

## Approaching Suicide as a Public Health Issue

Clinicians generally recognize that suicide is a major and increasingly common cause of death, especially in middle-aged men (1). Less familiar to many clinicians, however, is the concept of suicide as a public health issue (2). Many groups have recognized the burden of suicide as a critical public health concern, as shown by, for example, the 2012 release of the National Strategy for Suicide Prevention by the U.S. Surgeon General and the National Action Alliance for Suicide Prevention (3). Integrating clinical knowledge with a public health approach is essential if we are to reduce this tragic and preventable problem.

A public health approach recognizes that the greatest burden of disease may lie in persons who seem to be at lowest risk. This concept is illustrated by the work of the British epidemiologist Geoffrey Rose, who envisioned the greater impact of population-based approaches to prevention than of a reductionist approach focused on treating highly symptomatic persons (4).

In addition, a public health approach to suicide prevention facilitates integration of genetic, neurologic, psychological, and sociocultural factors along with the more well-recognized risk factors of psychiatric diagnoses and a history of suicide attempt. To understand how to prevent suicide, we must first better understand factors that put people at risk for intentional self-harm. To be of greatest utility, studies of suicide risk should be derived from large, longitudinal epidemiologic studies in populations of individuals that do not have an identified psychiatric disorder. In stark contrast, much of our current knowledge about predictive and protective factors comes from small clinical samples of persons with a known psychiatric diagnosis. Furthermore, much of what we know about suicide risk comes from studies that were too small to detect differences in mortality due to suicide and instead largely relied on proxy outcomes, such as suicidal ideation. The limitations of available evidence impair translation of data into evidence-based practices that are likely to have substantial impact at the population level (5).

A clinical guideline recently published in *Annals* (6) and a study reported in this issue (7) are important in that they address suicide prevention from critical and complementary perspectives. Clinical recommendations from the U.S. Preventive Services Task Force focus on the effectiveness of primary care–based screening of adolescents, adults, and older adults without an identified psychiatric disorder. Tsai and colleagues report an exceptional example of a large, longitudinal cohort study of men that examined the relationship of social integration and suicide mortality over 24 years of follow-up. Together, these papers provide valuable insight into the identification of and early intervention for persons who may be at risk for suicide despite the absence of a psychiatric diagnosis.

To date, research has been insufficient to explain why men, especially during middle age, are particularly vulnerable to taking their own lives. The shortcomings of prior studies include lack of longitudinal follow-up, failure to measure such factors as social integration and dimensional indicators of stress, overreliance on categorical measures of psychopathology, and a focus on proxy outcomes instead of death by suicide.

Tsai and colleagues have made a commendable attempt to overcome these deficits. Their prospective study evaluated suicide as the primary outcome in a sample of 34 901 men aged 40 to 75 years over 24 years of follow-up. Two reports by the Institute of Medicine (8, 9) underscore the importance of addressing resilience and psychological well-being in reducing risk for suicide. Tsai and colleagues' study strongly supports social integration as a critical safety net for men during middle age and beyond. Among the study's strengths was the method used to measure the primary exposure of interest: social integration. The researchers used a 7-item index that included marital status, social network size, frequency of contact, religious participation, and participation in other social groups. Extensive sensitivity analyses confirmed that social integration was associated with a more than 2-fold reduction in risk for death by suicide over 24 years of follow-up in this sample.

From an alternative perspective, the U.S. Preventive Services Task Force reviewed the current evidence for the effectiveness of primary care–based screening for suicide risk in a general, asymptomatic population. It concluded that the evidence that such screening will identify at-risk patients who would not have otherwise been identified as high-risk due to an existing psychiatric disorder or previous suicide attempt is insufficient. However, the Task Force recognized the inadequacy of available screening tools, which have "limited ability to predict suicide in an individual at a particular time" (6). It noted that many factors not currently covered in available screening instruments are potential risk factors for suicide, including social isolation, socioeconomic status, and a history of being bullied. We have limited population-based data for these and myriad other sociocultural factors.

These 2 recent articles highlight the dire need to know more about the factors associated with suicide other than psychiatric diagnoses. With such knowledge, it might be possible to develop effective clinical interventions, community-based programs, and screening programs for suicidality. It remains a challenging opportunity for clinicians, epidemiologists, and public health scientists to collaboratively work to gather such knowledge and develop interventions that reduce the burden of suicide.

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