

Suicide is death caused by self-directed injurious behavior with intent to die.¹ Suicide is a complex and preventable multi-factor, multi-level health outcome. Effective prevention requires understanding data such as who is at risk and the factors associated with suicide. This fact sheet shares data on the means of carrying out a suicide act, also referred to as mechanisms of suicide (e.g., firearm, poisoning, and suffocation). Case fatality rates for means of suicide are also included. This fact sheet is intended to guide comprehensive suicide prevention programs and provides:

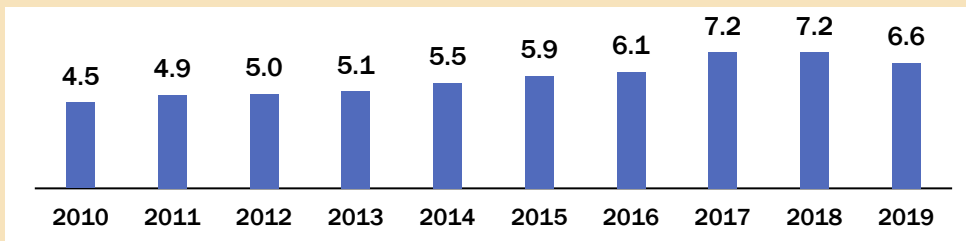
- Data on adolescent suicide rates among U.S. adolescents aged 10-19 years
- Data on means of suicide among U.S. adolescents aged 10-19 years
- Resources and guidance for adolescent suicide prevention

This fact sheet can help guide the work of prevention programming by informing where and how interventions may be targeted to reduce adolescent suicide.

Data on Adolescent Suicide

Suicide is the second leading cause of death in adolescents aged 10-19 years, claiming the lives of approximately 3,000 adolescents each year.² Death by suicide exerts a heavy emotional, physical, and economic toll on families and communities. According to one estimate, approximately 135 people are affected by each suicide death.³

Suicide Rate Per 100,000, U.S. Adolescents Aged 10-19



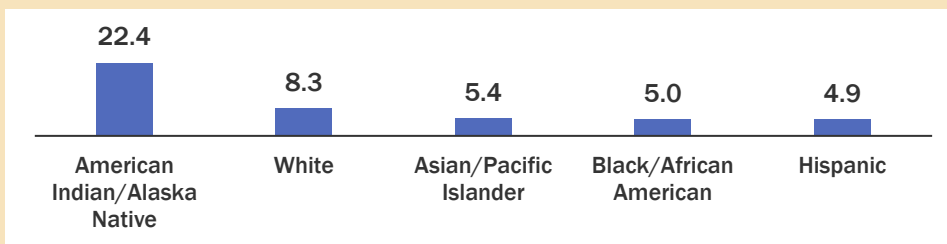
Data Source: National Center for Health Statistics (NCHS), Multiple Cause of Death, 2010-2019

The rate for adolescent suicide increased dramatically from 4.5 deaths per 100,000 in 2010 to 6.6 in 2019.

This increasing trend is statistically significant, representing on average about 5.3 percent change annually.

Nationally, the suicide death rate is 6.6 per 100,000 adolescents. However, certain groups experience a disproportionate rate of suicide.

Suicide Rate Per 100,000, U.S. Adolescents Aged 10-19 by Race/Ethnicity



Data Source: NCHS, Multiple Cause of Death, 2017-2019

The suicide death rate is highest for American Indian/Alaska Native (AI/AN) adolescents at nearly 2.5 times the rate for White adolescents.

¹ National Institute of Mental Health, 2020

² Centers for Disease Control and Prevention, 2020

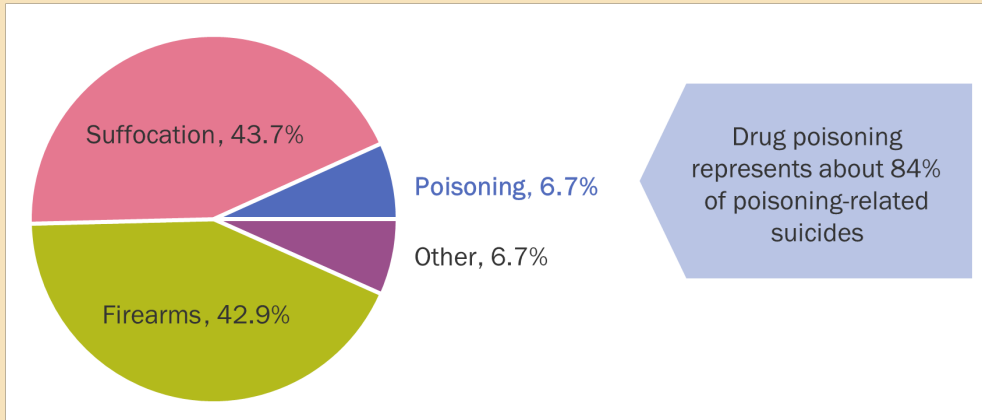
³ Cerel et al., 2019

Means of Adolescent Suicide

Among U.S. adolescents, the most common means of carrying out a suicide act are:

- Suffocation
- Firearms
- Poisoning

Adolescent Deaths by Suicide Mean



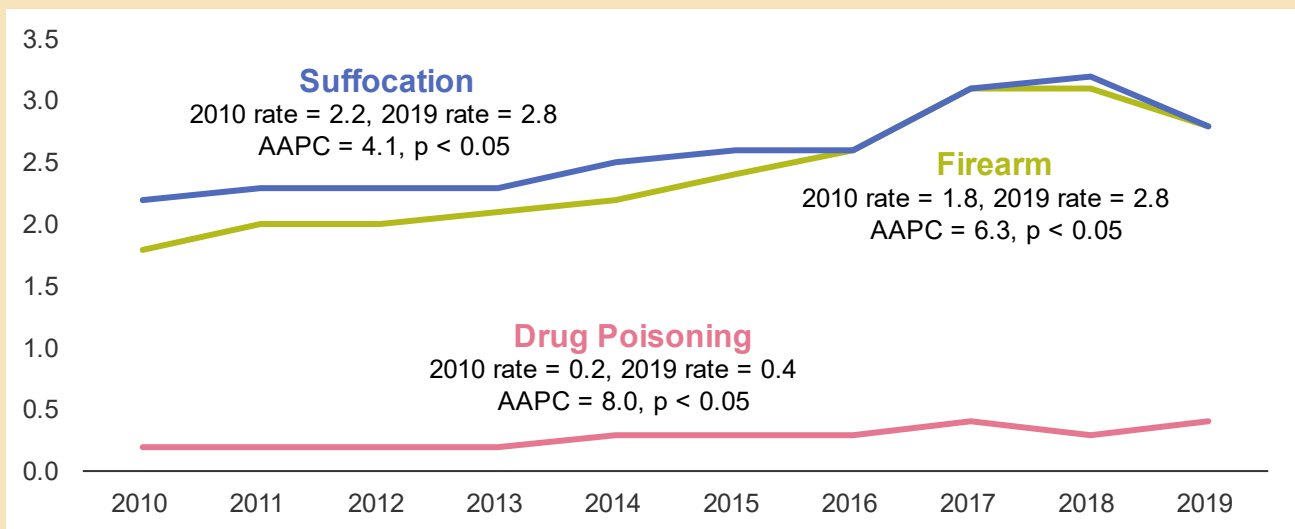
Slightly more than 93% of all adolescent suicides are attributable to three means—suffocation (43.7%), firearms (42.9%), and poisoning (6.7%).

Note: Other means of suicide include drowning, fall, and other specified or classified.

Data Source: NCHS, Multiple Cause of Death, 2017-2019

From 2010 to 2019, the suicide death rate by firearms increased 56% among adolescents in the U.S. The growth is about 6.3% per year on average. The rates have increased by approximately 27% for suffocation and doubled for drug poisoning. For suffocation, the growth rate is about 4.1% per year on average, and for drug poisoning it is about 8.0% per year on average.

Suicide Death Rate Per 100,000 Adolescents Aged 10-19, US 2009-2018



AAPC = Average Annual Percent Change; $p < 0.05$ denotes a statistically significant trend.

Data Source: NCHS, Multiple Cause of Death, 2017-2019

Case Fatality Rate by Suicide Means

Suicide Mean	Case Fatality Rate
Firearm	78.0%
Suffocation	57.1%
Drug Poisoning	0.2%

Data Sources: NCHS, *Multiple Cause of Death, 2018*;
Healthcare Cost and Utilization Project, 2018

Suicide death rates by mean are a function of several factors, including the lethality of means. Firearms are the most fatal method. Case fatality ratios (i.e., a measure of the proportion of cases that are fatal) were highest if suicidal means were firearms (78.0%) and suffocation (57.1%).

Guidance for Suicide Prevention

Comprehensive suicide prevention efforts are needed to address risk and protective factors at the levels of the individual, home/family, neighborhood, and larger social environment (e.g., schools, health care system).^{4,5,6}

Guidance for Preventing Adolescent Suicide

Focus on homes in prevention efforts. Common means used by adolescents to commit a suicide act often involve means found in the adolescents' homes.

Restrict access to lethal means. Lifesaving approaches may include:

- Safe storage of guns, which includes use of a gun safe or gun lock and bullets stored separately
- Disposing of leftover drugs, tracking family's medications, and blister-packing all opioids and other potentially lethal drugs, including prescribed and over-the-counter medications
- Installing break-away closet bars and lowering the height of anchor points to prevent suffocation

Train and support providers, hotline workers, practitioners, and caregivers around means of suicide, regular screening for suicide risk, and how to work with adolescents and caregivers on lethal means safety

Promote evidence-based practices, such as

- Social support and connectedness
- Access to health services
- Development of life skills
- Development of interpersonal social-emotional skills

Reduce stigma around help-seeking behavior

Focus on a comprehensive approach that uses multiple strategies to reduce risk factors and increase protective factors

Use an equity lens to address suicide disparities

⁴ Office of the Surgeon General and National Action Alliance for Suicide Prevention, 2012

⁵ Scott, Azrael, & Miller, 2018

⁶ Stone et al., 2017

Suicide Prevention Resources

[Suicide and Self-Harm Prevention Change Package \(Children's Safety Network\)](#)

This change package uses a driver diagram to identify key drivers and select evidence-based or evidence-informed strategies and programs to prevent adolescent suicide. The change package also provides recommended measures to monitor program improvement.

[Preventing Suicide: A Technical Package of Policies, Programs, and Practices \(Centers for Disease Control and Prevention\)](#)

This suicide prevention technical package includes strategies based on the best available evidence to prevent suicide. The package emphasizes the importance of providing access and delivery of suicide care, creating protective environments, promoting connectedness, teaching coping and problem-solving skills, identifying and supporting people at risk, and lessening harms and preventing future risk.

[Crisis Text Line:](#)

Text HOME to 741741

[National Strategy for Suicide Prevention \(Office of the Surgeon General, U.S. Department of Health & Human Services\)](#)

This report guides suicide prevention actions in the U.S. It focuses on four strategic directions with 13 goals and 60 objectives meant to work together in a synergistic way to prevent suicide in the nation.

[Suicide Best Practices: National Center Guidance Report \(National Center for Fatality Review and Prevention\)](#)

This resource highlights health equity consideration in suicide prevention work. It includes key questions and considerations for groups working to reduce suicide among children and adolescents.

[Suicide Prevention Resource Center](#)

Provides comprehensive resources and information on suicide prevention in diverse settings and populations, including extensive information on lethal means safety and youth suicide prevention.

[National Suicide Prevention Lifeline:](#)

800-273-TALK (8255)

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