one provider noted. Both service providers and insurers noted that relationships can change over time, due to companies expanding and employee turnover. These relationship changes can be addressed by ensuring that supervisors or administration maintain relationships, thereby modeling good communication for more direct care providers.</p>
<p>Collaborations and Team Meetings</p>	<p>From insurer utilization meetings to county wide coalitions, much of the discussion related to collaboration surrounded the importance of all stakeholders having a voice in the mental health process. Overall, collaboration is viewed as a positive thing. It is used by insurers and service providers to address the specific needs of each consumer, as well as those looking to troubleshoot the broader barriers to treatment. Though there are some identified challenges to collaboration, the positive elements were spoken about strongly.</p> <p>It was noted that county collaborations are overall positive but break down around the issue of budgeting. A number of service providers discussed Mental Health and Aging departments disagreeing over treatment for an older adult and, as a result, who would be responsible for funding the treatment. Another budgetary concern comes from joinder counties. These counties, in which two or more counties work together to provide human services to their populations, were noted as running into difficulties as to how their allotted monies are spent.</p>
<p>Siloed Nature of Mental Health</p>	<p>One barrier to collaboration that persists is the siloed nature of mental health. Insurers and service providers discussed that confidentiality can prevent all involved from working together to meet consumers’ needs. For insurers, this translates as a lack of communication between the physical and behavioral health plans a consumer has. This is even true when health plans are both governmental plans, such as Medicare and Medicaid.</p> <p>The confidentiality silos make continuity of care difficult when a consumer is hospitalized, as it can be difficult to collaborate with the hospital on the consumer’s treatment. Finally, the silos exist among state and county departments, leading to</p>

	decreased points of access and a lack of continuity of care. As these silos are recognized and begin being addressed, one service provider noted that no more money or accommodations are being provided to carry through with the collaborations. Budgeting repeatedly influences the ability of agencies to collaborate. Without necessary accommodations, the margining of silos continues to present challenges to those involved with the consumer working together.
Cultural Differences among Service Providers	Service providers identified cultural differences between Area Agencies on Aging and Office of Mental Health and Substance Abuse Services (OHMSAS). In treatment, some providers noted that once a consumer with mental health concerns turns 60 or 65, county Mental Health will no longer see them, but will refer them to Aging. Providers feel that this occurs because all problems are assumed to be neurological after the age 60, even if there is a history of mental health concerns. This systematic cultural difference is also evident in the model each uses for treatment. One service provider noted that Area Agency on Aging had a tendency to be a very paternalistic culture, while the Office of Mental Health had a tendency to be more empowering and allowing the person to be more independent. It was reported that there is usually a clash between the two agencies because of the difference of culture and philosophy. Some providers have attempted to bridge these gaps through memorandums of understanding between the two agencies as well as holding joint trainings. While there has been some success from these strategies, staff turnover and budgetary concerns cause this to be an ongoing process.

(5) Funding and Insurance Challenges

Funding is a foundational concern for both insurers and service providers. Many noted the link between the amount of funding an agency has access to, and the level of service they are able to provide. Additionally, several participants brought up recent calls for increased mental health awareness and treatment, but budgets have remained the same or have been cut in recent years. While many concerns regarding funding were brought forth, many agency-based solutions to address funding concerns were also mentioned.

Insurance Differences	Service providers spoke openly about the differences that exist between private insurance and public insurance options. Each insurance reimburses at a different rate, which can impact the access that members have to services. Most noted that private insurance pays at a higher rate than Medicaid, Medicare, or fee-for-service. Because of these rate differences, licensed professionals often leave agency work to work in private practice, where they work more with private insurance. When this occurs, agencies lose access to the practitioner’s license, which decreases their ability to accept private insurance, thereby making sustainability difficult on Medicaid and Medicare alone. Additionally, fee-for-service, a state-based insurance that covers children whose parents do not meet the salary requirements of Medicaid, is noted to pay even less, which leads many providers to be reluctant to accept it. There is a perception that members who have this insurance plan are often placed on waiting lists, as providers may be reluctant to take them and their private insurance does not
------------------------------	---

	<p>cover the level of service recommended. One insurer even noted the difference, pointing out that Medicaid therapists often need to see more clients in order to support themselves when compared to therapists who only accept private insurance. Overall, the lack of insurance parity between public and private insurance contributes to concerns about service access and delivery.</p>
<p>Funding and Regulations</p>	<p>Another factor that influences funding for both providers and insurers is the impact of regulations related to funding. Insurances, state funding, and grants all have their own policies related to how money is spent and what documentation is required. While regulation dictates how funding is spent, it also impacts what funding can be spent on, as many necessary activities are not billable. This can lead to shortfalls in provider budgets. Service providers and insurers alike noted the rigidity that exists in budgeting in mental health, especially as it relates to funding among departments. These silos can prevent the rural population from receiving much needed services. A provider pointed out that some programs are overwhelmed with people while funding is readily for others. Another service provider noted that money should be able to move as needed in order to meet the needs of the people, rather than attempting to fit everyone into the same program.</p> <p>For insurers, regulations related to the spending of reinvestment dollars were discussed. The manner in which reinvestment dollars can be used does not always meet the needs of the insurance agency or the area it serves. One insurer noted that there are many potentially beneficial alternatives, such as trainings offered to providers, that these dollars cannot be used for.</p>
<p>Reimbursement and Non-billable Budgeting Concerns</p>	<p>Whether or not a service is billable greatly impacts both the funding an agency receives as well as the services they can provide. This was a reoccurring theme for both insurers and service providers. Both noted the fully packed schedules that practitioners need to maintain, as those who do not show up for appointments cannot be billed. Service providers also noted that documentation, data entry, and collaboration are often not considered as billable activities. This includes tasks like helping families seek insurance coverage.</p> <p>The most commonly mentioned non-billable service, though, was transportation. Insurance and service providers alike noted that transportation, a service that was previously billable, has not been for several years. This has impacted services in a significant way, as case managers cannot bill for transportation, resulting in more missed appointments. Additionally, mobile mental health services are more difficult to staff, as people may be unwilling to engage in this practice because travel and transportation are frequently unpaid, though some agencies have tried to address this. The lack of transportation billing severely impacts rural areas, as practitioners often need to travel to practice in those areas. While some agencies stated that they still engage in transport as a last resort, most are not paid for that time.</p>
<p>Service Provider Reimbursement</p>	<p>Service providers and insurers alike reported a barrier with reimbursement rates for mental health service providers. Service providers reported that reimbursement rates for services are often extremely low, making it difficult for agencies and service providers to keep their doors open, limiting resources even more for older adults and children under the age of 18 who live in rural communities. Service providers had also noted that due to low reimbursement rates, service providers were often not fully reimbursed for the services that they were providing to their clients.</p>

Challenges in Accessing Mental Health Services

Seven themes emerged based on conversations with service providers and insurance company representatives as well as interviews with service users that concerned challenges in accessing mental health services faced by rural residents especially youth and the elderly. They include: (1) transportation issues; (2) health insurance as an access issue; (3) stigma and mental health acceptance; (4) distance and travel time and conflicting work hours; (5) family engagement and the role of family; and (6) telehealth, internet access, and technology issues.

(1) Transportation Issues

Focus group participants frequently stated that transportation is the single biggest barrier playing a large role in accessing mental health services in rural areas for all age categories. This is because most mental health providers are located far away from rural areas, and service users have to travel long distances to access service. In these comments, both service providers and insurers highlighted the challenges that families face in transporting family members to mental health services, particularly in rural areas where public transportation may not be a feasible option. They saw both public and private means of transportation as “the biggest issue” and “at the root of being able to even try to provide the service.” Participants often noted having clients “open to getting the help” but having no means to get to the appointment. One participant noted that overall, quality of life is tied to transportation access. The topic of transportation, in general, tended to be the very first one to be brought up as a barrier to accessing mental health services among service and insurance providers, and was one the most coded themes across the transcripts. However, this was not a prominent theme among the interviewed service users.

Focus group participants specifically discussed lack and inadequacy of public transportation in regard to routes and schedules. They observed that limited public transportation options result in negative outcomes for consumers, including time lost in transit, missed appointments, and possible loss of services. The Medical Assistance Transportation Program was discussed as insufficient in its provisions and adequacy: service users having to wait long hours to be picked up from their services, only the

recipient of the service is allowed on the vehicle, and it involves generally inconvenient schedules and routes. Personal modes of transportation were also oftentimes mentioned as a barrier due to long travel distances and the associated high cost of gas. According to focus group participants, these factors combined to result in clients missing appointments and withdrawing from the mental health (and sometimes physical health) system.

<p>Public and Private Transportation</p>	<p>While some consumers rely on <i>personal modes of transportation</i>, including rides provided by family or friends, focus group participants identified the challenges that may be associated with those options, such as the cost of gas or vehicles needing repairs. Other providers shared that some of the families they serve “simply do not have a vehicle or even a driver's license.” The expensive nature of personal transportation along with competing immediate basic needs were often cited as impediments to attending appointments and receiving mental health services in general.</p> <p>Non-existent or limited availability of <i>public transportation</i> options were noted as challenges unique to rural areas. Related to public transportation availability, service providers and insurers agreed that one of most difficult challenges for consumers is working within established schedules and routes to arrive at appointments in a timely manner, and oftentimes needing to set aside an entire day to attend one appointment. Unreliable schedules of limited public transportation providers in rural areas were also reported to result in missed appointments, thus leading consumers to lose services. Another reported problem of taking public transportation was related to specific populations and age. Both service providers and insurers commented on the particular difficulties that older adults and minor clients experience when using public transportation. According to the focus group participants, the shared ride program is particularly restrictive with its schedules and time-consuming nature. It poses difficulties for older adults being away from home for a long time “if they have physical challenges or medical conditions.”</p>
<p>Medical Assistance Transportation Program (MATP)</p>	<p>One transportation option mentioned by both service providers and insurers is the Medical Assistance Transportation Program (MATP). This service, available to recipients of medical assistance, also poses challenges for consumers attempting to access mental health services. These issues include a difficult application process, restrictions placed on riders, scheduling rules, and delays in service. Service providers pointed to the complexities in the MATP application process, and the frustration experienced by applicants. Focus group participants also identified existing MATP administrative and regulatory restrictions as creating additional barriers to accessing mental health services for clients who rely on MATP. They cited difficulties experienced by families with multiple children, as the MATP service only transports the parent and “the child who has the appointment so a parent would have to find care, childcare, for other siblings during that time.”</p> <p>Similar to public transportation in general, service providers and insurers were in agreement that MATP transportation services also create difficulties for consumers in terms of scheduling, arranging the service, and its reliability. MATP’s restrictions on crossing county lines was mentioned as yet another regulatory barrier. COVID-19 was reported to seriously exacerbate these already restrictive conditions of service provision, essentially cutting transportation for a significant number of mental health service users.</p>

(2) Health Insurance as an Access Issue

Insurance-related factors were noted as both service access and service delivery barriers. Service and insurance providers alike reported insurance as a primary challenge in accessing mental health services in rural Pennsylvania. They reported that many barriers are associated with public insurance providers, for clients who are trying to obtain services for their mental health. Other insurance barriers were mentioned, such as affordability of co-pays. Additionally, the process for becoming eligible for services is repetitive, extensive, and time consuming. In addition, both insurance and service providers reported that for individuals with unique circumstances, it is difficult for insurance companies to approve services for specialized treatments. Individuals that change employment or move out of the state or county often face the issue of having to find another provider in order to continue treatment for their mental health. There are many barriers that insurance creates for both older adults and children under age 18.

<p>Affordability</p>	<p>Although no insurers noted a client’s inability to pay for their co-pays and deductibles, many service providers identified this as being a concern many of their clients face. Often this may be the element that determines an older adult or child’s ability to access their mental health services. Service providers noted that there are options in place to deal with these expenses, but the process for applying is often lengthy and confusing, preventing any client from ever wanting to go through the process. If a client can obtain mental health services for a period, depending on their situation, the continuation of care may be at risk due to insurance costs and co-pays adding up. This prevents continuous and consistent care for older adults and children’s mental health. Often older adults and parents of children under age 18 are forced to choose between their mental health treatment or paying for their basic needs. With high deductibles and co-pays, this makes it even harder for individuals and families to access their mental health services. Service users also reported that insurance plans (both private and public) often create challenges in accessing mental health services for themselves and their family members. Most frequently mentioned were issues of affordability, particularly the financial burden sometimes associated with co-pays.</p>
<p>Insurance Regulations and Client Eligibility</p>	<p>Service providers reported that when trying to navigate the insurance system, they come across barriers such as policies and regulations set by the insurance companies that led to a repetitive and time-consuming process. It was reported that there is a large amount of paperwork and the need for assessments and evaluations that sometimes ends in the denial of services for the client. Service providers and insurers reported that a client’s eligibility can be dropped due to the renewal of documentation.</p> <p>In addition to navigating the process of obtaining approval of mental health services for their clients, service providers and insurers reported that an important step in the process is obtaining an official psychological evaluation. Regulations are</p>

	<p>in place that if the evaluation is not received within 30 days, it will expire, and clients must obtain a new one. This is often a part of the process that repeats itself multiple times. Both service providers and insurers reported this part of the approval process to be a major barrier to obtaining mental health services.</p> <p>The process of navigating the insurance system and obtaining approval for client services consists of many barriers that both service users as well as providers need to overcome. Both mental health service providers and insurers reported that a client’s ability to be approved for services is often a long process that is tedious and difficult to navigate. There are many regulations and policies that prevent providers from quickly obtaining services for their clients. The regulations and requirements that insurance companies require of their service providers and clients have created a difficult barrier in obtaining and providing mental health services. Older adults and children that are in crisis mental health situations or are experiencing intense symptoms may not have the time to wait for the approval of mental health services.</p> <p>Service users, parents and older adults also discussed the limitations that insurance plans place on approved services and providers. These included limitations on mental health services allowed by insurance plans and limits on the providers of those services. For example, parents noted the lack of coverage of mental health services and the restrictions associated with insurance plans in general. Parents also described the gaps in coverage between public and private insurance plans and the impact on access to mental health services. As another example of limitations on mental health services, these parents noted the impact of insurance (both private and public) on the availability of providers. In general, service recipients related their experiences and difficulties in navigating the existing insurance system, deeming the system “so complicated” and the process “time consuming and frustrating.”</p> <p>Finally, a number of service users commented on the service gaps they experienced related to mental health services for older adults. According to these service users, the mental health care system, as currently organized, presents specific challenges and barriers to care for older adults.</p>
--	---

(3) Stigma and Mental Health Acceptance

In rural areas, unique challenges to mental health services include a lack of awareness and acceptance, privacy and confidentiality, culture, and stigma. There exists a lack of awareness about what mental health is, services that are available and opportunities for prevention rather than crisis treatment. In small rural towns where most people know each other, cultures of either community or individualism, paired with stigma pose risks to privacy and confidentiality. Generational and cultural norms contribute to an idea that one must work through life’s difficulties without any help from others. Many aspects of stigma were identified by service providers, and some of the most common include feelings of embarrassment, fear, and shame. The role of family and stigmatization was also a prominent theme in the focus group discussions related to stigma and mental health awareness and acceptance. Recipients of

mental health services (both older adults and parents of children with mental health issues) reported that stigma is a salient factor in accessing services in rural areas. In discussing this theme, interview participants described the impact of stigma on the well-being of individuals and how stigma affects the willingness and ability of individuals and families to access mental health services. Mental health service users also commented on examples of stigma evident among health professionals and offered suggestions for improving the mental health system based on their personal experiences.

<p>Mental Health Literacy and Knowledge of Available Services</p>	<p>Several service providers noted that general mental health illiteracy is a major barrier to service access. They hear from clients that they do not recognize mental health issues, as well as those who do not know services exist, where to find them, or who to call. This is further amplified by the complexities associated with understanding how the mental health system works and navigating it. The general idea expressed in the focus groups was: If people understand the root causes of mental illness, they are more likely to seek and accept treatment and to make more informed decisions about their care. Both insurance and service providers shared that based on their conversations with consumers, some mental health service users do not think they need the services until they are in a crisis situation; there’s a long period of time wherein they think they can handle it on their own. An insurance provider explained that many people seek mental health care in a crisis, not as preventative care, in part simply because yearly physicals are covered by insurance, so more people treat their physical health regularly.</p> <p>Mental health service recipients provided their own assessments of the root causes of stigma, suggesting that larger, societal patterns reinforce negative perceptions of mental health issues and individuals with mental health issues. Service users and providers alike also reported that lack of mental health awareness is seen among medical professionals as well. Service recipients provided specific examples of stigma present in the behavior of physical and mental health providers. For example, parents shared their perceptions and experiences of stigma they encountered in dealings with health professionals. Service providers echoed that there is a need for mental health awareness within agencies as well as trainings on how to have difficult mental health conversations with people. According to them, workers need to be able to recognize symptoms, ask the right questions, and communicate effectively with the population they are serving.</p>
<p>Lack of Acceptance and “pull oneself by the bootstraps” Mentality</p>	<p>Service providers agreed that there is often a lack of willingness among parents to admit that their child is struggling with mental illness. According to service providers, there is a lack of awareness about the spectrum of mental illness and that a perception that any diagnosis means “crazy.” Several providers mentioned that oftentimes, parents are not even aware of their child’s behavioral issues until the school suggests an evaluation. They go on to mention that sometimes, parents are aware that therapy and counseling exist, but there is a misunderstanding that their child is eligible for those services. One service provider pointed out stigma with medications as well, citing that parents will more easily accept that their child needs insulin for juvenile diabetes than Lexapro for depression. Regarding medications, a service provider noted that</p>

	<p>older adults are also wary of medication because of hearing side effects listed in commercials on TV.</p> <p>Some service providers work with older adult clients who have had the same symptoms for 20 years, and they are unaware that the cause is a mental illness. Certain generational beliefs among the aging population contribute to a lack of awareness and acceptance, a common belief being the “pull yourself up by your bootstraps” notion. Lack of awareness, stigma, and resistance to acceptance are interrelated.</p>
<p>Impact of Stigma on Seeking out Mental Health Services</p>	<p>Participants in this study reported that in small rural towns, larger outpatient clinics carry significant stigma, so some community members are averse to those clinics. One service provider stated that older adults have expressed worries such as, “What will happen if my church group finds out that I’m going to counseling?” There are cultural barriers to service delivery unique to rural areas as some populations do not believe in therapy as a valid form of medical care for mental illness, or do not recognize mental illness as a legitimate health condition. There can also be intergenerational stigma that mental illness is a sign of weakness. An insurance provider opined that among all of the other issues people in rural Pennsylvania face when seeking services, perhaps the most crippling is stigma. This experience was commonly shared during the focus groups, that moral judgments are made about mental health diagnoses. Multiple insurance and service providers mentioned other aspects, such as people being afraid to be seen walking into a mental health agency in their town. An insurance provider also noted that there is a “window” of readiness: if clients do not seek and receive help in a timely manner, the issue gets out of control, and they are not receptive to help. The issue of stigma and lack of awareness extends after someone does initially seek help. One service provider pointed out that intensive case managers are needed to follow up with clients after their initial appointments to ensure that they continue care. They noted that some patients tend to go to one appointment, “[get] some things off their chest,” feel slightly better, and not go back. There is a lack of awareness that mental health care is long-term care.</p> <p>Service recipients, both older adults and parents, offered their insights as to how stigma can discourage individuals from seeking mental health services. Parents provided their perspectives on the impact of stigma on help-seeking in general. They also discussed the lack of recognition of mental health issues in their communities as an example of how stigma negatively impacts help-seeking.</p> <p>In addition to negatively impacting help-seeking on the part of those with mental health issues, participants also identified stigma as a systemic issue in communities and organizations, resulting in fewer mental health resources.</p>

(4) Distance, Travel Time, and Conflicting Work Hours

Service providers and insurers alike mentioned the distances clients must travel to access mental health services represent a serious challenge in getting help. Focus group participants specifically cited the uneven distribution of services between rural and urban areas of the state and the lack of specialized services in rural areas, such as inpatient psychiatric facilities and residential treatment facilities. The

impact of the geographical uneven distribution of services on clients and their families was also raised by focus group participants.

Focus group participants pointed to the apparent differences in service availability between rural and urban areas of the state as a barrier to care. Focus group participants commented on the lack of specialized services in rural areas, including inpatient psychiatric facilities, skilled nursing facilities, and residential drug and alcohol treatment facilities. Service providers offered the most comments regarding the impact of geographic disparities on clients' ability to access mental health services.

Focus group participants noted the long distances and time commitments required to access some mental health services represent additional barriers that clients and their families must navigate, and reported that these distances may discourage clients and families from accessing services. Service providers also identified the role of insurance companies in creating additional barriers in terms of which services are available to clients. Thus, the way insurance companies operate may have the unintended outcome of reducing client choice and require clients to travel longer distances to access mental health services.

Both insurers and service providers identified the challenges that arise when families are unable to access mental health services due to scheduling conflicts. For example, working parents have difficulty accommodating the schedules of service providers, which typically operate on a Monday through Friday, 9 a.m. to 5 p.m. schedule. Focus group participants also noted the specific issue of children missing school to access mental health services. Service providers offered the majority of comments describing the impact of conflicting schedules. Thus, as participants reported, the challenge of coordinating work schedules with mental health services creates additional stressors for families. Some service providers saw a direct connection between scheduling issues and the ability of consumers to access follow-up care when it is recommended. Both insurers and service providers commented on the need for service providers to be more flexible in offering extended hours to address these barriers to care, but also noted the challenges that these changes might pose to agencies.

In addition to conflicts between parents’ work schedules and agency operating hours, both insurers and service providers highlighted the difficulties in accessing mental health services for children and youth who are in school. Service providers did share examples of agencies offering expanded hours in order to accommodate the needs of clients.

(5) Family Engagement and the Role of Family

The role family plays in mental health treatment is crucial, especially for children under age 18. Insurers and service providers alike spoke about the importance of families being engaged in their loved ones’ treatment, and some of the problems that can hinder this participation. When treating the identified patient, whether it be an older adult or a child or adolescent, frequently the whole family system needs to be addressed. Additionally, family participation overlaps with other access themes, most notably stigma, transportation, and telehealth.

<p>Family Engagement and Participation</p>	<p>Insurers and service providers both noted the significance of familial support for older adults. For older adults, family engagement can be a struggle. Some service providers discussed how helpful having support can be in services for both the provider and the older adult. On the other hand, family can hinder treatment by acting as inaccurate spokespeople for the older adult or by taking advantage of them. Family also may not always be available to the older adult, as by that time, many feel burnout from the lifelong mental illness of their family member.</p> <p>Familial participation was heavily focused on mental health treatment for children and adolescents. Insurers noted that though the child may be the identified patient, often it is the whole family system that needs to be treated. The idea that the whole family may need, or at the very least, be involved in treatment ran through many of the insurer and provider comments. Service providers noted the need for parental consent and engagement, especially when the child is under the age of 14. Additionally, the level of care children receive can make parental engagement more difficult, as many higher-level care providers are not located within close proximity to the family. Several providers noted that families are often reluctant to engage in treatment with their child and may avoid them for several reasons, including their own mental health experiences, stigma, and lack of availability.</p> <p>Another engagement issue mentioned frequently in service provider comments included the notion of “fixing” the child. Providers noted that there was a delicate balance between addressing the needs of the family system while also treating the child. This resistance can occur when providers point out the necessity of the family system receiving treatment rather than just the child. Overall, insurers and providers found family engagement to be crucial but often lacking for both the elderly and child or adolescent populations.</p>
---	---

<p>Family and Stigma</p>	<p>The overlap between the role of families and stigma was a trend mentioned by both insurance providers and service providers. They noted that stigma may contribute to the lack of family engagement in children’s treatments. Insurers noted that often, families may not recognize that a child needs help, or what services are available to them. Service providers working with children and families reported that it is common for families to believe that if their child needs mental health treatment, it is a criticism of their parenting.</p> <p>Service providers noted a similar issue with the treatment of children and adolescents. Often, parents may keep the child’s problems secret. Parents are also concerned as to how a diagnosis may affect their child’s future, such as their child’s ability to gain FBI clearances. This stigma was noted as especially present in rural areas. Stigma within families was something service providers noted as being tied to the parents’ own potential experiences with the mental health system.</p>
<p>Family and Transportation</p>	<p>Another overlapping theme includes families’ access to transportation. In discussing the role family plays, service providers frequently noted that family members were often relied on to provide transportation for the young and old alike. This could lead to problems for parents, as childcare for additional siblings and scheduling conflicts increased the difficulty of transportation. Where family engagement may not be as robust as some providers would hope, it is not always because the family is not invested, but rather due to other basic need factors.</p>
<p>Family Engagement and Telehealth</p>	<p>The final overlapping theme connected to families is that of telehealth. In the COVID-19 climate, many families had to use telehealth in some form to facilitate treatment for the older adults or children in their lives. Insurers and service providers both noted the change in familial engagement that has come about due to the use of telehealth. Broadly, it was noted that families are more likely to participate in the child’s service through telehealth, including family members who may have been reluctant to participate prior to treatment being offered virtually. Telehealth has also addressed some of the transportation difficulties experienced by families who live further away from services, from outpatient to residential treatment facilities.</p>

(6) Telehealth, Internet Access, and Technology Issues

As focus group data collection was conducted amid the COVID-19 pandemic, participants frequently mentioned (unprompted) the switch from an in-person mental health service delivery mode to telehealth and the effects thereof on access to services and quality of care. While telehealth was generally seen as a necessary alternative service delivery throughout the pandemic and a helpful solution for some of the service access issues, focus group participants discussed associated challenges and provided critiques. Specifically, they discussed the reliance on a variety of technological methods of service delivery (e.g. telephones or Zoom) and those services’ fit for specific populations and different

therapeutic modalities. Service and insurance providers alike also reported challenges that come with the use of different technological platforms that may prevent interaction, engagement, and effectiveness of service.

While telehealth in general was reported to benefit youth and their families, it leaves out children with intellectual disabilities or those on the autism spectrum. When discussing the application of telehealth in work with children with disabilities, service and insurance providers questioned its utility as it is nearly impossible to replicate effective interaction techniques necessary for this population to teach social skills.

The elderly population consistently reported experiencing difficulties using internet and technology, particularly elderly clients who did not own the most recent or appropriate technology. These factors were seen as a particular impediment, combined with low comfort levels and distrust of the new and unfamiliar method of care.

General challenges with internet access, cell phone reception, and other technology issues in rural Pennsylvania were a prominent theme in focus group discussions. These challenges were reported to create significant limitations for both service access and delivery. Service providers also reported that service users not owning the latest technology or having pre-paid phone plans were limited in their access to quality remote service.

POSSIBLE STRATEGIES AND POLICY CONSIDERATIONS

Based on the quantitative and qualitative data analyses, 10 strategies and policy considerations were identified to improve and expand mental health services in rural Pennsylvania:

1. Address transportation barriers by revisiting transportation reimbursement, increasing funding for public transportation, and redesigning MATP.
2. Attract qualified mental health professionals to rural areas and facilitate staff credentialing and education.

3. Promote de-stigmatization of mental health concerns through education, prevention, and normalization.
4. Expand and fund telehealth, case management services, and in-home and mobile therapy.
5. Amplify the role of schools in addressing youth mental health concerns, and expand school-based therapy.
6. Integrate physical and behavioral health wellness.
7. Improve and strengthen interagency collaboration.
8. Bridge the gaps in the levels of mental health care.
9. Address budgetary concerns for mental health prevention and delivery of service.
10. Ease state regulations around licensure, consumer rights, and age-specific requirements.

(1) Address Transportation Barriers

Transportation and travel distance were two of the most frequently mentioned barriers to mental health access to rural Pennsylvanians. Insurer and provider focus groups noted that while provider transportation was once a billable service, it is no longer. This has made the barrier even greater for individuals seeking treatment, especially children and the elderly. Participants noted several potential solutions for minimizing this barrier, including revisiting transportation reimbursement, increasing funding for public transportation, and redesigning MATP.

Policy recommendations related to transportation challenges in rural areas focused primarily on increasing funding to expand public transportation, revisiting regulations that limit the reimbursement of transportation expenses incurred by providers, and subsidizing transportation expenses. Similarly, focus group participants recommended redesigning or easing regulations around the MATP program, particularly the scheduling process, the county line rule, and rules about eligibility for using transportation service. Study participants also advocated for making telehealth a reimbursable service even after the pandemic, thus alleviating some transportation challenges while simultaneously improving appointment cancellations and no-show rates. Based on experiences shared by one agency, it is also recommended that

legislators consider promoting medical ride-share programs (such as Uber Health), as a transportation option for rural areas.

Focus group participants also offered several policy recommendations to address the burden of traveling long distances to access mental health services. Some recommendations echoed the providers' request for more funding to expand public transportation systems in rural areas.

In examining present legislation, there is a noted absence of focus on rural transportation concerns. One exception to this is House Bill 642, which, at the time of this report's submission, calls for an extension telehealth availability beyond the end of the pandemic.

To address reimbursement, the Department of Human Services could consider using the template for county employee travel reimbursements found in the "County Mental Health and Intellectual Disability Fiscal Manual" (55 Pa Code § 4300.90). Use of this model in conjunction with a funding stream for non-governmental providers, travel, and transport of clients could be restored as a reimbursable service. Legislatively, the General Assembly could increase funding to improve existing transportation systems in rural areas, such as increasing the number of routes and lines available. The General Assembly could also revisit the Human Services Code where Medical Assistance Transportation is defined and work in conjunction with the Department of Human Services to improve the operation of the MATP to make it a more feasible option for rural residents.

(2) Attract Qualified Mental Health Professionals and Facilitate Credentialing and Education

The top suggestion from the parents of youth survey participants for improving access to mental health services in rural areas was to increase the number of available mental health service providers. Recommendations from insurers and service providers typically involved providing incentives to mental health professionals for relocating to rural areas and subsidizing continuing education and credentialing for staff.

To further address the shortage of specialized mental health professionals, focus group participants recommended creating a statewide tuition reimbursement or loan forgiveness fund for mental

health workers who work in the public sector, and subsidizing continuing education and credentialing for mental health staff. They explained that college debt and the high cost of continuing education and credentialing processes serve as roadblocks for pursuing specialization. One insurer noted that a model for this process already exists in county Children and Youth organizations. Student loan forgiveness was mentioned frequently. Additionally, a similar system was suggested for encouraging working professionals to pursue specialized certifications. All solutions noted by focus groups would require additional funding for mental health. There was no clear consensus from the participants, though, about the source of the funds.

Participants spoke of instances where potential job applicants lack required or relevant degrees and recommended improving educational outreach for human service fields to improve students' understanding of career educational expectations. They also suggested supplementing care in rural areas with improved regulation exception programs and waiver requirements.

Currently, Pennsylvania policies and regulations do not address incentives for improving mental health practices in rural areas. On the federal level, the Affordable Care Act outlines incentives for health care workers who practice in identified shortage areas. Loan forgiveness is also mentioned in federal and state statutes, but only as it pertains to healthcare workers and teachers.

To address other concerns, Pennsylvania House Bill 180 and Pennsylvania Senate Bill 94 propose loan forgiveness for mental health professionals working in schools and in the public sector, respectively. The Pennsylvania General Assembly could also introduce legislation to incentivize professionals to practice in rural areas, similar to provisions for healthcare professionals in the Affordable Care Act.

The Departments of Health, Human Services, and Education could work together to address the recommendations regarding the education of potential mental health professionals and licensing requirements through outreach to students in secondary schools as well as students beginning higher education. Additionally, the Department of Human Services could explore ways to supplement care through exemptions and waiver programs.

(3) Promote De-stigmatization through Education, Prevention, and Normalization

All research group participants suggested that stigma is related to lower mental health literacy and is a key obstacle to mental health treatment. This is especially true in rural areas, where there appears to be less understanding of mental health and speaking openly about mental health can be viewed as taboo. Options for de-stigmatizing and normalizing mental health were widely discussed by focus group participants, who stated that help cannot begin without awareness and acceptance. Notably, both groups of survey participants preferred preventive approaches to this issue, including mental health promotion programs in schools, community-based population health promotion programs for teaching life skills, coping, etc., and public education campaigns about mental health awareness. Survey results suggest that males, older adults, ethnic and racial minorities, residents with less education, and those who reside with fewer household members should be specifically targeted and might benefit the most from mental health education efforts.

Providers believe there is need for increased education for people with mental illnesses on the types of services available and outreach options for crisis situations. They suggest that families with children who have behavioral disorders also become educated on service options, such as family-based mental health, and that simple solutions could be pursued, such as educating people on how to reach out to providers and insurance companies in times of need or in crisis.

The federal Affordable Care Act suggests educating “policy makers, employers, community leaders, and the public about depressive disorders to reduce stigma and raise awareness of treatments.” It does not, however, mandate this undertaking. In Pennsylvania, while there are agencies raising awareness about stigma and mental health, there are no specific policies or regulations that speak to stigma or mental health awareness/education. As a result, each branch of state government can play a role in normalizing experiences as they relate to mental health by educating the general population. For example, state House Bill 784, directly relates to the education of primary and secondary students and mental health by requiring it as a part of schools’ general health curricula. By applying to all Pennsylvania schools, the

Department of Education would be responsible for ensuring that it is carried out effectively if passed. An additional awareness campaign could be conducted within the judicial branch of government. Here, judges as well as other participants in the judicial system could be educated on the intersection of mental health with the court system to increase understanding of mental illness.

To alleviate stigma and increase awareness and acceptance of mental health, policy makers could establish funding streams for existing outreach programs in schools and communities to be directed toward mental health education. Participants in this study recommended enforcing and funding mental health training for staff in all healthcare settings so that early onset of mental illness can be identified and treated appropriately. One of the other ways to destigmatize mental health treatment is for agencies to provide training for trauma-informed work. Developing programs to encourage collaboration between primary and mental health providers was also recommended by study participants.

(4) Expand and Fund Telehealth, Case Management Services, and In-Home Mobile Therapy

Telehealth

Prior to the COVID-19 pandemic, Pennsylvania's use of telehealth in behavioral medicine was heavily restricted. During the course of the COVID-19 pandemic, however, telehealth has become an essential service for ensuring continued care. Overall, based on the experiences and perspectives of service providers and public insurance representatives, telehealth was reported as a promising modality of service delivery, albeit not for all populations.

Many service provider participants noted that the continued coverage of telehealth following the pandemic would benefit participants who are unable to attend in-office appointments due to travel or transportation concerns. They suggested considering hybrid models of service delivery and finding a way to use telehealth as an alternative, billable modality of service delivery beyond the pandemic. The widespread roll-out and implementation of tele-mental health would require comprehensive coverage and reimbursement policies, availability of trained professionals, addressing licensure issues, ensuring broadband access and adequacy with compatible infrastructure, and devising acceptable security measures

to facilitate ethical professional conduct and ensure privacy and security of patients and their records.

In advocating for these suggestions, there are steps that both the state executive and legislative branches can take to facilitate these policies. At the time of the research, there were several bills in the House that would improve telehealth in Pennsylvania, including HB 642 and HB 2071. Legislative intervention and action should be undertaken to accelerate the passing of the telemedicine parity law that has been introduced in Pennsylvania several times. House Bill 642 keeps telemedicine reimbursable past the end date of the pandemic by providing a legislative foundation for what has already been occurring as a result of Bulletins issued early in the pandemic. Notably, Mehrotra et al. (2017) in their analysis of Medicare fee-for-service claims found that “states with a telemedicine parity law and a pro–tele-mental health regulatory environment had significantly higher rates of tele-mental health use than those that did not.” The latter finding supports the previously-mentioned policy recommendation to keep telehealth as a reimbursable service beyond COVID-19 and to facilitate legislative action to pass the telemedicine parity law in Pennsylvania. Surprisingly, a study conducted by Park and colleagues (2018) found no association between less restrictive state telehealth policies and increased telehealth usage among any populations. This finding suggests that state efforts alone to ease policies and remove barriers to using telehealth might not be sufficient for increasing telehealth use; financial incentives for providers to adopt telehealth and remove copayments for virtual visits for consumers to increase use may be needed.

Finally, policy makers should consider investing in infrastructure development for cell phone reception and internet access in rural areas. Addressing participants’ concerns about accessibility of telehealth, HB 2071 supports the creation of a broadband authority to ensure broadband expansion in underserved and unserved areas. (Editor’s note: HB 2071, now Act 96, was enacted in December 2021, and established the Broadband Development Authority, tasked with the coordination and funding of the commonwealth’s broadband expansion efforts.)

Legislators should also consider incentivizing innovative solutions for telehealth services when serving older adults and youth. Overall, greater outreach, education, and technology support are needed when serving older individuals.

Mobile and In-Home Behavioral Health Services

For travel and transportation reasons, the providers also expressed a desire for more in-home and mobile services to be made available and covered by insurance. Service and insurance providers advocated for funding streams to reimburse travel costs for mobile and in-home service provision, develop mobile intake programs, and promote Medicare coverage for in-home therapy.

Insurers and service providers shared that when in-home services are offered, they are generally successful for treating and sustaining the wellness of older adult populations and families with young children. Generally, in-home services were noted as preferable over telehealth. There was a general agreement that in-home and mobile services allow providers to “meet clients where they are,” and that seeing clients in their home gives a better picture of their health. Many participants reported having no mobile or in-home mental health services in their counties/communities, while others noted successful programs and ideas for improvement. As a result, services offered are not consistent between counties so some counties will offer one type of service that is not available in another county. Inconsistent county services make it especially difficult for case managers working in higher levels of care where clients are typically placed outside of their county. Also, seniors experiencing serious mental illness may not have the motivation to leave the home for outpatient sessions when they first experience symptoms. In-home case management can help identify and link the person to in-home therapy services to help motivate the older person while supporting them until they have the ability to attend office-based services. Providers and insurers also shared that funding, transportation, and lack of providers or staff are the barriers to providing mobile and in-home services.

Across the board, a barrier to service provision in rural areas is shortage of providers or staff in agencies. Insurers and providers alike specifically mentioned a lack of providers who are willing or able to go to homes. A service provider mentioned that their ideal form of service provision would be to “meet the client where they’re at,” in their home, but there simply are not enough staff to accommodate the need.

Mobile and in-home services can ameliorate the barrier of transportation for service users. However, in the same way that transportation is a barrier for service users, it is also a barrier for service providers and agencies to go out to the homes due to lack of willingness and reimbursement. Multiple service providers noted that such service provision is disincentivized as travel time is often not reimbursed. One service provider explained that a lack of mobile therapy services compounded by a lack of transportation is a major barrier for families.

Mobile and in-home services were also reported to place extra costs on agencies. One insurance provider shared that agencies have difficulty finding therapists willing to travel long distances to see people in their homes because travel time is not reimbursable, and the long travel distances affect the number of clients the therapist can see in a day. This insurer also shared that telehealth is a good alternative, but there are not many clients over age 65 that are willing to try telehealth. Several service providers noted that the cost of in-home services is a barrier for Medicare users.

Insurers and providers agreed that a one-stop shop that includes multiple levels of care at the same provider and within no more than 20 miles of each other would be helpful. Some communities may have only one level of care, such as partial hospitalization, but no higher or lower levels of care. This forces stand-alone programs to use a simplified approach to treat the most people possible in rural communities. One insurer suggested expanding school-based mental health approaches. An insurance provider discussed a collaborative program between county partners that offers a multitude of different services, including in-home services, to address social determinants of health, physical and behavioral health, peer services, etc. A service provider stated that mobile intake programs for farming communities, which often do not know how to begin to seek services, can help get the treatment process started.

In-home mental health and case management services are beneficial to older adults as well, but the lack of mobile mental health services for older adults is “excruciatingly frustrating.” Service providers pointed out that increasing in-home services advances the goal of prevention, education, and treatment that may keep people out of the hospital and improve their self-sufficiency, especially for older adults with complex health problems. One insurer noted that mobile services can be good for physical health and

co-occurring needs, such as medication drop-off. But they also noted that such services are especially limited in rural communities.

In-home services were reported to be the best fit for families with children who need consistency and intensive services. An insurer explained that in rural areas, many children receive in-home services, which are highly beneficial. The expansion of telehealth has allowed providers to stay in touch with families, but it is not ideal for families who need more intensive mobile services and would not be a good long-term solution. Another insurer reiterated the point that telehealth has been positive for continuation of care, but there is much feedback that it does not replace intensive treatment.

Within the state departments, in-home services could be addressed. The Department of Human Services could clarify and encourage the credentialing of Mobile Mental Health Treatment providers, which is already a service that outpatient providers can offer (see Pennsylvania Code 55.5200.51). The Affordable Care Act also discusses the use of “Health Home Services,” which could be used as the blueprint for expansion of Mobile Mental Health Treatment.

Managed Care Case Management

Some managed care organization (MCO) care managers advocated pivoting from utilization management, where they act as gatekeepers for services, to an active care management model, where they act as partners who use their knowledge about treatment systems and the client to help service providers ensure continuity of care at discharge. Managed care organizations identify “high-risk” members who have complex social, emotional, or health care needs and assign a care manager to work with providers to provide a holistic view of services that might help the client and service provider. The MCO leverages their knowledge of the broad array of potential services available as well as knowledge about the client’s treatment history to provide guidance to the service providers as they work with the client. MCOs reported that each county has their own ideas about what they consider high-risk, so it makes integration of services and their approach to helping across county contracts difficult. Managed care organizations have care managers that go to treatment facilities to assess the clients’ needs, circumstances leading to

admission, barriers to recovery, recovery resources used by the client prior to admission, and resources needed to maintain recovery at the time of discharge to a lower level of care. Care managers from the MCOs partner with the provider to help the provider explore discharge and recovery needs, resources available in the person's home community to assist with recovery, and problem solve access issues with the provider. The coordination of MCO case and community-based case managers will streamline planning for all levels of care and give one point of contact from which information can flow from the macro level to the family or individual.

There was a call for increased funding and support for community-based case management. These case managers would act as the primary coordinator of services and information for clients who are socially and geographically isolated, in the case of older adults, or as a resource for insurance case managers, providers, and the family. This case management program would focus on system navigation and resource management.

(5) Amplify the Role of School in Youth Mental Health and Expand School-Based Therapy

Schools play an integral role in the lives of children. As a result, it is unsurprising that both insurers and service providers made note of how schools interact with the mental health system in the treatment of children. The four predominant themes identified related to outreach and prevention campaigns, school-based outpatient programs, student assistance programs, and the impact that schools can have, both positively and negatively, on students' mental health. School-based outpatient programs were universally praised, though some of the difficulties inherent in these programs were also identified. Student Assistance Programs were noted by service providers to help identify children at risk. Beyond the Student Assistance Program, schools were noted as primary referral sources for children, but also as stressors. Survey participants of both groups also tended to suggest mental health promotion programs in schools as their first choice recommendation to improve access to mental health services.

Impact of School on Mental Health

The mental health system has attempted to address stigma in schools in multiple ways. One foundation for raising suicide awareness has begun clubs in schools that attempt to raise mental health awareness. Some service providers go through schools to conduct community outreach. Additionally, some providers noted that increased mental health training for school personnel might improve awareness and prevention when it comes to the potential long-term costs of mental illness.

When discussing the role schools play in mental and behavioral health, insurers and service providers both advocated for school outpatient programs, increased training for school personnel on mental health related topics, increased funding for the Student Assistance Program, and streamlined credentialing for additional programming in school districts.

School-based Outpatient Therapy

Insurers and service providers in the study praised the use of school-based outpatient programs for increasing the access of services to children. An insurance provider stated that if they could wave a magic wand, “it would be to have mental health services in every single school.” In addition to outreach campaigns, schools can be a place to normalize and destigmatize treatment. It allows students to receive treatment without being taken out of school for appointments. Many service providers also noted that they have begun moving programs into schools, which has increased attrition and decreased barriers such as transportation. However, according to one participant, though it has decreased one barrier, it has amplified the difficulty of keeping families engaged in treatment. So, while this type of program can open doors for treatment, it is not a panacea for children’s treatment. Alternately, a service provider noted the potential creation of stigma when an outpatient clinic is based in a small school, where other students would be more likely to notice classmates’ involvement in treatment.

Finally, concerns regarding licensing and insurance credentialing related to school-based clinics were discussed. Service providers noted that any time a provider moves into a new school, that provider must get that location licensed to provide services there. For providers in large districts, that means every

school in the district must be licensed. In addition to licensing, providers must go through the process of credentialing with insurance at each location. Overall, Medical Assistance is the insurance with the easiest credentialing process in schools. Others may be less likely to credential the provider in that location. Despite these difficulties, though, school-based therapists frequently have full caseloads. Insurers and service providers have an overwhelmingly positive view of school-based outpatient programs, and many mentioned the desire to continue this trend.

For all of these reasons, increased funding for and infusion of school-based outpatient programs across all schools in Pennsylvania is a necessary policy consideration. Increased training for school personnel relating to mental health concerns, such as trauma-informed care, is another policy recommendation related to strengthening the role of schools and normalizing mental health.

Student Assistance Programs (SAP)

Service providers spoke about Student Assistance Programs (SAPs), which serve to identify students in schools that could use more support. Through the use of SAPs, some service providers are able to streamline the process for getting children treatment. By participating in SAPs, these providers can help reach more students than before. When used in conjunction with school-based outpatient services, it can further remove stumbling blocks to treatment.

Increased funding for SAPs is also recommended as a legislative solution to strengthen the role of schools in identifying mental health concerns and facilitating access to treatment. Streamlining the process of licensing and credentialing within a school district could help to attract and retain mental health professionals and in part, address the need for qualified, specialized clinicians.

Existing policies and recommendations related to these programs were difficult to find. The Public School Code of 1949 is the only legislative document that speaks to the role schools play in mental health, but even this has sparse detail regarding any of the recommendation areas. It only speaks to the SAPs, and it only does so to define the program and mandate its existence in public school entities. The efforts to address these need areas would fall largely on the executive branch, namely the Department of

Education. By allocating funding for SAPs and requiring some type of mental health training as part of Act 48 credits, mental health in schools would become more of a priority. Additionally, the General Assembly could earmark monies approved in the educational budget directly for SAPs. Another Department of Education initiative that can be supported is the certification of school social workers. In certifying school social workers, the quality of the mental health treatment provided at schools will improve. In order to support this, House Bill 102 defines school social work practice and calls for increasing the number of school social workers across the state. Finally, the Department of Human Services can address the streamlining of credentialing for in school outpatient programs, thereby increasing the ability for providers to join with school districts on increasing the availability of these services to school students.

(6) Integrate Physical and Behavioral Health

The siloed nature and interprofessional collaboration of behavioral health services, physical health services and role of primary care providers, insurance issues, and HIPAA regulations create barriers to access and increase stigma of mental health. Insurance and service providers discussed these issues and offered promising models for integration. The major recommendations include embedding behavioral health professionals in Primary Care Providers (PCP) offices, modifying HIPAA regulations to ease communication between service providers and insurance representatives, and increasing education for PCPs about mental health services.

Siloed Approaches and Interprofessional Collaboration

Focus group participants discussed the siloed nature of physical-behavioral health services. They explained that various factors, including tangible barriers like different buildings, transportation, and barriers in communication between providers cause gaps in treatment for people who need both physical and behavioral services for conditions. One insurer stated that legislation needs to promote accessible coordination paths between physical health and behavioral health providers “in order to better manage

that member, that person, that patient.” Another insurer shared that thorough and clear communication and exchange of client information between service providers is key to moving the “member” along in the treatment process.

Collaboration between physical and behavioral health providers can result in new ideas, plans, and outreach to break down treatment barriers and make patients feel supported. Several participants from an insurance company explained that behavioral health services are hidden until they are needed. They explained that when someone applies for an Access card, which insurance provided through the state, they are only sent physical health insurance information. This participant identified that mental health information is not considered equal to physical health information and expressed a need to “equalize” the information provided. Participants reported that many people seeking behavioral health treatment do not know who to call to see their options of services. They might be referred to their insurance company by a provider, but at that point they may have already received services that they did not need and that did not help them.

Insurers tended to discuss interprofessional collaboration and successful models that they employ. One insurance provider noted that a successful piece of their work is facilitating meetings with crisis providers in the region every 6 months in order to receive feedback about general issues they are finding to be a challenge within the community. They reported that one of the benefits of these meetings is educating the service providers that behavioral health issues are also medical disorders and should be treated as such, and that a person needs ongoing treatment on different levels of care integrated with physical health. Another insurer expressed that a treatment team – collaboration between physicians and behavioral health specialists – can be the best way to keep folks out of the hospital and maintain them in their community, but new funding streams are needed for establishing these services. Another insurer mentioned that their agency has made major progress with initiatives that identify barriers to accessing care by working directly with physical health plans to understand how physical health is impacting behavioral health. One insurer discussed a program where their insurance agency brainstormed with their county partners to identify gaps of care and how to best serve their members. They created a specific

program with many different services to address social determinants of health, physical health, behavioral health, peer services, and case management, among others. Service providers mentioned it would be ideal if there were wellness centers that incorporate physical and behavioral health as just medical health and build public dialogue with community wellness teams. This was seen as a solution to reduce siloes, stigma, and increase communication and service access.

Role of Primary Care Providers and Access to Medical Care Team

Participants reported that people over age 65 in rural areas are more likely to trust their Primary Care Provider (PCP) because they have built relationships with their doctors over time. One insurance provider noted that primary care providers should start the conversation about how the patient is feeling so that referrals can be made if needed. An insurance provider identified the disparity between physical and behavioral health services with regards to preventative care: yearly physical exams are covered by insurance, and therefore people see physical health as more important. Preventative mental health services are non-existent and thus, people must wait until there is a crisis because it is not “on their radar.”

Another insurer participant explained that PCPs are not always aware of what to suggest. For example, if a parent goes to their PCP because their child is struggling with an attention deficit, medication is the first suggestion. There is a possibility that the child needs mental health services for a better evaluation, but there is a need for more education for PCPs about those services. This insurer also noted it is especially important in a rural community where those services are not obviously apparent. A different insurer participant noted that PCPs and other non-mental health specialists need education to make proper referrals: knowledge about insurance, levels of behavioral health treatment, proper medication, and available services. In a crisis situation, a person is referred to a variety of different specialists. One service provider noted that a primary care provider usually does not want to be prescribing a medication unless the person cannot access the specialists. But in a rural area, access to mental health services is a significant barrier for older adults. This issue can be observed in PCPs prescribing medication and their awareness of different symptoms and diagnoses. Additionally, a service

provider explained that psychiatrists and PCPs can prescribe medications, but they are not getting to the root issues like a behavioral health professional would. According to service providers, prescribers need the education that medication does not fix it all, especially for different age groups, and referrals are needed. PCPs were reported to lack the expertise to properly advise the referral for a patient who is presenting behavioral health issues. One service provider noted that crisis services in their county have not always understood co-occurring symptoms of aging and mental illness. For example, participants noted that with the older adult population, families and PCPs alike may associate mental health issues with dementia without a proper assessment.

Participants recommended an increased access to the entire medical management team of mental health service recipients. This is so because they cannot rely on primary care physicians in terms of information concerning patient medications since they are not specialists in mental health treatment. They believe it is the duty of psychiatrists to do that and therefore call for a greater collaboration among the whole medical team. They believe that if there is no effective communication between psychiatrists and primary care physicians, sometimes wrong medications can be prescribed, which can lead to dire consequences. Participants reported that behavioral health services have been embedded in some Federally Qualified Health Centers primary care offices in an effort to combine physical and behavioral health services. Several insurance providers noted that they are seeking to build on opportunities to embed behavioral health specialists within physical health services.

HIPAA (Health Insurance Portability and Accountability Act of 1996)

Participants shared that because the process of informed consent, regulations, and treatment plans are so different between mental health and physical health treatment, the mental health treatment process can be intimidating and seem abnormal for people seeking services. An insurer noted that discharge plans oftentimes fail, and care provision is not streamlined because of lack of coordination, which is a result of state regulations and HIPAA. To remediate this issue, one insurer participant mentioned that there are “care coordination programs” in some insurance agencies that work to innovate the physical health plans.

Insurance providers, in particular, agreed that HIPAA places a major barrier in communication between different services, as there are “1,000 hoops to jump through.” One insurer expressed that HIPAA regulations must be adjusted so that all providers who are prescribing medication to patients can communicate with one another because medications can have counteracting effects. Another insurance representative stated that their dream is to have a database where professionals can access information about clients between systems.

The integration of physical and behavioral health was noted to be an area of increased need, as these two disciplines are often tasked with working together. Though both are equally important, behavioral health can be “hidden until we are needed” as there is no mention of mental health care on the public insurance card that members receive. As a result, there are several ways to increase effective collaboration between the two fields. First, the Department of Human Services can generate awareness of behavioral health coverage under Medicaid by clearly including information for the behavioral health insurance provider on the state issued insurance cards. Legislatively, providers suggested requiring insurance coverage for a yearly mental health screening, similar to the preventative yearly physical that is required to be covered under the Affordable Care Act. The Affordable Care Act can be looked to as a potential template for this type of coverage, as depression screenings for adults and behavioral screenings for children are already supposed to be covered by insurance. Additionally, participants, but especially insurers, recommended sensible updates to HIPAA regulations to improve communication among insurers and providers of both physical and behavioral health. This can be accomplished legislatively through the introduction of a bill targeted at opening communication among those limited entities. Finally, the legislature could earmark money, which would then be distributed through executive departments, for training related to mental health concerns and the referral process, for anyone who works with people. As noted, these individuals span from nurses to police officers, physicians to teachers. There is already evidence in the Older Americans Act Of 1965 as amended by Public Law 116-131 on 3-25-2020 of grant money used for training of senior center staff on mental health. Broadening the available

monies and increasing training will help to streamline the process of receiving appropriate mental health treatment.

In addition, there were several recommendations related to financial investment initiatives. Specifically, participants suggested that funding streams need to be developed for community health centers that include both physical and behavioral health services and education and for training programs educating physicians, nurses, teachers, teacher aids, and law enforcement, among others, on mental illness and substance abuse diagnoses and referral process. Finally, service providers specifically suggested that LPCs and LCSWs be invited and encouraged to have a consistent seat at the policy-making table along with psychiatrists, as there is currently a perception that PCPs and psychiatrists hold more esteem because they attended medical school.

(7) Improve and Strengthen Interagency Collaboration

Community outreach, resourcing, and education was discussed, as both insurers and service providers undertake these efforts to improve interagency collaboration. Insurers and service providers recognize the importance of community outreach, but each approach it in a different way. For insurers, education is mentioned as source of outreach; they provide education and training to their providers on the various levels of care, as well as on provider-identified need areas. Service providers discussed several different types of community outreach, including education. Agencies engage in education by sharing resources for shared clients or complex cases. Community events also serve as community outreach. Through these events, providers can network with each other, while also providing information regarding services offered to the general public, which can serve to decrease stigma. It also improves the connection with community members – a vital part of community outreach.

Providers engage in education as a form of outreach. They coordinate and participate in joint trainings. Providers also engaged in education of fellow providers, such as emergency room and senior center staff, though the responsiveness among these providers varies. They offer community education as well.

It was noted that while there are many benefits to community outreach and education, once again, budgeting is a factor. Without the funding to do so, it can be difficult for providers to follow through on these initiatives.

Participants advocated for greater collaboration between multiple agencies that provide services such as transportation to and from mental health service appointments, as well as food, shelter and childcare for people who seek mental health services. Without these services, people might not avail themselves for follow-up appointments. This warrants more collaboration between case managers and support coordinators.

Both service providers and insurers offered policy recommendations that called for moving away from a siloed to a more integrated, coordinated, and centralized organization of mental health services. Focus group participants suggested that more centralized approaches to providing mental health services could potentially alleviate barriers to care resulting from geographical disparities. To provide the best mental health care to those in need, it is important for all providers involved in an individual's treatment to communicate and coordinate services. Focus group participants all noted that this is best practice. Indeed, the Department of Health's values identify "collaboration" and "communication" between and among service providers and insurers as their top two values (Pennsylvania Department of Human Services, 2020). Collaboration and communication are essential to effective care coordination between levels of care and for clients who receive services from more than one provider. Unfortunately, though, this coordination often falls to the bottom of many provider priorities due to low levels of reimbursement for the time spent coordinating care. As such, the first policy recommendation related to interagency collaboration suggests that the General Assembly create a funding stream that can be accessed by mental health provider agencies and earmarked for collaboration. This would alleviate some of the productivity burden and could require and incentivize collaboration in a sustainable way. The second policy recommendation involves more collaboration between governmental operations and the "boots on the ground." It is suggested that the Department of Human Services and/or the General Assembly convene

statewide work groups with individual county and provider representatives to discuss how human service policies and regulations will impact those involved in every area of Pennsylvania.

(8) Bridge the Gaps in the Levels of Care

Service providers also identified several solutions to bridge gaps in the levels of care. Insurers and service providers generally agreed that regular training should be part of the annual training practices for family physicians, hospital staff, and home health workers. Next, adding additional funding for in-patient psychiatric hospitals to fund one-to-one interventions with the most seriously ill patients. This additional staffing will address the hospital's needs for safety when being asked to admit people exhibiting extreme psychiatric distress. Also, hospitals would benefit from additional training about how to work with people who are aggressive. Expanding outpatient mental health services in rural schools was another solution offered by the focus group participants. This will increase the availability of services and address problems in a lower level of care where it is more cost effective. As one service provider noted:

I wish legislators and funders would realize that it is cheaper to provide people with the treatment they require early on. It works better than trying to clean up a mess. It's cheaper to treat someone and teach them how to manage their mental health problems than it is to try to wait until they've got behaviors that are unmanageable.

Additionally, service providers feel the Adult Protective Services (APS) Law (Act 70 of 2010) and Mental Health Procedures Act (Act 143 of 1976) should be updated by "Revisiting the determinants of what is appropriate for 302, what is appropriate for the older Adult Protective Services Act." They suggested updating the Mental Health Care Procedures Act and Adult Protective Services Act to reflect dementia as a mental health condition that is included in the Mental Health Care Procedures Act Section 302 process. Furthermore, there is a reported need to increase access to outpatient and emergency psychiatry for children and older adults who cannot be admitted to a psychiatric facility but whose care needs require immediate psychiatric intervention. Providers and insurers reported that many primary care physicians refuse to manage acute psychiatric distress with medications preferring to have a psychiatric

consult which might take three months on an outpatient basis. Also, more funding for autism services is needed because, according to providers, "... the merging of autism services with intellectual disabilities created a problem because there was no funding or anything attached to the autism services." Finally, expanding mental health and substance abuse peer support programs was recommended as a helpful solution to both nursing homes and hospitals.

(9) Address Budgetary Concerns for Mental Health Prevention and Service Delivery

While funding was often discussed as a problem to overcome, insurers and service providers discussed some creative solutions they have used to address budgetary concerns. Some are short-term fixes, while others cover more long-term solutions. They also had some suggestions for what could be done with increased funding. Insurers spoke about helping agencies with funding during the pandemic, with the increased use of telehealth, as well as helping agencies get funding for non-emergent transportation. The usefulness of building programs around needs, but within an existing structure, was also discussed. Telehealth was noted by service providers as helping with funding, as it has led to a decrease in no-show rates.

Grants are a prominent source of funding for many agencies. Service providers use grant funding to start evidence-based treatment practices in their area. These grants will cover members beginning the service and provide agencies with time to transition to the client's insurance. In some counties, they are even able to cover the costs until insurance can. Another grant mentioned by multiple providers is the System of Care grant, which has been used to increase programs in schools as well as provide education around suicidality. Some service providers work with the United Way and other community systems to meet clients' needs.

Insurers and service providers gave two suggestions for funding that they would like to see enacted. First, many service providers noted the importance of preventative care, as it is a cheaper, long-term solution. Insurers and service providers also noted the importance of communication with service providers hoping for a seat at the table where funding decisions are made. According to several

participant perspectives, more voices involved in making funding decisions yields systems that are better prepared to address client needs.

(10) Ease State Regulations around Licensure, Consumer Rights, and Age-specific Requirements

Insurers and service providers discussed the difficulty that exists adhering to some rigid state regulations and associated red tape with licensure, consumer rights and age-specific requirements. During a focus group, one insurer discussed the necessity of building programs that do not fit cleanly into one specific licensing box. Service providers, too, spoke about building programs and finding alternate funding to work outside the numerous steps required by state regulations. By creating these programs, service providers are able to meet the needs of the communities they serve. The drawback, however, is sustainable funding. If these programs lose funding sources, they cease to exist and thus leave participants without vital services. Similarly, state regulations can place clinicians in difficult positions when it comes to treating consumers. Service providers also noted that these regulations can drive clinicians away from the public sector and into private practice, where they are able to reduce the amount of government regulation that accompanies treatment.

Licensure and Insurance

The lack of uniformity between public and private insurance contributes to budgetary concerns related to access and service supply and delivery. Addressing this disparity between public and private insurance and associated challenges could be achieved through legislative means, potentially by establishing a single funding stream. Increasing service provider reimbursement rates to maintain employment and service provision for clients and ensuring service providers receive full reimbursement for provided mental health treatments were offered as solutions. Loosening insurance regulations and requirements to make the service approval process easier for service providers and speeding up the process of clients obtaining services was another specific recommendation from service providers.

Whether or not a service is billable greatly impacts both the funding an agency receives as well as the services it can provide. This was a reoccurring theme for both insurers and service providers. Both noted the very busy schedules that practitioners maintain. Service providers also noted that documentation, data entry, and collaboration are often not considered billable activities. This includes tasks like helping families seek insurance coverage. The most commonly mentioned non-billable service, though, was transportation. Insurance and service providers alike noted that transportation, a service that was previously billable, has not been for several years. This has impacted services in a significant way, as case managers cannot bill for transportation, resulting in more missed appointments. Improving rural transportation options by increasing public transportation options or expanding MATP whereby agencies no longer need to transport clients might be one of the ways legislators could address this perennial service access and delivery challenge. Lacking that, another possible solution would be to create a funding stream for transportation provided by agencies separate from MATP.

Additionally, increasing flexibility in how funds are spent by decreasing silos of funding was proposed as a potential solution to the existing funding issues, allowing agencies to decrease waitlists for popular programs. Several service providers advocated for universal healthcare for all and eliminating co-pays or adjusting them to accommodate client and family income.

Consumer Rights

Many providers stressed that one should not be legally forced to seek mental health care unless certain criteria are met. This can be frustrating for service providers. They explained that simply because mental illness and those experiencing episodes of mental illness make others uncomfortable, and oftentimes people will call local authorities because someone is acting strange, this is not a sufficient basis for enforcing treatment. One service provider said that “People have the right to be as crazy as they want to be.” Participants explained that until a law has been broken, no one can force a person with a mental illness into treatment.

When discussing these issues of consumer rights and self-determination, the factor of safety was mentioned and that “there are times when it’s a danger to everybody else.” Many of the participants agreed that policy change is warranted regarding individuals with mental illness who are refusing to seek care, and that it should not take a crime for them to be admitted. (See the section on HIPAA above).

Age-related Policy Issues

The young age of children has both a positive and negative effect on ability to receive mental health services. Participants expressed that it is typically much easier for children to enter care when their parents request services. However, this changes once a child turns age 14, which was reported to present a policy-rooted barrier to seeking care.

One's age is also an important factor for members of the elderly population seeking and receiving care, although this is not stipulated in any legislation or regulations. Participants explained that the age criteria for defining a situation as a crisis is under age 60, and when a crisis call is received for someone over age 60, it is no longer considered a crisis. Rather, it is considered “dementia-related,” and therefore crisis agencies are not able to administer care. Focus group participants elaborated that even if the client is considered healthy and has no prior history of dementia-related symptoms, as soon as they turn 60 years old, they are referred to aging services. Extending acute care treatment potentially delays rehabilitation and restoration of daily functions, and it is also more expensive. The care needs for people in nursing homes are increasing and frequently include treating people with serious health and mental health needs. It is more cost effective to work toward prevention and mitigation in the nursing home rather than costly services in a hospital setting. This could mean increased funding for outpatient mental health services in nursing homes.

These age-related policy implementation issues were argued as impediments to timely, appropriate, and effective service provision. Focus group participants encouraged legislators and other involved parties to revisit and reconsider these criteria.

Comprehensive Legislative Proposal for Rural Areas

Many individual proposals have been offered to address each thematic area identified by research participants. There is an additional alternative that could address these needs in a more comprehensive fashion. A package of legislation encompassing all of the thematic areas identified may be the most straightforward option. This legislative package would target the mental health needs of Pennsylvanians in a cohesive way, rather than attempting a piecemeal approach.

REFERENCES

- Aguiñaga, S., Ehlers, D. K., Salerno, E. A., Fanning, J., Motl, R. W., & McAuley, E. (2018). Home-based physical activity program improves depression and anxiety in older adults. *Journal of physical activity and health, 15*(9), 692-696.
- Bennett, K., Courtney, D., Duda, S., Henderson, J., & Szatmari, P. (2018). An appraisal of the trustworthiness of practice guidelines for depression and anxiety in children and youth. *Depression and anxiety, 35*(6), 530-540.
- Blegen, E. A. (2016). Epidemiology of major and minor depression in rural elderly adults. *International Journal of Health, Wellness and Society, 6*(1), 75-88.
- Bolin J. N., Bellamy G. R., Ferdinand A. O., Vuong, A. M., Kash, B. A., Schulze, A., and Helduser, J. W. (2015). Rural healthy people 2020: New decade, same challenges. *Rural Health, 31*, 326–333.
- Burla, L., Knierim, B., Barth, J., Liewald, K., Duetz, M., & Abel, T. (2008). From text to codings: Intercoder reliability assessment in qualitative content analysis. *Nursing Research, 57*(2), 112-118.
- Campbell, J., Quincy, C., Osserman, J., & Pedersen, O. (2013). Coding in-depth semistructured interviews: Problems of unitization and intercoder reliability and agreement. *Sociological Methods and Research, 42*(3), 294-320.
- Center for Rural Pennsylvania. (n.d.). *Demographic Quick Facts*. Center for Rural Pennsylvania. Retrieved from https://www.rural.palegislature.us/demographics_about_rural_pa.html.
- The Centers for Medicare and Medicaid Services (2020). COVID-19 Emergency Declaration Blanket Waivers for Health Care Providers. Retrieved from: <https://www.cms.gov/files/document/summary-covid-19-emergency-declaration-waivers.pdf>.
- Conner, K. O., McKinnon, S. A., Roker, R., Ward, C. J., & Brown, C. (2018). Mitigating the stigma of mental illness among older adults living with depression: The benefit of contact with a peer educator. *Stigma and Health, 3*(2), 93-101.
- Ellis, A. R., Konrad, T. R., Thomas, K. C., & Morrissey, J. P. (2009). County-level estimates of mental health professional supply in the United States. *Psychiatric Services, 60*(10), 1315-1322.

Elser, S., Upton, R., & Gann, C. (2020). *Small area income and poverty estimates: 2018*. Retrieved from <https://www.census.gov/content/dam/Census/library/publications/2020/demo/p30-06.pdf>.

Fontanella, C. A., Hiance-Steelesmith, D. L., Phillips, G. S., Bridge, J. A., Lester, N., Sweeney, H. A., & Campo, J. V. (2015). Widening rural-urban disparities in youth suicides, United States, 1996-2010. *JAMA pediatrics*, 169(5), 466-473.

Fortney, J., Rost, K., Zhang, M., & Warren, J. (1999). The impact of geographic accessibility on the intensity and quality of depression treatment. *Medical Care*, 884-893.

Garland, A. F., Haine-Schlagel, R., Brookman-Frazee, L., Baker-Ericzen, M., Trask, E., & Fawley-King, K. (2013). Improving community-based mental health care for children: Translating knowledge into action. *Administration and Policy in Mental Health and Mental Health Services Research*, 40(1), 6-22.

Hall, S. A., & Gjesfjeld, C. D. (2013). Clergy: A partner in rural mental health? *Journal of Rural Mental Health*, 37(1), 50–57. <https://doi.org/10.1037/rmh0000006>.

Hauenstein, E. J., Petterson, S., Merwin, E., Rovnyak, V., Heise, B., & Wagner, D. (2006). Rurality, gender, and mental health treatment. *Family & Community Health*, 29(3), 169-185.

Heun-Johnson, H., Machine, M., Goldman, D., & Seabury, S. (2017, February). The cost of mental illness: Pennsylvania facts and figures. USC Leonard D. Schaeffer Center for Health Policy & Economics. Retrieved from

Hogan, M. F. (2003). New Freedom Commission report: The president's New Freedom Commission: recommendations to transform mental health care in America. *Psychiatric Services*, 54(11), 1467-1474.

Joint State Government Commission. (2020). *Pennsylvania Mental Healthcare Workforce Shortage: Challenges and Solutions*. Harrisburg, PA: Retrieved from: http://jsg.legis.state.pa.us/resources/documents/ftp/publications/2020-06-04%20HR193_Mental%20Health%20Workforce.pdf.

Kessler, R. C., Chiu, W. T., Demler, O., & Walters, E. E. (2005). Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of general psychiatry*, 62(6), 617-627.

Kodet, J., Reese, R. J., Duncan, B. L., & Bohanske, R. T. (2019). Psychotherapy for depressed youth in poverty: Benchmarking outcomes in a public behavioral health setting. *Psychotherapy*, 56(2), 254-259.

National Advisory Committee on Rural Health and Human Services. (2017). *Understanding the Impact of Suicide in Rural America*. (Policy Briefs and Recommendations). Retrieved from <https://www.hrsa.gov/sites/default/files/hrsa/advisory-committees/rural/publications/2017-impact-of-suicide.pdf>.

Newkirk, V., & Damico, A. (2014). The Affordable Care Act and insurance coverage in rural areas. *The Kaiser Commission on Medicaid and the Uninsured*, May, 29.

Park, J., Erikson, C., Han, X., and Iyer, P. (2018). Are state telehealth policies associated with the use of telehealth services among underserved populations? *Health Affairs*, 37(12), 2060-2068.

Pennsylvania Department of Health (2018), Federally Designated Underserved Areas. Retrieved from

<https://www.health.pa.gov/topics/Documents/Health%20Planning/Designated%20Mental%20Health%20HPSAs%20List.pdf>.

Pennsylvania Department of Human Services (2020). Medical assistance and children's health insurance program managed care quality strategy. Retrieved from:

Pennsylvania Department of Health (n.d.). MHMD-1: Suicide Rate. Retrieved from: <https://www.health.pa.gov/topics/HealthStatistics/HealthyPeople/Documents/current/county/mhmd-1-suicide-rate.aspx>.

Probst, J. C., Laditka, S. B., Moore, C. G., Harun, N., Powell, M. P., & Baxley, E. G. (2006). Rural-urban differences in depression prevalence: implications for family medicine. *Family Medicine-Kansas City-*, 38(9), 653-660.

Qualter, P., Vanhalst, J., Harris, R., Van Roekel, E., Lodder, G., Bangee, M., . . . Verhagen, M. (2015). Loneliness across the life span. *Perspectives on Psychological Science*, 10, 250–264. <http://dx.doi.org/10.1177/1745691615568999>.

Reiss, F. (2013). Socioeconomic inequalities and mental health problems in children and adolescents: a systematic review. *Social science & medicine*, 90, 24-31.

Rost, K., Fortney, J., Fischer, E., & Smith, J. (2002). Use, quality, and outcomes of care for mental health: the rural perspective. *Medical Care Research and Review*, 59(3), 231-265.

Schuermans, J., & van Balkom, A. (2011). Late-life anxiety disorders: a review. *Current psychiatry reports*, 13(4), 267-273.

Sun, F. (2011). Community service use by older adults: The roles of sociocultural factors in rural–urban differences. *Journal of Social Service Research*, 37(2), 124-135.

Thomas, D., Macdowell, M., & Glasser, M. (2012). Rural mental health workforce needs assessment-a national survey. *Rural & Remote Health*, 12(4).

Thomas, K. C., Ellis, A. R., Konrad, T. R., Holzer, C. E., & Morrissey, J. P. (2009). County-level estimates of mental health professional shortage in the United States. *Psychiatric Services*, 60(10), 1323-1328.

U.S. Census Bureau. (2018). *2014-2018 American Community Survey 5-year Public Use Microdata Samples* [SAS Data file]. Retrieved from <https://data.census.gov/cedsci/table?g=0400000US42&y=2018&d=ACS%205-Year%20Estimates%20Data%20Profiles&tid=ACSDP5Y2018.DP02>.

Wang, P. S., Lane, M., Olfson, M., Pincus, H. A., Wells, K. B., & Kessler, R. C. (2005). Twelve-month use of mental health services in the United States: results from the National Comorbidity Survey Replication. *Archives of general psychiatry*, 62(6), 629-640.

Weaver, A., & Himle, J. A. (2017). Cognitive–behavioral therapy for depression and anxiety disorders in rural settings: A review of the literature. *Journal of Rural Mental Health*, 41(3), 189-221.

Wilson-Lopez, A., Angela Minichiello, P. E., & Green, T. (2019, July). An Inquiry Into the Use of Intercoder Reliability Measures in Qualitative Re-search. In *ASEE Annual Conference proceedings*. ASEE. Retrieved from <https://par.nsf.gov/servlets/purl/10089476>.

Acknowledgements

The successful completion of this extensive research project was made possible thanks to the hard and dedicated work of the entire research team. Specifically, we would like to acknowledge the labor of our interns/research assistants who helped with recruitment efforts, data collection and analysis, and preparation of the final report: Jillian Horton, Julia Hansen, Barbe Fogarty, Christina Kulp, Sara Garman, Frederick Nyamekeh, Hannah Ackerman, Hailey Follett, and Sarah Rozany. Additionally, the resources and support provided by the Kutztown University's Social Work Department and the KU Office of Grants and Sponsored Projects must be acknowledged in the success of this study. We also extend our gratitude to all the participants of the study who shared their perspectives and experiences either providing or using mental health services.

APPENDIX 1: PAYS RESULTS

2017 Data

Descriptive statistics. Table 1-1 shows that the subsample consists of three rural counties (Schuylkill, Clinton, and Venango) and one urban county (Dauphin). The subsample consists of 7,009 youth in three rural counties and 7,458 youth in one urban county.

Table 1-1: Descriptive Statistics PAYS Subsample 2017

	Frequency	Valid %
Rural (Three counties)	7009	48.4
Urban (One county)	7458	51.6
Total	14467	100.0

Table 2-1 shows descriptive statistics of the five key variables related to youth mental health. Five questionnaires scaled as NO!=1, no=2, yes=3, and YES!=4.

Table 2-1: PAYS Subsample Mental Health Questionnaire 2017

		N	Mean	S.D
I do the opposite of what people tell me, just to make them mad.	Rural	6490	1.49	0.793
	Urban	6704	1.51	0.800
In the past 12 months have you felt depressed or sad MOST days, even if you feel OK sometimes?	Rural	6489	2.17	1.055
	Urban	6689	2.15	1.055
Sometimes I think that life is not worth it.	Rural	6464	1.82	0.997
	Urban	6666	1.80	0.987
At times I think I am no good at all.	Rural	6465	2.06	1.045
	Urban	6677	2.04	1.039

All in all, I am inclined to think that I am a failure.	Rural	6428	1.80	0.955
	Urban	6608	1.75	0.932

T-test of Subsample. Table 3-1 explains the comparison between the subsample of youth mental health in rural and urban areas. There is no statistically significant difference in regards to self-harm, past year depression, depression about life, and depression about self. There is a significant difference in thoughts of being a failure ($t=3.046$, $p=0.002$) between rural and urban youth, and mean difference shows 0.050.

Table 3-1: PAYS Subsample T-Test 2017

	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
I do the opposite of what people tell me, just to make them mad.	-1.373	13192	0.170	-0.019	0.014
In the past 12 months have you felt depressed or sad MOST days, even if you feel OK sometimes?	1.330	13176	0.183	0.024	0.018
Sometimes I think that life is not worth it.	1.431	13128	0.152	0.025	0.017
At times I think I am no good at all.	1.056	13140	0.291	0.019	0.018
All in all, I am inclined to think that I am a failure.	3.046	13034	0.002	0.050	0.017

2019 Data

Descriptive statistics. Table 1-2 shows that the subsample consists of three rural counties (Schuylkill, Clinton, and Venango) and one urban county (Dauphin). The subsample consists of 7,579 youth in three rural counties and 7,273 youth in one urban county.

Table 1-2: Descriptive Statistics PAYS Subsample 2019

	Frequency	Valid %
Rural (Three counties)	7579	51.0
Urban (One county)	7273	49.0
Total	14852	100.0

Table 2-2 shows descriptive statistics of the five key variables asking youth about their mental health. Five questionnaires scaled as NO!=1, no=2, yes=3, and YES!=4.

Table 2-2: PAYS Subsample Mental Health Questionnaire 2019

		N	Mean	S.D
I do the opposite of what people tell me, just to make them mad.	Rural	6993	1.51	0.804
	Urban	6221	1.51	0.797
In the past 12 months have you felt depressed or sad MOST days, even if you feel OK sometimes?	Rural	6988	2.21	1.091
	Urban	6211	2.19	1.089
Sometimes I think that life is not worth it.	Rural	6966	1.83	1.008
	Urban	6199	1.87	1.024
At times I think I am no good at all.	Rural	6972	2.09	1.064
	Urban	6194	2.11	1.079
All in all, I am inclined to think that I am a failure.	Rural	6938	1.85	0.992
	Urban	6165	1.84	0.992

T-test of subsample. Table 3-2 explains the comparison between the subsample of youth mental health in rural and urban areas. There is no statistically significant difference between all variables in

2019 data in regard to self-harm, past year depression, depression about life, depression about self, and thoughts of self-failure.

Table 3-2: PAYS Subsample T-Test 2019

	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
I do the opposite of what people tell me, just to make them mad.	0.148	13212	0.882	0.002	0.014
In the past 12 months have you felt depressed or sad MOST days, even if you feel OK sometimes?	1.098	13197	0.272	0.021	0.019
Sometimes I think that life is not worth it.	-1.861	13163	0.063	-0.033	0.018
At times I think I am no good at all.	-0.609	13164	0.542	-0.011	0.019
All in all, I am inclined to think that I am a failure.	0.323	13101	0.747	0.006	0.017

APPENDIX 2: YOUTH QUESTIONNAIRE

*You are invited to answer this questionnaire as a parent/caregiver/guardian of minors under 18. But we have some demographic questions for you to answer first.

* Please answer the following questions as if it were before the coronavirus pandemic. We have one question at the end asking about changes you have experienced as a result of the coronavirus pandemic. Thank you.

Demographics

1. What county do you live in? _____

2. How old are you? _____ years old

3. What is your gender?

Male Female Prefer not to answer Other _____

4. What is your current marital status?

Married
married Living with partner Widowed Divorced Separated Never

5. What is your racial/ethnic group?

White African American or Black

Hispanic Indigenous People, North American or Inuit

Kanaka Maoli, or Pacific
Islander Asian

Multi-racial Other _____

6. What is the highest level of education you completed?

Less than high school

High school completed

Post high school, business or trade school

Some college

College completed

Post graduate school

7. Are you currently,

Working full-time

Working part-time

Unemployed

Retired

Disabled

8. Including yourself, how many people live in your household? _____

9. How much was your yearly household income for the past year?

Less than \$25,000

\$25,000 but less than \$50,000

\$50,000 but less than \$75,000

\$75,000 but less than \$100,000

\$100,000 or more

Prefer not to answer

10. What is your religious affiliation?

Protestant

Catholic

Jewish

Buddhist

Hindu

Islamic

Other _____

Prefer not to answer

None

11. How many people do you have near you that you can readily count on for help in times of difficulty, such as watching over children or pets, giving rides to the hospital or store, or helping when you are sick? Please choose your answer.

0	1	2	3	4	5	6	7	8	9	10 or more
---	---	---	---	---	---	---	---	---	---	------------

12. Do you have Internet access in your household? Yes ð No

13. Have you used the Internet in the past 30 days?
 ð Yes ð No ð Don't know/Not sure

Health / Mental Health Services Use

14. Are your children covered by any kind of **health insurance** including Medicaid?

 ð Yes ð No ð Don't know/Not sure

15. If you **do not** live with your child (children), in what county does your child (children) live? (You can skip this question if you live with your child (children).)

16. About how long has it been since your child last visited a doctor for a routine checkup? A routine checkup is a general physical exam, not an exam for a specific injury, illness, or condition.

Anytime less than 12 months ago	1 year but less than 2 years ago
2 years but less than 5 years ago	5 or more years ago
Don't know/Not sure	Never

17. Have any of your children **ever been diagnosed** with a mental health disorder by a health professional?

 ð Yes ð No (**Please go to Question 20.**) ð Don't know (**Please go to Question 20.**)

18. If yes, what is the age of the child (children)? Circle the **age** of each child.

0	1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18	

19. Are your child(ren) in public school or private school? Public Private both Both

20. Do any of your children have a **history of mental health treatment** including but not limited to taking medications for anxiety and/or depression etc., and/or attending therapy or going to counseling?

Yes No (**Please go to Question 23.**) Don't know/Not sure (**Please go to Question 23.**)

21. If the child's age is under 5, has the child received Early Intervention mental health services?

Yes No Not applicable

22. If the child's age is 5 or older, has the child received mental health services at school?

Yes No Not applicable

23. In the past 12 months, have any of your children **seen a mental health professional**?

Yes No (**Please go to Question 25.**)

24. Were you satisfied with the mental health services?

Yes No

25. Was there a time in the past 12 months when at least one of your children needed mental health care services such as medications and/or counseling but could not/did not get it?

Yes (**Please go to Question 26.**)

No, we sought mental health care as needed. (**Please go to Question 30.**)

No, my children did not need any mental health care. (**Please go to Question 33.**)

26. What was the reason that your child needed mental health care?

Emotional issues

Substance use

Both

27. How many miles would you have to travel one way to get services? _____ miles

28. How much time would you spend travelling (one way) to an appointment? ____ hours ____ mins

29. What was the main reason that you could not/did not get mental health care? Please choose **all that apply**.

Lack of providers in my area

I did not know where to go for help

Insurance (underinsured, uninsured)

- ð Travel distance was too far
- ð It would take too much time roundtrip
- ð Lack of transportation
- ð Worried someone I know will find out (anonymity issues)
- ð Could not find time to meet with a mental health provider because of work/school schedules
- ð Concern about the social stigma attached to receiving mental health care
- ð I believe mental health is a personal issue
- ð Other (Please explain: _____)

(Please go to Question 33.)

30. What was the reason that your child needed mental health care?

- ð Emotional issues
- ð Substance use
- ð Both

31. How many miles did you have to travel one way? _____ miles

32. How much time did you spend travelling (one way) to this appointment? ____ hours ____ minutes

33. When thinking about the rural community you live in, how important each of the following factors is in improving access to mental health services? Circle your answer.

Increasing the number of mental health service providers	A great deal	Somewhat	Not at all	Not sure/ Don't know
Expansion of Medicaid	A great deal	Somewhat	Not at all	Not sure/ Don't know
Vouchers and discounted service rates	A great deal	Somewhat	Not at all	Not sure/ Don't know
Expanded use of telehealth technology	A great deal	Somewhat	Not at all	Not sure/ Don't know

Transportation services	A great deal	Somewhat	Not at all	Not sure/ Don't know
Expanded evening and weekend hours	A great deal	Somewhat	Not at all	Not sure/ Don't know
Discreet access to services (e.g., in-home visits)	A great deal	Somewhat	Not at all	Not sure/ Don't know
Mental health service providers practicing in hospitals	A great deal	Somewhat	Not at all	Not sure/ Don't know
Dual-diagnosis care facilities (e.g., mental health and substance abuse)	A great deal	Somewhat	Not at all	Not sure/ Don't know
More options for individuals with serious mental illnesses (e.g., group homes)	A great deal	Somewhat	Not at all	Not sure/ Don't know
Bilingual (English/Spanish) mental health service services	A great deal	Somewhat	Not at all	Not sure/ Don't know
Public education campaign about where to access mental health services	A great deal	Somewhat	Not at all	Not sure/ Don't know
Public education campaign about mental health awareness in general	A great deal	Somewhat	Not at all	Not sure/ Don't know
Mental health promotion programs in schools	A great deal	Somewhat	Not at all	Not sure/ Don't know
Mental health help from faith-based organizations such as churches	A great deal	Somewhat	Not at all	Not sure/ Don't know
Community-based population health promotion programs (to teach life skills, coping, etc.)	A great deal	Somewhat	Not at all	Not sure/ Don't know

34. How embarrassed would you be if your friends knew your child were getting professional help for an emotional problem?

Not at all embarrassed Not very embarrassed

Somewhat embarrassed Very embarrassed

35. People differ a lot in their feelings about seeking professional help for emotional problems. If your child had emotional or mental health problems, would you go for professional help?

Definitely not go Probably not go Probably go Definitely go

36. Please indicate whether you agree or disagree with the following statements.

I know where to go to receive mental health services for my child. Agree Disagree Not sure

I know how to get the number of a suicide prevention hotline. Agree Disagree Not sure

I know where to get useful information about mental illness. Agree Disagree Not sure

I know how to contact a mental health clinic in my area. Agree Disagree Not sure

37. Please share with us how, if at all, has coronavirus pandemic changed your family's access to mental health services.

THIS IS THE END OF THE QUESTIONNAIRE.

THANK YOU VERY MUCH FOR YOUR COOPERATION!

APPENDIX 3: OLDER ADULT QUESTIONNAIRE

* Please answer the following questions as if it were before the coronavirus pandemic. We have one question at the end asking about the changes you have experienced as a result of the coronavirus pandemic. Thank you!

Demographics

1. What county do you live in? _____

2. How old are you? _____ years old

3. What is your gender?

Male Female Prefer not to answer Other _____

4. What is your current marital status?

Married Living with partner Widowed
 Divorced Separated Never married

5. What is your racial/ethnic group?

White African American or Black
 Hispanic Indigenous People, North American or Inuit
 Kanaka Maoli, or Pacific Islander Asian
 Multi-racial Other _____

6. What is the highest level of education you completed?

Less than high school High school completed
Post high school, business or trade school Some college

College completed

Post graduate school

7. Are you currently,

Working full-time

Working part-time

Unemployed

Retired

Disabled

8. Including yourself, how many people live in your household? _____

9. How much was your yearly household income for the past year?

Less than \$25,000

\$25,000 but less than \$50,000

\$50,000 but less than \$75,000

\$75,000 but less than \$100,000

\$100,000 or more

Prefer not to answer

10. What is your religious affiliation?

Protestant

Catholic

Jewish

Buddhist

Hindu

Islamic

Other _____

Prefer not to answer

None

11. How many people do you have near you that you can readily count on for help in times of difficulty, such as watching over children or pets, giving rides to the hospital or store, or helping when you are sick? Please choose your answer.

0	1	2	3	4	5	6	7	8	9	10 or more
---	---	---	---	---	---	---	---	---	---	------------

12. Are you familiar with community senior services, such as senior centers, meals on wheels, PACE/PACenet?

Yes

No **(Please go to question 14.)**

13. Which services are you familiar with? Select all that apply.

Senior centers

Meals on wheels

PACE/PACenet

Other _____

14. Have you ever served on active duty in the United States Armed Forces, National Guard, or Reserves except for initial/basic training?

Yes

No

15. Do you have Internet access in your household?

Yes

No

16. Have you used the Internet in the past 30 days?

Yes

No

Don't know/Not sure

17. Please answer the following questions. (Please circle your answer.)

How much can you rely on family and relatives who do not live with you for help if you have a serious problem?	To a great extent	Somewhat	Very little	Not at all
--	-------------------	----------	-------------	------------

How much can you open up to family and relatives who do not live with you if you need to talk about your worries?	To a great extent	Somewhat	Very little	Not at all
How much can you rely on friends for help if you have a serious problem?	To a great extent	Somewhat	Very little	Not at all
How much can you open up to friends if you need to talk about your worries?	To a great extent	Somewhat	Very little	Not at all

18. Please answer the following questions. (Please circle your answer.)

How often do you talk on the phone or get together with family and relatives who do not live with you?	Often	Sometimes	Seldom	Never
How often do you talk on the phone or get together with friends?	Often	Sometimes	Seldom	Never

Health / Mental Health Services Use

19. Do you have any kind of **health insurance** including Medicare and Medicaid?

Yes No Don't know/Not sure

20. About how long has it been since you last visited a doctor for a routine checkup?

A routine checkup is a general physical exam, not an exam for a specific injury, illness, or condition.

Anytime less than 12 months ago 1 year but less than 2 years ago

2 years but less than 5 years ago 5 or more years ago
Don't know/Not sure Never

21. Have you **ever been diagnosed** with a mental health disorder by a health professional?

Yes No Don't know

22. Do you have **a history of mental health treatment** including but not limited to taking medications for anxiety and/or depression etc., and/or attending therapy or going to counseling?

Yes No

23. In the past 12 months, have you received mental health treatment? (If your answer was "No" in the previous question, please check "Not applicable".)

Yes No Not applicable

24. Was there a time in the past 12 months when you needed mental health care services such as medications and/or counseling but could not/did not get it?

Yes. **(Please go to question 25.)**

No, I received the treatment I sought. **(Please go to question 29.)**

No, I did not need any mental health care **(Please go to Question 32.)**

25. What type of care did you need?

Emotional issues

Substance use issues

Both

26. How many miles would you have to travel one way to get services? _____ miles

27. How much time would you spend travelling (one way) to an appointment? _____ hours _____ mins

28. What was the main reason that you could not/did not get mental health care? Please choose **all that apply**.

Lack of providers in my area

I did not know where to go for help

Insurance (underinsured, uninsured)

Travel distance was too far

It would take too much time roundtrip

- ð Lack of transportation
- ð Worried someone I know will find out (anonymity issues)
- ð Could not find time to meet with a mental health provider because of work/school schedules
- ð Concern about the social stigma attached to receiving mental health care
- ð I believe mental health is a personal issue
- ð Other (Please explain: _____)

(Please go to Question 32.)

29. What type of care did you receive?

- ð Emotional issues
- ð Substance use issues
- ð Both

30. How many miles did you have to travel one way? _____ miles

31. How much time did you spend travelling (one way) to this appointment? ____ hours ____ minutes

32. When thinking about the rural community you live in, how important each of the following factors is in improving access to mental health services? Circle your answer.

Increasing the number of mental health service providers	A great deal	Somewhat	Not at all	Not sure/ Don't know
Expansion of Medicaid	A great deal	Somewhat	Not at all	Not sure/ Don't know
Vouchers and discounted service rates	A great deal	Somewhat	Not at all	Not sure/ Don't know
Expanded use of telehealth technology	A great deal	Somewhat	Not at all	Not sure/ Don't know
Transportation services	A great deal	Somewhat	Not at all	Not sure/ Don't know
Expanded evening and weekend hours	A great deal	Somewhat	Not at all	Not sure/ Don't know

Discreet access to services (e.g., in-home visits)	A great deal	Somewhat	Not at all	Not sure/ Don't know
Mental health service providers practicing in hospitals	A great deal	Somewhat	Not at all	Not sure/ Don't know
Dual-diagnosis care facilities (e.g., mental health and substance abuse)	A great deal	Somewhat	Not at all	Not sure/ Don't know
More options for individuals with serious mental illnesses (e.g., group homes)	A great deal	Somewhat	Not at all	Not sure/ Don't know
Bilingual (English/Spanish) mental health service services	A great deal	Somewhat	Not at all	Not sure/ Don't know
Public education campaign about where to access mental health services	A great deal	Somewhat	Not at all	Not sure/ Don't know
Public education campaign about mental health awareness in general	A great deal	Somewhat	Not at all	Not sure/ Don't know
Mental health promotion programs in schools	A great deal	Somewhat	Not at all	Not sure/ Don't know
Mental health help from faith-based organizations such as churches	A great deal	Somewhat	Not at all	Not sure/ Don't know
Community-based population health promotion programs (to teach life skills, coping, etc.)	A great deal	Somewhat	Not at all	Not sure/ Don't know

33. How embarrassed would you be if your friends knew that you were getting professional help for an emotional problem?

Not at all embarrassed

Not very embarrassed

Somewhat embarrassed

Very embarrassed

34. People differ a lot in their feelings about seeking professional help for emotional problems. If you had emotional or mental health problems, would you go for professional help?

Definitely not go Probably not go Probably go Definitely go

35. Please indicate whether you agree or disagree with the following statements.

I know where to go to receive mental health services. Agree Disagree Not sure

I know how to get the number of a suicide prevention hotline. Agree Disagree Not sure

I know where to get useful information about mental illness. Agree Disagree Not sure

I know how to contact a mental health clinic in my area. Agree Disagree Not sure

36. Please share with us how, if at all, has coronavirus pandemic changed your access to mental health services.

THIS IS THE END OF THE QUESTIONNAIRE.

THANK YOU VERY MUCH FOR YOUR COOPERATION!

APPENDIX 4: FOCUS GROUP GUIDE

Health Insurance Representatives and Service Providers

******Let's start by introducing yourself and your role at your agency but not the agency name***

Thank you for introducing yourselves and I want to remind you that the population we are asking questions about are youth age 18 years of age and younger and adults 65 and older. You will hear me mention these age ranges frequently during our talk today.

Focus Group Questions:

1. When thinking about the population you serve (youth or people over the age of 65), what are the specific challenges for mental health care **access** in the communities you serve?
2. When thinking about youth 18 years of age or younger and people over the age of 65, what are the specific challenges for mental health care **service delivery** in the communities you serve?
 - a. How have you attempted to address these challenges?
 - b. Describe your success with addressing challenges.
 - c. What is the most important challenge facing your ability to provide service access and delivery to consumers?
 - d. What would make it easier for an agency/health insurer to address challenges?
3. When thinking about the population you serve (youth or people over the age of 65), in your experience, what are some of the reason's consumers don't access services?
 - a. How has your agency/insurance company dealt with this?
 - b. What progress have you made?
 - c. How would you know you have been successful?
 - d. How are challenges different for urban versus rural clients?
4. Imagine you have a legislator sitting in front of you who will write a law to eliminate one challenge related to health care service delivery and access, what would it be and why?
 - a. What would it take to eliminate this challenge?
 - b. What effect would eliminating this challenge have on your agency/insurance company and consumers?
5. How has COVID-19 affected access to mental health services in rural areas?
6. When thinking about the population you serve (youth or people over the age of 65), where there any questions you were expecting that you were not asked?

APPENDIX 5: INTERVIEW GUIDE

DEMOGRAPHIC INFORMATION

1. What county do you live in?

2. How old are you?

3. What is your gender?

Male Female Prefer not to answer Other _____

4. What is your current marital status?

Married Living with partner Widowed Divorced Separated
 Never married

5. What is your racial/ethnic group?

White African American or Black
 Hispanic Indigenous People, North American or Inuit
 Kanaka Maoli, or Pacific Islander Asian
 Multi-racial Other _____

6. What is the highest level of education you completed?

- Less than high school - High school completed
- Post high school, business or trade school - Some college
- College completed - Post graduate school

7. Are you currently,

... Working full-time Working part-time Unemployed
Retired Disabled

8. How much was your yearly household income for the past year?

Less than \$25,000 \$25,000 but less than \$50,000
\$50,000 but less than \$75,000 \$75,000 but less than \$100,000
\$100,000 or more
Prefer not to answer

1. When you hear the term “mental health,” what comes to mind?

2. To what extent are mental health and mental illness a concern in your community? Can you talk more about these concerns?
3. (Skip, if no) What are the reasons people in your community are experiencing these mental health challenges? Can you explain?
4. What do people do when they have mental health concerns? Can you give some examples?
 - a. How do people address their mental health concerns in your community?
 - b. Where do people go to get help – if they need someone to talk to about how they are feeling? [if needed, probe:] (For example, schools, religious institutions, health centers, hospitals, mental health practices, community orgs)
 - c. What kind of help do they get?
5. What do you know about the process of seeking and accessing services?
6. What role do family/primary care physicians play in providing mental health services?
 - a. What is your experience using your family/primary care physician to address mental health concerns?
7. What are the reasons some people do not get help for mental health concerns?
8. [If not already addressed:]
 - a. How do people pay for mental health services?
 - b. What do people do if they cannot pay out of pocket?
 - c. What role does your insurance play in obtaining mental health services?
 - d. Do you have Medicaid? Medicare? Or private insurance (marketplace or employer-based)?
9. To what degree does stigma, or embarrassment about mental illness, affect the willingness of people in your community to access services? Can you give some examples?
 - a. [If stigma exists] How do you know stigma exists?
 - b. What do you think causes stigma?
 - c. What is the effect of stigma on people with mental illness?
10. How easy is it for someone in your community to get help for mental health issues if they need it? How hard is it for someone in your community to get help for mental health issues if they need it?
 - a. What makes it easier for people to access these services? What helps them to seek care?
 - b. What makes it difficult? (For example, are there enough doctors/counselors available? Language? Do people know where to go?)
 - c. Does the experience of getting help differ by the kind of mental health concern a person faces?
 - d. Are there some populations or social groups that have a harder time finding or seeking help? (e.g., older adult, LGBTQ, etc.)
11. We want to make sure to talk about the strengths of the community – not just problems. How does your community support the mental health of those who live there? Please explain.
 - a. What are the resources, if any? (e.g., social/family connections, parks and playgrounds, certain community organizations, etc.)

12. If you feel comfortable, can you share some of your own experiences seeking mental health services?
 - a. What made you seek help?
 - b. Where did you go?
 - c. What happened as a result of your seeking care? Do you feel the services were helpful?
 - d. [If needed] Have you/your child ever received mental health services through your primary care provider? If so, what was that experience like?
 - e. Considering your story and when the problem began, where do you think the system missed the boat?
 - f. What do you wish you could do over if you had the opportunity?
 - g. Imagine somebody you know has a family member with a similar story and asked you for help; what would you tell them to do?
13. [If not already discussed] If you/your child have experienced mental health challenges but haven't looked for help, why is that?
14. If you had a legislator sitting in front of you, what would you want to tell them?
15. Imagine you had a magic wand and could change anything, what would it be?
16. Are there any questions you wished or thought I would ask but I did not?
What type of services, experiences about waiting lists, insurance.

APPENDIX 6: DEMOGRAPHIC CHARACTERISTICS OF OLDER ADULTS

Demographic Characteristics of Older Adults with Urban/Rural Comparison (weighted) based on BRFSS data.

	Urban (%) (n=1,496,843)	Rural (%) (n=671,504)
Sex		
Male	42.2	45.1
Female	57.8	54.7
	($\chi^2=4784.1$, $df=2$, $p<.001$)	
Race		
Non-Hispanic White	85.6	94.0
	($\chi^2=42,741.2$, $df=5$, $p<.001$)	
Education		
≤ Highschool graduate	56.6	65.9
> High school graduate	43.4	34.1
	($\chi^2=31,892.2$, $df=4$, $p<.001$)	
Marital status		
Married	56.2	55.4
	($\chi^2=13,668.6$, $df=5$, $p<.001$)	
Income		
Less than \$15K	8.8	10.7
\$15K to less than \$25K	23.0	30.0
\$25K to less than \$35K	14.4	16.3
\$35K to less than \$50K	18.4	15.5
\$50K or more	35.5	27.4
	($\chi^2=19,506.2$, $df=4$, $p<.001$)	

Center for Rural Pennsylvania Board of Directors

Senator Gene Yaw, *Chairman*

Representative Eddie Day Pashinski, *Vice Chairman*

Dr. Nancy Falvo, *Clarion University of Pennsylvania, Secretary*

Mr. Stephen M. Brame, *Governor's Representative, Treasurer*

Senator Katie J. Muth

Representative Dan Moul

Mr. Richard Esch, *University of Pittsburgh*

Dr. Timothy Kelsey, *Pennsylvania State University*

Ms. Shannon M. Munro, *Pennsylvania College of Technology*

Dr. Charles Patterson, *Shippensburg University of Pennsylvania*

Ms. Susan Snelick, *Northern Pennsylvania Regional College*

Mr. Darrin Youker, *Governor's Representative*

Center for Rural Pennsylvania Staff

Kyle C. Kopko, Ph.D., Executive Director

Jonathan Johnson, Senior Policy Analyst

Christine Caldara Piatos, Communications Manager

Pam Frontino, Program Manager for Grants

Linda Hinson, Office Manager

David W. Martin, Public Policy Data Analyst

625 Forster St., Room 902, Harrisburg, PA 17120
(717) 787-9555 www.rural.pa.gov