

Pain in the Nation: The Epidemics of Alcohol, Drug, and Suicide Deaths

2023

SPECIAL FEATURE: Youth Mental Health and Well-Being



Acknowledgments

Trust for America's Health (TFAH) is a nonprofit, nonpartisan public health policy, research, and advocacy organization that promotes optimal health for every person and community, and makes the prevention of illness and injury a national priority.

In 2017, TFAH, working with Well Being Trust, created the *Pain in the Nation* initiative to report on the alcohol, drug, and suicide deaths crisis in America and to propose solutions. In 2022, Well Being Trust completed its involvement in the project. The *Pain in the Nation* initiative is now solely managed by Trust for America's Health.

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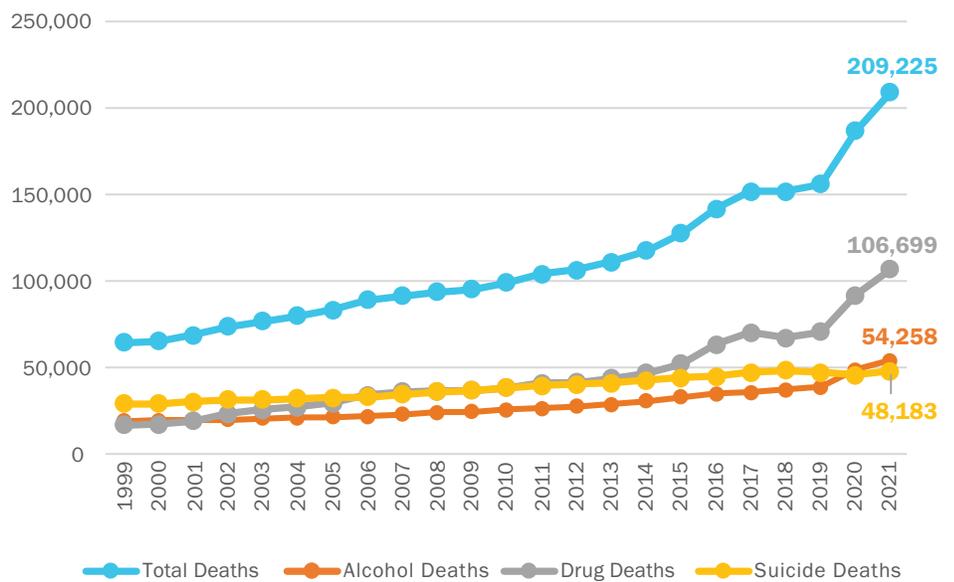
Pain in the Nation: *The Epidemics of Alcohol, Drug, and Suicide Deaths*

Pain in the Nation:
The Epidemics of Alcohol, Drug, and Suicide Deaths

Introduction

Deaths from alcohol, drugs, and suicide in the United States have risen alarmingly over the past two decades and exponentially in recent years. Between 2011 and 2021, annual deaths have more than doubled—rising from an already startling figure of 104,379 deaths in 2011 to a staggering 209,225 deaths in 2021.¹ Most of that increase was due to rising drug overdoses—although alcohol-induced deaths have increased substantially, and, to a lesser degree, suicide deaths have risen as well. The combined rate of alcohol, drug, and suicide deaths increased by 11 percent from 2020 to 2021, and included all age, sex, racial/ethnic, and geographic groups.

Figure 1: Annual Deaths from Alcohol, Drugs, and Suicide in the United States, 1999–2021



Source: TFAH analysis of National Center for Health Statistics data

The increases between 2011 and 2021 included a 65 percent rise in the rate of alcohol, drug, and suicide deaths among youth ages 10 to 17, along with rising rates of poor mental health and suicidal behavior. In contrast with overall trends, an increase in suicide deaths—rather than drugs or alcohol—has been the primary driver for the increase in youth mortality. Between 2010 and 2021, suicide rates for youth ages 10 to 17 increased 71 percent, and, within this age group, doubled for girls, Asian and Pacific Islander youth, and youth living in the South. These poor long-term trends have been exacerbated by the social, economic, and health impacts of the COVID-19 pandemic—as well as other emerging issues like social media, climate change, and gun

violence. These crises among America’s youth demand additional attention and action at the local, state, and national level. There are evidence-based policies that can address and reverse current trends and, with forward-looking investment, improve health and well-being for generations to come.

This brief includes three sections: (1) a special feature on youth mental health, well-being, and suicidal behaviors; (2) a review of the latest mortality trends from alcohol, drugs, and suicide for all groups; and (3) an outline of key policy recommendations that, if implemented, can reduce alcohol, drug, and suicide deaths in the country and promote well-being for all Americans.



SUMMARY RECOMMENDATIONS

Trust for America's Health (TFAH) calls for a multifaceted approach to reduce alcohol, drug, and suicide deaths and to improve mental health and well-being for all Americans. These recommendations focus on actionable items in three areas and are primarily aimed at federal and state governments. A summary of recommendations follows; the full recommendations begin on page 30.

Invest in Prevention and Conditions that Promote Health

- Support policies and programs that reduce adverse childhood experiences and the impact of trauma.
- Increase federal funding for substance misuse prevention, mental health, and resiliency programs and staff in schools across the country.
- Boost access to early prevention and family-support programs.
- Bolster the continuum of crisis-intervention programs and supports, including through the 988 Suicide and Crisis Lifeline.
- Expand comprehensive suicide prevention efforts.
- Support youth-serving programs that adopt trauma-informed and culturally and linguistically appropriate policies and practices, including in the juvenile justice system.
- Limit access to lethal means of suicide among individuals who are at risk for negative mental health outcomes through state and federal laws, increased funding of foundational research, and the adoption of counseling programs in healthcare systems.
- Promote policies and programs to address social determinants of health.

Prevent Substance Misuse and Overdose

- Target the prevention of substance misuse among youth with additional support for the Drug-Free Communities Support Program and direct funding from opioid litigation settlements to the primary prevention of youth substance misuse.

- Implement policies targeting psychostimulant use that complement current opioid-focused policies.
- Promote harm-reduction approaches to reduce overdose and blood-borne infections, including increased access to syringe service programs, naloxone, and fentanyl test strips.
- Reduce the availability of illicit drugs and unnecessary prescriptions through responsible opioid prescribing practices and hotspot monitoring for overdoses.
- Lower excessive alcohol use through evidence-based policies.

Transform the Mental Health and Substance Use Prevention System

- Promote equity in mental health, including through workforce diversity and culturally and linguistically appropriate services.
- Modernize mental health and substance use services by aligning healthcare provider payment, quality measures, service delivery, and training toward clinical models focused on the whole health of individuals.
- Increase access to mental health and substance use healthcare through full enforcement of the Mental Health Parity and Addiction Equity Act.
- Expand the mental health and substance use treatment workforce and build community capacity for treatment.
- Improve data accuracy, completeness, and timeliness through innovation and additional federal funding.
- Strengthen capacity to address the behavioral health impacts of climate change and weather-related disaster.
- Expand efforts to combat stigma and improve social attitudes toward mental healthcare.

SPECIAL FEATURE: Youth Mental Health and Well-Being

The mental health and well-being of America's youth has been a serious concern in recent years, in part due to alarming mental health and suicide trends for more than a decade, starting before the COVID-19 pandemic. Rates of poor mental health and suicide have risen across youth populations, though certain groups have seen larger increases. The pandemic and other emerging stressors have also heightened these issues for many young Americans. This section explores recent data on youth mental health, suicidal behaviors, and mortality, including deeper examinations of the experiences of American Indian and Alaska Native (AI/AN) youth and lesbian, gay, bisexual, transgender, and queer/questioning (LGBTQ) youth; the COVID-19 pandemic and other new stressors; as well as risk and protective factors related to mental health and suicide that should be considered in policymaking.



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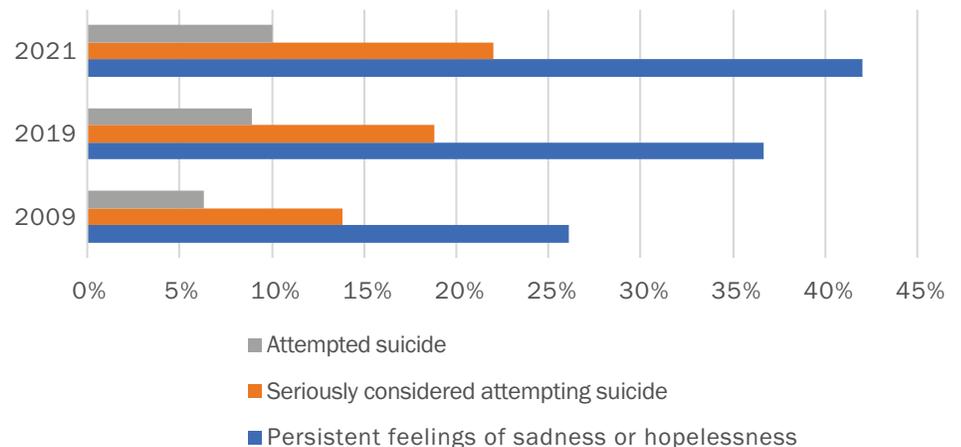
Youth Data and Trends

Mental health and suicidal behavior trends

The Centers for Disease Control and Prevention’s (CDC) Youth Risk Behavior Survey (YRBS) has tracked the behaviors and experiences of high school students since 1991. While several risk factors tracked in these surveys have declined (e.g., substance use) or remained stable (e.g., electronic bullying) among high schoolers in

recent years, poor mental health and suicidal behaviors (i.e., suicide ideation, planning, and attempts) have increased. Between 2009 and 2019, YRBS found significant increases in the number of high schoolers who reported persistent feelings of sadness or hopelessness, seriously considered attempting suicide, and attempted suicide in the past year.^{2,3}

Figure 2: Percent of American High Schoolers Experiencing Poor Mental Health and Suicidal Behaviors in 2009, 2019, and 2021

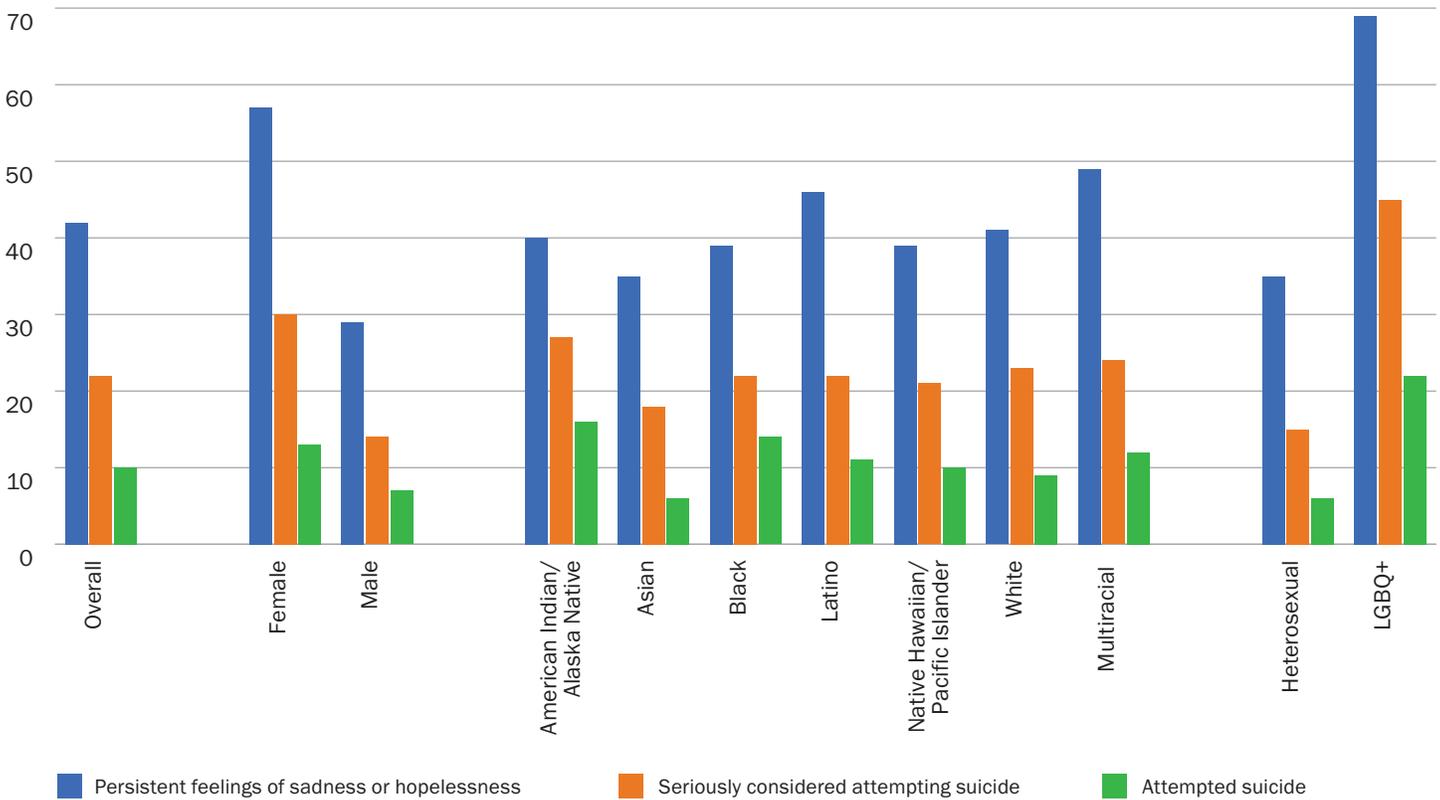


Source: Youth Risk Behavior Survey, CDC

The 2021 YRBS—the most recent survey available and the first reflecting the impact of the COVID-19 pandemic—saw the poor trends continue. The survey found a substantial increase in the percentage of high school students who experienced persistent feelings of sadness in the past year, jumping from 37 percent in 2019 to 42 percent of high schoolers in 2021. The 2021 YRBS also found 22 percent of high schoolers had

seriously considered attempting suicide, an increase over 2019, and 10 percent had attempted suicide, slightly higher than in 2019. High schoolers who were female; AI/AN, Black, Latino, and multiracial; and LGB, questioning, and other non-heterosexual orientations had the highest rates of poor mental health and/or suicidal behaviors as compared with other groups in 2021.^{4,5}

FIGURE 3: Percent of American High Schoolers Experiencing Poor Mental Health and Suicidal Behaviors, Overall and by Select Demographics, 2021



Source: Youth Risk Behavior Survey, CDC

Several other studies looked specifically at any changes in the rate of emergency mental health crises and suicide attempts among youth during the pandemic:

- One CDC study researching emergency department visits found that, after an initial decline early in the pandemic, suspected suicide attempts among adolescents began to increase in May 2020—shortly after the beginning of the pandemic—and remained higher throughout 2021. The increase was particularly high among girls.⁶
- Another CDC study found that during the weeks of February 21 to March 20, 2021, suspected suicide attempts were 51 percent higher among girls ages 12 to 17 than during the same period in 2019; among boys ages 12 to 17 years, suspected suicide attempts increased 4 percent.⁷
- A separate study of emergency department visits at a children’s hospital from 2018 to 2020 found that the proportion of emergency visits for mental health conditions increased during the COVID-19 pandemic.⁸
- Finally, a study looking specifically at rural youth likewise found that pediatric emergency department visits for suicide or self-harm for rural youth increased significantly after the onset of the pandemic.⁹

EXPERIENCES OF LGBTQ YOUTH

While the experiences of LGBTQ individuals are not always separately reported in national surveys and records, available surveys and research consistently find that LGBTQ individuals have higher rates of mental health issues, substance use, and suicidal behaviors than heterosexual individuals. Research suggests that these differences are linked to stigma, discrimination, victimization, and family disapproval.^{10,11,12,13,14}

LGBTQ youth likewise have higher rates of mental health issues, substance use, and suicidal behaviors. CDC's 2021 YRBS found that, within the past year, 69 percent of high schoolers in the United States who were LGB, questioning and other non-heterosexual orientations reported persistent feelings of sadness or hopelessness (twice the rate of heterosexual high schoolers), 45 percent seriously considered attempting suicide (three times the rate of heterosexual high schoolers), and 22 percent attempted suicide (more than 3.5 times the rate of heterosexual high schoolers).^{15,16} (Note: 2021 YRBS does not include questions about gender identity.)

Victimization, stigma, and discrimination can take many forms that harm the mental health of LGBTQ youth. A 2016 study linked higher risk of suicidality in non-heterosexual American high schoolers to experiences with victimization at school—specifically, being threatened or injured with a weapon or being harassed due to sexual orientation/gender identity in school were associated with higher rates of suicidal behaviors.¹⁷

An analysis of texts to the Crisis Text Line found a small but statistically significant increase in texts from LGBTQ youth in states where anti-LGBTQ legislation was offered—notably, in the four weeks after the legislation was proposed.¹⁸

Compared with their heterosexual peers, gay, lesbian, bisexual, and questioning high school students were:

2x Two times as likely to report persistent feelings of sadness or hopelessness

3x 3 times as likely to seriously consider attempting suicide

3.7x 3.7 times as likely to attempt suicide

Source: Youth Risk Behavior Survey, CDC, 2021

Within the LGBTQ community, transgender and non-binary youth are at particularly high risk for poor mental health and suicidal behaviors, though even less data are available on their experiences. One 2020 study of American youth and young adults ages 13 to 24 found a higher risk of depressed mood, serious considerations of suicide, and suicide attempts for transgender individuals compared with cisgender LGBQ youth. The higher risk for transgender individuals may be linked to higher rates of discrimination and physical threats/harm that is perceived to be due to sexual orientation or gender identity, though these factors do not account for all differences in outcomes.¹⁹

One key protective factor for LGBTQ youth is acceptance by family.²⁰ The Trevor Project's 2022 annual survey found LGBTQ youth reported lower rates of attempting suicide when they felt more supported by their friends and family.²¹

YOUTH MENTAL HEALTH AND SUICIDE IN NATIVE COMMUNITIES

The youth population in Native communities in the United States has alarmingly high rates of poor mental health, suicidal behaviors, and death by suicide. AI/AN high schoolers, for example, reported very high rates of poor mental health and suicidal behaviors, including much higher rates of attempted suicide compared with their peer groups. The 2021 YRBS found one in six AI/AN high school students attempted suicide in the prior year.²²

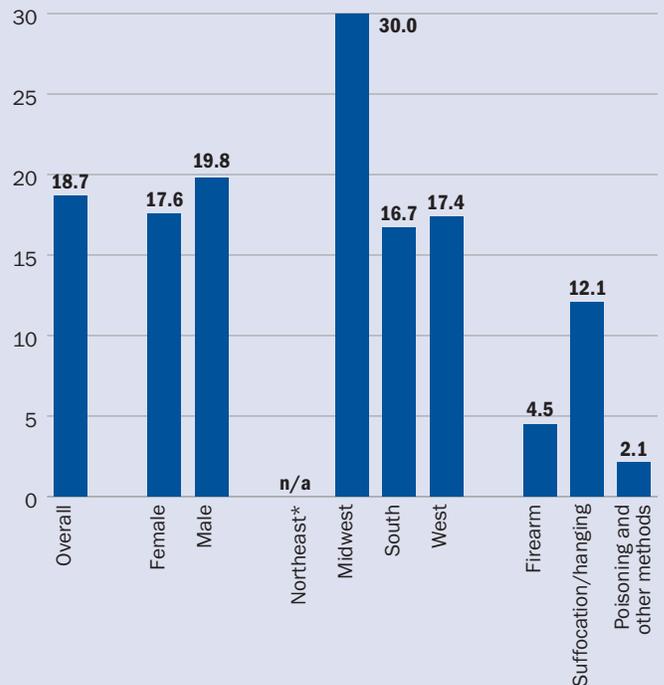
AI/AN youth also consistently have the highest rates of suicide mortality for youth across all racial/ethnic groups. In 2021, there were 18.7 deaths per 100,000 AI/AN youth ages 10 to 17, more than three times the overall youth suicide rate. Several other suicide-related trends occur in the AI/AN youth population that are distinct from other peer groups, including:

- The suicide rate among AI/AN girls ages 10 to 17 (17.6 per 100,000 in 2021) is only slightly lower than the rate for AI/AN boys ages 10 to 17 (19.8 per 100,000). For overall youth suicide rates, girls had less than half the rate of boys in 2021.
- Suicide rates of AI/AN youth in the Midwest region is extremely high (30 per 100,000) and substantially higher than the rate of the South and West regions. (Note: The Northeast region does not have sufficient data for comparison.)
- 65 percent of suicides by AI/AN youth ages 10 to 17 in 2021 were by suffocation/hanging, a much higher ratio than in other youth race/ethnic groups in the United States. The rate of suffocation/hanging suicides is higher in adult AI/AN populations compared with other race/ethnic groups as well.

Importantly, substantial differences in suicide also exist between AI/AN tribes. For example, studies have found that Apache and Alaska Native youth have significantly higher rates of suicide than the overall AI/AN population, and another study found different patterns in suicide attempts by gender in some Alaska Native populations as compared with the overall U.S. population and overall AI/AN population.^{23,24,25}

The Indian Health Service points to higher rates of mental health and substance use disorders, intergenerational trauma, and community-wide issues as factors contributing to higher suicide rates among AI/AN populations. Protective factors for AI/AN youth include a “sense of belonging to one’s culture, a strong tribal/spiritual bond, the opportunity to discuss problems with family or friends, feeling connected to family, and positive emotional

FIGURE 4: Suicide Mortality Rate (Deaths per 100,000) for American Indian and Alaska Native Youth Ages 10–17, Overall and by Select Demographics and Geography, 2021



*Northeast region does not have sufficient data for comparison.
Source: TFAH analysis of National Center for Health Statistics data

health.”²⁶ The National Indian Council on Aging also points to several social factors underlying high suicide rates in Native communities, including disproportionately high levels of violence that female AI/AN individuals experience, historical disenfranchisement through genocide and institutional racism, and poorer health and socioeconomic conditions in AI/AN communities.²⁷

The Suicide Prevention Resource Center stresses the need for culturally competent approaches to suicide prevention that are tailored to and that respect culture, belief, practices, and linguistic needs.²⁸ Some communities and tribes, along with researchers, have developed frameworks to understand suicide risk in AI/AN communities and to improve suicide-prevention efforts by identifying and strengthening individual and community resilience.²⁹ CDC’s suicide-prevention programs include a tribe-focused initiative that funds tribal organizations so that they can tailor evidence-based programs to their communities and fill in the gaps in current suicide-prevention programs.³⁰

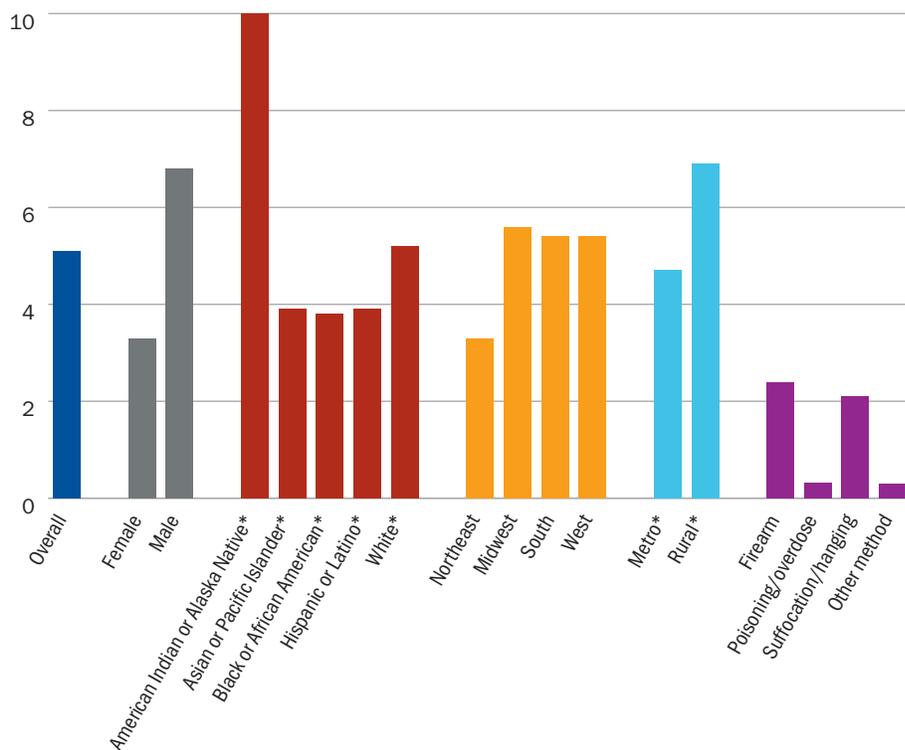
Mortality trends

Over the past decade, there has been a large increase in the rate of alcohol, drug, and suicide deaths across age and demographic groups in the United States, including among youth ages 10 to 17. An increasing suicide rate is the primary driver for the increase among youth in the United States.

After a decade of stability in the 2000s, suicide among all youth ages 10 to 17

increased 71 percent between 2010 and 2021—from 3.0 to 5.1 deaths per 100,000. The 2021 death rate was slightly lower than 2018, when it peaked at 5.5 deaths per 100,000. While higher suicide mortality rates exist among older age groups, suicide is the second leading cause of death for youth ages 10 to 17—making up 25 percent of all deaths for this age group in 2020.³¹

FIGURE 5: Suicide Mortality Rate (Deaths per 100,000) for Youth Ages 10–17, Overall and by Select Characteristics, 2021



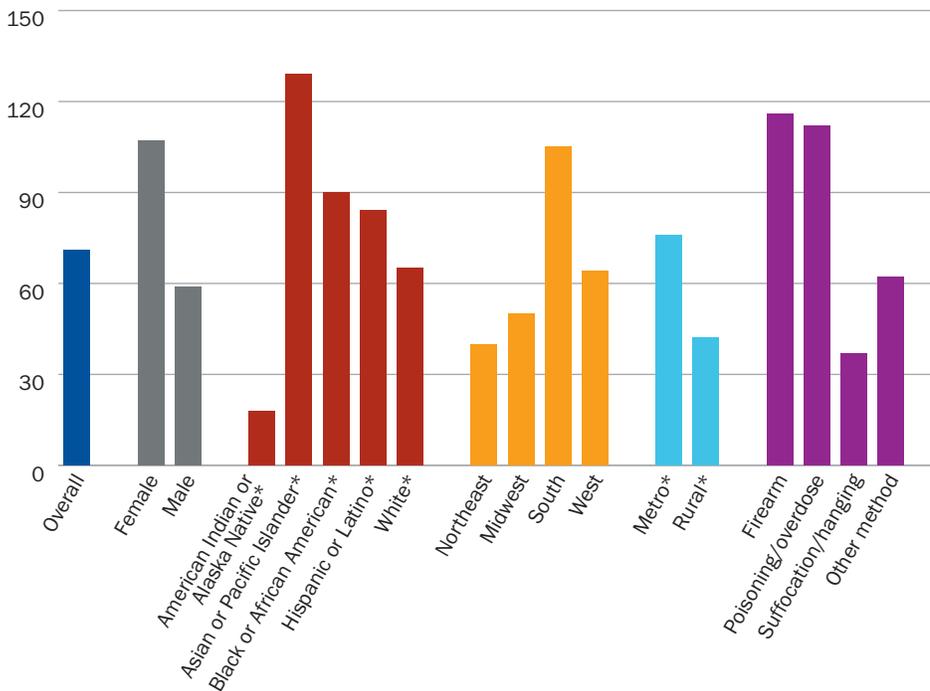
*Comparative data for 2021 is not available for certain demographic categories and 2020 data is used as a substitute.

Source: TFAH analysis of National Center for Health Statistics data

Certain groups of youth have particularly high rates of suicide, including boys, AI/AN people, and those living in rural areas. Recent increases have crossed demographics, geography, and method of suicide, but the biggest increases have often

occurred in populations with historically lower suicide mortality—with notably high increases among girls; Asian, Black, and Latino youth; and youth living in the South. The rate of suicide by firearm also increased substantially.

FIGURE 6: Percent Change in Suicide Morality for Youth Ages 10–17, Overall and by Select Characteristics, 2010–2021



*Comparative data for 2021 is not available for certain demographic categories and 2020 data is used as a substitute.

Source: TFAH analysis of National Center for Health Statistics data

The rate of youth deaths from drug overdoses has also increased—though the rise is focused in the last few years. After a decade of a relatively steady mortality rate for drug overdoses among youth ages 10 to 17 (there were 0.9 deaths per 100,000 in 2010 and 2019), there was a 93 percent increase from 2019 to 2020 (to 1.7 deaths per 100,000) and another, smaller increase from 2020 to 2021 (to 1.9 deaths per 100,000). According to both YRBS and the National Institute on Drug Abuse’s Monitoring the Future survey, substance use among adolescents in the United States has declined over the past decade, including the most recent years when youth drug overdoses increased.^{32,33} Together an increase in overdose mortality and a decrease in substance use suggest that an

increasingly dangerous drug supply is a major driver. A 2022 CDC study looking at the circumstances of drug overdose deaths among youth ages 10 to 19 found that, in 2021, illicit fentanyl was involved in 84 percent and counterfeit pills in 25 percent of the youth drug overdose deaths studied. The study also provided additional context about the circumstances of these overdose deaths and the youth who died: 67 percent of deaths had a bystander present; 61 percent of deaths occurred at home; 41 percent of youth who died had a history of mental health conditions or mental health treatment; 35 percent of youth who died had a known opioid use history; and 30 percent of deaths involved an attempt at naloxone administration.³⁴

COVID-19 and Other New Stressors

The disruption, trauma, and loss from the COVID-19 pandemic touched youth, families, and communities across the country. While children and adolescents have lower risk of severe COVID-19 illness than adults, young Americans experienced significant secondary effects, including economic and financial impact in families, school closure and isolation, and parental/caregiver loss.^{35,36}

The pandemic had a substantial economic impact on families with children. An American Academy of Pediatrics survey found that almost half of parents and caregivers of children under age 18 experienced a change in employment in 2020, stemming from either job loss, furlough, or reduced hours by employer, or reduced hours by the parent/caregiver to provide care to family members. Half of families reported receiving support from public programs in 2020—including health insurance coverage, income assistance (e.g. Temporary Assistance for Needy Families), and food and nutrition assistance (e.g. food banks, Supplemental Nutrition Assistance Program, and Special Supplemental Nutrition Program for Women, Infants, and Children)—that helped sustain their finances. Still, many families' finances were negatively impacted, with 40 percent of surveyed families reporting a negative change on household finances in 2020.³⁷ The economic impacts disproportionately hurt certain populations—with Black and Latino households more likely to experience job loss during the pandemic's resulting recession, hold essential jobs that required work outside of the home, and have higher rates of food insecurity.^{38,39,40} Economic hardship and insecurity is associated with more family conflicts and higher rates of child abuse and neglect, and inconsistent access to food, transportation, and housing, all of which are adverse childhood experiences (ACE).^{41,42}

Social distancing to reduce the spread of COVID-19 also affected youth in important ways. School closures impacted academic/educational progress, limited socialization and peer relationships, and reduced school-based services and supports (e.g., counseling services, breakfast and lunch meal programs, physical education, and child abuse reporting).^{43,44,45} Many of these experiences varied by population, with some groups affected more than others. For example, Black and Latino youth had less access to internet and online learning, and lower rates of full-time, in-person schooling as of April 2021; and there were extra challenges around remote learning for students with disabilities and those learning English.^{46,47,48,49} Historical studies suggest that social isolation and loneliness can increase the risk of depression in children and adolescents.⁵⁰

Finally, many children lost a parent or caregiver to COVID-19. Researchers estimate more than 260,000 American children lost a parent or primary caregiver to the pandemic, and another 40,000 lost a secondary caregiver. These losses were 3.9 times higher for AI/AN youth, 2.1 times higher for Black youth, and 1.5 higher for Latino youth as compared with white youth.⁵¹ Losing a parent or caregiver is an ACE and is associated with increased risks of a range of negative health outcomes,

including suicide, as well as negative impacts on educational and economic opportunities later in life.^{52,53,54,55}

In addition to the COVID-19 pandemic, other emerging issues—social media pressures, impacts of climate change and extreme weather events, and the perpetual risk of gun violence—have had systematic effects on the mental health and well-being of younger generations:

- Social media includes a broad array of platforms and products. At its best, it can create communities and facilitate meaningful connections, but it can also expose youth to bullying, harm their self-image, and promote and enable unhealthy and risky behaviors, including disordered eating and purchasing illicit drugs.⁵⁶ The 2021 YRBS found one in six high schoolers experienced electronic bullying during the previous year.⁵⁷ Many other studies have examined the links between social media and youth mental health and well-being—some finding increases in eating disorders, anxiety, depression, and self-harm, while others finding no major impact on well-being for the majority of youth.⁵⁸ Additional research is needed to understand which youth are at risk on social media, what platforms or uses cause harm, and what steps social media companies and policymakers can take to create safe environments for all youth users.
- Climate change can impact mental health directly (e.g., through traumatic extreme weather events like hurricanes and floods that are linked to climate change, or mental health impacts related to longer-term increases in heat, drought, and air pollution) and indirectly (e.g., thinking about climate change or worrying about the future due to media coverage or perceiving changes to the environment).⁵⁹ One systemic review on the impacts on



young people found studies that linked climate change experiences to higher risks for mental health conditions like post-traumatic stress disorder, depression, and anxiety, as well as suicide for young people. Indirect effects are also linked to increased feelings of concern, anxiety, or loss, and these feelings are higher for young people. The review found that key protective factors for young people with direct experiences include coping strategies, social support, community connection, and cultural identity.⁶⁰

- A number of studies looking at exposure to gun violence (e.g., experiencing a shooting at one's school or a mass shooting in the same county)—including mass shootings, school shootings, police shootings, and daily gun violence—finds links with a variety of worse health and well-being outcomes for youth and adults. For youth, this includes reduced emotional health and well-being, higher risk of suicide and accidental death, reduced academic achievement, and increased prescriptions for antidepressants in the United States.^{61,62,63,64}



Shairi R. Turner, M.D., MPH is the Chief Medical Officer at Crisis Text Line. She formally served as the first Chief Medical Director for the Florida Department of Juvenile Justice and the Deputy Secretary for Health and the Interim State Surgeon General for the Florida Department of Health. She received a Bachelor's degree from Stanford, and a Doctor of Medicine degree from Case Western University School of Medicine. She completed a Residency in Internal Medicine and Pediatrics at Harvard Medical School and earned a Master of Public Health from Harvard T.C. Chan School of Public Health.

The Importance of Trauma-Informed Care in the Education, Healthcare, and Juvenile Justice Systems

Q&A with Shairi R. Turner, M.D., MPH
Chief Health Officer at Crisis Text Line

TFAH: You've devoted much of your career to understanding the impact of childhood trauma. What are those impacts and what role do they play in the increase in mental health and substance misuse issues the nation is experiencing?

Dr. Turner: It's a very interesting connection. The CDC/Kaiser Permanente study back in the mid 1990s established the connection between childhood trauma and many mental health and physical health conditions. Based on this study and other research we know that adverse experiences in childhood—physical and emotional abuse, sexual abuse, family dysfunction, spousal abuse (abuse of mother), having a household member who was incarcerated, a parent's substance use, a parent's mental illness—all create stressors for the developing child's brain. These studies demonstrated the connection between those early childhood experiences and nearly every mental health condition and many chronic physical health conditions. This research and other studies have established a linear connection between adverse childhood experiences and depression, anxiety, and suicide attempts, to name a few. And some physical health problems, like obesity, liver disease, and lung disease, are manifestations of people's attempts to self-medicate with food, alcohol, and tobacco. Plus, there's the inflammatory response when people have experienced trauma that can lead to heart disease and cancer.

The connection between early childhood experiences, mental health, substance abuse—it's all related. Over the last decade people began to understand that where we are seeing trauma—in the school systems, in primary care clinics—you have to take a history that asks about trauma because these types of experiences create risk for so many mental and physical health problems. That linear connection is becoming clearer and clearer.

My "aha" moment was when I was the Chief Medical Director for the Florida Department of Juvenile Justice. Almost all of the children and teens in the juvenile justice system had mental health diagnoses related to their traumas. We know they weren't born bad. They weren't born with oppositional defiant disorder. Their current behavior is an outgrowth of their experiences. It was no wonder they came to school highly stressed and were unable to learn.

TFAH: What is trauma-informed care, and why is it important?

Dr. Turner: When I first started work in this area, there really weren't models of trauma-informed care. Fortunately, as the research and advocacy continued, definitions have emerged. For example, SAMHSA [Substance Abuse and Mental Health Services Administration] has the four "Rs" approach: (1) realization, (2) recognizing the signs of trauma, (3) responding to trauma, and (4) resisting re-traumatization. There are also six principles of trauma-informed

care (developed for public health emergencies but relevant nonetheless): (1) safety, (2) trustworthiness and transparency, (3) peer support, (4) collaboration and mutuality, (5) empowerment and choice, and (6) recognizing cultural, historical, and gender issues.^{65,66}

Fundamentally, the goal is to avoid re-traumatization. Systems must be trauma aware and trauma responsive. In addition, we need to be careful about not increasing a person's trauma burden. Agencies need to take a step back and understand the environmental factors that will retraumatize someone. For example, when you put someone who has experienced trauma into isolation in a juvenile justice setting or a psychiatric setting, you run the risk of retriggering their trauma.

Trauma-informed care happens when adults recognize the triggers that set off a child's behavior. Parents, teachers, doctors all need to understand trauma and understand their role in helping a child who has a trauma history. What you see in front of you never provides the full picture; adults have to keep that in mind.

TFAH: What's the role for schools?

Dr. Turner: Schools are foundational. They are the place where we need to recognize the developmental opportunities and the awareness opportunities. Understanding what's going on in a child's home can enlighten the teacher's understanding of a child's behavior. Teachers can be empowered if they understand what they are witnessing in a child's behavior.

Having a trauma-informed approach in schools has been shown to reduce the number of other types of interventions that school administrators sometimes feel they need to keep order in the school. If we understood the horrific experiences

some kids are bringing with them into the classroom, it would get us much further in our educational system. In addition, we need to understand the overlay of racial biases that exist in the classroom and the role that they can play for underserved children.

TFAH: Is the nation's juvenile justice system part of the solution or part of the problem?

Dr. Turner: Incarcerating children is never a solution. Instead, what we need to do is dial it way back and examine all of the other systems that failed children and adults who are ultimately incarcerated. We need to look back to the child's foster care experience, examine the red flags that were evident when they were in the education system, and dial back to their pediatrician's ability or inability to support individuals in need of parenting programs. Those are the places that have initially failed children who end up in juvenile justice.

Our rates of incarceration speak to the fact that we have many broken systems in this country that can negatively impact children well before they enter the justice system. Juvenile justice is one of many foundational institutions where we see the impact of disparities. The disproportionate minority contact with the juvenile justice system is part of the larger issue of systemic racism in our country.

Generally speaking, what's wrong with our juvenile justice system now is often rooted in the fact that it's not child centered, it's not trauma informed, and it's not patient or client informed. Juvenile justice could be part of the solution if we were staffing it with more qualified people and with mental health professionals or even if the current staff focused on a trauma-informed approach.

TFAH: Your current role focuses on the use of today's technologies to deliver crisis intervention. Tell us about that.

Dr. Turner: I am now the Chief Health Officer at Crisis Text Line. Crisis Text Line is like a mental health emergency room. We have volunteers who are trained to support whatever the texter deems a crisis. Texters are prioritized based on algorithms that recognize key words and move them up the queue so they connect with a live volunteer sooner. Whether its depression, suicide, or stress due to homework—our volunteers are trained to help the texter with all these issues and more through active listening, guiding them from a hot moment to a cool calm.

Crisis Text Line combines much of my expertise and interest. It's a large-scale intervention—1.3 million conversations this past year. We are reaching communities of color and people who would otherwise not have access to care. We are bringing care to people who might not otherwise reach out due to stigma. We're also focused on meeting people where they are with a trauma-informed approach.

It's especially exciting to be a part of this work now with the introduction of 988 and the hope that we are improving the crisis care continuum.

TFAH: Given your experience with Crisis Text Line, what advice would you provide to federal officials as they seek to ensure that the 988 lifeline provides culturally and linguistically appropriate care and can direct callers to resources with similar capacities?

Dr. Turner: Crisis Text Line provides services via text, chat, and WhatsApp in Spanish. We provide this service utilizing bilingual, bicultural

Suicide rates are decreasing for white children and young people but are exponentially increasing for young people of color. That speaks not to the people of color but to the experiences they are having.

volunteers and mental health professionals. A translation service isn't enough, a lot of important nuances and cultural elements will be missed and it could cause harm. Such a culturally competent service does not currently exist with 988 text/chat, and we urge federal officials to implement this offering in a culturally and linguistically appropriate way.

Our support of 988 is rooted in equity and culturally competent care. We particularly focus on Spanish-speaking individuals given the proportion of people in the country who speak Spanish.

TFAH: On those occasions when texts to Crisis Text Line result in interventions, what is your assessment of the emergency services available to individuals in crisis, including mobile crisis units?

Dr. Turner: We are not there yet, but when the 988 system is more mature and has sufficient funding, hopefully there will always be a mobile crisis unit responding when a person is experiencing a mental health crisis. Right now, who responds is different depending on where you live. In some places, you can call 988 but still end up with a police response. It depends how well resourced the crisis-response system is in your community. Some are well resourced; others are not.

Hopefully 988 can be the beginning of a paradigm shift so that it's the exception and not the rule that law enforcement arrives at the door of someone who is having a mental health crisis. Instead, ideally a mobile crisis unit comes to the door.

TFAH: In terms of national health policy, what policies are needed to reverse the troubling increases in youth mental health problems and substance misuse occurring across the country?

Dr. Turner: There's so much to unpack. If we go to the root of it all, we have to address systematized and structural racism because that's what's feeding so many of the inequities that exist within these big systems that often continue the trauma cycles.

On a more specific level, I would focus on a trauma-informed education system, starting at the preschool level. Are we giving the tools to teachers, and are we providing enough support to parents?

Second, we need to increase mental health infrastructure and access and early access, including screening. In the same way that kids are required to have physicals before they go to school, we should have mental health screenings for all kids. We need to ask the questions to see when a child's mental health is at risk.

TFAH: Any closing thoughts?

Dr. Turner: We have to prioritize the safety of our children and the systems that support children. We have to address all the elements that are making people's lives more difficult. For example, suicide rates are decreasing for white children and young people but are exponentially increasing for young people of color. That speaks not to the people of color but to the experiences they are having.

Reaching out and supporting other people will go far; sometimes that's at the individual level. Even as we prioritize innovation and technology, we can't lose the human touch.

Improving Mental Health and Reducing Youth Suicide

Just as there are factors that can increase a person’s suicide risk, research and practice suggest a range of factors, from individual-level factors to societal-wide, that can reduce a person’s suicide risk. Many critical protective factors for reducing suicide risk are relevant across many populations—including coping and problem-solving skills; connections with community and social institutions; access to affordable and high-quality mental and physical healthcare; and reduced access to lethal means.⁶⁷ A few factors are particularly relevant to youth, including ACEs, connectedness and coping skills for youth today, and suicide clusters and contagion.

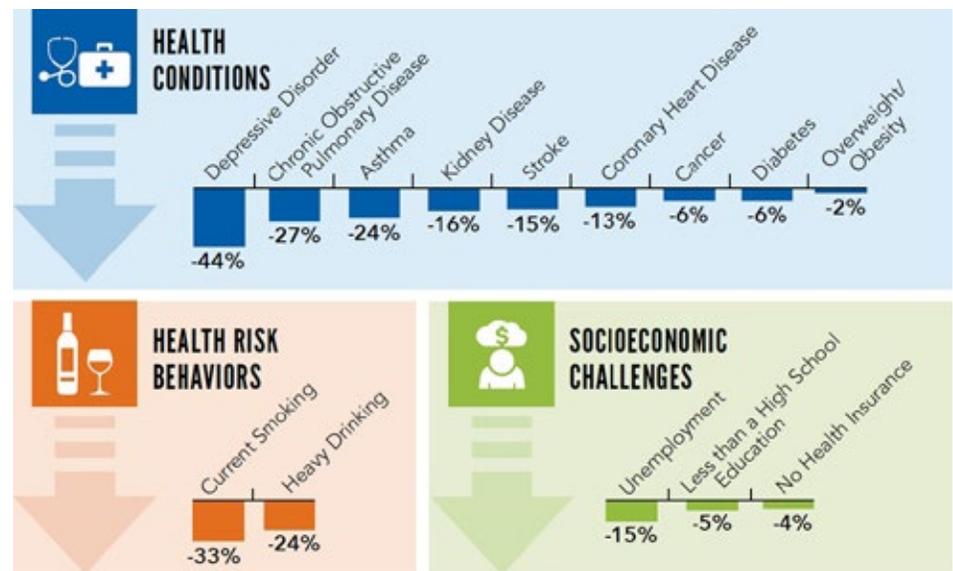
Preventing ACEs

ACEs—such as abuse, neglect, loss of parent, and high rates of violence, crime, or poverty in a community—are potentially traumatic events that occur in childhood and can have long-lasting effects on an individual’s lifelong health and opportunities. ACEs are linked with a wide variety of health problems, including heart disease, cancer, diabetes, obesity, depression, substance misuse, and suicide in adulthood.^{68,69} ACEs are both a risk factor for suicide and overlap with other standalone suicide risk factors.

Strategies that promote relationships and environments that help children thrive—for example, strengthening economic supports to families, instituting social and emotional learning programs at schools, and teaching parenting skills—can prevent ACEs, and early intervention measures—like enhanced primary care, screening for childhood mental health disorders, trauma-informed care in the juvenile

justice system, and family-centered substance use disorder treatment—can mitigate their impact.⁷⁰ CDC estimates the prevention of ACEs can improve health outcomes in adulthood, reduce risky behaviors, and improve education and employment achievements—specifically finding a potential reduction in depression in adults by 44 percent, smoking by 33 percent, and unemployment by 15 percent.⁷¹

Preventing ACEs has potential to improve outcomes in adulthood



Source: National Estimates based on 2017 BRFSS; Vital Signs, MMWR November 2019

Enhancing connectedness and coping skills

A variety of studies, surveys, and experts, many cited throughout this section, find connectedness, acceptance by family and friends, and belonging within a community are important protective factors for the mental health, well-being, and reduced suicidal behaviors for different youth populations. Several studies, additionally, have examined

risk and protective factors around youth mental health specifically during the COVID-19 pandemic. CDC’s 2021 Adolescent Behaviors and Experiences Survey found connectedness in high schoolers was associated with lower rates of a variety of poor mental health outcomes and suicide behaviors. Compared with their less connected peers, students who felt close to persons at school had a statistically significantly lower prevalence of: (1) poor mental health during the pandemic (28.4 percent versus 45.2 percent), (2) persistent feelings of sadness or hopelessness (35.4 percent versus 52.9 percent), (3) seriously considered attempting suicide (14.0 percent versus 25.6 percent), and (4) attempted suicide (5.8 percent versus 11.9 percent). This pattern holds true for high schoolers who felt virtually connected to family, friends, or other groups as well.⁷²

Crisis Text Line—a free, 24/7 crisis-intervention service that offers crisis

counseling to people of all ages via SMS and WhatsApp messages—has also shared insights into the kinds of concerns and coping mechanisms of youth who reached out for help between 2019 and 2021. The data include 289,000 texters who opted into a post-conversation survey and indicated being ages 17 or under. Crisis Text Line found the top stressors for youth who responded to the survey included: depression/sadness, stress/anxiety, relationships, suicide, and isolation. Topics that increased from 2019 to 2021 were: stress/anxiety, isolation and loneliness, grief and bereavement, and eating disorders and body issues. Top coping mechanisms that youth reported were: music, reading/writing, sleeping or bathing, art, talking with friends, watching TV/videos, connecting with family, accessing therapy, exercising, engaging with school-based supports, meditation, and playing video games.⁷³ (See interview with Crisis Text Line’s Chief Health Officer, Dr. Shairi Turner, on page 16.)

Mitigating suicide clusters

A final key consideration specifically for youth suicide prevention is the need to understand and mitigate suicide clusters and contagion. Preparing to respond to and support youth after a suicide death is critical. Studies show that another person’s suicide can increase the risk of suicidal behavior and suicide for family and friends—and that this effect is heightened among youth.^{74,75,76} A 1990 study specifically estimated that suicide risk is at least double for adolescents ages 15 to 19 after the suicide of a friend or family member.⁷⁷

Ensuring all youth grow up in an environment that fosters these protective factors can improve mental health and reduce suicide—though it requires action from all sectors and levels of society and policymaking, from families, schools, and communities to state and federal policymakers, the healthcare sector, and social media companies.

Suicide Risk and Protective Factors		
	Risk Factors	Protective Factors
Individual	<ul style="list-style-type: none"> • Current or prior history of adverse childhood experience • History of substance use or mental health disorder • Serious illness or chronic pain • Victimization • Financial or legal problems 	<ul style="list-style-type: none"> • Effective coping and problem-solving skills • Reasons for living (e.g., family, friends, pets, etc.) • Strong sense of cultural identity
Relationship	<ul style="list-style-type: none"> • Bullying • Family/loved one’s history of suicide • End of relationship • High conflict or violent relationships • Social isolation 	<ul style="list-style-type: none"> • Support from partners, friends, and family • Feeling connected to others
Community-Level	<ul style="list-style-type: none"> • Suicide cluster in the community • Lack of healthcare • Stress of acculturation • Community violence • Historical trauma • Discrimination 	<ul style="list-style-type: none"> • Connections to school, community, and other social institutions • Availability of consistent high-quality physical and behavioral healthcare
Societal	<ul style="list-style-type: none"> • Easy access to lethal means of suicide among people at risk • Stigma associated with help-seeking and mental illness • Unsafe media portrayals of suicide 	<ul style="list-style-type: none"> • Reduced access to lethal means of suicide among people at risk • Cultural, religious, or moral objections to suicide

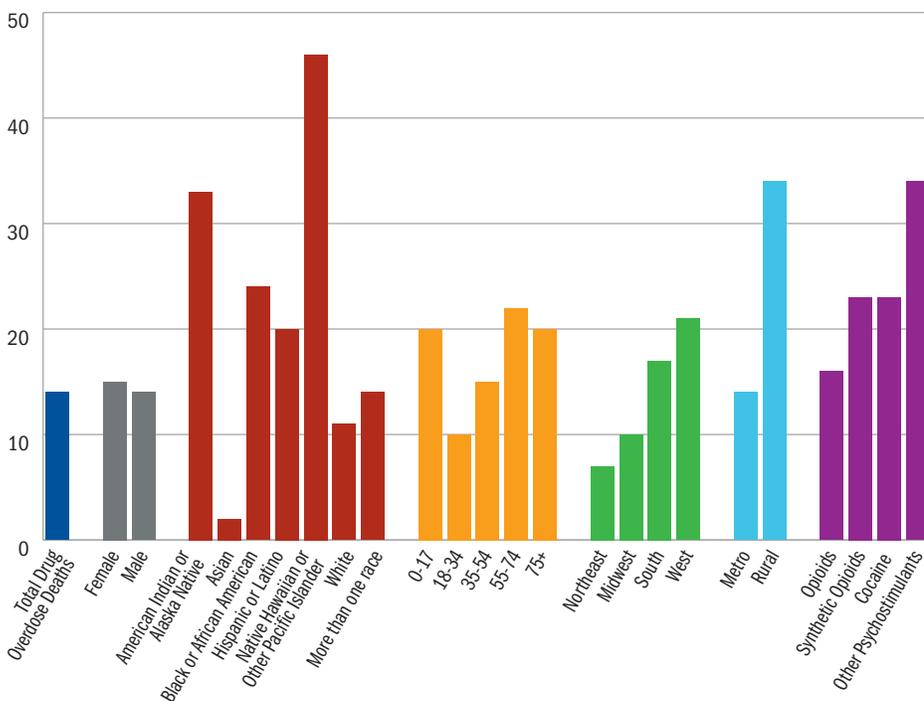
Source: CDC⁷⁸

Mortality Data and Trends

Deaths from alcohol, drugs, and suicide continued to increase in 2021, consistent with trends over the past two decades. The age-adjusted rate of combined deaths increased by 11 percent from 2020 to 2021 with increases for all age, sex, racial/ethnic, and geographic groups. To understand changing trends fully, it is important to disaggregate causes of deaths, demographic groups, and geography:

1. The age-adjusted drug overdose mortality rate increased by 14 percent from 2020 to 2021, with increases across demographic groups. There were larger increases among certain communities of color, among youth and older adults, individuals living in the South and West regions and rural areas. Overdoses involving synthetic opioids, cocaine, and psychostimulants also saw larger increases.
2. The age-adjusted alcohol-induced mortality rate increased 10 percent in 2021 and spanned all demographic groups. The increases were particularly high among Native Hawaiian/Pacific Islander, Latino, and AI/AN people. Individuals living in the Western region and rural areas also had disproportionate increases.

FIGURE 7: Percent Change in Age-Adjusted Rates of Drug Overdose Mortality, Overall and by Select Characteristics, 2020–2021



Source: TFAH analysis of National Center for Health Statistics data

Pain in the Nation: *The Epidemics of Alcohol, Drug, and Suicide Deaths*

3. The age-adjusted suicide mortality rate increased 4 percent overall between 2020 and 2021, with increases across nearly all demographic groups. AI/AN and Black Americans had the highest increases in 2021.

Additional data and trends in deaths from alcohol, drugs, and suicide are summarized below, followed by a state-by-state analysis. Additional data (including by additional drug types, demographic groups, and states) and methodology (including sources and definitions) can be found in the appendices starting on page 38.

WHAT ARE OPIOIDS AND PSYCHOSTIMULANTS?

Opioids are a class of drug that have chemical structures similar to those found in opium poppies and that interact with nerve cells to reduce pain and produce feelings of euphoria.⁷⁹ Natural opioids are sourced from opium poppies, semisynthetic opioids are synthesized from naturally occurring opium, and synthetic opioids are made entirely in a lab.⁸⁰

Common side effects of opioid use include sedation, dizziness, nausea, vomiting, and constipation. Regular opioid use can lead to physical dependence, and misuse can lead to addiction and overdose.^{81,82} Common prescription opioid drugs were the primary drivers of the opioid epidemic when it began in the late 1990s. In 2010, the crisis centered on more potent and illicit opioids: first heroin and then, starting around 2013, synthetic opioids.⁸³ In the last few years, synthetic opioid overdoses continued to increase along with very large increases in overdoses from stimulants, including cocaine and methamphetamines.⁸⁴

The most common types of opioids include:

- **Natural/semisynthetic opioids.** The most common prescription opioids, like codeine, hydrocodone (including Vicodin), oxycodone (including OxyContin and Percocet), and morphine.
- **Heroin.** An illicit semisynthetic opioid that is twice as potent as morphine.
- **Synthetic opioids.** Extremely potent opioids, including fentanyl and carfentanil. **Fentanyl** is a medication that is 50 to 100

times as potent as morphine and most frequently used in anesthesia. Carfentanil is 10,000 times as potent as morphine and is used as a tranquilizer for large animals (e.g., elephants). Fentanyl and carfentanil, as well as their analogs, are also produced illicitly for nonmedical purposes and are extremely dangerous, proving deadly in just miniscule amounts.^{85,86}

- **Methadone.** A medication used for pain management and to treat individuals with opioid use disorders. It reduces withdrawal symptoms and cravings, and blocks highs from other opioids. Methadone is a type of synthetic opioid, but it is typically grouped separately from other synthetic opioids (including in this report) because it is an effective treatment for opioid use disorder.

Psychostimulants or stimulants, include a wide variety of substances that stimulate the central nervous system and elevate mood and alertness. Psychostimulants can be addictive. Some have important medicinal uses (e.g., attention deficit hyperactivity disorder), and some have the potential for misuse and serious health effects, including overdose death.⁸⁷ The psychostimulants most often involved in overdose deaths are **cocaine** (which has its own category) and a combined category called *other psychostimulants with abuse potential*, referred to in this report as **other psychostimulants**. They include methamphetamine, ecstasy, amphetamine, and prescription stimulants.⁸⁸

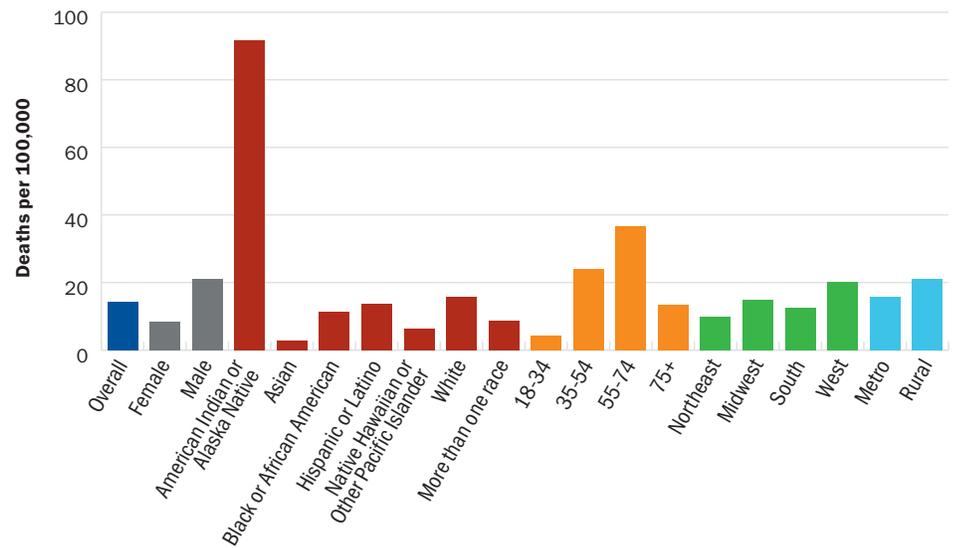
National Data and Trends

In total, there were 209,225 alcohol-induced, drug overdose, and suicide deaths—or an age-adjusted rate of 60.9 deaths per 100,000 people—in the United States in 2021; this is an 11 percent increase over 2020 (54.9 per 100,000) and an 88 percent increase over 2011 (32.3 deaths per 100,000). Additional alcohol, drug, and suicide trends are below.

Trends in Alcohol-Induced Deaths

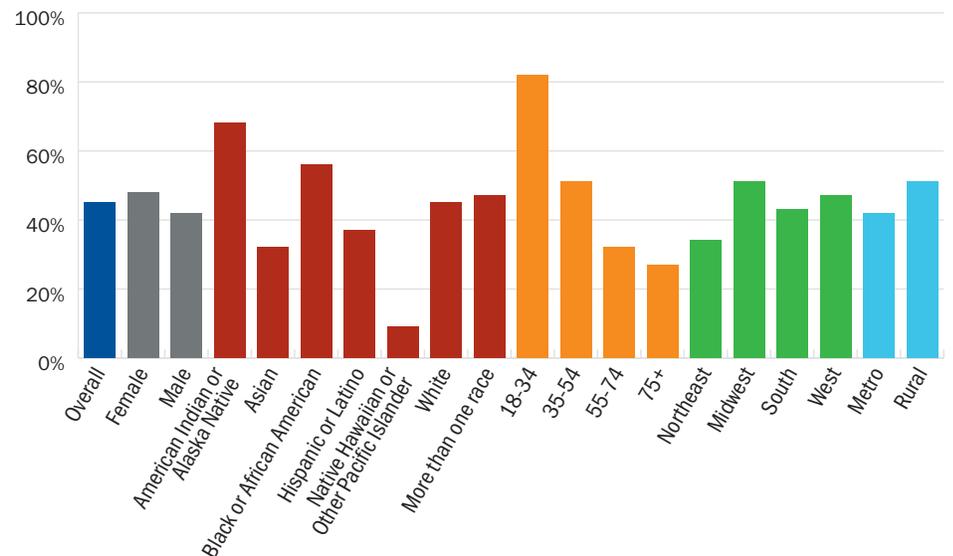
- In 2021, 54,258 Americans died from alcohol-induced causes, and 371,035 Americans died from alcohol-induced causes in the decade from 2012 to 2021. Note: Alcohol-induced deaths include alcohol poisoning, liver diseases, and other diseases; it does not include alcohol-attributable deaths, such as alcohol-related violence, accidents, or vehicle fatalities. In this report, alcohol deaths include alcohol-induced causes only.
- The age-adjusted rate of American deaths from alcohol-induced causes was 10 percent higher in 2021 compared with 2020, increasing from 13.1 to 14.4 deaths per 100,000 (age-adjusted rates). It was the 12th year of increases, and, in total, the alcohol death rate grew 86 percent since 2011.
- Alcohol-induced death rates in 2021 were highest among AI/AN people (91.7 per 100,000), adults ages 55 to 74 (36.5 per 100,000), adults ages 35 to 54 (23.9 per 100,000), those living in non-metro areas (21.1 per 100,000), males (20.9 per 100,000), and those living in the West (20.3 per 100,000).
- All groups had higher rates of alcohol deaths in 2021 compared with 2020, except for youth ages 0 to 17, who held steady. Native Hawaiian/Pacific Islander, Latino, and AI/AN people had particularly large increases in 2021.

FIGURE 8: Age-Adjusted Alcohol-Induced Mortality Rate (Deaths per 100,000) Overall and by Select Demographics and Region, 2021



Source: TFAH analysis of National Center for Health Statistics data

FIGURE 9: Percent Change in Alcohol-Induced Mortality Rates by Select Demographics and Region, 2018–2021



Source: TFAH analysis of National Center for Health Statistics data

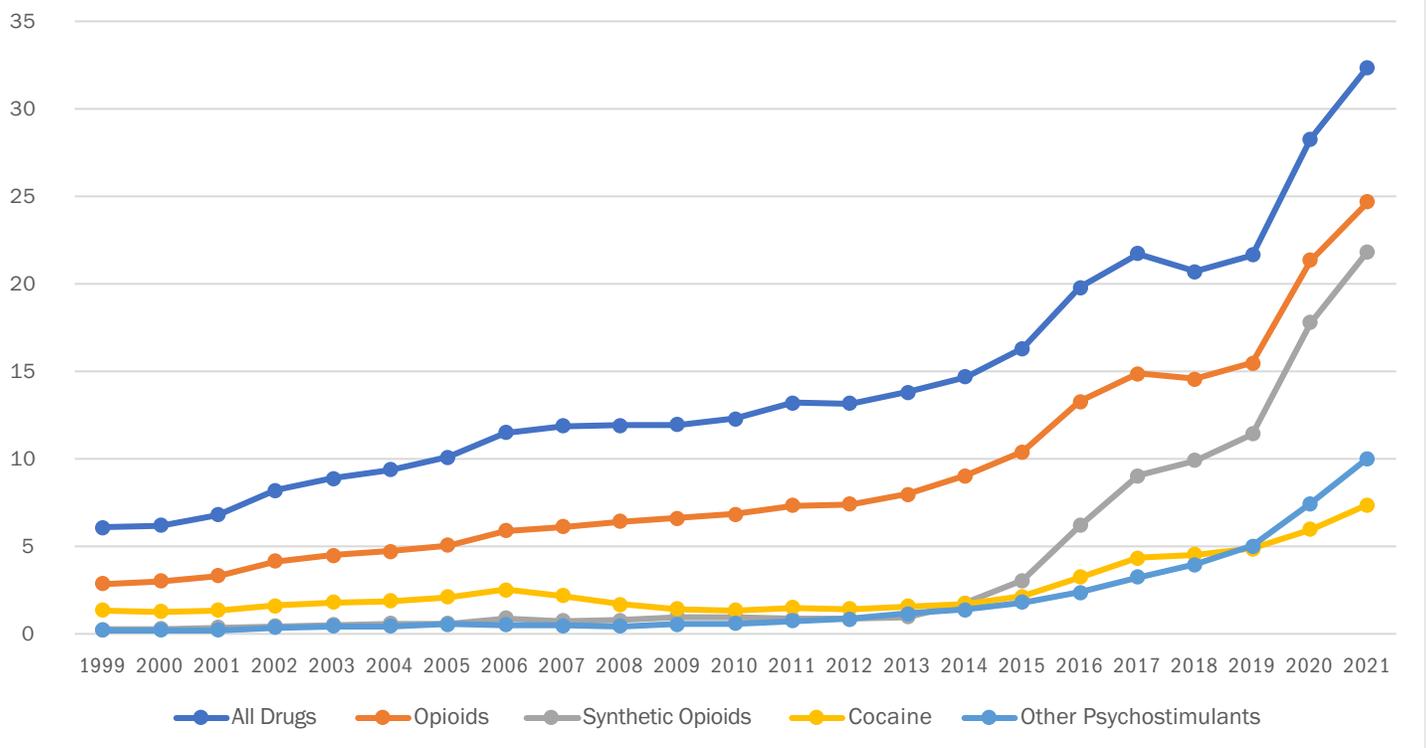
Trends in Drug Overdose Deaths

- In 2021, 106,699 Americans died from drug overdoses, and 655,307 Americans died from drug overdoses during the decade from 2012 to 2021.
- The age-adjusted rate at which Americans died from drug overdoses was 14 percent higher in 2021 compared with 2020, up from 28.3 to 32.4 deaths per 100,000 (age-adjusted rates). Since 2011, the drug death rate has more than doubled.
- The increase was largely driven by deaths from synthetic opioids, cocaine, and psychostimulants. The death rate from synthetic opioid overdoses increased 23 percent,

cocaine overdoses increased 23 percent, and other psychostimulants overdoses increased by 34 percent from 2020 to 2021. Many overdoses include more than one type of drug, often opioids and stimulants.⁸⁹ In 2022, the Drug Enforcement Administration reported large increases in overdoses involving another drug: the non-opioid tranquilizer xylazine, which is approved for veterinary use in the United States and has been increasingly mixed with illicit synthetic opioids.⁹⁰ In April 2023, the Biden Administration officially designated “fentanyl adulterated or associated with xylazine” as an emerging threat.⁹¹

- Drug overdose death rates in 2021 were highest among adults ages 35 to 54 (58.0 per 100,000), AI/AN people (56.6 per 100,000), males (45.1 per 100,000), Black Americans (44.2 per 100,000), and young adults ages 18 to 34 (40.9 per 100,000).
- All groups had higher rates of drug overdose deaths in 2021 compared with 2020. The size of the increase varied by community. Most communities of color saw disproportionate increases—with Native Hawaiian and Pacific Islander (46 percent) and AI/AN (33 percent) people experiencing the largest increases between 2020 and 2021—as well as people living in non-metro areas (34 percent).

FIGURE 10: Annual Age-Adjusted Mortality Rate (Deaths per 100,000) from Overdoses by Drug Type, 1999–2021



Source: TFAH analysis of National Center for Health Statistics data



MENTAL HEALTHCARE IN RURAL AMERICA

About 85 percent of all land in the United States is classified as rural, and these areas contain about 20 percent of the U.S. population.⁹² Rural communities on average include more older adults; have higher overall death rates; higher alcohol, drug, and suicide death rates; and have similar rates of mental health disorders compared with urban areas, yet have lower rates of mental healthcare utilization.^{93,94} There are also challenges to providing and accessing healthcare in rural America that require additional attention:

- **High levels of provider shortages:**

Many areas across the United States lack sufficient mental health providers, though shortages are higher in rural areas.^{95,96} Rural areas are also more likely to have shortages of primary care doctors, and residents are more likely to identify a hospital, emergency room, or clinic as their source of ongoing care (i.e., not a primary care provider).^{97,98}

- **Transportation barriers:** Hospitals and healthcare facilities are further

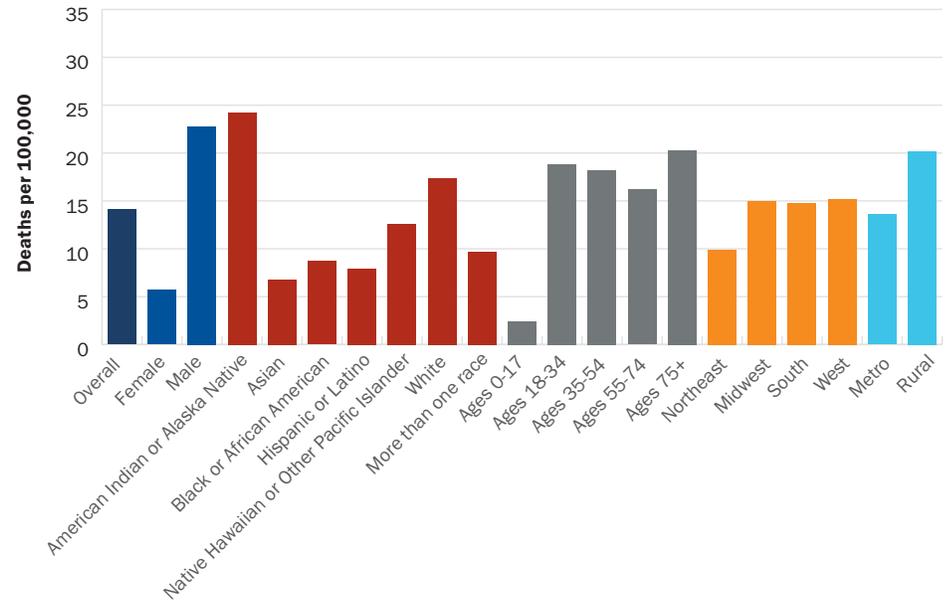
away in rural areas. A 2018 Pew report found that rural residents are more than 10 miles from the closest hospital or healthcare facility compared with 5.6 miles for suburban residents and 4.4 for urban residents.⁹⁹ This distance has likely increased, since rural hospital closures have increased rapidly in the last decade due to longstanding issues with financial sustainability. An American Hospital Association report found that 136 rural hospitals closed from 2010 to 2021.¹⁰⁰ A 2022 Bipartisan Policy Center report found pandemic-related federal support improved many rural hospitals' finances and reduced closures in 2020 and 2021, but underlying financial troubles and insufficient workforce remained.¹⁰¹

- **Higher financial barriers:** Rural areas have higher rates of poverty, lower per-capita incomes, and lower rates of health coverage for nonelderly adults.¹⁰²

Trends in Deaths by Suicide

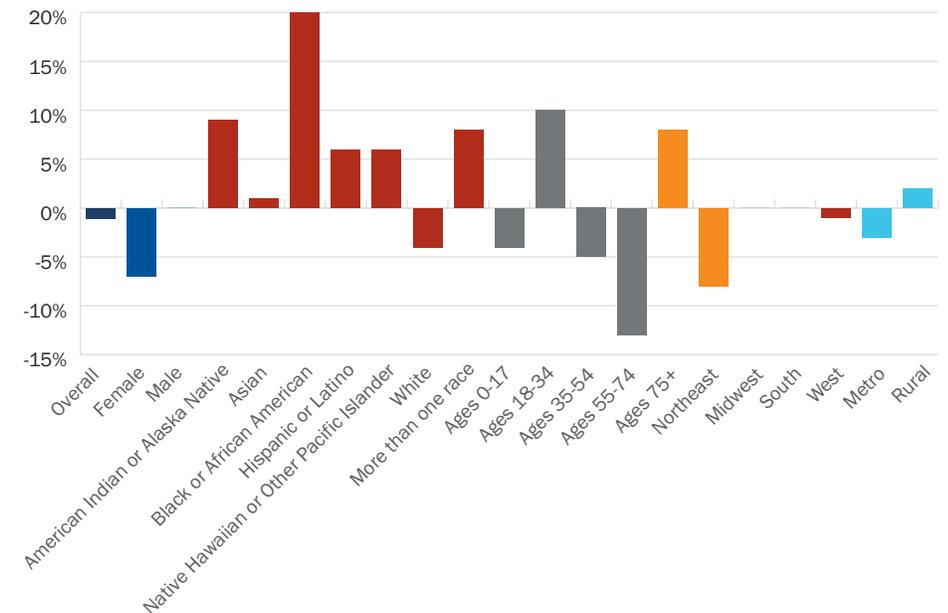
- In 2021, 48,183 Americans died from suicide, and 450,923 Americans died from suicide during the decade from 2012 to 2021.
- The overall age-adjusted suicide rate increased 4 percent in 2021, rising from 13.5 per 100,000 in 2020 to 14.1 per 100,000 in 2021. Deaths from suicide increased each year from 2012 through 2018, decreased in 2019 and 2020, and then increased again in 2021 to nearly the same level as 2018 peak.
- Age-adjusted suicide rates in 2021 were highest among AI/AN people (28.1 per 100,000), males (22.8 per 100,000), those living in non-metro areas (20.2 per 100,000), and those ages 75 and older (20.3 per 100,000).
- All groups had higher rates of suicide mortality in 2021 compared with 2020, except for individuals of more than one race (which held steady). AI/AN people and Black Americans had particularly large increases in 2021.
- In 2021, 54 percent of suicides were by firearm, 26 percent were by suffocation/hanging, 12 percent were by poisoning/overdose, and 8 percent were by other methods. Suicide by firearm and suffocation/hanging have both increased substantially over the last 10 years. Between 2011 and 2021, rates of firearm suicides and rates of suffocation/hanging suicides both increased by 21 percent. All other methods, including poisoning/overdose, decreased by 10 percent over the same time period.

FIGURE 11: Age-Adjusted Suicide Mortality Rate (Deaths per 100,000) Overall and by Select Demographics and Region, 2021



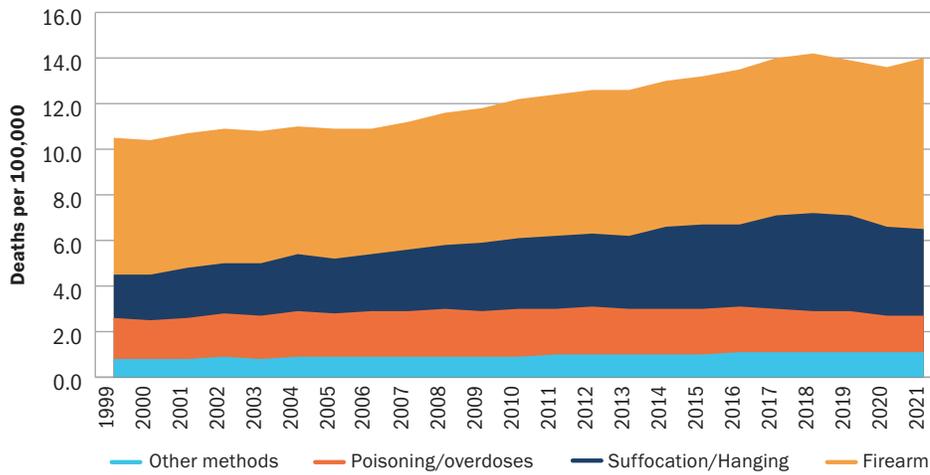
Source: TFAH analysis of National Center for Health Statistics data

FIGURE 12: Percent Change in Suicide Mortality Rates by Select Demographics and Region, 2018–2021



Source: TFAH analysis of National Center for Health Statistics data

FIGURE 13: Annual Age-Adjusted Suicide Rate (Deaths Per 100,000) By Suicide Method, 1999–2021

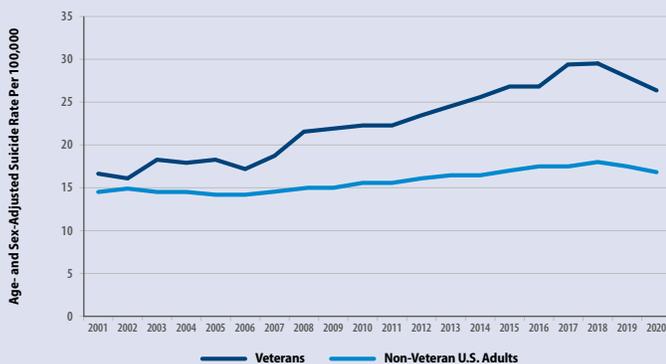


Source: TFAH analysis of National Center for Health Statistics data

SUICIDE AMONG VETERANS

In 2020, the suicide mortality rate for American veterans was 31.7 deaths per 100,000, a much higher rate than the general population (14.5 suicide deaths per 100,000 in 2020). After increasing between 2001 and 2018, the suicide rate for veterans fell by 9.7 percent between 2018 and 2020 (the rate for non-veteran American adults fell by 5.5 percent during this time period). For veterans under age 45, suicide remained the second-leading cause of death in 2020.¹⁰³

Age- and Sex-Adjusted Suicide Rates, Veterans and Non-Veteran U.S. Adults, 2001-2020



Source: U.S. Department of Veterans Affairs

In recent years, the U.S. Department of Veterans Affairs (VA) has emphasized suicide prevention and worked to implement a new suicide-prevention strategy and related initiatives. The VA launched the National Strategy for Preventing Veteran Suicide—a comprehensive strategy that includes community-based prevention strategies and clinical interventions—in 2018, the VA and the U.S. Department of Defense updated clinical guidelines related to suicide prevention to reflect the latest research in 2019, and most recently the VA added two new major initiatives: Suicide Prevention 2.0 and Suicide Prevention Now. The Suicide Prevention 2.0 initiative is a six-year strategic plan with national reach focused on the implementation of clinical and community-based prevention, intervention, and post-intervention services as outlined by the National Strategy for Preventing Veteran Suicide. The Suicide Prevention Now initiative focuses on five evidence-based interventions that have potential for immediate impact: (1) lethal means safety, (2) suicide prevention for at-risk medical populations, (3) outreach and understanding of veterans who are not Veterans Health Administration users, (4) suicide-prevention program enhancements, and (5) media campaigns.¹⁰⁴

State Analysis

The rates and trends for deaths caused by alcohol, drugs, and suicide combined vary across regions and states. A state-level analysis follows, and charts on page 40 in Appendix C have state-level data on alcohol, drug, suicide, opioid, synthetic-opioid, cocaine, and other psychostimulant deaths and death rates.

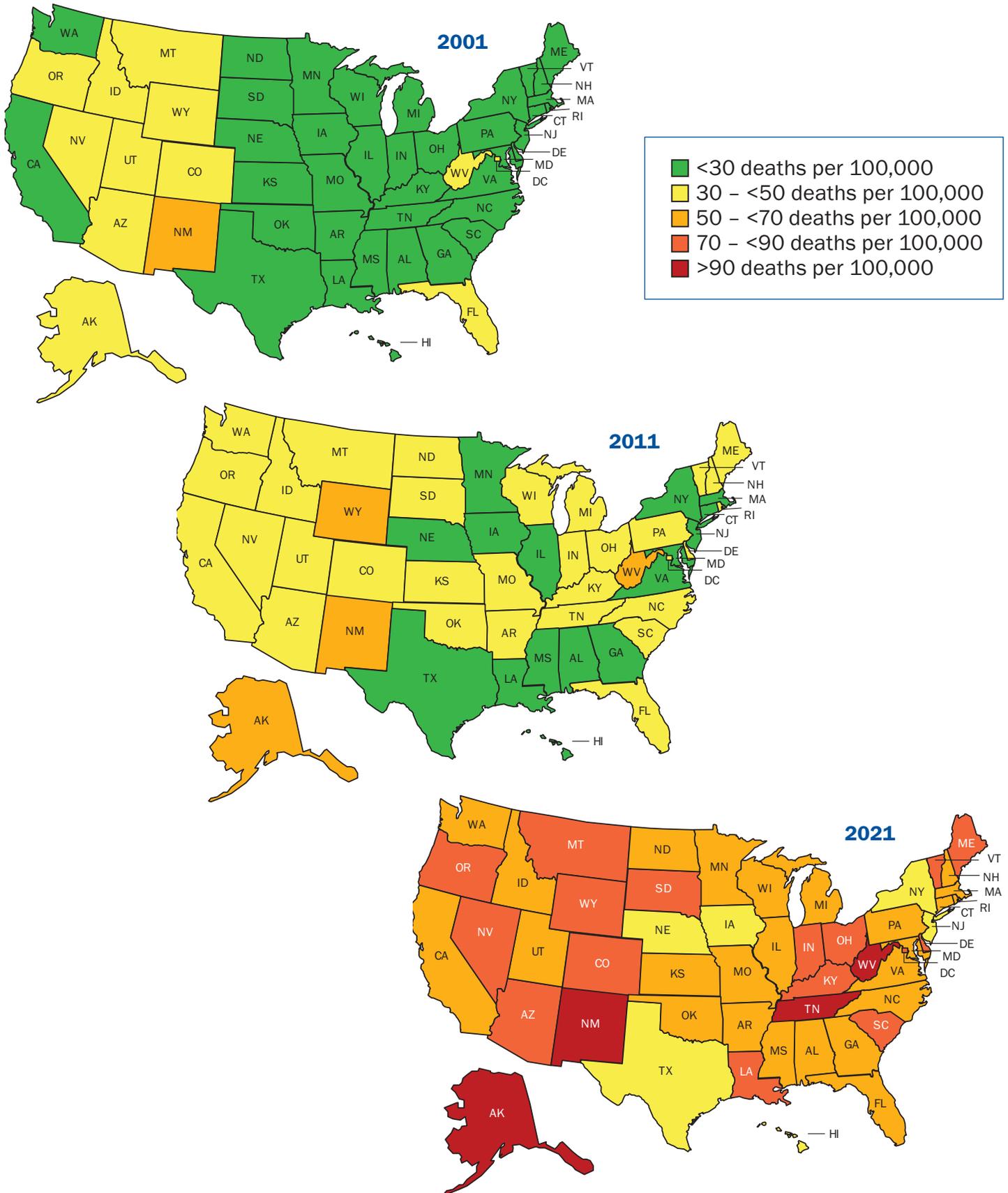
- **Deaths from alcohol, drugs, and suicides.** In 2021, 46 states and the District of Columbia saw higher age-adjusted rates of death from alcohol, drugs, and suicide combined compared with 2020. (Hawaii, Maryland, and New Jersey had lower rates, and Nebraska held steady.)
 - States with the highest age-adjusted death rates from alcohol, drugs, and suicide combined in 2021 were West Virginia (128.7 per 100,000), New Mexico (126.0 per 100,000), and Alaska (107.9 per 100,000).
 - States with the lowest age-adjusted death rates from alcohol, drugs, and suicide combined in 2021 were Hawaii (39.4 per 100,000), Texas (42.2 per 100,000), and Nebraska (43.3 per 100,000).
- **Alcohol-induced deaths.** In 2021, 43 states and the District of Columbia had higher age-adjusted alcohol death rates compared with 2020, and seven states (Connecticut, Kentucky, Massachusetts, Nebraska, New Jersey, New York, and Wyoming) had lower rates.
 - States with the highest age-adjusted alcohol death rates in 2021 were New Mexico (50.0 per 100,000), South Dakota (42.8 per 100,000), and Alaska (41.0 per 100,000).
 - States with the lowest age-adjusted alcohol death rates in 2021 were New Jersey (7.8 per 100,000), Hawaii (8.2 per 100,000), and New York (8.3 per 100,000).
- **Drug overdose deaths.** In 2021, 48 states plus the District of Columbia had higher age-adjusted drug-overdose rates compared with 2020. (Hawaii and Maryland were the two exceptions, with lower rates.)
 - States with the highest age-adjusted drug death rates in 2021 were West Virginia (90.9 per 100,000), Tennessee (56.6 per 100,000), plus the District of Columbia (63.6 per 100,000).
 - States with the lowest age-adjusted drug death rates in 2021 were Nebraska (11.4 per 100,000), South Dakota (12.6 per 100,000), and Iowa (15.3 per 100,000).
- **Deaths by suicide.** In 2021, 37 states plus the District of Columbia had higher age-adjusted suicide death rates compared with 2020, 10 states had lower rates (Alabama, Idaho, Iowa, Massachusetts, New Hampshire, New York, South Carolina, Tennessee, Utah, and Virginia), and three states (New Jersey, North Carolina, and Washington) stayed flat.
 - States with the highest age-adjusted suicide rates in 2021 were Wyoming (32.3 per 100,000), Montana (32.0 per 100,000), and Alaska (30.8 per 100,000).
 - States with the lowest age-adjusted suicide rates in 2021 were New Jersey (7.1 per 100,000) and New York (7.9 per 100,000), plus the District of Columbia (6.2 per 100,000).

DATA LIMITATIONS: WHAT THIS DATA DOES NOT SAY

This section focuses on mortality from alcohol, drugs, and suicide in 2021 and other recent trends. It does not capture local trends, events in 2022 or 2023 (as final mortality data from those years were not available at the time of the report's publication), or the full burden of these epidemics beyond mortality, such as nonfatal overdoses, suicide attempts, or substance use disorders. Other factors to consider when reviewing the overdose data are:

- A reduction in fatalities may indicate a successful harm-reduction strategy (e.g., naloxone is reversing more overdoses) but not an improvement in root causes.
- Mortality-reporting policies and capacity, particularly regarding identifying drug type in overdoses, vary by state, tribal, or local geographic areas and could artificially lower mortality rates for synthetic opioids and other specific drug types.
- A particularly lethal or adulterated batch of illicit drugs may cause a cluster of deaths and drive overdose rates in states with small populations. For example, roughly half of the synthetic-opioid overdose deaths in Alaska in 2017 occurred in Anchorage over a three-week period.¹⁰⁵

Annual Age-Adjusted Deaths per 100,000 from Alcohol, Drugs, and Suicide in the United States, 2001, 2011, and 2021



Pain in the Nation: *The Epidemics of Alcohol, Drug, and Suicide Deaths*

Policy Recommendations

Reversing trends in alcohol, drug, and suicide deaths will require significant focus on primary prevention and the upstream drivers of behavioral health concerns. Trust for America's Health (TFAH) continues to call for strategies to bolster effective services for youth and to address the relationship between adverse childhood experiences (ACEs)—potentially traumatic events occurring in childhood—and negative health outcomes. Improvements to the behavioral health system more broadly can also help address the needs of underserved populations, expand the spectrum of crisis care, and enhance prevention efforts. More immediately, effective prevention measures can combat the deadly impact of fentanyl in U.S. communities. Taken together, the following actionable recommendations will save lives, boost resiliency, and improve mental health and well-being. Many of the recommendations discussed in this report focus primarily on prevention and early intervention around mental health and substance misuse concerns, although treatment and crisis response are critical components as well.

1. Invest in Prevention and Conditions that Promote Health

- **Congress should support policies and programs that reduce adverse childhood experiences (ACEs) and the impact of trauma.** ACEs can have a long-term impact on physical and mental health, but they are preventable through multisectoral efforts:
 - Congress should increase funding for CDC's Adverse Childhood Experiences program, which researches and disseminates effective strategies to reduce and mitigate ACEs. Federal, state, and local governments should adopt these evidence-based strategies, including strengthening economic supports to families, improving access to quality childcare, and teaching parenting skills.¹⁰⁶ Congress should also promote safer communities by investing in CDC's Core State Violence and Injury Prevention Program and other programs focused on community violence prevention. These successful state programs create the infrastructure to reduce domestic violence, child trauma, and suicide.
 - Congress should pass and CDC should implement the Improving Data Collection for the Adverse Childhood Experiences Act, which would authorize ACEs research with a strong focus on equity and community factors.

- Congress should pass the Resilience Investment, Support, and Expansion (RISE) from Trauma Act¹⁰⁷ and increase funding for community-based efforts to coordinate services and prevent and mitigate the impact of trauma. These efforts should include training programs focused on skills in screening children and parents who have experienced or are at risk of experiencing trauma.
- The Centers for Medicare and Medicaid Services (CMS) and health insurers should expand coverage and training for screening of ACEs and suicide risk in primary care, pregnancy care, and other settings.
- **Congress and federal agencies should increase support for substance use prevention, mental health, and resiliency programs in schools.** Schools are an ideal location for prevention and early intervention, but they need the resources to perform these functions. Specifically, schools need support to increase: (1) staff training in screening and responding to childhood trauma and recognizing the emotional and mental health needs of children; (2) social and emotional learning programs that yield a robust return on investment and promote lifelong health;^{108,109} and (3) culturally and linguistically appropriate mental health services and screenings:
 - Congress should increase funding for federal programs that support evidence-based prevention programs in schools, promote protective factors, and reduce risk behaviors, including CDC’s Division of Adolescent and School Health and initiatives through the U.S. Department of Education.
 - States should require schools to have comprehensive suicide-prevention policies and training in place to help teachers and students recognize the signs of suicide risk.¹¹⁰
 - Congress should also pass the Advancing Student Services in Schools Today Act, which would increase the number of providers working in schools. CMS and state Medicaid agencies should continue to work with education agencies to expand the establishment of school-based health centers, including comprehensive mental health services for children.¹¹¹ Ratios between on-site mental health providers and students should ensure that any student who needs services can access them in a timely manner.
 - Congress should support comprehensive mental health programs for college-age young people, including by passing the Campus Prevention and Recovery Services for Students Act to establish evidence-based programs on college campuses to prevent alcohol and substance misuse and to integrate campus health services. Congress should also pass the Student Mental Health Rights Act to help improve understanding of mental health conditions on campuses and establish related best practices.
 - The U.S. Department of Education and state and local education agencies should set accountability standards for racial and ethnic disparities in discipline practices. Punitive discipline practices in schools should be revisited and revised to support social and emotional learning, especially in early childhood.

YEAR OF CONGRESSIONAL ACTION: PROGRESS ON TFAH PRIORITIES IN 2022

In 2022, Congress passed legislation containing significant investments and policies to advance behavioral health, including many initiatives TFAH recommended in previous reports in the Pain in the Nation series. The Bipartisan Safer Communities Act (BSCA), passed in June 2022, for example, appropriated funding for Project AWARE at SAMHSA, which empowers education agencies through training for school personnel, increases awareness and detection of mental health issues, and connects youth and families to needed services. The BSCA also increased support for trauma-focused technical assistance and training through funding for the National Child Traumatic Stress Network and provided onetime support for the 988 Suicide and Crisis Lifeline. Finally, Congress also directed CMS to assist schools with expanding school-based health services through Medicaid and funded initiatives at the U.S. Department of Education to hire and retain mental health professionals providing these services.

In the Consolidated Appropriations Act (CAA), enacted in December 2022, Congress built on these accomplishments by

reauthorizing the Garrett Lee Smith Suicide Prevention Program, which funds mental health programs for college-age students, as well as several programs to expand and diversify the behavioral health workforce. The CAA also bolstered the continuum of crisis-intervention programs by directing guidance and funding to crisis-response providers and improving payment for their services. Congress also continued to enhance flexibilities in substance use treatment by eliminating the need for providers to obtain a separate waiver (also known as the X-waiver) before prescribing buprenorphine and extending telehealth coverage for Medicare beneficiaries. Finally, grants through the CAA will strengthen state-level efforts to ensure compliance with mental health parity requirements.

The developments above represent significant bipartisan progress on enhancing behavioral health services and expanding the workforce, but additional action is needed to invest in upstream prevention and direct federal efforts to the populations who are most impacted.

● **Congress and the U.S. Department of Health and Human Services should boost access to early prevention and family-support programs.**

Congress should increase funding and reimbursement for Head Start and other federal programs that provide access to and coordination of social and mental health services for families.¹¹²

- Congress should pass the Early Childhood Mental Health Support Act, which would provide grants to implement mental health interventions for children in Head Start programs.¹¹³ As part of these efforts, the U.S. Department of Health and Human Services (HHS) should continue to work with states and insurers to ensure equitable access and uptake of evidence-based preventive interventions for family mental health.¹¹⁴

- Congress should bolster behavioral healthcare available for youth by raising Medicaid reimbursement rates for pediatric mental health and supportive services and by expanding the pediatric workforce and improving related infrastructure through the Strengthen Kids' Mental Health Now Act.

- Congress should invest in an expanded and diversified maternal mental health workforce to improve prevention, intervention, and treatment.
- Congress can support these upstream approaches to behavioral health by establishing a set-aside for prevention and early intervention services within SAMHSA's Community Mental Health Block Grant.

● **Congress and SAMHSA should bolster the continuum of crisis-intervention programs and supports.**

In addition to prevention, Congress and states should continue to provide funding for comprehensive crisis-intervention services, including ready linkages to services like the 988 lifeline. As part of this effort, Congress should provide resources for expanding mobile crisis-response teams, establishing specialized services for populations that are at risk for mental health or suicidal crises, and building crisis-response services infrastructure. SAMHSA should help ensure that crisis services provide culturally and linguistically appropriate care, address individual and collective trauma resulting from discrimination and stigma, and employ paraprofessionals from underrepresented communities. Passage of the CONNECT Act would

also provide resources for follow-up care for individuals receiving suicide-prevention and crisis-intervention services. Federal efforts should also raise awareness of intervention services among people of color, specifically, and emphasize the deployment of non-law-enforcement crisis responses.

- **Congress should expand funding for comprehensive suicide-prevention efforts.** Congress should greatly increase funding for CDC's suicide-prevention program, which advances strategies to deter suicide risk by promoting connectedness, creating protective environments, and teaching coping skills, among other measures. These primary prevention efforts include the Comprehensive Suicide Prevention Program, which helps communities implement a multisectoral, public health approach to suicide prevention, as well as targeted prevention efforts among veterans and tribal nations. The Comprehensive Suicide Prevention Program is implementing and evaluating the best available evidence for suicide prevention, but CDC's current funding level can only support recipients in 17 states.¹¹⁵ Congress should also provide funding, including through passage of the Suicide Prevention Act, to improve health departments' understanding of suicide attempts and other instances of self-harm to enhance the timeliness and effectiveness of prevention efforts.
- **Congress should support youth-serving programs that adopt trauma-informed and culturally and linguistically appropriate policies and practices.** Congress should support programs that disseminate technical assistance and

training for trauma, including by providing funding to the Center for Mental Health Services at SAMHSA for the National Child Traumatic Stress Network. The juvenile justice system should adopt approaches that recognize that substance misuse and serious emotional disturbances are health issues—not criminal justice issues—and ensure access to diversion and care for young people.

- **Congress and states should support efforts to limit access to lethal means of suicide** by promoting safe storage of medications and firearms through public education and laws; limiting access to firearms for children and individuals in crisis or at risk of suicide; and providing education and creating protocols for healthcare providers, counselors, and first-responders on how to interact with and counsel patients and families to create safe environments:
 - Congress should consider legislation to allow for extreme risk protection orders or other methods for preventing individuals who pose a risk to themselves or others from obtaining firearms on a temporary basis.
 - Congress should also provide additional funding for foundational research at CDC and the National Institutes of Health related to lethal-means use and suicide-prevention efforts suited to diverse populations.¹¹⁶ Non-biased and evidence-based research into these priorities can reduce firearm-related injuries, identify populations at risk, and evaluate new forms of interventions.
 - Healthcare providers should be trained in lethal-means counseling. The Counseling on Access to Lethal

Means (CALM) model improves medication and firearms storage behavior—with one study, which focused on parental counseling for suicidal youth in the emergency department, finding a 100 percent lock-up rate for firearms at follow-up.¹¹⁷ CDC's Comprehensive Suicide Prevention Program also includes a focus on lethal-means safety, including CALM training and safe storage. Federal agencies like SAMHSA should also work to incorporate lethal-means assessments and counseling into standard procedures for their mental health crisis lines.¹¹⁸

- **Congress should promote policies and programs to address social determinants of health.** Social and economic conditions—such as housing instability, limited employment opportunities, food insecurity, community violence, and lack of transportation options—have a major influence on health, including the rates of substance use disorder. To address these barriers to health, Congress should approve increased funding for CDC programs to address social determinants of health (SDOH), including grants to states, localities, and tribes to plan, coordinate, and measure activities to improve community drivers of poor health. Screening for SDOH in the healthcare system is an important intervention to identify individual patient non-medical, health-related social needs, but a public health approach is also necessary to ensure implementation of evidence-based and cost-effective changes at a community and population level.

Plans and Progress: Administration Actions on Behavioral Health in 2022

In his first State of the Union address in March 2022, President Joe Biden announced a national strategy to address what the White House characterized as a mental health crisis, including efforts to strengthen the capacity of the behavioral health system and bolster the U.S. crisis-response infrastructure.¹¹⁹ The White House also stressed the need to increase the number of community health workers in underserved communities and support the integration of behavioral health with primary care services.¹²⁰ After the president included these priorities and others within his “unity agenda,” entities across the federal government announced strategies and actions throughout 2022 to combat overdoses, expand treatment, and improve the workforce.

In April 2022, for example, the Office of National Drug Control Policy (ONDCP) released the 2022 National Drug Control Strategy, which outlined administration efforts to address untreated addiction and combat drug trafficking, among other challenges.¹²¹ Importantly, ONDCP Director Dr. Rahul Gupta characterized the strategy as the first to prioritize harm-reduction measures—including tools like naloxone and syringe services programs—to reduce overdoses.¹²² The strategy also stressed the need to consider the connections between ACEs, SDOH, and equity when addressing youth substance use.

In May 2022, CMS issued its Behavioral Health Strategy, which outlined a data-informed approach to increase access to prevention and treatment and to promote integrated and well-coordinated care.¹²³ Among other objectives, CMS centered efforts to expand workforce capacity and bolster community-based crisis services. As part of this effort, CMS later finalized a Medicare policy to expand the range of behavioral health practitioners—including certified peer-recovery specialists and licensed professional counselors—authorized to provide services without the direct on-site supervision of a physician or nurse practitioner.¹²⁴ CMS also announced measures to compensate practitioners for managing and treating behavioral health issues as part of primary care teams.¹²⁵ These actions related to the larger HHS Roadmap for Behavioral Health Integration, which noted the critical importance of promoting integrated care for individuals living with mental and substance use disorders.¹²⁶

SAMHSA also made significant progress in expanding access to care for individuals facing mental health challenges. In July 2022, SAMHSA launched the 988 Suicide and Crisis Lifeline, which connects callers to a national network of crisis centers providing counseling and referrals to other mental health and substance use treatment and recovery services. The 988 lifeline represents a major step toward a crisis-response system in which individuals receive life-saving support through calls, messages, and texts, and where linkages can be made to other components of the crisis continuum—from mobile crisis teams of mental health

professionals, or through stays in crisis stabilization units. In January 2023, 988 answered 70 percent more calls compared with an earlier version of the lifeline in January 2022, and 988’s answered chats and texts increased 260 percent and 1,600 percent, respectively.¹²⁷

In November 2022, CDC released the updated Clinical Practice Guideline for Prescribing Opioids for Pain, with new evidence and recommendations on pain management, including considerations for opioid treatment for acute and chronic pain, as well as the potential harms of opioid use.¹²⁸ Critically, the guideline noted the impact of SDOH and long-standing health disparities that contribute to differences in pain treatment for patients of color specifically. CDC also advised clinicians to consider non-opioid and non-pharmacologic pain-management techniques and stressed the need for an integrated treatment approach that addresses the mental and physical aspects of pain.

HHS also acted throughout the year to expand access to community-based mental health services. In partnership with the U.S. Department of Education, for example, HHS established initiatives to facilitate the use of Medicaid and Children’s Health Insurance Program funds to support school-based behavioral health services.¹²⁹ SAMHSA also launched the Mental Health Crisis Response Partnership Pilot Program to improve access to mobile crisis services in high-need areas.¹³⁰

In addition, HHS announced funding to support centers of excellence to address behavioral health issues related to specific technologies, populations, and facilities. With funding through SAMHSA, for example, the American Academy of Pediatrics established the Center of Excellence: Creating a Health Digital Ecosystem for Children and Youth to address mental health challenges associated with youth use of social media.¹³¹ This goal corresponds to the need U.S. Surgeon General Dr. Vivek Murthy identified in December 2021 to understand the impact of social media on youth users and address related harms.¹³² HHS also launched a funding opportunity to establish a Center of Excellence for Building Capacity in Nursing Facilities to Care for Residents with Behavioral Health Conditions.¹³³ This center would aim to strengthen behavioral health services for nursing home residents with serious mental illnesses, substance use disorders, and other behavioral health challenges.

These government-wide efforts reflect a substantial commitment to advancing new approaches in research, harm reduction, treatment, and workforce expansion to combat rising overdose and suicide rates. As the recommendations in this report make clear, however, significant work remains to expand primary prevention and enhance youth-focused services, among other priorities.

2. Prevent Substance Misuse and Overdose

- **Congress and ONDCP should target prevention of substance misuse among youth.** Congress should increase funding for the Drug-Free Communities Support Program, managed through a partnership between ONDCP and CDC. ONDCP should also build on its 2021 model law concerning opioid litigation settlement funds by helping state governments and other recipients ensure these funds are specifically directed, in part, toward the primary prevention of youth substance misuse.
- **State and federal officials should implement policies targeting psychostimulant use that complement current opioid-focused policies.** Congress and/or federal agencies should enable additional flexibility in federal overdose-prevention grants to allow states to address substances other than opioids based on local needs.
- **Congress and federal agencies should promote harm-reduction policies to reduce overdose and blood-borne infections.** Congress should increase funding for comprehensive syringe services programs and remove barriers to purchasing supplies with federal funds. States should adopt model laws to ensure the effective establishment of comprehensive syringe services programs and naloxone access, as outlined by ONDCP.¹³⁴ ONDCP and SAMHSA should continue to provide technical assistance and strategies to state and local governments to reduce barriers to accessing overdose-prevention medications, such as naloxone.¹³⁵ Federal agencies should also provide technical assistance to state legislators seeking to remove legal barriers to the use of fentanyl test strips.

NEW CLINICAL PRACTICE GUIDELINE FOR PRESCRIBING OPIOIDS FOR PAIN

In November 2022, CDC released a new guide on prescribing opioids for adults. The new guideline serves to update and replace the 2016 guideline and reflects the latest evidence and input from a scientific advisory committee, the public, and peer reviewers. The goal for the 2022 guideline is to create a tool to support healthcare providers and patients in weighing benefits and risks in different circumstances and contexts, and determining the safest and most effective pain treatment. The guidelines include recommendations for acute, subacute, and chronic pain, and cover four areas:

(1) determining whether or not to initiate the use of opioids for pain,

(2) selecting opioids and determining opioid dosages,

(3) deciding duration of initial opioid prescription and conducting follow-up, and

(4) assessing risk and addressing potential harms of opioid use.

The guidelines are voluntary and do not apply to inpatient care, nor pain management related to sickle cell disease, cancer, palliative care, or end-of-life care, which have separate, tailored guidelines available.¹³⁶ Professional societies have developed other clinical practice guidelines to guide pain care decisions for these conditions.

- **State and federal officials should reduce the availability of illicit opioids and unnecessary prescriptions through responsible opioid prescribing practices,** informed by the Clinical Practice Guideline for Prescribing Opioids for Pain, and support for high-functioning prescription drug monitoring programs. States should expand public education about misuse and safe disposal of unused drugs, including through support for the Drug Enforcement Administration's National Prescription Drug Take Back Day. Federal officials should maintain support for hotspot monitoring, like the Overdose Detection Mapping Application Program, as well as interventions and anti-trafficking strategies focused on heroin, fentanyl, and other illicit drugs. Finally, federal efforts should also focus on improving access to evidence-based alternatives to

opioids for pain treatment, including through expanding coverage for interdisciplinary care and funding chronic pain research.

- **State and local governments should lower excessive alcohol use through evidence-based policies, and Congress should support these efforts.** States and communities can reduce harms from alcohol by increasing pricing, reducing sales hours, and limiting the density of alcohol outlets; enforcing underage drinking laws; and holding sellers and hosts liable for serving minors or overserving adults.¹³⁷ Congress should support efforts to provide technical assistance and training on strategies to reduce excessive alcohol use with continued funding for CDC's Alcohol Program, which focuses on improving epidemiology and prevention in this area.

3. Transform the Mental Health and Substance Use Prevention System

- **Congress should promote equity in mental health, including through workforce diversity and culturally and linguistically appropriate services.** Congress should pass and fund the Pursuing Equity in Mental Health Act, which would help establish behavioral healthcare teams in areas with underserved populations, improve training and best practices for addressing mental health disparities, and enhance outreach to communities of color to promote mental health and reduce stigma. Passage of the Health Equity and Accountability Act would also help reduce health disparities by improving data reporting, supporting workforce diversity, and increasing access to culturally and linguistically appropriate care.
- **Congress should support efforts to modernize mental health and substance use services** by aligning healthcare provider payment, quality measures, service delivery, and training toward clinical models focused on the whole health of individuals, including individual SDOH, and prioritizing integrated delivery models. To aid in this effort, Congress could direct HHS to define the key elements of mental health integration and develop measures to simplify related metrics and reporting, especially those targeted at disparities in health outcomes.¹³⁸ Congress should also support programs to aid emergency departments in identifying and treating patients at risk of suicide, including through passage of the Effective Suicide Screening and Assessment in the Emergency Department Act, as well as efforts to increase access to follow-up services for individuals receiving crisis care.

Expanding comprehensive health insurance to all Americans should also be a priority for Congress.

- **Congress should increase access to mental health and substance use healthcare** through full enforcement of the Mental Health Parity and Addiction Equity Act to ensure patient access to essential services. Congress should strengthen enforcement efforts by providing the U.S. Department of Labor the authority to levy monetary penalties against health insurers and health plan sponsors who violate the Parity Act; expand the scope of entities subject to Parity Act enforcement to include Medicare, Medicaid fee-for-service, and TRICARE; and allow participants and beneficiaries to recover amounts lost through wrongfully denied claims. Congress should also define mental health and substance use disorder benefits based on nationally recognized standards.
- **Congress and federal agencies should expand the mental health and substance use treatment workforce and build community capacity across the continuum of prevention, treatment, and recovery.** SAMHSA, CDC, and other federal agencies should identify trends and gaps in mental health utilization to better determine local needs and the populations requiring care, including needs in community-based or nontraditional settings. CDC should provide guidance to assist in training community health workers on suicide-prevention and other evidence-based treatment, and experts should establish uniform standards and definitions for recovery support and other services. Health insurers should cover and

adequately pay for this care, and CMS should continue to allow community health workers to bill for services directly. Congress should also consider providing sustainable funding for a new corps of federal community health workers focused on primary prevention, trained in core competencies, and employing culturally sensitive approaches. Finally, Congress should help sustain progress on capacity and workforce issues by reauthorizing provisions of the SUPPORT for Patients and Communities Act.

- **Federal agencies should improve data accuracy, completeness, and timeliness, and Congress should support these efforts.** Gaps in data, including information regarding nonfatal suicide and overdose incidents, mask the extent of these crises. Near real-time data can provide public health officials with a system for detecting, understanding, and monitoring health events like overdoses and suicide, serve as an early warning system for emerging issues, identify inequities, and guide government and nongovernmental responses.
 - SAMHSA should continue to improve data collection, analysis, and reporting, including through the 988 lifeline, to enhance behavioral health crisis responses and ensure individuals of all races, ethnicities, sexual orientation, disability status, and gender have access to care.^{139,140}
 - HHS should promote standardized categories and collection of racial/ethnic and other demographic data that aid in identification of disparities and improvements to death investigation systems.

- Congress should provide additional investments to expand current programs like the National Syndromic Surveillance Program (currently covering 73 percent of the nation’s emergency departments) within CDC surveillance, epidemiology, and public health informatics.

- Enhanced funding for CDC’s Comprehensive Suicide Prevention Program can also improve the surveillance of nonfatal suicide-related outcomes, which allows states to turn syndromic data into preventive action.

- **Congress and SAMHSA should strengthen capacity to address the behavioral health impacts of climate change and weather-related disaster.** Community preparation and responses can help prevent or reduce the mental health impacts of accelerating climate change. SAMHSA should establish a program

on community-based mental health resilience to meet local behavioral health needs in the event of future climate-related impacts and should provide resources to expand mental health facilities in underserved areas. SAMHSA and other federal agencies should also ensure climate-related programming accounts for the interaction between climate change and existing SDOH that lead to poor behavioral health outcomes. In addition, federal efforts should address the impact of structural racism on these outcomes, particularly among communities of color. Throughout their climate planning and grantmaking processes, federal agencies should also prioritize engaging with and funding organizations led by and serving people of color and other frontline recipients to ensure individuals with lived experience have sufficient capacity and resources. Additional federal data collection and research

concerning climate-related mental health impacts and interventions can help target these efforts. Congress should also pass the Crisis Counseling Act to streamline the process of providing crisis counseling to states after disaster declarations.

- **Federal officials should expand efforts to combat stigma and improve social attitudes toward mental healthcare.** The federal government should incorporate positive messaging around mental health screening and treatment across a variety of federal programs that reach underserved populations to increase screening and reduce stigma for those seeking help, including through culturally and linguistically appropriate communications. These messages should come from trusted, salient messengers and should educate a range of stakeholders, including educators, healthcare professionals, justice system officials, and the media.¹⁴¹

988 SUICIDE AND CRISIS LIFELINE

The new 988 Suicide and Crisis Lifeline—previously the National Suicide Prevention Lifeline with number 1-800-273-825—was launched on July 6, 2022, giving people an easier-to-remember number to find help. In November 2022, the 988 lifeline received 154,585 more calls, texts, and chat messages than in November of the previous year.¹⁴²

The launch was a monumental step to connect individuals in crisis with help. Moving forward, additional improvements are needed to ensure adequate and permanent funding streams across all states, linguistic and culturally appropriate assistance for all individuals, and connections to social and emergency mental health services that prioritize de-escalation and prevention:

- The federal government has funded the lifeline system and provided additional funding for 2023; however, states are responsible for operating and funding the lifeline in the long run similar to the 911 emergency lines. According to the

National Alliance on Mental Illness, only five states have passed comprehensive 988 legislation that includes funding fees.¹⁴³

- Federal and state governments are working on improving community-specific lines and call centers. In September 2022, a pilot was launched to provide LGBTQ youth and young adults access to specialized care through the lifeline. Later this year, the federal government plans to enhance language access through Spanish chat and text options, as well as videophone services for people who are deaf or hard of hearing. Washington state also launched a dedicated line for AI/AN people.¹⁴⁴
- As an example of how 988 lifeline services can be effectively coordinated with other crisis service components, Oregon launched its Mobile Response and Stabilization Service in January 2023, which will provide de-escalation and prevention services that aim to reduce trips to the emergency department.

Pain in the Nation: *The Epidemics of Alcohol, Drug, and Suicide Deaths*

Appendix A: Data Methodology

Unless otherwise referenced, data in this report are from the National Center for Health Statistics' Multiple Cause of Death Files, 1999–2021, accessed via the CDC Wide-ranging ONline Data for Epidemiologic Research (WONDER) Database (wonder.cdc.gov/mcd.html).

For alcohol-induced deaths, TFAH used “alcohol induced” from CDC’s underlying cause-of-death category “Drug/Alcohol Induced Causes.”

For deaths related to drug overdose, TFAH used International Classification of Diseases, Tenth Revision (ICD-10) codes as follows:

- All drug overdose: X40–44, X60–64, X85, and Y10–14 “underlying causes of death” codes.
- All opioid overdose deaths: X40–44, X60–64, X85, and Y10–14 “underlying causes of death” codes plus T40.0–40.4 and T40.6 “multiple causes of death” codes.
- Synthetic-opioid overdose deaths: X40–44, X60–64, X85, and Y10–14 “underlying causes of death” codes plus T40.4 “multiple causes of death” code.
- Heroin overdose deaths: X40–44, X60–64, X85, and Y10–14 “underlying causes of death” codes plus T40.1 “multiple causes of death” code.
- Common prescription opioid overdose deaths: X40–44, X60–64, X85, and Y10–14 “underlying causes of death” codes plus T40.2 “multiple causes of death” code.
- Cocaine overdose deaths: X40–44, X60–64, X85, and Y10–14 “underlying causes of death” codes plus T40.5 “multiple causes of death” code.

- Other psychostimulant overdose deaths: X40–44, X60–64, X85, and Y10–14 “underlying causes of death” codes plus T43.6 “multiple causes of death” code.

For deaths by suicide, TFAH used “suicide” from CDC’s “underlying causes of death” category “Injury Intent and Mechanisms.”

To calculate combined deaths from alcohol, drugs, and suicide, TFAH added alcohol-induced deaths, drug-induced deaths (from the “Drug/Alcohol Induced Causes” category), and suicide deaths. Because a small number of deaths are categorized as both alcohol- or drug-induced and as suicide, TFAH then removed duplicates (ICD-10 “underlying causes of death” codes X60–65) when determining the combined death totals.

Age-adjusted death rates (deaths per 100,000) are used when available, which includes all categories except by age group and urbanization level.

Due to recent updates in racial/ethnic data reporting, analogous data is not available for racial/ethnic groups across all years with data (1999–2021). In two charts, TFAH switched the comparison year to ensure the racial/ethnic group being compared are analogous; these changes were noted in the chart.

For simplicity, TFAH uses slightly different terminology than CDC when describing racial/ethnic groups. TFAH uses “Latino” to include individuals of Hispanic or Latino ethnicity, and, unless noted, AI/AN, Asian, Black or African American, Native Hawaiian/Other Pacific Islander, white, and more than one race individuals are non-Hispanic.

Appendix B: Demographic Data

Deaths, death rates, and one-year percent change in death rate from alcohol, drug, and suicide, overall and by select demographics, 2021												
	Combined Alcohol, Drug, and Suicide			Alcohol-Induced			Drug Overdose			Suicide		
	2021 Deaths	Deaths per 100,000 (Age-Adjusted)	Change 2020 to 2021	2021 Deaths	Deaths per 100,000 (Age-Adjusted)	Change 2020 to 2021	2021 Deaths	Deaths per 100,000 (Age-Adjusted)	Change 2020 to 2021	2021 Deaths	Deaths per 100,000 (Age-Adjusted)	Change 2020 to 2021
Overall	209,225	60.9	11%	54,258	14.4	10%	106,699	32.4	14%	48,183	14.1	4%
Female	56,852	33.0	12%	15,558	8.3	10%	32,398	19.6	15%	9,825	5.7	4%
Male	152,373	89.3	10%	38,700	20.9	9%	74,301	45.1	14%	38,358	22.8	4%
American Indian and Alaska Native	4,325	178.7	27%	2,221	91.7	24%	1,358	56.6	33%	692	28.1	18%
Asian	2,899	13.9	2%	638	2.9	0%	971	4.7	2%	1,379	6.8	6%
Black	28,413	65.1	20%	5,023	11.2	15%	19,212	44.2	24%	3,692	8.7	12%
Latino	25,519	42.7	13%	7,533	13.6	26%	12,986	21.1	20%	4,907	7.9	5%
Native Hawaiian and Pacific Islander	256	40.2	30%	40	6.4	41%	127	20.1	46%	82	12.6	1%
White	144,448	69.5	9%	38,117	15.6	9%	70,121	36.8	11%	36,681	17.4	3%
More than one race	2,311	40.1	10%	419	8.8	9%	1,268	21.5	14%	631	9.7	2%
0-17	2,543	3.5	9%	<10	<0.1	–	865	1.2	20%	1,767	2.4	4%
18-34	48,143	63.7	8%	3,234	4.3	11%	30,940	40.9	10%	14,230	18.8	7%
35-54	84,438	100.4	12%	20,110	23.9	11%	48,783	58.0	15%	15,263	18.2	3%
55-74	65,653	85.9	12%	27,938	36.5	7%	25,045	32.8	22%	12,411	16.2	2%
75+	8,432	38.0	9%	2,964	13.4	11%	1,056	4.8	20%	4,508	20.3	6%
Northeast	32,781	55.0	5%	6,707	10.0	1%	20,243	35.3	7%	5,997	9.9	4%
Midwest	43,771	62.4	8%	11,585	14.9	9%	21,943	32.9	10%	10,480	15.0	5%
South	79,683	61.1	12%	18,256	12.6	8%	41,706	33.4	17%	19,365	14.8	4%
West	52,990	63.8	15%	17,710	20.3	16%	22,807	28.3	21%	12,341	15.2	4%
Metro	176,320	61.7	10%	44,535	15.6	9%	93,137	32.6	14%	38,873	13.6	4%
Non-Metro	32,905	71.4	16%	9,723	21.1	15%	13,562	29.4	34%	9,310	20.2	5%

	Opioid Overdose			Synthetic Opioid Overdose			Cocaine Overdose			Other Psychostimulants Overdose		
	2021 Deaths	Deaths per 100,000 (Age-Adjusted)	Change 2020 to 2021	2021 Deaths	Deaths per 100,000 (Age-Adjusted)	Change 2020 to 2021	2021 Deaths	Deaths per 100,000 (Age-Adjusted)	Change 2020 to 2021	2021 Deaths	Deaths per 100,000 (Age-Adjusted)	Change 2020 to 2021
Overall	80,411	24.7	16%	70,601	21.8	23%	24,486	7.3	23%	32,537	10.0	34%
Female	23,654	14.5	18%	19,571	12.2	27%	6,858	4.2	29%	9,218	5.8	33%
Male	56,757	34.8	14%	51,030	31.4	21%	17,628	10.5	21%	23,319	14.3	35%
American Indian and Alaska Native	932	38.7	38%	805	33.6	56%	172	7.0	25%	649	27.4	53%
Asian	533	2.6	-2%	464	2.2	2%	192	0.9	-5%	321	1.5	7%
Black	14,537	33.5	26%	13,592	31.4	30%	8,637	19.6	38%	3,020	7.2	41%
Latino	9,921	16.0	22%	8,851	14.2	33%	3,326	5.4	24%	3,870	6.4	35%
Native Hawaiian and Pacific Islander	62	9.7	61%	57	8.9	98%	13	–	–	74	11.8	31%
White	53,022	28.4	12%	45,592	24.8	19%	11,748	6.2	15%	23,834	12.6	34%
More than one race	926	15.0	23%	816	13.1	34%	204	3.5	4%	497	9.2	15%
0-17	676	0.9	35%	623	0.8	46%	53	<0.1	–	93	0.1	8%
18-34	26,134	34.6	10%	24,091	31.9	16%	5,915	7.8	10%	8,929	11.8	29%
35-54	36,699	43.6	16%	32,467	38.6	24%	11,747	14.0	24%	16,535	19.7	36%
55-74	16,500	21.6	24%	13,244	17.3	38%	6,686	8.7	41%	6,903	9.0	40%
75+	394	1.8	24%	168	0.8	47%	84	0.4	65%	71	0.3	72%
Northeast	16,891	29.7	7%	15,662	27.7	9%	7,100	12.3	19%	2,557	4.7	24%
Midwest	17,172	26.0	10%	15,554	23.7	13%	5,295	7.7	26%	5,678	8.8	30%
South	30,962	25.1	19%	27,187	22.2	27%	9,589	7.5	26%	12,897	10.6	40%
West	15,386	19.3	26%	12,198	15.5	51%	2,502	3.1	15%	11,405	14.1	33%
Metro	71,126	24.9	15%	62,740	22.0	23%	22,845	8.0	24%	27,049	9.5	34%
Non-Metro	9,285	20.2	25%	7,861	17.1	37%	1,641	3.6	34%	5,488	11.9	43%

Source: TFAH analysis of National Center for Health Statistics data

Appendix C: State Data

Deaths, death rates, and one-year change in death rate from alcohol, drug, and suicide, overall and by select demographics, 2021												
	Combined Alcohol, Drug, and Suicide			Alcohol-Induced			Drug Overdose			Suicide		
	2021 Deaths	Deaths per 100,000 (Age-adjusted)	Change 2020 to 2021	2021 Deaths	Deaths per 100,000 (Age-adjusted)	Change 2020 to 2021	2021 Deaths	Deaths per 100,000 (Age-adjusted)	Change 2020 to 2021	2021 Deaths	Deaths per 100,000 (Age-adjusted)	Change 2020 to 2021
Overall	209,225	60.9	11%	54,258	14.4	10%	106,699	32.4	14%	48,183	14.1	4%
Alabama	3,002	59.3	17%	639	11.1	11%	1,408	30.1	35%	827	15.8	-1%
Alaska	800	107.9	31%	315	41.0	28%	260	35.6	62%	220	30.8	12%
Arizona	6,102	82.4	13%	1,891	24.2	22%	2,730	38.7	8%	1,475	19.5	10%
Arkansas	1,671	55.1	12%	413	12.1	6%	637	22.3	17%	618	20.6	8%
California	22,414	53.6	16%	7,290	16.7	18%	10,901	26.6	22%	4,148	10.1	1%
Colorado	4,858	78.9	15%	1,695	26.5	9%	1,887	31.4	26%	1,384	22.8	6%
Connecticut	2,466	64.3	3%	542	12.6	-6%	1,552	42.3	8%	401	10.0	7%
Delaware	812	81.4	16%	158	13.1	17%	513	54.0	14%	137	13.6	11%
DC	605	86.0	13%	101	14.8	22%	450	63.6	10%	46	6.2	14%
Florida	14,638	64.4	6%	3,541	13.1	4%	7,827	37.5	7%	3,351	14.0	7%
Georgia	5,570	50.3	20%	1,368	11.3	14%	2,500	23.5	30%	1,676	15.3	11%
Hawaii	615	39.4	-2%	140	8.2	2%	269	17.3	-6%	202	13.7	6%
Idaho	1,154	59.0	8%	416	19.8	15%	354	19.0	19%	387	20.5	-12%
Illinois	6,752	51.0	4%	1,611	11.4	4%	3,762	29.0	3%	1,454	11.1	5%
Indiana	5,029	73.9	14%	1,116	14.8	8%	2,811	43.0	17%	1,129	16.4	9%
Iowa	1,617	49.3	8%	608	17.2	14%	475	15.3	7%	549	17.5	-3%
Kansas	1,749	59.9	17%	534	17.0	7%	680	24.3	39%	560	19.4	5%
Kentucky	3,988	89.1	8%	689	13.2	-9%	2,381	55.6	13%	816	17.9	1%
Louisiana	3,701	81.3	25%	514	9.8	15%	2,463	55.9	31%	689	14.8	8%
Maine	1,214	85.1	18%	327	18.8	13%	611	47.1	19%	277	19.5	19%
Maryland	3,986	61.5	-1%	627	9.0	4%	2,737	42.8	-4%	620	9.7	5%
Massachusetts	4,211	57.6	3%	1,005	12.5	-3%	2,585	36.8	9%	604	8.0	-5%
Michigan	6,233	60.1	5%	1,745	15.2	6%	3,089	31.5	10%	1,485	14.3	2%
Minnesota	3,383	57.1	17%	1,162	18.0	9%	1,356	24.5	29%	808	13.9	6%
Mississippi	1,815	60.7	29%	529	15.5	32%	787	28.4	34%	480	16.2	16%
Missouri	4,241	68.3	10%	919	13.2	13%	2,155	36.5	14%	1,177	18.7	3%
Montana	922	82.0	26%	372	30.6	23%	199	19.5	25%	350	32.0	23%
Nebraska	859	43.3	0%	364	17.5	-3%	214	11.4	1%	288	15.0	1%
Nevada	2,432	72.2	14%	812	22.3	13%	949	29.2	12%	691	21.5	18%
New Hampshire	923	62.4	6%	271	15.7	15%	441	32.3	7%	223	15.1	-8%
New Jersey	4,570	47.2	-1%	831	7.8	-8%	3,056	32.4	1%	688	7.1	0%
New Mexico	2,663	126.0	18%	1,091	50.0	16%	1,052	51.6	32%	533	25.0	3%
New York	9,374	44.9	7%	1,901	8.3	-4%	5,842	28.7	13%	1,660	7.9	-1%
North Carolina	7,114	66.2	19%	1,638	13.4	18%	3,981	39.2	27%	1,448	13.2	0%
North Dakota	489	63.4	9%	205	24.8	3%	124	17.2	10%	156	20.8	14%
Ohio	8,960	75.9	4%	1,771	12.9	11%	5,397	48.1	2%	1,766	14.6	6%
Oklahoma	2,687	66.6	14%	838	19.6	13%	960	24.4	26%	877	22.1	1%
Oregon	3,442	73.2	20%	1,255	24.4	11%	1,171	26.8	43%	889	19.5	7%
Pennsylvania	8,721	66.0	5%	1,469	9.4	14%	5,449	43.2	2%	1,885	13.9	11%
Rhode Island	777	67.6	8%	216	16.7	2%	455	41.7	9%	117	10.3	21%
South Carolina	3,954	74.5	14%	1,006	16.5	19%	2,138	42.8	22%	802	15.2	-7%
South Dakota	671	77.0	27%	377	42.8	42%	105	12.6	23%	203	23.2	11%
Tennessee	6,436	91.5	15%	1,323	16.7	5%	3,813	56.6	24%	1,222	17.0	-1%
Texas	12,680	42.2	12%	3,540	11.4	7%	4,984	16.8	19%	4,193	14.2	6%
Utah	1,699	53.9	1%	431	13.8	2%	662	21.1	3%	643	20.1	-3%
Vermont	525	78.2	16%	145	17.4	7%	252	42.3	29%	142	20.3	12%
Virginia	4,783	53.3	7%	1,014	10.2	1%	2,626	30.5	15%	1,188	13.2	-2%
Washington	5,355	64.3	18%	1,772	19.9	16%	2,264	28.1	28%	1,229	15.3	0%
West Virginia	2,241	128.7	10%	318	14.6	9%	1,501	90.9	12%	375	20.6	6%
Wisconsin	3,788	62.1	10%	1,173	16.7	9%	1,775	31.6	14%	905	15.1	4%
Wyoming	534	86.4	5%	230	34.3	-3%	109	18.9	9%	190	32.3	6%

Source: TFAH analysis of National Center for Health Statistics data

Deaths, death rates, and one-year change in death rate from alcohol, drug, and suicide, overall and by select demographics, 2021

	Opioid Overdose			Synthetic Opioid Overdose			Cocaine Overdose			Other Psychostimulants Overdose		
	2021 Deaths	Deaths per 100,000 (Age-adjusted)	Change 2020 to 2021	2021 Deaths	Deaths per 100,000 (Age-adjusted)	Change 2020 to 2021	2021 Deaths	Deaths per 100,000 (Age-adjusted)	Change 2020 to 2021	2021 Deaths	Deaths per 100,000 (Age-adjusted)	Change 2020 to 2021
Overall	80,411	24.7	16%	70,601	21.8	23%	24,486	7.3	23%	32,537	10.0	34%
Alabama	981	21.2	59%	847	18.5	88%	235	4.7	55%	493	10.8	62%
Alaska	201	27.6	81%	153	21.2	118%	13	--	--	165	22.8	134%
Arizona	2,000	28.8	8%	1,753	25.4	20%	204	2.8	12%	1,257	17.7	24%
Arkansas	386	13.7	38%	313	11.3	60%	63	2.1	104%	250	9.0	6%
California	7,181	17.8	30%	6,060	15.2	51%	1,377	3.5	15%	5,742	13.9	30%
Colorado	1,289	21.7	32%	973	16.5	64%	271	4.7	25%	752	12.4	39%
Connecticut	1,393	38.3	7%	1,285	35.7	8%	544	15.1	22%	90	2.6	-9%
Delaware	450	48.1	9%	411	44.0	12%	197	19.6	28%	56	6.3	5%
DC	348	48.9	8%	330	46.3	10%	225	33.6	64%	10	--	--
Florida	5,940	28.9	8%	5,358	26.4	12%	2,194	10.1	13%	1,908	9.5	41%
Georgia	1,799	17.1	38%	1,448	13.9	61%	505	4.7	49%	969	9.3	62%
Hawaii	91	6.1	15%	53	3.7	34%	17	1.2	--	180	11.5	-13%
Idaho	236	12.8	44%	160	8.7	159%	<10	--	--	134	7.1	24%
Illinois	3,050	23.7	1%	2,706	21.1	7%	1,300	10.3	14%	546	4.5	24%
Indiana	2,206	34.2	14%	2,011	31.3	19%	432	6.3	36%	1,002	15.8	35%
Iowa	259	8.6	13%	211	7.1	21%	35	1.1	30%	201	6.6	21%
Kansas	435	15.7	67%	351	12.8	113%	74	2.5	95%	284	10.3	49%
Kentucky	1,897	44.8	11%	1,714	41.0	14%	249	5.5	26%	1,040	25.0	38%
Louisiana	1,335	30.5	42%	1,174	27.1	67%	282	6.1	25%	619	14.2	61%
Maine	547	42.4	25%	497	38.8	30%	150	10.9	17%	188	15.2	49%
Maryland	2,460	38.5	-5%	2,301	36.1	-4%	906	14.7	16%	136	2.3	-1%
Massachusetts	2,267	32.5	6%	2,178	31.4	9%	1,156	16.6	21%	227	3.4	27%
Michigan	2,536	26.0	14%	2,285	23.6	16%	929	9.2	35%	536	5.8	34%
Minnesota	978	17.9	43%	882	16.2	55%	166	2.9	97%	474	8.7	39%
Mississippi	556	20.3	39%	475	17.6	54%	98	3.3	41%	327	12.3	42%
Missouri	1,582	27.1	14%	1,445	24.9	18%	264	4.3	33%	718	12.4	25%
Montana	114	11.1	29%	72	7.1	122%	<10	--	--	87	8.8	34%
Nebraska	113	6.0	15%	90	4.9	28%	17	0.9	--	62	3.3	-9%
Nevada	605	18.9	6%	369	11.8	21%	89	2.8	-4%	446	13.7	18%
New Hampshire	382	28.4	6%	349	26.0	2%	49	3.5	-14%	70	5.4	-4%
New Jersey	2,672	28.6	-1%	2,498	26.8	1%	1,084	11.7	19%	307	3.5	9%
New Mexico	750	37.2	38%	605	30.2	81%	135	6.4	19%	535	26.3	62%
New York	4,946	24.5	13%	4,527	22.5	17%	2,249	11.3	22%	589	3.2	35%
North Carolina	3,339	33.3	27%	3,065	30.6	34%	1,392	13.2	37%	966	9.7	62%
North Dakota	74	10.2	6%	57	7.8	85%	<10	--	--	49	6.9	52%
Ohio	4,456	40.1	0%	4,183	37.8	0%	1,518	12.9	19%	1,371	12.7	25%
Oklahoma	468	12.1	45%	337	8.8	119%	58	1.5	6%	512	13.2	26%
Oregon	779	18.1	53%	536	12.8	112%	93	2.2	53%	609	13.8	66%
Pennsylvania	4,081	32.8	1%	3,782	30.6	3%	1,547	11.9	12%	993	8.2	21%
Rhode Island	385	35.9	12%	343	32.1	13%	217	19.8	14%	63	6.1	66%
South Carolina	1,712	35.0	22%	1,507	31.1	32%	446	8.6	23%	753	15.8	43%
South Dakota	46	5.7	-4%	33	4.1	-9%	<10	--	--	53	6.5	64%
Tennessee	3,038	45.5	24%	2,796	42.1	30%	622	8.9	45%	1,528	23.3	52%
Texas	2,770	9.4	29%	1,858	6.3	76%	1,199	4.1	15%	1,937	6.6	26%
Utah	446	14.1	-4%	202	6.3	24%	50	1.5	-5%	312	10.1	29%
Vermont	218	37.4	36%	203	35.0	44%	104	16.1	46%	30	6	38%
Virginia	2,230	26.0	15%	2,064	24.1	19%	759	8.8	32%	573	6.8	36%
Washington	1,623	20.5	33%	1,218	15.6	75%	232	3.0	26%	1,144	14.1	53%
West Virginia	1,253	77.2	10%	1,189	73.5	13%	159	8.9	29%	820	49.9	30%
Wisconsin	1,437	25.9	13%	1,300	23.6	18%	549	9.3	33%	382	7.2	34%
Wyoming	71	12.4	17%	44	7.9	0.6%	<10	--	--	42	7.4	20%

Note: Some data unavailable due to insufficient reporting of type of drug involved in overdose or for privacy reasons.

References

- 1 Unless otherwise specified, all mortality data in this report is from CDC's National Center for Health Statistics' National Vital Statistics System, via CDC WONDER Online Database, and analyzed by Trust for America's Health. For more information on the analysis, see Appendix A on page 38.
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