ASPE
ASSISTANT SECRETARY FOR PLANNING AND EVALUATION

OFFICE OF BEHAVIORAL HEALTH, DISABILITY, AND AGING POLICY

Interventions to Prevent Older Adult Suicide: Final Report

Prepared for
the Office of the Assistant Secretary for Planning and Evaluation (ASPE)
at the U.S. Department of Health & Human Services

by
RTI International

August 2023

Office of the Assistant Secretary for Planning and Evaluation

The Assistant Secretary for Planning and Evaluation (ASPE) advises the Secretary of the U.S. Department of Health and Human Services (HHS) on policy development in health, disability, human services, data, and science; and provides advice and analysis on economic policy. ASPE leads special initiatives; coordinates the Department's evaluation, research, and demonstration activities; and manages cross-Department planning activities such as strategic planning, legislative planning, and review of regulations. Integral to this role, ASPE conducts research and evaluation studies; develops policy analyses; and estimates the cost and benefits of policy alternatives under consideration by the Department or Congress.

Office of Behavioral Health, Disability, and Aging Policy

The Office of Behavioral Health, Disability, and Aging Policy (BHDAP) focuses on policies and programs that support the independence, productivity, health and well-being, and long-term care needs of people with disabilities, older adults, and people with mental and substance use disorders. Visit BHDAP at https://aspe.hhs.gov/about/offices/bhdap for all their research activity.

NOTE: *BHDAP was previously known as the Office of Disability, Aging, and Long-Term Care Policy (DALTCP). Only our office name has changed, not our mission, portfolio, or policy focus.*

This research was funded by the U.S. Department of Health and Human Services Office of the Assistant Secretary for Planning and Evaluation under Contract Number #HHSP233201500039I and carried out by Research Triangle Institute. Please visit https://aspe.hhs.gov/topics/behavioral-health for more information about ASPE research on behavioral health.

INTERVENTIONS TO PREVENT OLDER ADULT SUICIDE: FINAL REPORT

Authors

Dylan DeLisle, MPH
Abbie Levinson, MA
Baylena Weinstein, BS
Kathryn R. Batts, PhD
Sarita L. Karon, PhD
RTI International

August 25, 2023

Prepared for

Office of Behavioral Health, Disability, and Aging Policy
Office of the Assistant Secretary for Planning and Evaluation
U.S. Department of Health and Human Services
Contract #HHSP233201500039I

The opinions and views expressed in this report are those of the authors. They do not reflect the views of the Department of Health and Human Services, the contractor or any other funding organization. This report was completed and submitted on September 9, 2022.

TABLE OF CONTENTS

ACRONYMS 1

EXECUTIVE SUMMARY 2

SECTION 1. INTRODUCTION 4

SECTION 2. EVIDENCE FROM THE LITERATURE 6
- 2.1. Methods 6
- 2.2. Existing Suicide Prevention Programs for Older Adults 7
- 2.3. Barriers to Assessing Older Adults 9
- 2.4. Gaps in Literature 10

SECTION 3. PROFESSIONAL INPUT FROM EXPERT PANELISTS 12
- 3.1. Available Interventions and Opportunities for Expansion 12
- 3.2. Barriers to Implementation and Ways to Overcome 13

SECTION 4. CONCLUSIONS 16

REFERENCES 18

APPENDICES
- APPENDIX A. Environmental Scan Interventions Summary 20
- APPENDIX B. Technical Expert Panel Interventions Summary 23

EXHIBITS AND TABLES

EXHIBIT 1. Peer-Reviewed Literature Flow Diagram ... 6

EXHIBIT 2. Grey Literature Review: Organizations and Search Terms Used ... 7

EXHIBIT 3. List of TEP Panelists ... 12

TABLE A-1. Suicide Prevention Interventions Identified in the Environmental Scan... 20

TABLE B-1. Available Interventions for Suicide Prevention ... 23

ACRONYM

The following acronyms are mentioned in this report and/or appendices.

AAS	American Association of Suicidology
ACL	Administration for Community Living
AoA	Administration on Aging
CDC	Centers for Disease Control and Prevention
COVID-19	Novel Coronavirus
IMPACT	Improving Mood-Promoting Access to Collaborative Treatment
PATH	Problem Adaption Therapy
PROSPECT	Prevention of Suicide in Primary Care Elderly: Collaborative Trial
QPR	Question, Persuade, Refer Institute
SAMHSA	Substance Abuse and Mental Health Services Administration
SPRC	Suicide Prevention Resource Center
ST-CI	Supportive Therapy for Cognitively Impaired Older Adults
SUD	Substance Use Disorder
TEP	Technical Expert Panel
USDA	U.S. Department of Agriculture
VA	U.S Department of Veterans Affairs

EXECUTIVE SUMMARY

Despite the increasing evidence of high suicide rates and associated risk factors for older adults in the United States, the number of programs addressing these risk factors remains limited. The Office of the Assistant Secretary for Planning and Evaluation contracted with RTI International to conduct an environmental scan and convene a technical expert panel (TEP) to identify existing and effective suicide prevention interventions, how these interventions can be expanded to the older adult population, and the barriers to tailoring existing programs to older adults.

The results of the environmental scan suggest that programs aimed at decreasing the risk of suicide ideation are more likely to reduce risk factors than they are to improve protective factors. Effective interventions include primary care-based programs, community programs, group activities, and telephone counseling. However, few evidence-based programs are currently available that aim specifically to prevent suicide among older adults, and research into program effectiveness among older adults is limited. The most recent evaluations of the evidence-based programs included in this report date back over a decade. As the baby boomer generation ages, further research is needed to assess the effectiveness of current suicide interventions specifically for older adults.

Barriers identified in the environmental scan reflect the difficulty of tailoring existing programs for older adults. For example, older adults experience unique stressors, which are not well addressed in all suicide screening tools; such risk factors include involuntary retirement, social isolation, thwarted belongingness (feeling that one's need to belong is unmet), perceived burdensomeness (feeling of one being a burden to others), sadness after the loss of a spouse or partner, and declining health. As suicide risk assessments are often used in intervention programs, they could be better targeted to older adults by addressing these risk factors. Additionally, research on the effectiveness of programs delivered via telecommunication is lacking for older adults.

In June 2022, we convened a TEP consisting of clinical psychologists, psychiatrists, university professors, and public health professionals specializing in geriatric behavioral health and/or suicide prevention. The panelists participated in a discussion on currently available suicide prevention interventions for both the general public and older adults specifically, as well as barriers to implementation of these interventions. Of the currently available interventions for older adults, those that emphasize social connections are associated with decreased suicide ideation. However, the panelists agreed that a lack of funding and competing research priorities (e.g., younger adult suicide) limit further development of such programs. Further, the panelists stressed that the COVID-19 pandemic created an opportune time to emphasize the importance of mental health care, as mental health began to be more frequently discussed and less likely to be stigmatized This increased focus on mental health has persisted since the end of the COVID-19

public health emergency, and the window of opportunity to improve or expand mental health care remains open.

The key takeaways from both the environmental scan and TEP suggest that much more research is needed on suicide risk factors and stressors unique to older adults, signs of suicide ideation, and effective prevention strategies for older adults. Such research is especially urgent given that older adults are at such high risk of death by suicide. Regarding suicide prevention programs and interventions, stakeholder collaboration is needed in order to create a standard intervention that addresses multiple behavioral health factors, including suicide ideation. This intervention should be tailored to appropriately address the needs of the older adult. Additionally, policies that eliminate or alleviate barriers to appropriate care and services are needed.

SECTION 1
INTRODUCTION

Suicide is a significant public health problem in the United States, and older adults, those aged 65 and older, are an especially high-risk group (AoA & SAMHSA, 2016). In 2020, older adults had a higher rate of death by suicide than any other age group (CDC, 2021; Zero Suicide Institute, n.d.). Older adults' suicide attempts are more often deadly compared to other age groups, with an attempt-to-completion ratio of approximately 4:1, whereas ratios of other age groups in the general population range between 8:1 and 20:1 (Betz et al., 2016). Several factors that are unique to this population may increase risk of suicide in later life, including sociodemographic (isolation, marital status, grieving loss of spouse) and clinical factors (dementia, cognitive impairment, physical ailment, psychiatric disorders) (ACL, 2021; Conejero et al., 2018). Psychiatric disorders strongly associated with older adult suicide include bipolar disorder, depression, substance use disorder (SUD), schizophrenia, and post-traumatic stress disorder (SAMHSA, 2019; Conwell et al., 2011).

Despite the high attempt-to-completion ratio of suicide among older adults, a large percentage of deaths by suicide in this age group remains underreported (Wallace et al., 2021). Underreporting occurs in part because suicide assessments in older adults can be complicated by concurrent cognitive impairment, high medical comorbidity, and subtle presentation of suicidal inclination (Betz et al., 2016). Although there is a strong evidence base demonstrating these high suicide rates and associated risk factors, the number of evidence-based programs addressing suicide in older populations remains limited. Additionally, programs associated with decreased risk of suicide ideation or suicide tend to address reducing risk factors over improving protective factors. Increasing protective factors within a targeted community can enhance resiliency and reduce the effect of risk factors. Evidence-based programs currently in existence vary in treatment settings, including primary care-based programs and community programs, as well as treatment or program type, including group activities and telephone counseling (Okolie et al., 2017; Wallace et al., 2021). Overall, available research recommends more widespread, broadly focused interventions and a focus on a public health-based approach to prevent suicide among older adults.

The purpose of this study was to identify the existing evidence-based and non-peer-reviewed suicide prevention programs targeting adults aged 65 years and older in the United States. The study also sought to identify barriers to widespread implementation of these available programs and approaches to overcoming these barriers. Due to a lack of findings in the literature on barriers to implementation, RTI shifted its approach in the environmental scan to focus on barriers to tailoring existing programs for older adults.

Through an environmental scan and engagement of a TEP, this study sought to address two key research questions:

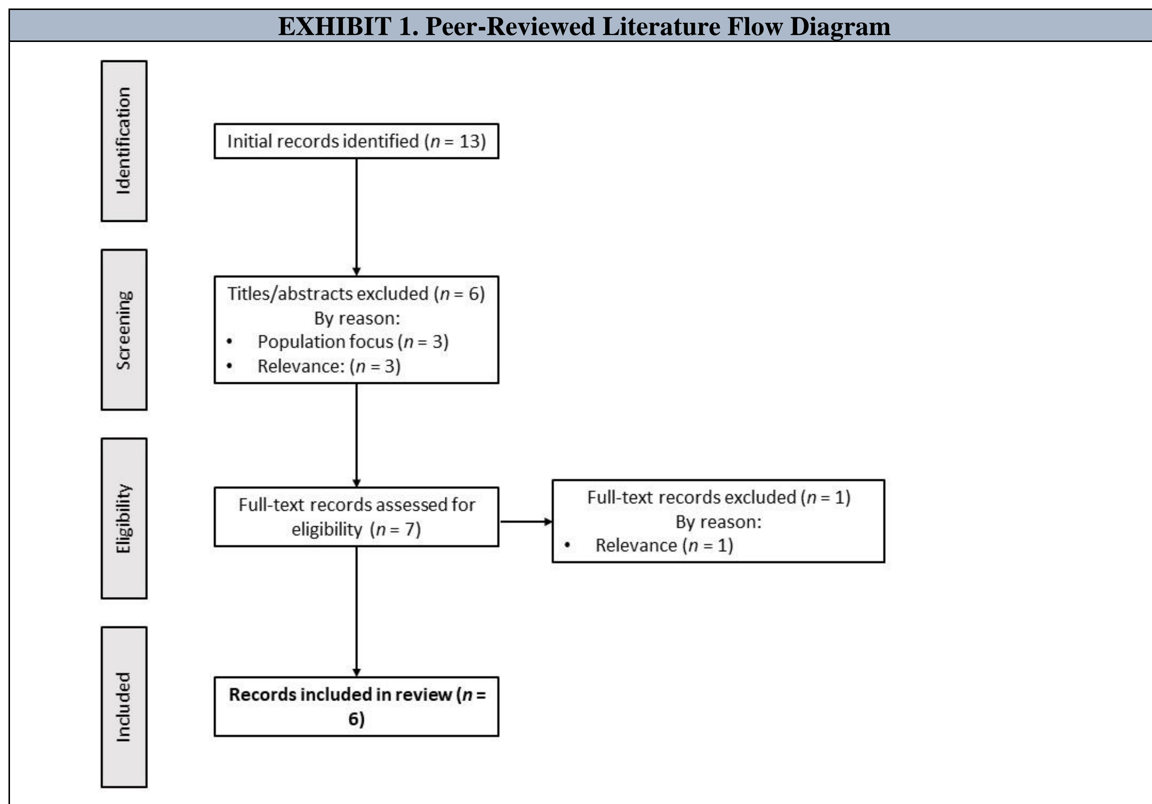
1. What opportunities are there to translate and expand access to suicide prevention programs targeting adults aged 65 and older in the United States?
2. What barriers exist to widespread implementation of these interventions?
    a. How do communities and organizations overcome these barriers?

SECTION 2
EVIDENCE FROM THE LITERATURE

2.1 Methods

RTI conducted an environmental scan using a targeted search of peer-reviewed literature and grey literature from selected sources to identify older adult suicide prevention programs and barriers to program implementation. This search was narrowly tailored to include only those sources focused explicitly on older adult suicide prevention programs. While there were other sources on suicide prevention more broadly in which findings were presented across age groups, older adults were not specifically highlighted; instead, research tended to compare children and youth to adults. With this narrow focus, we identified three systematic reviews of older adult suicide prevention programs for the peer-reviewed literature search (Lapierre et al., 2011; Okolie et al., 2017; Wallace et al., 2021). We expanded the search to other peer-reviewed work referenced in the reviews, focusing on domestic, English-language literature. Additionally, we searched 20 organizations' websites using key words associated with older adult suicide prevention programs and their implementation to supplement the systematic review findings. The organizations generally fell within the following categories: United States government agencies, condition-specific organizations, and specialty and professional associations. We also considered input from RTI experts experienced in researching suicide prevention.

EXHIBIT 1. Peer-Reviewed Literature Flow Diagram



The search of the peer-reviewed literature yielded six full-text references, including the original three systematic reviews; the search of the grey literature yielded eighteen references. See ***Exhibit 1*** for the peer-reviewed literature flow diagram and ***Exhibit 2*** for the list of organizational website terms used in the grey literature search.

EXHIBIT 2. Grey Literature Review: Organizations and Search Terms Used	
Organizations	**Search Terms**
AARP	older adult* **OR** Elder* **OR** Old* Age* Person **OR** Age* Adult
American Association of Suicidology (AAS)	
Administration for Community Living (ACL)	
AIMS Center	**AND**
Aging Network	
Center for Disease Control and Prevention (CDC)	Suicide **OR** Suicidal Behaviors **OR** (Suicide **AND** Suicidal Behaviors)
Cigna	
Education Development Center, Inc.	
Institute on Aging	**AND**
Kaiser Family Foundation	
Kognito	Program **OR** Intervention **OR** Screening
LeadingAge	
National Association of State Mental Health Program Directors	
National Council on Aging	**OR**
Question, Persuade, Refer Institute (QPR)	
Safeside Prevention	Prevention **OR** Support Services
Substance Abuse and Mental Health Services Administration (SAMHSA)	
Suicide Prevention Resource Center (SPRC)	**OR**
U.S. Department of Veterans Affairs (VA)	
ZeroSuicide	Health Insurance **OR** Payer **OR** Health plan

We extracted content relevant to each of our study focus areas from the six selected publications and grey literature and entered the information into a data charting tool. We present results by the two focus areas: (1) existing programs and interventions; and (2) barriers to widespread implementation.

2.2 Existing Suicide Prevention Programs for Older Adults

We identified several suicide prevention programs targeted to older adults in the published and grey literature reviews. These programs are categorized by their implementation setting: primary care offices, emergency departments, and at home. ***Exhibit A-1***, ***Appendix A***, provides an overview of the interventions described in this section.

2.2.1 Primary Care Interventions

Two targeted and research-based programs situated in a primary care setting are Improving Mood-Promoting Access to Collaborative Treatment (IMPACT) and Prevention of Suicide in Primary Care Elderly: Collaborative Trial (PROSPECT) (Unützer et al., 2002, 2006; Alexopoulos et al., 2009). Both IMPACT and PROSPECT utilized randomized control trials, assigning older adults to the intervention program (IMPACT) or assigning primary care practices to provide the intervention or usual care (PROSPECT). IMPACT and PROSPECT employed a care manager to schedule therapy appointments and offer house calls. In IMPACT's study, participants saw a statistically significant decrease in depressive symptoms from baseline when compared to the control group. PROSPECT saw similar results, with participants seeing a statistically significant decrease in suicide ideation when compared to the control group.

Resources from SafeSide Prevention, Kognito, the American Association of Suicidology (AAS), and Question, Persuade, Refer Institute (QPR) were identified in the grey literature as primary care-centric suicide interventions. These organizations offer online trainings designed to prepare primary care providers to screen patients for mental health and SUDs as well as to intervene with patients who are at risk of suicide. *At-Risk in Primary Care*, the training offered by software company Kognito, uses a simulation-based approach where providers engage in role-play conversations with virtual patients. *Recognizing and Responding to Suicide Risk: Essential Skills for Clinicians,* facilitated by the AAS, engages providers in case studies and dyadic exercises to adequately recognize and treat at-risk patients. Similar methods are utilized in *SafeSide Primary CARE* (SafeSide Prevention) and *QPR for Physicians, Physician Assistants, Nurse Practitioners, and Others* (QPR). These interventions can be used across all adult age groups, although evidence to assess their effectiveness with older adults is limited. Tailoring these existing programs to older adults could prove beneficial considering the lack of programs tailored to older adults.

2.2.2 Emergency Department Interventions

Almost one-half of older adults have at least one emergency department visit every year, and the number of mental health-related emergency department visits for older adults is increasing (Betz et al., 2016). However, research into suicide prevention interventions in an emergency department setting is lacking. A database screening of 142,534 patient visits (for any reason) from eight emergency departments over the course of 3 years revealed that older adults were significantly less likely to be offered suicide risk assessments compared to individuals under the age of 60 years (Betz et al., 2016). When tailored to a specific demographic, screening tools have been proven useful at helping providers identify suicide risk and are part of an effective intervention with patient follow-up and treatment (O'Rourke et al., 2022); therefore, it is crucial that older adults experiencing mental health-related emergencies are screened for suicide risk using tailored assessments. Among older adults aged 75 and older who did complete an assessment, only 1.2 percent were identified as at-risk (Betz et al., 2016). This percentage may be partly attributed to conditions impeding the completion of a suicide risk assessment, such

as cognitive impairment and acute illness. However, the reported high suicide rates of older adults suggest that emergency department providers may require further training on screening for suicide risk in older adults and that tools currently used to measure risk in emergency departments should be tailored to diagnose this demographic more accurately (Van Orden & Conwell, 2016; Betz et al., 2016).

2.2.3 Home-based Interventions

There are a few home-based suicide prevention interventions for non-ambulatory older adults. The Problem Adaption Therapy (PATH) and the Supportive Therapy for Cognitively Impaired Older Adults (ST-CI) interventions are specifically designed to be delivered at home to depressed older adults with cognitive impairment, with the goal of reducing suicide risk (Kiosses et al., 2015). Techniques used in these interventions range from helping individuals develop problem-solving skills and cultivating compensatory strategies to combat functional limitations (PATH) to improving providers' skills in empathetic listening, understanding, and encouragement (ST-CI).

Social isolation and loneliness are common suicide risk factors among older adults (Armitage & Nellums, 2020). Although not designed to specifically address suicide or suicide ideation, other home-based interventions sponsored by AARP, Administration for Community Living (ACL), Institute on Aging, and Substance Abuse and Mental Health Services Administration (SAMHSA) target social isolation and loneliness in older adults. *Connect2Affect* (AARP) provides an online assessment for an older adult to use to measure their risk for social isolation and provides resources for practitioners and family members. The *Friendship Line* (Institute on Aging) is a telephone hotline service available to older adults across the country. Staffed by volunteers trained to counsel older adults, the Friendship Line is a resource for those experiencing chronic loneliness and depression. *BE WITH* and *ASIST* (ACL) are phone-based social connection training programs adapted for use by organizations like Area Agencies on Aging and other components of the aging services network.

The interventions and resources identified in our peer-reviewed and grey literature analyses target similar protective factors: supportive therapeutic relationships (IMPACT, PROSPECT), adequate problem-solving skills (PATH), and connectedness (Connect2Affect, Friendship Line, BE WITH).

2.3 Barriers to Assessing Older Adults

Through the peer-reviewed and grey literature searches, we identified several obstacles to assessing older adults for suicide risk. Gender-based differences in presentation, unique risk factors, and an overall decrease in screening all impact the rate and effectiveness of mental health diagnoses in older adults, including depression and suicide ideation.

2.3.1 Gender Differences

Expressions of suicide ideation can differ by gender. Likewise, an older adult's willingness to be assessed and to use available resources for treatment can be impacted by the older adult's gender. Researchers from the IMPACT trial found that older men were significantly less likely than women to be identified as having depression and subsequently referred to the treatment program. Qualitative interviews indicated that older men express their depression atypically, making it more difficult to recognize a problem and refer them to resources (Hinton, et al., 2006). For example, older men expressed core symptoms, such as feeling down and experiencing a lack of interest, less often than older women. In addition, men were more likely to conceal their depression to avoid stigma and feelings of shame often associated with the perception of depression (Hinton et al., 2006). Older women were more likely to utilize social resources and mental health services such as workshops, telephone counseling, and group meetings (Drapeau, Boyer, & Lesage, 2009).

2.3.2 Unique Risk Factors

Older adults experience unique stressors including involuntary retirement, social isolation, thwarted belongingness, feelings of being a burden to others, sadness after the loss of a spouse or partner, physical disease, declining health, and SUD (Betz et al., 2016; Lapierre et al., 2011). These risk factors are not well addressed in most suicide screening tools. In the research conducted by Lapierre et al. (2011), none of the suicide prevention programs addressed substance use in older males. However, a retrospective case-control study reported that alcohol dependence was observed in 35 percent of older men who died by suicide and that alcohol use disorder remained an independent predictor of suicide risk (Waern, 2003). Suicide screening tools could be improved by addressing a wider range of such stressors (Lapierre et al., 2011). There are some screening tools for clinical use that do factor in stressors unique to this population. Examples include the Geriatric Suicide Ideation Scale, Geriatric Depression Scale, and the Interpersonal Needs Questionnaire, all of which would better identify suicide risk among older adults. Screening for upstream stressors may also allow for linkage of vulnerable older patients with community resources to mitigate these stressors (Betz et al., 2016).

2.3.3 Decreased Screening

Health care providers are prone to under-recognize and under-diagnose depression and self-harm in older adults versus younger patients (Betz et al., 2016). In a study of universal suicide screening in emergency departments, researchers found that the proportion of patients who receive a mental health screening began to decline at age 60. Rates of screening for suicide ideation also decreased significantly with age, as did the prevalence of positive screens among participating older adults. While the explanation for these findings is unclear, Betz and colleagues hypothesized that at least part of the decline could be attributed to the presence of conditions precluding questioning (e.g., dementia, severe confusion) among older adults (Betz et al., 2016). Barriers such as cognitive impairment and acute illness are factors associated with the

age-related decrease in screening and identifying older adults who are at risk (Betz et al., 2016; SPRC, 2017). These findings suggest that emergency department staff should be trained to detect suicide risk in and use protocols created specifically for older adults.

2.4 Gaps in Literature

We identified several gaps in the literature during our review. The majority of the peer-reviewed literature we identified focused on suicide prevention programs across the globe, with limited specificity for the United States, and lacked evidence-based studies designed for older adults. There are other studies that evaluated the effects of intervention programs on suicide risk factors, but as the authors did not conceive them as means for late-life suicide prevention they were not included in this review or in the review completed by Lapierre (Lapierre et al., 2011). Among the three literature reviews included in this environmental scan, the lack of research focused solely on or explicitly highlighting an older adult population was a common theme. Much more research is needed on suicide prevention within this specific age group, including the different stressors they face, the symptoms they show, and effective prevention programs for older adults. This is particularly important given that older adults are at such high risk of death by suicide.

Furthermore, there is a lack of research on suicide prevention programs for older adults that address social determinants of health, such as rurality, discrimination based on race or ethnicity, and provider availability. Although the grey literature directed us to several programs delivered via telecommunication, there was a lack of peer-reviewed research on the effectiveness of these programs for older adults. More intervention research is needed to understand the impacts of suicide prevention programs delivered via telecommunication, especially given its increase in use during and since the COVID-19 pandemic. Educational protocols may need to be developed in conjunction with program implementation for older adults unfamiliar with technology commonly used for telecommunication. Finally, suicide prevention programs should incorporate any family caregivers of older adults, such as by providing educational opportunities to identify and mitigate suicide risks.

SECTION 3
PROFESSIONAL INPUT FROM EXPERT PANELISTS

Panelists for the TEP consisted of clinical psychologists, psychiatrists, university professors, and public health professionals specializing in geriatric behavioral health and/or suicide prevention. The panelists for the TEP are outlined in ***Exhibit 3***.

EXHIBIT 3. List of TEP Panelists

Name	Affiliation	Area(s) of Expertise
Dr. Brian Ahmedani	Henry Ford Health	Suicide prevention research
Dr. Yeates Conwell	University of Rochester	Geriatric psychiatrist
Dr. Amy Fiske	West Virginia University	Depression and suicide in older adults
Dr. Matthew Fullen	Virginia Tech	Disparities in mental health care delivery through Medicare
Dr. Maria Llorente	VA	Geriatric psychiatrist
Dr. Richard McKeon	SAMHSA	Chief of Suicide Prevention; collaborator of the national 988 suicide hotline
Dr. Laura Shannonhouse	Georgia State University	Crisis and disaster response; co-creator of the aging variant of ASIST/BE WITH suicide prevention training
Dr. Deborah Stone	CDC	Suicide prevention through a public health approach
Dr. Katalin Szanto	University of Pittsburgh	Suicide among older adults and age-specific risk factors of suicide
Dr. Jürgen Unützer	University of Washington	Geriatric psychiatrist; principal investigator of the IMPACT study
Dr. Kimberly Van Orden	University of Rochester	Clinical psychologist; interventions to reduce social isolation and loneliness

3.1 Available Interventions and Opportunities for Expansion

The first half of the TEP discussion focused on currently available interventions that aim to prevent suicide among older adults, interventions that could be tailored to older adults, and opportunities for expansion of these programs. The programs discussed primarily emphasized building social connections and reducing loneliness. Panelists stressed that the interventions shown to prevent suicide deaths in older people all contain similar components of peer support and connecting. Examples of such programs included Care Partners, the 988 Suicide & Crisis Lifeline, Senior Connection, and Connection Planning. Other programs discussed were provided in U.S. Department of Veterans Affairs (VA) health care systems, community-based settings, and volunteer opportunities for older adults through AmeriCorps Senior. ***Exhibit B-1***, ***Appendix B***, describes the interventions discussed during the TEP.

The panelists spoke to some of these programs' successes. Overall, the panelists reported that suicide prevention programs are generally effective and that identifying specific helpful components is key. An example program are the Care Partners and Stay Connected programs, the latter being a telephone component added in response to the COVID-19 pandemic. This remote option has been reasonably successful as more older adults could be reached; overall, the

program saw an increased proportion of people whose depression improved. Another example of a helpful component came from the Primary Care Mental Health Integration program within the VA health care system. The focus of this component was concomitant communication with a veteran's primary care or mental health provider after that veteran reached out to the hotline. In the Senior Connection program, receipt of a peer companion significantly improved depression among participants.

> *"Veterans that engage with the VA health care system have much lower suicide rates than those that don't engage with the VA…there is now a decline between 2019 and 2021 in the number of veteran suicides."* – Dr. Maria Llorente

A chain of questions needs to be addressed when expanding existing programs to the older adult population: (1) in what ways can a program focus on the population; (2) what resources are needed to do so; and (3) how community partners can be brought in for support. Panelists discussed partnering with organizations such as Meals on Wheels, food banks, and primary care clinics to encourage eligible older adults to participate in available programs. For example, the Care Partners project creates partnerships between community-based organizations and primary care clinics to address depression in primary care together. Other suggestions included utilizing a tailored depression screening, such as the Masculine Depression Scale, as a way to identify at-risk older men.

However, additional risk factors exist for suicide ideation among older adults beyond a mental health diagnosis. For older veterans in particular, addressing and preventing homelessness is an important component to reducing suicide risk. Suicide prevention programs can also consider reducing access to lethal means, such as firearms, among people at-risk as part of their protocols.

3.2 Barriers to Implementation and Ways to Overcome

The second half of the TEP discussion focused on specific barriers to implementing suicide interventions for older adults and ways to overcome those barriers. The panelists shared from their experience and research some of the most common and difficult barriers they have faced while trying to implement such interventions.

The COVID-19 pandemic prompted a rapid transition to virtual care that became a major barrier for some individuals. Panelists felt that although the majority of the population appeared to be adjusting, there continue to be patients left behind who do not have access to or do not use technology in the same capacity as others. Older adults can find navigating the technology challenging and may be unable to utilize virtual care. Such struggles can exacerbate older adults' perceived burden on their younger family, who they may turn to for assistance. Additionally, although certain programs may be able to supply patients with tablets for care, older adults who reside in rural areas may not have internet access needed to utilize those tablets.

Transportation for health care appointments can pose another barrier. The VA offers a program to cover the cost of taxi cabs, provide a shuttle service, or provide transportation cards for public transportation. However, with the rise of ride share applications availability of traditional taxis has declined, and public transportation is not available in many areas. Likewise, programs that provide van or shuttle rides can be inconvenient for the patient. While these services directly pick up and drop off a patient from their house, it can be a full day affair due to set departure and arrival times. The VA found a patient is more likely to cancel their appointment when using these services. A solution proposed to this barrier was to develop a more person-centered program, allowing older adults to be reimbursed for private transportation through rideshare services.

Location also can influence access to mental health care. Multiple TEP members stated that within rural communities, mental health providers largely do not accept Medicare, reporting that in their view Medicare does not reimburse at a high enough level to be worthwhile. Panelists discussed how to broaden the mental health infrastructure within these communities. It was noted that a one-size-fits-all approach may not be effective in rural locations. Stronger suicide awareness and prevention training is needed across community-based and primary care organizations.

The panelists also discussed financial barriers to program implementation and research. Programs like the Friendship Line are not usually eligible for Medicare reimbursement and must receive funding from public and private grants, which can be challenging to access. Without this external funding, the Friendship Line, and other programs like it, cannot survive. Among programs and interventions that can be reimbursed by Medicare, which according to the TEP and scan tend to be treatment centers or direct providers, older adults may themselves face financial challenges. Although cost-sharing requirements for outpatient mental health care are similar to those of other outpatient services, these costs may still be prohibitive for some older adults seeking mental health care.

> *"Over 560 Agencies on Aging and 60 American Indian tribal groups [receive] greatly inadequate funding but could be a potential resource [if the] infrastructure and scope of the [health care] system were addressed."* – Dr. Yeates Conwell

In further discussions of Medicare payment model barriers, panelists noted that policymakers need to work directly with providers delivering services to understand providers' needs and wants. Others stated that for clinicians to provide high quality clinical services, they need to be reimbursed for those services. Numerous health care priorities are currently competing for programmatic and research funding. Adolescent suicide remains a high priority in mental health policy and research in contrast, fewer resources may be available for interventions and research on suicide prevention in older adults.

At the time of the TEP, panelists unanimously agreed that the COVID-19 pandemic, increased opportunities to facilitate conversations challenging mental health stigma and ageism. Given the lingering harms of COVID-19 and social distancing on individuals' mental health as well as the resulting increased focus on addressing mental health challenges, these opportunities remain today.. In these conversations, it is important to emphasize that older adult suicide differs from suicide patterns observed in other age groups. Defining these unique challenges and patterns experienced by older adults would elevate this issue and what strategies should be employed for successful interventions. Dr. Van Orden noted that this could be a starting place in developing suicide prevention programs for older adults.

> *"Preventing suicide in later life is not just about preventing deaths, it's about treating suicide ideation."* – Dr. Kimberly Van Orden

Participant engagement can pose a barrier for some programs. For example, a research team evaluating the effectiveness of ASIST found confidentiality issues were a barrier because patients had to share their personal contact information and agree to be audio recorded in order to participate in the trial. The ASIST team overcame this barrier by working with software engineers to create a system called Friendly Buzz. Friendly Buzz enables ASIST volunteers to call into the system but does not disclose the contact information of the older adult.

Leadership turnover in suicide prevention programs is another reported barrier to effective implementation. New staff require continuous training to be kept current with the intervention protocols, which can delay further program implementation. Additionally, inexperienced staff are not as adequately prepared to provide clinical consultation for this specific population of older adults. Within one group using the ZeroSuicide program, a period of high turnover was specifically correlated with an increased suicide rate. A decrease in suicide rates occurred once staffing and leadership stabilized.

Lastly, lack of structure in mental health care delivery was a barrier faced by many panelists. Having the processes and structure built directly into the existing health care workflow is critically important. This ensures providers and staff know the necessary processes and steps to take. Among behavioral health providers, not knowing who to contact, when to do so, and what to do next can lead to inaction. In the panelists' experience, providers do not screen for mental health disorders in older adults because they may not know what the next steps are if the patient displays symptoms of a disorder. With a structured system, providers are more willing to engage since there is a clear direction to follow. Provider buy-in on the structured system should be obtained. An understanding of treating suicide ideation and knowing the programs that exist to address risk factors is critical to treating older adults. To assist policymakers, providers should develop a model of what suicide prevention should look like in later life.

SECTION 4
CONCLUSIONS

This project aimed to identify existing programs addressing older adult suicide as well as opportunities to expand those programs, and barriers to implementing and sustaining existing programs. Through our environmental scan and TEP, we identified unique risks, unmet needs, key barriers to serving the population well, and areas where further research is needed.

Older adults face unique suicide risk factors, such as involuntary retirement, social isolation, thwarted belongingness, loss of a spouse or partner, and declining physical and cognitive health. Homelessness, access to firearms, limited transportation, and limited access to the internet and technology can also contribute to suicide risk and serve as barriers to treatment for older adults. Some of these risk factors are not included in many clinical assessments but could be an area of opportunity for clinical providers to identify suicide risk among their patients. In order for clinical assessments to be utilized and maintained by providers, these assessments should be built directly into the regular workflow for engaging with patients. Outside of exclusively clinical interactions, effective suicide prevention programs for older adults emphasize building social connections and reducing loneliness. Examples of such programs include Care Partners, the 988 Suicide and Crisis Hotline, Senior Connection, and Connection Planning. Many of these programs are telephone-based; however, with technology continually evolving, fewer new programs rely on the basic phone services used by older generations. Lack of availability and reliability of phone services can also reduce access to these programs and also serve as a barrier to treatment. Ensuring that phone service is offered or that training on unfamiliar technologies is administered can mitigate these challenges.

Interest and funding for research on suicide prevention in older adults has been limited to date. Expansion of research and funding is necessary to ensure programs address the unique barriers and specific needs of this age group. Not only does funding pose a challenge for program expansion and research, but members of the TEP also identified ways in which existing Medicare coverage and reimbursement policies may directly impact older adults themselves. Medicare's provider reimbursement policies may limit provider willingness to participate in Medicare, reducing access to necessary screenings and treatment, according to some members of the TEP. In addition, Medicare cost sharing requirements may result in older adults not seeking treatment, and also reduce patient follow-up. Some TEP members encouraged policymakers to work directly with health care providers delivering mental health assessments to better understand and incorporate what patients and providers need from Medicare.

Stakeholders and decisionmakers are currently discussing mental health care and related policies with an increased sense of urgency due to the negative impacts of the COVID-19 pandemic and social distancing on individual's mental health across all ages. Policymakers should leverage this ongoing public attention to better meet mental health needs, including those of older adults.

The findings from this study can be used to inform future efforts to develop, implement, and tailor programs and policies that support suicide prevention among older adults; however, we encourage further research on older adult suicide, barriers to accessing programs, and challenges in implementing programs. Of particular interest is obtaining a better understanding of the unique stressors and symptoms experienced by older adults at risk of suicide. In terms of improving prevention efforts, changes can be made in existing systems, including improvements to clinical workflows to include routine screenings and assessments, as well as Medicare provider reimbursement amounts and coverage policies. One critical strategy will be bringing stakeholders, including clinicians, patients, and policymakers, together to collaboratively build interventions that addresses multiple behavioral health factors, including suicide ideation. These interventions should be customizable so they can appropriately address the varied needs of older adult patients. This work is especially important given that older adults more frequently die by suicide when it is attempted, a trend that is continuing, and may even be growing, in the post-COVID-19 pandemic context (Saunders & Panchal, 2023).

REFERENCES

AARP Foundation. (n.d.) *Connect2Affect.* https://connect2affect.org/.

Administration for Community Living (ACL). (2021). *BE WITH: Training volunteers to support at-risk older adults*. https://acl.gov/news-and-events/acl-blog/be-training-volunteers-support-risk-older-adults.

Administration for Community Living (ACL). (2021). *2020 Profile of Older Americans.* https://acl.gov/sites/default/files/Aging%20and%20Disability%20in%20America/2020ProfileOlderAmericans.Final.pdf.

Administration on Aging (AoA) and Substance Abuse and Mental Health Services Administration (SAMHSA). (2016). *Older Americans Behavioral Health Issue Brief 4: Preventing Suicide in Older Adults*. https://acl.gov/sites/default/files/programs/2016-11/Issue%20Brief%204%20Preventing%20Suicide.pdf.

Ahmedani, B.K., Simon, G.E., Stewart, C., Beck, A., Waitzfelder, B.E., Rossom, R., ... & Solberg, L.I. (2014). Health care contacts in the year before suicide death. *Journal of General Internal Medicine, 29*(6), 870-877.

Alexopoulos, G.S., Reynolds, C.F. III, Bruce, M.L., Katz, I.R., Raue, P.J., & Mulsant, B.H. (2009). The PROSPECT Group: Reducing suicidal ideation and depression in older primary care patients: 24-month outcomes of the PROSPECT study. *American Journal Psychiatry*, 166: 882-890.

American Association of Suicidology (AAS). (2020). *Recognizing and Responding to Suicide Risk: Essential Skills for Clinicians.* https://suicidology.org/training-accreditation/rrsr-clinicians/.

Armitage, R., & Nellums, L.B. (2020). COVID-19 and the consequences of isolating the elderly. *Lancet Public Health*, 5(5): e256. doi:10.1016/S2468-2667(20)30061-X.

Banerjee, D., Kosagisharaf, J.R., & Sathyanarayana Rao, T.S. (2021). 'The dual pandemic' of suicide and COVID-19: A biopsychosocial narrative of risks and prevention. *Psychiatry Res*, 295: 113577. doi: 10.1016/j.psychres.2020.113577.

Betz, M., Arias, S., Segal, D., Miller, I., Camargo, C., & Boudreaux, E. (2016). Screening for suicidal thoughts and behaviors among older patients visiting the emergency department. *Journal of the American Geriatrics Society*, 64(10): 72-77.

Bruce, M., & Pearson, J. (2022). Designing an intervention to prevent suicide: PROSPECT (Prevention of Suicide in Primary Care Elderly: Collaborative Trial). *Dialogues in Clinical Neuroscience*, 1(2): 100-112.

Centers for Disease Control and Prevention (CDC), National Center for Health Statistics. (2021). Underlying Cause of Death 2018-2020 on CDC WONDER Online Database. http://wonder.cdc.gov/ucd-icd10-expanded.html.

Conejero, I., Olie, E., Courtet, P., & Calati. R. (2018). Suicide in older adults: Current perspectives. *Clinical Interventions in Aging*, 13: 691-699.

Conwell, Y. (2013). Suicide and suicide prevention in later life. *Focus*, 11(1): 39-47.

Conwell, Y., Van Orden, K., & Caine, E.D. (2011). Suicide in older adults. *Psychiatric Clinics of North America*, 34(2): 451-468. https://doi.org/10.1016/j.psc.2011.02.002.

Dahlberg, L. (2021). Loneliness during the COVID-19 pandemic. *Aging Ment Health.* http://dx.doi.org/doi:10.1080/13607863.2021.1875195.

Drapeau, A., Boyer, R., & Lesage, A. (2009). The influence of social anchorage on the gender difference in the use of mental health services. *Journal of Behavioral Health Services & Research*, 36(3): 372-384.

Gerst-Emerson, K., & Jayawardhana, J. (2015). Loneliness as a public health issue: The impact of loneliness on health care utilization among older adults. *Am J Public Health*, 105(5): 1013-1019. doi:10.2105/AJPH.2014.302427.

Hedegarrd, H., Curtin, S., & Warner, M. (2018). Suicide mortality in the United States, 1999-2017. *NCHS Data Brief, no. 330*. https://www.cdc.gov/nchs/products/databriefs/db330.htm.

Hinton, Zweifach, Oishi, Tang, & Unützer. (2006). Gender disparities in the treatment of late-life depression: Qualitative and quantitative findings from the IMPACT trial. *Am J Geriatric Psychiatry*, 14(10):884-892.

Holt-Lunstad, J. (2021). A pandemic of social isolation? *World Psychiatry*, 20: 55-6. http://dx.doi.org/doi:10.1002/wps.20839.

Institute on Aging. (n.d.). Center for Elderly Suicide Prevention. https://www.ioaging.org/services/psychological-services/center-for-elderly-suicide-prevention.

Kiosses, D.N., Rosenberg, P.B., Mcgovern, A., Fonzetti, P., Zaydens, H. & Alexopoulos, G.S. (2015). Depression and suicidal ideation during two psychosocial treatments in older adults with major depression and dementia. *Journal of Alzheimer's Disease*, 48: 453-462.

Kognito. (2022). *At-Risk in Primary Care*. https://store.kognito.com/products/primary-care.

Lapierre, S., Erlangsen, A., Waern, M., et al. (2011). A systematic review of elderly suicide prevention programs. *Crisis*, 32(2): 88-98. doi:10.1027/0227-5910/a000076.

Okolie, C., Dennis, M., Simon Thomas, E., & John, A. (2017). A systematic review of interventions to prevent suicidal behaviors and reduce suicidal ideation in older people. *Int Psychogeriatr*, 29(11): 1801-1824. doi:10.1017/S1041610217001430.

O'Rourke, M.C., Jamil, R.T., & Siddiqui, W. (2022). Suicide screening and prevention. In *StatPearls*. StatPearls Publishing. http://www.ncbi.nlm.nih.gov/books/NBK531453/.

Question, Persuade, Refer Institute. (2013). *QPR for Physicians, Physician Assistants, Nurse Practitioners, and Others.* https://courses.qprinstitute.com/index.php?option=com_zoo&task=item&item_id=14&Itemid=739.

SafeSide Prevention. (n.d.). *SafeSide Primary CARE.* https://safesideprevention.com/programs/primary-care.

Saunders, H. & Panchal, N. (2023). *A Look at the Latest Suicide Data and Change Over the Last Decade*. https://www.kff.org/mental-health/issue-brief/a-look-at-the-latest-suicide-data-and-change-over-the-last-decade/.

Substance Abuse and Mental Health Services Administration (SAMHSA). (2019). *2019 National Survey of Drug Use and Health (NSDUH) Releases*. https://www.samhsa.gov/data/release/2019-national-survey-drug-use-and-health-nsduh-releases.

Substance Abuse and Mental Health Services Administration (SAMHSA). (2019). *Older Adults Living with Serious Mental Illness: The State of the Behavioral Health Workforce.* https://store.samhsa.gov/sites/default/files/d7/priv/pep19-olderadults-smi.pdf.

Substance Abuse and Mental Health Services Administration (SAMHSA). (2015). *Promoting Emotional Health and Preventing Suicide*. https://store.samhsa.gov/sites/default/files/d7/priv/sma15-4416.pdf.

Suicide Prevention Resource Center (SPRC). (2017). *Suicide Prevention Toolkit for Primary Care Practices*. https://www.sprc.org/sites/default/files/Final%20National%20Suicide%20Prevention%20Toolkit%202.15.18%20FINAL.pdf.

Suicide Prevention Resource Center (SPRC). (2015). *The Role of Senior Living Community Professionals in Preventing Suicide.* https://sprc.org/sites/default/files/resource-program/SrLivingCommunity_providers.pdf.

Thomas, K.S., Akobundu, U., & Dosa, D. (2016). More than a meal? A randomized control trial comparing the effects of home-delivered meals programs on participants' feelings of loneliness. *Gerontological Society of America*, 71(6).

United Nations. (2020). *Policy brief: The impact of COVID-19 on older persons*. New York, NY. https://unsdg.un.org/sites/default/files/2020-05/Policy-Brief-The-Impact-of-COVID-19-on-Older-Persons.pdf.

Unützer, J., Katon, W., Callahan, C., Williams, J., Hunkeler, E., & Harpole, L. (2002). The IMPACT investigators. Collaborative care management of late-life depression in the primary care setting: A randomized controlled trial. *Journal of the American Medical Association*, 288: 2836-2845. [PubMed:12472325.]

Unützer, J., Tang. L., Oishi, S., Katon, W., Williams, J., & Hunkeler, E. (2006). The IMPACT investigators. Reducing suicidal ideation in depressed older primary care patients. *Journal of the American Geriatrics Society*, 54: 1550-1556. [PubMed: 17038073.]

Van Orden, K., & Conwell, Y. (2016). Issues in research on aging and suicide. *Aging Ment Health*, 20: 240-251.

Waern, M. (2003). Alcohol dependence and misuse in elderly suicides. *Alcohol*, 38(3): 249-254.

Wallace, M., Miller, V.J., Fields, N.L., Xu, L., & Mercado-Sierra, M.A. (2021). Empirically evaluated suicide prevention program approaches for older adults: A review of the literature from 2009-2021. *J Gerontol Soc Work*, 64(5): 480-498. doi:10.1080/01634372.2021.1907495.

Zero Suicide Institute. (n.d.) *Suicide Prevention in Primary Care: A Toolkit for Primary Care Clinicians and Leaders.* https://zerosuicide.edc.org/sites/default/files/%20suicidesafercareguideforprimarycareproviders.pdf.

APPENDIX A

ENVIRONMENTAL SCAN INTERVENTIONS SUMMARY

Exhibit A-1 describes the different available suicide prevention interventions identified through the environmental scan.

EXHIBIT A-1. Suicide Prevention Interventions Identified in the Environmental Scan

Intervention	Sponsoring Organization (if applicable)	Setting	Target Audience	Impact on Depression	Impact on Loneliness	Impact on Suicide Ideation
IMPACT	N/A	Primary care	Older adults diagnosed with depression (non-specific)	Significant decrease	Not measured	Not measured
PROSPECT	N/A	Primary care	Older adults diagnosed with major or minor depression	Not measured	Not measured	Major depression: Significant decrease Minor depression: Insignificant decrease
PATH	N/A	Home	Older adults diagnosed with major depression and cognitive impairment (ranging from mild cognitive impairment to moderate dementia)	Significant decrease when compared to ST-CI	Not measured	Significant decrease
ST-CI	N/A	Home	Older adults diagnosed with depression and cognitive impairment (non-specific)	Insignificant decrease when compared to PATH	Not measured	Significant decrease
Meals on Wheels	Older Americans Act	Home	Older adults in need of meal delivery services	N/A	Significant reduction	N/A
Connect2Affect	AARP Foundation	Online	Older adults at risk of social isolation	N/A	Provides loneliness assessment and community resources	N/A
Friendship Line	Institute on Aging	Telephone	Older adults experiencing loneliness and depression (non-specific)	Counselors trained to identify depression symptoms in older adults	Provides telephonic wellbeing check-ins	N/A
BE WITH/ASIST	ACL	Telephone	Older adults at risk of social isolation	N/A	N/A	Counselors trained to identify social isolation and suicide risk
Toolkits	SAMHSA, SPRC, AAS	Varied (primary care, senior living communities, universities)	Providers	Trains providers to identify risk factors, depression symptoms, and SUD	N/A	N/A
At-Risk in Primary Care	Kognito	Primary care	Primary care providers	N/A	N/A	Trains providers to identify suicide risk through virtual role-play conversations

EXHIBIT A-1 (*continued*)						
Intervention	**Sponsoring Organization (if applicable)**	**Setting**	**Target Audience**	**Impact on Depression**	**Impact on Loneliness**	**Impact on Suicide Ideation**
SafeSide Primary CARE	SafeSide	Primary care	Primary care providers	N/A	N/A	Provides primary care providers with a framework for responding to suicide risk within the constraints of primary care
QPR	QPR Institute	Provider offices	Physicians, physician assistants, and nurse practitioners	N/A	N/A	Trains providers in using a rapid assessment protocol and identifying suicide risk in patients and colleagues

APPENDIX B
TECHNICAL EXPERT PANEL INTERVENTIONS SUMMARY

Exhibit B-1 describes the different available suicide prevention interventions discussed during the TEP.

EXHIBIT B-1. Available Interventions for Suicide Prevention

Intervention Name	Organization	Targeted Population	Intervention Setting	Targeted Risk Factors	Targeted Protective Factors
988	National Suicide Prevention Lifeline	Anyone in suicidal crisis or emotional distress	Telephone	Social isolation and loneliness	Problem-solving
AmeriCorps Senior	AmeriCorps	Individuals aged 55 and older	Varies depending on volunteer activity	Social isolation and loneliness, feelings of being burdensome	Not assessed
ASIST/BE WITH	LivingWorks Education	Anyone 16 years or older, but majority are health care professionals	2-day face-to-face workshop	Trains volunteers to recognize signs of suicide risk	Trains volunteers to provide a skilled intervention and develop a safety plan with a person at risk
Care Partners	University of Washington	Older adults with depression	Partnerships with primary care practices, community-based organizations, and families	Not assessed	Improving care for depression received by older adults
Cognitive behavioral therapy for Insomnia	Unspecified	Older adults with insomnia	Primary care	Cognitive behavioral therapy is used to target insomnia, a risk factor for suicide ideation	Problem-solving, coping skills
Connection Planning	University of Rochester	At-risk older adults	Telephone	Perceived burdensomeness and loneliness	Safety plan development
IMPACT	University of Washington	Older adults with depression	Primary care	Close monitoring of depressive symptoms	Building rapport and community with the patient, person-centered treatment
Primary Care Mental Health Integration	VA	Veterans receiving annual primary care visits	Primary care	Embedded mental health specialists screen for depression, SUDs, and suicide risk	Building rapport with veteran and a support system should the veteran want to seek mental health services
Senior Connection	CDC	Older adults with depression	Older adults' home, telephone	Social isolation and loneliness	Building support system
Stay Connected	University of Washington (within Care Partners program)	Older adults experiencing social isolation and loneliness due to COVID-19	Telephone	Social isolation and loneliness	Follow-up phone calls to keep older adult engaged