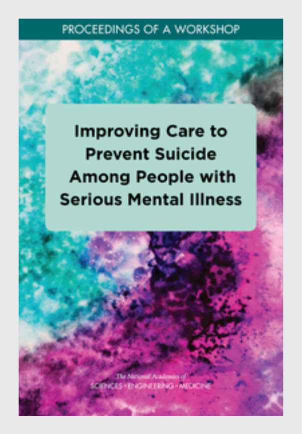

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Improving Care to Prevent Suicide Among People with Serious Mental Illness

PROCEEDINGS OF A WORKSHOP

Steve Olson, *Rapporteur*

Board on Health Care Services

Health and Medicine Division

Board on Children, Youth, and Families

Division of Behavioral and Social Sciences and Education

The National Academies of
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[1] The National Academies of Sciences, Engineering, and Medicine's planning committees are solely responsible for organizing the workshop, identifying topics, and choosing speakers. The responsibility for the published Proceedings of a Workshop rests with the workshop rapporteur and the institution.

REVIEWERS

This Proceedings of a Workshop 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.

We thank the following individuals for their review of this proceedings:

GRETCHEN HAAS, University of Pittsburgh
MIKE HOGAN, Hogan Health Solutions, LLC
KEITH WOOD, Emory University School of Medicine

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 **PATRICK DELEON**, Uniformed Services University of Health Sciences. 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 *rapporteur* and the National Academies.

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APPENDIXES

1
Introduction and Overview[1]

On October 5, 2002, Taryn Hiatt, a founding member of the Utah chapter and area director for Utah and Nevada of the American Foundation for Suicide Prevention, lost her father to suicide. He had lived with serious mental illness that went untreated for most of his life. Her family knew that he was ill. Over the course of his life, he had more than 22 surgeries to treat his esophagus from the effects of acid reflux. In the weeks before his suicide, he was taking 30 Ambien per day in addition to a variety of other medications. "His depression was always treated with medication," Hiatt said, some of which were probably needed and some of which were probably not needed. But, Hiatt added, he never received any behavioral treatments so that he would better understand what he was grappling with, and neither did his family.

Hiatt's father was ashamed "for having an illness that he thought was somehow his fault," she said. After his death, her family was ashamed, too. They wondered what to tell people. They talked about whether they should say he had died from a heart attack. "I remember saying no," said Hiatt. "I wanted to share the word. We're done doing this. We're done being quiet."

On September 11–12, 2018, the National Academies of Sciences, Engineering, and Medicine (The National Academies) held a workshop in Washington, DC, to discuss an issue that could have saved Hiatt's father and the lives of thousands of other people every year in the United States: preventing suicide among people with serious mental illness. Suicide prevention initiatives are part of much broader systems, said David Rudd, president of the University of Memphis and member of the workshop planning committee. Such initiatives are connected to activities like the diagnosis of mental illness, the recognition of clinical risk, improving access to care, and coordinating with a broad range of outside agencies and entities around both prevention and public health efforts. Yet suicide is also an intensely personal issue that continues to be surrounded by stigma, Rudd pointed out. "Sometimes it is hard to remember that behind every number is a person, is a family, is a network, and that many people and many lives are touched in each and every one of these instances." It is a national problem, he said, yet it remains hard to have these conversations. "I can think of case after case after case where we have a difficult time saying *suicide*."

The workshop was designed to illustrate and discuss what is known, what is currently being done, and what needs to be done to identify and reduce suicide risk among people with serious mental illness. Box 1-1 provides the statement of task for the workshop. Appendix A contains the workshop agenda, and Appendix B provides biographical sketches of the workshop speakers, panelists, facilitators, planning committee members, staff, and consultants. A video

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[1] The planning committee's role was limited to planning the workshop, and the Proceedings of a Workshop was prepared by the workshop rapporteur as a factual summary of what occurred at the workshop. Statements, recommendations, and opinions expressed are those of individual presenters and participants, and are not necessarily endorsed or verified by the National Academies of Sciences, Engineering, and Medicine, and they should not be construed as reflecting any group consensus.

archive of the workshop can be accessed on the Health and Medicine of the National Academies' project page.[2]

BOX 1-1
Workshop Statement of Task

The workshop presentations and moderated discussions will examine opportunities to prevent suicide among people with serious mental illness (SMI), including, at minimum, bipolar disorder, major depression, schizophrenia, and borderline personality disorder, as well as mood, anxiety, or other disorders that result in significant functional impairment.
The workshop will:

- Highlight the patterns of mortality by suicide among people with SMI,
- Consider the implications of the relationship between SMI and suicide, and
- Examine interventions that can reduce the high risk of suicide in this population.

The workshop will also consider ways to:

- Improve and implement early interventions,
- Improve access to care among vulnerable populations with SMI, and
- Effectively target interventions to specific populations with unique needs.

THE NEED FOR INFORMATION AND COMMUNICATION

Individuals and families need the same education to prevent suicide that they would receive for other health issues, Hiatt said in her presentation during the opening session of the workshop. If her father had been living with cancer, diabetes, dementia, or Alzheimer's, Hiatt noted, his family would have received the information they needed to support him and encourage him to get the help that he needed. But they did not receive the information they needed. Today, others reach out to Hiatt for help, and she refers them to the resources that are available. "But we need more," she said, adding:

> I love the movement that's taking place in our nation where we're finally addressing suicide as a health issue. But, again, if we're going to treat it as the health issue it is, we need to do that on all aspects. There's no shame in getting help for it. There's no shame in admitting that that's what I'm thinking.

Suicidal behavior is an attempt to cope, as is all behavior, she said. A person in that moment of intense pain and crisis has a belief system that is altered. The workshop began on September 11, and she drew an analogy to the event that occurred 17 years earlier on that date. As the Twin Towers in New York City began to burn, people at the tops of the towers began to jump.

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[2] See http://nationalacademies.org/hmd/Activities/MentalHealth/SuicidePreventionMentalIllness/2018-Sep-11/Videos/Opening-Videos/1-Welcome-Video.aspx (accessed November 27, 2018).

> By definition, they took their own life. They died of suicide. Yet none of us sat on our couch and said, "Oh my gosh, you coward, how selfish of you. How could you do that to your friends and family?" Did they jump because they wanted to die? No. They jumped because they were desperate to escape pain and anguish. They jumped because their thinking was anything but rational in that moment and their crisis point had been reached.

People who are thinking of suicide need the same level of compassion, Hiatt said. They have reached a point where they feel they cannot live, whether because of their mental illness, their life experiences, or their trauma. Hiatt made her own suicide attempts as a teenager, she said. "I understand what it's like to live in that dark night of the soul." When she tried to end her life as a teenager, she did not want to die, but she did not know how to live with what was happening to her. Yet she survived and has gone on to live a full and meaningful life. "There's hope in that. There's hope for recovery, and that's the message we need to continue to get out there. Suicide can be prevented."

Everyone needs to know the warning signs for suicide the same way they know the signs for heart attacks and strokes, she observed. Everyone needs to be capable and willing to administer the care that people need in their moments of crisis. Her father is someone who would have benefited from the sharing of electronic health records, Hiatt said, so that the emergency room doctor he saw on the day of his suicide would have seen that he had attempted suicide before and that he was getting medications from multiple doctors. It would have been an opportunity, she added, for a physician to talk with him about his pain and not simply prescribe the medications that he used to end his own life. Hiatt now has her own suicide safety plan. When she needs help, she gets in to see a therapist.

A few weeks before the workshop, the Church of Jesus Christ of Latter-day Saints in Utah, where Hiatt lives, said that it will no longer consider suicide a sin. Crying in her car when she heard the news, Hiatt was immensely grateful for the progress of recent decades that made such a decision possible. But she also recalled that society continues to put a great burden on suicidal individuals. "We're talking about a person who's desperate to escape unbearable pain." Telling them not to take their own lives, she observed, is like telling someone with cancer to choose to live without giving them the tools, treatment, and care they need to do that.

"I decided 16 years ago I wasn't going to rest until we stopped suicide," Hiatt said. "I want this to no longer be the health issue of our time. We do that by these conversations. We do that by taking note. We do that by creating awareness. We're aware suicide is a problem. We need to take action."

SUPPORT FOR THE WORKSHOP

Richard McKeon, chief of the Suicide Prevention Branch in the Center for Mental Health Services, Substance Abuse and Mental Health Services Administration (SAMHSA), briefly spoke about why SAMHSA supported the workshop. Suicide rates have increased significantly in the United States in recent years, he observed. A recent report from the Centers for Disease Control and Prevention (CDC) showed that suicide had increased in 49 of 50 states between 1999 and 2016, and in half the states examined the increase was greater than 30 percent (Stone et al., 2018). "There is clearly a need for us to do more and better," said McKeon, "to increase the effectiveness of our suicide prevention efforts and to try to save as many lives as possible."

Rates of suicide are significantly elevated among those with serious mental illness and serious emotional disturbance, McKeon observed. This has practical implications for SAMHSA, since its mental health programs are by statute required to focus on adults with serious mental illness or youth with serious emotional disturbance. Currently, SAMHSA has an array of suicide prevention initiatives. These include support for the Zero Suicide approach described in Chapter 2. SAMHSA recently made 14 suicide prevention grants to states, health care systems, and tribes. It also has a significant youth suicide prevention initiative, the Garrett Lee Smith grants, that have gone over the past 12 years to each of the 50 states.

SAMHSA is interested in identifying those who are at risk for suicide who may also experience serious emotional disturbance, how best to intervene with them once they are engaged in the health care system, and what are the best approaches to use. These "are vitally important issues for SAMHSA," said McKeon, and he welcomed the "advice, guidance, wisdom, and discussion that I'm sure all of you will provide."

OVERVIEW OF THE WORKSHOP

The workshop consisted of six plenary panel presentations, a breakout session on the second day, and opportunities to report back from the breakout sessions and comment on the major themes and messages that emerged from the workshop.

In the first panel presentation, which is summarized in Chapter 2, Holly Wilcox, associate professor in the Bloomberg School of Public Health's Department of Mental Health and the Johns Hopkins University School of Medicine's Department of Psychiatry, and Christine Moutier, chief medical officer of the American Foundation for Suicide Prevention, provided broad overviews of the prevalence of suicide, changes in prevalence over time, and the links between suicide and serious mental illness. Critical windows exist for suicide risk, such as the week after discharge from a psychiatric admission or emergency department presentation for suicidal ideation or attempt, the first weeks after starting an antidepressant, and during significant life transitions. Both universal and targeted interventions have proven effective in improving suicide rates, but they require continued support and attention to the quality of implementation, the presenters observed.

During the second panel (summarized in Chapter 3), C. Edward Coffey, professor of psychiatry and behavioral sciences and of neurology in the Baylor College of Medicine, traced the origins of the Zero Suicide movement back to the 2001 Institute of Medicine (IOM) report *Crossing the Quality Chasm: A New Health System for the 21st Century*. Initially successful at the Henry Ford Health System, this approach, which uses a care protocol for suicide risk and quality improvement principles, has since been adopted in other locations around the world, as pointed out by David Covington, chief executive officer and president of Recovery Innovations, Inc. It is an especially effective way, noted Mike Hogan of Hogan Health Solutions, to ensure that people with suicidality do not make their way through successive gaps in care and to integrate care for those with both serious mental illness and suicidality.

The third and fourth panels of the workshop looked at two groups at high risk for suicide: military service members and veterans, and American Indians and Alaska Natives. In the third panel (summarized in Chapter 4), both Mike Colston, captain in the U.S. Navy Medical Corps and director of Mental Health Programs in the Health Services and Policy Oversight Office of the Department of Defense, and Keita Franklin, national director of suicide prevention for the Office of Mental Health and Suicide Prevention in the Department of Veterans Affairs (VA), pointed out that the suicide rate among active duty service members has increased in recent decades. Colson described the range of effective interventions that are now available that can save lives. Franklin discussed the universal, selective, and indicated prevention components of a comprehensive public health campaign to prevent suicide among veterans. She also advocated for a "whole of government" and "whole of industry" approach that could coordinate and intensify suicide prevention work with this population, including those veterans who are not enrolled in care with the Veterans Health Administration.

The next panel (summarized in Chapter 5) considered Native American and American Indian communities, many of which have especially high levels of unmet health needs. The panel highlighted examples of approaches for suicide prevention and mental health in both communities and health systems. All four presenters—Allison Barlow, director of the Johns Hopkins Center for American Indian Health; James Allen, professor in the Department of Family Medicine and Biobehavioral Health at the University of Minnesota Medical School; Jennifer Shaw, a senior researcher at Southcentral Foundation; and Laurelle Myhra, director of behavioral health at the Native American Community Clinic—made the point that effective suicide prevention is culturally tailored to the population it serves. Shaw, for example, observed that interventions need to be targeted at all levels of human experience, respect autonomy, and honor community, which requires that they be tailored to or developed from within local cultures and patterns of being, communication, and relationship. In addition, Myhra noted that meeting the mental health needs of Native communities requires workforce development, including the training of Native behavioral health providers, community health workers, and people who can provide peer support.

In the fifth panel (summarized in Chapter 6), Nikole Jones, a suicide prevention coordinator with the VA Maryland Health Care System; Alfreda Patterson, a substance use counselor and housing coordinator with Concerted Care Group in Baltimore; T.J. Wocasek, a clinical supervisor for the Southcentral Foundation in Anchorage, Alaska; and Keith Wood, clinical director of an intensive outpatient service with Emory University School of Medicine, described the approaches they and their organizations take toward individuals with suicidality, including those with serious mental illness. Several of the presenters had their own personal experiences with suicide, which have served as a guide and inspiration for them in developing relationships with their clients.

The final panel (summarized in Chapter 7) offered perspectives ranging from the direct patient experience of systems of care and outreach to the design of behavioral health systems at the state and city levels. Marcus Lilly, an outreach worker for Concerted Care Group, observed that partnerships between health care providers, mental health services providers, and community-based self-help groups could increase the availability of suicide prevention services and provide for long-term comprehensive treatment. Julie Goldstein Grumet, director of health and behavioral health initiatives at the Suicide Prevention Resource Center and director of the Zero Suicide Institute at Education Development Center, pointed out that investments both upstream and downstream from suicide prevention could link public health and mental health. Arthur Evans, chief executive officer of the American Psychological Association and previously the commissioner in Philadelphia for the Department of Behavioral Health and Intellectual Disability Services, called for approaches that address the challenge at the levels of providers, systems, and the community. He also made the point that the implementation of evidence-based treatment, including provider training in suicide prevention for people with serious mental illness, will require substantial investments of resources.

On the second day of the workshop, participants broke into two sessions to discuss major issues that arose over the course of the first day's discussions. Participants in one session discussed the financing and other policy issues associated with integrating suicide prevention into care for people with serious mental illness. Participants in the other session discussed issues associated with a focus on what providers need, which also encompassed political leadership. Chapter 8 summarizes the reports from those breakout sessions and the discussion that followed in the subsequent plenary session.

The final session of the workshop (summarized in Chapter 9) provided an opportunity for workshop participants to identify what they considered to be important messages they were taking away from the workshop.

In follow-up to the workshop, a Twitter chat was hosted on October 4, 2018, by the National Academies' Health and Medicine Division (@NASEM_Health). This was a moderated public discussion in real time tied to the hashtag #SuicidePreventionChat. It continued the conversation about the intersection between suicide prevention and serious mental illness. The following questions were posed to participants in the chat:

- How does what is known about how to prevent suicide need to be adapted for people with serious mental illness?
- What can be done to better equip providers in behavioral health and mental health care for suicide prevention?
- How can more comprehensive disposition planning and follow-up after acute crises help stop suicide for those with serious mental illness?
- How can health systems improve tracking of suicide-related outcomes to inform better care for those with serious mental illness?
- What is your key message about improving suicide prevention for those with serious mental illness?

A link to the chat can be found on the website of National Academies' Health and Medicine Division.[3]

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[3] http://nationalacademies.org/hmd/Activities/MentalHealth/SuicidePreventionMentalIllness/2018-Sep-11/twitter-chat-suicide-prevention.aspx (accessed November 27, 2018).

3
Suicide Prevention in Health Care Systems

Points Made by the Presenters

- Health care settings provide an important opportunity to intervene for suicide prevention. (Hogan)
- Evidence for the effectiveness of suicide-focused care demonstrates that, for those with serious mental illness and risk of suicide, interventions for mental illness are important but not sufficient. Integrated care that treats both the underlying mental disorder and suicidality is more likely to be more effective. (Hogan)
- The Perfect Depression Care Initiative and its goal of Zero Suicide dramatically reduced suicide rates at the Henry Ford Health System and provided a proof-of-concept model that other systems have adopted. (E. Coffey)
- The Zero Suicide model is a comprehensive evidence-based approach to improving health care quality that has three essential components: the conviction that ideal health care is attainable, a road map to achieve that vision, and a requisite expertise in systems engineering to achieve the vision. (E. Coffey)
- A standard protocol for managing suicide risk in health care settings can ensure that people with suicidality do not make their way through successive potential gaps in care: asking people about suicide, providing a safety planning intervention, reducing lethal means, treating suicidality, and ensuring that interpersonal, structured support is available. (Hogan)
- Suicide prevention activities have previously been out of scope for health care; health care and behavioral health professionals have not received training on them; and securing reimbursement for these activities takes works. Leadership is needed for health care to adopt these responsibilities. (Hogan)
- Suicide is a worldwide problem that requires a worldwide response. (Covington)

NOTE: These points were made by the individual workshop presenters identified above. They are not intended to reflect a consensus among workshop participants.

During the second panel of the workshop, three presenters talked about major initiatives in health care systems that have had major effects on suicide rates. These initiatives point toward the possibility of making much more extensive changes in health care systems, both in the United States and abroad, that could achieve for suicide prevention the successes achieved through prevention initiatives targeting health issues such as smoking or heart disease.

THE ORIGIN OF THE ZERO SUICIDE MODEL

In 2001 the Institute of Medicine (IOM) released the report *Crossing the Quality Chasm: A New Health System for the 21st Century* (IOM, 2001). As C. Edward Coffey, professor of psychiatry and behavioral sciences and of neurology in the Baylor College of Medicine, recounted, the report observed that health care providers are well trained, are working as hard as they can, and are trying to do the right thing. But, as the report stated,

> In its current form, habits, and environment, the health care system is incapable of giving Americans the health care they want and deserve…. The current care systems cannot do the job. Trying harder will not work. Changing systems of care will.

The report laid out six dimensions of ideal care. Such care is:

- Safe,
- Effective,
- Patient centered,
- Timely,
- Efficient, and
- Equitable.

The report also provided 10 rules for designing a system that would achieve ideal care:

- Care equals relationships.
- Care is customized.
- Care is patient centered.
- Share knowledge.
- Manage by fact.
- Make safety a system priority.
- Embrace transparency.
- Anticipate patient needs.
- Continually reduce waste.
- Professionals cooperate.

After the report was published, the Robert Wood Johnson Foundation (RWJF) partnered with the Institute for Healthcare Improvement (IHI) to launch the RWJF Pursuing Perfection Program, which had as its goal to demonstrate that ideal health care is attainable. Using the IOM report as a guide, the foundation sought applications for transformative plans to create health care systems that would approach ideal care within a timeframe of 2 years. From about 300 applications submitted in 2001, 12 finalists were selected, including the Perfect Depression Care Initiative proposed by the Behavioral Health Services Division of Henry Ford Health System in Detroit, Michigan. “We celebrated for about 10 seconds,” said Coffey, who was then chief executive officer of behavioral health services for the system and the principal investigator on the Perfect Depression Care Initiative. “Then we started thinking, what in the world are we going to do to try to transform our mental health care system?”

The finalists were required to develop “perfection” goals for each of the six dimensions of ideal care. The Henry Ford Perfect Depression Care Initiative accordingly established the following goals (Coffey, 2006, 2007):

- Safe care: Eliminate inpatient falls and medication errors.
- Effective care: Eliminate suicides.
- Patient-centered care: 100 percent of patients will be completely satisfied with their care.
- Timely care: 100 percent complete satisfaction.
- Efficient care: 100 percent complete satisfaction.
- Equitable care: 100 percent complete satisfaction.

The goal for effective care was initially unclear until a staff member, in one of the many meetings held to discuss the goals, said, “Well, perhaps if we were doing perfect depression care, nobody would die from suicide. Nobody would kill themselves.” Recounted E. Coffey: “At that moment, after we all got our breath back, our department was transformed.… That moment, essentially, was the birth of Zero Suicide.”

With zero suicides becoming the overarching goal, E. Coffey’s group adapted a planned care model designed to create productive interactions (see Figure 3-1). These interactions result from an informed and activated patient working closely with a prepared and proactive practice team. The elements of these interactions correspond closely with the goals of the IOM report.

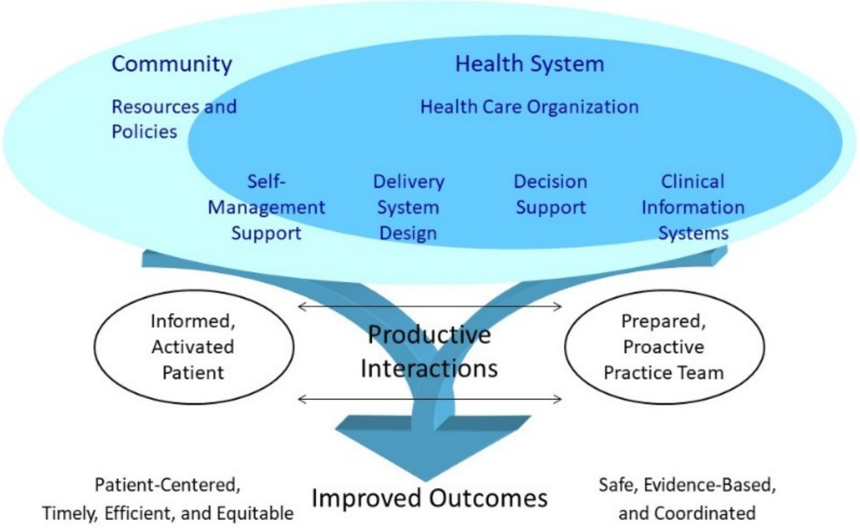

FIGURE 3-1 The planned care model implemented by the Henry Ford Health System.
SOURCE: Presented by C. Edward Coffey on September 11, 2018, at the Workshop on Improving Care to Prevent Suicide Among People with Serious Mental Illness.

During the first decade of the 21st century, the suicide rate was increasing in Michigan. However, after implementation of the Perfect Depression Care Initiative, the suicide rate for patients receiving mental health care in the Henry Ford Health System dropped by more than 75 percent, though the rate rose again in 2010 when the recession that began in 2008 was especially severe in Michigan (Coffey et al., 2015). In most years, the suicide rate for the system was close to that of the general population in Michigan, even though the expected suicide rate for people with an active mood disorder is approximately 21 times the rate for the general population, E. Coffey observed.

E. Coffey emphasized that depression is not the only risk factor for suicide. All the major mental disorders raise the risk of suicide, especially if they are comorbid with substance use disorder. "If you're trying to bend the curve on suicide risk, you don't want to focus just on depression." They therefore worked to ensure that all their patients received "perfect" care.

Improvement projects are not complete until their results have been described and disseminated, noted Coffey. To address this need, the Perfect Depression Care team produced a series of articles describing the initiative and its results over time (Coffey, 2006, 2007; Hampton, 2010; Coffey et al., 2013; Ahmedani et al., 2013; Coffey and Coffey, 2016). The public feedback was very positive, including recognition as a best-in-class innovation by the Malcolm Baldrige examiners when they awarded the Henry Ford Health System the 2011 Malcolm Baldrige National Quality Award. In 2012 the Perfect Depression Care Initiative was invited by Mike Hogan and David Covington to partner with the National Action Alliance for Suicide Prevention, a partnership which has yielded a "hugely productive" collaboration that has embraced the goal of Zero Suicide (see the following section of this chapter). Other organizations, including the National Institute of Mental Health and the Centers for Disease Control and Prevention (CDC), have subsequently embraced the goals of the Zero Suicide Model. International Zero Suicide summits beginning in 2014 have provided a way to exchange information and spread the program to other health care systems (see "International Actions on Suicide Prevention" later in this chapter). Early adopters of the Zero Suicide Model have included an organization in Tennessee known as Centerstone, as well as the National Health Service, the Mersey Care Trust, and Zero Suicide Alliance, all in Britain.

Such initiatives are desperately needed, said E. Coffey. As pointed out earlier in the workshop by Wilcox and Moutier, suicide rates have increased 30 percent over the past 15 years, with an even greater increase in some states (see Figure 3-2). "Despite all the great work that is being done, and all the great progress scientifically, and even despite Zero Suicide, the curve is moving in the wrong direction in this country." A possible explanation for this discrepancy may lie in the distinction between zero suicide as an aspirational goal versus Zero Suicide as a firm goal that serves as an innovative driving force for transformation to ideal health care (Coffey, 2003). As an innovation, the Zero Suicide Model has three key elements. The first is a radical new conviction that ideal health care is attainable. The second is a road map to achieve that vision ("pursuing perfection within a just culture"). The third is expertise in systems engineering to implement the vision.

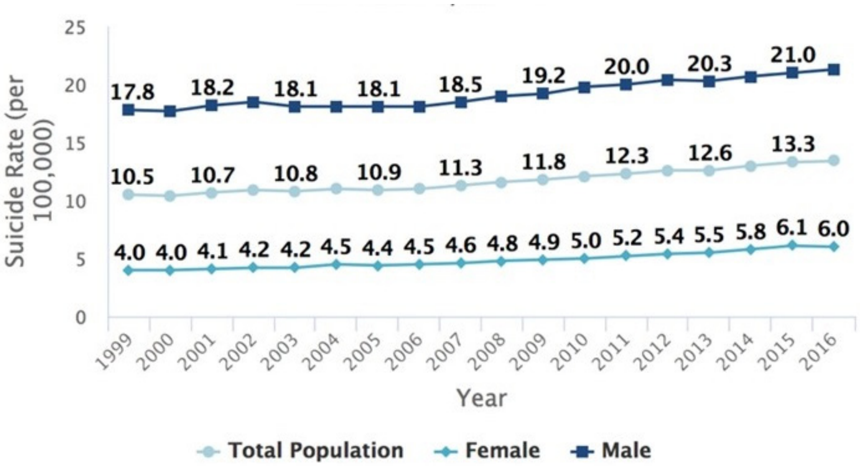

FIGURE 3-2 Age-adjusted suicide rates rose 30 percent in the United States between 1999 and 2006.
SOURCE: Presented by C. Edward Coffey on September 11, 2018, at the Workshop on Improving Care to Prevent Suicide Among People with Serious Mental Illness. From CDC, 2018.

The challenge today, said E. Coffey, is that Zero Suicide may be seen as a stand-alone aspirational goal rather than as an essential component in this tripartite model of transformation. "I don't want to complain about any goal" that seeks to lower the suicide rate, he said, and a goal to reduce suicides by 20 percent before 2025 is great and should be encouraged. "But it may be that as long as we view Zero Suicide as an aspiration, we are backing away from being 'all in,' from being convinced that ideal health care is possible." Experience with Perfect Depression Care suggests that audacious goals such as "Zero Suicide" are essential components in driving transformation, said E. Coffey, and that transformation rather than incremental improvement is what is needed to bend the curve on suicide and give patients the care they want and deserve.

DISSEMINATION AND EVIDENCE FOR ZERO SUICIDE

Even as the suicide rate has increased in the past 15 years, the age-adjusted death rates for heart disease, cancer, and stroke have fallen. Why has prevention for other causes of death been successful while suicide prevention has not been successful, asked Mike Hogan of Hogan Health Solutions.

With deaths from cardiovascular disease (CVD), the reduction in smoking accounts for 20 to 25 percent of the improvement. However, targeted preventive interventions with people who have well-established CVD risks had an even greater effect. The Zero Suicide movement seeks to establish suicide prevention as a goal and a priority in health care. The model, like the successful efforts to reduce CVD deaths, emphasizes effective preventive interventions for those with elevated risk. But the health care system has not yet taken that goal to heart, Hogan said. Even in hospitals, a recent analysis found that the estimated number of inpatient deaths by suicide that occur each year ranges from 49 to 65 (Williams et al., 2018).

The Zero Suicide movement is also a care innovation, Hogan observed. It combines a quality improvement with a bundling of care, as has been the case with innovations applied to other health conditions. This point is made in the report *Suicide Care in Systems Framework* (Clinical Care and Intervention Task Force and National Action Alliance for Suicide Prevention, 2011), which looked at the applicability of the Henry Ford initiative in the larger health care system.

Research has shown that suicidal behavior is distinct from mental disorders (Van Orden et al., 2010). Many people have suicidal thoughts, but relatively few progress to attempts (Millner et al., 2017; Klonsky et al., 2018). "For the average person [in the Millner et al. study], it was 2 years between ideation and attempt," observed Hogan. "That's a lot of time to intervene, but only if we know. And since we tend to not ask, we don't know." However, once people have reached a tipping point, the time to an attempt was short—from a few minutes to a few weeks. Developing the "capability" to kill oneself is the dangerous step, said Hogan—both the internal capability and the physical capability to act. In addition, no single pathway from ideation to suicide exists. "Life is complicated, genetics are complicated, genetic–environmental interactions are complicated."

Health care settings provide places to intervene. First, more than 80 percent of people dying by suicide and more than 90 percent with attempts had health care visits in the previous 12 months. Of people who died from suicide, 45 percent had a primary care visit in the month before death, 19 percent had contact with mental health services in the month before, and 10 percent had an emergency department visit in the previous 60 days. The rates are even higher for older men, with 70 percent seeing a general practitioner within 30 days of a death by suicide. The risk of suicide death following inpatient psychiatric discharge is 44 times the population rate, observed Hogan. In short, the health care system has ample time to intervene. The question is whether it does.

The second reason why suicide prevention in health care settings makes sense, said Hogan, is that evidence exists for effective—often brief—interventions that can be deployed feasibly in health care organizations. Hogan presented a mental model that is used by Zero Suicide to illustrate how people who die by suicide fall through successive gaps in the health care system (see Figure 3-3). The first gap, said Hogan, is whether people are asked about suicide. The second is whether health care providers engage and provide a safety planning intervention to give people the skill set and tools they need. Successive steps involve reducing lethal means, treating suicidality, and ensuring that interpersonal, structured support is available when needed. "These actions need to be done in a routine way within a health care setting," said Hogan. "It's a care pathway. Not doing this would be the equivalent of having people in care for diabetes and never getting an A1C level."

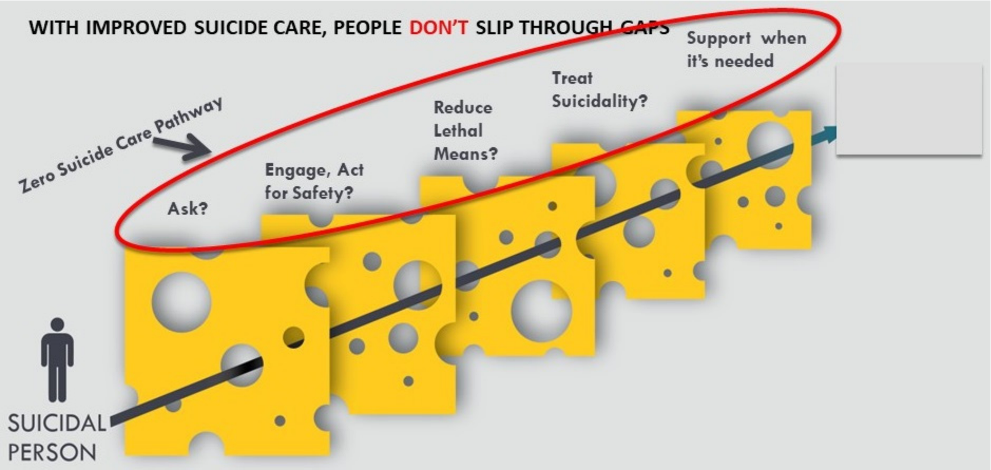

FIGURE 3-3 Improved care can keep people with suicidality from slipping through successive gaps in the health care system.
SOURCES: Presented by Mike Hogan on September 11, 2018, at the Workshop on Improving Care to Prevent Suicide Among People with Serious Mental Illness. From Zero Suicide Institute, Education Development Center, 2018.

Simon et al. (2013) examined the subsequent history of more than 75,000 people who completed the Patient Health Questionnaire 9 to screen for depression. Of those who subsequently died by suicide, 60 percent indicated elevated thoughts on question 9, which asks about "thoughts that you would be better off dead or hurting yourself in some way." The suicide field has had a debate about whether it is possible to predict who is going to die, and "we shouldn't be interested in predicting who's going to die," observed Hogan. "We should want to know who needs help. Cardiologists are not worried about [whether they can] predict when people are going to die of a heart attack and who that's going to be. They identify risk factors and then they take action." Based on the Simon et al. (2013) study, prediction of who needs suicide prevention are much better then high cholesterol scores are to predict a heart attack, Hogan said. "This is good enough evidence to act."

Safety planning makes sense, is feasible, and has become widely used, but until recently it had not been well tested, said Hogan. However, Stanley et al. (2018) recently did an emergency department matched cohort comparison study with 1,640 patients with a suicide-related visit and 1,186 in the intervention group. They tested a brief safety planning intervention plus telephone follow-up and found that the patients receiving the intervention had 45 percent fewer suicidal behaviors and were twice as likely to participate in follow-up care.

Means restriction is a critical part of a safety plan, and evidence and experience at a population level indicates that it works, said Hogan. In communities with a dominant means of suicide, restricting that means reduced suicide rates by about 40 percent. In addition, caring contacts, including phone calls, letters, texts, postcards, and visits, are effective. Denchev et al. (2018) found that caring letters work better than usual care and cost less, phone calls work even better, and cognitive behavioral therapy is also effective.

Evidence for the effectiveness of suicide-focused therapies over usual care comes from dialectical behavior therapy, cognitive therapy for suicide prevention, collaborative Assessment and Management of Suicide (CAMS), postattempt counseling (from Denmark), and the Attempted Suicide Short Intervention Program (from Switzerland). This evidence from randomized controlled trials demonstrates that such therapies are as effective as acute care interventions for cardiovascular disease, said Hogan. The idea of directly treating suicidality is "fundamentally relevant" to the workshop, he observed. "If somebody is suicidal and has a major mental illness, it's no longer acceptable to just treat the major mental illness and hope that the suicidality resolves."

The critical issue, said Hogan, is that the usual care for people at risk of suicide is unacceptably bad—"people are dying." Importantly, this is not because of clinician error but because health care programs and systems have not put proven methods in place, leaving clinicians to manage care on their own. The Henry Ford Health System, Centerstone, and the Institute for Family Health have demonstrated reductions from baseline suicide rates of 60 to 80 percent. Hogan also made the point that Zero Suicide is a package made up of elements, each of which is known to be effective. "It makes sense that the overall package would work, because the elements work if they're done with fidelity." The Zero Suicide model includes an organizational assessment that is also a fidelity tool, Hogan said. A New York study of about 200 clinics found that clinics with higher fidelity scores had fewer suicides. This makes sense, he said. but we need more data to shift the late adopters."

The website zerosuicide.com lays out the basic tools needed to advance. In addition, leadership and elbow grease are critical, Hogan said. "The really big problem is getting health care to say it's our responsibility to keep our patients alive" from this form of preventable death. Behavioral health settings are "starting to get up the adoption curve," but primary care, emergency departments, and health care systems are "just at the beginning."

Suicide risk is linked to but is distinct from other mental disorders, Hogan concluded. Interventions aimed at depression or bipolar disorder are important but not sufficient. Well-established interventions for suicide care now exist, and integrated treatment that attends to both mental illness and suicidality is likely to be more effective. Successful programs like Zero Suicide provide a care pathway and a protocol for treating and managing suicide risk that are embedded within clinics. These interventions need to be integrated "into the work of every mental health practitioner" and into health systems and settings, Hogan stated.

INTERNATIONAL ACTIONS ON SUICIDE PREVENTION

How does a movement spread, how does it produce action, how does it inspire people, asked David Covington, chief executive officer and president of Recovery Innovations, Inc. One way is through international declarations.

In 1989 a small group of people with diabetes, policy makers, and physicians gathered in a rural Italian village and conceived of an audacious proposal: that diabetes management should consist of comanagement between an individual and a physician. "This vision has largely been realized," said Covington. Many people no longer remember "when you had to go to a physician to get a blood level." Today people with diabetes are, as expressed in that 1989 statement, coresponsible for their treatment.

In 2002 a small group gathered in the United Kingdom and decided to follow the model of the diabetes pioneers. They proclaimed that an individual having a first episode of psychosis would quickly move from diagnosis to treatment to recovery and live an ordinary life. Though the United States is still making progress on early intervention programs, the time to treatment after a first episode of psychosis in the United Kingdom has been slashed to a target of 22 days, "in large part because of an audacious vision and a pathway for beginning to make that happen."

The 2011 report *Suicide Care in Systems Framework* (Clinical Care and Intervention Task Force and National Action Alliance for Suicide Prevention, 2011) could have gathered dust on a shelf, said Covington. But people involved in the production of the report were inspired by the declarations emerging from international summits. In 2015, representatives of 13 countries produced the document "Zero Suicide: International Declaration for Better Healthcare," which has been viewed many thousands of times throughout the world.[1] At the same time, a series of global zero suicide summits began in 2014 in England, and the summits have grown in size and scope ever since. Subsequent summits have been held in Atlanta (2015), Sydney (2017), and Rotterdam (2018), and the next summit is scheduled for England in 2020.

About the time of the first summit, peer leader Eduardo Vega said at a meeting Covington attended: "I don't know that I am so much against suicide. But here is what I am definitely against: people dying alone and in despair." This statement has become a platform for work going on around the world. In addition to the website zerosuicide.com mentioned by Hogan, the website zerosuicide.org is simultaneously creating a hub for innovation, Covington observed. It brings together not just the people normally involved in suicide prevention but educators, designers, and innovators who can help create an international dialogue and move the process forward.

Today, 90 organizations are part of the Zero Suicide Alliance in the United Kingdom, forming a confederation of providers who can exchange information and guidance. A current challenge is to take the movement into middle- and low-income countries and especially into Africa and South America.

FUNDING ISSUES

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[1] The declaration is available at http://riinternational.com/wp-content/uploads/2016/03/zerosuicidedeclaration_2015draft.pdf (accessed November 27, 2018).

In response to a question about securing adequate funding for such initiatives, Hogan pointed out that Substance Abuse and Mental Health Services Administration's (SAMHSA's) suicide prevention grants now provide more funding than has been the case previously. Also, a small but important part of the 21st Century Cures Act was an adult suicide prevention program authorized for funding of $10 million per year. "This is a starting point," said Hogan.

In addition, much of the progress to be made depends on redesigning the care that now exists, he explained. The suicide prevention activities that need to be done are not complicated, he added, but they have previously been out of scope and health care professionals, including behavioral health professionals, have not received training on them.

Finally, ways need to be found to get reimbursement for these activities, Hogan said. Currently, providers need to figure out setting by setting how to bill for suicide prevention activities. How do they bill for the development of a safety plan? How do they bill for follow-up?

Covington discussed the initial fear among some of the leaders of health care organizations that more screening and assessment would identify more individuals at risk, which would lead to a reduction of profitability. However, he and others had a hypothesis that the opposite would occur: that when health care professionals do not feel confident in their skills they unnecessarily push people in directions that result in increased and avoidable psychiatric inpatient hospitalization. The zero suicide approach can produce a significant reduction in more intensive services for those most in need, he said. Furthermore, the savings may be ever greater at a system level.

Coffey responded by saying that more funding to address this problem cannot be expected. Therefore, "we're going to have to fix it ourselves, we're going to have to find the dividend in the work that we're doing currently." Stopping things that do not work will provide savings that can be invested in things that do work. He also mentioned the "heretical" idea that more screening is not necessarily the answer. "Screening has a place," he said, but providers can spend "way too much time worrying about screening and the precise [risk] number.… Instead cut back on that and devote the resources to safety planning and getting much better at means restriction."

RESISTANCE TO THE IDEA OF A ZERO SUICIDE GOAL

Nadine Kaslow, professor of psychiatry and behavioral sciences at the Emory University School of Medicine, asked about the unanticipated consequences of zero suicide initiatives. Could they be a setup for failure and lead critics to question the overall initiative? On a related note, does the identification of people at risk of suicide in hospitals, with the constraints it puts on their autonomy and their identification as high risk, lead to humiliation and stigmatization, she asked.

Hogan responded that "I'm getting pretty old, I don't have that much time, which leads me to say I don't have time for [resistance]. I'm only interested in who wants to do something and what do you want to do now." The other panelists had similar responses. Covington drew a distinction between half measures and full measures. For 70 years the Golden Gate Bridge did some things that saved lives, but it remained a very unsafe place. Finally, after many deaths and considerable pressure, the operators of the bridge decided to install nets extending from the sides of the bridge to stop people from using it for suicide. "They decided in their backyard they were going to take full ownership and do everything they could do. That's what we're really talking about for health care for which we're responsible."

E. Coffey responded that the zero suicide movement needs skeptics and that it is okay to be skeptical about zero suicide from a scientific perspective. But dealing with these criticisms takes time, and "as leaders we have to make a distinction between whether what we're hearing is healthy skepticism versus cynicism." This cynicism is not conducive to building a culture where people are asked to swing for a home run every time they come up to bat. "We have to build a safe environment where people are encouraged to innovate and be bold and audacious, but also at the same time to learn from mistakes."

On the issue of stigmatization, Hogan lamented the sterile environments in hospitals that can result from suicide prevention efforts, such as eliminating ligatures that might be used in suicide attempts. But "morally, we can't not eliminate that." Health care systems also need to replace the things missing because of suicide prevention with other things that will be supportive and relationship centered, he said. Covington pointed out that the company for which he is chief executive officer runs 50 crisis programs and wellness programs in about 5 states, and these programs look different as a result of people with lived experiences being a substantial part of the staff. The people who are in the programs are referred to as guests rather than patients. "It's more like a retreat than it is an institution, more like a home."

Many people, including health care providers, have a fear of suicide and try to distance themselves from patients who are at risk, Hogan said. The presence of this fear suggests two fundamental tasks, he added. One is to create a culture that seeks perfection but does not cast blame. "That's hard leadership work, but it's foundational." The second thing is to include people with lived experience in the planning, design, oversight, and conduct of this work:

> We all felt that we were changing and learning something as we listened to Taryn. She's not the only person who is a genius about this. A lot of people who have been through this experience have that to contribute.

ACTING ON THE EVIDENCE

Richard McKeon of SAMHSA said that a central part of the Zero Suicide Initiative has been its recognition of the accumulating evidence that focusing only on an underlying mental health condition is insufficient to prevent suicide among those with such conditions. Suicide prevention needs to be a specific focus, he maintained. At the same time, behavioral health treatment within the health care system takes place in many contexts other than zero suicide programs, and these other contexts may have implications for preventing suicide among those with serious mental illness. "Should we be looking for ways to insert suicide prevention into those initiatives that are going to continue with or without suicide prevention?" he asked. "Is there a way that standard care for depression in primary care could be made more suicide mindful, or early intervention for psychosis?"

E. Coffey responded that one way to embed such care across the health care system is to focus on the safety plan:

> I don't think safety planning should be limited to people who are patients in the mental health care system. I would argue that every patient needs a safety plan. Aren't those with cancer at risk for suicide? I would start there. If you were to do

> one thing today that would make a difference in suicide care, I'd take becoming very serious about safety planning for every patient in our health care system.

Hogan responded with an anecdote about a Zero Suicide training boot camp, which they call Zero Suicide academies. One of the people attending the training was an internist in a small practice who seemingly would not need to know this level of detail about suicide prevention. When Hogan asked him at the end of the day what he thought, the internist responded, "Well, I don't deal with this every day, but here's what I'm thinking. The risk of this looks a lot like the risk for my patients of prostate cancer. There's not a lot of that, but where there is, it's pretty important." He said that he was planning to add the suicide question to his Patient Health Questionnaire. Most of the time the responses will be negative. "But if there's a concern, my staff will bring it to my attention, and I'll make that the main focus of what I do with that patient in that visit." Hogan thought that this was a brilliant response. "This is the big lift in primary care."

With regard to specialty care, Hogan responded that the evidence demonstrates that anyone with a diagnosed mental disorder or receiving a behavioral treatment should be asked about suicide. If this generates a concern, actions need to be taken. "That's a big change in primary care in emergency department settings, but we think that's what the evidence today suggests."

Finally, the moderator of the panel, Justin Coffey, vice president and chief information officer at the Menninger Clinic, commented on the safety provisions that have been installed at the Golden Gate Bridge. The netting installed beneath the bridge is not just about aesthetics. "It's about what the net says, and what the net says is that we have a serious problem in this country. People don't want to have to be reminded of that when they look at the netting, but it's a reminder that we have a serious cultural problem, and it's on one of our most significant engineering achievements. It's such a contrast that people can't accept it, and that's at the heart of their problem." The Zero Suicide effort has a similar issue. E. Coffey said:

> Part of my worry personally about zero suicide is that when you talk about diabetes and about heart disease, those are natural consequences of health conditions and aging. They can be seen and framed within the natural process. When we start to talk about suicide and mental health, people don't see it the same way. It's about culture and the impact of our culture, and I'm concerned about our willingness to accept those things.

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9
Reflections on the Workshop

At the end of both days of the workshop, individual workshop participants discussed the main messages they heard emerging from the workshop.

THE ELEMENTS OF EFFECTIVE INTERVENTIONS

Research over the past 15 years has demonstrated the need to build on the commonalities of effective interventions, said David Rudd, president of the University of Memphis and member of the workshop planning committee. Mike Hogan identified several of these in his presentation, Rudd noted, including “ask,” “engage and act for safety,” “reduce lethal means,” “treat suicidality,” and “provide support when needed” (see Figure 3-4 in Chapter 3). To these, Rudd added compliance facilitation, which is “a part of everything you do.” Whenever providers in his institution ask a patient to do something, they have the patient rate on a scale of 1 to 10 how likely they are to do it. If the patient responds with a 1, meaning that the patient is not going to do it, they ask the patient why. “Tell us exactly why you can’t do that element of treatment.” They then explain why that element is important. “We go back to the model and explain why this is a critical element of treatment and what role it serves.”

Another feature of the common elements of effective interventions is they are relatively simple and straightforward, though they may be delivered differently by individuals and organization with different theoretical perspectives. The one modification Rudd suggested is that, as part of safety planning, health care providers teach people how to ask for help. “You can’t assume that somebody knows how to ask for help. You have to role play it, you have to walk through scenarios, and you have to help them understand the language of asking for help.” Shame “is one of the biggest barriers to compliance,” he noted. He and his colleagues elevate that issue and address it with every single person with whom they work.

In addition to the commonalities of effective interventions, Rudd identified three major topics discussed at the workshop: education, clinical delivery, and systems integration. Clear evidence pointing to what should be done exists in each area. The challenge now is not what to do but how to do the right thing organizationally and politically. “We have good foundational places to start; we just need to start implementing.” Saying that the problem is complex tells Rudd that someone is ashamed of it, because that means “we’ll never solve it, we’re not accountable for it, we’re not responsible for it, and as a result we don’t know what to do.” Rudd said that he was encouraged not to have heard a single time at the workshop that the problem is complex.

Rudd observed that the range of material presented at the workshop “demonstrates not only the breath but the creativity of people who are working to meet these challenges—and these are very significant challenges.” The task before the field is now to integrate innovative interventions into the care of people struggling with serious mental illness. For example, are innovations more effective within a Zero Suicide initiative or within an integrated wellness effort? Does that help with some of the shame and stigma that prevent people from getting help?

FUNDING AND FOLLOW-UP NEEDS

Andrey Ostrovsky, chief executive officer of Concerted Care Group (CCG), cited the need to fund both research and service delivery. “Suicide prevention, and in particular suicide prevention in people with serious mental illness, is grossly underfunded in order to get the comprehensive approaches that are needed to meaningfully move the needle.” One concrete idea emerging from the workshop is bundled payments to help align financing with the desired outcomes. “The more I’ve been tweeting about it and researching analogs, the more I get optimistic at how doable this will be—especially now [with] the political winds that are blowing.” What needs to happen, he said, is to get the people who control policy in the same room with those who oversee the funding of programs to figure out how to implement the science.

Another critical need that he identified is to reduce stigma. The presence of people at the workshop who were willing to talk publicly about their experiences is exciting, he said, because “most people will not talk about [this] publicly, and we have to talk about it publicly. If we don’t talk about it publicly, it’ll just keep getting stigmatized.”

Ostrovsky said that he and CCG are willing to follow up on the ideas presented at the workshop, whether reaching out to governors or implementing the knowledge that already exists. “We may fail, and that’s fine, but let’s fail fast, fail cheap, fail often. We have to get out there and do it, not just talk about it, not just publish, but get out there and do it.”

COLLABORATION AND TRAINING

Nadine Kaslow, professor of psychiatry and behavioral sciences at the Emory University School of Medicine, wondered why the two main topics discussed at the workshop—suicide prevention and serious mental illness—remain such different worlds when they overlap so extensively. A major way to reduce the distance between them is to create collaborations among stakeholders that represent suicide prevention and the treatment of serious mental illness.

This split is reflected in clinical training, she pointed out. In psychology training, working with people who are suicidal or have a serious mental illness is generally ruled out, while psychiatry training follows the opposite model, giving new trainees responsibility for people with the most serious mental illnesses. Neither of these models “makes a lot of sense to me,” said Kaslow. “We need to begin to think in a different way of how do we train people to be prepared to do this work,” not just asking them if they are ready to treat people with serious mental illness. One of the reasons Kaslow became interested in suicide was from losing a patient to suicide early in her career, after which she participated in a program run by the American Foundation for Suicide Prevention to meet with others to discuss what happened, including the psychiatry resident with whom she had treated the patient. “It was a pivotal experience for us in terms of healing.”

Suicide prevention requires that providers adopt an ecological model encompassing the individual, the family, the clinician, and society, she continued. In that respect, root cause analysis that tries to determine what went wrong “is extremely problematic and difficult.” It encourages providers to feel that they have failed and to avoid treating people at high risk of suicide again. An ecological model also emphasizes the importance of culture in treatment, assessment, and prevention, including cultural adaptations to interventions or interventions that emerge from a particular cultural group.

The workshop demonstrated the need to include people with lived experience at the table. In most settings, people still do not feel safe to share their stories, Kaslow said. Creating this safety is critical so meetings do not consist of people who have been identified as having lived experiences and people who have been identified as not having those experiences, since suicidality occurs on a continuum and "we all live on that continuum somewhere."

STAKEHOLDERS, RESEARCH, AND INFRASTRUCTURE

Lisa Jordan argued for the need to include nurses at the table as well, because caring is central to their profession. Some of the first community health workers were nurses, she said, and nurses have constructed models of caring that incorporate patients into the plan of care. In addition, nurses can help other health care providers care for themselves when a patient ends his or her life. "We have to be there with you, because we believe as nurses that we are the conduits to get many of the other professionals that are working with a patient together and to keep everybody abreast."

Scott Dziengelski from the National Association for Behavioral Health Care called attention to the fact that people with serious mental illness have a much higher mortality rate than the general population. "These individuals are dying 25 years sooner than everybody else in the population," he said. "They've been left out of the longevity revolution.… This is part of a greater conversation about serious mental illness and mortality."

James Allen, professor in the Department of Family Medicine and Biobehavioral Health at the University of Minnesota Medical School, mentioned the need to align the Substance Abuse and Mental Health Services Administration's (SAMHSA's) research with that of the National Institutes of Health to study the implementation of the ideas discussed at the workshop. Suicide is a low base rate event, he said, but many distal indicators can be used to identify effective prevention and treatment approaches. Work in fields as distant as process engineering can lead to innovative methods in suicide prevention, he added, which points to the value of collaboration among professions.

Amy Loudermilk, state initiatives manager for the Suicide Prevention Resource Center, emphasized the role of the infrastructure developed by the states for suicide prevention. Working on this infrastructure can elevate the issue and reflect its multidisciplinarity, which Ostrovsky added could be done through such organizations as the National Association of State Medicaid Directors.

COMMITMENTS TO ACTION

Arthur Evans, chief executive officer of the American Psychological Association, like Ostrovsky of the CCG previously, committed his organization to following up on the major issues and ideas raised at the workshop. He also observed that the subject matter discussed at the workshop needs to be disseminated as widely as possible so every community has someone who is involved in the issue. Getting people in government, system administrators, and many others involved will be required to influence the social determinants that affect suicide, he said, which will require leadership within many different communities.

In follow-up to the workshop, Christine Moutier of the American Foundation for Suicide Prevention committed her organization to stay engaged in actionable strategies as an outgrowth of the workshop. She reiterated her observations made during the first panel: that the openness and readiness of the nation is ripe, and that health care systems, payers, and policy makers must make the changes needed to meet the public health crisis and the growing demand on the part of patients and families. She observed that the American Foundation for Suicide Prevention is well positioned to advocate for changes like bundled payments for postdischarge care, to cooperatively fund research related to suicide prevention, and to catalyze health systems to implement suicide prevention training and system changes.

OUTCOMES AND TECHNICAL ASSISTANCE

Richard McKeon, chief of the Suicide Prevention Branch in SAMHSA's Center for Mental Health Services, discussed the need to track outcomes. Part of the reason the Department of Veterans Affairs and the Department of Defense have focused on suicide prevention is they have the data about the people they are losing to suicide, and many health care systems do not have those data. In addition, the Interdepartmental Serious Mental Illness Coordinating Committee has recommended generating these data more quickly, he reported, which could further increase accountability. "That information potentially can be made available more quickly than the 2-year wait for the Centers for Disease Control and Prevention (CDC) statistics that specify suicides."

On the data issue, Ostrovsky mentioned a treasure trove of data is available in the form of claims data held by Centers for Medicare & Medicaid Services (CMS). These data are available after just 1 month for every state and territory in the nation and could be made available through the Transformed Medicaid Statistical Information System if they were accessed by researchers or other government agencies.

Finally, McKeon cited the new regionally based technical assistance centers being established by SAMHSA as a source of information. The stakeholders in suicide prevention could help guide what the most productive role of these centers would be.

The link between suicide and serious mental illness "will be an abiding concern for SAMHSA over the next number of years," McKeon concluded. "We need to be able to have more of these conversations."

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Ideas from the Breakout Sessions

At the beginning of the second day of the workshop, the participants broke into two sessions that discussed major topics emerging from the first day's discussions. Participants in one session discussed issues with a focus on what providers need, which also encompassed political leadership. Participants in the other session discussed the financing and other policy issues associated with integrating suicide prevention into care for people with serious mental illness.

CREATING MOMENTUM AT THE STATE LEVEL

Oscar Morgan, project director for the Central East Mental Health Technology Transfer Center, who reported for the first breakout session, noted that many important observations made by individuals participating in the breakout session have been operationalized by the National Action Alliance for Suicide Prevention in its report *Crisis Now: Transforming Services Is Within Our Reach*.[1] Extending these observations, participants in the breakout session discussed the possibility that the Substance Abuse and Mental Health Services Administration (SAMHSA) might send a letter to the governor of each state quantifying the crisis for the nation and for that state. The letter then would suggest implementing the recommendations contained in *Crisis Now* and offer free technical assistance from SAMHSA to do so. SAMHSA's technical assistance centers could develop a uniform implementation strategy that may differ from state to state but that would lead to implementation of a zero suicide approach for people with serious mental illness.

In response to the report from the breakout session, Richard McKeon, chief of the Suicide Prevention Branch in SAMHSA's Center for Mental Health Services, noted that an important issue is the nexus of responsibility between the Centers for Medicare & Medicaid Services (CMS) and the states. "When I talk to colleagues at CMS, one of the things that they emphasize, at least in terms of Medicaid funding, is how much it's a state issue." Clear guidance would be helpful to states, for example, in Medicaid plans. One way to provide this guidance is through strong relationships between mental health commissioners and Medicaid commissioners, he noted. However, he questioned how feasible it would be for SAMHSA to send a letter to all of the governors of the states, though he noted that letters to Medicaid directors have come jointly from SAMHSA and CMS. Perhaps the state secretaries of health and human services would be the most appropriate recipients of such letters, though engaging the nation's governors would also be "critically important."

In this regard, Christine Moutier, chief medical officer of the American Foundation for Suicide Prevention, noted that the American Federation for Suicide Prevention has been building a mechanism to encourage all the states to have a state suicide prevention day in which all the evidence and needed steps could be presented at the state level.

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[1] The report is available at https://theactionalliance.org/sites/default/files/crisisnow.pdf (accessed November 27, 2018).

TRANSITIONS IN CARE AND BUNDLED PAYMENTS

The participants in the second breakout session spent much of their time discussing transitions in care—and in particular the transition from an emergency department contact or a psychiatric hospital into the community. Health systems need incentives to focus resources on people with serious mental illness who are at risk for suicides during these transitions, observed Andrey Ostrovsky, chief executive officer of Concerted Care Group, who provided a report from the session. Measuring the factors associated with a good transition raises challenges, he noted. Such a transition involves not just a medical model but consideration of the community, family, and other resources that are involved, along with the provision of adequate support for a good transition.

Participants focused in particular on the use of bundled payments to ensure care continuity across transitions. Precedents exist for such bundled payments, both with public funding mechanisms and with commercial insurance. One challenge noted by several participants is to bring an evidence-based approach to the population of people with severe mental illness who are at risk for suicide. Important factors identified by various participants in the breakout session include appropriate assessment for people at risk of suicide, establishing a safety plan, and making sure that a person has an adequate number of contact points, including family members and community providers.

Participants in the breakout session also discussed ways of providing financial incentives upstream of transitions, such as during contacts with the primary care system or an emergency hotline. As a specific example, could organizations be incentivized to adopt electronic health records in the behavioral health care space, which would facilitate transitions?

Ostrovsky pointed out that bundled payments would be “perfect grounds for an 1115 demonstration” under the Medicaid program. It would have to be done on a state-by-state basis, though the Center for Medicare and Medicaid Innovation (CMMI) could also promote a model that is more comprehensive than Medicaid. He also thought commercial group insurance was a possibility, so long as the financial case can be made either by care savings or by increased market share. If “you get a progressive group or employer-based insurer to take this up, you don’t have to wait for a model to be designed by CMMI or through the long process of getting an 1115 demonstration approved.”

McKeon agreed that the evidence is solid regarding things that need to be done during the transition period. However, whether this evidence translates to populations other than the ones studied to date remains unknown. For example, does it apply to people with schizophrenia, bipolar disorder, or other serious mental illness? “That’s a piece that we don’t know as much about.”

McKeon added that bundled payments would be “useful and important.” In addition, they would provide an opportunity to learn from innovations and move forward. For example, different people have different needs, and some of these needs could be met at little cost, such as text message interventions, while other needs may require face-to-face contact or home visits, “presuming that you have a home.”

COMMENTS ON IDEAS FROM THE BREAKOUT SESSIONS

As part of the plenary session following the breakout session, workshop participants commented on several issues raised during the breakout discussions and earlier in the workshop.

Nadine Kaslow, professor of psychiatry and behavioral sciences at the Emory University School of Medicine, pointed to the need to collect data to see how effective different approaches are with people who have serious mental illness and to modify those approaches accordingly. Greater knowledge could bring other funders into the room besides people who fund health care policies, she said.

Amy Loudermilk, state initiatives manager for the Suicide Prevention Resource Center, asked where the responsibility for suicide prevention among those with serious mental illnesses resides organizationally. Is there a need for an organization or formalized collaboration to focus on suicidality and people with serious mental illness, she asked. This population is the responsibility of several different professions but not of a single one.

Jim Allen noted that implementation science has shown the difficulty of getting professionals to buy in, which is crucial to implementing or changing a system of care. He also pointed out that a thoughtful rollout requires local decision making. “There are many models of how you respond to an actively suicidal individual. They all have an evidence base. The important issue is that the provider community in the state pick one so everyone shares the same pathway and shares the same vocabulary. They’ll do that if they feel they were part of the decision process in arriving at that.” He suggested involving consumers in that decision as well.

Jennifer Shaw, a senior researcher at Southcentral Foundation, reminded the group that people are very diverse and one size does not fit all. While the evidence may be strong in one population, “we need to be very thoughtful about who was included and how it was evaluated for the diverse populations that make up our United States.” Research needs to be validated in minority communities (even though they are often majorities) and also be culturally grounded and culturally driven.

Shari Ling, Deputy Chief Medical Officer, CMS, advocated identifying bright spots that are working “no matter where they are.” Integrated care offers tremendous opportunities, she said, but people working today have worked out important parts of the answer, and “we can learn from what is working.”

Julie Goldstein Grumet, director of health and behavioral health initiatives at the Suicide Prevention Resource Center and director of the Zero Suicide Institute at the Education Development Center, described seeing many best practices and good outcomes occurring on the local level, “but people have a hard time publishing those results and sharing those practices.” As a result, these practices and outcomes remain siloed and hidden. One solution would be for journals to reach out and solicit articles about the intersections of people with serious mental illness and suicide. They also could cultivate authors who do not typically submit articles. “We have many state suicide prevention coordinators, tribal elders and leaders, and people in rural areas who have been heroic in finding ways to combat suicides in their communities and have outcomes but have a hard time getting it onto a national stage.”

Mike Hogan of Hogan Health Solutions called attention to SAMHSA’s new program to provide technical assistance through the National Dissemination Center and HHS region-specific centers. This new technical assistance structure could be extremely helpful because the field is still at an early adoption stage where targeted information is very useful. The evidence base for people with high suicidality is “pretty clear, but it’s also new and … hasn’t been synthesized,” Hogan observed. Because suicide is a low base rate event, a randomized controlled trial with suicide as one outcome would be prohibitively large. The existing evidence rests largely on the concept that effective interventions “have achieved bigger reductions in suicide than anything else in the world." Also, suicide prevention programs are made up of components that all have an evidence base.

In addition, Hogan observed that the Interagency Serious Mental Illness Coordinating Committee was considering some of these issues at the same time as the workshop, and it may be a valuable partner in considering these issues. The National Mental Health and Substance Use Policy Laboratory is another innovation-oriented organization that could help drive policy changes.

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Biographical Sketches

SPEAKERS, PANELISTS, AND FACILITATORS

Margeaux Akazawa, M.P.H., is a program analyst in the Office of Technology at the U.S. Department of Health and Human Services, Office of the National Coordinator for Health IT (ONC). In this role, she is responsible for advancing health IT strategies and approaches to combat the nation's opioid epidemic. Ms. Akazawa previously worked with ONC's Consumer eHealth and Engagement Division where she led efforts to improve patients' access to their health information through technology. Ms. Akazawa has human-centered design expertise and experience facilitating design thinking trainings including serving as a coach for the Department of Health and Human Services (HHS) Idea Lab Ignite Accelerator program and as a workshop facilitator for the Better Government Movement. Prior to joining ONC, Ms. Akazawa was a Presidential Management Fellow at the U.S. Department of Housing and Urban Development where she served as a Desk Officer for Promise Zones, a place-based community revitalization initiative. Ms. Akazawa received her M.P.H. in Behavioral Science and Health Education from Emory University, Rollins School of Public Health, and her B.A. in Anthropology from the University of California, Berkeley.

James Allen, Ph.D., is professor in the Department of Family Medicine and Biobehavioral Health and senior scientist with the Memory Keepers Medical Discovery Team for American Indian and Rural Health Equity at the University of Minnesota Medical School, Duluth campus. He was previously Associate Director at the Center for Alaska Native Health Research and graduate faculty in the clinical-community psychology program with indigenous and rural emphasis at the University of Alaska Fairbanks, a Fulbright Scholar at University of Oslo Medical School, and graduate faculty in the clinical psychology program at the University of South Dakota. Research interests include American Indian and Alaska Native community resilience and prevention of youth suicide and substance use risk, community-based participatory research, multilevel intervention, and research methods for small populations. He currently works with Alaska Native communities developing an evidence base for a culturally grounded multilevel intervention promoting protective factors to prevent youth suicide and alcohol risk, and documenting community-level resilience structures promoting youth well-being and protection from suicide.

Allison Barlow, Ph.D., M.P.H., M.A., is Director of the Johns Hopkins Center for American Indian Health. She has worked at the Center since 1991 to co-create and evaluate ecologically sound, evidence-based and culturally resonant interventions with tribal communities to address behavioral and mental health disparities. Projects to date have spanned the design and demonstration of preventive interventions targeting adolescent suicide, depression, and substance abuse, as well as the design and evaluation of a tribal-specific early childhood home-visiting intervention, Family Spirit, to promote parenting and early child development—with the latest iteration including modules to address early childhood obesity and water insecurity. Other lines of research have included obesity and diabetes prevention, and most recently, youth entrepreneurship to address the twin problems of poverty and poor health trajectories. Her team has succeeded in disseminating successful interventions to more than 120 tribal communities across 19 states. They have also produced pioneering evidence to support the effectiveness of Native community health workers to promote behavioral and mental health, overcome access barriers in low-income communities, and build local human capital through an indigenous workforce.

Ed Coffey, M.D., is a neuropsychiatrist and Professor of Psychiatry & Behavioral Sciences, and of Neurology, at the Baylor College of Medicine, Houston, Texas. Dr. Coffey is an accomplished physician (board certified in both Neurology and Psychiatry) with expertise in neuropsychiatry and brain stimulation, and is consistently listed as a "Top Doctor" by numerous organizations. He is also an award-winning health care executive, recognized for leading high-quality, financially successful, academically based systems of integrated health care. Dr. Coffey's innovative work on "Perfect Depression Care" has been widely cited as a model for health care transformation, and its audacious goal of "zero suicides" has become an international movement, honored by The Joint Commission (2006 Codman Award), the American Psychiatric Association (2006 Gold Achievement Award), the Malcolm Baldrige National Quality Award (2011), and by his appointment to the National Action Alliance for Suicide Prevention (2011).

Captain Mike Colston, M.D., is the Director for Mental Health Programs in the Department of Defense's (DoD's) Health Services Policy and Oversight office. This office seeks to improve the lives of our nation's service members and families through oversight, strategy management, program evaluation, and policy regarding DoD's care of psychological health and substance use disorders, traumatic brain injury, and the clinical management of suicidality. Previously, Captain Colston served as the Director of the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury. As Director of the Mental Health Program in the Office of the Assistant Secretary of Defense for Health Affairs, Captain Colston oversaw a project that reviewed more than 200,000 cases involving posttraumatic stress disorder (PTSD) and depression diagnoses, led a mental health team in the independent investigation of the Washington Navy Yard tragedy, and cochaired DoD's Addictive Substances Misuse Advisory Committee. As Chair of the Mental Health Department at Naval Hospital Great Lakes, he oversaw a large-scale clinical integration of Department of Veterans Affairs and DoD services at the Lovell Federal Health Care Center in the Chicago metro area. During deployment in support of Operation Enduring Freedom, he led a combat and operational stress team that supported a catchment of 10,000 service members. Captain Colston holds a B.S. in Industrial and Management Engineering from Rensselaer Polytechnic Institute and a master's degree in Marine Affairs from the University of Rhode Island. He joined the Navy as a line officer, serving as a nuclear engineer and surface warfare officer aboard USS Carl Vinson (CVN-70), deploying twice to the Arabian Sea and completing a Pacific Rim Exercise. He then commanded a littoral patrol boat as an afloat officer-in-charge. Transitioning to Medical Corps service, he earned an M.D. from the Uniformed Services University of the Health Sciences, trained as a resident in psychiatry at Walter Reed Army Medical Center, and completed a fellowship in child and adolescent psychiatry at Northwestern University. He practices inpatient child and adolescent psychiatry at Fort Belvoir Community Hospital. His military decorations include the Defense

Superior Service Medal and Defense Meritorious Service Medal, Surface Warfare and Officer-in-Charge Afloat devices, and campaign ribbons stemming from four overseas movements.

David Covington, LPC, M.B.A., is CEO and President of Recovery Innovations, Inc. (d/b/a RI International). He is also a partner in Behavioral Health Link, cofounder of CrisisTech 360 and leads the international initiatives "Zero Suicide," "Crisis Now," and "Peer 2.0." A licensed professional counselor, Mr. Covington received an M.B.A. from Kennesaw State and an M.S. from the University of Memphis. He previously served as Vice President at Magellan Health responsible for the executive and clinical operations of the $750 million Arizona contract. He is a member of the HHS Interdepartmental Serious Mental Illness Coordinating Committee (ISMICC) established in 2017 in accordance with the 21st Century Cures Act to report to Congress on advances in behavioral health. A recognized health care innovations entrepreneur, global speaker, and blogger, Mr. Covington is a two-time national winner of the Council of State Governments Innovations Award. He also competed as a finalist in Harvard's Innovations in American Government in 2009 for the Georgia Crisis & Access Line, and the program was featured in *Business Week* magazine. Mr. Covington is the President-Elect of the American Association of Suicidology and has served on the National Action Alliance for Suicide Prevention Executive Committee since 2010. He is also the Chair of the National Suicide Prevention Lifeline SAMHSA Steering Committee. He has served on numerous committees and task forces on clinical care and crisis services, including the National Council for Behavioral Health Board of Directors.

Arthur C. Evans, Jr., Ph.D., policy maker, clinical/community psychologist, and health care innovator, is the CEO of the American Psychological Association (APA). Dr. Evans has held faculty appointments at the University of Pennsylvania Perelman School of Medicine and the Yale University School of Medicine. Prior to coming to APA, he served for 12 years as Commissioner of Philadelphia's Department of Behavioral Health and Intellectual disAbility Services where he led a groundbreaking transformation of the Philadelphia service system that significantly improved health care outcomes and saved millions of dollars that the city used to expand services. Dr. Evans has also served in leadership positions in clinical administration and state government in the state of Connecticut where he developed a multidisciplinary private practice.

Keita Franklin, L.C.S.W., Ph.D., a member of the Senior Executive Service, is the National Director of Suicide Prevention for the Department of Veterans Affairs (VA) Office of Mental Health and Suicide Prevention. Dr. Franklin serves as the principal advisor to VA leadership for all matters pertaining to suicide prevention. She leads a team of experts engaged in research, program evaluation, innovation, program development, data and surveillance, and partnerships. Before joining the VA, Dr. Franklin served as the Director of the Defense Suicide Prevention Office where she was responsible for policy and oversight of the Department of Defense suicide prevention programs. She is a licensed social worker with a specialization in children and families, and has a Ph.D. in social work with specialized training and certifications from the Center for Advancement of Research Methods and Analysis. Dr. Franklin received a leadership award from Virginia Commonwealth University for leading efforts to help train and advise the social work profession on working with military families.

Julie Goldstein Grumet, Ph.D., is the Director of Health and Behavioral Health Initiatives at the Suicide Prevention Resource Center (SPRC). Dr. Goldstein Grumet provides strategic direction to health care providers to recognize and respond to suicide emergencies. She is also the Director of the Zero Suicide Institute, where she oversees the dissemination, resource development, and application of the Zero Suicide initiative nationally by providing consultation and training to health care systems. Dr. Goldstein Grumet received her Ph.D. from the George Washington University.

Taryn Hiatt is a dedicated advocate and shares her story and passion to give hope and educate our communities about suicide. She is a survivor of her own attempts as well as a survivor of suicide loss, losing her father Terry Aiken on October 5, 2002. Taryn is a founding member of the Utah Chapter of the American Foundation for Suicide Prevention and currently serves as the Area Director for Utah and Nevada. Taryn is a certified safeTALK, CONNECT Postvention and Mental Health First Aid Trainer, facilitating hundreds of seminars to many different groups. Taryn is a passionate advocate for change and has been featured in both *U.S. News & World Report* and *The Huffington Post*. She has testified before congressional members in Washington, DC, to increase awareness and support for better access to mental health services and to promote healthy discussions about suicide. She is widely respected throughout Utah for her hard work and dedication to saving lives. Taryn is a recent graduate of Utah Valley University with her Bachelor's Degree in Psychology.

Michael Hogan, Ph.D., served as New York State Commissioner of Mental Health from 2007 to 2012, and now operates a consulting practice in health and behavioral health care focusing on health care issues with significant public health impact, especially suicide prevention. The New York State Office of Mental Health operated 23 accredited psychiatric hospitals, and oversaw New York's $5 billion public mental health system serving 650,000 individuals annually. Previously Dr. Hogan served as Director of the Ohio Department of Mental Health (1991–2007) and Commissioner of the Connecticut DMH from 1987 to 1991. He chaired the President's New Freedom Commission on Mental Health in 2002–2003. He served as the first behavioral health representative on the board of The Joint Commission (2007–2015) and chaired its Standards and Survey Procedures Committee. He has served as a member of the National Action Alliance for Suicide Prevention since it was created in 2010, cochairing task forces on clinical care and interventions and crisis care. He is a member of the National Institute of Mental Health (NIMH) National Mental Health Advisory Council. Previously, he served on the NIMH Council (1994–1998), as President of the National Association of State Mental Health Program Directors (2003–2005) and as Board President of National Association of State Mental Health Program Directors' Research Institute (1989–2000). His awards for national leadership include recognition by the National Governor's Association, the National Alliance on Mental Illness, the Campaign for Mental Health Reform, the American College of Mental Health Administration, and the American Psychiatric Association. He is a graduate of Cornell University, and earned a M.S. degree from the State University College in Brockport, New York, and a Ph.D. from Syracuse University.

Ashleigh Husbands, M.A., is a Prevention Specialist for the Suicide Prevention Resource Center within the Education Development Center. Ashleigh provides technical assistance to state and campus youth suicide prevention Substance Abuse and Mental Health Services

Administration (SAMHSA) grantees as well as unfunded state suicide prevention coordinators. Ashleigh has previously worked as a Regional Suicide Prevention Specialist for the Florida state youth suicide prevention SAMHSA-funded grant, where she provided technical assistance to behavioral health providers on Zero Suicide implementation as well as provided suicide prevention, intervention, and postvention trainings to community members. She also has prior experience as a crisis counselor, answering for the National Suicide Prevention Lifeline. Ashleigh earned a master's in clinical psychology from Towson University in 2013.

Nikole S. Jones, L.C.S.W., completed her undergraduate studies in Psychology (Minor in Criminal Justice) at James Madison University in 1993 and Master's Degree in Social Work at Howard University in Washington, DC She completed her internship at the Department of Veteran Affairs at the Washington, DC VA Medical Center. She really enjoyed working with veterans and wanted to commit her career to helping America's warriors. Ms. Jones' experience in the VA includes work in the Substance Abuse Rehabilitation Program (SARP), and as an Inpatient Psych Social Worker. However, after the death of her family member in 2006 to suicide, Nikole became passionate about suicide prevention. During that time suicide prevention became a major initiative in the VA, Ms. Jones accepted a job as the Suicide Prevention Coordinator at the VA Maryland Health Care System. Ms. Jones and the Suicide Prevention Team are committed to providing education to veterans and their families, VA employees, and the local community of the risk, warning signs, and protective factors suicide in an effort to reduce the incidence of suicide and increase access to appropriate care in the VA. Nikole was instrumental in establishment of the Maryland State Chapter of the American Foundation for Suicide Prevention and served as the chapter's first President of the Board of Directors. The Maryland chapter has grown to provide prevention efforts to every county in the state. Nikole is currently working on her first self-help book, *The Compulsion to Die*, that will be available in early 2019. Nikole also has a private practice (Therapy 4 Life) that provides Christian counseling and consultation services.

Maia Laing, M.B.A., is the Senior Business Consultant within the Office of the Chief Technology Officer (CTO) at the Department of Health and Human Services (HHS). In her role, Maia identifies innovative solutions to complex challenges within HHS. Prior to joining the Office of the CTO, Maia worked for the Center for Medicare and Medicaid Services on an enterprise effort to implement a process improvement mindset across the center. Ms. Laing holds a deep passion for improving delivery of care and has worked on projects in both federal government and nonprofit settings; including *U.S. News & World Report* top 10 ranked Brigham and Women's Hospital in Boston.

Marcus Lilly is a University of Baltimore college student and an Outreach Worker with Concerted Care Group. As a former incarcerated citizen, he also advocates for prison reform, substance abuse treatment, and mental health services. He is the author of *The Marshall Project's* article, "Finding College by Way of Prison." He has been a guest speaker at the University of Baltimore and Georgetown University. He is the cocreator of "37th and Jessup: Classmates Divided by Bars, United for Justice," which is one of Georgetown University Justice Initiative projects. His goal is to become a mentor and share his story of transformation with high-risk youth.

Richard McKeon, Ph.D., M.P.H., received his Ph.D. in Clinical Psychology from the University of Arizona, and a Master's of Public Health in Health Administration from Columbia University. He has spent most of his career working in community mental health, including 11 years as director of a psychiatric emergency service and 4 years as Associate Administrator/Clinical Director of a hospital-based community mental health center in Newton, New Jersey. In 2001, he was awarded an American Psychological Association Congressional Fellowship and worked for United States Senator Paul Wellstone, covering health and mental health policy issues. He spent 5 years on the Board of the American Association of Suicidology as Clinical Division Director and has also served on the Board of the Division of Clinical Psychology of the American Psychological Association. He is currently Chief for the Suicide Prevention Branch in the Center for Mental Health Services, of the Substance Abuse and Mental Health Services Administration, where he oversees all branch suicide prevention activities, including the Garrett Lee Smith State/Tribal Youth Suicide Prevention, Campus Suicide Prevention grant programs, the National Suicide Prevention Lifeline, the Suicide Prevention Resource Center, and the Native Aspirations program. In 2008, he was appointed by the Secretary of Veterans Affairs to the Secretary's Blue Ribbon Work Group on Suicide Prevention. In 2009, he was appointed by the Secretary of Defense to the Department of Defense Task Force on Suicide Prevention in the Military. He served on the National Action Alliance for Suicide Prevention Task Force that revised the National Strategy for Suicide Prevention and participated in the development of World Health Organization's World Suicide Prevention Report. He is also the cochair of the Federal Working Group on Suicide Prevention.

Christine Moutier, M.D., Chief Medical Officer of the American Foundation for Suicide Prevention, knows the impact of suicide firsthand. After losing colleagues to suicide, she dedicated herself to fighting this leading cause of death. Since earning her medical degree and training in psychiatry at the University of California, San Diego, Dr. Moutier has been a practicing psychiatrist, professor of psychiatry, dean in the medical school, medical director of the Inpatient Psychiatric Unit at the VA Medical Center in La Jolla, and has been clinically active with diverse patient populations, such as veterans, Asian refugee populations, as well as physicians and academic leaders with mental health conditions. She has presented at the White House, testified before the U.S. Congress on suicide prevention, and has appeared as an expert on *Anderson Cooper 360*, the BBC, *CBS This Morning*, *The Atlantic*, *The New York Times*, *Time, The Washington Post*, *The Economist,* and *NBC Nightly News*, among others.

Laurelle Myhra, Ph.D., LMFT, is Ojibwe and a enrolled member of Red Lake Nation and is the Director of Behavioral Health at the Native American Community Clinic (NACC) and sits on the Health Equity Advisory & Leadership (HEAL) Council for the state of Minnesota and previously on the community board for Hennepin County Healthcare for the Homeless Clinic. Dr. Myhra completed her doctorate at the University of Minnesota in Family Social Science and Marriage and Family Therapy program, where she was an American Association for Marriage and Family Therapy Substance Abuse and Mental Health Services Administration Fellow. She has dedicated her career, as a researcher, supervisor, clinician, and educator, to addressing historical trauma, traumatic stress, and substance use disorders among Native Americans. She has published numerous peer-reviewed articles on these subjects. She has received training on the top evidence-based trauma treatment modalities including Eye Movement Desensitization Reprocessing (EMDR), Trauma Focused Cognitive Behavioral Therapy (TF-CBT), and

Honoring Children, Mending the Circle (culturally adapted TF-CBT) and has adapted these to be culturally appropriate in practice. She was also trained on White Bison's Wellbriety-Medicine Wheel and 12-Step, culturally adapted model, and Mending Broken Hearts on healing from grief and loss. Dr. Myhra is a licensed marriage and family therapist and has provided therapeutic service to the Native American community in the Twin Cities metro area since 2005.

Alfreda Patterson has worked in the counseling field since 1997 in positions ranging from Counselor Tech, Case Manager, and Substance Abuse Counselor. She was educated at Baltimore City Community College with a degree in Allied Human Services in Addiction Counseling. She joined Concerted Care Group on September 14, 2015. Her work as a Substance Use Counselor and a Housing Coordinator is very dear to her heart. Her childhood and most of her adult life was in East Baltimore. She come from a background of Human Services: her mother was a teacher for 45 years, and her brother is a professor at Morgan State University. She owned several transitional houses for over 7 years that housed clients with substance use disorders and mental health. Her goal is to always help anyone in need with services and adequate care. Housing is an important part of stabilization. When she is not working, she is working. She has been married for 27 years and is raising an 8-year-old with autism. Her message is always dedication, honesty, and commitment.

Joshua Prasad, M.P.H., is currently the Director of the Concerted Care Group (CCG) integrated behavioral health and wellness center focused on addiction in Frederick, Maryland. At CCG, he is designing and implementing new programs to expand access to primary care and mental health in addition to traditional addiction and medication-assisted treatment. He is also currently a board member, and has been nominated as next-chair for a tobacco control and prevention nonprofit—Counter Tools. Josh is also the cofounder of a social justice innovation consulting firm, IIF Health and is currently advising several disruptive companies domestically and internationally. He was formerly a Senior Advisor in the Office of the Assistant Secretary for Health within the Department of Health and Human Services (HHS) in Washington, DC. There he focused on increasing the incorporation of the social determinants of health through national initiatives, the development of health systems and workforce concerns for rural communities, and designed solutions to improve government efficiencies. While at HHS, he also assumed the role as Director for the National Tobacco-Free College Campus Initiative, which designed policy and community-based solutions and provide technical assistance to increase tobacco-free environments. Prior to this time in the federal government, Mr. Prasad worked as an advocacy outreach worker at a community health center in Philadelphia, and performs epidemiological analyses at the State Department of Health in Pennsylvania. In 2015, he completed an Innovation Fellowship at the Harvard Medical School Center for Primary Care where he cofounded a startup focused on improving preventive health. Prior to this, he received his Master's in Public Health from Drexel University, and his Bachelors from Rutgers University, where he double majored in English and Psychology. When he's not working, Josh enjoys hiking, playing several instruments, and writing his novel.

Jerry Reed, MSW, Ph.D, serves as Senior Vice President for Practice Leadership at Education Development Center. In this capacity, he directs the Suicide, Violence and Injury Prevention Portfolio leading a staff of 53. He oversees the work on multiple projects such as the Suicide Prevention Resource Center, the Zero Suicide Institute, the Action Alliance for Suicide

Prevention, the Children's Safety Network, several violence prevention initiatives and serves as codirector of the Injury Control Research Center for Suicide Prevention with partners at the University of Rochester Medical Center. His interests include geriatrics, mental health, suicide prevention, global violence prevention, and public policy. Dr. Reed recently co-led the committee that updated the U.S. National Strategy for Suicide Prevention and he serves as an Executive Committee member of the National Action Alliance for Suicide Prevention. Dr. Reed received a Ph.D. in Health Related Sciences with an emphasis in Gerontology from the Virginia Commonwealth University in Richmond in 2007 and his M.S.W. degree from University of Maryland at Baltimore in 1982 with an emphasis in Aging Administration. He served in the United States Navy during the period 1974–1978.

Jennifer Shaw, Ph.D., is a medical anthropologist and senior researcher at Southcentral Foundation (SCF), an Alaska Native-owned and operated health care system serving 65,000 people in the greater Anchorage area and 55 rural villages. At SCF, Dr. Shaw's research has focused heavily on suicide prevention in the Alaska Native community, including Methamphetamine and Suicide Prevention Initiative projects to identify protective factors for suicide, explore lived experience of recovery from suicidal thoughts and behavior, and identify factors in the electronic health record associated with suicide risk. She is currently funded as primary investigator on an Idea Networks of Biomedical Research Excellence-funded study to apply a predictive algorithm to electronic health records to stratify suicide risk. She is also the Alaska primary investigator of a National Institute of Mental Health-funded four-site trial to culturally tailor and test Caring Contacts for suicide prevention.

Holly C. Wilcox, Ph.D., has a joint faculty appointment as an Associate Professor in the Bloomberg School of Public Health Department of Mental Health and the Johns Hopkins University School of Medicine Department of Psychiatry. Dr. Wilcox received her Ph.D. in psychiatric epidemiology from Johns Hopkins Bloomberg School of Public Health. She just completed a national project to summarize the state of the science and research needs for data linkage, which served as the foundation for a National Institutes of Health Pathway to Prevention workshop on youth suicide prevention. She teaches a course in the Bloomberg School of Public Health entitled "Suicide as a Public Health Problem" and leads a multidisciplinary, interdepartmental suicide prevention work group at Johns Hopkins.

T. J. Wocasek's first professional job was a substance use counselor at the Salvation Army Clitheroe Center (SACC) in Anchorage, Alaska, in 1998. In 2000, he was promoted to the Dual Diagnosis Supervisor at SACC where he served for 2 and a half years. The clientele in this program had issues with mental illness, substance abuse, and homelessness. He has worked at Southcentral Foundation since 2002. Wocasek has worked as a clinician at the Southcentral Foundation Pathway Home for 4 years where he addressed behavioral health and substance abuse issues with adolescents in a residential treatment setting. He transferred to the Behavioral Urgent Response Team (BURT) as a clinician working with people who were in behavioral health crisis. He conducted risk assessments, assessed for depression and anxiety symptoms, completed substance use screenings, and consulted on capacity cases. In 2006, Wocasek started as a BURT clinician and was promoted to BURT clinical supervisor in 2007. He developed the BURT team into a 24/7 team. From 2006 to 2010, he had a private practice where he addressed behavioral health and substance abuse issues on an outpatient basis. From 2009 to 2010, Wocasek was the Project Director for two of Southcentral Foundation suicide prevention grants, the Substance Abuse and Mental Health Services Administration (SAMHSA) and the Indian Health Services (IHS) Methamphetamine and Suicide Prevention Initiative (MSPI). These grants are providing more resources for suicide prevention. From 2010 to 2015, he was the Pathway Home Clinical Supervisor. Since 2015, Wocasek has been the BURT Clinical Supervisor.

Keith Wood, Ph.D., ABPP, has a 40-year history of providing services to, creating and implementing programs for, and researching intervention effectiveness with individuals diagnosed with severe mental illness behavioral disorders. He developed and directed successful service programs in psychiatric inpatient and crisis stabilization units, psychiatric emergency rooms, hospital-affiliated outpatient behavioral health clinics, community mental health centers and on-the-street settings. Currently he is the clinical director of an intensive outpatient service focused on reducing psychotic symptoms through the teaching and enhancement of normalization and positive life functioning skills.

NATIONAL ACADEMIES STAFF AND CONSULTANTS

Natacha Blain, J.D., Ph.D., serves as the Director of the Board on Children, Youth, and Families at the National Academies. Dr. Blain has more than 15 years of experience working with policy makers and senior legislative officials on a variety of social justice issues and campaigns including serving as a Supreme Court Fellow, Chief Counsel to Senator Dick Durbin (D-IL) on the Senate Judiciary Committee, and Lead Strategic Advisor for the Children's Defense Fund's Cradle to Prison Pipeline Campaign. Most recently, she served as Associate Director/Acting Executive Director at Grantmakers for Children, Youth and Families (GCYF). Dr. Blain joined GCYF in January 2010 as GCYF's first Director of Public Policy. Her talents were quickly recognized and a year later, she was elevated to Associate Director. For approximately 2 years at the end of her tenure with GCYF, she also served as the Acting Executive Director. In her various capacities, Dr. Blain has played a critical role in helping convene and engage diverse constituencies, fostering leadership, collaboration, and innovation-sharing through a network of funders committed to the enduring well-being of children, youth, and families.

Joseph Goodman is a senior program assistant and has been at the National Academies for 11 years. He has worked on a variety of activities related to military and veterans, Social Security, traumatic brain injury, and more.

Bridget B. Kelly, M.D., Ph.D., is a consultant specializing in strategy development, learning and evaluation, and meeting design and facilitation. She worked previously at the National Academies of Sciences, Engineering, and Medicine for 8 years leading a portfolio of projects that included mental health, early childhood, chronic diseases, HIV, and evaluation science, culminating in a term as the interim director of the Board on Children, Youth, and Families. More recently she cofounded the nonprofit Bridging Health & Community, with the mission of helping the health sector work more effectively with communities. She is also an experienced dancer, choreographer, and arts administrator. She received an M.D. and Ph.D. from Duke University, and a B.A. from Williams College.

Natalie Perou Lubin is a Senior Program Assistant with the Board on Health Care Services and the National Cancer Policy Forum (NCPF) of the National Academies of Sciences, Engineering, and Medicine. Natalie has helped plan and disseminate NCPF workshops, including Long-Term Survivorship Care after Cancer Treatment, Establishing Effective Patient Navigation Programs in Oncology, and more. Prior to the National Academies, Natalie worked as a Program Assistant at the Duke-Margolis Center for Health Policy. In collaboration with the Duke-Margolis Center and the Duke Global Health Institute, she helped edit a policy report evaluating the funding mechanisms in global development. In Ms. Lubin's academic and professional career, she is passionate in the areas of child and maternal health, women empowerment, and education and its intersection with health. Supporting these interests, in the summer of 2016, Natalie was a data analyst intern at the Global Development Lab at USAID, in which she worked on the monitoring, evaluation and learning strategy for the Innovations and Design Advisory team. Additionally, in the summer of 2015, Ms. Lubin carried out water sanitation research in rural Kenya through DukeEngage and the Women's Institute for Secondary Education and Research (WISER). Ms. Lubin is a graduate of Duke University with bachelor's degrees in global health and cultural anthropology.

Marc Meisnere, M.S.P.H., is an Associate Program Officer at the National Academies of Sciences, Engineering, and Medicine's Board on Health Care Services. He currently works on activities related to clinician well-being, mental health, and primary care. Since 2010, Mr. Meisnere has worked on a variety National Academies' consensus studies, primarily focusing on mental health among service members and veterans. Before joining the National Academies, Mr. Meisnere worked on a family planning media project in northern Nigeria with the Johns Hopkins Center for Communication Programs and on a variety of international health policy issues at the Population Reference Bureau. He is a graduate of Colorado College and the Johns Hopkins Bloomberg School of Public Health.

Sharyl Nass, Ph.D., serves as Director of the Board on Health Care Services and Director of the National Cancer Policy Forum at the National Academies of Sciences, Engineering, and Medicine. The National Academies provide independent, objective analysis and advice to the nation to solve complex problems and inform public policy decisions related to science, technology, and medicine. To enable the best possible care for all patients, the Board undertakes scholarly analysis of the organization, financing, effectiveness, workforce, and delivery of health care, with emphasis on quality, cost, and accessibility. The Cancer Forum examines policy issues pertaining to the entire continuum of cancer research and care. For nearly two decades, Dr. Nass has worked on a broad range of health and science policy topics that includes the quality and safety of health care and clinical trials, developing technologies for precision medicine, and strategies for large-scale biomedical science. She has a Ph.D. in cell biology from Georgetown University and undertook postdoctoral training at the Johns Hopkins University School of Medicine, as well as a research fellowship at the Max Planck Institute in Germany. She also holds a B.S. and an M.S. from the University of Wisconsin–Madison. She has been the recipient of the Cecil Medal for Excellence in Health Policy Research, a Distinguished Service Award from the National Academies, and the Institute of Medicine staff team achievement award (as team leader).

Anne N. Styka, M.P.H., is a program officer in the Health and Medicine Division at the National Academies. Over her tenure she has worked on more than 10 studies on a broad range of topics related to the health of military and veteran populations. Studies have included mental health treatment offered in the Department of Defense and the Department of Veterans Affairs (VA), designing and evaluating epidemiological research studies using VA data for health outcomes related to deployment-related exposures including burn pits and chemicals, and directing a research program of fostering new research studies using data and biospecimens collected as part of the 20-year Air Force Health Study. Before coming to the National Academies, Ms. Styka spent several years working as an epidemiologist for the New Mexico Department of Health and the Albuquerque Area Southwest Tribal Epidemiology Center, and she spent several months in Zambia as the epidemiologist on a study of silicosis and other nonmalignant respiratory diseases among copper miners. She has several peer-reviewed publications and has contributed to numerous state and national reports. She received her B.S. in cell and tissue bioengineering from the University of Illinois at Chicago and has an M.P.H. in epidemiology from the University of Michigan. Ms. Styka was the 2017 recipient of the Division of Earth and Life Sciences Mt. Everest Award, the 2015 recipient of the Institute of Medicine and National Academy of Medicine Multitasker Award, and a member of the 2011 National Academies' Distinguished Group Award.