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Increase in US youth suicide rates 2004

Robert M Bossarte¹ and Eric D Caine²

¹ Department of Community Medicine, West Virginia University, Morgantown, WV, USA

² Department of Psychiatry, University of Rochester, New York, NY, USA

In the 9 September 2007 issue of *Morbidity and Mortality Weekly Report*, Lubell *et al* from the Centers for Disease Control and Prevention (CDC) reported an 8% increase in suicide among US youth and young adults from 2003 to 2004—from 6.78. (n = 4232) to 7.32 (n = 4599) per 100 000.¹ The first such change in a decade, it reflected increases in females aged 10–14 and 15–19 years, and males aged 15–19 years. The authors noted an increase in suicides by hanging/suffocation and listed several likely risk factors, including family discord, legal/disciplinary problems, school concerns, and mental health conditions such as depression.^{1 2}

Controversy regarding potential contributing factors followed soon after. Demonstrating an ecological association between the increased rate and a declining rate of prescriptions for selective serotonin reuptake inhibitor (SSRI) antidepressants, Gibbons *et al*³ suggested that the latter was a chilling effect of the 2004 black box warning of the US Food and Drug Administration (FDA) against antidepressant use by adolescents. The FDA's decision to issue a black box warning against SSRI antidepressants was based on secondary analyses of data from industry and NIH-sponsored randomized control trials that identified an increase in suicidal thoughts, plans, or attempts following initiation of pharmacotherapy.⁴ There had been no instances of suicide.

At this time, the relationship between SSRI prescriptions and suicide in large populations is not clear.^{5–8} This was underscored by the recent review by Baldessarini *et al*⁹ which found equivocal evidence when examining all available “ecological studies” that have sought to tie changes in prescription rates to changes in national or regional suicide rates. Studies of large clinical populations, whether taken from insurance company records or community databases, have also given equivocal or contradictory impressions.

As one considers the 2004 increase in youth suicide, it is important to recognize that homicide (ages 25–34 and 45–54 years) and unintentional poisoning (age 20 years and under) have also been increasing in recent years.^{9a} Suicide among youth must be viewed in a larger context beyond psychopathology and psychiatric drugs, especially in company with other adverse events that share common risk factors. Although it is very plausible that vulnerable people in the population suffer drug-related toxicity as a factor that contributes to so-called “suicidality,” and perhaps to suicide, it is very important to distinguish between thoughts, plans, or attempts and deaths.

According to estimates made using data from CDC's nationally representative Youth Risk Behavior Survey for 2003, ~16.9% of adolescents of high school age reported seriously

Correspondence to: Dr R M Bossarte, Department of Community Medicine, West Virginia University, Morgantown, WV 26506, USA; rbossarte@hsc.wvu.edu.

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considering making a suicide attempt, and 8.5% reported attempting suicide at least once.¹⁰ That same year, 1487 adolescents aged 15–19 years (7.3 per 100 000) died from suicide.¹¹ Although suicidal ideation and suicide attempts are risk factors that require early identification and intervention,¹² they are not specific predictors. Ideation and attempts are far more common among adolescents than adults or elders, even as suicide rates climb into adulthood and are highest in later life. Overall they may be a better marker of psychological distress than intent to die.^{13–16}

The reported changes in 2004 must serve as a “red flag” to alert us to the urgent need for improved surveillance¹⁷ and for more diversely representative psychological autopsy and context-specific studies. The National Violent Death Reporting System (NVDRS), a compilation of official data sources that relies heavily on police records and criminal investigations, can provide one source of improved information—if it is expanded to all 50 states as well as US territories.^{18–20} Given its data sources, however, NVDRS alone cannot provide sufficient data to advance our understanding of the risk of death from suicide. It offers few data on interpersonal dynamics, personality profiles, barriers to health service utilization, or detailed medical histories.

Indeed, a continued reliance on population-level risk characteristics to address an outcome that is inherently multidimensional and interactive will fall short of meeting the needs of the suicide research and prevention community.²¹ Risk of death from suicide is not evenly distributed across individuals, groups, or geographic areas, and consideration of relevant risk factors should include individual, family, and community level factors.^{22–24} Characteristics such as interpersonal violence (both victimization and perpetration), psychosocial resources, and relationship dynamics all contribute to differential risk of suicide among adolescents, adults, elders, women, and men, and must be considered in research and intervention development. For example, suicide in rural areas has been shown to be increasing in contrast with a downward trend observed in most urban areas.^{25–27}

Carefully designed research, including in-depth psychological autopsy studies, will be necessary to learn about suicide among youth, ethnically and culturally diverse groups, women, and populations that inhabit distinctive geographic regions. Without these investigations, it will not be possible to establish the foundation for future work that will seek to examine the relative contributions to suicide of genetic, molecular, cultural, social, experiential, psychological, and psychopathological factors. Ultimately, we will need such integrative understanding to optimally prevent these untimely deaths.

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