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Addressing the Rising Mental Health Needs of an Aging Population: Proceedings of a Workshop (2023)

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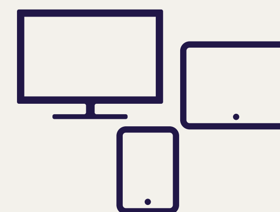

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Addressing the Rising Mental Health Needs of an Aging Population

Alexandra Andrada, Kat M. Anderson, and Sharyl J. Nass, *Rapporteurs*

Forum on Mental Health and Substance Use Disorders

Forum on Aging, Disability, and Independence

Board on Health Care Services

Health and Medicine Division

Proceedings of a Workshop

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Reviewers

This Proceedings of Addressing the Rising Mental Health Needs of an Aging Population was reviewed in draft form by individuals chosen for their diverse perspectives and technical expertise. The purpose of this independent review is to provide candid and critical comments that will assist the National Academies of Sciences, Engineering, and Medicine in making each published proceedings as sound as possible and to ensure that it meets the institutional standards for quality, objectivity, evidence, and responsiveness to the charge. The review comments and draft manuscript remain confidential to protect the integrity of the process.

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CHARLES F. REYNOLDS III, University of Pittsburgh School of Medicine
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VICKI FUNG, The Mongan Institute Health Policy Center

Although the reviewers listed above provided many constructive comments and suggestions, they were not asked to endorse the content of the proceedings nor did they see the final draft before its release. The review of this proceedings was overseen by **DAVID REUBEN,** University of California, Los Angeles. He was responsible for making certain that an independent examination of this proceedings was carried out in accordance with standards of the National Academies and that all review comments were carefully considered. Responsibility for the final content rests entirely with the rapporteurs and the National Academies.

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Acronyms and Abbreviations

AA	Alcoholics Anonymous
ACA	Affordable Care Act
ACO	accountable care organization
AI/AN	American Indian/Alaska Native
AOA	Administration on Aging
ASPE	Assistant Secretary for Planning and Evaluation
CCBHC	Certified Community Behavioral Health Clinics
CDC	Centers for Disease Control and Prevention
CMM	Comprehensive Medication Management
CMS	Centers for Medicare & Medicaid Services
DSM	Diagnostic and Statistical Manual of Mental Disorders
e-SMILE	System-Level Multidisciplinary Integration of population health and Equity
FUNSAT	Functional Skills Assessment and Training
HAPPY	Hospital And Public health interdisciPlinarY
HHS	U.S. Department of Health and Human Services
HIT	health information technology
HRSA	Health Resources and Services Administration

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ICD	International Classification of Diseases
IMPACT	Improving Mood—Promoting Access to Collaborative Treatment
IOM	Institute of Medicine
LCSW	Licensed Clinical Social Worker
LGBTQIA+	Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, and Asexual people
MCI	mild cognitive impairment
MRI	magnetic resonance imaging
NAMI	National Alliance on Mental Illness
NASEM	National Academies of Sciences, Engineering, and Medicine
NCOA	National Council on Aging
NIDA	National Institute on Drug Abuse
NIH	National Institutes of Health
NYAPRS	New York Association Psychiatric Rehabilitation Services
OAA	Older Americans Act
PCP	primary care provider/physician
PET	positron emission tomography
PGD	prolonged grief disorder
PRISM	Personal Reminder Information and Social Management
PTSD	posttraumatic stress disorder
RAPP	Release Aging People in Prison
REACH	Realizing Equity, Access, and Community Health
SAMHSA	Substance Abuse and Mental Health Services Administration
SASP	Senescence-Associated Secretory Phenotype
SBIRT	Screening, Brief Intervention, and Referral to Treatment
SUD	substance use disorder
UW	University of Washington
VA	Department of Veterans Affairs
WHO	World Health Organization

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OVERVIEW OF THE WORKSHOP

As the baby boom generation ages, the proportion of older adults aged 65 and older in the total U.S. population will rise from 16 to 23 percent over the next 40 years (U.S. Census Bureau, 2017) and the mental health of older adults is an issue that merits more attention. Mental health issues range from serious mental health disorders such as major depression and generalized anxiety disorder, to declines in cognitive functioning or dementia like Alzheimer's disease, and addictions and grief. Little action has been taken to prepare the existing systems to provide the needed mental health care services for the growing population of older adults. Additionally, a range of issues from stigma, to using technology, and the complexities of accessing care through Medicare and Medicaid, can make access to treatment difficult for older adults.

On May 15–16, 2023, the National Academies of Sciences, Engineering, and Medicine's (National Academies') Forum on Mental Health and Substance Use Disorders hosted a public workshop to highlight the current state of mental health care for older adults, outline the challenges faced by this group, and to explore potential long-term strategies and solutions for addressing unmet mental health needs. The workshop included nine sessions and featured subject matter experts who shared data and trends, individuals with lived experience, representatives from advocacy groups, and information about wellness and prevention, social determinants of health in aging populations, the impact of workforce shortages and gaps, the need for supportive healthy communities, and strategies to promote positive mental health. Rosalie Liccardo Pacula, Elizabeth Garrett Endowed Chair in health policy, economics,

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and law at the University of Southern California, and co-chair of the Forum, noted that prevention was a key strategy to be explored in this workshop.

This Proceedings of a Workshop summarizes the presentations and discussions. These proceedings reflect the observations made by individual workshop participants and should not be seen as representing a consensus of the workshop participants, the Forum, or the National Academies. The statement of task and agenda can be found in Appendixes A and B. The presentations (as PDF and video) have been archived online.[1]

LIVED EXPERIENCE

Michael Friedman, co-founder and honorary chair of the Geriatric Mental Health Alliance of New York and adjunct associate professor at the Columbia University School of Social Work, moderated the first panel to learn more about the experiences of individuals who are older adults living with mental illness and/or experiences caring for older family members living with mental illness, in addition to hearing personal narratives that have improved their quality of life.

Charita Brown, an author and representative for the National Alliance on Mental Illness (NAMI)—Maryland, has been living with bipolar disorder I for the past 40 years and described her disorder as "the classic highs and lows…you go higher and lower and higher and lower." Brown shares her story of misdiagnosis and mistreatment for schizophrenia in the 1980s, which she attributed to racial discrimination from medical professionals who believed that "Black people were not smart enough or creative enough" to have bipolar disease. Later in life, she met with a pastoral counselor who helped her to live well with bipolar disorder, which allowed her to finish her college degree, get married, and have children. These accomplishments demonstrated to her that she can live a good life with medicine, psychiatry, and family support. Based on these experiences, Brown has been able to help her mother, who was also diagnosed with bipolar disorder at the age of 70 (she is now 91 years old), navigate living with the illness. Brown noted that her faith has made it possible for her to recover and thrive.

Sandra Cohen, a retired government lawyer and adjunct law professor as well as a portrait painter, was a caregiver to her husband, who was diagnosed with Alzheimer's disease toward the end of his life. Cohen shared that it is possible to misread behaviors at the onset of Alzheimer's disease. Based on her experience, her husband displayed inexplicable bouts of rage prior to diagnosis. She noted that it was not a pathological personality change because once

[1] See https://www.nationalacademies.org/event/05-15-2023/addressing-the-rising-mental-health-needs-of-an-aging-population-a-workshop (accessed July 18, 2023).

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Alzheimer's disease was diagnosed, the rage stopped. His turbulent behavior may be understood as a terrified response to experiencing undiagnosed pathology, she said. Cohen said that "getting [a] diagnosis should not have been [as] difficult as it was." She also shared an anecdote about the primary care physician urging for marital counseling rather than providing a medical referral or examining his condition further.

Cohen shared that "learning the diagnosis was crucial, a pivotal point for both of us and for our marriage. Understanding immediately restored [her husband to] his calm, gentle nature, and made [her] a patient person." Cohen also reported that she had supportive family and friends, and the financial comfort of a long-term care policy. She continued to run a portrait studio one morning a week, while an outside companion came to be with her husband. Cohen said she found the caregiving years to be a time of special intimacy in the marriage, which she could view "as a privilege and not a burden."

Nicole Jorwic, chief of advocacy and campaigns at Caring Across Generations, is a caregiver for her brother, who lives with autism, and for her aging grandparents. She noted that people living with autism and other disabilities and aging adults each have specific issues that "meet in the middle and all of them impact family caregivers." She added that individuals living with intellectual and developmental disabilities are also an aging population.

In describing her grandparents, Jorwic explained that her grandmother, who is 90, was recently diagnosed with Parkinson's disease, and her grandfather is the primary caregiver. He is now experiencing his own health issues, which is not uncommon. Additionally, a great deal of caretaking from other family members occurs long distance, "and it does take a toll on the person who is providing the direct care day to day," which contributes to mental health struggles for her grandfather.

Jorwic concluded her remarks by stressing that family caregivers need more support. According to a 2023 AARP report, family caregivers provide $600 billion in unpaid care due to a lack of systems to support families (Reinhard et al., 2023), and the systems that are in place do not reflect what people want, she said. Polling data collected by Caring Across Generations showed that both 95 percent of adults living with disabilities and 90 percent of older adults want to age in place by staying at home. However, Jorwic emphasized, "We need to create more home and community-based services…" and because of Medicaid's strict eligibility requirements, "…also expanding them outside of Medicaid." Jorwic concluded her thoughts by reminding the audience that "care is a universal responsibility that we all have. We all are going to need care and probably provide care."

Harvey Rosenthal, CEO of the New York Association of Psychiatric Rehabilitation Services (NYAPRS), was hospitalized for depression as a young man. He described himself as being "in the process of recovery ever since."

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The experience of hospitalization in a state mental hospital led to a job at a similar hospital, where he was told that as a proponent of recovery, "[he] was giving false hope to people when [he] used the term 'recovery'." Eventually, Rosenthal worked in a program providing social care or social therapy, based on the idea that recovery is possible but is a non-linear process.

Living with mental illness is not "just about brains and symptoms," he said. It is also about the social determinants of health: poverty, social support, culture, connection, and housing. As an example, Rosenthal told the story of Jordan Neely, a young Black man living with a long history of mental illness who was choked to death on the subway in New York. Neely was reportedly shouting at passengers, but there was no evidence of physical violence (Thornton, 2023). People wrongly fear that individuals living with mental illness are perpetrators of violence; in reality, these individuals are 11 times more likely than the general population to be victims of violent crime (Teplin et al., 2005).

Friedman summarized the session by stating that individuals living with serious cognitive and/or mental health conditions (including older adults) can achieve recovery and lead satisfying and meaningful lives, and by reiterating the following observations:

- Recovery is a forever process that is non-linear (Rosenthal).
- Recovery depends on good diagnosis and treatment options (Cohen).
- More is needed beyond traditional treatment options, including a range of community supports to address the social determinants of health (Brown).
- Race matters in all aspects of diagnosis and treatment and needs to be considered (Brown).
- For many individuals, spirituality and faith are critical to recovery (Brown).
- Aside from the diagnosis and treatment of mental illness in older adults, the common cognitive and physical health challenges accompanying the aging process can complicate the recovery process. This can include retirement, the loss of close friends and family, and physical and/or cognitive decline (Jorwic).
- Caregiving is financially, physically, and emotionally draining; caregivers need many kinds of support, including respite, financial assistance, and autonomy (Brown, Cohen, Jorwic).
- An accessible long-term care system is needed (Jorwic).
- People today living with disabilities are now living to old age, unlike in the past. This means that intellectual and developmental disabilities are going to be a significant challenge for the aging population in the future. In addition, a range of comorbidities for developmental disabilities and aging will have to be addressed (Jorwic).

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CLINICAL CONTEXT

Demographics and Epidemiology: Mental Health Disorders in Older Adults

Jovier Evans, branch chief of the Geriatrics and Aging Processes Research Branch of the National Institute of Mental Health, provided an overview of demographics and the current epidemiology for mental illness among older adults.

Evans began by reiterating that the U.S. population is aging rapidly and eventually, older adults will outnumber the proportion of children (Figure 1). Additionally, people of color currently make up about 25 percent of the total U.S. population but will increase to about 45 percent over the next 40 years, according to the 2017 Census Bureau.

The U.S. population of veterans is also getting older. Forty-six percent of the current veteran population is older than 65, and this number is growing (U.S. Department of Veterans Affairs, 2018). These older veterans have unique cognitive and mental health problems, such as posttraumatic stress disorder (PTSD), Evans explained, and are less likely to seek mental health care services (O'Malley et al., 2020) "…which will require the creation of a system designed to support the increased care needs of the aging veteran population."

The prevalence of Alzheimer's disease and other dementias increases with age, with aging being the largest single risk factor for the development of dementia. Of those older adults who develop dementia, 98 percent also have co-occurring symptoms such as anxiety, depression, or psychosis (Phan et al., 2019). Women are at a higher risk for dementia and more rapid declines following the dementia diagnosis (Mielke, 2018; Sohn et al., 2018), and women are also at a higher risk for anxiety and depression (Eaton et al., 2012), he

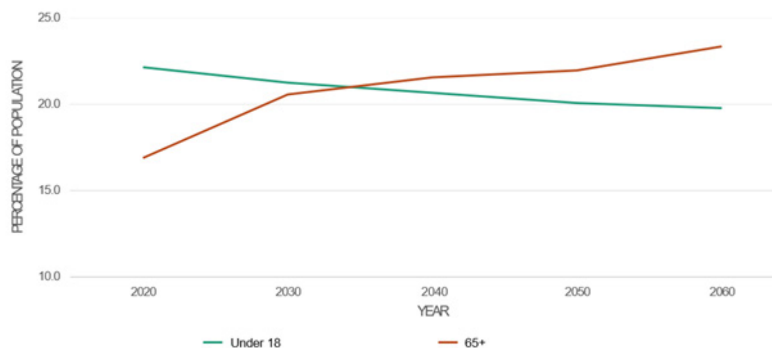

FIGURE 1 National age distribution of the U.S. population: 2020–2060.
SOURCE: Presented by Jovier Evans on May 15, 2023, U.S. Census Bureau (2017).

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noted. Anxiety and depression are the most prevalent mental health disorders among older adults and co-occurring disorders contribute to higher rates of disability, more premature deaths, and high medical costs. High quality care for older adults, particularly for dementia care, is both difficult to obtain and inadequate for most. Earlier diagnosis and related safety screening are needed, as well as education opportunities and support for family caregivers, said Evans.

Furthermore, data suggests suicide is a public health problem that warrants more attention in aging populations. Evans noted that women are 1.75 times more likely to attempt suicide, but men are nearly six times more likely to complete a suicide attempt (SAMHSA, 2019). There is high suicide completion rate in older men over the age of 85, and they are particularly at risk due to the lethality of the method choice for attempting suicide (CDC, 2019). A study found that within 30 days of a completed suicide, nearly 60 percent of adults 55 and older had contact with primary care providers, which was significantly greater than adults 35 and younger (Luoma et al., 2002). Additionally, from 2010 to 2019, overdose deaths among older adults rose by 130 percent (CDC, 2020). The National Institute on Drug Abuse (2018) reported that nearly 1 million adults aged 65 and older live with a substance use disorder, and "a big problem is the misuse of prescription opioids," Evans said. Women are less likely than men to develop a substance use disorder, and veterans are more likely to have a substance use disorder than non-veterans (Eaton et al., 2012; NIDA, 2019). Cannabis use is also increasing in the United States due to the "relatively higher use by baby boomers and the legalization of cannabis across most of the country," Evans explained.

He further explained that some communities are at higher risk for developing cognitive and mental health problems, noting that older Black and Latino adults are at higher risk for developing dementia (Alzheimer's Association, 2020), while at the same time having more limited access to behavioral health services (APA, 2017). They are also less likely to get diagnosed in a timely manner and are more likely to be dealing with concomitant physical conditions such as diabetes and high blood pressure (Alzheimer's Association, 2020). Improved access to high quality health care, Evans said, could reduce prevalence of dementia for Black and Latino older adults (Alzheimer's Association, 2020).

Poverty is another risk factor for mental illness in older adults; about 10 percent of individuals aged 65+ are living in poverty (Federal Interagency Forum on Aging-Related Statistics, 2020), with the greatest impact on Black and Latino communities (Figure 2). There is a vicious cycle here, he explained; individuals living in poverty have a higher risk for developing mental illness, while individuals living with mental illness are at high risk for becoming impoverished (Cadar et al., 2018). Additionally, living in a high-poverty

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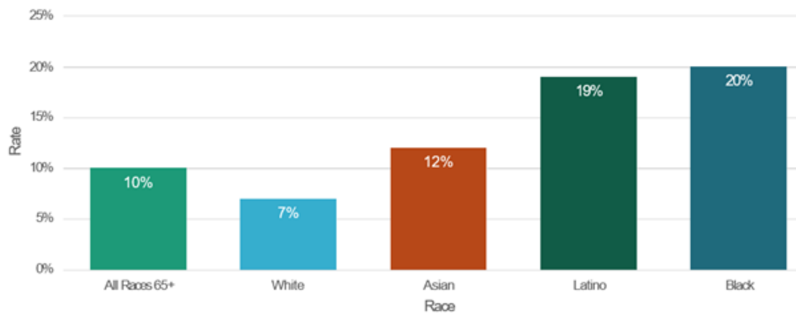

FIGURE 2 Poverty rate for individuals aged 65+ by race and ethnicity, 2020.
SOURCE: Presented by Jovier Evans on May 15, 2023; Federal Interagency Forum on Aging-Related Statistics (2020).

neighborhood has its own risks, including crime, violence, instability, and lower access to quality health care.

In the LGBTQIA+ community, there are greater risks for the development of mental health conditions such as depression and suicidal ideation. This is particularly true for transgender individuals, Evans said, with 71 percent of older transgender adults reporting a history of suicidal ideation (Choi and Meyer, 2016). Additionally, experiences with victimization, stigma, social isolation, and financial barriers are all linked to depression for older members of this community (Fredriksen-Goldsen et al., 2015).

Other factors unique to the aging population can also impact cognitive health. For example, about two thirds of individuals living in nursing homes and assisted living facilities experience some type of cognitive impairment (Gaugler et al., 2014), and two thirds of older adults in assisted living have some dementia, often with co-occurring neuropsychiatric symptoms (Johns Hopkins Medicine, 2014), he explained. Loneliness and social isolation are also concerns for older adults, particularly since the COVID-19 pandemic; a vast majority of older adults reported a decline in their emotional well-being and reported increased levels of stress, anxiety, and depression (Lampkin, 2021). Loneliness, he noted, is associated with high rates of depression, anxiety, and suicide (Czeisler et al., 2020). Social isolation increases premature mortality from all causes and is associated with a 50 percent increased risk for developing dementia (CDC, 2021b; NASEM, 2020). Bereavement is also a risk factor. With aging comes experience with losses and major identity transitions, which can lead to prolonged grief disorder, feelings of guilt and worthlessness, major depression, and cognitive impairments, Evans added (Djelantik et al., 2020). Trauma and elder abuse are also concerns. Evans said that 10 to 15 percent of older adults experience victimhood because of abuse (CDC, 2021a; WHO, 2022).

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Additional health care challenges for this population include access to mental health services, poorly trained home health aides delivering services at home, and undiagnosed mental illness (IOM, 2012). Evans noted that "about 90 percent of older adults with depression get no treatment or inadequate treatment" (Park and Unützer, 2011). He concluded his remarks by saying that "the consequences of failure to deal with these issues will have a big impact with regard to health care and health policy. In 2020, the Federal Government spent around $280 billion on mental health services (The White House, 2022), which is more than what is spent on substance use disorders, said Evans." Older adults with anxiety disorders and/or depression have higher overall health costs than older adults without anxiety or depression (Vasiliadis et al., 2013). Older adults also need encouragement to engage in healthy activities such as exercise and dietary change to help prevent future health challenges, he said.

Psychotic Disorders: Schizophrenia in Later Life

Carl Cohen, SUNY Distinguished Service Professor at the SUNY Downstate Health Sciences University, explained that psychosis can be narrowly defined by the presence of hallucinations, delusions, or both. Impaired reality testing[2] is an essential component of psychosis diagnosis. About three fifths of psychotic disorders in later life are secondary to conditions such as dementia, delirium, or other medical causes and the most primary cause is depression. He focused on the outcome of individuals 55 years and older who are living in the community with early-onset (prior to age 18 years) schizophrenia and the treatment, care, and policy implications for this group.

In the United States, there has been a 50 percent increase in the population of individuals over age 55 living with schizophrenia in the first part of the 21st century (Cohen et al., 2020). By 2060, he said, more than 40 percent of the population with schizophrenia will be aged 55 and older. Unfortunately, said Cohen, there is little published research focusing on the population of older individuals living with schizophrenia; Cohen estimated that only 1 percent of the literature on individuals living with schizophrenia focuses on older adults.

Cohen made the following points in his presentation:

- There is no consensus about schizophrenia diagnosis, treatment, and outcomes; this is due to evolving diagnostic criteria over time in

[2] The psychotherapeutic function by which the objective or real world and one's relationship to it are reflected on and evaluated by the observer.

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the DSM[3] and the ICD.[4] To summarize the historical trends about schizophrenic outcomes, he said that "for the first eight decades of the 20th century, the prognosis was thought to be poor, while in the years from about 1987 to 2001, the prognosis was considered much more optimistic." However, in the past decade, a more nuanced understanding of outcomes has evolved.

- A comprehensive view of outcomes includes clinical dimensions from the DSM-V such as positive and negative symptoms, depression, and cognition; functionality; social adaptive functioning or community integration; and quality of life. "Clinical recovery" includes a combination of remission and social functioning.
- Additionally, these outcome criteria are largely independent of each other; this suggests the need for optimal treatment strategies for each separate outcome. "Treating one does not necessarily mean it is going to improve the other outcome measures," said Cohen.
- Outcomes are not stable in later life, but rather continue to evolve. The vast majority of older adults living with schizophrenia can show changes in several outcome measures at a given point in time, so people may develop worsening symptoms, but there is also room for improvement.
- Outcomes are heterogeneous and therefore result in a multidimensional process—more than 120 combinations of outcomes are possible—that necessitates a personalized, individual approach to care and research.
- Clinical recovery can be measured empirically with a five-tier taxonomy, suggesting different points of intervention, and providing guidance for treatment and research (see Table 1).

[3] The Diagnostic and Statistical Manual of Mental Disorders (DSM) is the handbook used by health care professionals as the authoritative guide to the diagnosis of mental disorders. The DSM contains descriptions, symptoms, and other criteria for diagnosing mental disorders. See https://www.psychiatry.org/psychiatrists/practice/dsm/frequently-asked-questions#:~:text=The%20Diagnostic%20and%20Statistical%20Manual,criteria%20for%20diagnosing%20mental%20disorders (accessed September 24, 2023).

[4] The International Classification of Diseases (ICD) serves a broad range of uses globally and provides critical knowledge on the extent, causes and consequences of human disease and death worldwide via data that is reported and coded with the ICD. See https://www.who.int/standards/classifications/classification-of-diseases (accessed September 24, 2023).

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TABLE 1 Five-Tier Taxonomy of Clinical Recovery in Older Adults with Schizophrenia

Tier Taxonomy of Recovery Rates	State of Clinical Recovery	Description
Tier 1 (12%)	Stable state	Experienced persistent clinical recovery (i.e., "recovered"). Maintain current treatment or consider reducing medications.
Tier 2 (23%)	Fluctuating state	Fluctuated between recovery and non-recovery. With appropriate interventions, these persons might be able to attain persistent clinical recovery.
Tier 3 (11%)	Stable state	Persistent clinical remission but never attained community integration (6%) or persistent community integration but did not attain clinical remission (5%). These persons might benefit from more targeted approaches to their clinical or social deficits.
Tier 4 (38%)	Fluctuating state	Able to attain clinical remission or community integration at only one point in time. These persons might require more intensive work at the clinical and social levels.
Tier 5 (18%)	Stable state	Might not be considered "recovering" since they never attained either clinical remission or community integration at any point in time. These persons require the most intensive interventions. Cohen & Reinhardt, 2020

SOURCE: Presented by Carl Cohen on May 15, 2023; Cohen and Reinhardt (2020).

Exploring Strategies to Address the Needs of Older Adults With Major Depression

Charles F. Reynolds III, Distinguished Professor of Psychiatry Emeritus at the University of Pittsburgh School of Medicine and editor-in-chief of *The American Journal of Geriatric Psychiatry*, spoke about clinical depression in older adults. He began by sharing a personally significant vignette about the suicide of his grandfather at age 90. His grandfather had been suffering from depression in the wake of a stroke and an accumulation of medical issues, preventing his engagement in activities he had always found meaningful and deepening his social isolation.

The hallmarks of clinical depression in older age, stated Reynolds, include co-occurrence with physical limitations and frailty, with cognitive impairment, and various social determinants of health, such as major social role transitions, grief, and social disconnectedness and loneliness. In addition, exposure to polypharmacy and drug-drug interactions,[5] and increased burdens on family caregivers, all complicate the clinical picture. When older adults live with major depressive disorder, the possibility of disabilities that co-occur with medical and neurological disorders may be amplified due to poor adherence

[5] Polypharmacy is the simultaneous use of multiple drugs to treat a single ailment or condition. A change in a drug's effect on the body when the drug is taken together with a second drug. A drug—drug interaction can delay, decrease, or enhance absorption of either drug, which may cause adverse effects.

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to prescribed treatments or failure to practice positive lifestyle choices that promote healthy brain aging and cognitive fitness like physical activity, good sleep, appropriate diet, and limited alcohol use. In addition, risks for substance misuse, fragility, dementia, and premature death also increase, said Reynolds.

Treatment for clinical depression in older adults works when it is delivered appropriately, said Reynolds, advocating for the use of a staging model to better understand where a patient is in the course of their depression, and planning care accordingly. For example, an older adult presenting with mild symptoms of depression should be managed with the goal of preventing a transition to major depressive episodes. Insomnia also presents an opportunity for treatment and prevention, and may be less stigmatizing than a focus on depression per se, said Reynolds. There is also growing scientific literature on the role of the glymphatic[6] system and slow-wave sleep[7] for clearing the accumulation of tau and beta amyloid in the brain that directly damage memory and cognition (Reynolds III et al., 2022). Finally, Reynolds emphasized that "getting well is not enough. It is staying well that counts." The goal should be functional recovery and on preventing relapse and recurrence, as well as symptomatic remission. The prevention of recurrence helps to both prevent treatment resistance and protect brain health and cognitive fitness.

Finally, Reynolds shared his thoughts about care delivery models, noting that "it is past time for united action to deal with the need to reduce the burden of mental illnesses in older adults. We need united action by diverse stakeholders and actors." With respect to specific directions for clinical practice in older adults with major depression, Reynolds recommended the following 8 actions:

1. Implementing pragmatic programs of care embedded within primary care.
2. Practicing measurement-based care to optimize safety, tolerability, and efficacy.
3. Enacting staging models of depression for the purposes of assessment, prevention, and treatment.
4. Using less stigmatized approaches to depression prevention and treatment in older adults, such as treatment of insomnia disorder.
5. Expanding the use of lay counselors, community health workers, and peer support specialists.
6. Expanding the use of telepsychiatry, tele-medicine, and tele-referral, particularly in the context of rural areas.

[6] A system for waste clearance in the central nervous system.

[7] Deep nonrapid eye movement (NREM) sleep, considered to be the most restorative sleep stage and associated with sleep quality and maintenance of sleep.

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7. Expanding the use of pharmacogenetically-informed clinical care.
8. Intensifying the focus on health span in clinical care and in cost/benefit analyses.

Reynolds concluded his presentation by raising the issue of relative benefit and costs in treating and preventing clinical depression in older adults. "Depression care is cheap, truly cheap, compared with the cost of cancer care or cardiovascular care or care for strokes," he said.

Substance Use Disorders in Older Adults

Dan G. Blazer, J. P. Gibbons Professor Emeritus at Duke University Medical School, focused his presentation on opioid disorders and alcohol use disorder, both of which create significant difficulties for older adults. Persistent experiences of pain can lead to substance use disorder for older adults with health conditions such as cancer, heart disease, or even osteoarthritis pain. The use of pain medications, he said, is a large and increasingly significant problem. Four to nine percent of older adults use prescription opioid medications for pain relief (Blazer and Wu, 2012).

Blazer noted that the research into substance use disorders for older adults is limited and research into treatment of these disorders in the elderly is extremely limited. "The research dollars and the research findings have been more sparse than for other age groups," he said.

The available research, however, indicates that rates of drug overdoses for individuals 65 years and older increased from 2.4 percent in 2000 to 8.8 percent[8] in 2020 (Kramarow and Tejada-Vera, 2022). Between 1995 and 2010, opioid prescriptions for older outpatients increased by a factor of nine (Olfson et al., 2013). The prescribing of opioid medications was increasing dramatically during this timeframe and ultimately led to the opioid epidemic. Surgery is often a touchpoint for opioid addiction because individuals who have major surgery are typically given opioids following the surgery, the prescription is refilled, and the cycle continues, he said (Wylie et al., 2022).

Blazer noted that the proportion of older adults using heroin more than doubled between 2013 and 2015 (Huhn et al., 2018). This likely happened because people would misuse prescription drugs until they became too expensive and would resort to cheaper street drugs. He said he was unable to find data on fentanyl use in older adults, but he said it is likely to increase unless fentanyl availability decreases.

[8] Per 100,000.

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Alcohol is the most used drug among older adults, with about 65 percent (aged 65 years and older) reporting high-risk drinking (NIDA, 2020), a number that he noted has doubled over the past 10 years. Of particular concern is that more than10% of older adults aged 65 and older binge drink (Han et al., 2019). Blazer told a story about a patient who did not drink before 6 p.m., but once he turned on the 6 p.m. news, he became so frustrated with what he was watching that he would end up drinking 10 beers between 6 and 10 p.m.

In older populations, screening is very important. Blazer recommended using the brief CAGE-AID tool,[9] which has been used successfully to screen older adults for use of alcohol and other substances. It is a simple set of four yes or no questions:

1. C: Have you ever felt the need to [cut] down on your drinking or drug use?
2. A: Have you felt [annoyed] when people criticize your drinking or drug use?
3. G: Have you ever felt [guilty] about drinking or drug use?
4. E: Have you ever felt you needed a drink or used drugs first thing in the morning to steady your nerves or to get rid of a hangover [eye-opener]?

Unfortunately, said Blazer, because typical office visits are short and there are many different conditions to screen for, screening for substance use is likely rare.

Using the DSM-V screening tool, the criteria that were most effective in identifying alcohol use disorder in older adults were: unsuccessful efforts to cut back, withdrawal symptoms, and problematic social and personal interactions. This is why, he said, families should be involved in these conversations. Other symptoms to watch for include falling, confusion, the hoarding of alcohol and drugs, and weight loss. Group alcohol use is also a concern.

In terms of interventions, there are virtually no data on what works, Blazer said. However, in considering anecdotal evidence, he added that brief interventions during clinical visits, such as providing factual information about the dangers of substance use coupled with practical advance on withdrawing from the substance, can be useful. Families should also be included in these conversations, he said. Group interventions such as Alcoholics Anonymous (AA) can also be considered. Although data are lacking as to whether AA works with older adults, age-appropriate group interventions have been demonstrated to be effective in older adults and are used worldwide. For pharmacological interventions, Disulfiram/Antabuse has been used to prevent

[9] See https://www.hrsa.gov/behavioral-health/cage-aid-substance-abuse-screening-tool (accessed October 17, 2023).

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alcohol abuse for a long time, but there is no evidence that it works with older adults; additionally, there are dangers in prescribing it for older adults. To treat opioid dependence, buprenorphine is the preferred treatment, he explained. Naltrexone is a well-studied drug found to be effective in older persons for alcohol and other substance use disorders.

Blazer concluded that families should always, if possible, be involved in screening and treatment of substance use disorders in older adults and that "clinicians should be better educated regarding the less frequent yet perhaps more dangerous outcomes from substance use disorders in older adults."

NEUROBIOLOGICAL VIEW OF MENTAL HEALTH AND SUBSTANCE USE DISORDERS

Gwenn Smith, Richman Family Professor of Psychiatry and Behavioral Sciences and director of the Division of Geriatric Psychiatry and Neuropsychiatry at Johns Hopkins University School of Medicine, presented an overview of the neurobiology of aging, mental illness, and substance use disorders. She said it is important to understand the heterogeneity of mental and physical conditions in later life so that treatments can be developed to target the underlying neurobiology of the individual.

Data from studies of late-life depression show the heterogeneity of the illness course in late life with respect to antidepressant treatment response and cognitive decline (Butters et al., 2008). Autopsy studies have indicated high levels of heterogeneity in terms of vascular pathology, neurodegeneration, and synaptic degeneration, resulting in brain network dysfunction (Sweet et al., 2004). Smith noted that many of these disease mechanisms can now be studied directly in the living brain with brain imaging or peripheral biomarkers and related to mental health and cognitive outcomes. This advancement began with understanding the dysfunction of neural networks and a final common pathway for many pathologies (Smith et al., 2007). There is a continuum of pathology, including accumulation of proteins and synaptic dysfunction, that underlies subclinical psychiatric symptoms at one end of the spectrum and advanced dementia (e.g., Alzheimer's disease) at the other.

Late-life mental health and substance use disorders can be understood by a multifactorial model that can be tested using biomarkers and brain imaging methods. An emerging field, geroscience, focuses on understanding the contributions of accelerated biological aging processes to the pathophysiology of illnesses in late life, including psychiatric conditions (Lorenzo et al., 2023). Scientists looking at biological aging have related it to the heterogeneity of later life depression and have identified several aspects of biological aging that can be studied using peripheral biomarkers. For example, the SASP (Senescence-Associated Secretory Phenotype) shows associations with depres-

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sive symptoms as well as with the trajectory of late-life depression (Diniz et al., 2017). This may lead to an explanation of the increase in mortality and frailty associated with depression and other psychiatric and substance use disorders in later life, said Smith.

Another aspect of the neurobiology of late-life mental health and substance use disorders is dysfunction of affective and cognitive brain networks, which can be studied using magnetic resonance imaging or MRI. Many brain networks are involved in late-life mental health and substance use disorders, including networks associated with affective processing, reward, attention, and cognitive control (Williams, 2017). The cognitive networks contribute to task performance. Advances in PET (positron emission tomography) scan technology have made it possible to study proteins associated with neurodegenerative diseases in the living brain, including the amyloid and Tau proteins associated with Alzheimer's disease (Hampel et al., 2021). Furthermore, it is now possible to determine whether these proteins are associated with late-life mental health disorders such as depression and psychosis. The amyloid protein accumulates first in regions of the frontal and parietal lobes of the cerebral cortex, whereas the Tau protein accumulates first in the medial temporal lobe and hippocampus, which explains the earliest symptoms of problems with memory and executive function, as well as depression and anxiety. Smith explained that a more recent innovation in the field is the ability to study these abnormal proteins by measuring the levels in samples of blood or cerebral spinal fluid.

Another contributor to brain network dysfunction, in addition to accelerated aging processes and protein accumulation, is synaptic dysfunction. The monoamine neurotransmitters, serotonin, norepinephrine, and dopamine, are involved in late-life mental illness, in addition to substance use disorders and neurodegeneration (Gallo et al., 2021). Serotonin plays a key role in body functions like mood, sleep, and appetite. Norepinephrine increases alertness, arousal, attention, and maintaining blood pressure in times of stress; dopamine is responsible for pleasure, motivation, and satisfaction. Smith further explained that these neurotransmitters with an origin in the brain stem are highly vulnerable to biological processes such as oxidative stress and neuronal loss. They are involved in psychiatric symptoms such as depression, anxiety, and agitation and other neurodegenerative diseases such as Parkinson's disease, and are the targets of the most commonly used medications for these conditions.

Understanding the neurobiology of late-life mental health and substance use disorders will inform the development of novel, targeted treatments. Applying the geoscience approach has resulted in support for early studies of senolytics. Understanding the dysfunction of specific brain networks underlying mood and cognitive deficits has led to the development of targeted treatments for networks subserving cognitive control and reward and brain

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stimulation approaches for networks subserving mood and memory (Elias et al., 2021, Gunning et al., 2021). Significant basic research findings inform the development of unique interventions targeting monoamine systems (multimodal antidepressants, e.g., Vortioxetine), synaptic plasticity (Ketamine, Lithium), and increase glymphatic clearance of proteins such as amyloid and Tau by slow-wave sleep. Smith concluded by saying, "We now have the tools that we need to better understand the biology of conditions such as substance use, psychosis, and treatment resistant mood disorders, and we expect major advances in treatment development in the future."

Co-Occurrence of Dementia and Mental Health Conditions

Perminder Sachdev, distinguished neuropsychiatrist at the University of South Wales, Sydney, described the mental and behavioral problems associated with dementia. Using "dementia" as an umbrella term, he explained that it is an acquired cognitive impairment that becomes severe enough to compromise an individual's ability to live independently.

Sachdev explained that dementia is common among older adults, affecting about 11 percent of individuals aged 65 or older (Rajan et al., 2021). Rates of dementia nearly double every 5 years after the age of 65 (Manly et al., 2022). Estimates indicate about 6.1 million individuals currently live with dementia in the United States, he said, with this figure estimated to double by the year 2050 due to the aging of the overall population (Rajan et al., 2021). Worldwide, he estimated that there are about 58 million individuals living with dementia (GBD 2019 Dementia Forecasting Collaborators, 2022). The overall rate of mild cognitive impairment (MCI) is estimated to be twice as high as that of dementia, although it is less clear because of challenges in defining MCI accurately (Manly et al., 2022). MCI is considered an intermediate state between normal cognition and dementia; functional abilities are mostly intact and independence is relatively preserved.

Explaining that dementia itself has many causes, Sachdev indicated that Alzheimer's disease is the most common among the dementias and accounts for about 60 to 70 percent of all dementia cases (Scheltens et al., 2021). Dementia cases cost the United States hundreds of billions of dollars, he noted, with costs estimated to be $321 billion in 2022 (Skaria, 2022). This does not include the additional costs associated with unpaid caregiving, estimated to be about $271 billion (Skaria, 2022).

Nearly everyone who is diagnosed with dementia experiences some neuropsychiatric symptoms, he said. In the early stages of dementia, depression and anxiety are more common, while in moderate to severe stages, it is more likely to be agitation, aggression, and wandering (Lyketsos et al., 2000). Apathy and agitation may be present in early stages and worsen as the dementia

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progresses. Depression and psychotic symptoms such as hallucinations peak in the middle stages. Other mental and behavioral problems associated with dementia include calling out/screaming, norm-violating disinhibited behavior such as acting impulsively, sleep disturbances, and shadowing—following the caregiver around in a childlike manner.

Neuropsychiatric symptoms are a major cause of distress for caregivers of individuals living with dementia, Sachdev noted (Kales et al., 2014). The presence of neuropsychiatric symptoms increases the likelihood of institutionalization and likely increases the costs of caregiving (Okura et al., 2011). When admitted to the hospital for a physical illness, the presence of neuropsychiatric symptoms is often associated with faster declines in dementia, faster progression from MCI to dementia, and higher mortality (Goukasian et al., 2019).

It is critical to understand the etiology of neuropsychiatric symptoms, he explained, within a bio-psycho-social-environment framework. Because dementia is a neurodegenerative disease, a number of regions of the brain are affected and a number of symptoms can emerge (Rosenberg et al., 2015). Extrinsic biological features can also play a role. For example, the development of a medical illness can influence behavior and produce behavioral disturbances for an individual living with dementia. Psychological factors such as behavioral triggers and feedback from others also influence behavior (Teri and Logsdon, 2000). In addition, individuals with dementia may have unmet social needs that they are unable to fully comprehend or make others aware of these needs (Algase, 1999). Finally, the physical environment in which these individuals live is also important because a number of environmental factors may reduce the individual's ability to cope with stress (Hall and Buckwalter, 1987).

In terms of treating these symptoms, Sachdev argued that it is best to rely on preventative strategies rather than waiting for symptoms to develop. For example, creating a home-like environment, introducing pets (or even robotic pets) into institutions, and educating caregivers are all effective strategies. Novel strategies that may improve the behavior of older patients with dementia include humor therapy, music, singing, dancing, and introducing children and babies into institutions. Biological factors need to be alleviated, such as treating an infection, addressing pain, or prescribing medication for a dementia patient diagnosed with depression. Managing agitation and aggressive behavior is challenging, but the use of pharmacological interventions should be limited, he said. Person-centered care is an important strategy because "you can actually target the individual," says Sachdev. A strategy called "dementia care mapping" involves following the individual over a period of time to fully understand the context in which specific behaviors occur. Psychosocial treatments are also effective, he said, but implementing them in an institutional setting is difficult. "Practical suggestions for working with facilities are

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needed," he explained, adding that "we also need policy and accreditation standards that are useful for institutions."

One final topic touched on by Sachdev is the idea of brain and cognitive reserves. The idea of brain reserve comes from the finding that many brains may show significant pathology, yet the individual does not display significant symptoms of dementia (Stern et al., 2019). For example, he said, 30 percent of non-demented older adults are positive for the presence of amyloid proteins in the brain, yet they are cognitively normal. This led him to believe that there is a reserve capacity of the brain, a physical trait of the brain that may mean

BOX 1
Key Takeaways from Speakers in Session 1: Clinical Context

- The U.S. population is aging rapidly and people of color will increase to about 45 percent of the older adult population over the next 40 years. (Evans)
- The prevalence of Alzheimer's disease and other dementias increases with age, which is the largest single risk factor for the development of dementia. Black and Latino adults are at higher risk for developing dementia, but have less access to behavioral health care services. (Evans)
- Other risk factors common among older adults include social isolation, loneliness, bereavement, major surgery, trauma, and elder abuse. (Blazer, Evans, Reynolds)
- A multidimensional process with a personalized approach to care and research is needed for older adults with schizophrenia because of the heterogeneity of the condition. (Cohen)
- The hallmarks of clinical depression in older age include co-occurrence with physical limitations and frailty, with cognitive impairment, and various social determinants of health, such as major social role transitions, grief, and social disconnectedness and loneliness. Treatment works when delivered appropriately. (Reynolds)
- To reduce the burden of mental illness in older adults, it was suggested to embed behavioral health into primary care, practice measurement-based care, utilize staging models of depression, minimize stigma, partner with paraprofessionals, encourage the use of telehealth, increase the use of pharmacogenetically-informed clinical care, and focus on health span in cost/benefit analyses. (Reynolds)

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it is larger or more connected with more neurons and synapses. This would allow the brain to better absorb injury before cognitive functioning is affected. The idea of cognitive reserve is based on the flexibility and adaptability of brain networks and cognitive processes, which can allow the brain to actively resist the effects of age- or disease-related changes. Sachdev explained that this is "more the software rather than the hardware of the brain." Education, occupational complexity, and complex mental activities can play an important role. Additionally, preserving physical exercise and social networks can also help improve cognitive reserve.

- Opioid and alcohol use disorders create significant difficulties for older adults. (Blazer)
- Clinicians need better education about substance use disorder (SUD) in older adults, and families should always be involved in screening and treatment of SUD. (Blazer)
- An emerging field, geroscience, focuses on understanding the contributions of accelerated biological aging processes to the pathophysiology of illnesses in late life, including psychiatric conditions. Understanding the neurobiology of late-life mental health and substance use disorders will inform the development of novel, targeted treatments. (Smith)
- The presence of neuropsychiatric symptoms in older adults increases the likelihood of institutionalization. It is best to use preventative strategies rather than waiting for symptoms to develop. (Sachdev)
- The concept of cognitive reserve is based on the flexibility and adaptability of brain networks and cognitive processes, which can allow the brain to actively resist the effects of age- or disease-related changes. Education, occupational complexity, complex mental activities, physical exercise, and social networks can play an important role in preserving cognitive reserve. (Sachdev)

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HEALTH DISPARITIES AND SOCIAL DETERMINANTS OF HEALTH

At-Risk Communities

Moderator Narda Ipakchi, vice president of policy at the SCAN Foundation and planning committee member, introduced the next session, which addressed inequities and disparities as they intersect with mental health outcomes. Like the health care system in general, "our mental health system does not adequately reflect the needs and preferences of older adults from racial and ethnic minority populations, those who are experiencing financial insecurity, and those from the LGBTQIA+ community, among others. Not only do these groups experience similar or higher rates of mental disorders, they also often have a lot of trouble finding culturally sensitive or appropriate care," she explained. For example, Black and Latino adults have rates of mental illness that are similar to those of their white counterparts. However, White adults are twice as likely to actually receive mental health care to treat their mental illness. Also, individuals struggling financially are more likely to experience anxiety, depression, and substance use disorder. The 2020–2023 Household Pulse Survey conducted by CDC's National Center for Health Statistics and Census Bureau found that members of the LGBTQIA+ community reported the highest rates of distress during the pandemic and Yarns et al (2016) reported older LGBTQIA+ persons to have higher rates of anxiety, depression, and substance use when compared to the general population of older American adults.

Race and Ethnic Disparities in Aging Populations: Black Older Adults

Kellee White, associate professor of health policy and management at the University of Maryland School of Public Health, addressed the mental health needs of older Black adults. They are living longer, she said, and this population is expected to increase significantly, to about 12 million people by the year 2060 (ACL, 2021). They will mostly be located in New York, Illinois, Maryland, North Carolina, Florida, Georgia, Texas, and California. She added that nearly 40 percent of Black older adults have one or more disabilities and their life expectancy is 71 years, which is lower than life expectancies for their White counterparts (77 years) (Dywer-Lindgren et al., 2022).

In terms of health inequities, older Black adults experience higher rates of hypertension,

stroke, cancer, and diabetes compared with older White adults (Taylor and Chatters, 2020). Increasing rates of multimorbidity are also seen in the

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population of older Black adults. "These [health] conditions impose significant personal, social, and financial costs for individuals, families, and communities," White explained, and these costs "also have an impact on mental health status."

Several large population-based studies have documented a racial health paradox in mental health where older Black adults have similar or even better mental health status when compared to Whites, despite having a constellation of physical health and psychosocial risk factors such as racism (Thomas Tobin et al., 2022). But there are major disparities in unmet mental health needs for older Black adults.

"There are a number of challenges across the mental health care continuum that older Blacks face," she said. The mental health care continuum includes the range of opportunities for providing care to mitigate risk, from prevention to early intervention, as well as disease management and treatment (Jimenez et al., 2022). "At different points of this care continuum, we see that [older] Black adults are less likely to seek and initiate mental health service use and care, have insurance that provides mental and behavioral health care coverage, receive care from clinicians who are culturally competent, obtain guideline-consistent care and treatment options, use prescription medications, and receive regular outpatient care after discharge," White commented. Several factors contribute to these unmet mental health care needs, particularly racism and stigma (Jimenez et al., 2022). Seeking and using mental health care services is a major source of stigma in the Black community because of mistrust in the health care system resulting from cumulative exposure to race-related stressors, she said.

There are positive factors, such as resilience[10], that can mitigate or help buffer against risk factors like racism, stigma, and distrust. Among the factors contributing to resilience are family support networks, friendship networks, access to peer and social support, religiosity and spirituality, and positive group identity (Jimenez et al., 2022). The ability to use positive coping strategies, meaning efforts to manage internal and external stressful situations, also contributes to mental health resilience.

White offered several suggestions to advance mental health equity in policy and in practice. In reference to policy, White suggested improving the affordability of behavioral health insurance coverage, expanding access to behavioral health and mental health care services, increasing resources and funding for mental health care services at federally qualified health centers, and expanding and standardizing payment models for community health workers through Medicaid. White noted that these suggestions are for policies that

[10] Resilience is defined as the ability to successfully adapt and overcome negative life events (Wu et al., 2013).

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influence organization or agency practice and legislative action. In practice, White continued, health equity can be achieved by integrating mental health services with primary care in order to better provide patient-centered care and improve care coordination; increasing the number of culturally competent care providers to help reduce stigma, addressing racial bias, enabling individuals to seek diagnosis and treatment, and providing more appropriate treatment recommendations for older Black adults. Other suggestions White offered were to empower community health workers to provide outreach, assistance, care, and support, and to introduce different models of care such as telepsychiatry to expand access and address current workforce shortage gaps, and to implement collaborative care models to address social and cultural contexts for addressing inequities in medical settings. For both policy and in practice, the elimination of structural barriers and racism is essential to achieving health equity, said White.

White concluded her presentation by saying that she hoped workshop participants "think a little bit more critically about addressing the role of racism…expanding models of care, having a focus on cultural adaptations, and strengthening the capacity of the workforce, as well as transforming the health [care] system to integrate mental health into primary care and increasing financial support to improve affordability. All of these things can really make a huge impact on reducing disparities and increasing equity in mental health care."

Medi-Cal Expansion to Older Undocumented Immigrants

Arturo Vargas Bustamante, director of the Latino Policy and Politics Institute, and professor of health policy and management at the University of California, Los Angeles spoke about the Older Adult Expansion.[11] In 2022, California expanded Medi-Cal to cover adults aged 50 and older, regardless of immigrant status. Undocumented immigrants are ineligible for enrollment in Medicaid or other federally subsidized health insurance plans through the Affordable Care Act (ACA) marketplaces. The outcome is that undocumented Latino immigrants are the largest group of individuals ineligible to receive coverage through ACA, said Bustamante, and right now, there is an ongoing demographic transition, with the immigrant population aging faster than the U.S.-born population. Because of a decrease in younger immigrants, the average age of the immigrant population living in California is increasing (see Figure 3). This increased the need for access to health care services for this

[11] See https://www.dhcs.ca.gov/services/medi-cal/eligibility/Pages/OlderAdultExpansion.aspx#:~:text=Beginning%20May%201%2C%202022%2C%20a,income%20limits%2C%20will%20still%20apply (accessed July 23, 2023).

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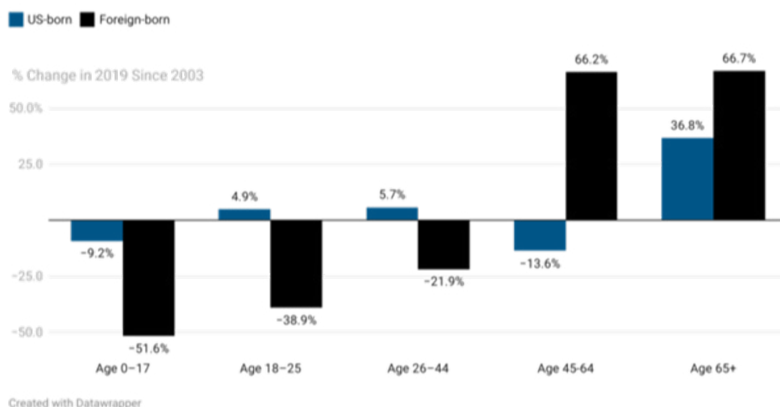

FIGURE 3 Cumulative percentage change in the U.S.-born and foreign-born population in California, by age (2003–2019).
SOURCE: Adapted from presentation by Arturo Bustamante on May 15, 2023. See https://www.nationalacademies.org/documents/embed/link/LF2255DA3DD1C41C0A42D3BEF0989ACAECE3053A6A9B/file/D0E5BF6418C1E68188790AF9B79261427E33062CBB8E?noSaveAs=1 (accessed November 22, 2023). Tabulated by the University of California, Los Angeles Latino Policy & Politics Institute with data from California Health Interview Survey 2013-2019.

aging population. Options are needed to provide comprehensive health care coverage for older immigrants.

Since 2015, California has gradually expanded full-scope coverage under Medi-Cal to subgroups of immigrants, Bustamante said. The recent expansion of Medi-Cal coverage for older undocumented immigrants, which is financed entirely from state funds, will enable more than 250,000 undocumented immigrants 50 years and older to access Medi-Cal coverage (LAO, 2021) and will reduce the number of uninsured immigrant adults in the state to approximately 40 percent (Bustamante et al., 2023). Bustamante added that Illinois, New York, Oregon, and Washington have also expanded state coverage to their own undocumented immigrant populations.

Bustamante explained that immigrants, particularly those who are undocumented, face multiple stresses before, during, and after migration. This can range from financial issues to exposure to violence (APA, 2023). When these individuals do immigrate to the United States, they face other types of stressful situations that adversely affect mental health outcomes, such as racism and discrimination in workplaces and in the school system. Undocumented immigrants are also at high risk of depressive disorders, PTSD, and substance use disorders. They are more likely to have multiple psychosocial problems related to employment, access to health care, and encounters with the legal system.

Despite these risk factors, Bustamante noted that even when mental health services are available, undocumented immigrant Latinos use fewer

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mental health services when compared to U.S.-born Latinos. This is likely due to fears of deportation or that their legal status will be recorded by state authorities or flagged by immigration authorities. Another challenge raised by Bustamante is that approximately 18 percent of undocumented immigrants are above the eligibility threshold for Medi-Cal, either because they are small business owners or they live in a high-income area of the state. This would make them ineligible for coverage under Medi-Cal; thus, the number of health care options for this population will remain limited.

Health care system navigation is also a major concern. Many members of the community who are undocumented immigrants have been uninsured for years and therefore often do not know how to access or use health care services. Accessing and using mental health services is likely to be even more challenging, he said. A final challenge he mentioned is that it can be difficult to find a primary care provider (PCP) within a narrow network because there is a shortage of clinicians. Newly insured individuals may find it difficult to find a health care provider who is Spanish speaking, for example. Additionally, many members of the immigrant community still experience stigma associated with using mental health services. Thus, clinicians need to be able to recognize and treat culturally specific concepts of distress.

Bustamante concluded his remarks by providing next steps to further advance health equity: establish partnerships with trusted community institutions to address challenges with enrollment and access to care among eligible participants; review reimbursements for mental health services in order to increase utilization of these services; bolster interagency collaboration; and create clinical protocols that address the specific needs of undocumented immigrant communities.

Mental Health and Aging in Indigenous Communities

Spero M. Manson, Distinguished Professor of Public Health and Psychiatry and director of the Centers for American Indian and Alaska Native (AI/AN) Health at the Colorado School of Public Health subtitled his talk "Adversity, Innovative Solutions, and Survivance," speaking about older adults in indigenous communities. Manson underscored three concepts he said are critical to understanding the current circumstances for mental health and aging for this population: demographics, epidemiology, and survivor resiliency.

First, there has been a demographic transition among indigenous peoples. In 1970, the life expectancy of an AI male was 47.7 years of age. In 2019 (pre-pandemic), that life expectancy had risen to 71.8 years of age. Unfortunately, due to the COVID-19 pandemic, large losses in life expectancy have occurred, with a loss of about 5 years on average. Additionally, birth rates have been falling for AI/AN populations.

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Second, there has been an epidemiological transition that parallels the demographic transition, Manson explained. An epidemiological transition is a shift in disease patterns and attributed mortality. In this case, deaths among indigenous people due to acute or infectious diseases declined, while chronic degenerative diseases increased. This led to a gradual shift in age-related mortality from younger to older ages from the 1940s to the 1960s. During that period, indigenous communities successfully improved public sanitation measures and increased immunizations, leading to increased life expectancies.

Third, it is essential to understand the role of survivor resilience. For example, suicide attempts among indigenous peoples predominantly occur among youth and young adults; fewer suicide attempts and less substance use occur in older age groups. Similarly, alcohol and other substance use deaths, including opioid deaths, are high among young and middle-aged adults, but the number of deaths drop precipitously for older adults. However, Manson said it is important to understand the prominent conditions among older indigenous people.

Manson shared that older indigenous people suffer significantly higher rates of depressive symptoms compared with older White adults; greater prevalence of chronic health problems—with U.S. indigenous populations having the highest rate of diabetes in the entire world; and rates of PTSD are up to three times more prevalent among older indigenous people than older White adults (Sehar et al., 2023). Further, the aging population will lead to doubling of the rates of Alzheimer's disease and other dementias over the next 40 years, said Manson.

Increased feelings of isolation and decreased ability to participate in social and cultural activities often lead to the marginalization of older adults from family and community. Manson explained that indigenous individuals are part of a larger tribal collective in which self-identity and personhood are "inextricably linked" and therefore exacerbate compromises of mental health status and functioning. Unfortunately, elder abuse and neglect are common, he explained, and dysfunctional household dynamics can contribute to the theft of entitlement payments intended for older adults. This is often one of the few sources of income; many children or grandchildren are similarly impoverished and lack access to resources. Lastly, stigma still has a significant impact on whether people seek assistance for mental health challenges. Manson noted that the largest psychiatric epidemiology study of indigenous populations (Beals et al., 2005) indicated that mental illness and suicide were among the most stigmatizing conditions for participants aged 18 to 80. More than two decades ago, "alcohol abuse and dependence were similarly stigmatized but because of major advances, reflecting the bravery of those in recovery to share their stories…this is no longer the case," said Manson.

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Manson described two recently emerging innovative interventions. The first is Screening, Brief Intervention, and Referral to Treatment (SBIRT), which was introduced into primary care by inserting master's-level clinicians within primary care teams. This method aids in identifying, triaging, and managing referrals of at-risk individuals to in- and outpatient services, as well as traditional healing resources that are important to this population. This has now been disseminated to 18 primary care settings across health care organizations serving indigenous populations. Second, echoing comments made by Kellee White, telepsychiatry services are being provided "across a wide spectrum of tribal communities [that are] rural, impoverished, and isolated," Manson stated. Many of these older adults are military Veterans who are "provide[d] brief diagnostic assessments, medication assessment management and monitoring, as well as support groups, in addition to brief psychotherapy for these individuals," Manson said.

He closed on a positive note by saying that "Native people are extremely resilient. We are here despite centuries of attempts to extinguish our culture[s] [and] ourselves. We continue to recognize and build upon the sources of resilience and strength that remain available to us in our communities."

The Aging LGBTQIA+ Population

Aaron Tax, managing director of government affairs and policy advocacy at SAGE, the nation's largest and oldest organization focusing on improving the lives of LGBTQIA+ elders, began his presentation with a story about someone he knew named Melvin. He was a member of the military who was imprisoned during World War II when a letter from his boyfriend was intercepted. Melvin had to undergo a psychological evaluation, and his discharge papers said he was a "class 2 homosexual" and undesirable. That meant for the rest of his life, "when he had to apply for a job…it said class 2 homosexual and undesirable. You can imagine what that was like in the 50s, 60s, and 70s, and frankly even today in some places," Tax said. SAGE works with many people who came of age at a time when being gay was considered a mental illness, and they continue to carry with them that experience of being pathologized.

Tax outlined some of the risk factors for the aging LGBTQIA+ population, such as more pronounced social isolation than other elders. Older LGBTQIA+ adults are twice as likely to be single and live alone and four times less likely to have children than their straight and cisgender counterparts (Yang et al., 2018). Poverty is another issue faced by members of the LGBTQIA+ population, especially for individuals of color, trans-elders, and lesbian couples, Tax noted. Lifetime disparities in job earnings, employment status, and retirement savings lead to a greater risk for financial instability. Another phenomenon for older LGBTQIA+ adults is going "back in the closet" to avoid

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discrimination and stigma. They face high rates discrimination throughout the life course, physical abuse, and verbal abuse related to sexual orientation and/or gender identity, and overall worse mental and physical health outcomes when compared to straight and cisgender older adults.

Another issue is the lack of access to culturally competent services and supports, particularly in skilled nursing facilities. Tax shared an anecdotal example of the importance of cultural competency. Someone who worked in a skilled nursing facility was asked by a resident why he wore a pin that displayed his pronouns. The worker explained that his gesture (wearing the pin) promoted inclusivity and offered a safe environment. Later, the resident shared her identity as a transwoman for the first time. Tax also commented on the large amount of anti-LGBTQIA+ legislation currently being introduced at the state level; the American Civil Liberties Union is currently tracking more than 435 anti-LGBT bills across the United States, particularly targeting transgender individuals. Unfortunately, there are not a lot of data on trans-elders and how this legislation specifically affects them, but according to the Trevor Project,[12] a majority of trans-gender or non-binary youth report that the political debate surrounding trans-related issues have negative effects on their mental health (The Trevor Project, 2023). Nearly half said they had seriously considered suicide over the past year.

To better understand and address the challenges facing LGBTQIA+ older adults, SAGE is advocating for: more inclusive data; long-term care bills of rights in states across the country that explicitly state the rights that older adults have in long-term care settings; improved and increased cultural competency training requirements; and updates to the Older Americans Act (OAA) to make it more inclusive of LGBTQIA+ individuals and those living with HIV.

The OAA serves as the primary federal vehicle for the organization and delivery of social services to older adults, with an overall goal to enable older adults to age in place in their communities. Historically, however, the legislation did not contain specific language covering LGBTQIA+ adults. In 2020, the reauthorization of the OAA provided specific language to help LGBTQIA+ elders get the services and supports they need to remain independent: state and area agencies on aging "must engage in outreach to LGBT older adults, collect data on their needs, and collect data on whether they are meeting those needs" (Congressional Research Service, 2020). SAGE is currently working on implementing the new language through outreach to the more than 50 state units on aging and over 600 area agencies on aging to ensure they understand the language and can enforce and implement it in states and counties across

[12] See https://www.thetrevorproject.org/ (accessed July 24, 2023).

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the United States. "As we often say around the office, it does not implement itself," concluded Tax.

Economic Insecurity

Joseph Benitez, assistant professor at the University of Kentucky, focuses his research on Medicaid and Medicaid policy. Medicaid is generally thought of as a health insurance program for low-income Americans, he said. But "if we are thinking about the broader utility of Medicaid and the broader value of Medicaid, then we should think about what Medicaid means for society more broadly. How does it actually function as a safety net program for anyone who might incur transitional poverty or transitional joblessness?" More specifically, he said that the question of 'how many people are actually turning to Medicaid because they are unemployed?' is an ongoing and important policy issue.

Work instability and job loss can lead to gaps in health insurance coverage—and discontinuities in health care access—for individuals and their family. The COVID-19 pandemic heightened these concerns, as did rising unemployment during the 2007–2009 recession. In the United States, most people—two thirds of Americans—have health insurance coverage through their jobs, Benitez explained. In instances when an individual is unexpectedly without a job, there is a high probability of becoming uninsured and experiencing coverage gaps. For those individuals living with chronic disease management needs or costly medical conditions, this can also mean amassing medical debt or even forgoing spending on other household material needs such as food or housing.

Access to Medicaid is largely up to the states, which shape the eligibility guidelines and the administrative pathways for access. Benitez shared several stories from the Robert Wood Johnson Foundation's 'That's Medicaid' series[13] about how people used Medicaid to stabilize health care access and to make health care more affordable during periods of material hardship. Gail, for example, was diagnosed with cancer after she lost the health insurance coverage benefits she had previously received through her job. She was able to use Medicaid to maintain her cancer treatments after losing her insurance.

Benitez concluded his remarks by identifying areas of improvement, which includes helping people understanding how they can continue to access Medicaid now that the COVID public health emergency is over. He added that there is a need to understand how people transition off Medicaid across different states, for different subpopulations, and over the life course.

[13] See https://thatsmedicaid.org/about/ (accessed September 24, 2023).

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BOX 2
Key Takeaways from Speakers in Session 2: Health Disparities and Social Determinants of Health

- Older Black adults face many challenges across the mental health care continuum, such as lack of insurance coverage for mental health care and access to culturally competent clinicians, and stigma. (White)
- Health equity can be achieved by integrating mental health services with primary care, increasing the number of culturally competent care providers, and empowering community health workers to provide outreach, assistance, and telepsychiatry to expand access. For both policy and in practice, elimination of structural barriers is essential to achieve health equity. (Manson, White)
- In 2022, California expanded Medi-Cal to cover adults aged 50 years and older, regardless of immigrant status. Illinois, New York, Oregon, and Washington have also expanded state coverage to undocumented immigrant populations. To further advance health equity: establish partnerships with trusted community institutions to address challenges with enrollment and access to care for eligible participants; review reimbursements for mental health services in order to increase utilization of these services; bolster interagency collaboration; and create clinical protocols that address the specific needs of undocumented immigrant communities. (Bustamante)
- Screening, Brief Intervention, and Referral to Treatment (SBIRT) was introduced into primary care by inserting master's level clinicians within primary care teams. and has now been disseminated to 18 primary care settings across health care organizations serving indigenous populations. (Manson)
- In 2020, the reauthorization of the Older Americans Act provided specific language to help LGBTQIA+ elders access the services and support they need to remain independent: state and area agencies on aging "must engage in outreach to LGBTQIA+ older adults, collect data on their needs, and collect data on whether they are meeting those needs." (Tax)
- Access to Medicaid is largely up to the states, which shape the eligibility guidelines and the administrative pathways for access. (Benitez)

This list is the rapporteurs' summary of points made by the individual speakers identified, and the statements have not been endorsed or verified by the National Academies of Sciences, Engineering, and Medicine. They are not intended to reflect a consensus among workshop participants.

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INTEGRATION, ACCESS, QUALITY, COST, AND EQUITY

Integrating Behavioral Health Services and Primary Care

Jürgen Unützer, professor and chair of psychiatry and behavioral sciences and director of the Garvey Institute for Brain Health Solutions at the University of Washington, spoke about how mental and behavioral health needs can be addressed in primary care settings, focusing more specifically on both access to care and the quality of care for older adults. He said that "if you are an older person who has a mental health or addiction problem, what is the likelihood that you will be able to see someone who is trained to help you with that?" He explained that half of all counties in the United States do not have a psychiatrist, psychologist, or any other trained mental health professional. This is particularly true for rural areas, where nearly 20 percent of older adults live (Smith and Trevelyan, 2019). Even when there are psychiatrists available, about 50 percent of those in practice today do not accept Medicare or other forms of health insurance, Unützer said.

Quality of care is another concern. Unützer spoke about a study of videotaped interactions between older patients and their primary care providers (PCPs). The results showed that the PCP was only able to devote an average of 2 minutes to discussing the mental health concern (Tai-Seale et al., 2007). "A primary care provider may write a prescription for a psychiatric medication for one of their patients, usually an antidepressant medication, but very few older adults will have access to effective psychotherapy," he said. Giving a prescription without close follow-up or additional treatments such as psychotherapy may be of limited usefulness; only about 20 percent of older adults who receive an antidepressant prescription in usual primary care will have a substantial improvement in their depression (Park and Unützer, 2011).

Further, PCPs may not be comfortable diagnosing or treating mental illness or substance use disorders. They have limited training in this area, and they do not have the luxury of focusing solely on the patient's mental health problem; they also need to address a wide range of preventative, acute, and chronic medical conditions. Unützer noted a lot of stigma is still associated with having a mental illness, especially among older adults. This can impede conversations between patients and PCPs about mental health concerns.

PCPs also report that they would be "more open or willing to help if I had some support, if somebody had my back," he said. One model for providing integrated behavioral health care for older adults with depression and other common mental health conditions is called "Collaborative Care." A staff member within a primary care practice would be trained as a mental health care manager and work alongside the PCP to care for patients with common mental health conditions. A dedicated psychiatric consultant over-

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sees and supports this care manager, gives advice about difficult diagnoses, and makes recommendations about treatments. With this kind of support, PCPs can safely and effectively provide medication management for a range of common mental health and substance use disorders. "The care managers in their practice can augment such medication management with effective, brief psychotherapy counseling treatments like behavioral activation or problem-solving treatment," Unützer explained. These evidence-based treatments can be provided in-person or via telehealth. The psychiatrists who serve in the consultant role in a Collaborative Care program really like doing this work, he said. They feel that they can help more people because they are backing up an entire team in primary care, caring for an entire caseload of patients, and thus reaching and helping more people in need than if they were seeing a small number of patients in a typical psychiatry practice, while still using their skills. "It really is a nice way to leverage what is a limited resource (a highly trained mental health specialist) in many settings," Unützer commented.

Research shows that the Collaborative Care model works well. Unützer shared the results of IMPACT: Improving Mood—Promoting Access to Collaborative Treatment, which is the largest study conducted with nearly 2,000 patients (depressed older adults) randomly assigned to receive usual primary care or collaborative care. The results indicated that patients who had received collaborative care were more than twice as likely to see a significant improvement in their depression compared to patients in usual care (Unützer et al., 2002). Additionally, collaborative care led to cost savings (AIMS Center, 2023; Unützer et al., 2008). Individuals who are depressed, anxious, and/or are struggling with a substance use disorder often have high rates of health care service utilization. The provision of collaborative care led to reductions in health care costs over the following 4 years when compared with patients receiving usual care. There is "an enormous amount of evidence that this is, in fact, a smart way and an effective way to help identify and treat older patients with common mental health problems such as depression in primary care," he said.

The final challenge discussed was finding a way to reimburse practices for this care. The Centers for Medicare & Medicaid Services (CMS) worked with the American Psychiatric Association to establish billing codes for collaborative care services. This has allowed health care systems such as the University of Washington (UW), with its large academic health care system in the Seattle region, to implement collaborative care in all 20 of its primary care clinics. Through a contract with a non-for-profit health plan, psychiatrists at UW have provided collaborative care consultation to an additional 100 clinics in Washington state. Furthermore, this model has also been replicated. The Mayo Health Care System found that the average person reached remission

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of depression in 86 days through collaborative care versus the 614 days before the program was implemented (Garrison et al., 2016).

Unützer's closing comments focused on how to reach older adults not just in the primary care setting, but in the communities where they live. With funding from the Archstone Foundation, Unützer and colleagues demonstrated that the traditional collaborative care model can be expanded and strengthened when primary care clinics partner with community-based organizations like Meals on Wheels that have the opportunity to serve older adults in their homes and communities.[14] Community-based providers can support outreach, screening, education, and treatment. They can provide support for medication management and deliver brief psychotherapy right in the patient's home or other settings in the community. Unützer shared some results from a current study stating, "What we found is we had an even higher proportion of patients who were depressed at baseline have a significant improvement in their depression after 10 weeks of treatment or more, 70 percent of patients" This was an even more powerful way of reaching, engaging, and helping depressed people, he concluded.

Public Health Integration into Accountable Care Organizations

Jie Chen, professor and director of the Hospital And Public health interdisciPlinarY research (HAPPY) Lab[15] at the School of Public Health University of Maryland, discussed the integration of public health into accountable care organizations (ACOs). Guided by a health equity framework, Chen and her team at the HAPPY lab try to determine the cost-effectiveness of integrating public health practices into the health care delivery system and reimbursement policy. Their work has recently examined the integration of public health and value-based care models for individuals living with dementia and mental health disorders. "The existing mental health care system…commonly functions in isolation, which poses substantial barriers to provide comprehensive care or whole-person care, especially for people with diverse social determinants of health and race and ethnic backgrounds," she explained. A population health approach that involves coordinated care in both health systems and community organizations is essential to improve the health of all, said Chen.

The public health system, Chen said, acts as the hub of community health programs and social services and functions as a safety net for serving populations without adequate access to care. Chen noted that public health systems operate locally, tailoring their programs to address community needs, includ-

[14] See https://www.mealsonwheelsamerica.org/ (accessed July 24, 2023).

[15] See https://sph.umd.edu/research-impact/laboratories-projects-and-programs/hospital-and-public-health-interdisciplinary-research-happy-laboratory (accessed July 24, 2023).

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ing mental health care. Evidence has shown that public health activities can improve health care coordination and can help reduce stigma as well as and racial and ethnic health disparities. They can also reduce health expenditures. However, the implementation of care coordination strategies across the United States is not evenly distributed, said Chen. "It is crucial to distribute the care coordination services in a cost-effective and equitable manner," she explained.

ACOs are a type of virtual network that promotes teamwork among physicians, hospitals, primary care specialists, and community workers to provide care, particularly for individuals with complex health care needs. Empirical evidence indicates that the implementation of an ACO reduces Medicare expenditures (Benjenk and Chen, 2022). However, there is no requirement that a mental health specialist be included in this team-based care model, so it is unclear how ACOs affect the delivery of care for mental health disorders such as depression. Health information technology (IT) is being increasingly used to improve care coordination and increase patient engagement, Chen said. Telehealth-supported systems require robust partnerships, and public health systems can also play a role here. Combining public health systems with telehealth can improve the health care delivery system.

During the COVID-19 pandemic, hospitals that participated in an ACO and collaborated with public health departments were more likely to receive up-to-date information for treating their patients and were more likely to receive patient information electronically, which helped health care providers gain a more comprehensive view of their patients (Maguire et al., 2023). Chen said this is evidence of community resilience in a public health emergency like COVID. "The significance of a resilient partnership between the health care system and the public health system becomes more pronounced," she commented.

Based upon this, Chen and her colleagues created the e-SMILE framework: Health IT-supported System-Level Multidisciplinary Integration of population health and Equity. The framework delineates how fully integrated systems can engage with patients, caregivers, health care providers, communities, public health systems, and policies to improve equity, access, and quality and reduce health care expenditures (Figure 4).

"We are at a very critical time…to strengthen public health integration with the goal to better engage patients and diverse communities for those with mental health conditions," Chen explained. Key areas for future research include strengthening care coordination between health care and communities; focusing on personalized prevention, treatment, and management; fostering resilience; encouraging value-based payments to further engage clinicians, patients, and caregivers; and improving data collection and data quality to address social determinants of health and health disparities, Chen noted.

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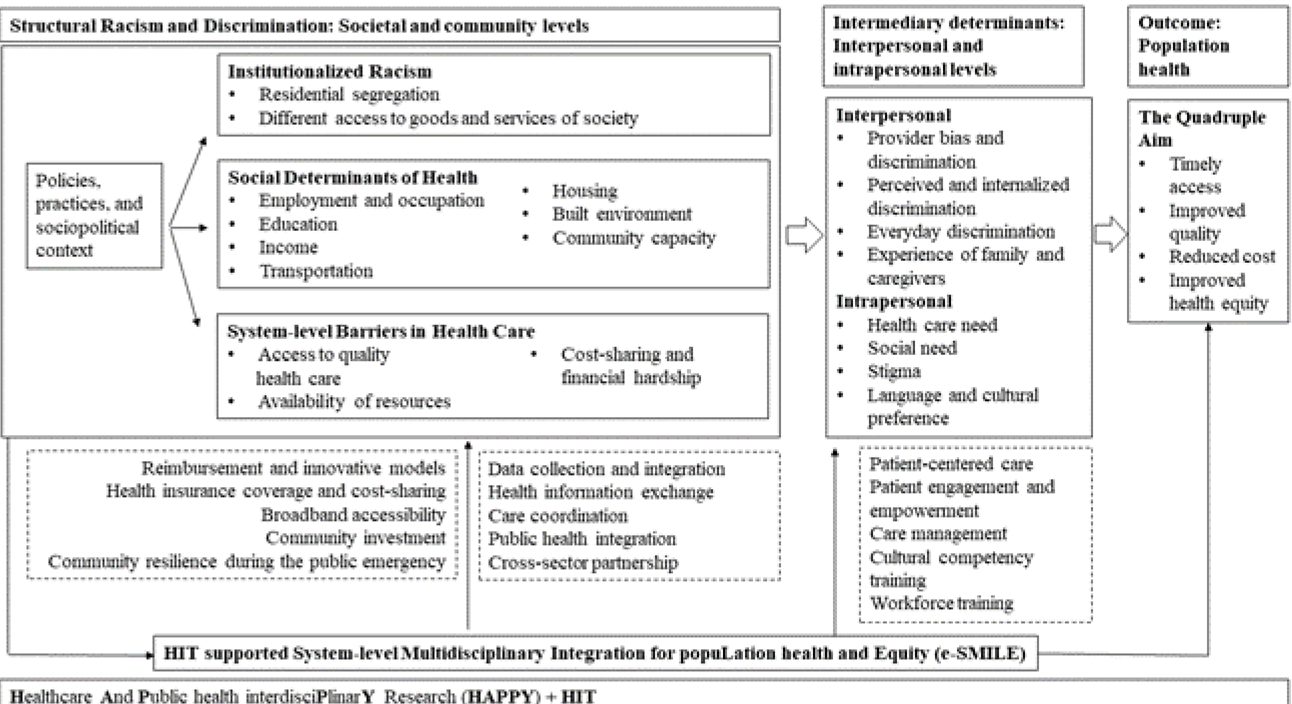

FIGURE 4 Health IT-supported SMILE Framework.
SOURCE: Presented by Jie Chen on May 15, 2023. HIT=health information technology. The model is adapted from Chen et al. (2022).

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Chen described several promising trends. Federal policies, such as the 21st Century Cures Act, align with the integration goals by fostering data interoperability. There are also efforts to revise payment structures to encourage cross-sector collaborations and improve investments in public health systems. Initiatives like the ACO REACH (Accountable Care Organization Realizing Equity, Access, and Community Health) model and the Centers for Disease Control and Prevention public health investment aim to promote health care integration across traditionally isolated systems and health equity.

Certified Community Behavioral Health Clinics

Two speakers from the Substance Abuse and Mental Health Services Administration (SAMHSA) described what the agency provides for older adults with mental health and substance use disorders. First, Eric Weakly, western branch chief, noted that the agency's budget has doubled over the past few years to a total of $7.4 billion. Although this is good news, when the money is spread across the states and territories, only a small percentage of the funding is for the state mental health system. Weakly provided information about the agency's strategic plan and core principles, noting that one major priority is integrating primary care and behavioral health care. Suicide prevention, preventing overdose deaths, promoting resilience and emotional health, and strengthening the workforce are other priorities that cut across SAMHSA's core principles: equity, trauma-informed approaches, commitment to data and evidence, and recovery. Weakly noted that SAMHSA priorities are intended to serve all populations, including older adults.

Weakly said data from the National Survey on Drug Use and Health indicate that more than 4 million adults aged 50 and older have a serious mental illness, but he added that this is likely a conservative estimate. Drug overdose deaths for people aged 55 and older are trending upward (Hedegaard et al., 2021); half the people surveyed in the 50 years and older group reported receiving care to address their mental health condition, however, only 11 percent said they had received specialized treatment for substance use disorders (SAMHSA, 2021).Weakly also noted that in 2021, seniors aged 85 years and older had the highest rate of suicides among any age group (CDC, 2023).

David de Voursney, director of the Division of Community Behavioral Health at the Center for Mental Health Services at SAMHSA, shared information about SAMHSA's Certified Community Behavioral Health Clinics (CCBHC) program. He said this program, administered in partnership with the Office of the Assistant Secretary for Planning and Evaluation (ASPE) and CMS, was "the realization of a dream that has been 60 years in the making." In 1963, President Kennedy signed the Community Mental Health Act into law, signaling a shift in policy from treating individuals with mental illness in

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institutionalized settings to treating people in the community. The Act established community mental health centers across the United States.

However, he explained, "what resulted were good practices in many places but overall, a fragmented system that has not met people's needs in the community." Building upon the Community Mental Health Act, de Voursney stated that the CCBHC program "is our best chance towards… building a community safety net that meets the needs of people with mental and substance use disorders regardless of their ability to pay for those services." A CCBHC brings together a comprehensive set of services that incorporate evidence-based practices and other supports that are based on a community needs assessment. The result is improved access to care, including 24/7 access to crisis services. According to SAMHSA, CCBHCs must also serve individuals across the lifespan with developmentally appropriate care for their mental health and SUDs.[16]

de Voursney listed the nine services CCBHCs must provide directly or through formal partnerships: (1) crisis services, (2) screening, diagnosis, and risk assessment, (3) outpatient mental health and substance use services, (4) person- and family-centered treatment planning, (5) psychiatric rehabilitation services, (6) community-based mental health care for veterans, (7) outpatient primary care screening and monitoring, (8) peer, family support, and counselor services, and (9) targeted case management services. In addition to providing required services, de Voursney summarized other areas of the federally defined certification criteria that CCBHCs must meet. They must meet staffing requirements based on the needs of the populations being served; provide timely and meaningful access to services such as 24/7 access to crisis services and mobile crisis response within 3 hours; and be seen within one day for an urgent non-crisis need, and within 10 days for a routine need. Furthermore, CCBHCs serve everyone, regardless of age, ability to pay, or place of residence; they must build partnerships with health care providers and community organizations and have a health IT infrastructure to support care coordination. He also noted that there are reporting requirements, including behavioral health and physical health indicators, and requirements around organizational authority and governance.[17] All CCBHCs must participate in Medicaid and meet relevant state-level requirements.

One area of improvement needed is in the provision of services to older adults, said de Voursney. Only 4.4 percent of the population served by CCBHCs were older adults, indicating a gap in services. de Voursney described an

[16] See https://www.samhsa.gov/sites/default/files/revised-ccbhc-criteria-dec-2022.pdf (accessed October 7, 2023).

[17] See https://www.samhsa.gov/sites/default/files/ccbhc-criteria-2023.pdf (accessed July 25, 2023).

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example of how CCBHCs can meet the needs of older adults. Westchester Jewish Community Services became a CCBHC through an expansion grant in 2021 and was already providing services to older adults through a preexisting geriatric care management program, respite care, a nursing home transition and diversion program, community integration programs, and caregiver support. This is, he said, "a melding of older adult services and community-based supports through the CCBHC model."

de Voursney concluded his presentation by stating that "a lot of work [still needs] to be done, but there is great promise in the model in terms of the access it can create."

Medicare

Doug Jacobs, chief transformation officer at the Centers for Medicare & Medicaid Services, described the agency's strategy for improving the provision of services for behavioral health. This strategy includes strengthening equity and quality in behavioral health care by taking a holistic approach to behavioral health inequities, including understanding the integration of place and inequities; improving access to prevention, treatment, and recovery services for substance use disorders; ensuring effective pain management, because more than 20 percent of Medicare-eligible individuals live with chronic pain; improving access to and quality of mental health care services; and using data to inform effective actions and measure the impact of these actions on behavioral health. This involves tracking effective interventions over time.

Jacobs offered specific examples of changes in policies designed to increase access to behavioral health services through Medicare. One way is through the implementation of "incident to" billing, finalized in 2022. This mechanism allows behavioral health care providers to furnish behavioral health services under general supervision and without the billing practitioner onsite, thereby expanding access.[18] Additionally, collaborative care management codes (called behavioral health integration) have been created for clinical psychologists and licensed clinical social workers (LCSWs); previously, only psychiatrists could bill these services. There is also a new chronic pain management code for "a holistic service that is delivered to individuals who have chronic pain. That includes diagnosis, assessment and monitoring, facilitation of necessary behavioral health treatment, [and] medication management. It includes counseling," Jacobs said. The Consolidated Appropriations Act of 2023 contains provisions that also allow marriage and family therapists and mental health counselors to enroll and bill Medicare, for the first time, starting in 2024.

[18] See https://www.cms.gov/newsroom/fact-sheets/calendar-year-cy-2023-medicare-physician-fee-schedule-final-rule (accessed August 22, 2023).

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One change to strengthen the Medicare Shared Savings Program, "which is the largest accountable care organization program in the country," said Jacobs, is the provision of advanced investment payments for new ACOs, starting in 2024.[19] These payments could be used to increase staffing and hire behavioral health care providers. New ACOs can also use these payments to improve infrastructure, for example, by developing mechanisms to connect with local community-based organizations. Payments can also directly address the social needs of individuals enrolled in Medicare, which also advances the concept of holistic care. Jacobs added that the data suggest ACOs perform better than non-ACOs in behavioral health metrics like depression screening and follow-up.

For substance use disorders, CMS has clarified that mobile units used to provide treatment for opioid use disorders can receive payment from Medicare. Jacobs highlighted that this is important for improving access and reaching disadvantaged populations such as individuals living in rural areas and people experiencing homelessness. CMS has also increased payment rates for opioid treatment providers because it has been shown over time that individuals receiving methadone treatment require longer therapy sessions. Research also shows that the flexibilities associated with using telehealth for behavioral health improves access to health care services. However, underserved populations do not always have access to audiovisual technologies, causing a digital divide. CMS has permanently expanded access to telehealth for behavioral health, for both audio/video and audio-only technology (when the beneficiary is not capable of, or does not consent to, the use of two-way, audio/video technology) to help increase access.[20]

A holistic approach to behavioral health is also emerging in Medicare Advantage programs, Jacobs said. For the first time, CMS is setting standards for wait times in primary care and behavioral health settings. Clinical psychologists and LCSWs will be included as specialty types for which CMS sets network adequacy standards, "meaning appropriate time and distance standards to access these clinician types," Jacobs explained. Furthermore, CMS has clarified the general access to services standards in Medicare Advantage plans; if an individual cannot get access to behavioral health services within the network they are given, the plan has to make an out-of-network care provider available at in-network cost-sharing rates. Also based on new requirements, Medicare Advantage plans must have care coordination programs to coordinate community, social, and behavioral health services all together. Lastly, if a Medicare

[19] See Advance Investment Payments Guidance. March 2023. https://www.cms.gov/files/document/aip-guidance.pdf (accessed August 22, 2023).

[20] See https://www.cms.gov/newsroom/fact-sheets/2024-medicare-advantage-and-part-d-final-rule-cms-4201-f (accessed August 22, 2023).

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BOX 3
Key Takeaways from Speakers in Session 3: Integrations, Access, Quality, Cost, and Equity

- One effective model for providing integrated behavioral health care for older adults with depression and other common mental health conditions is called "Collaborative Care." (Unützer)
- Accountable care organizations (ACOs) are a type of virtual network that promotes teamwork among physicians, hospitals, primary care specialists, and community workers to provide care, particularly for individuals with complex health care needs. However, there is no requirement that a mental health specialist be included in this team-based model so it is unclear how ACOs affect the delivery of care for mental health conditions such as depression. (Chen)
- Combining public health systems with telehealth can improve the health care delivery system. A population health approach that involves coordinated care in both health systems and community organizations is essential to improve the health of all. (Chen)
- Certified Community Behavioral Health Clinics bring together a comprehensive set of services that incorporate evidence-based practices and other supports that are based on a community needs assessment.
- The Centers for Medicare & Medicaid Services' new strategies for improving behavioral health care services include strengthening equity; improving access to prevention, treatment, and recovery services for substance abuse disorders; ensuring effective pain management; improving access to and quality of mental health care services; using data to inform effective actions and measure the impact of these actions on behavioral health; and providing advanced investment payments for new ACOs, which could be used to increase staffing of behavioral health care providers. (Jacobs)

This list is the rapporteurs' summary of points made by the individual speakers identified, and the statements have not been endorsed or verified by the National Academies of Sciences, Engineering, and Medicine. They are not intended to reflect a consensus among workshop participants.

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Advantage plan drops a behavioral health or primary care provider from the network, all patients who see that provider must be notified. "Continuity of care is just really important…particularly because a lot of these relationships that develop are just so important," Jacobs explained. CMS will continue to implement these regulatory provisions with the goal of improving the access and quality of behavioral health care, concluded Jacobs.

CLOSING DISCUSSION FOR DAY 1

Charles F. Reynolds III and Jie Chen, moderated the last session of the day, taking questions from in-person and virtual workshop attendees. Reynolds identified high-level, crosscutting themes heard throughout the day and emphasized the importance of taking united action to improve health care for older adults living with mental health disorders. Key crosscutting themes highlighted by Reynolds and Chen were the need to: (1) personalize care management approaches to prevention, treatment, and recovery, taking into account each person's needs, challenges, and strengths; and keeping in mind sociocultural context, life circumstances, priorities, and available resources; (2) find partners, speak up against discrimination, and advocate for social changes that support mental well-being; (3) support the implementation of rights-based care for mental health disorders in later life, including legal and collaborative care frameworks integrated across the health and social welfare systems, and co-designed for people with the lived experience of mental health disorders and their families; and (4) secure financial investment in mental health care, because existing treatments work, can reduce human suffering, and make economic sense from a societal perspective.

An issue that struck Reynolds was the siloed provision of services for older adults with mental health and substance use disorders. They are not coordinated, despite the common co-occurrence of these disorders. This relates to the larger theme of the fragmentation of behavioral health services. Speakers throughout the day highlighted the importance of partnerships between primary care and behavioral health, and collaboration with community-based partners. Reynolds said another crosscutting theme in the workshop was that while the nation's older adult population is increasing, there is also a significant increase in the racial and ethnic diversity of this population. Community health workers are essential for outreach and engagement efforts among communities of color, he said.

Jacobs emphasized that CMS is focused on the integration of physical health, behavioral health, and social determinants of health within the perspective of holistic care, citing the behavioral health integration codes and the collaborative care codes. While no single approach is a "silver bullet," he expressed hopes that the field is collectively moving in the direction of whole-person care.

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Unützer said that based on partnerships with more than 1,000 clinics across the country to implement the Collaborative Care model, he concluded that different types of health care professionals with mental health expertise can serve in the care manager role. The model was originally tested with clinical psychologists and nurses working as mental health care managers alongside primary care providers. During the original IMPACT trial, researchers found that core skills could be taught to a wide range of professionals, who learned as they worked closely with psychiatric consultants and primary care doctors. The program has successfully trained licensed clinical social workers, master's-level social workers, and clinical psychologists, demonstrating that a wide range of professionals are suitable for working in the care manager role. Unützer described a new program in Washington state in which bachelor's-trained individuals are prepared to become health care professionals and can provide screening and evidence-based psychotherapies for common mental health problems. Lastly, he underlined that it is critical to build a team that can work together to address the needs of a particular practice.

Eric Lenze, professor in the Department of Psychiatry at Washington University School of Medicine, raised a question regarding quality as a cross-cutting issue. The February 2023 White House Report on Mental Health Research Priorities identified the need to increase access while maintaining quality of mental health care as a focus. However, he said that some evidence points to the deterioration of the quality of mental health care for older adults. He recently published data on the optimal model of providing mental health services to older adults with treatment-resistant depression, with a focus on efficacy, safety, and tolerability.

Pacula observed that the speakers had introduced compelling innovations, such as integrating behavioral health with primary care, Medicare changes in payment reform, and the SAMHSA CCBHC program. However, she wondered to what extent these innovations are targeted to specific populations. Certain minority groups, such as gender non-conforming populations and indigenous populations, are not being adequately reached, she said. Regardless of how innovations are implemented, if providers do not accept patients from these populations, it limits the reach of innovations. Reynolds answered that this was an extremely important issue that deserves more attention with respect to common values, health equity, and reaching everyone.

Kirsten Beronio, senior policy advisor at the Center for Medicaid and CHIP Services, and planning committee and Forum member, provided the closing remarks for the first day of the workshop. She pointed out that Medicaid is the single largest source of funding for mental health care and SUD services in the U.S. She emphasized recent policy clarifications to support integration of behavioral health care and primary care and the CCBHC demonstration, in addition to increased federal funding for the expansion of

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home and community-based services. She adjourned the day by thanking all the distinguished speakers and panelists, the planning committee, and the National Academies' staff.

WORKFORCE

Overview: Workforce Needs to Support The Well-Being of Older Adults with Mental Health Conditions

Stephen Bartels, director of the Mongan Institute and the James J. and Jean H. Mongan Professor of Health Policy and Community Health at Harvard Medical School, provided an overview of workforce issues for those individuals who provide care to older adults. "A substantial portion of older adults require mental health services, yet only a minority of older adults who need mental health services receive specialty care," he said. Bartels referenced a 2012 Institute of Medicine (IOM) report on a similar topic, *The Mental Health and Substance Use Workforce for Older Adults: In Whose Hands?* to emphasize that not much has changed in the behavioral health care workforce since its publication. (See Appendix C for the full list of recommendations.)

The "supply side" of the workforce (i.e., number of care providers specializing in geriatric mental health) is "past the critical tipping point," said Bartels. While the aging of the population is increasing, the number of psychiatrists participating in Medicare is decreasing, the majority of rural health service areas have no psychiatrists at all, and geriatricians are experiencing a massive shortfall where half of training fellowships go unfilled. In 2002, there were 106 geriatric psychiatry fellows, while there are now only 48, he explained, and only 1 percent of licensed psychologists identify as focusing on older adults (Conroy et al., 2021; Novotney, 2018). Furthermore, it is not only patients who are aging; primary care physicians are aging as well. Many left the workforce during the COVID-19 pandemic, Bartels said, and over 45 percent of primary care physicians are over age 55, with more than half predicted to retire in the coming decade (AMA, 2019).

By contrast, the number of nurse practitioners providing care to Medicare beneficiaries has more than doubled (Oh et al., 2022). Bartels said the use of unlicensed mental health care providers is another area of growth. It has been documented that mental health counselors and community health workers can provide effective mental health care (Ciechanowski et al., 2004; Quijano et al., 2007; Waitzkin et al., 2011), and there is growing evidence in support of using certified peer support specialists (Åkerblom and Ness, 2023; AMA,

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2019; Fortuna et al., 2018). Task sharing[21] is another scalable model for low-resource settings (Kemp et al., 2019; Raviola et al., 2019). Telemental health and digital health are other successful interventions for expanding access (Chew et al., 2020), and now through the recent Medicare transformation, licensed professional counselors and marriage and family therapists can provide services without supervision (AACAP, 2023).

Bartels summarized potential strategies from the 2012 IOM report to address the current workforce supply. Strategies include cross-training geriatric specialists and care providers for mental health and substance use disorders who do not see older adults regularly; integrating social services with health care; implementing task sharing; providing additional training to paraprofessionals; sustaining telehealth services; promoting digital health equity; mandating mental health equity; and prioritizing implementation research. Bartels also suggested implementing the first recommendation in the 2012 IOM report:

> Congress should direct the Secretary of Health and Human Services to designate a responsible entity for coordinating federal efforts to develop and strengthen the nation's geriatric mental health and substance use force.

Bartels also discussed gaps on the "demand side" (i.e., older adults who are seeking mental health care or can afford mental health care). Despite the enactment of Medicare mental health parity legislation, a 2023 study found a disparity divide with respect to the impact: older white adults had a greater increase in the use of mental health services following mental health parity implementation compared with Black older adults (Fung et al., 2023). Mental health parity[22] "has not achieved what we hoped it would do," said Bartels. In terms of demand, cost sharing for older adults (i.e., required co-payments) is reported to be the greatest obstacle when accessing and receiving mental health care. Furthermore, when being compared with other high-income countries, older adults in the United States are more likely to report cost as the reason for a lack of access (Gunja et al., 2022). Data also show the need is highest for Latino older adults in the United States. Bartels said, "this issue of co-payment is a real problem for older adults on fixed incomes." Barriers like this should

[21] Task sharing is an approach in global mental health that may help address unmet health needs in rural and other low resource areas. Task sharing is an arrangement in which generalists—nonspecialist health professionals, lay workers, affected individuals, or informal caregivers—receive training and appropriate supervision by mental health specialists and screen for or diagnose mental disorders and treat or monitor people affected by them (Kemp et al., 2019).

[22] The provision of coverage by health plans for mental health and substance use services to a comparable degree as medical and surgical problems (APA, 2021).

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be removed by eliminating deductibles and co-payments, eliminating prior authorization, and ensuring permanent Medicare coverage for mental health and substance use telehealth visits, he said. Lastly, Bartels concluded, we still need to reduce the stigma of mental illness, which remains a barrier to seeking and accessing mental health services for older adults.

Clinical Pharmacist Practitioners

Tera Moore, a national program manager in the Clinical Pharmacy Practice Office at the U.S. Department of Veterans Affairs (VA), described clinical pharmacy practice integration. She noted that two thirds of adults over age 65 have multiple chronic medical conditions (Boersma et al., 2020), which means multiple medications and a risk of polypharmacy (Dahal and Bista, 2023). There are risks of drug interactions or adverse effects from not only prescription medications, but over-the-counter and herbal remedies as well, and these risks increase as the number consumed by an individual increases based on how the medications are metabolized and eliminated, explained Moore (Dahal and Bista, 2023). With the number of older adults with psychiatric disorders increasing, she said, "there continues to be an opportunity for identifying the appropriate therapy…medication management is not always the answer in the treatment for mental health disorders."

Within the VA, clinical pharmacist practitioners are advanced practice providers, Moore explained, adding that "they really are an integral part of the interprofessional team…providing comprehensive medication management across the full spectrum of mental health disorders for patients." The medication management expertise that the pharmacists bring to the team provides added value to team-based care, increases access, and leads to improved outcomes related to quality and safety (McFarland et al., 2021). "They are part of the solution for meeting the unmet needs in older adults to ensure when medication is indicated, it is optimized in a patient-centered approach," she said.

Comprehensive medication management or the CMM approach is a process used in the VA Clinical Pharmacy Practice Office that individualizes a patient care plan to achieve the medical goals for that patient. It starts with a whole health approach to ensure that care is being aligned with the patient's desired quality of life, Moore noted. Caregivers are also included in the process. All of this information is incorporated into the care plan, including medication management, non-medication management issues, and input from other team members. Referrals are also included, such as therapy needs or chronic condition management within primary care. This helps to bridge gaps and improve care coordination. Older adult patients with mental health conditions have special considerations that might include custom adjustments for kidney or liver functions, risks of adverse events, or drug interactions.

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Once this information is collected, the clinical pharmacist practitioner implements and monitors the care plan and follows up with the patient, as needed.

Moore described the impact that mental health clinical pharmacist practitioners have within the VA, reiterating that "the clinical pharmacist practitioner is part of a team." By having interprofessional teams, clinicians can leverage each member of the team's expertise, improve team efficiency and patient satisfaction, properly coordinate care, and improve access as well as the overall health of veterans. During fiscal year 2022, more than 750,000 patient encounters were recorded by clinical pharmacist practitioners, which "directly enhance[d] not only access, but continuity of care," said Moore. Additionally, there were over 840,000 interventions, which included items such as screening and brief interventions, suicide risk assessments, safety planning, and addressing other care needs such as identifying any substance use disorders, including alcohol and opioid use disorders. Through the CMM approach, it is ultimately the clinical pharmacist practitioners who ensure appropriate, effective, and safe solutions for each patient's care, she said, adding that this further highlights that pharmacists are a team force multiplier with expertise in medication management for older adults that can be used in different care settings, including a virtual setting.

Paraprofessionals

Peer Support

Jin hui Joo is a geriatric psychiatrist at Massachusetts General Hospital who manages the care of older adults and is also a health services researcher at the Harvard Medical School, conducting research focused on enhancing access to mental health care, specifically for depression, in communities of low-income older adults and communities of color. Social support is a critical psychosocial factor and a significant contributor to depression when it is absent, Joo explained. By using clinical knowledge in combination with community resources to develop interventions, such as peer support, barriers to receiving depression care can be reduced and older adults can effectively engage with mental health services. Joo described peer support as "a psychological helping relationship," existing on a spectrum of helping relationships, from those that naturally occur, such as friendships, to formal helping, such as psychotherapy (Figure 5). Peer workers are valuable community resources who can be trained to deliver mental health services and bridge the gap between community and health systems.

The provision of peer support can take place in clinical and community settings, ranging from emergency rooms to psychiatric units to the home. Peer support specialists undergo rigorous requirements to be certified frontline

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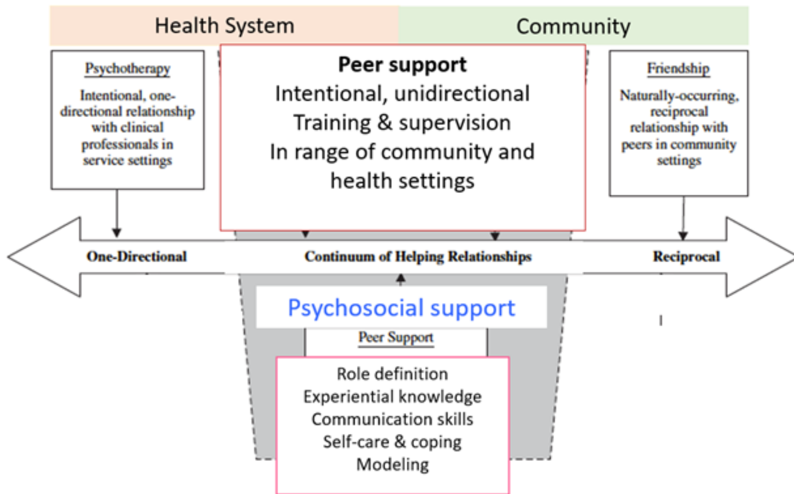

FIGURE 5 Conceptualization of peer support (Davidson et al., 2006).
SOURCE: Presented by Jin hui Joo on May 16, 2023; modified with permission from Oxford University Press.

workers who provide a limited form of psychosocial intervention by using their own experiences with depression and depression care and are able to relate more closely to the patients they serve. These peer support specialists are trained and supervised to help patients increase the use of self-care and coping strategies. Ultimately, they provide social support, which is rigorously defined as emotional, appraisal, and informational support. Joo et al. (2023) found that these community-based interventions, like implementing peer support, are highly accepted and trusted throughout the community. "Peer support is very familiar and less intimidating," said Joo. However, that can also be seen as a barrier when trying to implement peer support interventions in clinical settings. Peer support workers can also be reluctant to work in health care systems because of the unfamiliarity of working within a public health infrastructure, distrust, and stigma (Joo et al., 2023).

Strategies Used in Low Resource Settings Globally

Vikram Patel, the Pershing Square Professor of Global Health at Harvard Medical School, spoke about workforce issues from a global perspective. Although there was much discussion throughout the workshop about a lack of resources in the United States to meet mental health needs, he noted that this country has more resources than anywhere else in the world. This is true both in terms of the number of specialists per capita in the United States, and

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in the amount of dollars spent on mental health care. Patel asked, "Why is it that, despite this richness of resources, the majority of people who need care… do not receive care, evidence-based care in particular?"

Patel referenced the Grand Challenges in Global Mental Health initiative,[23] a collaborative effort launched in 2003 led by the National Institute on Mental Health, to identify research priorities that could lead to substantial improvements in the lives of people living with mental health conditions. Patel said that not surprisingly, the most important research questions that emerged focused on implementation science, "how can we do better with the knowledge we already have?" In the years since the initiative was launched, more than 100 randomized controlled trials were conducted in a range of low-resource contexts around the world, and he said that "we know how we can deliver both clinical and preventive interventions in any resource setting." For example, in Zimbabwe, the Friendship Bench program[24] trains community health workers to deliver brief evidence-based psychological interventions to address depression and anxiety. Additionally, the World Health Organization (WHO) Integrated Care for Older People (ICOPE) package provides guidelines that focus on specific impairments that older people endure, such as lack of mobility or sleep, as well as guidelines on community-level interventions to prevent, slow, or reverse physical and cognitive declines (WHO, 2017).

This body of evidence, Patel explained, has helped to redefine the "what, who, where, and how" in mental health care. Primarily, mental health interventions should be brief interventions targeting psychological mechanisms, skill-building interventions, or social mechanisms associated with mental health problems and delivered when people need them by whoever in the community is authorized to deliver this care, such as community health workers, peer support workers, and nurse practitioners (Kohrt et al., 2018) (Figure 6). Patel noted that "this program of delivery is an extension of the existing mental health care system expanding its footprint deep into the community." Interventions can also occur in the home. One example was from Patel's work based in India, where frontline "home care providers" were deployed to homes where families included an elderly person with dementia. Home care providers offer a range of non-pharmacological interventions to empower the caregiver to help manage the neuropsychiatric symptoms frequently associated with dementia (Dias et al., 2008).

In the prevention of depression, one randomized controlled trial provided individuals living with depressive symptoms or chronic physical health conditions with a lay counselor from the community who was trained to deliver a

[23] See https://www.nimh.nih.gov/about/organization/cgmhr/grandchallenges (accessed August 3, 2023).

[24] See https://www.friendshipbenchzimbabwe.org/about-us (accessed August 3, 2023).

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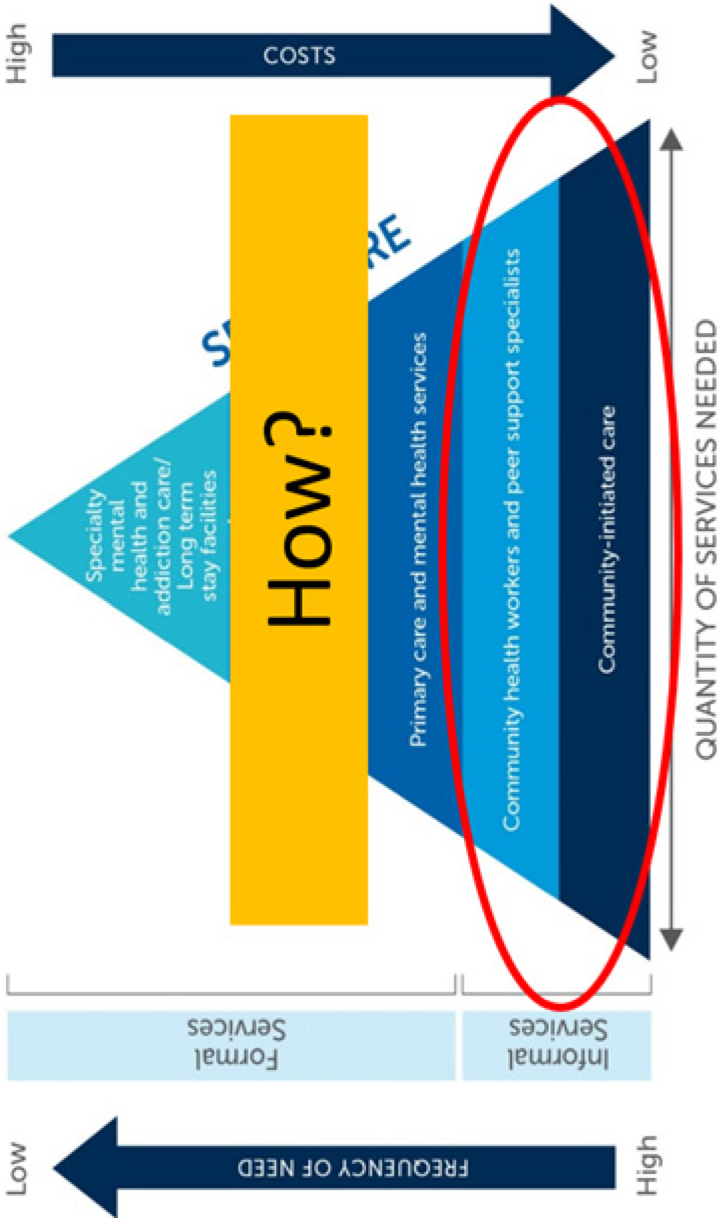

FIGURE 6 Framework for Mental Health and Substance Use Disorder Workforce (revised from WHO, 2009).
SOURCE: Presented by Vikram Patel on May 16, 2023; Revised from World Health Organization (2009).

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brief problem-solving intervention, care coordination, and assistance with navigation of chronic diseases. This led to significant reductions in the incidence of depressive disorder (Dias et al., 2019). "The benefits of this approach are enormous," he said. "Beyond just improving access to evidence-based care… it reduces stigma because you are receiving care, which is person-centered, in your own home."

Patel spoke briefly about his current research. He is currently focused on using digital tools to build the frontline workforce. The EMPOWER Initiative at Harvard Medical School[25] delivers a digital curriculum aimed to rapidly build the capacity of frontline care providers to deliver evidence-based psychosocial interventions with assured quality. Using technology addresses a number of barriers to the rapid scale-up of interventions that are designed to build workforce capabilities for care delivery. "The lesson for all countries is to scale up psychosocial interventions through a diverse frontline workforce, working in collaboration with primary care and behavioral health services," he concluded.

Cultivating Interprofessional Teams

Donna Fick, a board-certified geriatric nurse specialist who directs the Tressa Nese and Helen Diskevich Center of Geriatric Nursing Excellence and an Elouise Ross Eberly Endowed Professor at the Pennsylvania State University, started with a story about Juanita, a 92-year-old woman who was admitted to a psychiatric unit because she had gotten confused and pulled the fire alarm in her apartment building. Juanita lived alone and accidentally doubled her dose of oxybutynin, a common treatment for overactive bladder. Juanita was diagnosed with undetected delirium superimposed on dementia, which was exacerbated by dehydration and inappropriate medication use. "Many people who have dementia, delirium, and mental health issues do not have access to screening and diagnosis. They have a lack of support and they do not have access to an interprofessional team," she added. This is especially critical because research indicates that primary care physicians were unaware of dementia in over 40 percent of cases (Chodosh et al., 2004), she said, and not even half of delirium symptoms are recognized (Cotton et al., 2011). An interprofessional team assessed Juanita's dementia and developed an approach to prevent future delirium and support Juanita and her care partners as her condition progressed.

Fick stressed that the "use of team care" has been shown to reduce mortality in older adults, to improve function, quality of life, and to improve

[25] See https://mentalhealthforalllab.hms.harvard.edu/empower (accessed August 3, 2023).

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care partner burden." Chen et al. (2021) found that interprofessional teams bring diversity, innovation, and support to other professionals, and improve staff morale. To make interprofessional care more accessible, Fick reiterated, team science should be encouraged in undergraduate education, and even starting in high school and elementary school. The challenges of a team-based approach include the existing hierarchies among health care professionals, such as pay, incentives, and trust; not being translated well into the community; and the lack of sharing health information. "Despite the promise of EHRs," Fick noted, agencies "have no way to easily share [information] between the medical and social sciences."

Fick shared her concerns about the current workforce and training, restating that there are not enough geriatricians, which is a threat to interprofessional teamwork. In the coming years, according to data compiled by the American Geriatrics Society Workforce Policy Studies Center, "we will need 30,000 geriatricians to care for 21 million older Americans," she noted. Because geriatrics requires a team approach, there is also a need for geriatric training for health professionals throughout the care continuum, said Fick, adding that less than 3 percent of advanced practice nurses are trained in geriatrics (Rowe, 2021). Other challenges include staffing levels and a poor work environment, added Fick. A recent study of over 9,000 nurses found that 82 percent were emotionally exhausted and nearly 40 percent plan to leave the field within a year (Medvec et al., 2023).

Fick suggested potential solutions to combat these challenges: offering equitable pay and incentives to all team members; embedding training across the continuum from education to practice; promoting diversity in teams; investing in whole-person outcomes rather than individualized metrics; fully engaging with the patient and caregiver; encouraging academic and practice partnerships; providing equitable pay and incentives for direct care staff; and investing in more research on models and frameworks that will train geriatric staff and professionals and cultivate healthy interprofessional teams.

Discussion

Richard Frank from the Brookings Institution observed that there is no accountability for access or quality with Medicare Advantage or Medicare Shared Savings Programs. "There is an opportunity here in policy to create accountability through measurement and payment that could really make a difference." Reynolds noted that treatment for mental health costs less than treatment for cancer or cardiovascular disease. Fick added that "measuring cost

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BOX 4
Key Takeaways from Speakers in Session 4: Workforce

- The aging of the population is increasing while the number of psychiatrists participating in Medicare is decreasing, but the use of other mental health care providers is growing. (Bartels)
- For older adults seeking mental health care, cost sharing (e.g., required co-payments) is a significant obstacle. Eliminating deductibles, co-payments, and prior authorization, and ensuring permanent Medicare coverage for mental health and substance use telehealth visits would reduce barriers to care. (Bartels)
- The medication management expertise of pharmacists provides added value to team-based care, increases access, and leads to improved outcomes related to quality and safety. (Moore)
- Peer workers are valuable community resources who can be trained to deliver mental health services and bridge the gap between community and health systems. (Joo)
- All countries can scale up psychosocial interventions through a diverse frontline workforce, working in collaboration with primary care and behavioral health services. (Patel)
- The use of team-based care has been shown to reduce mortality in older adults, to improve function and quality of life, and to reduce care partner burden. Interprofessional teams bring diversity, innovation, and support to other professionals, and improve staff morale. (Fick)

This list is the rapporteurs' summary of points made by the individual speakers identified, and the statements have not been endorsed or verified by the National Academies of Sciences, Engineering, and Medicine. They are not intended to reflect a consensus among workshop participants.

is really important." For example, Fick said that it only costs 37 cents to have a nursing assistant do a delirium screening (Leslie et al., 2022). Reynolds added that "we also have to think about the other types of costs…in terms of the cost in suffering, whether it is the persons afflicted with the mental disorders, the brain/mind disorders of old age, or the suffering and the burnout that is accrued by their caregivers."

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RISK REDUCTION, PREVENTION, AND EFFECTIVE INTERVENTIONS

Wellness Through Meaningful Activities

Elizabeth Skidmore, professor of occupational therapy and associate dean for research in the School of Health and Rehabilitative Sciences at the University of Pittsburgh, discussed the strong causal link between the frequency of meaningful activities and older adult mental health. Meaningful activities, Skidmore said, "are activities that people choose to do because they find personal or cultural meaning in them." The activities can be completed alone or with others, in the home, in the community, or in a variety of cultural contexts. Evidence suggests that frequent engagement in meaningful activities is one of the most important affecting overall well-being (Hooker et al., 2020).

The Health Retirement Study provided data examining associations between depression and weekly engagement in recreational activities (Bone et al., 2022). Consistently participating in meaningful activities, which are activities that derive a sense of purpose and value while doing them (e.g., cooking, traveling), has been associated with significantly lower odds of depression symptoms. Simpler and more sedentary activities like reading or sewing were not associated with this reduction. Further, weekly involvement in meaningful activities such as personal hobbies, social events, and monthly volunteering or other service-related activities significantly predicted low odds of severe depressive symptoms 2 years later.

However, the attrition of meaningful activities seems to naturally occur with aging. Karp et al. (2009) found that depression is associated with disability—limiting the degree to which older adults can participate in meaningful activities. Results also indicated that older adults who "can do the activities… do not do these activities," said Skidmore. Lifetime events like retirement or changes in health can contribute to reduced engagement in meaningful activities.

"This raises the question: How do we support older adults to engage in meaningful activities?" Skidmore asked. A scan of systematic reviews and meta-analyses revealed three essential intervention elements that promote frequent engagement in meaningful activities: (1) select meaningful activities, (2) develop new routines, and (3) solve problems when challenges occur.

"Behavior change requires structure," said Skidmore. A number of tools can be used to help older adults identify and incorporate personally meaningful activities. For example, the Activity Card Sort, which is available in a hard deck or online, assists older adults in identifying activities of interest. The START strategy stands for Select an activity, Try the activity, Assess, Reflect on the plan, and Try the plan and debrief. Over time, older adults will repeat

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this process until they see a more permanent change in weekly or monthly routines. Structured approaches can help older adults to identify a problem, develop a strategy to address the problem, and then use guided problem solving to address challenges and concerns. Skidmore noted that these approaches are associated with improvements in some domains of executive functions such as cognitive flexibility, set shifting, measures of inhibition, and focused attention (Skidmore et al., 2015). "We can help older adults engage in meaningful activities [that] increase their frequency of activities, but [also] have an impact on their neurobehavioral symptoms," she concluded.

Universal, Selective, and Indicated Depression Prevention

Olivia Okereke, associate professor of psychiatry and epidemiology at Harvard Medical School, described her research on prevention strategies for depression in older adults. Depression is a priority because it leads to distress and disability for millions of people (Reddy, 2010), she said. Multiple modifiable factors have been studied to create the paths to prevention; such factors include risk, resilience, lifestyle, behaviors, and nutrients. In traditional categorizations of prevention—primary, secondary, tertiary—the target of the prevention is the disease. Using a framework published by the Institute of Medicine, the target of the prevention is the at-risk group or population. Okereke explained that there are three major approaches to prevention using this framework (IOM, 1994).

The first is indicated prevention, which targets people who have some symptoms, but are below the threshold of clinical disease. Indicated prevention is a good fit for primary care settings, where many older adults may present with some symptoms of major depressive disorder, like sleep disturbance, but not all. "We have seen that there has been as much as a five-fold increased risk of conversion to full criteria major depression in people with subthreshold symptoms within one year," Okereke said, "but there have been successful indicated prevention trials that have illustrated that these risks can be reduced by as much as 50 percent over follow up" (van't Veer-Tazelaar et al., 2009). An example of this type of intervention is a stepped-care intervention that begins with monitoring the patient, then moves to home-based bibliotherapy, to brief psychotherapy, and if needed, moves to the primary care setting to begin pharmacotherapy for worsening symptoms.

Second, selective prevention focuses on those individuals known to be at high risk for a disease because of having key underlying risk factors such as medical comorbidity, low social support, physical or functional impairments, or anxiety symptoms, which are risk factors for major depression in older adults. Here, she explained, "successful approaches have included evidence-based psychotherapies such as short-term problem-solving therapy

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among individuals with chronic medical problems (Kirkham et al., 2016) … or a nutritional intervention such as Mediterranean diet among people with diabetes" (Sousa-Santos et al., 2023). Another example is the use of prophylactic antidepressant medications for those individuals at predictably high risk of major depression because of specific conditions (Musselman et al., 2001; Robinson et al., 2008). There are new and efficient innovative methods for implementing selective prevention interventions, Okereke noted, such as multicomponent behavioral interventions that may particularly appeal to older adults. These interventions incorporate psychological approaches such as cognitive behavioral therapy or mindfulness-based cognitive therapy to address depressive symptoms and address the risk factors themselves by, for example, including components to increase physical activity or pain management techniques to address chronic pain (Mace et al., 2021; Marino et al., 2021). Group activities or behavioral activation techniques can also be used to mitigate social isolation for older adults.

Third, universal approaches focus on the general population, regardless of risk status, and may be difficult to achieve as a whole. One example she shared was a universal prevention trial using vitamin D and omega-3 supplements to prevent clinical depression in all people in the study (universal), people with mild depressive symptoms (indicated prevention), or people with established risk factors such as physical impairment, medical comorbidity, and social isolation (selective prevention) (Okereke et al., 2018, 2021).

This became the first trial to simultaneously test all three modes of prevention using a sample of nearly 20,000 people across the United States, with a proportion of racial/ethnic minority participation that matched U.S. Census data. This particular intervention was appropriate for universal testing because it is safe, easy to use, and low in cost. The results of the study showed no overall benefits for either supplement for depression prevention for older adults. However, there were some potentially promising results; for vitamin D, the data suggested that it may reduce risk for depression in individuals with normal body weight, but not for individuals who are overweight or obese (Okereke et al., 2018, 2020, 2021); this finding warrants further investigation in larger samples, noted Okereke.

In summary, the IOM framework provides a ready model for planning and implementing depression prevention. Okereke said she still uses this framework in her current work, looking at ways to prevent depression or worsening of symptoms using behavioral interventions and other approaches for people who have recently experienced COVID or COVID-associated risk factors such as social isolation, reduced physical activity, or health declines. This framework can also be applied as technologies evolve. Digital health tools and digitally based interventions are being used in selective and indicated prevention strategies in the context of dementia caregiving (Jain et al., 2022).

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Okereke stated that further exploration of universal prevention strategies is an important future direction in prevention science, especially in collaborative care models. That way, all three prevention approaches—indicated, selective, and universal— "can be viewed as part of a larger continuum of health promotion," concluded Okereke.

Promoting Resilience and Positive Mental Health in Older Adults

Dilip Jeste, director of the Global Research Network on Social Determinants of Mental Health and Exposomics, focused on the positive aspects of aging and achieving whole health. A 2023 NASEM report defines "whole health" as physical, behavioral, spiritual, and socioeconomic well-being as defined by individuals, families, and communities. Achieving whole health requires team-based care and also ensures the well-being and whole health of clinicians. Jeste noted that the WHO and the United Nations have declared 2021–2030 the decade of healthy aging,[26] which intends to address action areas like countering ageism and addressing social determinants of healthy aging.

A 2013 study found that as physical health declines with age, "mental well-being goes in the opposite direction," said Jeste (Thomas et al., 2016). With aging, the stress does not go away. "However, we react to the stress in a much more positive way than we did when we were teenagers or in our 20s." Jeste cautioned that this does not apply to everyone, as aging is a heterogeneous process, but it can be seen in a majority of people.

"Psychiatry goes beyond mental illness. It really goes to mental health," said Jeste, who emphasized the need for positive psychiatry. Positive psychiatry is the science and practice of psychiatry that focuses on the study and promotion of mental health and well-being through the enhancement of positive psychosocial factors such as social relationships, wisdom, hope, and resilience (Jeste et al., 2015). A wide array of literature supports the positive value of resilience, which shows an association with successful aging characterized by avoidance of illness, high physical and mental functioning, and greater longevity (Merchant et al., 2022). Optimism is associated with better cardiovascular outcomes, better physiological markers including immune function, better cancer outcomes, and lower mortality rates even after controlling for factors like personal and family history and smoking (Rasmussen et al., 2009). Other studies have found that social connections and social engagement have a larger impact on longevity than any medical risk factors and may increase the

[26] See https://www.who.int/initiatives/decade-of-healthy-ageing#:~:text=The%20United%20Nations%20Decade%20of,communities%20in%20which%20they%20live (accessed August 6, 2023).

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likelihood of survival by 50 percent (Holt-Lunstad et al., 2010). Though the research on resilience, social engagement, and optimism is robust and these factors are reported to have a great impact on health, they are not readily used in health care.

Additionally, the growing evidence regarding wisdom is more recent, however the "concept of wisdom is ancient. It really goes back to the beginning of humanity," said Jeste. Wisdom is a complex personality trait with multiple competencies. These competencies include prosocial behaviors (empathy and compassion), emotional regulation with positivity, self-reflection, accepting uncertainty and diversity, decisiveness, and spirituality (Jeste et al., 2021).

Studies have shown that younger people have greater psychomotor speed and the ability to learn new things. "However," said Jeste, "there are some abilities in which many older adults have been shown to do better than youth" such as emotional regulation, positivity, empathy and compassion, self-reflection, and decision making (Brassen et al., 2012; Grossman et al., 2012; Mather et al., 2004; Worthy et al., 2011). Jeste noted that this does not apply to everyone, but wisdom tends to increase with aging. Another piece of evidence supporting the value of wisdom is the "Grandmother Hypothesis of Wisdom," in which a grandmother's involvement in raising grandchildren improves their children's fertility, well-being, and longevity (Hawkes, 2020; Lahdenperä et al., 2018).

Jeste referenced a 2023 special report on loneliness released by the U.S. Surgeon General's Office, which states that the "loneliness epidemic" has escalated over the past 20 years (Office of the U.S. Surgeon General, 2023). Loneliness is a silent killer, Jeste reported, as it "increases odds of mortality by 30 percent and is as dangerous as smoking 15 cigarettes a day" (Holt-Lunstad et al., 2015). Loneliness has become a serious health condition, especially in older adults (NASEM, 2020; See Appendix D for the list of recommendations to address this challenge). In the United States, 162,000 deaths per year can be attributed to loneliness-associated conditions, which is more than the number of deaths due to cancer or stroke (Veazie, 2019). "The good news is that there may be an antidote for the loneliness epidemic, and that antidote may be wisdom," said Jeste. Studies have found a consistently strong inverse correlation between loneliness and wisdom and compassion (Jeste et al., 2021; Nguyen et al., 2020), and longitudinal studies have shown that people with higher levels of wisdom and compassion were less likely to be lonely 5 to 7 years later (Lee et al., 2021), he explained. If we follow the interventions to enhance wisdom components (Lee et al., 2021), resilience, and social engagement, then "we can transform a lonely, distressed, and polarized world into a happier, healthier, and wiser society," concluded Jeste.

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Discussion

Vincent Mor, a professor at Brown University School of Public Health, raised the topic of age-friendly communities and asked whether prevention frameworks fit within the broader context of community interventions to reshape the ways communities are organized. Skidmore explained that a lot of interventions can be delivered in senior living or assisted living communities. Activities should be made accessible and stimulate social engagement, and environments can be created to support older adults as well as those who work within those systems. Skidmore said this would be considered a universal design environment. Okereke emphasized that community engagement is essential. Jeste pointed out that the social determinants of health, such as poverty and racism, heavily impact illness, especially mental illnesses. It is necessary to work at both the personal level to develop coping skills for such adverse social factors and at the community level. He said evidence shows that intergenerational activities benefit both younger generations as well as older adults. He added that the WHO created the age-friendly cities framework,[27] which outlines two components, structure and function.

A question was asked about the role of faith-based organizations in meeting the mental health needs of older adults. Jeste pointed out that about 80 percent of the world is religious or spiritual (Pew Research Center, 2012), and spiritual team members are often used in palliative and hospice care. Faith-based organizations want to be involved, said Okereke. For example, the Greater Boston Interfaith Organization partners with academics and public health specialists to bring awareness to the community about mental health and substance use issues and treatment needs. Skidmore emphasized that health is connected to relationships and roles that assign purpose and meaning. "Faith-based organizations are…natural opportunities for our multiple generations to intersect," she said.

Friedman shifted the discussion from "what can we do to help older adults?" to "what is it that older adults can do to help?" Jeste mentioned the Experience Corps, a major study where older adults volunteered to spend 15 hours a week in a public elementary school. The findings showed benefits for both the youth and older adults, including improved health outcomes for the adults (Hong and Morrow-Howell, 2010). "They should be encouraged and allowed to do things, especially helping younger generations. That is good for everybody," said Jeste. Okereke added that studies like this can help mitigate the challenges of intergenerational conflict, disconnection, and mistrust. "There are really opportunities for healing by engaging in projects that link

[27] See https://extranet.who.int/agefriendlyworld/age-friendly-cities-framework/ (accessed August 11, 2023).

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BOX 5
Key Takeaways from Speakers in Session 5: Risk Reduction, Prevention, and Effective Interventions

- Evidence suggests that frequent engagement in meaningful activities is one of the most important factors to improve overall well-being. (Skidmore)
- Indicative, selective, and universal prevention strategies target the at-risk group or population, rather than the traditional categorizations of prevention (primary, secondary, tertiary) that target the prevention of the disease. (Okereke)
- Positive psychiatry is the science and practice of psychiatry that focuses on the study and promotion of mental health and well-being through the enhancement of positive psychosocial factors such as social relationships, wisdom, hope, and resilience. Studies show that wisdom increases with age, which is associated with emotional regulation, positivity, empathy and compassion, self-reflection, and decision making. (Jeste)
- Studies have found a consistently strong inverse correlation between loneliness and wisdom and compassion. (Jeste)

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older and younger people together. It can reduce ageism and it can improve social trust," she said.

SUPPORTIVE COMMUNITIES

Social Disconnection

Thomas Cudjoe, assistant professor in the Division of Geriatric Medicine and Gerontology at Johns Hopkins University School of Medicine, discussed the need for meaningful relationships and perceptions of social connection. He said, "Early on in my education I learned that humans have basic needs such as food, water, and shelter. These must be met in order for survival. However, over time… I have come to realize that in addition to food, water, and shelter, we need each other." Though related, Cudjoe explained that loneliness and

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social isolation are distinct concepts that build on a broader area of social disconnection.

Social isolation and loneliness impact physical and mental health (Cudjoe et al., 2022; Huang et al., 2023; NASEM, 2020). Social isolation is "objectively having few social relationships, social roles, group memberships, and infrequent social interaction," he said (Badcock et al., 2022; Holt-Lunstad, 2018). Social isolation may not be emotionally distressing for everyone, but it is associated with medical risks, increased health care costs, and limited access to financial, medical, or social support. Further, social isolation and loneliness increase the risk for depression and anxiety. In 2020, research indicated that about one in four older adults are socially isolated (Cudjoe et al., 2020). Additionally, the levels of social isolation have changed over time and were as high as 31 percent in 2020 during the height of the COVID-19 pandemic (Cudjoe, 2023).

Loneliness is "a subjective distressing experience that results from perceived isolation or inadequate meaningful connections, where inadequate refers to the discrepancy or unmet need between an individual's preferred and actual experiences" (Office of the U.S. Surgeon General, 2023; Prohaska et al., 2020). It is important to note that people may have many relationships and still feel lonely. A growing body of literature shows a strong association between persistent feelings of loneliness and poor health outcomes, including depression, functional disability, physical symptoms like pain, and even mortality (Giacco, 2023; Lim et al., 2023; Miller, 2023; Pollak et al., 2023). Loneliness is also associated with an increased risk for self-harm and suicidal thoughts, independent of feelings of depression (Mann et al., 2022; Troya et al., 2019).

Social disconnection is defined as "subjective or objective deficits in social connection, including deficits in relationships and roles, their functions, and/or quality" (Badcock et al., 2022). Research indicates that social disconnection has robust effects on mortality and "these findings are consistent across gender, health status, cause of death, or country of origin," Cudjoe added (Holt-Lunstad et al., 2017). Social disconnection is also a risk factor similar to or greater than smoking, drinking, physical inactivity, obesity, or exposure to air pollution (Holt-Lunstad et al., 2017; House et al., 1988). It also affects our mental health, said Cudjoe. One study found that social disconnection predicted higher amounts of perceived isolation, which in turn predicted higher amounts of depression and anxiety symptoms (Santini et al., 2020). On the other hand, depression and anxiety symptoms also predicted higher amounts of social disconnectedness, suggesting a bidirectional relationship that is mediated by feelings of perceived isolation (Santini et al., 2020).

Cudjoe concluded his remarks by outlining key challenges and opportunities to encourage social connection and improve the mental health of an aging

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population. More awareness of the concepts of loneliness, social isolation, and disconnectedness should be shared to enhance public knowledge; investment should be made in resources to support research and solution implementation; definitions and measurements should be standardized; screening should be performed in appropriate settings and interventions tailored to meet the mental health needs of a heterogeneous population of older adults; people should be met where they are physically and psychologically; solutions should be equitably distributed; and finally, older adults should be invested in and supported.

Victims of Trauma

Nancy Kusmaul, associate professor of social work at the University of Maryland, Baltimore County, discussed psychological trauma in older adults. "The idea that we are all at risk for trauma is universal," she said. According to SAMHSA, trauma is an event, a series of events, or a set of circumstances that are experienced as physically or emotionally harmful or life threatening and have long-lasting effects on functioning and well-being (SAMHSA, 2014). Kusmaul noted that not everyone who experiences a potentially traumatic event will find it to be traumatic; negative effects from a traumatic event can be triggered much later; and two individuals can experience the same event and have different outcomes (SAMHSA, 2022). This can be seen in siblings who grow up in the same household but have different outcomes from trauma. Thus, trauma is a highly individualistic experience.

Kusmaul explained that older adults are especially at risk for trauma, as aging itself predicts exposure to traumatic events. One study found that the typical older adult had a mean number of six potentially traumatic events (Ogle et al., 2014). Trauma can also be coupled with the losses that occur later in life; for example, Kusmaul noted that there are a number of co-occurring risk factors related to trauma in older populations, such as falling, losing significant others, loss of independence, or disconnection with home or community (Kaltman and Bonanno, 2003; Kusmaul and Anderson, 2018; Moye and Rouse, 2014). Life review is a normal developmental process, but people with trauma histories may re-experience past trauma as a result. In addition, coping skills and daily routines may have changed, explained Kusmaul, adding that older adults with trauma histories may have greater estrangement or isolation from their families due to guilt associated with previous traumas (Agllias, 2011; Holm et al., 2013).

Trauma and dementia may also be linked, she explained; emerging studies suggest that people with trauma histories have a greater likelihood of dementia and greater distress when they have dementia (Martinez-Clavera et al., 2017). Furthermore, a person with dementia may not actively remember

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the traumatic experience even if they are having symptoms related to it, she noted. Although there are evidence-based treatments for trauma symptoms, older adults with dementia cannot actively participate in these interventions, which means there is no treatment available for them (Yasinski et al., 2020). Kusmaul said that "we do not quite know what to do yet, and certainly this is an area that needs more research and attention."

Furthermore, trauma triggers are learned responses to threats and serve as a survival mechanism during an abnormal situation (Kolacz and Porges, 2018; Ressler et al., 2022). Trauma-informed care, Kusmaul explained, is a universal precaution that allows health care professionals to treat the symptoms without being aware of the origins of the underlying trauma (Raja et al., 2015). This is a system-wide approach that assumes that everyone, including staff, patients, and family members, may have experienced traumas, she commented. Policies and organizational practices are examined to provide safety, trustworthiness, and transparency, said Kusmaul (Bowen and Murshid, 2016). Peer support is also a part of trauma-informed care, which includes collaborating with patients and ensuring that patient voices are heard (SAMHSA, 2014). Trauma-informed care can be provided in any setting, including health care settings, social service settings, schools, or disaster shelters in the event of a natural or human-made disaster (Berger, 2019; Kusmaul, 2021; Levenson, 2017; Raja et al., 2015).

Kusmaul emphasized three takeaway points: (1) when addressing older adult mental health issues, always consider the potential for past trauma; (2) create trauma-informed and age-friendly service environments and delivery systems; and (3) incorporate staff needs into trauma-informed planning in organizations, which may help with staff retention and alleviate burnout.

Building Community-Based Partnerships

Gary Kennedy, a professor and vice chair for the Department of Psychiatry and Behavioral Sciences and director of the Division of Geriatric Psychiatry at Montefiore Medical Center at the Albert Einstein College of Medicine, said foundation support can create alliances between academic health centers and community-based agencies (Kennedy et al., 2012). In these types of partnerships, the foundations receive recognition, community-based agencies gain access to financial resources for their clients and staff, and academic health centers receive salary support, extended teaching and training opportunities, and billable services. Scientific research, public advocacy, teaching, and training are also ways to promote services for older adults, said Kennedy. The foundation's outcome requires mission fulfillment. For community organizations and academic health centers, the programs need to be sustainable and viable. "But if we are trying to be a real benefit to older adults, given the problems

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with access to services and the inadequacies of our health care system, then we need to think about how we bridge the gaps," added Kennedy.

Kennedy described a number of his experiences with foundation-funded programs in the community that provide services to older adults, including Kings Harbor Multicare Center, Selfhelp, the Marion and Aaron Gural Jewish Community Center, Montefiore Home Care Agency, and Jewish Association for Services for the Aged. Selfhelp[28] is a community-based program in New York that provides social support services in the home and other services specifically for Holocaust survivors. Montefiore Home Care Agency[29] is the longest standing home health agency in the nation, and the Jewish Association for Services for the Aged[30] works in a naturally occurring retirement community in the Bronx, in which mental health services and other supportive services are provided to older adults (Kennedy, 2006).

"The reason we have been able to form affiliations with community-based agencies is because of foundation support," he explained. The foundation support began in 1984 from the Forchheimer Foundation to introduce geriatric training into a teaching nursing home. Kennedy pointed out that most medical personnel working in nursing homes (including mental health personnel) never had any training in the nursing home setting, despite the fact that it is a very important component of the health care system.

Another grant enabled geriatric psychiatrists to be embedded within the Montefiore Home Care Agency, who trained the social work and nursing staff in the availability of psychiatric services (Ceïde et al., 2016). This led to psychiatrists, fellows, and residents going out into the community to see home care clients, with the ability to bill for the consultation due to an authorization from the primary care physician (Lantz and Kennedy, 1995). This also allows the psychiatrist to prescribe so that treatment can start immediately. More than 60 percent of clients/patients who are started on an antidepressant are still taking the medication 6 months later. Additionally, 30 percent of the patients seen by the psychiatrists had an undisclosed diagnosis of dementia, based on the psychiatric assessment. As a result, the home care client/patient assessment now includes a depression screening and a cognitive screening (Kennedy and Ceïde, 2020). The geriatric workforce has benefited from training in community-engaged care models that includes providing information about services available in the community.

Another benefit to building community-based partnerships is the opportunity to work in interorganizational teams. The home care agency, the social services agencies, the naturally occurring retirement groups, and the academic

[28] See https://selfhelp.net/about/ (accessed August 15, 2023).

[29] See https://www.montefiore.org/home-care (accessed August 15, 2023).

[30] See https://www.jasa.org/ (accessed August 15, 2023).

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centers are all given the opportunity to work as a part of these teams, providing growth opportunities for all. Community-based partnerships enhance access to mental health care for older adults by bringing services to seniors. Kennedy concluded by saying, "We have nurtured longstanding partnerships with unique programming with diverse grant sources...with the grant support [from foundations]…we are able to bridge the silos…we cannot tear them down, but we can bridge them. We can make them connected with the community support that we have had from the foundations."

Asked whether foundation-funded geriatric psychiatry is sustainable over time. Kennedy emphasized that one foundation grant can lead to another based on the information generated and the partnerships created. He said, "we have been able to sustain the foundation approach for 40 years."

Discussion

The first question was directed at Cudjoe regarding what kinds of data exist for the relationships of social isolation, disconnection, and loneliness in older adults to substance use disorders and whether there are interventions that can be used to address these factors. Cudjoe said that there are moderate correlations among social isolation, loneliness, and mental health symptoms (Matthews et al., 2016), but reiterated that they are all distinct constructs. Kennedy noted that the data suggest that it is not the actual number of social supports that an individual can identify that matters, it is the perceived adequacy of that social support. Cudjoe added there are gaps in understanding why and how people experience loneliness that need to be addressed.

Reynolds said prolonged grief disorder (PGD) often coexists with PTSD and major depression (Lenferink et al., 2021). Psychotherapy for PGD relies on cognitive behavioral therapy and strategies from motivational interviewing and exposure-based therapies (Shear et al., 2005). PGD often occurs when a loss is unexpected (Boelen, 2015). This was more common among Black participants in research trials, particularly those who have unexpectedly lost loved ones to homicide or suicide (Heeke et al., 2017). Kusmaul said "social risk factors contribute to trauma risk factors."

Emma Nye, program specialist at the U.S. Department of Health and Human Services, needs asked about the potentially conflicting findings described by speakers. Jeste's presentation reported that resiliency increases with age and Kusmaul reported that trauma symptoms also increase with age. Kusmaul replied that both trends are true, but not necessarily within the same person. She reiterated that people who have social and community supports tend to do better over time, while people without strong supports do not.

Jennifer Bean, a clinical pharmacist practitioner at the VISN 9 Clinical Resource Hub, asked the speakers for thoughts about what a supportive

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BOX 6
Key Takeaways from Speakers in Session 6: Supportive Communities

- Social isolation is objectively having few social relationships, social roles, group memberships, and infrequent social interaction. (Cudjoe)
- Loneliness is a subjective distressing experience that results from perceived isolation or inadequate meaningful connections. (Cudjoe)
- Social disconnection is subjective or objective deficits in social connection, including deficits in relationships and roles, their functions, and/or quality, and is a risk factor similar to or greater than smoking, drinking, physical inactivity, obesity, or exposure to air pollution. (Cudjoe)
- The concepts of loneliness, social isolation, and disconnectedness should be shared with the public; investments are needed to support research and solution implementation; screening should be performed and interventions tailored for diverse populations of older adults; solutions should be equitably distributed. (Cudjoe)
- Trauma-informed care is a universal precaution that allows health care professionals to treat the symptoms without being aware of the origins of the underlying trauma. When addressing older adult mental health issues, always consider the potential for past trauma; create trauma-informed and age-friendly service environments and delivery systems; and incorporate staff needs into trauma-informed planning in organizations. (Kusmaul)
- Foundation support can create alliances between academic health centers and community-based agencies. Community-based partnerships enhance access to mental health care for older adults by bringing services to seniors. (Kennedy)

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community should consist of to ensure a healthier longevity. Cudjoe said an area of opportunity is to incentivize collaboration to support community needs. Kusmaul noted that AARP and WHO have done a lot of work in studying community factors (Kim et al., 2022; Oberlink, 2008). Although there is variability among communities, common include a combination of community-based agencies, social services, and health services, explained Kusmaul. Additionally, she said, "it is breaking down silos. It is working across systems." Friedman added that AARP and WHO define approaches to creating age-friendly communities as a process, not as components of the process. Each community is responsible for developing its own planning process and specific approach to becoming age-friendly. Kennedy noted that diversity is evidence that there is a collaborative spirit in the community.

CHALLENGES AND PRIORITIES

Telehealth

Heather Dimeris, director of the Office for the Advancement of Telehealth at the Health Resources and Services Administration (HRSA), provided an overview on telehealth services. For the past 30 years, the office has focused on ensuring that people living in rural communities and frontier areas have access to health care via telehealth if they did not have adequate transportation to access care in person. However, during the COVID-19 pandemic, more people started to use telehealth, and now, the office has a broader scope to improve access, enhance outcomes, and support clinicians and patients. Within the past year, the office created a vision statement with a mission to improve access to quality health care through integrated telehealth services, said Dimeris.

At the start of the COVID-19 pandemic, the need to centralize the Department of Health and Human Services (HHS) telehealth information for patients and clinicians led to the launch of the telehealth.hhs.gov website. With over 5 million users since its launch in 2020, this has been a trusted resource for patients, providers, and researchers, Dimeris said. She described the contents of the webpage, which includes resources for telehealth use with older patients. Dimeris explained that there was a demand for information from health care providers about using telehealth with older patients. The goal is to create telehealth best practices, with details about what has been successful in providing care to older patients. Dimeris said, "telehealth is not the solution to workforce shortages or lack of transportation but it can be a tool to improve access when it is integrated into the standard of care. "We really want to make sure telehealth is integrated in the proper way when it is

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best for the outcomes of the patient and it helps the provider maintain access to care," Dimeris said.

HRSA is gathering evidence on when telehealth does improve health outcomes, Dimeris added. One of the advantages of telehealth, she explained, is that the technology is not as expensive as it used to be and health systems have integrated it into their workflow. Dimeris said there is digital divide for older patients, but "we are seeing improvements," noting that during the pandemic, older patients began using technologies to visit with their families when everyone was encouraged to practice social distancing. One way clinicians address the digital divide is to have community health workers assist patients in getting connected to care via telehealth. "It is not just older patients," she explained; a variety of patients need assistance with using the technology.

Dimeris said the agency has nearly 6,000 funding awards that focus on telehealth, covering all 50 states and territories. In fiscal year 2021, the most number of awards were highest for behavioral health, substance use disorder, opioid use disorder, primary care, pediatric care, geriatric care, and others.

Rural Challenges

Erin Emery-Tiburcio, professor at Rush University Medical Center and co-director of the Engage, Educate, Empower for Equity: E4 Center of Excellence for Behavioral Health Disparities in Aging, sponsored by SAMHSA, described the use of Penchansky's access framework[31] to address the gaps in care for mental health and substance disorders among older adults in rural areas.

She began by saying, "it is important for us to focus on rural older adults, as the percentage of older adults in rural areas is growing more rapidly than in urban areas, along with higher rates of suicide in rural areas." She said shortages of mental health care providers are especially problematic in rural areas (Mauri et al., 2019). Emery-Tiburcio also reiterated that the majority of mental health care providers currently practicing do not have any training in geriatrics, "and we will never have enough specialists." She said systemic ageism is also a challenge in rural communities. Another factor is a lack of caregivers. For example, when younger workers leave rural areas to find jobs, this results in fewer family members and paid caregivers available to provide services for older adults in their homes (Parker et al., 2018). Emery-Tiburcio also said the lack of supportive housing for older adults with mental health

[31] "Access is presented…as a general concept that summarizes a set of more specific dimensions describing the fit between the patient and the health care system. The specific dimensions are availability, accommodation, affordability, and accessibility" (Penchansky and Thomas, 1981).

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and substance use disorders is also a major challenge in rural areas (Dohler et al., 2016), with a limited number of nursing homes available for adults living with serious mental illness (Barooah and Nadash, 2023).

In rural areas, transportation is a significant barrier to receiving in-person care services (Syed et al., 2013), and if older adults can reach a health care setting in person, many facilities are not accessible to the needs of those older adults (e.g., wheelchair accessible or using a larger font size on paperwork). Another accessibility challenge is related to technology. While most adults over age 65 have access to a device and opportunities to learn how to use that device, they often do not have consistent broadband or reliable cell phone service (Chu et al., 2021; Ng et al., 2022). CATCH-ON[32] was a geriatric workforce enhancement program funded by a grant from HRSA, which offered older adults cellular-enabled tablets and provided individual training to use them, including for telehealth services. However, Emery-Tiburcio said that "some older adult patients of our primary care partners in rural Tennessee could not even access the program because they cannot get a reliable cell signal in their homes. This is a big part of why older adults access telehealth less frequently than those in urban areas." For example, added Emery-Tiburcio, if an older adult were experiencing a mental health crises and unable to call the 988 Suicide and Crisis Lifeline[33] or access similar services, "this is a significant infrastructure issue that relates to every element of our health."

Affordability is another concern because low income is a significant barrier to accessing any type of health care in rural areas (Smith and Trevelyan, 2019). Paying for transportation, co-pays, medication costs, and even the devices to be purchased to access telehealth services all present challenges for older adults with low income. Some of these barriers can be addressed with Medicaid support, she said, especially in those states where Medicaid expansion has occurred, because studies have found that Medicaid expansion increased access to mental health care (Guth and Ammula, 2021). She added that Medicaid programs should also attempt to engage geriatric-trained clinicians to be Medicaid Providers to improve quality and access for older adults.

Rural older adults also often experience more stigma about getting treatment for mental health issues and substance use, said Emery-Tiburcio (Cheesmond et al., 2019; Stewart et al., 2015). This is particularly problematic in small towns and rural areas, even with confidential services (Broffman et al., 2017). There is also often a lack of awareness that mental health and substance use disorders are health problems (Saunders et al., 2019), which can lead to resistance in engaging treatment services.

[32] See https://catch-on.org/ (accessed September 17, 2023).

[33] See https://988lifeline.org/ (accessed October 17, 2023).

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Emery-Tiburcio stressed the critical need for loan repayment programs for health care professionals working in rural areas. However, there is a great deal of turnover when the loans are paid off and those clinicians move on to a job with better pay or a bigger urban area. That turnover creates distrust among rural residents, she said, adding that "this is exactly the space in which community health workers can be that bridge, someone who is from the community and can be that consistent person amid changing health care providers."

Emery-Tiburcio made several suggestions to improve care for this population: require and provide geriatric training for the behavioral health workforce; co-locate mental health services where older adults already place trust, such as community-based organizations, or through telehealth; expand reimbursement for peer supporters and community health workers; implement President Biden's rural broadband plan; address ageism and other disparities; and increase federal and state funding for supportive housing for older adults with mental health, SUD, and chronic conditions. "Finally, I will just echo the critical message that we heard earlier about the importance of collaboration across health care and community-based organizations, the aging network, academic institutions, and funders," Emery-Tiburcio concluded.

Technology Development, Implementation, and Dissemination

Sarah Czaja, professor of medicine and director of the Center on Aging and Behavioral Research, Division of Geriatrics and Palliative Medicine at Weill Cornell Medicine, and Philip Harvey, professor and chief director in the Division of Psychology at the University of Miami School of Medicine, discussed the role of technology in supporting the mental health needs of aging adults. Czaja provided examples from her research where technology can augment and enhance the delivery of care to older adults. First, it can provide an opportunity for engagement in new learning activities, which is important to social connectivity and engagement. Next, technology can help increase awareness about access to mental health care services and community resources, such as telehealth. Technology can provide access to digital mental health interventions that are aimed at protecting and promoting psychological and psychosocial well-being. Additionally, it offers opportunities for innovative assessment tools for older adults, such as ecological momentary assessment, which provides real-time continuous data on activity patterns. If an older adult suddenly changes his or her activity patterns, that may be because that individual Is experiencing a mental health problem.

Her team has also found evidence that disputes common myths about older adults and technology. In fact, older adults have been found to be very willing and able to use technology, she said (Czaja et al., 2021). "Older people

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are much more likely to adopt a new technology if they see some value in it and they see how it is contributing to the quality of their life" (Moxley et al., 2022; Sharit et al., 2018), Czaja said. Another myth that has been dispelled is that older adults cannot learn to use new technologies (Czaja et al., 2021; Harvey et al., 2021). Although it is true that older adults are less comfortable with new technologies and have less technology efficacy (Lee et al., 2019), Czaja said this is likely due to how the technology is designed and implemented. Older adults are quite capable of adhering to self-controlled, technology-based intervention protocols, but there is still a digital divide, particularly for lower income older adults, and those in rural areas (Pew Research, 2012).

Czaja and Harvey developed a software program called Functional Skills Assessment and Training, or FUNSAT, that both assesses ability and trains older adults on six technology-based functional tasks used in everyday life, ranging from money management like using an ATM machine or online banking tools, to refilling prescriptions. Czaja said, "I think one of our most important findings is not only that older adults are better able to do these tasks [with training], but that the improvements are maintained over time. Findings also included improvements for older adults with cognitive impairment. Moreover, older adults show greater self-efficacy in the 3-month posttraining assessment. "In other words, they believe that after they have finished the training, they can go out and do these things," said Czaja.

A second project Czaja described is a software program called PRISM, or the Personal Reminder Information and Social Management system (Czaja et al., 2018). Czaja and her team placed the program in the homes of older adults aged 65 to 98 who were living alone and were at risk of social isolation, who were not connected to their communities, and who had no experience with computers, in Miami, Atlanta, and Tallahassee. Czaja and her colleagues. (2018) were able to successfully train all project participants to use the system. Findings included a significant increase in social support, emotional well-being, and computer efficacy and proficiency, and a significant decrease in loneliness. This was not designed to be a substitute for in-person interactions, but as a way to augment those interactions. A simpler version of this trial, conducted during the COVID-19 pandemic, enrolled older adults living with cognitive impairments. The findings were very similar, including a significant decrease in depression.

Czaja reiterated the age-related digital divide, despite the potential of technology. For example, 40 percent of older adults do not have a smart phone. "We still have to think about technology with respect to the haves and the have nots," she said. Further, technology involves more than just having access. Czaja listed issues that need to be addressed to enhance the role of technology to improve health outcomes for older adults, including user training and technical support to ensure that Internet access and appropriate technol-

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ogy are accessible and affordable for all. She added that privacy issues need to be considered, including cybersecurity and information sharing. "People are very concerned about privacy issues," said Czaja. There is also a need for more robust studies of effectiveness, the measurement of data issues, and strategies for matching older adults with the technology that they need and prefer. She also emphasized the need to design systems to facilitate engagement and sustainability.

Discussion

Dimeris discussed access to high-speed internet and provided information about two federal programs funded by the Federal Communications Commission. The first is an affordable connectivity program. Older adults who meet a poverty threshold can access broadband through this program. The second is a lifeline program that provides cell phone service (a phone and data plan) for individuals who meet a poverty threshold. Dimeris said reliable access to broadband in a rural hospital can vary and she mentioned a current telehealth broadband pilot program that is working with 25 rural communities across 4 states to test the strength of broadband signals in hospitals, clinics, and patient homes. Results should be expected in 2024. Dimeris added that making broadband accessible is a priority for the current administration.

While services and programs exist, Czaja said that making older adults aware of these services and programs is important, as is guidance on how to access the programs or how to fill out the applications. Nye noted the importance of community partners and their role in serving as mediators for programs.

Margarita Alegría, professor of Psychiatry at Harvard Medical School, Chief of the Disparities Research unit at Massachusetts General Hospital, and Forum co-chair, asked about what is being done for the older population for whom English is not their first language. Czaja noted that while language is essential, literacy matters too, including technology literacy. "When we think about adapting something culturally, it goes way beyond just language," she said. One critical factor is gaining the trust of the communities where they are working. Emery-Tiburcio echoed the need for partnerships with community-based organizations fully immersed in the culture and in the language. These organizations can help older adults to culturally and linguistically translate the services that are available and how to access them. The idea of telehealth may not even be fully understood in some communities. She also said that much of the research on older adults has been conducted in English on Americans. Harvey added that the FUNSAT validation program (designed for translation across languages) recruited from a range of diverse community centers, including a center of Spanish-only speakers and Black people with limited prior

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BOX 7
Key Takeaways from Speakers in Session 7: Challenges and Priorities

- The Health Resources and Services Administration launched telehealth.hhs.gov website in 2020 to centralize telehealth information for patients and clinicians. (Dimeris)
- Telehealth should not be the solution to workforce shortages, but it can be a tool to improve access when it is integrated into the standard of care. (Dimeris)
- One advantage of telehealth is that it has been integrated into clinical workflow without significant added cost. (Dimeris)
- Availability, accessibility, affordability, and acceptability of care services are crucial areas of improvement for older adults living in rural areas. (Emery-Tiburcio)
- Studies demonstrate that older adults are very willing and able to use technology. (Czaja)

This list is the rapporteurs' summary of points made by the individual speakers identified, and the statements have not been endorsed or verified by the National Academies of Sciences, Engineering, and Medicine. They are not intended to reflect a consensus among workshop participants.

exposure to technology. "We used text and graphics that can be modified into other languages," he said. Dimeris said providing a translation for services in any health care setting, whether in person or through telehealth, is essential, adding that it is helpful to have someone who can provide patient-centered care "that takes into consideration the patient's cultural background as well."

Dimeris said HRSA is collaborating with other agencies in HHS, such as ASPE, SAMHSA, and CMS and that collaboration is "really helpful to understand how telehealth can improve access to behavioral health services." She added that HHS is interested in learning from evidence-based telehealth research to understand the effectiveness of telehealth services.

ADVOCACY GROUPS

Kathleen Cameron, the senior director of the Center for Healthy Aging at the National Council on Aging (NCOA)[34] and Chair of the National

[34] See https://www.ncoa.org/ (accessed September 11, 2023).

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Coalition on Mental Health and Aging,[35] introduced NCOA as a 70-year-old non-profit dedicated to improving the lives of older adults by providing access to resources needed to stay healthy and financially secure in aging. "It is work that we all must do together across silos, systems, and sectors," she said. To improve the impact of advocacy, Cameron emphasized cross-sector advocacy and partnerships, including stakeholders from health care, mental health, public health, social work, and the aging network, among many others. She also stressed that older adults and caregivers need to be engaged in decision making for advocacy efforts and able to tell their stories at the policy and practice levels. "Reframing the concept of aging is a long-term social change endeavor designed to improve the public's understanding of what aging means and the many ways that older people contribute to our society," she said. To reduce stigma associated with mental health in older populations, a national public awareness and education campaign is needed to help people understand that mental illnesses are not a normal part of aging; that asking for help is acceptable; and that treatments for mental health disorders work for people of all ages. Cameron described NCOA's role in education and awareness through an annual Older Adult Mental Health Awareness Day Symposium, where older adults, family members, and caregivers convene to share personal experiences. An important component of the symposium is to learn about successful programs that can be replicated across the country. "It was clear to us that people are hungry for information and action on mental health and aging," she noted.

Cameron said there have been recent policy advances, with increases in mental health funding and changes by CMS to allow mental health counselors and marriage and family therapists to bill for services. However, she said, "much more needs to be done." NCOA is working to ensure health parity within Medicare. Medicare is not subject to the Mental Health Parity and Addiction Equity Act,[36] which requires comparable insurance coverage for mental health conditions, SUDs, with other conditions. Additionally, the treatments covered under Medicare are inadequate for many Medicare beneficiaries, she said. Cameron also suggested that clinicians should be better incentivized to integrate physical health, mental health, and services that address social determinants of health, like food insecurity and lack of transportation. Screening for such needs is often available, but without additional funding, services cannot be provided in the aging network, said Cameron.

Cameron also described engagement programs provided by NCOA. These programs are primarily funded by the Older Americans Act, which assist with socially engaging older adults, but provides little funding at the local level,

[35] See https://www.ncmha.org/ (accessed September 11, 2023).

[36] See https://www.cms.gov/marketplace/private-health-insurance/mental-health-parity-addiction-equity (accessed September 25, 2023).

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she said. Programs can include mental health interventions for depression management, typically including behavioral activation and efforts to engage older adults in meaningful activities. There are also peer support programs and activities promoting physical activity, healthy eating, fall prevention, as well as education programs for chronic disease self-management. These programs were described by Cameron as inexpensive, and evidence has shown improved health outcomes, such as reduced social isolation and loneliness, and reduced health care spending (Fuller et al., 2022; U.S. Department of Housing and Urban Development, 2023).

Sarah Lenz Lock, senior vice president for policy and brain health in AARP's Policy, Research, and International Affairs, and executive president of the Global Council on Brain Health,[37] called out three areas where policy reforms could lead to improved mental health, a stronger mental health workforce, increased access to services, and a rise in telehealth use. Lock noted that depression and dementia are not a normal part of aging. She said middle-aged and older adult populations should be educated on ways to reduce the risk of these debilitating conditions and how to live better with cognitive impairments and mental illness. Overall brain health education, Lock said, should include mental health, behavioral health, and cognitive health. Unmet mental health needs are exacerbated by the fact that society has not accepted that mental illness or any cognitive disorder of the brain is as debilitating as any other major medical illness that physically manifests itself in other parts of the body, and it affects people of all ages and income levels. "The lack of access and coverage for mental health services is an ongoing problem and COVID-19 has exacerbated the unmet needs," she said. Lock reflected on previous points from earlier speakers echoing that mental health services still do not have parity in coverage; greater coordination across federal agencies is needed; and social isolation needs to be alleviated. She said, "It is a terrible problem with terrible consequences. Social isolation is rampant and people do not understand it is a solvable problem." Furthermore, she emphasized that social determinants of health need to be addressed because they affect mental health as well as physical health. Finally, Lock offered one important way to bring more attention to these issues—to share the stories and lived experiences of older adults who are living with mental illness and the treatments for mental illness.

Rosenthal pointed out that mental health policy has been heavily focused on the issue of violence, which is perpetuates a stereotype that individuals living with a mental illness are the ones causing the violence. This is a false-

[37] The Global Council on Brain Health issued a report for older adults to assist in promoting mental well-being. See https://www.aarp.org/health/brain-health/global-council-on-brain-health/ (Accessed November 22, 2023).

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hood because individuals living with a mental illness are responsible for only 4 percent of violent crimes, while they are 11 times more likely to be the victims of a violent crime, said Rosenthal. "This is not just about symptoms. It is also about racism…it is about homelessness, it is about social isolation, poverty, … our system needs to be much more accountable, [with] much more outreach and engagement." Rosenthal also provided information about two programs. First, Release Aging People in Prison, or RAPP, is a campaign advocating to end mass incarceration and promote racial justice by releasing aging people in prison who have been there for years due to prior drug use, for example. Second, the NYAPRS program called the Peer Bridger project[38] works to get older adults out of the nursing home whenever possible, with peer support to do so. This peer support model was created by NYAPRS in 1993 and has a long history of supporting people with serious mental health conditions to successfully transition from psychiatric hospitals to the community. Rosenthal said this model should be adapted to assist older adults to transition out of nursing homes whenever possible.

Jennifer Snow, national director of Government Relations, Policy, and Advocacy at NAMI, said that one in five people are affected by mental health conditions. She said that NAMI has free programs, education classes, and support groups around the country. Her comments focused on Medicare, stating that "Medicare is the most discriminatory health insurance program when it comes to mental health conditions and mental health treatment." There are limits on coverage, it does not cover the full range of mental health care providers, and fewer psychiatrists participate, making it difficult to receive mental health services under Medicare, she said. One of the things we can do, added Snow, is change or remove discriminatory policies within Medicare, such as the 190-day limit on inpatient psychiatric care. It is unthinkable for other health conditions, such as cancer, to have an arbitrary limit on treatment "but it is the norm for people with mental illness," she said. This is especially problematic for younger beneficiaries with serious mental illness who are covered by Medicare as a result of a disability and may reach this limit earlier in life. It would also be beneficial to allow all licensed professional mental health care providers, such as peer support specialists, to be able to bill Medicare, Snow asserted.

Friedman offered several summary observations, emphasizing that partnerships need to be formed across systems that provide vital care and services, incorporating not just mental health or Alzheimer's care, but also substance misuse, housing, and income maintenance, among many others. Similar to how NAMI has an initiative to reimagine crisis services, he said perhaps there should be a similar campaign to re-imagine issues of the mind in old age.

[38] See https://www.nyaprs.org/peer-bridger (accessed August 28, 2023).

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This would include forming new partnerships and inviting people to the table who are not usually included. Friedman noted that there are significant areas of disagreement among the various systems, but, quoting a former student, Friedman said "you do not have to agree about everything to agree about something." As seen throughout the workshop, he said there are significant areas of agreement, including the need for increased capacity and access to care, the need for integrated systems, and the need to address co-morbidities and social determinants of health. There is also agreement about the need to strengthen the workforce, address stigma, increase public and professional education about the mental health of older adults, and the continuing need for more research. "We are also divided by the silos…and it is time that we broke down those silos," said Friedman.

Friedman echoed Snow's remarks on the need to focus on improving Medicare coverage for mental health conditions, adding that there is also a need to advocate for a full range of populations, including people with serious long-term mental disabilities and people who are affected by the stress in their lives.

It is also important to speak to the people who will make a difference "and not just to ourselves," added Friedman, echoing Lock's remarks about the importance of sharing stories and powerful narratives of people with lived experience. We need to speak more clearly and powerfully to the general public and to policy makers, he said.

Finally, it is critical to recognize the progress that has been made over time but "we have miles to go before we sleep," he concluded.

CLOSING REMARKS

Reynolds provided a summary of high-level and crosscutting themes from the workshop, which he said also align with the themes found in the 2022 Lancet-World Psychiatric Commission Report (Herman et al., 2022).[39] First, he emphasized that prevention, treatment, and recovery for mental illness in older adults should consider individual needs, challenges, strengths, priorities, and the sociocultural context in which that individual lives, moves, and has access to available resources..

Another theme he noted focused on the barriers associated with stereotypes such as ageism, mentalism, and ableism. Reynolds stressed that the

[39] Time for united action on depression: a Lancet-World Psychiatric Association Commission calls for concerted and collaborative efforts by governments, health care providers, researchers, people living with depression, and their families to improve care and prevention, fill knowledge gaps, and increase awareness to tackle one of the leading causes of avoidable suffering and premature death worldwide.

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ability to sustain and implement a rights-based approach integrated across the health and social welfare systems that are designed for individuals and families living with mental disorders could alleviate the negative stigma around aging. Advocating for social change and speaking up against discrimination will also support the delivery, access, and quality of mental health, he said.

Finally, financial investments for mental health should be secured and maintained over time, Reynolds said, emphasizing that "existing treatments work, they can reduce human suffering, and they make economic sense from a broad societal perspective. Mental health care is not expensive…it can yield considerable return on investment."

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Appendix A

Statement of Task

Addressing the Rising Mental Health Needs of an Aging Population: A Workshop

A National Academies of Sciences, Engineering, and Medicine planning committee will organize and host a public workshop to explore the current state of mental health care for older adults in the United States and potential strategies to address the mental health needs and challenges of our aging population. The workshop will consider a broad range of issues that may include:

The incidence and prevalence of mental health and substance use conditions among older adults as well as the range and availability of services to address those needs.

Ways to improve the quality, capacity, equity and access of community-based and institutional mental health services for older adults, such as:

- integrating physical and mental health services
- building a larger and more clinically and culturally competent mental health workforce
- overcoming barriers to care access and leveraging technologies to support care

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Ways to build and sustain comprehensive programs to support the well-being of older adults with mental health conditions (e.g., dementia), such as:

- coordination among care providers
- coordinating policy initiatives among governmental agencies
- integrating services to address the social determinants of mental health disorders (for example, social isolation, economic hardship, food insecurity, dangerous living conditions, and racism)
- reorganizing financing of services to align funding structures with service needs

Ways to help older people with mental health disorders to live where they prefer in the community and to support their family caregivers, such as:

- expanding in-home and telehealth services
- educating the public and caregivers about mental health and co-morbid conditions among older adults
- including older adults as part of the effort to meet the needs of their peers

Knowledge gaps that impede progress in identifying and providing appropriate care for individuals with mental health and substance use conditions, which could be addressed through new research

The planning committee will develop the agenda for the workshop sessions, select and invite speakers and discussants, and moderate the discussions. A proceedings of the presentations and discussions at the workshop will be prepared by a designated rapporteur in accordance with institutional guidelines.

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Appendix B

Workshop Agenda

DAY 1
MAY 15, 2023
12:00PM—5:00 PM ET

12:00 PM WELCOME (5-MINS)

Rosalie Liccardo Pacula, PhD
Professor
Elizabeth Garrett Endowed Chair in Health Policy,
Economics, and Law University of Southern California
Co-chair, Forum on Mental Health and Substance Use Disorders

12:05 PM LIVED EXPERIENCE PANEL (30-MINS)

Moderator:
Michael B. Friedman, LMSW
Co-founder & Honorary Chair, The Geriatric Mental Health Alliance of NY
Adjunct Associate Professor, Columbia University School of Social Work
Planning Committee Member

Panelists:
Charita Cole Brown
Author
National Alliance on Mental Illness (NAMI)

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Sandra Cohen
Caregiver spouse (now widowed) Former Asst. Attorney General Maryland Adjunct Professor, University of Maryland School of Law (Retired) Portrait Painter

Nicole Jorwic
Chief of Campaigns and Advocacy
Caring Across Generations

Harvey Rosenthal
Executive Director
New York Association of Psychiatric Rehabilitation Services, Inc. (NYAPRS)

12:35 PM SESSION 1:
CLINICAL CONTEXT (100-MINS)

12:35 | DEMOGRAPHICS AND EPIDEMIOLOGY: MENTAL ILLNESS IN OLD AGE

Jovier Evans, PhD
Branch Chief
Geriatrics and Aging Processes Research Branch National Institute of Mental Health (NIMH)

1:00 PM | PSYCHOTIC DISORDERS

Carl I. Cohen, MD
SUNY Distinguished Service Professor Division of Geriatric Psychiatry
Director, Fellowship Program
1:15 PM | DEPRESSION/MOOD DISORDERS

Charles F. Reynolds III, MD
Distinguished Professor of Psychiatry and
UPMC Endowed Professor in Geriatric Psychiatry, emeritus University of Pittsburgh School of Medicine
Planning Committee Co-chair

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1:30 PM | SUBSTANCE-USE DISORDERS

Daniel Blazer, PhD, MD
JP Gibbons Professor Emeritus of Psychiatry and Behavioral Sciences Duke University School of Medicine

1:45 PM | NEURO-PHYSIOLOGICAL VIEW OF MENTAL HEALTH AND SUBSTANCE-USE DISORDERS

Gwenn S. Smith, PhD
Director, Division of Geriatric Psychiatry and Neuropsychiatry Richman Family Professor for Alzheimer's and Related Diseases
Departments of Psychiatry and Behavioral Sciences and Radiology and Radiological Sciences Johns Hopkins University School of Medicine

2:00 PM | CO-OCCURENCE OF DEMENTIA AND MENTAL ISSUES/ BRAIN HEALTH AND COGNITIVE FITNESS

Perminder S. Sachdev, AM, MBBS, MD, PhD, FRANZCP, FAAHMS
Professor of Neuropsychiatry
Co-Director, Centre for Healthy Brain Ageing University of New South Wales Sydney Clinical Director, Neuropsychiatric Institute Prince of Wales Hospital, Sydney Australia

2:15 PM BREAK (15-MINS)

2:30 PM SESSION 2:
HEALTH DISPARITIES AND SOCIAL DETERMINANTS OF HEALTH (60-MINS)

2:30 PM | OVERVIEW: AT-RISK COMMUNITIES

Narda Ipakchi, MBA Vice President, Policy The SCAN Foundation
Planning Committee Member

2:35 PM | RACIAL AND ETHNIC DISPARITIES IN AGING POPULATIONS

Kellee White, MPH, PhD
Associate Professor, Health Policy Management University of Maryland School of Public Health

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Addressing the Rising Mental Health Needs of an Aging Population: Proceedings of a Workshop

Arturo Vargas Bustamante, PhD, MPP Professor of Health Policy and Management Faculty Research Director
Latino Policy and Politics Institute
University of California, Los Angeles Fielding School of Public Health

Spero M. Manson, PhD
Distinguished Professor of Public Health and Psychiatry Director, Centers for American Indian and Alaska Native Health Colorado Trust Chair in American Indian Health

3:05 PM | OLDER LGBTQIA+ ADULTS & AGING

Aaron Tax
Managing Director of Government Affairs and Policy Advocacy
Services and Advocacy for Gay, Lesbian, Bisexual, and Transgender Elders (SAGE)

3:15 PM | ECONOMIC INSECURITY

Joseph Benitez, PhD
Assistant Professor
College of Public Health University of Kentucky

3:30 PM **SESSION 3: INTEGRATION, ACCESS, QUALITY, COST, AND EQUITY (60-MINS)**

3:30 PM | INTEGRATING BEHEAVIORAL HEALTH SERVICES AND PRIMARY CARE

Jürgen Unützer, MD, MPH, MA
Professor and Chair, Psychiatry & Behavioral Sciences Founder, AIMS Center
University of Washington

3:45 PM | PUBLIC HEALTH INTEGRATION INTO ACCOUNTABLE CARE ORGANIZATIONS

Jie Chen, PhD
Professor, Health Policy and Management
Director, The Hospital And Public health interdisciPlinarY Research (HAPPY) Lab University of Maryland School of Public Health
Planning Committee Co-chair

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4:00 PM | CERTIFIED COMMUNITY BEHAVIORAL HEALTH CLINICS

David DeVoursney, MPP
Director, Division of Service and Systems Improvement Center for Mental Health Services
Substance Abuse and Mental Health Services Administration (SAMHSA)

Eric Weakly, MSW, MBA Western Branch Chief SAMHSA

4:15 PM | MEDICARE

Douglas Jacobs, MD, MPH
Chief Transformation Officer
Centers for Medicare and Medicaid Services (CMS)

AUDIENCE Q&A (25-MINUTES)

4:30 PM Moderator:
Charles F. Reynolds III, MD
Distinguished Professor of Psychiatry and
UPMC Endowed Professor in Geriatric Psychiatry, emeritus

University of Pittsburgh School of Medicine
Planning Committee Co-chair

CLOSING REMARKS

4:55 PM Kirsten Beronio, JD
Senior Policy Advisor
Center for Medicaid and CHIP Services (CMCS)
Planning Committee Member
Member, Forum on Mental Health and Substance Use Disorders

5:00 PM WORKSHOP ADJOURNS

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DAY 2
MAY 16, 2023 9
9:00 AM—3:00 PM ET

9:00 AM WELCOME (10-MINS)

Rosalie Liccardo Pacula, PhD
Professor
Elizabeth Garrett Endowed Chair in Health Policy, Economics, and Law
University of Southern California
Co-chair, Forum on Mental Health and Substance Use Disorders

9:10 AM SESSION 4:
WORKFORCE (60-MINS)

9:10 AM | OVERVIEW: WORKFORCE NEEDS TO SUPPORT THE WELL-BEING OF OLDER ADULTS WITH MENTAL HEALTH CONDITIONS

Stephen Bartels, MD, MS
Director, The Mongan Institute
Director, Health Policy Research Center

9:20 AM | CLINICAL PHARMACIST PRACTITIONERS

Tera Moore, PharmD, BCACP, BCPS
National Clinical Pharmacy Practice Program Manager Clinical Practice Integration and Model Advancement
Veterans Affairs Central Office

9:30 AM | PARAPROFESSIONALS

Jin Hui Joo, MD, MA
Geriatric Psychiatrist
Department of Psychiatry Massachusetts General Hospital Harvard Medical School

Vikram Patel, PhD, MB
The Pershing Square Professor of Global Health Harvard Medical School

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9:50 AM | INTERPROFESSIONAL CONSULT
Donna Fick, PhD, RN, GCNS-BC, FGSA, FAAN
Elouise Ross Eberly Endowed Professor
Ross and Carol Nese College of Nursing, Penn State
Director, Tressa Nese and Helen Diskevich Center of Geriatric Nursing Excellence
Member, Forum on Aging, Disability, and Independence

10:00 AM | AUDIENCE Q&A

Moderators:
Jennifer Bean, PharmD
Clinical Pharmacist Practitioner, Geriatric Mental Health Pharmacy Service
VISN 9 Clinical Resource Hub
Planning Committee Member

Charles F. Reynolds III, MD
Distinguished Professor of Psychiatry and
UPMC Endowed Professor in Geriatric Psychiatry, emeritus University of Pittsburgh School of Medicine
Planning Committee Co-chair

10:10 AM SESSION 5:
RISK REDUCTION & PROTECTIVE PREVENTION AND EFFECTIVE INTERVENTIONS (60-MINS)

10:10 AM | WELLNESS THROUGH MEANINGFUL ACTIVITIES

Elizabeth R. Skidmore, PhD
Professor, Department of Occupational Therapy Associate Dean for Research
School of Health and Rehabilitation Sciences University of Pittsburgh

10:25 AM | UNIVERSAL, SELECTIVE, AND INDICATED DEPRESSION PREVENTION

Olivia Okereke, MD, MS
Terry and Jean de Gunzburg MGH Research Scholar 2021-2026
Associate Professor of Psychiatry Harvard Medical School
Associate Professor in the Department of Epidemiology, Harvard T.H. Chan School of Public Health

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Director, Geriatric Psychiatry
Director, MGH Psychiatry Center for Racial Equity and Justice Department of Psychiatry,
Massachusetts General Hospital Harvard Medical School

10:40 AM | PROMOTING RESILIENCE AND POSITIVE MENTAL HEALTH IN OLDER ADULTS

Dilip Jeste, MD
Director
Global Research Network on Social Determinants of Mental Health and Exposomics President-Elect, World Federation for Psychotherapy

10:55 AM | AUDIENCE Q&A

Moderators:
Vincent Mor, PhD
Florence Pirce Grant Professor
Department of Health Services, Policy & Practice, Brown University School of Public Health
Planning Committee Member

Jie Chen, PhD
Professor, Health Policy and Management
Director, The Hospital And Public health interdisciPlinarY Research (HAPPY) Lab University of Maryland School of Public Health
Planning Committee Co-chair

11:10 AM SESSION 6: SUPPORTIVE COMMUNITIES (60-MINS)

11:10 AM | SOCIAL DISCONNECTION

Thomas Cudjoe, MD, MPH
Robert and Jane Meyerhoff Endowed Professor Assistant Professor of Medicine
Division of Geriatric Medicine and Gerontology Johns Hopkins University School of Medicine

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11:25 AM | VICTIMS OF TRAUMA

Nancy Kusmaul, PhD, MSW
Associate Professor, Department of Social Work University of Maryland, Baltimore County

11:40 AM | BUILDING COMMUNITY-BASED PARTNERSHIPS

Gary J. Kennedy, MD
Professor and Vice Chair for Education
Director, Division of Geriatric Psychiatry and Fellowship Program
Department of Psychiatry and Behavioral Sciences
Montefiore Medical Center
Albert Einstein College of Medicine
11:55 AM | AUDIENCE Q&A

Moderators:
Jennifer Bean, PharmD
Clinical Pharmacist Practitioner, Geriatric Mental Health Pharmacy Service
VISN 9 Clinical Resource Hub
Planning Committee Member

Michael B. Friedman, LMSW
Co-founder & Honorary Chair, The Geriatric Mental Health Alliance of NY
Adjunct Associate Professor, Columbia University School of Social Work
Planning Committee Member

12:10 PM **LUNCH/BREAK (60-MINUTES)**

1:15 PM **SESSION 7:**
CHALLENGES AND FUTURE DIRECTION (60-MINS)

1:15 PM | TELEHEALTH

CAPT Heather Dimeris, MS, RD, RDN
Director, Office for the Advancement of Telehealth Health Resources and Services Administration (HRSA)
1:30 PM | RURAL CHALLENGES

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Erin E. Emery-Tiburcio, PhD, ABPP
Associate Professor, Geriatric and Rehabilitation Psychology; Geriatric Medicine Co-Director, Rush Center for Excellence in Aging
Rush University Medical Center

1:45 PM | TECHNOLOGY DEVELOPMENT, IMPLEMENTATION, AND DISSEMINATION

Sara J. Czaja, PhD
Gladys and Roland Harriman Professor of Medicine Director, Center on Aging and Behavioral Research Division of Geriatrics and Palliative Medicine
Weill Cornell Medicine

Philip Harvey, PhD
Professor of Psychiatry and Behavioral Sciences Chief Director, Division of Psychology
Vice Chair for Research
University of Miami Miller School of Medicine

2:00 PM | AUDIENCE Q&A

Moderator:
Emma Nye, MPA
Public Health Analyst
US Department of Health and Human Affairs
Office of the Assistant Secretary for Planning and Evaluation (ASPE)
Planning Committee Member

2:15 PM ADVOCACY GROUP PANEL (30-MINS)

Moderator:
Michael B. Friedman, LMSW
Co-founder & Honorary Chair, The Geriatric Mental Health Alliance of NY
Adjunct Associate Professor, Columbia University School of Social Work
Planning Committee Member

Panelists:
Kathleen Cameron, MPH
Senior Director, Center for Healthy Aging National Council on Aging (NCOA)

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Sarah Lenz Lock, JD
Senior Vice President, Policy & Brain Health Policy, Research, and International
American Association of Retired Persons (AARP) Executive Director, Global Council on Brain Health

Harvey Rosenthal
Executive Director
New York Association of Psychiatric Rehabilitation Services, Inc. (NYAPRS)

Jennifer Snow
National Director, Government Relations, Policy & Advocacy National Alliance on Mental Illness (NAMI)

CLOSING REMARKS

2:45 PM	**Charles F. Reynolds III, MD** Distinguished Professor of Psychiatry and UPMC Endowed Professor in Geriatric Psychiatry, emeritus University of Pittsburgh School of Medicine *Planning Committee Co-chair*
3:00 PM	**WORKSHOP ADJOURNS**

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Appendix C

Recommendations from the 2012 IOM report on *The Mental Health and Substance Use Workforce for Older Adults: In Whose Hands?*

RECOMMENDATION 1: Congress should direct the Secretary of Health and Human Services (HHS) to designate a responsible entity for coordinating federal efforts to develop and strengthen the nation's geriatric mental health and substance use (MH/SU) workforce.

- The committee urges Congress to fund the already authorized National Health Care Workforce Commission to serve in this capacity. In the absence of congressional action, the Secretary of HHS should act as soon as possible to designate an alternative body.
- The coordinating body should have the following priorities with respect to the geriatric MH/SU workforce:
    - Identification, development, and refinement of methods for improving recruitment and retention of geriatric MH/SU personnel, including ways to build a workforce that reflects the increasingly diverse older adult population.
    - Promotion and support of widescale implementation of evidence-based models of geriatric MH/SU care that effectively deploy personnel.
    - Identification, development, and refinement of model curricula and curriculum development tools in geriatric MH/SU, including effective models of training for integrated rehabilitation, health promotion, health care, and social services for older adults with serious mental illness.

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- ◦ Identification, development, and refinement of core competencies in geriatric MH/SU for the entire spectrum of personnel who care for older adults, including direct care workers, peer support specialists, primary care physicians, nurses (at all levels), physician assistants, substance use counselors, social workers, psychologists, rehabilitation counselors, and marriage and family therapists.
- ◦ Evaluation and dissemination of all of the above.

RECOMMENDATION 2: The Secretary of HHS should ensure that its agencies—including the Administration on Aging (AoA), Agency for Healthcare Research and Quality (AHRQ), Centers for Medicare & Medicaid Services (CMS), Health Resources and Services Administration (HRSA), National Institute of Mental Health (NIMH), National Institute on Drug Abuse (NIDA), and Substance Abuse and Mental Health Services Administration (SAMHSA)—assume responsibility for building the capacity and facilitating the deployment of the MH/SU workforce for older Americans:

- CMS
  - CMS should evaluate alternative methods for funding primary care and other personnel who provide evidence-based models of care to older adults with MH/SU conditions. This should include reimbursing care managers as well as the psychiatrists and other mental health specialists providing supervision of their work.
  - CMS should evaluate alternative payment methods to encourage effective deployment of the workforce to provide integrated primary care, chronic disease self-management, and health promotion for older adults receiving care in community mental health centers and other specialty mental health settings.
  - CMS should explore approaches and strategies for improving care delivery to older adults with MH/SU conditions through its contracts with quality-improvement organizations.
  - CMS should enforce and monitor implementation of the Pre-Admission Screening and Resident Review (PASRR) and Minimum Data Set (MDS) nursing home requirements regarding residents' mental health. The agency should also ensure that PASRR and MDS mental health assessments inform residents' care plans and that nursing home personnel implement the care plans accordingly.
- HRSA
  - The HRSA Administrator should ensure that the National Center for Health Care Workforce Analysis devotes sufficient attention to geriatric MH/SU with guidance from the national coordinating body described below.

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  - The HRSA Administrator should ensure that the Geriatric Academic Career Awards career development grants include awards to geriatric MH/SU specialists if they commit to working with older adults in acute or long-term care settings.
  - The HRSA Administrator should ensure that the Geriatric Education Centers and the Comprehensive Geriatric Education Program institutional awards fund programs that train individuals in geriatric MH/SU care.
- NIMH
  - The Director of NIMH should ensure that the institute conducts research on methods for increasing the capacity of the mental health workforce to provide competent and effective care for older adults who reside in the community or in nursing homes or other congregate residential settings.
- SAMHSA
  - The SAMHSA Administrator should ensure that the agency devotes sufficient attention to the capacity of the behavioral health workforce to provide both geriatric mental health and geriatric substance use services.
  - The SAMHSA Administrator should ensure that the agency restores funding of the Older Adult Mental Health Targeted Capacity Expansion Grant program.
  - The SAMHSA Administrator should require states that receive MH/SU block grants to document and to report how the funds are used to support local capacity to serve older adults.

RECOMMENDATION 3: Organizations responsible for accreditation, certification, and professional examination, as well as state licensing boards, should modify their standards, curriculum requirements, and credentialing procedures to require professional competence in geriatric MH/SU for all levels of personnel that care for the diversity of older adults.

- These efforts should include requirements for recredentialing and professional development for already licensed and certified personnel.

RECOMMENDATION 4: Congress should appropriate funds for the Patient Protection and Affordable Care Act (ACA) workforce provisions that authorize training, scholarship, and loan forgiveness for individuals who work with or are preparing to work with older adults who have MH/SU conditions. This funding should be targeted to programs with curricula in geriatric MH/SU and directed specifically to the following types

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of workers who make a commitment to caring for older adults who have MH/SU conditions:

- Psychiatrists, psychologists, psychiatric nurses, social workers, MH/SU counselors, and other specialists who require skills and knowledge of both geriatrics and MH/SU.
- Primary care providers, including geriatricians and other physicians, registered nurses (RNs), advance practice registered nurses (APRNs), and physician assistants.
- Potential care managers for older adults who have MH/SU conditions, including RNs, APRNs, social workers, physician assistants, and others.
- Faculty in medicine, nursing, social work, psychology, substance use counseling, and other specialties.
- Direct care workers and other frontline employees in home health agencies, nursing homes, and assisted living facilities (including personal care attendants not employed by an agency).
- Family caregivers of older adults with MH/SU conditions.

RECOMMENDATION 5: HHS should direct a responsible entity (as described above) to develop and coordinate implementation of a data collection and reporting strategy for geriatric MH/SU workforce planning. Data collection and reporting should include the following:

- Prevalence data for *Diagnostic and Statistical Manual of Mental Disorders* (DSM)-defined disorders and other MH/SU conditions, including data on comorbidity of these conditions. Representative data on the following subgroups are essential:
    - Age within the 65+ population (65-74, 75-84, and 85 and older)
    - Gender
    - Race and ethnicity (including non–English speakers)
    - Veteran status
    - Living situation (private household, public housing or senior housing facility, group home, assisted living or other residential care facility, and nursing home)
    - Coexisting physical health conditions
    - Coexisting cognitive and functional impairments
    - Geographic area
- Use of MH/SU services for the above subgroups.

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- Comprehensive and comparable information on the full range of geriatric MH/SU personnel with sufficient detail to assess the workforce supply by race and ethnicity; language skills; geographic location and distribution; qualifications, training, and certification; areas of practice; and hours spent in the care of older adults.

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Appendix D

Recommendations from the 2020 NASEM report on *Social Isolation and Loneliness in Older Adults*

GOAL 1: DEVELOP A MORE ROBUST EVIDENCE BASE

Recommendation 2-1: Major funders of health research, including the government (e.g., the National Institutes of Health (NIH), the Center for Medicare and Medicaid Innovation (CMMI), and the Patient-Centered Outcomes Research Institute (PCORI)), foundations, and large health plans should fund research on social isolation and loneliness at levels that reflect their associations with mortality.

Recommendation 3-1: Major funders of health research, including the government (e.g., NIH, CMMI, PCORI), foundations, and large health plans should fund research to improve the basic scientific understanding of the links between social connection and health, including the study of risk factors and mechanisms.

Recommendation 9-3: Funders should prioritize research that builds a scientific foundation for clinical and public health interventions that reduce the health and medical impacts of social isolation and loneliness based on standard theoretical frameworks.

Recommendation 9-4: Major funders of health research, including the government (e.g., NIH, CMMI, PCORI), foundations, and large health plans should fund research on interventions in clinical settings to iden-

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tify, prevent, and mitigate the effects of social isolation and loneliness in older adults.

Recommendation 9-5: Those who fund, develop, and operate programs to assess, prevent, and intervene in social isolation and loneliness should prioritize research on the following major gaps in the evidence base:

- Tailored interventions based on a public health framework of primary, secondary, and tertiary prevention. In particular, researchers should examine improved measures to identify individuals who may be at high risk for social isolation or loneliness and primary interventions in order to target such individuals.
- Trends among current younger adults as they age (e.g., use of technology, economic trends) to gain knowledge that informs future approaches to addressing social isolation and loneliness.
- Flexibility in funding to allow for the pilot testing and evaluation of innovative funding mechanisms for interventions
- Approaches for assessments of and interventions among understudied groups of older adults (e.g., low income, LGBT) and those who face unique barriers to health

Recommendation 9-6: System designers as well as those who are developing and deploying technology in interventions should ensure that technological innovations related to social isolation and loneliness are properly assessed and tested so as to understand their full range of benefits and potential adverse consequences in order to prevent harm, and they should work to understand and take into account contextual issues, such as broadband access and having sufficient knowledge and support for using the technology.

GOAL 2: TRANSLATE CURRENT RESEARCH INTO HEALTH CARE PRACTICES

Recommendation 7-1: Health care providers and practices should periodically perform an assessment using one or more validated tools to identify older adults experiencing social isolation and loneliness in order to initiate potential preventive interventions after having identified individuals who are at an elevated risk due to life events (e.g., loss of a significant relationship, geographic move, relevant health conditions).

- In the case of older adults who are currently socially isolated or lonely (or at an elevated risk for social isolation or loneliness), health care providers should discuss the adverse health outcomes

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associated with social isolation and loneliness with these older adults and their legally appointed representatives. Providers should make appropriate efforts to connect isolated or lonely older adults with needed social care.

- For older adults who are currently socially isolated or lonely, health care providers should attempt to determine the underlying causes and use evidence-based practices tailored to appropriately address those causes (e.g., hearing loss, mobility limitations).

Recommendation 7-2: Health care systems should create opportunities for clinicians to partner with researchers to evaluate the application of currently available evidence-based tools to assess social isolation and loneliness in clinical settings, including testing and applications for specific populations.

Recommendation 7-3: The committee endorses the recommendation of previous National Academies reports that social isolation should be included in the electronic health record or medical record.

Recommendation 8-1: The U.S. Department of Health and Human Services should advocate for including measures of social isolation and loneliness in major large-scale health strategies (e.g., Healthy People) and surveys (e.g., National Health Interview Survey).

Recommendation 8-2: Health and aging organizations, relevant government agencies, and consumer-facing organizations should create public awareness and education campaigns that highlight the health impacts of social isolation and loneliness in adults.

- Health care systems, associations representing all types of health care workers (e.g., American Medical Association, American Nurses Association, American Psychological Association, National Association of Social Workers, American Geriatrics Society, American Association for Geriatric Psychiatry, organizations representing direct care workers), health-related organizations (e.g., American Heart Association), consumer-facing health-related organizations (e.g., AARP), aging professional associations (e.g., American Society on Aging, Gerontological Society of America), aging services organizations (e.g., area agencies on aging, state departments on aging), and organizations working with at-risk older adults (e.g., National Hispanic Council on Aging) should actively communicate information about the health impacts of social isolation and loneliness through print and digital media.

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- **Organizations representing health plans and providers should include consumer-friendly information about the health impacts of social isolation and loneliness in their repository of patient resources (e.g., where the organization provide information about the self-management of various chronic diseases).**

GOAL 4: STRENGTHEN ONGOING EDUCATION AND TRAINING

Recommendation 8-3: Health professions schools and colleges as well as direct care worker training programs should include education and training related to social isolation and loneliness in their curricula, optimally as interprofessional team-based learning experiences.

- **Health education and training programs should include information on clinical approaches to assessing and intervening when an older adult is at risk for social isolation and loneliness.**
- **As evidence on effective interventions develops, health education and training programs should provide education on integrating care related to social isolation and loneliness into clinical practice and as part of discharge planning, care coordination, and transitional care planning with community organizations.**

Recommendation 8-4: Health professional associations should incorporate information about the health and medical impacts of social isolation and loneliness on older adults in their advocacy, practice, and education initiatives.

- **Health professional associations should include social isolation and loneliness in conference programming, webinars, toolkits, clinical guidelines, and advocacy priorities.**

Recommendation 8-5: Health professional associations, membership organizations, academic institutions, health insurers, researchers, developers of education and training programs, and other actors in the public and private sectors should support, develop, and test different educational and training approaches related to the health and medical impacts of social isolation and loneliness in older adults across different segments of the healthcare workforce (including health care professionals and direct care workers) in order to determine the most effective ways to enhance competencies. In addition to initial clinical education, these approaches should apply to professional education, continuing education modules, online learning, and other forms of lifelong learning.

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Recommendation 9-1: Health care providers, organizations, and systems should partner with social service providers, including those serving vulnerable communities, in order to create effective team- based care (which includes services such as transportation and housing support) and to promote the use of tailored community-based services to address social isolation and loneliness in older adults.

Recommendation 9-2: Given the public health impact of social isolation and loneliness, the U.S. Department of Health and Human Services should establish and fund a national resource center to centralize evidence, resources, training, and best practices on social isolation and loneliness, including those for older adults and for diverse and at-risk populations.

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