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By Michael F. Hogan and Julie Goldstein Grumet

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# Suicide Prevention: An Emerging Priority For Health Care

Michael F. Hogan (dr.m .hogan@gmail.com) is a clinical professor in the Department of Psychiatry at Case Western Reserve University School of Medicine, in Cleveland, Ohio.

Julie Goldstein Grumet is the director of health and behavioral health initiatives at the Suicide Prevention Resource Center, in Washington, D.C.

ABSTRACT Suicide is a significant public health problem. It is the tenth leading cause of death in the United States, and the rate has risen in recent years. Many suicide deaths are among people recently seen or currently under care in clinical settings, but suicide prevention has not been a core priority in health care. In recent years, new treatment and management strategies have been developed, tested, and implemented in some organizations, but they are not yet widely used. This article examines the feasibility of improving suicide prevention in health care settings. In particular, we consider Zero Suicide, a model for better identification and treatment of patients at risk for suicide. The approach incorporates new tools for screening, treatment, and support; it has been deployed with promising results in behavioral health programs and primary care settings. Broader adoption of improved suicide prevention care may be an effective strategy for reducing deaths by suicide.

uicide is the tenth leading cause of death in the United States, accounting for more than 40,000 deaths annually. Additionally, there are almost 500,000 emergency department (ED) visits annually as a result of intentional self-harm. Costs for ED visits and hospitalizations associated with self-injury among young adults ages 15–24 in 2010 were estimated at \$2.6 billion. There are also personal costs, as many people are deeply affected by suicide loss in their families or among close friends.

### **Recent History Of And Priorities In Suicide Prevention**

The first National Strategy for Suicide Prevention was released by Surgeon General David Satcher in 2001.<sup>2</sup> Before then, the most successful prevention program was a 1990s US Air Force effort. This was a broad population-based approach, emphasizing leadership, community education, improved health care, and surveillance. Results included a 33 percent reduction in sui-

cide between 1996 and 2002, with concomitant reductions in homicide and family violence.<sup>3</sup>

The initial 2001 national strategy emphasized public health methods, including increasing awareness, reducing access to lethal means, providing better access to mental health care, and reducing the stigma of seeking such care.<sup>2</sup> However, the strategy did not identify suicide prevention as a core responsibility of health systems or providers.

The decade following the new strategy saw expanded suicide prevention efforts, including the Garrett Lee Smith Memorial Act of 2004, which created a youth suicide prevention grant program for states, colleges, and American Indian/Alaska Native communities, funded by the Substance Abuse and Mental Health Services Administration (SAMHSA). Many grantees emphasized screening, strengthening community partnerships, and building awareness for suicide warning signs in schools and communities by training front-line personnel to identify and refer at-risk youth to care. Results suggest that counties implementing these activities had low-

er suicide attempts and deaths among youth compared to matched counties where the strategies were not deployed. The observed reductions in suicide were only among the target population of youth and did not persist after the programs ended, which suggests that broader and more sustained efforts are needed.<sup>3,4</sup>

Other national efforts include the establishment of a technical assistance center (the Suicide Prevention Resource Center) and a crisis call system (the National Suicide Prevention Lifeline), both funded by SAMHSA. In 2007 the Department of Veterans Affairs established suicide protocols for its facilities<sup>5</sup> and now supports a national hotline for veterans in crisis that has answered nearly two million calls and dispatched emergency services for more than 56,000 veterans (Suicide Prevention Program, Mental Health Services, Department of Veterans Affairs, personal communication, March 2, 2016).

Despite these efforts, the number and rate of suicide deaths continued to rise. In 2001 there were 30,622 deaths from suicide (a rate of 10.75 people per 100,000); by 2014 there were 42,773 deaths (a rate of 13.41 people per 100,000).<sup>6</sup> Since suicide rates increase with age and with economic distress, experts believe that the aging of the baby-boom cohort and the recent recession may be contributing factors.

#### Should Health Care Systems And Providers Do More?

The concept of health care providers' playing an ongoing instead of visit-oriented role is as useful for suicide prevention as it is for the management of other chronic health conditions. Many individuals who die by suicide were engaged in care or had recent contact with health providers. About 45 percent of those who died by suicide saw a primary care physician in the thirty days before they died. <sup>8,9</sup> A model known as the "health care neighborhood," coined by Erin Fries Taylor and colleagues, is one example of an expanded model of primary care that could reach more people at risk for suicide. <sup>7</sup>

Indeed, routine screening might detect suicidal individuals during office visits. Gregory E. Simon and colleagues examined the relationship between elevated responses to question 9 on the widely used Patient Health Questionnaire for depression ("thoughts that you would be better off dead, or hurting yourself in some way" in the past two weeks) and suicide deaths. <sup>10</sup> They found a tenfold increase in suicide within the next year for patients reporting frequent thoughts of self-harm, which suggests that treatment and suicide prevention could result from follow-up after routine screening.

Several states have recently linked data on participation in mental health and addiction care with death records; up to a quarter of all those who died by suicide had received publicly funded mental health care in the year or two prior to their death, <sup>11-13</sup> while on average only 2–3 percent of the population is served in these systems. Suicide risk is greatly elevated for people with major mental illnesses (such as depression, schizophrenia, bipolar illness). <sup>14</sup> However, the state data coupled with the developments we discuss in this article suggest that the rate of suicide among patients receiving mental health services can be greatly reduced.

Until very recently, suicide prevention was not defined as a core responsibility of either mental health care or health care, except for inpatient settings. In 1998 the Joint Commission issued a Sentinel Event Alert on inpatient suicide and in 2010 established a National Patient Safety Goal on eliminating inpatient suicide. Then, in February 2016 the Joint Commission signaled a new focus on suicide prevention across health care settings by releasing a new Sentinel Event Alert;15 its aim is to "assist all health care organizations providing both inpatient and outpatient care to better identify and treat individuals with suicidal ideation." Coming from the leading accreditor of hospitals, the alert is a step toward establishing suicide prevention as a health care priority.

There is considerable evidence that suicide prevention in mental health services can be improved. Currently, mental health professionals receive only minimal training on suicide prevention. 16 The routine standard of care is to hospitalize patients at high risk of suicide. Once their risk is judged to be reduced, patients are discharged with guidance to engage in follow-up care. However, while inpatient mental health settings provide treatment for mental disorders, they usually do not directly treat suicidal thoughts or feelings. Additionally, only about half of such patients complete a follow-up outpatient visit within a week, <sup>17</sup> even though the risk of suicide is more than three times as likely the first week after discharge from a psychiatric facility<sup>18</sup> and remains significantly above the base rate throughout the year. 19 Establishing suicide prevention as a priority will require significant changes by health systems and mental health programs in terms of policies, protocols, and staff training.

## Can Improved Health Care Prevent Suicide?

Following the 2001 Institute of Medicine's *Crossing the Quality Chasm* report,<sup>20</sup> the Henry Ford Health System, a nonprofit health care system

located in Detroit, Michigan, began a robust quality improvement program that included efforts to prevent suicide among its patients. The goal of its Perfect Depression Care initiative was "zero defect" mental health care. 21 Stimulated by the call for fundamental changes to improve patient safety, the Henry Ford Health System used deaths by suicide as one measure. Prevention experts Deborah M. Stone and Alex E. Crosby summarized the approach: "This model relied on suicide assessment for all behavioral health patients.... Strategies included means restriction, provider education, follow-up via phone calls, and peer support services."22 "Means restriction" in the context of suicide prevention is efforts to reduce or eliminate means of selfharm. The Henry Ford Health System program reduced the suicide rate among patients receiving behavioral health care from an average of 96 people per 100,000 in 1999–2000 to an average of 24 per 100,000 in 2001-10—a reduction of about 75 percent<sup>23</sup>—signaling that sustained and robust health care improvements might affect suicide rates.

### **Evolving Strategies For Suicide Prevention**

In 2010 secretary of health and human services Kathleen Sebelius and secretary of defense Robert Gates announced the launch of the National Action Alliance for Suicide Prevention, whose mission was to champion suicide prevention as a national priority, update the national strategy, and catalyze new efforts. Several task forces were initiated to review aspects of suicide prevention. One of the first, the Clinical Care and Intervention Task Force, examined the research on detecting and managing suicidality and considered efforts to reduce suicide in health care settings. The task force concluded that there was strong evidence for successfully detecting and managing suicidality in health care. In addition to looking at the work of the Henry Ford Health System, the task force reviewed results of the National Suicide Prevention Lifeline, which showed that supportive contacts (by phone, text message, or letter) reduced suicide among vulnerable individuals.24 The task force also reviewed the Central Arizona Programmatic Suicide Deterrent System Project, which emphasized staff training and protocols to address suicide. The Arizona program was not formally evaluated, but internal data showed reductions in suicide among people receiving behavioral health care.<sup>25</sup>

After considering the available research and these exemplars, the task force concluded that improved suicide prevention care was feasible. It

found that three common factors were key to the successes of these programs. The first is "core values—the belief and commitment that suicide can be eliminated in a population under care...by improving service access and quality and through continuous improvement."25 Next is "systems management—taking systematic steps...to create a culture that no longer finds suicide acceptable, [and] sets aggressive but achievable goals to eliminate suicide attempts and deaths among members."25 Third is "evidence-based clinical care practice—delivered through...standardized risk stratification, targeted evidence-based clinical interventions, accessibility, follow-up and engagement and education of patients, families and health care professionals."25

The task force named the comprehensive approach to suicide prevention that it recommended for health care organizations Zero Suicide, representing both an aspirational goal and a specific set of practices. A care model and implementation toolkit for health care organizations was developed in 2012–14 by the Suicide Prevention Resource Center with the input of innovator sites in New York and Tennessee.

## The Zero Suicide Approach: Elements And Evidence

The Zero Suicide model comprises seven elements, which are described below.

**LEADERSHIP** The top leadership of a health care organization should commit to reducing suicide for people under its care. Leadership implies setting goals, taking action toward goals, and emphasizing suicide prevention as a critical patient safety issue. Because loss of a patient to suicide is traumatic, leadership must create a culture marked both by a commitment to safety and by support for staff members who do the difficult work of caring for suicidal individuals.

The central role of leadership is evident in quality improvement across many fields, including the emerging concept of high reliability. Mark R. Chassin and Jerod M. Loeb argue that leadership must make a commitment to achieving zero patient harm, promoting a culture of safety, and emphasizing evidence-based approaches.<sup>26</sup>

**TRAINING** Providing optimal suicide prevention care requires a competent, confident, and caring workforce, yet credentialed mental health professionals (in addition to health professionals generally) often enter the workforce unprepared to work with suicidal patients. Health care organizations should assess employees' beliefs, training, and skills and should provide training appropriate to staff roles. Staff who in-

teract with patients should be aware of signs of suicidality and know the steps they should take.

ganizations providing ambulatory or inpatient care that seeks to prevent suicide should systematically screen for, identify, and assess suicide risk among people receiving care. As the Joint Commission noted in a recent alert, failure to assess suicide risk was the most common root cause of suicides qualifying as sentinel events. The known risk factors that should trigger screening for suicide include mental illness or substance use diagnoses, psychosocial trauma or conflict, recent loss (for example, a job or the death of a family member), family history of suicide, and personal history of suicide attempts. 15

Credible screening and assessment tools should be incorporated in clinical practice because the use of such tools, coupled with clinical judgment, has been found to be more accurate than clinician judgment alone. <sup>5,27</sup> Concerns uncovered via screening should lead to assessment by a skilled clinician. Suicide risk assessment refers to a comprehensive clinical evaluation to evaluate risk, estimate the immediate danger to the patient, and prepare treatment strategies.

bulatory, emergency, and inpatient health care settings should implement a structured approach or protocol to guide care for patients who are suicidal. Key elements in addition to screening and assessment include active engagement, regular and collaborative safety planning, access to specialty care, and reduced access to lethal means (for example, guns or pills).

A care protocol for patients with high suicide risk is similar to systematic approaches used for other conditions, such as diabetes or high blood pressure. While specific treatment strategies are unique to each condition, a protocol should systematically encourage use of evidence-based approaches for management of each condition.

In the case of suicide, safety planning is one such approach. Safety planning is a brief intervention, collaboratively developed by a clinician and patient, that leads to a prioritized list of coping strategies and supports. The plan might include ways to manage thoughts of suicide between provider visits, steps to reduce access to lethal means, and supports that the patient can access.28 This approach should replace the use of "no-harm contracts," a practice now judged ineffective and perhaps harmful.<sup>29,30</sup> Other actions that should be part of a care protocol for patients with suicidality include an expectation of regular (for example, weekly) contact. Suicide screening protocols and care management expectations should be embedded in the electronic health record and clinical workflow.

EVIDENCE-BASED TREATMENT OF SUICIDALITY Treatment for suicidal patients has typically focused on the underlying mental health disorder in the hope that this will by itself reduce suicidal thoughts and feelings. The evidence now suggests that treatment should also directly target and treat suicidal thoughts and behaviors, using evidence-based interventions. Controlled trials show that cognitive behavior therapy for suicide prevention, dialectical behavior therapy, and collaborative assessment and management of suicidality are more effective than usual care (that is, traditional therapies that seek to treat mental disorders but do not focus explicitly on reducing suicidality) in reducing suicidal thoughts and behaviors.

Cognitive behavioral therapy is based on the assumption that people with problems such as depression lack skills for coping effectively with troubling thoughts or feelings; the therapy teaches them to recognize these thoughts and provides alternative ways to cope. Many studies have demonstrated cognitive behavioral therapy's effectiveness with conditions such as depression and anxiety; 31-33 cognitive behavior therapy for suicide prevention is an adaptation that helps patients directly manage suicidal thoughts and feelings. Research shows that cognitive behavior therapy for suicide prevention results in reductions in suicide attempts and symptoms. 34,35

Dialectical behavior therapy is an adaptation of cognitive behavioral therapy, developed to help patients with chronic suicidality and other behavior problems. This type of therapy has four components: a skills training group, individual treatment, phone coaching, and consultation team meetings. Dialectical behavior therapy is effective in reducing suicidal behavior. Marsha M. Linehan and colleagues found that those receiving it compared to usual counseling programs were significantly less likely to drop out of treatment, attempt suicide, visit psychiatric EDs, or be hospitalized.<sup>36</sup> Evidence suggests that its skills training component is particularly significant for patients who are suicidal.

Collaborative assessment and management of suicidality is an intensive psychological treatment that is suicide-specific, helping patients develop other means of coping and problem solving to replace or eliminate thoughts of suicide as a solution. One of the core values of this treatment is that most suicidal patients can be treated effectively in outpatient settings. Studies of collaborative assessment and management of suicidality show reductions in suicidal ideation, depression, hopelessness, and visits to primary care and EDs.<sup>37</sup>

**PROVISION OF EXCELLENT SUPPORT DURING CARE TRANSITIONS** Isolation is a strong risk factor for suicide. Therefore, successful care transitions are especially important for suicidal patients. Additionally, timely supportive contacts (calls, texts, letters, and visits) should be standard after acute care visits or when services are interrupted (for example, a scheduled visit is missed).

The risk of a suicide attempt or death is highest within the first month after discharge from inpatient or emergency department care.<sup>38</sup> Up to 70 percent of patients who leave the ED after a suicide attempt never attend their first follow-up appointment.<sup>39</sup> And the 2015 national average performance on the Healthcare Effectiveness Data and Information Set (HEDIS) measure for one completed outpatient visit within seven days of discharge from inpatient psychiatric hospitalization was only 51 percent.<sup>40</sup>

Follow-up "caring contacts" with high-risk individuals, such as postcards or letters expressing support, phone calls, and in-person visits, are effective.<sup>39</sup> Such contacts could be completed by ED or inpatient staff, by a crisis call center, or by an outpatient program.

MEASURING OUTCOMES AND CONDUCTING QUALITY IMPROVEMENT The Zero Suicide approach is oriented toward measuring results and improving quality. To assess their performance on suicide prevention, organizations should examine both process measures (for example, screening rates and use of follow-up contacts) and outcomes of care (completed suicides and suicide attempts among people at risk). However, suicides of people under care has not yet been adopted as a national health care measure. Because of this, and because official records of suicide deaths might lag significantly, measurement of suicide rates might be useful primarily as an ultimate measure of safety and quality, instead of for performance improvement.

#### Testing And Early Implementation Of The Zero Suicide Approach

The Zero Suicide approach recommended by the task force was refined, implemented, and tested in 2013–14 by prototype behavioral health and integrated primary care programs. The pilot testing revealed that the approach could be feasibly implemented in ordinary care settings—that is, built into the routine clinical workflow, carried out successfully by current staff, provided without additional funding, and measured successfully.

Preliminary data suggest that Zero Suicide is effective. At Centerstone, a large behavioral

health nonprofit in Tennessee, the baseline rate for suicide before Zero Suicide implementation was 31 people per 100,000; the suicide rate two years into implementation dropped to 11 per 100,000—a reduction of about 65 percent (Becky Stoll, Centerstone, personal communication, February 22, 2016). The Institute for Family Health, a network of community health centers in New York, has not yet completed measurement of death rates but does assess adherence to its suicide care protocol. For example, after a safety-planning template was embedded into the electronic health record and training and monitoring were provided, safety-plan usage by primary care providers for patients with a positive suicide screen increased from 38 percent to 84 percent over two years (Virna Little, Institute for Family Health, personal communication, February 22, 2016).

The Suicide Prevention Resource Center supports implementation of the Zero Suicide approach with a website (http://www.Zero Suicide.com), training for health systems (for example, implementation-focused Zero Suicide academies), learning collaboratives, and webinars. The center also provides tools to assess fidelity and measure progress. More than 200 health care and behavioral health organizations are now implementing Zero Suicide. Implementation is being accelerated in more than a dozen states where state leaders have encouraged adoption of the comprehensive treatment strategy.

Concrete steps such as requiring reporting among health plan members are needed to motivate health systems to adopt suicide prevention. Attention to suicide prevention as a "core goal of health care services" in the updated national strategy<sup>41</sup> and the Joint Commission's recent alert will help stimulate change. SAMHSA has emphasized Zero Suicide approaches in its suicide prevention grant programs, and the National Institute of Mental Health recently released an announcement soliciting research proposals on Zero Suicide. To make suicide prevention a core responsibility of health systems, developing better measures and changing standards of care such as follow-up after discharge will be necessary.

#### Conclusion

Disseminating a new care model is challenging, especially when it requires cultural as well as clinical change. Recent actions to promote suicide safety care by the Joint Commission and federal agencies will begin to establish suicide prevention as a priority in health care. Adequate reimbursement for the clinical activities of suicide prevention care is receding as an obstacle.

Enactment of the Affordable Care Act coupled with the Mental Health Parity and Addiction Equity Act of 2007 expanded coverage and also provided benefits for mental illness and addiction treatment; these benefits will generally pay for the elements of suicide care.

There are many challenges to improving screening, assessment, and basic management of suicidality in general medical settings, including primary care. This is where most patients who subsequently die by suicide are seen, so improving detection in these settings, as the Joint Commission has urged, is important. However, behavioral health care within primary care and other general medical settings is in its infancy. Improving payment for integrated behavioral health services, expansion of the patientcentered medical home model, and patients' preferences for integrated care are likely to increase the integration of care, creating an improved environment for suicide prevention in primary care.

Much work is needed to improve assessment and treatment of suicidality in the behavioral health sector. This is essential because suicidal patients are generally referred to behavioral health providers, who, as discussed earlier, often lack professional training in this area. <sup>16</sup> Additionally, essential aspects of managing and treating suicidality (safety planning, lethal means

reduction, direct treatment of suicidality, and persistent supportive contacts) are not standard in most behavioral health settings. As more states evaluate data on deaths and amend their suicide prevention plans, their attention will turn to improving suicide prevention care in their behavioral health systems; adoption of Zero Suicide is likely to accelerate.

The experience at the Henry Ford Health System and among early adopters demonstrates that implementing improved suicide prevention, along the lines of Zero Suicide, is feasible. Some elements to improve care such as staff training can move quickly. Legislation requiring training in the assessment and treatment of suicidality has been enacted in several states and is under consideration in others.

Other actions such as building a suicide care pathway into electronic health records can be challenging. Measure development is also needed; there are no widely accepted measures for suicidality at this time.

Change does not happen overnight. There is still much to do to turn the tide of suicide deaths but also much to be optimistic about. We hope that this discussion provides options for health care systems that are seeking to transform suicide prevention care and stimulates debate and action to reduce this preventable and tragic form of death.

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