ISSUE REPORT

Pain in the Nation:

THE DRUG, ALCOHOL AND SUICIDE CRISES AND THE NEED FOR A NATIONAL RESILIENCE STRATEGY

Trust for America's Health
WWW.HEALTHYAMERICANS.ORG

WELL BEING TRUST

NOVEMBER 2017

Acknowledgements

Trust for America's Health is a non-profit, non-partisan organization dedicated to saving lives by protecting the health of every community and working to make disease prevention a national priority.

Founded in late 2016 with a $100 million endowment from Providence St. Joseph Health, **Well Being Trust** is a national foundation dedicated to advancing mental, social and spiritual health. Created to include participation from organizations across sectors and perspectives, Well Being Trust is committed to innovating and addressing the most critical mental health challenges facing America, and transforming individual and community wellness. www.wellbeingtrust.org. Twitter: @WellBeingTrust

Data analysis and projections were provided by **Berkeley Research Group (BRG)**, a global strategic advisory and expert consulting firm that provides independent advice, data analytics, authoritative studies, expert testimony, investigations, and regulatory and dispute consulting to Fortune 500 corporations, financial institutions, government agencies, major law firms, and regulatory bodies around the world. www.thinkbrg.com.

This report is supported by grants from the Robert Wood Johnson Foundation and WBT. TFAH thanks the foundations for their generous support. The opinions in this report are those of the authors and do not necessarily reflect the views of the supporters.

TFAH BOARD OF DIRECTORS

Gail C. Christopher, DN
President of the Board, TFAH
President and Founder
Ntianu Center for Healing and Nature

Cynthia M. Harris, PhD, DABT
Vice President of the Board, TFAH
Director and Professor
Institute of Public Health, Florida A&M University

Robert T. Harris, MD
Treasurer of the Board, TFAH
Medical Director
North Carolina Medicaid Support Services
CSC, Inc.

Theodore Spencer
Secretary of the Board, TFAH
Senior Advocate, Climate Center
Natural Resources Defense Council

David Fleming, MD
Vice President
PATH

Stephanie Mayfield Gibson, MD
Senior Physician Adviser and Population Health Consultant
Private Contractor

David Lakey, MD
Chief Medical Officer and Associate Vice Chancellor for Population Health
The University of Texas System

Octavio N. Martinez, Jr., MD, MPH, MBA, FAPA
Executive Director
Hogg Foundation for Mental Health at the University of Texas at Austin

C. Kent McGuire, PhD
President and CEO
Southern Education Foundation

Karen Remley, MD, MBA, MPH, FAAP
CEO/Executive Vice President
American Academy of Pediatrics

Eduardo Sanchez, MD, MPH
Chief Medical Officer for Prevention
American Heart Association

Umair Shah, MD, MPH
Executive Director and Local Health Authority
Harris County Public Health

Vince Ventimiglia, JD
Chairman
Vice Chairman of Leavitt Partners Board of Directors
Leavitt Partners Board of Managers

REPORT AUTHORS

Laura M. Segal, MA
Vice President of Public Affairs
Trust for America's Health

Anne De Biasi, MHA
Director of Policy Development
Trust for America's Health

Jennifer L. Mueller, JD
Consultant

Kendra May, MPH
Consultant

Molly Warren, SM
Health Policy Research Manager
Trust for America's Health

CONTRIBUTORS

Benjamin F. Miller, Psy.D.
Chief Policy Officer
Well Being Trust

Tyler Norris, MDiv
Chief Executive
Well Being Trust

Genny Olson, MPH
Policy Development Associate
Trust for America's Health

PEER REVIEWERS

TFAH thanks the following individuals and organizations for their time, expertise and insights in the reviewing all or portions of the report. The opinions in the report do not necessarily represent the views of these individuals or their organizations.

Jay C. Butler, MD
Chief Medical Officer
Alaska Department of Health & Social Services

The Honorable Mary Bono
Principal
Faegre Baker Daniels Consulting
Former Member of Congress

Sean Clarkin
EVP, Senior Program Officer
Partnership for Drug-Free Kids

Nathaniel Z. Counts, JD
Senior Policy Director
Mental Health America

Corey Davis, JD, MSPH
Deputy Director, Southeastern Region
Network for Public Health Law

Gary Mendell
Founder & CEO
Shatterproof

Vivek H. Murthy, MD, MBA
Former Surgeon General of the United States

Corinne Peek-Asa, PhD
Associate Dean for Research and Director of the Injury Prevention Research Center
College of Public Health, University of Iowa

Cover photos: Phil Lowe/Shutterstock.com and Shutterstock

Table of Contents

Pain in the Nation: *Public Health Report* SERIES

TABLE OF CONTENTS

NOVEMBER 2017

Introduction

The United States is facing a new set of epidemics — **more than 1 million Americans have died in the past decade from drug overdoses, alcohol and suicides** (2006 to 2015).[1] Life expectancy in the country decreased last year for the first time in two decades — and these three public health crises have been major contributing factors to this shift.

In 2015 alone, 127,500 Americans died from drug- or alcohol-induced causes or suicide.[2] That equates to 350 deaths per day, 14 per hour and one person dying every four minutes.

These trends are a wake-up call that there is a serious well-being crisis in this country. In stark terms, they are signals of serious underlying concerns facing too many Americans — about pain, despair, disconnection and lack of opportunity — and the urgent need to address them.

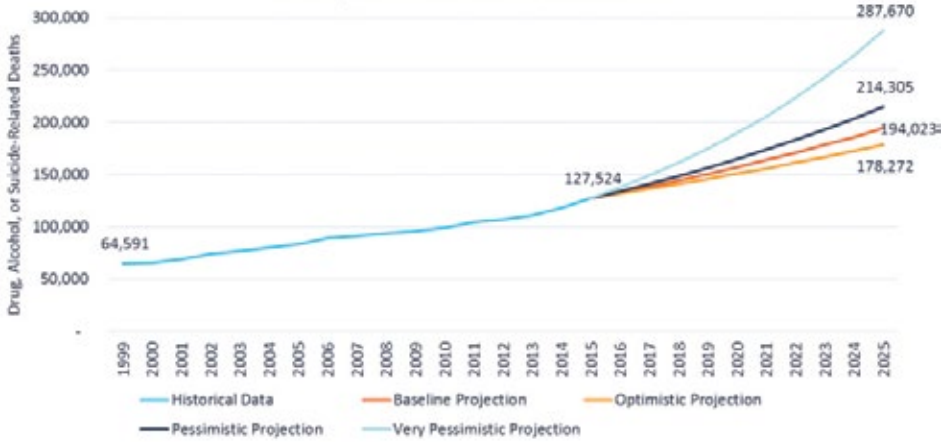
In this report, the Trust for America's Health (TFAH) and Well Being Trust (WBT) call for the need to develop a national strategy to improve resilience in the United States. The report examines current trends and evidence-based and expert-recommended policies, practices and programs to take a more comprehensive approach to counter these crises.

If more action is not taken, these trends will become significantly worse.

In fact, a new analysis conducted by the Berkeley Research Group (BRG) for this report found that if the current rise in drug, alcohol and suicide death trends continue — **over the next decade, these three epidemics would be expected to result in more than 1.6 million deaths (by 2025). This would represent a 60 percent increase over the current level.**

There could be a rise in deaths from 127,500 (39.7 per 100,000 in 2015) to 192,000 (55.9 per 100,000 in 2025) nationally.

U.S. Drug, Alcohol, or Suicide-Related Deaths



For a growing majority of states, the outlook posed by these threats is even more concerning.

- As of 2015, five states had death rates of 60 per 100,000 or higher, with New Mexico having the highest rate of 77.4 per 100,000. Alaska, New Hampshire, West Virginia and Wyoming were between 60 and 70 per 100,000.
- By 2025, if current trajectories continue, 26 states are projected to reach 60 deaths or more per 100,000, with two states possibly reaching 100 deaths per 100,000 (New Mexico and West Virginia).

The latest reports from the Centers for Disease Control and Prevention (CDC) using provisional data for trends in 2016 have found that drug overdoses have grown at an even faster pace than expected during the first nine months of 2016,[3] which, based on this analysis, would put the country on a worst-case track and would result in 2 million deaths over the next 10 years. (Note: final data for 2016 rates will be revised and confirmed in late 2017 or early 2018).

The rapid rise of these epidemics over the past 15 years constitute three of the most serious public health crises of this century. The life-and-death consequences of drug and alcohol misuse and suicide have reached urgent levels in many communities. In addition, wide-scale substance misuse and insufficient attention to mental health disorders have broad impact. The added recent dramatic increase of illicit opioids — heroin and its blending with the more potent fentanyl and even more potent carfentanil — have made the immediate situation even more dire and complicated.

While the crises have received much attention — this report finds the actions that have been taken to date are severely inadequate.

THE CURRENT CRISIS

- **Drug-related deaths** have tripled since 2000 — and were responsible for more than 52,400 deaths in 2015.[4, 5] More than 33,000 of these were from opioids, mainly prescription opioids (pain reducers), heroin and fentanyl.
  - **7.7 million Americans (2.9 percent) have a drug use disorder.**
  - There was a 72.2 percent increase in fentanyl-related deaths (fentanyl is a synthetic drug that is 50 to 100 times more potent than heroin, and is often "cut" with heroin); and 20 percent rise in heroin-related deaths between 2014 and 2015. In 2016, provisional data show fentanyl became the leading cause of drug overdose — at 21,000 overdose deaths, which would be double the rate in 2015.[6]
  - In 2015, the amount of opioids prescribed could medicate every American around the clock for three weeks.[7] Opioids are currently prescribed at rates three times higher than they were compared to 1999 (prescribing rates peaked at more than four times that level in 2010).[8]
- **Alcohol-induced deaths** have reached a 35-year high — growing by 37 percent from 2000 to 2014 — with 33,200 Americans dying from liver diseases, alcohol poisoning and other diseases as of 2015.[9] The rate for all alcohol-attributable deaths — including alcohol-related motor vehicle, violence and other fatalities — total 88,000 a year.[10, 11]
  - **15.7 million Americans (5.9 percent) have an alcohol use disorder.**
  - In addition, millions of Americans consume alcohol "excessively" (binge or heavy drinking) putting them at risk for injuries or other harms. Nine out of 10 excessive drinkers do not have an alcohol use disorder, but excessive drinking is a risk factor for alcohol use disorders — as well as for suicide and other forms of violence — and one in five individuals who die from opioid overdoses also have alcohol in their system at time of death.
- **Suicides** increased by 28 percent from 2000 to 2015, accounting for **more than 44,000 deaths a year.** Although suicide rates are higher among men, the highest increases have been among middle-aged women (63 percent increase) and girls ages 10 to 14 (200 percent increase).[12, 13]
  - Alcohol use is involved in around 23 percent of suicides and around 40 percent of suicide attempts, and 16 percent of suicides are from poisoning (including drug overdoses).[14, 15]
- While overall death rates are higher among Blacks and other people of color, the Surgeon General noted that substance misuse and suicide are leading drivers of **lowered U.S. life expectancy for the first time in decades**, with an unprecedented increase in mortality among middle-aged Whites in the past 15 years.[16]
  - Life expectancy rates declined 20 percent among middle-class Whites with less than a college education during this time period, with deaths from drug overdoses, alcohol poisoning, liver disease and suicide all tripling among this cohort. These trends have not been seen within other racial and ethnic groups.[17, 18]
  - Overall, however, death rates among Blacks remain significantly higher than for Whites. For instance, among middle-aged individuals (ages 25 to 64 years old), death rates among Blacks are 67 percent higher than Whites in urban areas, 30 percent higher in suburban areas, 46 percent higher in small/medium metro areas and 39 percent higher in rural areas. These differences have implications for examining a range of root causes that impact premature death and behavioral health, such as poverty and adverse circumstances, which can impact life expectancy.[19, 20]

ECONOMIC COSTS

A new BRG analysis conducted for this report also found that healthcare spending for individuals who have a diagnosis related to drugs, alcohol or individuals at risk for suicide **are 2.5 times higher than the average American adult, at $20,113 per patient per year.**

Around 3.8 percent of the population had at least one of the diagnoses in 2014. Combined, these patients had annual healthcare costs of $249 billion — roughly 9.5 percent of total health expenditures in the United States.

A National Resilience Strategy

This report calls for the creation of a National Resilience Strategy — a comprehensive approach to improve the lives of Americans — and address the factors that contribute to substance misuse, suicide and other related harms.

The country has long struggled with effective approaches to promoting positive mental and behavioral health — and to effectively manage all forms of pain.[21]

The confluence of "despair deaths" are directly related to pervasive issues with how the country views and manages mental health, pain and despair — and without better strategies that focus on preventing problems and providing effective support, services and treatment, the trends are likely to be perpetuated and get worse.

- **Mental Health and Substance Use Disorders:** In 2016, 44.7 million American adults experienced a mental illness, 20.1 million experienced a substance use disorder and 8.2 million experienced both — and these numbers are likely to be underestimated due to issues of stigma.[22]
  - As many as one in five children and teens have had a serious debilitating mental disorder, with half of the mental health conditions starting by the age of 14 — and more than 25 percent of teens are impacted by at least mild symptoms of depression.[23, 24, 25]
  - Only around one in 10 individuals (10.6 percent) who needed substance use treatment received the recommended treatment at a specialty facility in 2016. Comparatively, four in nine adults with any mental illness received mental health services.[26]
  - Fifty-five percent of U.S. counties do not have any practicing behavioral health workers and 77 percent report unmet behavioral health needs.[27]
  - More than 40 percent of adults with a substance use disorder in the past year also experienced mental illness compared with 16 percent among the rest of the population (2.5 times likelihood); and 18.5 percent of adults with a mental illness also had a substance use disorder in the past year compared with 5.4 percent among the rest of the population (three times likelihood).[28]
  - Medicaid accounts for 25 percent of all mental health and 21 percent of substance use disorder spending.[29] Nearly half of Medicaid spending is on care for the 20 percent of beneficiaries who have a behavioral health diagnosis.[30]
- **Chronic Pain:** Millions of Americans suffer from pain — the National Academy of Medicine (NAM) estimates around 100 million experience chronic pain; millions experience acute pain from injury, disease or medical procedures; and millions experience mental, emotional and other psychological forms of pain.[31]
  - In the 1990's, there were developments in the availability of prescription opioids — and they were rapidly adopted and used as a major pain management strategy. Prescription opioids have been important for helping many patients manage pain when used effectively and appropriately under provider supervision. However, their widespread availability and use has contributed to misuse, increased addiction and the "masking" of the need to develop other effective and integrated approaches to address pain — and the need to address the factors that contribute to different types of pain and suffering.

Children whose parents misuse alcohol and other drugs are three times more likely to be abused and more than four times more likely to be neglected

- **Adverse Childhood Experiences:** Two-thirds of Americans report having experienced an adverse childhood experience (ACE) while growing up — across all socio-economic levels. Nearly 40 percent experienced two or more ACEs, and 22 percent experience three or more ACEs.[32, 33, 34, 35, 36]
  - Children who grow up in an environment where a member of the family has a mental illness or alcohol or drug use disorder can have lifelong health consequences — with the impact being strongest for infants and toddlers — and is considered an ACE.[37]
  - Children whose parents misuse alcohol and other drugs are three times more likely to be abused and more than four times more likely to be neglected than children from non-substance misusing families.[38] This in turn increases the risk that they will develop anxiety disorders, severe personality disorders and misuse alcohol and drugs themselves.[39, 40]
  - Parents who misuse alcohol or other drugs are more likely to be experiencing multiple sources of stress themselves, including low socio-economic status, lack of social support and resources, financial or emotional distress, mental health problems such as depression, or have experienced abuse when they were growing up.[41]
- **Consequences of Persistent and Prolonged Stress:** One in five babies and toddlers (around 23 percent) live below the poverty line, and 45 percent are in low-income families.[42] Children who grow up in persistent poverty or low-income families are more likely to remain poor as adults, and have lower educational attainment and employment — and have more adverse mental and physical health status.[43]
- **Maltreatment of Children:** More than 680,000 children experience severe forms of maltreatment annually (79 percent from neglect and 18 percent from physical abuse), one-third of these are children under the age of four.[44] Around 400,000 are in out-of-home foster care at any time.[45] Of these children, more than 60 percent of infants and 40 percent of older children are from families with active alcohol or drug misuse.[46]
  - The opioid epidemic is intensifying the strain on child welfare systems. The number of children in foster care across the country increased by 8 percent between 2012 and 2015.[47, 48] Some states with particularly high increases around this timeframe include Florida (24 percent increase), Georgia (74.5 percent increase), Indiana (37 percent increase), Kentucky (33 percent increase) and Minnesota (33 percent increase).[49, 50] A number of states have issued emergency pleas for additional foster parents, and there are increased reports of grandparents and other family members caring for children whose parents are struggling with opioid use disorders.

The opioid crisis has gained urgent national attention. It has led to Presidential commissions, numerous states declaring states of emergency and communities around the country struggling with managing the life-and-death issues of first responders, hospital emergency departments confronting high rates of overdoses and major gaps in the ability to provide treatment for individuals with opioid use disorders. States and communities are also facing the consequences of the crisis on children and families — with significant increases in the number of babies born with neonatal opioid withdrawal syndrome, children being placed in foster care and other family members being called upon to care for children of parents struggling with addiction.

Many of the strategies to address the opioid epidemic have focused on trying to limit the supply of prescription and illicit forms of opioids along with measures to respond to overdoses and attempts to try to address major gaps in the country's substance use disorder treatment capabilities, rapidly attempting to expand and modernize the types of treatment available to those in need.

However, these efforts are inherently insufficient — and will not succeed unless there are corresponding efforts to address the broader issues that contribute to adverse well-being and underlying pain. The rise of multiple despair deaths and related trends show there is a more significant dynamic that needs to be addressed.

While the availability of drugs and alcohol does contribute to higher use, there are many other factors that contribute to substance misuse and risk for suicide — including family and social relationships, social-emotional development, ACEs and "lack of economic opportunity,

poor working conditions and eroded social capital in depressed communities, accompanied by hopelessness and despair." [51, 52, 53, 54, 55, 56] In addition, causation goes in both directions — substance misuse and untreated mental health issues can adversely impact health, academic and career attainment, relationships with family and friends and the ability to be a connected part of a community.

A National Resilience Strategy is needed to create a more comprehensive, focused and effective approach that prioritizes putting prevention first, promoting positive mental health, and that develops systems of support to identify issues early and ensures Americans receive the support and care they need to thrive.

This report offers a critical look at both past and projected impacts and outcomes of opioid and alcohol misuse, including overdoses, and death by suicides.

It presents a scan of the evidence and summary of the fragmented and often inadequate national support constellation of existing policies and programs to address these pressing issues. One thing is clear: there is an immediate need to develop an actionable national response to alcohol and drug misuses and death by suicide. Not only are these urgent health crises across this country, they are indicators of the need to go deeper and to look at underlying causes and opportunities to create an integrated approach to well-being for all people, and especially for those who are at a high risk for experiencing these challenges. The findings of this report serve as a call to action from leaders across all sectors and regions/states to come together to develop a thoughtful and inclusive framework for systemic change that measurably improves outcomes tied to well-being and health.

Tweens and teens are coming of age with new and different substance misuse risks of prescription opioids, heroin and heroin mixed with other drugs. Family and community influences also increase the risk for a child's future misuse of alcohol and for both suicidal thoughts and suicide.

There must be a paradigm shift in the response to these challenges — with top priorities that include:

- **Increasing Access to Policy and Programmatic Advice and Support – Establishing Expert Networks.** The opioid crisis is a stark and clear demonstration of the intergenerational impact of behavioral health issues — and the urgent need to address the effect on children. Solutions must focus on providing support for the individual with a substance use disorder — but also for the children, parents and families impacted. The epidemic is creating a new compounded and complicated generation of ACEs — which research shows have a long-term effect on children's lives. Tweens and teens are coming of age with new and different substance misuse risks of prescription opioids, heroin and heroin mixed with other drugs. Family and community influences also increase the risk for a child's future misuse of alcohol and for both suicidal thoughts and suicide. Systems and supports must be aligned and maximized to support family needs — to provide support for prevention and treatment services for mental health and substance use disorders, supporting in-home parenting skills and ways to keep children with parents or other family members when possible.
- **Putting Prevention First.** A multi-generational system must include a coordinated, effective system for supporting children and families. Experts have identified a broad range of policies and programs that can achieve results for reducing substance misuse and suicide, and promoting resilience by reducing risk factors and supporting positive protective factors (such as stable, secure families, homes and communities). These programs, however, are often ad hoc — and are not provided at scale or coordinated to work together to achieve maximum results for families. There needs to be new models and infrastructure that support better alignment, integration and case management of services and supports for families — across healthcare, behavioral health services and other social services. New mechanisms must also be supported to help lead, integrate and manage community-based efforts to address the opioid, alcohol and suicide crises — and improve well-being — to help ensure that the top needs and problems are being addressed in ways that effectively use the expertise and resources available across local institutions and businesses to support these efforts. In addition, it is important to bring the leaders and resources of a community together to support an improved sense of community, social connectedness and commitment to work together to promote economic opportunity initiatives.
- **Focusing on Early Childhood.** Investing in early childhood policies and programs will have the biggest impact for reducing risks and supporting a lifetime of better well-being. Key factors include: nurturing, stable caretakers and relationships; good nutrition and physical activity; positive learning experiences; a safe home, neighborhood and environment; and high-quality, preventive healthcare. Early intervention to prevent issues can help avoid a "cascade of risk," including the multi-generational impact of adverse experiences.[57] Improved systems are needed to coordinate the services and supports available to children and families at risk — helping to identify problems early and ensure families receive necessary care. Some impactful early childhood programs include: high-quality home visiting programs; evidence-based parent education and support; high-quality child care and early education; and services that support the transition from early childhood programs to elementary school. It is also important to provide support for families to support stability and resilience, including financial, food, housing and transportation assistance — and quality healthcare.
- **Rebooting School-Community Efforts to Support Tweens and Teens.** There is significant evidence for approaches to support better well-being during the tween and teen years — at a time when many individuals face many transitions, including changes in schools and relationships when mental health concerns become evident and risk for substance

misuse may emerge. There should be a reboot and recommitment to supporting evidence-based prevention efforts among school-aged children and youth, moving past years of ineffective or inexistent school-based efforts. There are many effective programs that have been shown to have results but have never been widely implemented. Some key strategies include: school-community connected efforts; social-emotional learning and life and coping skills; positive and inclusive school environments; anti-bullying efforts; training for educators and other "gatekeepers" to help identify when youth are at-risk; expanding school counselors, mental health personnel and health services; and screening, early intervention and connection to appropriate services as needed.

- **Increasing Access to Expert Advice and Support — Establishing Expert Networks.** There must be increased support for communities who are struggling with the opioid and related epidemics to be able to access experts to better inform decisions about the most effective, evidence-based and promising strategies available to meet a community's specific needs — including receiving technical assistance and evaluation supports to ensure the efforts are well-implemented and achieve results. Currently, there are national resources at federal agencies and philanthropies, as well as within some communities. However, most states and communities do not have this type of access to expert assistance and support. Creating state-level support and advisory centers would ensure communities are able to tap into assistance from leading academic and government experts and provide a greater focus on improving well-being and health in communities in more lasting and effective ways. Successful models for developing this type of network include Communities That Care and EPISCenter.

- **Achieving the Vision of Parity and Integration — Improving and Expanding Behavioral Health Services and Aligning with Healthcare to Support the "Whole Health" of Individuals and Families.** Over the past two decades, federal and state policies shifted to recognize the need to provide mental health and substance use disorder treatment (often combined to be referred to as behavioral health) on parity with the level of treatment for physical health problems. Legacy systems, views and approaches remain, however, which make achieving parity and integration a challenge. Mental health and substance use disorders have traditionally been treated through separate systems. There must be a concerted effort to expand the availability and access to behavioral health services and include coverage, payment reform and expanding and developing new systems of service delivery and workforce models, including those integrated or connected to primary healthcare. It is particularly important to develop incentives to expand the delivery and quality of care in communities where there are limited or no options for behavioral healthcare — especially in many rural and some urban areas. Expanding the availability and quality of services will also include supporting new models for delivery, such as telehealth and other innovative practices, and increasing workforce development initiatives and greater use of community health workers and peer-counselor/support models where appropriate.

- **Early Identification of Issues and Connection to Supports and Services.** A priority for a modernized and effective approach to whole health is supporting systems that focus on early identification of problems and connecting people to the services they need. This involves improved case management within healthcare and connection to other social service supports that can have a significant impact on health. There are a number of tools to effectively identify children and families at risk, as well as for identifying tweens, teens, youth and adults at risk for substance misuse, mental health concerns and suicide. Models like Accountable Health Communities and Nurse Family Partnerships help support systems for identification, referral, connection to care and follow-up.

- **Improving Pain Management and Treatment.** The opioid epidemic also demonstrates the need to improve how the country views and manages pain. This is both a cultural need to better understand pain and its impact as well as a need within the healthcare system to develop and support different pain treatment approaches, and to provide ongoing training for responsible, recommended prescription opioid prescribing practices.

In this report, TFAH and WBT explore:

- **Projections.** The potential consequences if action is not taken — reviewing projections for how the epidemics could continue to grow.

- **Healthcare Costs Associated with Drug, Alcohol and Suicide-Risk Diagnoses.**

- **Review of Current Key Policies that Promote Resilience:**

  - **Reducing Drug and Alcohol Misuse and Suicide.** This subsection reviews the spectrum of proven policies and programs, as well as new ideas, that aim at preventing, reducing the harm, and/or better understanding the issues around drugs/opioids, alcohol and suicide.

  - **Improving Behavioral Health Services To Support "Whole Health."** Expanding the availability of mental health and substance use disorder treatment and recovery, and shifting it towards a whole health mentality, as well as taking on long-standing stereotypes and stigmas, is essential to support the millions of Americans with behavioral health issues. The pervasive nature of these issues shows that they are "normal" and part of everyday life — and that legacy approaches that often try to hide, deny or shame them are ineffective, inappropriate and harmful.

  - **Prioritizing Prevention — Supporting Healthier Communities and Raising a Mentally and Physically Healthier Generation of Kids.** A range of factors impact the health and well-being of individuals and families. The opportunities and circumstances where they live can have a bigger impact than genetics. This section reviews policies and programs that can promote well-being for children, teens and families, as well as within communities to reduce risks for substance misuse, suicide and a range of related harms.

- **Recommendations for Building a National Resilience Strategy.** A review of the range of policies and programs available to inform an effective, comprehensive continuum approach — from prevention and early identification and connection to services and supports to treatment and recovery.

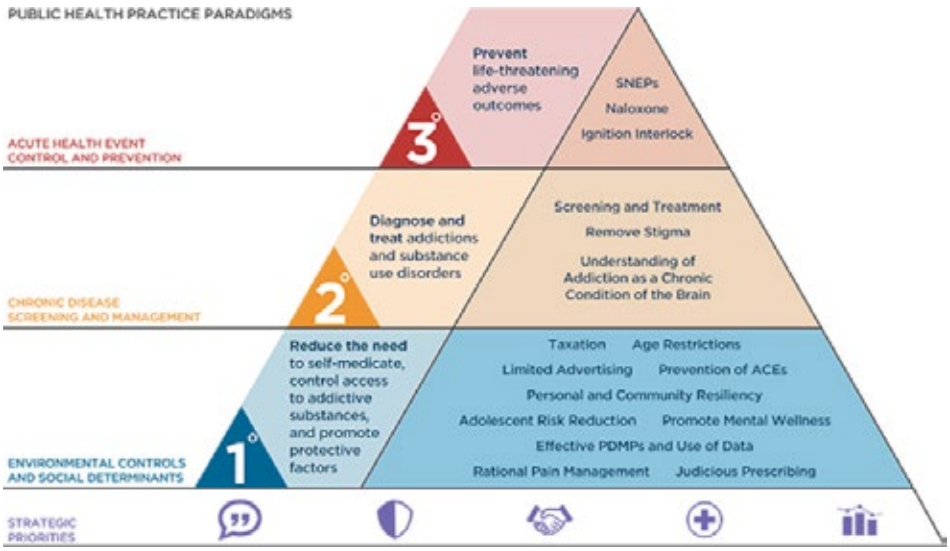
EXAMPLES OF RETURN ON INVESTMENTS FOR RESILIENCE PROGRAMS

Focusing on preventing problems and providing support can help Americans thrive, with proven results for improving mental and physical health and school and career achievement. They also provide a sound financial investment, with many prevention programs yielding positive returns on investments ranging from $3.80 to $34 returns for every dollar invested.[58, 59, 60, 61]

HEALTH AND/OR SOCIETAL DOLLARS SAVED FOR EVERY $1 INVESTED	
Five Strongest School-based Substance Misuse Prevention Programs	$3.80 – $34[62]
School-based Social Emotional Learning Programs	$11[63]
School-based Violence Prevention Programs (including Suicide)	$15 – $81[64, 65, 66]
Early Childhood Education Programs	$4 - $12[67]
Nurse Home Visiting for High-Risk Infants	$5.70[68]
Women, Children and Infant (WIC) Program	$2 - $3[69]
Effective Substance Use Treatment Programs	$3.77[70]
Community Health Navigator, Referral and Case Management Programs	$2 - $4[71]
Sobriety Treatment and Recovery Teams (for parents with substance use disorders as alternative to traditional child welfare programs (savings identified are within the foster care system))	$2.22[72]
Screening, Brief Intervention and Referral to Treatment (for Substance Misuse)	$3.81 - $5.60[73, 74]
Alcohol Pricing: a 10 percent increase in the price of alcoholic beverages is shown to reduce consumption by 7.7 percent.[75, 76] Alcohol tax revenue generated around $9.8 billion for communities across the country in 2016.[77]	

ASSOCIATION OF STATE AND TERRITORIAL HEALTH OFFICIALS (ASTHO) PRESIDENT'S CHALLENGE 2017

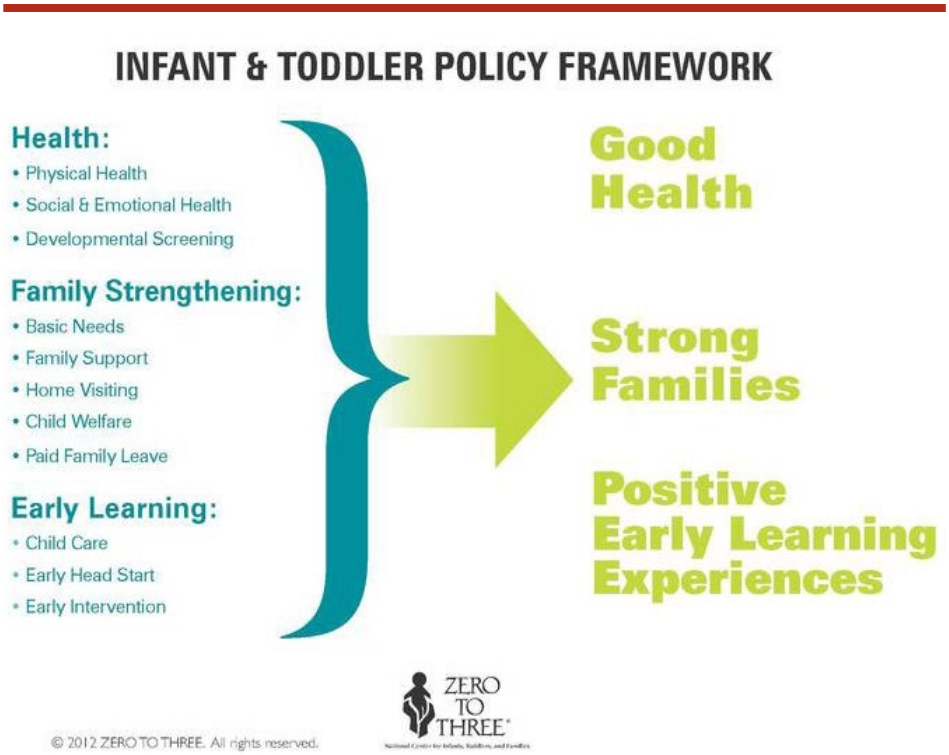
A conceptual framework of public health approaches to preventing substance misuse and addictions[78]



Key strategies to prevent substance misuse and addictions:

- Reduce stigma and change social norms
- Increase protective factors and reduce risk factors in communities
- Strengthen multi-sectoral collaboration
- Improve prevention infrastructure
- Optimize the use of cross-sector data for decisionmaking

Source: ASTHO



SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES ADMINISTRATION (SAMHSA) COMPREHENSIVE STRATEGY TO SUPPORT MENTAL AND BEHAVIORAL HEALTH

- **Health:** overcoming or managing one's disease(s) as well as living in a physically and emotionally healthy way;
- **Home:** a stable and safe place to live;
- **Purpose:** meaningful daily activities, such as a job, school, volunteerism, family caretaking or creative endeavors, and the independence, income and resources to participate in society; and
- **Community:** relationships and social networks that provide support, friendship, love and hope.[79]

Projections: Possible Futures of Drug, Alcohol and Suicide Deaths

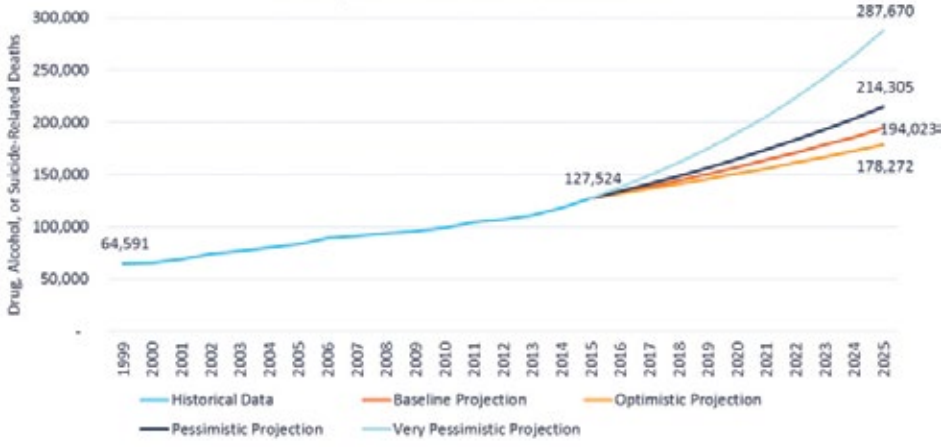
A new analysis conducted by the Berkeley Research Group on behalf of TFAH and WBT found that if alcohol-related, drug-related or suicide deaths continue to grow at current rates, they could account for **around 1.6 million fatalities in the next decade (between 2016 and 2025).**

This would be a 60 percent increase from this past decade when there were 1 million deaths attributable to substance misuse and suicide (2005 and 2015).

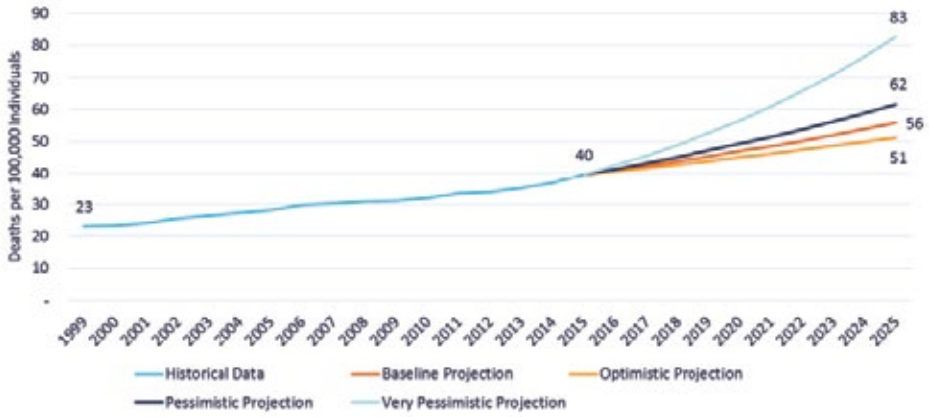
- Deaths would increase from nearly 40 (39.7) per 100,000 as of 2015 to nearly 56 (55.9) per 100,000 by 2025 (in the baseline scenario).
- The analysis also includes best case and worst case scenarios based on the growth trends, which would yield around 1.5 million and 1.7 million deaths respectively. Under an extreme worst case scenario, which would be consistent with current reported trends in 2016, these deaths could reach 2 million by 2025 — effectively doubling the rates of the past decade.
- Under the best case scenario, the deaths would increase to 51 per 100,000 in 2025; under the worst case scenario, they would increase to 62 per 100,000; and under the extreme worst case pessimistic scenario, they would increase to 83 per 100,000.

Note: From 1999-2015, there were 78,000 suicide deaths over the analyzed period that were also drug- or alcohol-related, the analysis accounts for any potential double-counting. From 2006-2015, there were 52,000 suicide deaths over the analyzed period that were also drug- or alcohol-related, the analysis accounts for any potential double-counting. **A full methodology for the analysis is available in Appendix B.**

U.S. Drug, Alcohol, or Suicide-Related Deaths

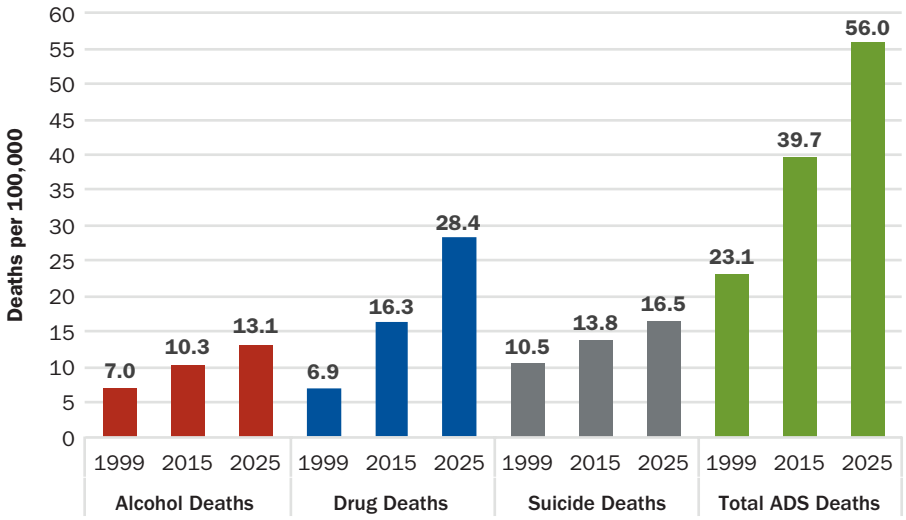


U.S. Drug, Alcohol or Suicide-related Deaths per 100,000 Individuals

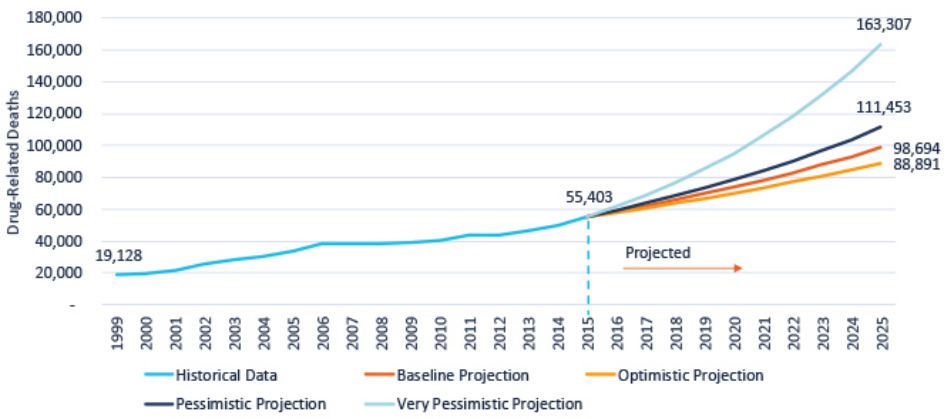


PROJECTED ANNUAL GROWTH RATE SCENARIOS FOR NATIONAL DAS DEATHS PER 100,000 (2016-2025)				
DAS Metric	**Very Pessimistic**	**Pessimistic**	**Baseline**	**Optimistic**
Drug-Induced Deaths	10.6%	6.4%	5.1%	4.0%
Alcohol-Induced Deaths	7.1%	3.5%	2.3%	1.4%
Suicide Deaths	2.4%	2.2%	1.8%	1.4%

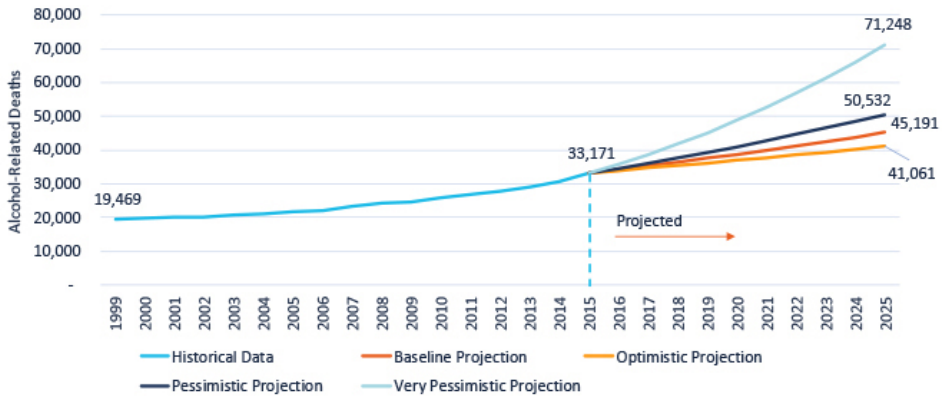
U.S. Drug, Alcohol or Suicide-related Deaths



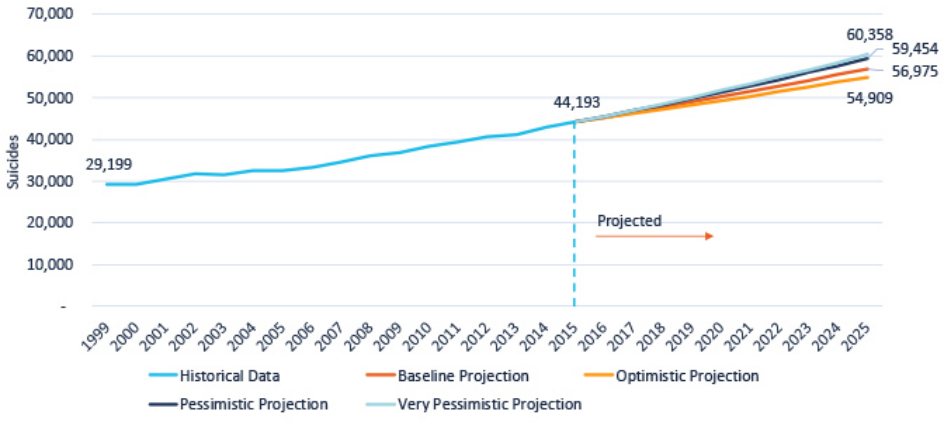
U.S. Drug-Related Deaths



U.S. Alcohol-Related Deaths

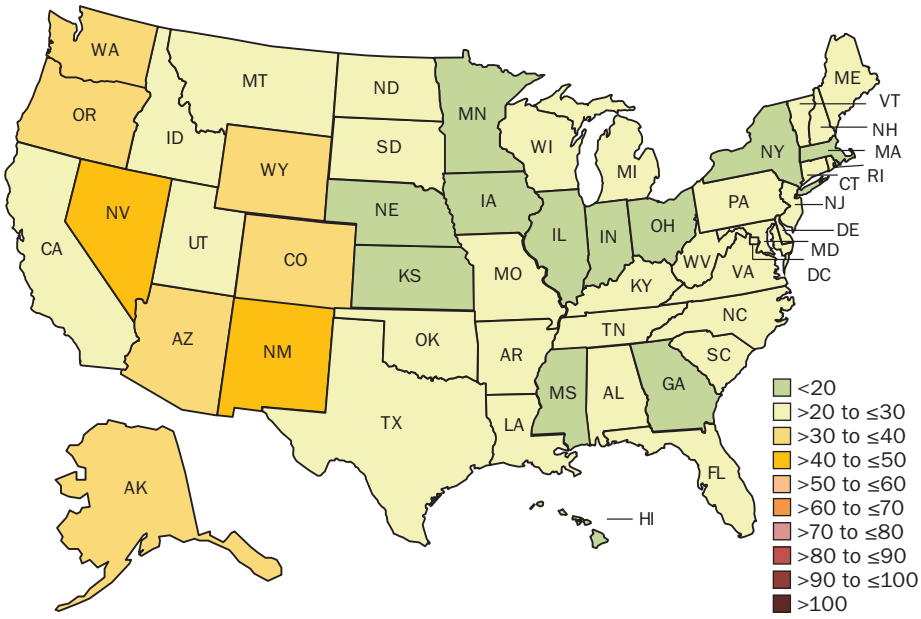


U.S. Suicide-Related Deaths

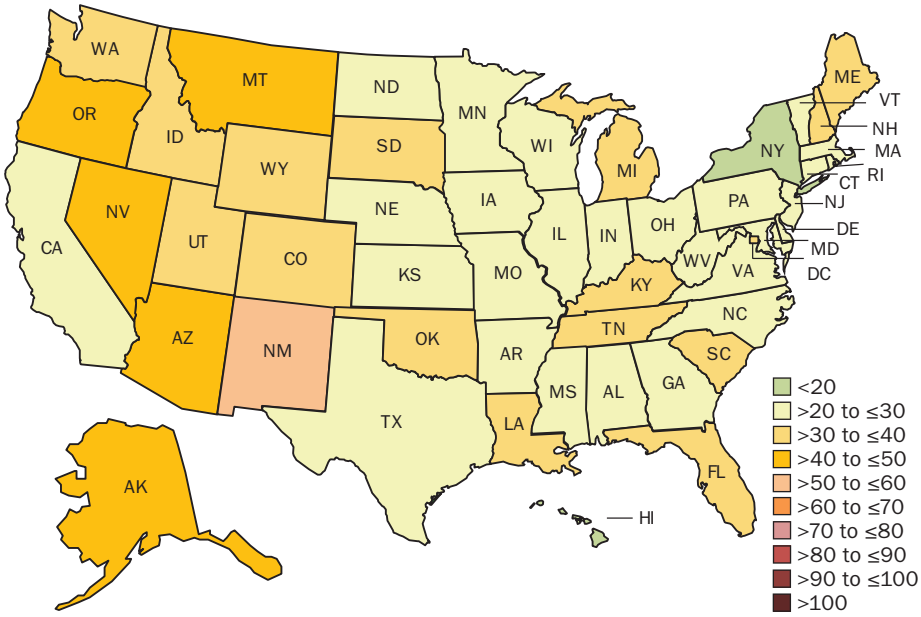


Drug, Alcohol and Suicide Deaths by State, 1999, 2015 and Projected for 2025

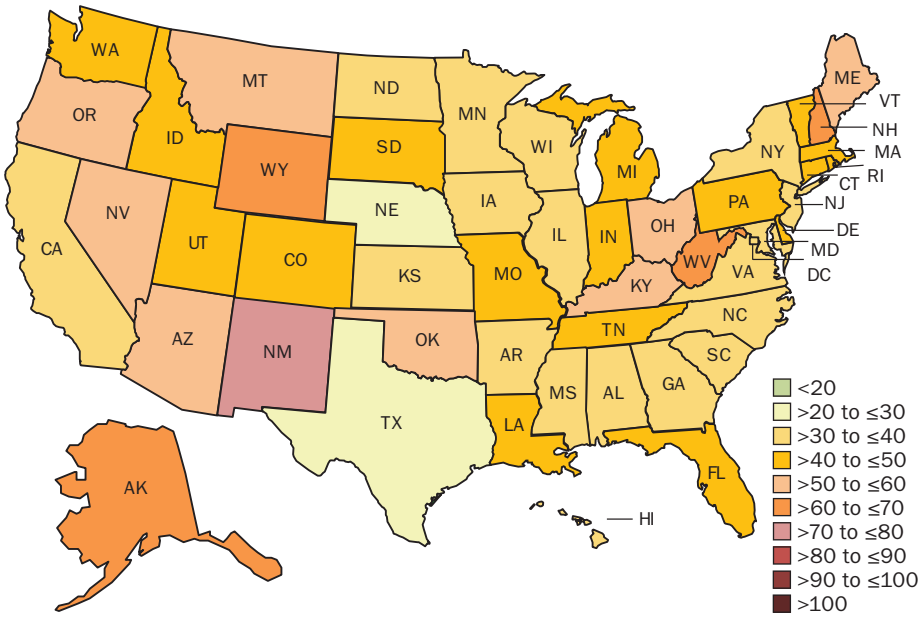
1999 Alcohol, Drug and Suicide Deaths Per 100,000



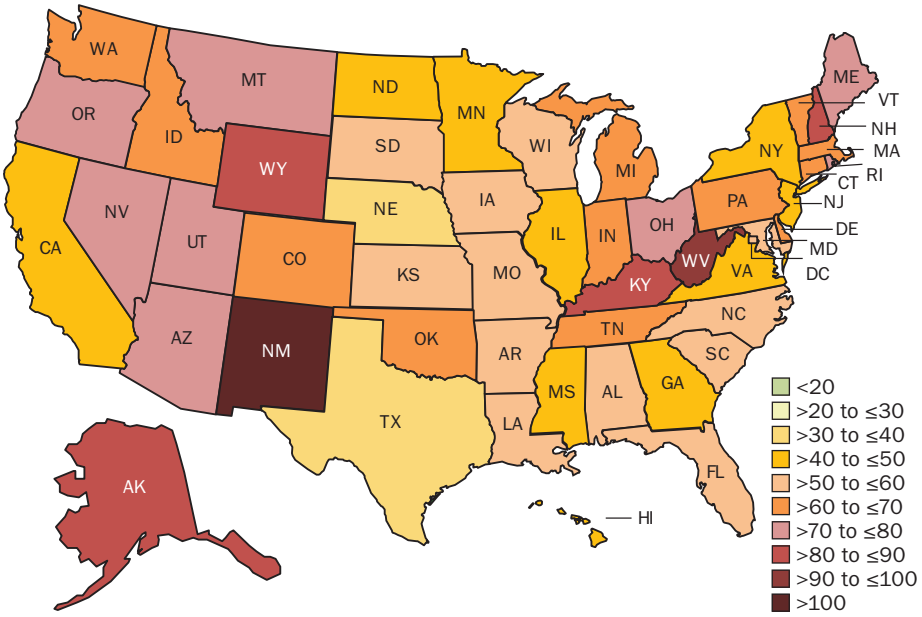
2005 Alcohol, Drug and Suicide Deaths Per 100,000



2015 Alcohol, Drug and Suicide Deaths Per 100,000



2025 Alcohol, Drug and Suicide Deaths Per 100,000



ALCOHOL, DRUG AND SUICIDE DEATH RATES PER 100,000 IN 1999 AND 2015 AND 2025 PROJECTIONS (CDC WONDER)

	Alcohol Deaths				Drug Deaths			
	1999	2015	2025	Change 1999-2025	1999	2015	2025	Change 1999-2025
Alabama	5.6	6.5	8.2	46%	4.4	15.2	27.5	525%
Alaska	15	21.8	27.5	83%	9.0	16.5	28.4	215%
Arizona	9.3	18.7	23.6	154%	11.1	18.7	32.6	194%
Arkansas	4.5	8.1	10.2	128%	4.6	13.2	23.5	411%
California	9.8	13.2	16.6	69%	9.2	11.9	21.2	130%
Colorado	11.1	15.7	19.8	78%	8.9	15.9	27.0	203%
Connecticut	5.2	9.5	12.0	130%	9.7	22.3	38.0	291%
Delaware	7.9	8.5	10.7	35%	7.1	20.9	36.2	411%
D.C.	13.5	11.9	15.0	11%	9.6	18.6	31.9	232%
Florida	8.1	12.3	15.5	91%	6.7	15.9	27.5	310%
Georgia	5.9	7.1	9.0	52%	4.3	12.8	22.1	414%
Hawaii	3.1	6.6	8.4	170%	6.9	11.8	20.2	192%
Idaho	5.8	14.5	18.3	215%	5.2	13.2	22.3	329%
Illinois	5.2	7.4	9.3	78%	7.1	14.3	24.0	238%
Indiana	5.1	10.4	13.1	157%	4.2	18.8	32.6	677%
Iowa	5.2	11.0	13.9	167%	2.0	9.9	17.5	776%
Kansas	4.9	9.5	12.0	146%	3.7	11.3	19.8	434%
Kentucky	5.9	10.5	13.3	125%	5.4	28.8	49.6	819%
Louisiana	6.7	8.3	10.5	56%	5.5	18.4	31.8	478%
Maine	8.4	14.6	18.4	119%	5.5	20.2	34.5	527%
Maryland	6.0	5.0	6.3	5%	12.6	21.4	36.2	188%
Massachusetts	5.6	9.3	11.7	110%	8.1	25.4	44.9	454%
Michigan	6.3	9.9	12.5	99%	7.2	20.0	38.5	434%
Minnesota	6.2	10.9	13.8	122%	3.5	10.6	19.6	460%
Mississippi	5.5	5.8	7.4	34%	3.6	11.7	20.3	465%
Missouri	7.2	8.4	10.6	47%	5.3	17.5	29.8	461%
Montana	8.5	18.8	23.7	179%	5.3	13.4	24.3	358%
Nebraska	5.3	10.5	13.2	150%	2.4	6.6	12.1	404%
Nevada	13.1	15.0	18.9	44%	12.2	21.4	35.9	194%
New Hampshire	7.3	13.0	16.4	125%	5.1	31.7	53.6	952%
New Jersey	5.6	5.9	7.4	32%	9.1	16.2	27.7	205%
New Mexico	16.2	31.5	39.7	145%	15.2	24.0	40.8	168%
New York	6.6	7.5	9.4	43%	5.8	13.9	25.1	332%
North Carolina	8.7	9.1	11.5	32%	5.0	15.6	26.9	437%
North Dakota	8.1	12.7	16.0	97%	2.3	8.1	14.2	515%
Ohio	4.9	8.8	11.1	128%	4.7	28.5	48.5	932%
Oklahoma	7.1	13.6	17.1	141%	5.5	18.5	31.7	475%
Oregon	9.0	22.2	28.0	212%	9.7	12.5	24.9	157%
Pennsylvania	3.7	6.9	8.7	134%	8.6	25.5	43.5	405%
Rhode Island	6.7	13.8	17.4	160%	5.9	29.4	49.6	741%
South Carolina	10.8	10.1	12.7	18%	4.2	15.5	26.7	536%
South Dakota	10.7	17.7	22.3	109%	2.7	7.6	13.8	412%
Tennessee	7.0	9.7	12.2	74%	6.6	22.1	38.6	485%
Texas	5.7	7.5	9.5	67%	6.1	9.4	16.4	169%
Utah	5.8	8.9	11.2	93%	9.6	21.6	36.7	282%
Vermont	6.1	15.3	19.3	217%	5.1	15.8	29.2	473%
Virginia	4.8	7.8	9.9	105%	5.6	12.4	21.0	276%
Washington	9.7	15.3	19.3	99%	10.2	15.3	27.3	168%
West Virginia	6.5	10.5	13.2	103%	4.4	39.3	67.0	1424%
Wisconsin	6.7	11.1	13.9	108%	4.4	15.2	25.5	480%
Wyoming	12.2	25.9	32.7	168%	4.3	16.4	27.8	548%
UNITED STATES	**7.0**	**10.3**	**13.1**	**87%**	**6.9**	**16.3**	**28.4**	**311%**

Rates based on per 100,000, based on analysis of data from CDC's Wide-ranging Online Data for Epidemiologic Research (CDC WONDER). For full methodology see Appendix B on page 160.

	Suicide Deaths				Alcohol, Drug & Suicide Deaths				
	1999	2015	2025	Change 1999-2025	1999	2015	2025	Change 1999-2025	Change 2015-2025
Alabama	12.5	15.4	18.4	47%	21.2	36.8	51.9	145%	41%
Alaska	15.4	27.2	32.5	111%	37.6	63.0	84.4	125%	34%
Arizona	15.2	18.7	22.3	47%	34.0	55.0	75.8	123%	38%
Arkansas	12.7	19.4	23.1	82%	20.4	39.5	54.2	166%	37%
California	9.2	10.7	12.7	38%	27.2	35.4	48.9	80%	38%
Colorado	13.6	20.0	23.9	76%	32.0	49.7	67.8	112%	36%
Connecticut	8.1	10.7	12.8	58%	22.1	41.9	61.2	177%	46%
Delaware	11.1	12.9	15.4	39%	24.9	41.9	60.4	143%	44%
D.C.	5.3	5.1	6.0	14%	27.9	35.7	52.2	87%	46%
Florida	12.9	15.8	18.9	46%	26.3	42.9	59.6	126%	39%
Georgia	10.9	12.9	15.4	41%	19.9	31.9	44.6	124%	40%
Hawaii	11.2	14.0	16.8	50%	20.0	31.2	43.3	116%	39%
Idaho	14.2	21.7	25.9	82%	23.6	47.1	63.4	169%	34%
Illinois	8.3	10.6	12.6	52%	19.6	31.3	44.4	127%	42%
Indiana	10.4	14.5	17.3	66%	18.5	43.0	61.0	230%	42%
Iowa	10.5	13.9	16.5	57%	16.6	33.9	46.0	177%	36%
Kansas	11.2	16.4	19.5	75%	18.6	36.0	49.0	164%	36%
Kentucky	11.7	17.5	20.9	79%	21.7	56.1	81.3	275%	45%
Louisiana	11.6	15.5	18.4	59%	22.6	41.2	58.5	159%	42%
Maine	13.8	17.7	21.1	53%	26.2	51.1	71.5	173%	40%
Maryland	8.3	9.2	11.0	32%	25.9	35.1	52.2	102%	49%
Massachusetts	6.8	9.5	11.3	66%	19.8	44.9	66.6	237%	48%
Michigan	9.8	14.2	17.0	73%	22.2	45.8	65.9	197%	44%
Minnesota	9	13.3	15.9	76%	17.7	34.5	47.3	168%	37%
Mississippi	10.7	14.4	17.2	61%	18.6	30.9	42.8	130%	39%
Missouri	12.6	17.3	20.6	64%	23.7	41.7	58.5	147%	40%
Montana	18	26.3	31.4	75%	29.9	56.7	75.6	153%	33%
Nebraska	10.4	11.8	14.0	35%	17.0	28.2	37.7	122%	34%
Nevada	20.9	19.3	23.0	10%	43.9	53.8	75.0	71%	40%
New Hampshire	11.2	17.1	20.4	83%	22.3	60.6	88.1	294%	45%
New Jersey	6.7	8.8	10.5	57%	20.7	30.5	44.4	115%	46%
New Mexico	17.6	24.0	28.6	63%	47.1	77.4	105.7	125%	37%
New York	6.3	8.4	10.0	58%	18.1	30.0	43.3	140%	44%
North Carolina	11.1	14.0	16.7	50%	23.6	37.7	53.1	124%	41%
North Dakota	11.3	16.4	19.5	73%	20.5	35.7	47.4	131%	33%
Ohio	9.7	14.2	17.0	75%	18.3	50.8	74.6	308%	47%
Oklahoma	14.3	20.2	24.1	69%	25.4	50.5	70.0	176%	38%
Oregon	14.1	18.9	22.6	60%	31.2	54.0	72.8	133%	35%
Pennsylvania	10.5	14.8	17.6	68%	21.6	46.3	67.7	213%	46%
Rhode Island	9.2	12.0	14.3	56%	20.8	54.5	79.7	284%	46%
South Carolina	10.5	15.2	18.1	72%	24.4	39.7	55.4	127%	40%
South Dakota	13.7	20.2	24.0	75%	25.6	43.8	57.4	124%	31%
Tennessee	12.9	16.2	19.3	50%	25.1	47.3	67.8	170%	43%
Texas	9.8	12.4	14.8	51%	20.5	28.4	38.9	90%	37%
Utah	12.8	21.0	25.1	96%	26.8	49.7	70.0	161%	41%
Vermont	10.4	16.5	19.6	89%	20.5	47.6	65.8	221%	38%
Virginia	11.3	13.3	15.9	41%	20.4	32.3	44.9	120%	39%
Washington	14	15.9	18.9	35%	32.3	45.9	63.3	96%	38%
West Virginia	12.6	18.4	22.0	75%	22.1	67.4	99.6	350%	48%
Wisconsin	11.1	15.2	18.1	63%	21.0	39.9	55.5	164%	39%
Wyoming	19.9	26.8	32.0	61%	34.2	66.4	88.8	160%	34%
UNITED STATES	**10.5**	**13.8**	**16.5**	**57%**	**23.1**	**39.7**	**56.0**	**142%**	**N/A**

ALCOHOL, DRUG, AND SUICIDE DEATHS PER 100,000 IN 2015, 1999 AND PERCENT CHANGE 1999 - 2015 (CDC WONDER)

	Alcohol Deaths			Drug Deaths			Suicide Deaths		
	1999	2015	Change	1999	2015	Change	1999	2015	Change
Overall	7.0	10.3	47%	6.9	16.3	136%	10.5	13.8	31%
Female	3.2	5.6	75%	4.4	11.9	170%	4.0	6.3	58%
Male	10.9	15.2	39%	9.4	20.1	114%	17.1	21.5	26%
Black	7.8	6.5	-17%	8.6	11.6	35%	5.4	5.6	4%
Asian	1.3	2.0	54%	1.3	2.9	123%	5.8	6.6	14%
White	7.0	11.4	63%	6.9	18.3	165%	11.5	15.8	37%
Hispanic	6.4	7.9	23%	5.8	7.8	34%	5.0	5.8	16%
0-17	<0.1	<0.1	–	0.3	0.5	67%	1.4	2.6	86%
18-34	1.1	2.1	89%	7.2	22.0	206%	12.3	15.2	24%
35-54	12.0	15.4	28%	14.4	30.8	114%	14.1	18.7	32%
55-74	17.5	24.6	41%	4.1	17.2	322%	12.7	17.4	37%
75+	9.3	9.5	2%	4.1	4.7	16%	18.4	18.4	0%
Northeast	5.6	7.9	41%	7.4	19.7	166%	7.9	10.8	37%
Midwest	5.8	9.5	64%	5.1	17.4	241%	10.0	14.0	40%
South	6.7	8.9	33%	6	15.4	157%	11.3	14.3	27%
West	9.8	15.1	54%	9.5	14.3	51%	11.8	14.9	26%
Metro	6.2	10.1	63%	6.8	15.5	128%	10.1	13.0	29%
Non-Metro	7.2	11.7	63%	4.4	17.0	286%	12.6	18.2	44%

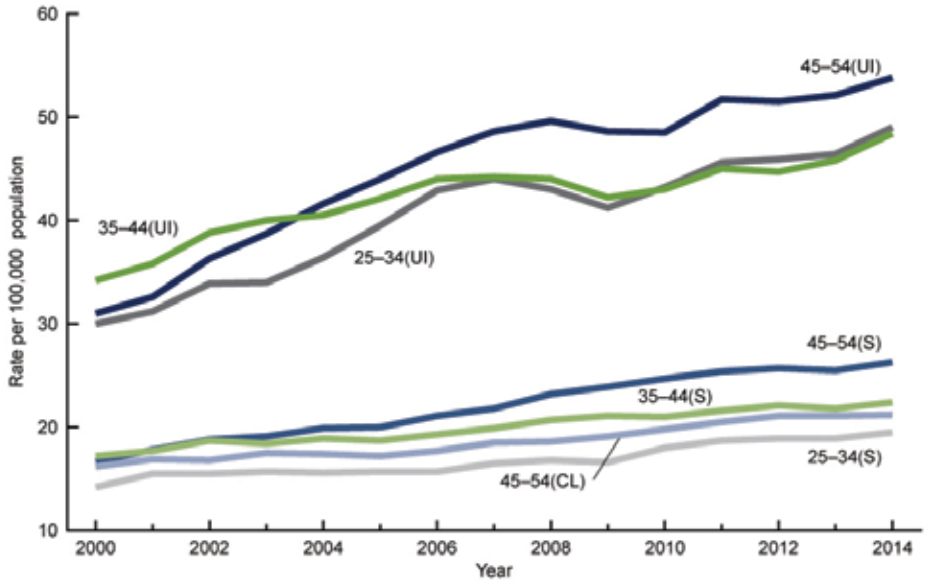
LOWERED LIFE EXPECTANCY IN THE UNITED STATES

CDC announced that life expectancy in the United States decreased in 2015 — the first decline after decades of increases in longevity.[80]

While mortality rates remain highest among Black men, the biggest changes in life expectancy in recent years have been increases in mortality rates among White men and women ages 45 to 54, who have experienced a 10 percent increase in deaths in the past 15 years (2000-2014).[81, 82]

Whites – by Age Range	Increase in Causes of Deaths (2000-2014)		
	Drug Overdoses and Other Unintentional Injury Deaths	Suicides	Chronic Liver Disease (many related to alcohol)
25-34	63.3%	36.3%	N/A
35-44	41.5%	30.2%	N/A
45-54	73.5%	57.5%	31%

Age-specific death rates for unintentional injuries, suicide, and chronic liver disease and cirrhosis for the White population: United States, 2000-2014[83]



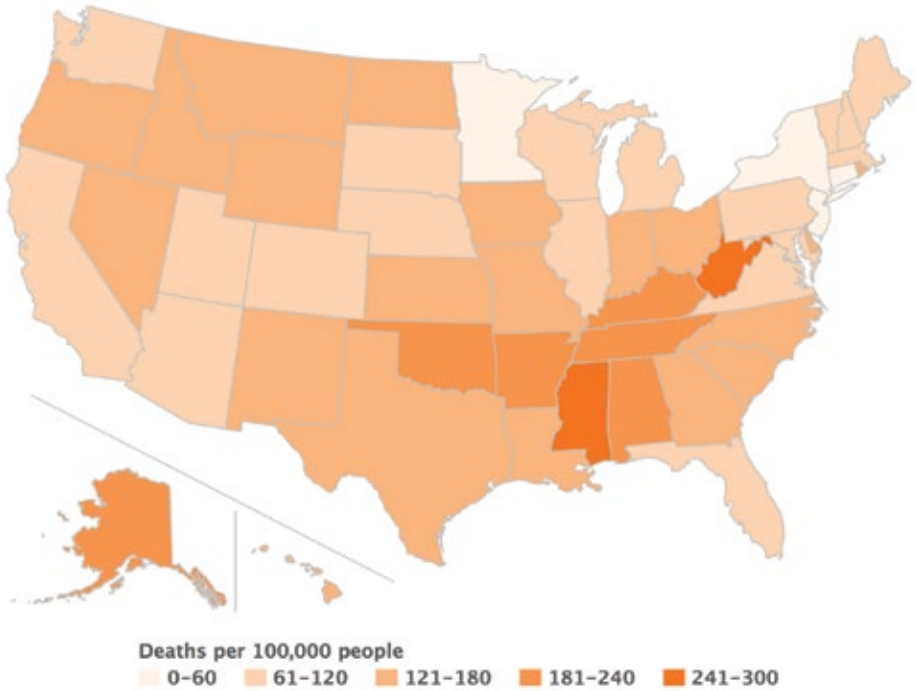
Source: CDC

NOTES: UI is unintentional injuries, S is suicide, and CL is chronic liver disease and cirrhosis. Death rates for chronic liver disease and cirrhosis for ages 25–34 and 35–44 are not shown due to very small death rates (ages 25–34) and no statistical change over time (ages 35–44). *SOURCE: NCHS, National Vital Statistics System, Mortality.*

Additional studies have found differences in these trends as they are related to education and region.

- Researchers Anne Case and Angus Deaton found rates for Whites ages 45-54 with no more than a college education increased by 134 deaths per 100,000 between 1999 and 2013, with overdoses death rates rising four-fold and chronic liver diseases and cirrhosis by 50 percent (while rates decreased among those with a college degree by 57 per 100,000).[84] A follow-up study found that death among the cohort of Whites with no more than a high school degree was around 30 percent lower than Blacks (of all education levels) in 1999, but by 2015, they were 30 percent higher than Blacks.[85] Researchers suggest that "the increases in deaths of despair are accompanied by a measurable deterioration in economic and social well-being, which has become more pronounced for each successive birth cohort. Marriage rates and labor force participation rates fall between successive birth cohorts, while reports of physical pain, and poor health and mental health rise."
- The Commonwealth Fund found significant regional variation in mortality trends, with Southern states with the highest rates of poverty among Whites seeing some of the worst trends (West Virginia, Mississippi, Tennessee, Kentucky, Alabama and Arkansas).[86]

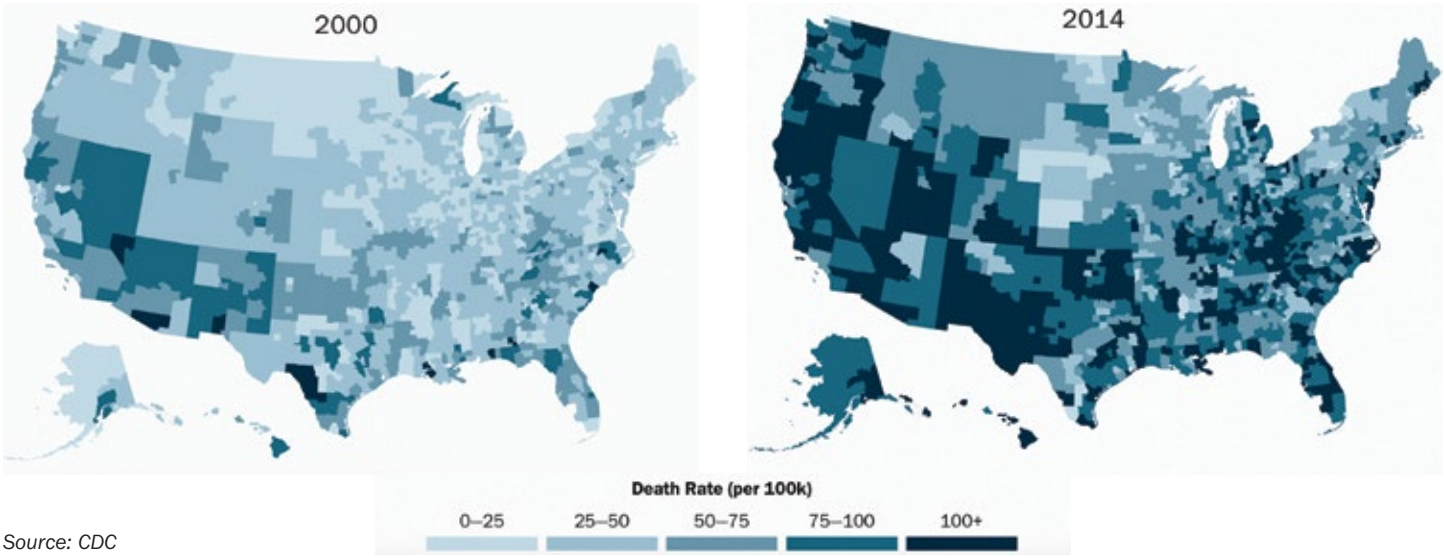
The "Mortality Gap" for Middle-Aged Whites was Particularly Large in Parts of the South



Source: CDC

"Deaths of despair" for White non-Hispanics, 2000 and 2014

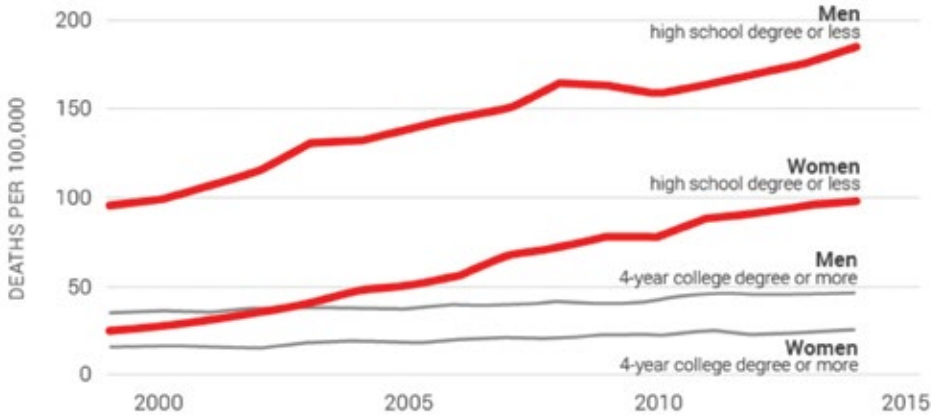
Ages 45-54, by county



Source: CDC

White non-Hispanic Midlife Mortality from "Deaths of Despair" in the U.S. by Education

Ages 50-54, deaths by drugs, alcohol, and suicide



Source: "Mortality and morbidity in the 21st century" by Anne Case and Angus Deaton, Brookings Papers on Economic Activity, Spring 2017

U.S. Average Life Expectancy: 78.8 Years (2014)[87, 88]					
Women: 81.2			Men: 76.3		
White		Black		Latino	
78.8		75.2		81.8	
Women	Men	Women	Men	Women	Men
81.1	76.5	78.1	72.0	84.0	79.2

SECTION 2:

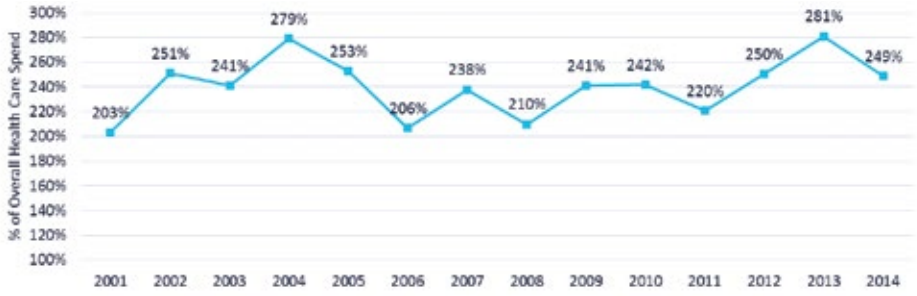
Pain in the Nation: *Public Health Report* SERIES

Healthcare Costs Associated With Drug, Alcohol and Suicide-Risk Diagnoses

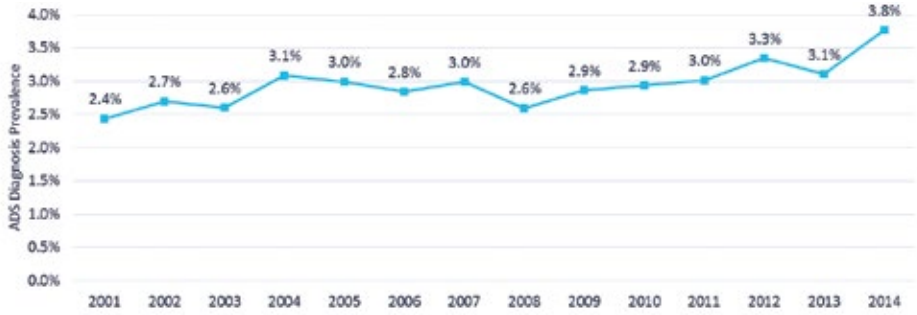
BRG, TFAH and WBT also reviewed the total healthcare costs for patients with drug, alcohol or suicide-risk diagnoses.

Annual total spending for patients with these three diagnoses was $249 billion, which is roughly 9.5 percent of total U.S. health expenditures. These costs represent a significant portion of the population, with 3.8 percent of Americans having one of the diagnoses — their costs averaged 2.5 times higher than average patients ($20,113 compared to $8,045).

DAS Average Healthcare Spend vs. Overall Healthcare Spend

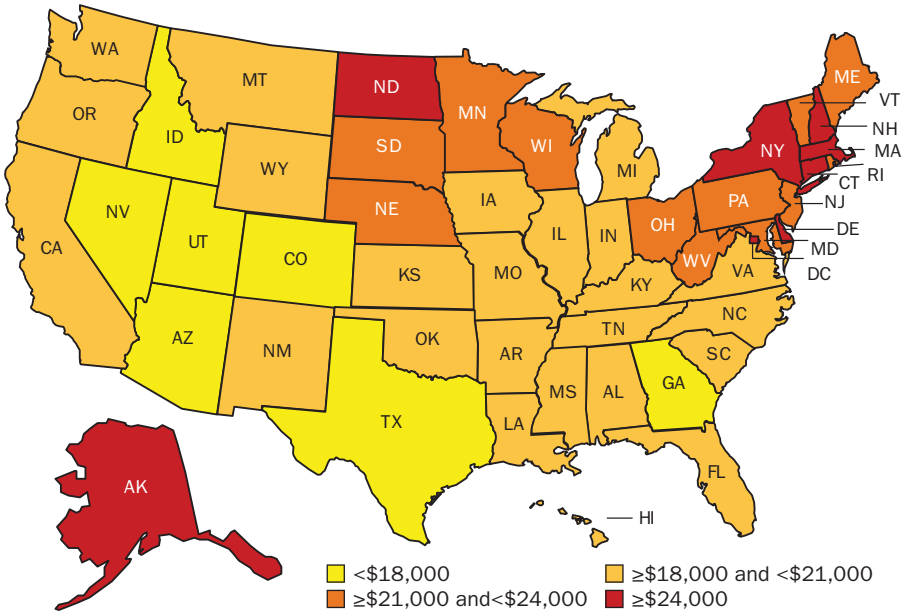


DAS Diagnosis Prevalence



Note: The analysis is based on two data sources: Medical Expenditure Survey (MEPS) data and the Agency for Healthcare Research and Quality (AHRQ), who identified those with an alcohol, drug or suicide diagnosis code. This data was used to calculate healthcare costs for those with these diagnoses. In addition, per capita National Health Expenditure (NHE) data from the Office of the Actuaries (OACT) from the Centers for Medicare and Medicaid Services (CMS) were used for overall and per capita healthcare spending. A full methodology of the analysis is available in Appendix D.

Estimated Average 2014 Cost Per Person with Alcohol, Drug, or Suicide-Related Diagnosis



STATE PER CAPITA HEALTH EXPENSES

	FY 2014	Estimated Average Cost Per Person with DAS Diagnosis
Alabama	$7,281	$18,203
Alaska	$11,064	$27,660
Arizona	$6,452	$16,130
Arkansas	$7,408	$18,520
California	$7,549	$18,873
Colorado	$6,804	$17,010
Connecticut	$9,859	$24,648
Delaware	$10,254	$25,635
D.C.	$11,944	$29,860
Florida	$8,076	$20,190
Georgia	$6,587	$16,468
Hawaii	$7,299	$18,248
Idaho	$6,927	$17,318
Illinois	$8,262	$20,655
Indiana	$8,300	$20,750
Iowa	$8,200	$20,500
Kansas	$7,651	$19,128
Kentucky	$8,004	$20,010
Louisiana	$7,815	$19,538
Maine	$9,531	$23,828
Maryland	$8,602	$21,505
Massachusetts	$10,559	$26,398
Michigan	$8,055	$20,138
Minnesota	$8,871	$22,178
Mississippi	$7,646	$19,115
Missouri	$8,107	$20,268
Montana	$8,221	$20,553
Nebraska	$8,412	$21,030
Nevada	$6,714	$16,785
New Hampshire	$9,589	$23,973
New Jersey	$8,859	$22,148
New Mexico	$7,214	$18,035
New York	$9,778	$24,445
North Carolina	$7,264	$18,160
North Dakota	$9,851	$24,628
Ohio	$8,712	$21,780
Oklahoma	$7,627	$19,068
Oregon	$8,044	$20,110
Pennsylvania	$9,258	$23,145
Rhode Island	$9,551	$23,878
South Carolina	$7,311	$18,278
South Dakota	$8,933	$22,333
Tennessee	$7,372	$18,430
Texas	$6,998	$17,495
Utah	$5,982	$14,955
Vermont	$10,190	$25,475
Virginia	$7,556	$18,890
Washington	$7,913	$19,783
West Virginia	$9,462	$23,655
Wisconsin	$8,702	$21,755
Wyoming	$8,320	$20,800
United States	**$8,045**	**$20,113**
Estimated Total Cost for Those with DAS Diagnosis		**$243,694,476,474**

Review of Key Policies that Support Well-Being

A range of key strategies can help reduce the urgent epidemics of substance misuse and suicide and can be effective in addressing the underlying factors that contribute to these crises to support better well-being for millions of Americans.

Experts from National Institutes of Health (NIH), CDC, SAMHSA, Office of National Drug Control Policy (ONDCP), Food & Drug Administration (FDA), Administration for Children and Families (ACF), CMS, the U.S. Department of Health and Human Services (HHS), U.S. Department of Education, state and local government agencies, academic researchers, philanthropies, health systems and other organizations develop and advance key policies and programs that communities around the country can use to address these epidemics and improve behavioral health.

This review is intended to help advance the specific policies — to provide an overview of existing efforts — to help inform building to a more concerted and comprehensive effort. While these actions are important — they are not currently supported or sufficiently coordinated at the level needed to turn the tide on the crises or the underlying factors that contribute to the problems.

While these efforts may require additional investments, they can also provide strong returns in reduced healthcare and social service costs and improved health, education and productivity outcomes.

A majority of policies and programs featured in the report focus on effective, research-based approaches to prevent and reduce problems in the first place. Investments in prevention — especially focusing on children and at-risk families — not only have shown results in reducing the risk for substance misuse and suicidal thoughts and attempts, they also reduce the chances for: poor school performance, behavioral problems in school, dropping out of high school, the need for special education and child welfare services, behavioral health issues like depression and anxiety, chronic illnesses, shorter and less healthy lives, obesity and eating disorders, difficulty in maintaining healthy relationships, teen pregnancy, sexually transmitted diseases (STDs), aggression and violence, domestic abuse and rape, not acquiring key parenting skills or support for when people have children themselves and difficulty in securing and maintaining a job.[89, 90, 91, 92]

The following sections provide an overview of effective policies and approaches — to support the goal of expanding efforts to benefit communities across the country and inform the development of a comprehensive National Resilience Strategy:

A. Reducing Drug and Alcohol Misuse and Suicide

B. Improving Behavioral Health Services — To Support "Whole Health"

C. Prioritizing Prevention — Supporting Healthier Communities and Raising a Mentally and Physically Healthier Generation of Kids

EVIDENCE-BASED AND RESEARCH AND DEVELOPMENT OF PROMISING POLICIES AND PROGRAMS

More than four decades of research into the most effective policies and programs are available from a range of resource centers, including: NIH/National Institute on Drug Abuse's (NIDA) review of NIDA-supported substance misuse prevention programs; CDC's Community Guide to Preventive Services; CDC's Health Education Curriculum Analysis Tool (HECAT); CDC's Preventing Suicide: A Technical Package of Policy, Programs and Practices; SAMHSA's National Registry of Evidence-based Programs and Practices (NREPP); the Center for the Study and Prevention of Violence's Blueprints for Healthy Youth Development; the Coalition for Evidence-based Policy; the Institute of Education Sciences' What Works Clearinghouse; Communities That Care; Washington State Institute for Public Policy; and the National Institute of Justice's Crimesolutions.gov, among others. These resources can be used to help communities, school districts, policymakers and philanthropies identify which of the range of evidence-based approaches best match their needs.[93, 94, 95, 96, 97, 98, 99, 100, 101, 102]

A. REDUCING DRUG AND ALCOHOL MISUSE AND SUICIDE

The National Institutes of Health, Substance Abuse and Mental Health Services Administration, Centers for Disease Control and Prevention and leading experts around the country have identified numerous evidence-based policies, programs and practices that effectively help prevent and reduce drug and alcohol misuse and suicide. This section focuses on many of the targeted strategies to address the acute aspects of substance misuse and suicide prevention. They are important approaches that should be scaled and invested in across the country — but also must be combined with improving and expanding the availability of behavioral health services and focusing more on upstream prevention to achieve a comprehensive strategy.

Effective Approaches for Preventing and Reducing Opioid and Other Drug Misuse

There have been numerous reviews about the growth of the opioid epidemic — tracking a paradigm change in perspectives on pain, the rapid rise in the types of prescription opioids that came to market, marketing of opioids and increased prescribing rates for these medications.[103, 104]

Millions of Americans suffer from pain and the rapid increase in the use of prescription opioids was related to finding effective ways to alleviate and manage pain.[105] A recent report released by the National Academies of Science, Engineering and Medicine (NASEM), *Pain Management and the Opioid Epidemic: Balancing Societal and Individual Benefits and Risks of Prescription Opioid Use* identified that "the ongoing opioid crisis lies at the intersection of two public health challenges: reducing the burden of suffering from pain and containing the rising toll of the harms that can arise from the use of opioid medications. Chronic pain and opioid use disorder both represent complex human conditions affecting millions of Americans and causing untold disability and loss of function."[106]

Starting in the late 1990s, there was a rapid growth in the use of prescription opioids.[107] Some of the major uses of prescribed opioids are to help alleviate and/or reduce suffering from cancer pain, end-of-life care, chronic pain syndromes (arthritis, fibromyalgia, back pain), dentistry and muscular-skeletal issues, fractures, sprains, contusions and other related concerns.

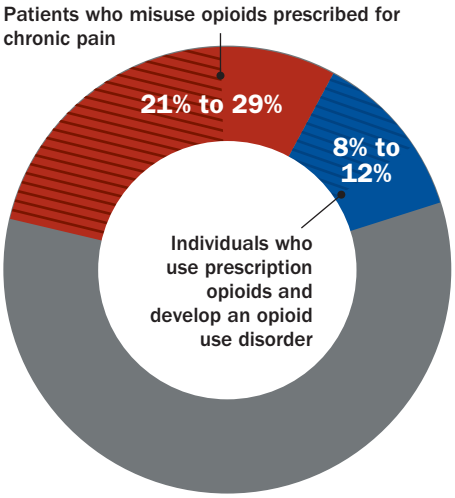
Currently, three times the amount of opioids are prescribed compared to the amount in 1999 (which is down after peaking at more than four times that level in 2010).[108] In 2015, the amount of opioids prescribed (around 200 million prescriptions) could medicate every American around the clock for three weeks.[109, 110, 111, 112]

Around 21 to 29 percent of patients prescribed opioids for chronic pain misuse them.[113] And between 8 and 12 percent of individuals who use prescription opioids develop an opioid use disorder.[114, 115, 116]

The epidemic has become even more complicated, starting in around 2009, with the marked rise in the use of illicit opioids, which are often less expensive and easier to obtain in many communities. This is particularly true of heroin that is being cut with cheaper and more potent forms of synthetic opioids, such as fentanyl (50 to 100 times more potent than heroin) and carfentanil (100 times more potent than fentanyl). An estimated 4 to 6 percent of those who misuse prescription opioids transition to heroin — and around 80 percent of people who use heroin first misused prescription opioids. [117, 118, 119]

Its scale and prevalence presents a major challenge for reducing opioid misuse and addiction, which has intensified the need to find additional, effective ways to treat and manage pain and the factors that contribute to pain.

Prevalence of prescription opioid misuse and opioid disorder



Source: CDC

TRENDS IN OPIOID AND OTHER DRUG MISUSE

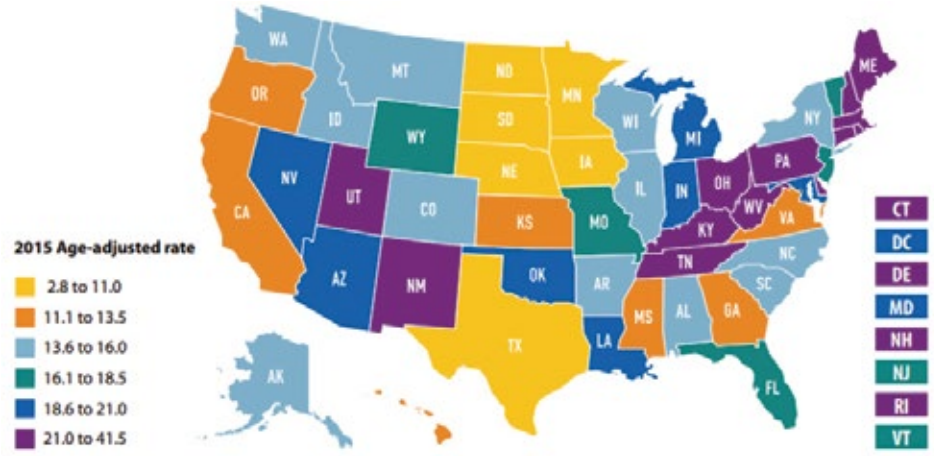
- **Drug Deaths.** 52,404 people died from drug overdose/poisoning in 2015 and 433,900 died over the last decade (2006-2015).[120] In 2015 alone, almost 48 million Americans reported illicit drug use or prescription drug misuse.[121]

- **Opioid Deaths.** Opioid deaths tripled from 2000 to 2015 — to 34,000 deaths in one year, which translates to 94 deaths per day, about four every hour, and one every 15 minutes.[122]
  - The increase in opioid overdoses between 2000 and 2015 (increasing by 7.4 deaths per 100,000) is higher than the overdose rate for all drugs in 2000 (6.2 deaths per 100,000).[123]
  - Opioid deaths are highest among men (14.1 deaths per 100,000), Whites (12.2 deaths per 100,000), younger adults ages 25-34 years old (19.7 deaths per 100,000) and those who live in the Northeast and Midwest (13.7 and 12.2 deaths per 100,000, respectively).[124]
  - Both sexes, all races, nearly all age groups and every state saw large increases in opioid-related death rates between 2000 and 2015, with women (324 percent increase), Asians (300 percent increase), 55-74 year-old individuals (640 percent increase) and those living in the Midwest (408 percent increase) having the largest proportional increases.[125]

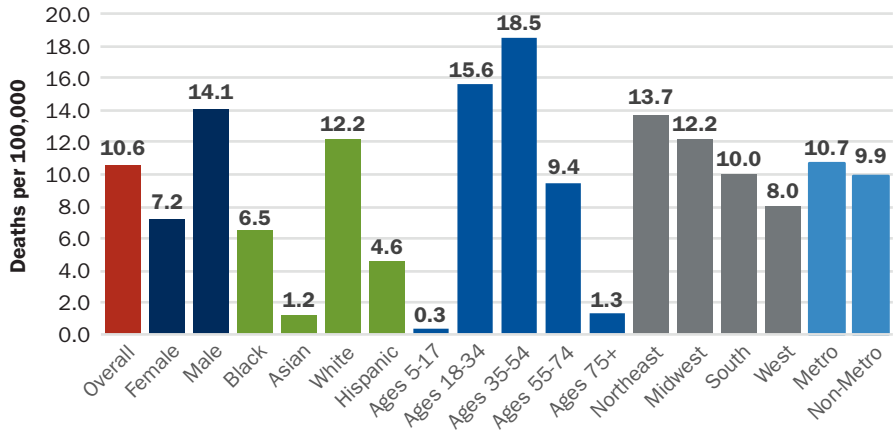
- **Opioid Misuse.** More than 1.75 million Americans had a substance use disorder related to prescription pain relievers and 626,000 had a substance use disorder involving heroin, as of 2016.[126] A total of 11.5 million Americans report misused prescription pain relievers in 2016.[127]

- **Prescription Opioid Deaths.** Around 22,000 overdoses in 2015 were from prescription opioid (pain relievers), 62 per day.[128]

Age-adjusted rate of drug overdose deaths by state, 2015, CDC WONDER



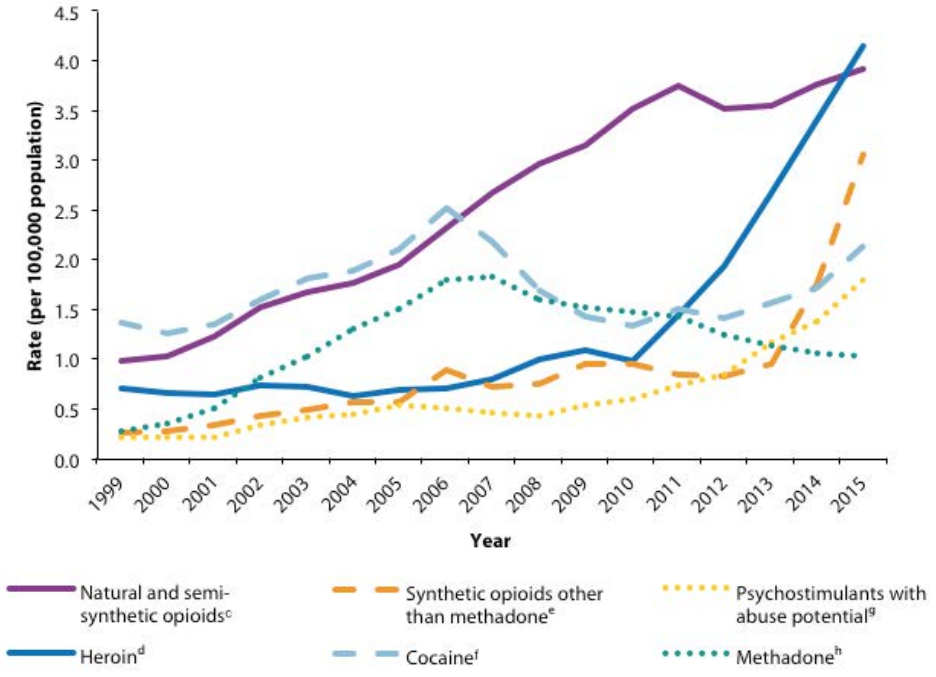
Opioid Deaths, 2015, CDC WONDER



Source: TFAH analysis of CDC data

- **Rise of Heroin and Fentanyl Deaths.** Between 2010 and 2015, heroin death rates dramatically increased by four-fold (from 1.0 to 4.0 per 100,000). Between 2013 and 2015, synthetic opioid (like fentanyl) deaths tripled in just two years from 1.0 to 3.0 per 100,000. Heroin accounted for 34 percent of opioid deaths and synthetics for 25 percent, during the same period.[129]
  - Three out of four new heroin users reported that they misused prescription opioids before heroin. [130]
  - A CDC analysis of 2011-2013 National Surveys on Drug Use and Health (NSDUH) survey data found that individuals with a prescription opioid dependence were 40 times more likely to develop a heroin addiction.[131] Moreover, 68 percent of heroin users misused prescription pain relievers in the past year (641,000 out of 948,000 in 2016).[132]
  - In 2015, the Drug Enforcement Agency (DEA) issued a nationwide alert warning that fentanyl is 100 times more powerful than morphine and 30-50 times more than heroin.[133]
  - An increase in heroin and fentanyl drug seizures reported to the DEA mirrored the increase in deaths. The Northeast and Midwest saw steady increases in heroin drug reports between 2006 and 2015. The increases in the South and West of the United States were evident starting in 2010. All regions have had large increases in fentanyl drug reports since 2013, after staying level between 2006 and 2012.[134]
  - Illicit fentanyl is the primary driver of synthetic opioid deaths, as well as boosting heroin deaths. One study looking at synthetic opioid deaths in 14 states found a doubling of fentanyl deaths between 2014 and 2015, while other synthetic opioids slightly declined.[135] CDC also estimates about half of the increase in heroin deaths between 2013 and 2015 had co-involvement of fentanyl. This illustrates the particularly high potency of fentanyl and the inherent difficulties of creating fentanyl-laced products with nonlethal doses.[136]
  - Local reports around the country also show increases in illicit fentanyl (50 to 100 times more potent than heroin) and carfentanil (100 times more potent than fentanyl) overdose deaths over the past few years, especially concentrated in particular areas.[137] For example, in Southeastern Massachusetts, the proportion of opioid-related deaths involving fentanyl increased from about one-third in 2013 and 2014 to about three-quarters in 2016.[138] In June 2016, during a six-hour period in New Haven, Connecticut, one community experienced an outbreak of 12 overdoses from fentanyl-laced cocaine; some patients needed 40 times as much of the rescue drug, naloxone, as the usual initial dosage.[139] Approximately one hundred pounds of fentanyl was seized from a house outside of San Diego, California in June 2017, and tens of thousands of pills were discovered in Tempe, Arizona in August 2017.[140, 141]

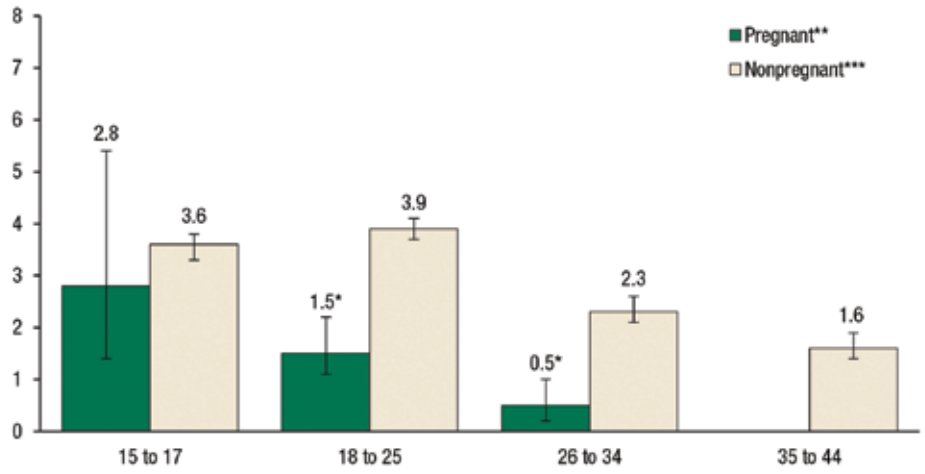
Age-adjusted ratesa of drug overdose deathsb, by drug or drug class and year — United States, 1999–2015



Source: CDC[142]

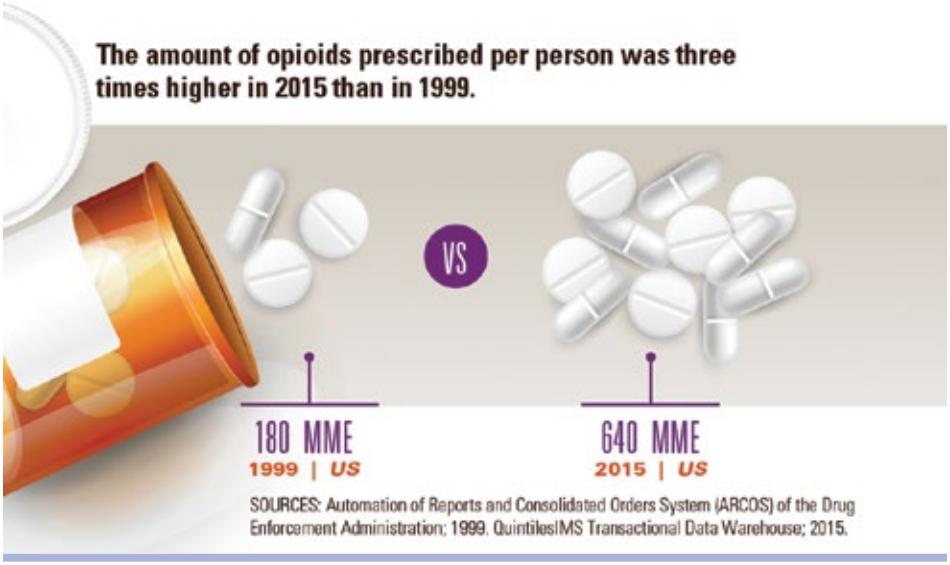
- **HIV and Hepatitis C.** The increase of heroin and fentanyl also means more individuals and new populations are injecting drugs and may be exposed to infectious diseases, like hepatitis C, hepatitis B and HIV through shared unsterile needles or other injection equipment.[143]
  - 2,400 (6 percent) HIV diagnoses were attributed to injection drug use in 2015.[144]
  - Hepatitis C diagnoses nearly tripled, from 850 new cases in 2010 to 2,400 new cases in 2015, in tandem with the increases in heroin and fentanyl use and overdoses. The highest rates of new diagnoses were among 20 to 29 year olds who inject drugs, and in Appalachia and rural areas of the Midwest and New England. Most new cases are not diagnosed since symptoms often develop as people age, likely representing an increase of tens of thousands of cases of undiagnosed hepatitis C.[145, 146]
- **Treatment Gap.** Only roughly one in 10 individuals with a substance use disorder (drug and/or alcohol) receives recommended professional treatment.[147]
- **Overdose-related Hospitalizations.** Opioid-related hospitalizations totaled 1.27 million in 2014. Inpatient stays increased by 64 percent from 2005 to 2014 (225 per 100,000) and emergency department visits nearly doubled during this time (to 178 per 100,000).[148, 149, 150]
- **Neonatal Abstinence Syndrome (Prenatal Exposure to Opioids).** Around 21,000 pregnant women (ages 15-44) used opioids non-medically between 2007 and 2012.[151] Another review found there was a 383 percent increase in the number of infants born with neonatal opioid withdrawal syndrome due to in utero exposure from 2000 to 2012, across 28 states.[152] In 2012 and 2013, three of the 28 states had rates above 30 per 1,000 hospital births: Maine (30.4), Virginia (33.3) and West Virginia (33.4). Other notable rates included: Kentucky (15), Maryland (11.4) and Massachusetts (12.5). Remaining states were below 10 per 1,000 births.

Past month opioid misuse among women aged 15 to 44, by pregnancy status and age: 2007 to 2012



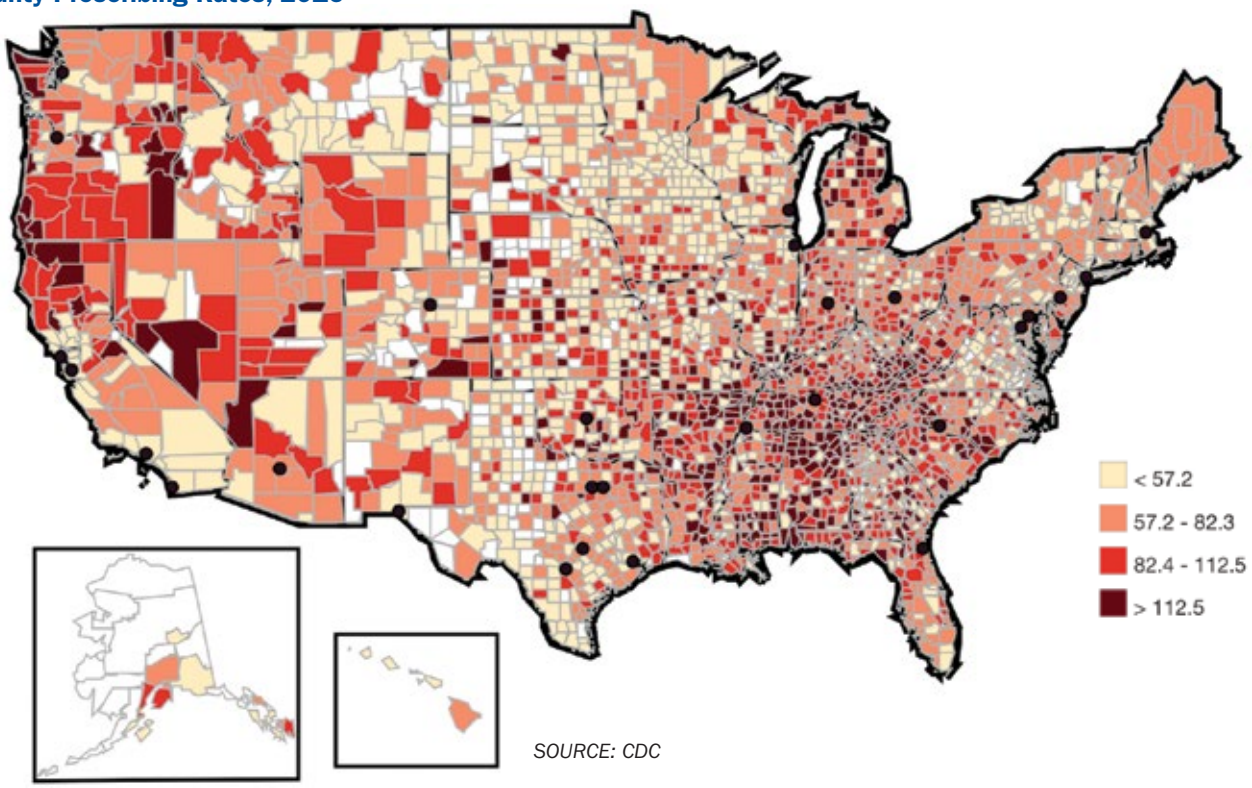
Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health (NSDUHs), 2007 to 2012.

- **Opioid Prescribing.** While the overwhelming majority of individuals prescribed an opioid do not become addicted, the large growth in use and availability of opioids means many are placed at risk.[153] Opioid prescriptions were three times higher in 2015 than they were in 1999 (from 180 to 640 morphine milligram equivalents (MME) per person).[154, 155]
  - Prescribing rates have decreased some from their peak level in 2010 (780 MME), declining 13 percent from 2012 to 2015.[156]
  - Rates vary by state and region, with some high-prescribing counties citing six times the number of prescriptions per person than low-prescribing counties.[157]
  - Decreases in prescribed opioids have not occurred consistently across the country — only about half of counties actually saw a reduction in the amount prescribed per person between 2010 and 2015 and the average length of prescriptions continued to increase steadily through 2015 (from 13.3 days in 2006 to 17.7 in 2015).[158, 159] Some data suggests fewer patients may be initiating prescription opioid use, but patients already prescribed opioids may be continuing longer-term use.



- **Economic Burden.** CDC estimated that the economic cost of prescription opioid overdose, misuse and dependence was $78.5 billion in 2013 alone.[160] The National Drug Intelligence Center estimated that illicit drug use cost the United States $193 billion in health, crime and lost productivity in 2011.[161]

U.S. County Prescribing Rates, 2016

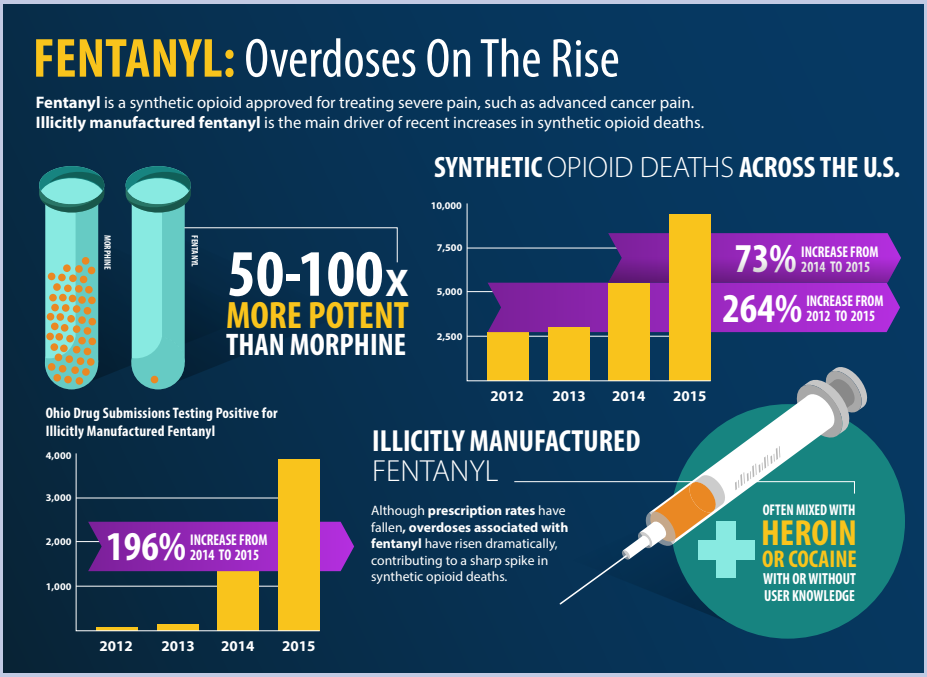


SOURCE: CDC

EXAMPLES: RISING FENTANYL DEATHS

While final national data is not available beyond 2015, more recent provisional examples of state data suggest that the 2013-2015 trends in fentanyl deaths have continued to grow at an alarming rate in 2016 and 2017:

- **National:** Provisional data from the CDC for February 2016-January 2017 show that total drug deaths continue to increase (to 64,000 deaths) with deaths involving synthetic opioids more than doubling to 20,000 deaths.[162]
- **Maryland:** Fentanyl overdose deaths reached 372 in the first quarter of 2017, compared with 157 deaths in the first quarter of 2016.[163]
- **New Hampshire:** Between 2011 and 2013, New Hampshire averaged 14 deaths from fentanyl per year. Every year since, the number has climbed dramatically: 108 in 2014, 239 in 2015, and 314 in 2016. Correspondingly, the number of fentanyl shipments intercepted also increased at this time, from 225 in 2014 to 866 in 2015.[164] The state also reported a rise in carfentanil use in the state, with 73 carfentanil-related deaths from January to May 2017.[165]
- **West Virginia:** Fentanyl-related overdoses grew to 324 in 2016, an 80 percent increase (180 deaths) over 2015 and a 604 percent increase over 2014 (46 deaths).[166]



FENTANYL OVERDOES IN OHIO IN JANUARY/FEBRUARY 2017

A CDC study looking at the kind of drugs involved in overdose deaths in 24 counties in Ohio in the first two months of 2017, found that almost all of the overdoses involved fentanyl or an analog, and many included multiple kinds of fentanyl.

Specifically, **92 percent of overdose deaths included fentanyl or an analog**, 23 percent included prescription opioids, and 6 percent included heroin.

Within the fentanyl deaths, the study found high numbers of acryl fentanyl (48 percent of all deaths) and furanyl fentanyl (31 percent) deaths, two drugs often found on online illicit cryptomarkets.

When looking at geographic breakdowns, heroin-related deaths represented a much higher proportion in Appalachian counties (26 percent of overdose deaths) than in urban, suburban or rural/non-Appalachian counties (heroin was involved in less than 4 percent of overdoses). Additional data found that half of all carfentanil deaths were in one county (Montgomery County), and that it was involved in half of the overdose deaths in the county. Other drugs often found included: alcohol (20 percent); benzodiazepines (27 percent); cocaine (31 percent); and marijuana (35 percent).

RURAL COMMUNITIES — OPIOID AND SUICIDE CRISES

Rural communities have been particularly impacted by the opioid and suicide crises over the past 15 years.[167, 168, 169]

Before 2000, rates of drug overdoses in rural communities had been lower than in metro areas of the country. Rural communities were the first to see the rapid increases in opioid misuse and deaths — including concentrated rates of deaths and injuries in a number of states with large rural populations (Kentucky, West Virginia, Alaska and Oklahoma).[170]

Rural opioid-related overdose deaths increased more than seven-fold between 2000 and 2015. Rural/non-metro overdose death rates surpassed metro areas in 2003 and remained higher until 2015, when rates in metro areas caught up.[171]

The National Academy for State Health Policy (NASHP) suggests that socioeconomic realities in rural areas have exacerbated the opioid problem: "More than 25 percent of rural workers over age 25 earn less than the federal poverty rate, and 23 percent of rural counties are identified as 'persistent-poverty' counties. Geographic isolation and limited public and private transportation create tremendous barriers to healthcare for this population. Additionally, social stigma (particularly in regions with small populations) may discourage individuals living with substance use disorders from seeking treatment."[172]

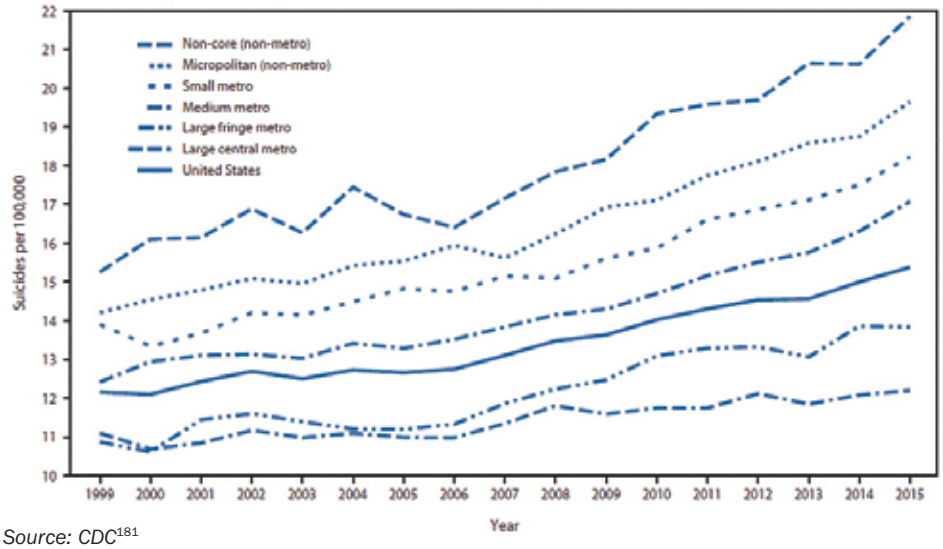
A shortage of healthcare providers, including mental health and substance use disorder treatment options in rural areas, creates a barrier for those seeking treatment and complicates efforts to combat opioid misuse.[173, 174] For example, only 1.3 percent of physicians who are approved to provide buprenorphine treatment (a type of medication-assisted treatment) have practices in rural areas.[175] There are around 39.8 physicians per 100,000 people in rural areas compared to 53.3 per 100,000 in urban areas.[176]

Suicide rates have also increased by 38 percent in rural areas during this time period — and are 40 percent higher than in metro areas. Experts believe the rates may be higher due to the influence of a number of factors including access to lethal means, social isolation, financial hardship and access to mental healthcare. The acceleration of suicide rates in rural areas may also reflect the influence of the 2007-2009 economic recession and the opioid overdose epidemic. Rural areas took longer to recover from the recession and the opioid epidemic (associated with increased risk for suicide) also disproportionately affected these areas.[177, 178, 179]

	Death trends in rural/suburban areas 2000-2015	Deaths in rural/suburban areas 2005-2015	2015 death rates for rural/suburban vs. metro areas
Drugs	All drugs – Three-fold increase (5.0 to 17.0 per 100,000)	All drugs – 64,700 deaths	All drugs – 2 percent lower
	Prescription opioids – Seven-fold increase (1.0 to 7.3 per 100,000[180])	Prescription opioids – 28,000 deaths	Prescription opioids – 4 percent higher
Alcohol	60 percent increase (7.3 to 11.7 per 100,000)	44,700 deaths	16 percent higher
Suicide	44 percent increase (12.6 to 18.2 per 100,000)	73,300 deaths	40 percent higher

Source: CDC data. Note: Rural/suburban is used for "non-metro" classifications.

Suicide rates* by level of county urbanization† — United States, 1999-2015



Source: CDC[181]

RESPONSES TO THE OPIOID EPIDEMIC

- In 2017, President Donald J. Trump declared the opioid epidemic to be a public health emergency and appointed the President's Commission on Combating Drug Addiction and the Opioid Epidemic.[182] HHS released a 2017 updated multi-pronged strategy, and federal agencies have developed a number of interagency task force efforts.
- Ongoing federal efforts to address the epidemic include:
  - Office of National Drug Control Policy leads coordinated efforts across the federal government to:[183]
    - Better understand epidemic trends, and expand community-based drug prevention efforts and recovery support services;
    - Decrease the excess prescription opioid drug supply in circulation;
    - Educate patients and prescribers on the risks involved with opioid prescribing;
    - Train healthcare providers to identify early signs of an opioid use disorder;
    - Expand prescription drug monitoring programs and other tools to detect misuse and diversion;
    - Expand access to evidence-based treatment for those with opioid use disorders, including those in the criminal justice system;
    - Address the healthcare needs of those affected by opioid use disorders, including people who inject, pregnant women and infants exposed during pregnancy; and
    - Disrupt the supply chain of heroin, fentanyl and other illegal drugs, including from outside of the United States.
  - SAMHSA programs and grants to states, including the State Targeted Response to the Opioid Crisis Grant program, Substance Abuse Prevention and Treatment (SAPT) Block Grants, the Partnership for Success Program, Drug-Free Communities, Project AWARE, Project LAUNCH and other efforts.
  - Centers for Disease Control and Prevention leads epidemic surveillance efforts, as well as research and development of effective state-level response strategies. CDC works with states to track the opioid overdose epidemic and changes in trends (such as the emergence and growth of heroin and fentanyl use in communities). In March 2016, CDC developed and published the CDC Guideline for Prescribing Opioids for Chronic Pain to provide recommendations for the prescribing of opioid pain medication for patients 18 and older in primary care settings. The opioid prescribing guideline is intended to improve the way opioids are prescribed through clinical practice guidelines that ensure patients have access to safer, more effective chronic pain treatment while reducing the number of people who misuse, develop a dependency or overdose from these drugs.
  - National Institute on Drug Abuse supports research into effective treatment and prevention strategies and how they can be disseminated and implemented with fidelity as well as monitoring trends and providing information to health providers, policymakers and the public.
  - Food and Drug Administration commissioned a comprehensive review by the National Academics of Sciences, Engineering and Medicine about the state of the science regarding prescription opioid misuse and is using evidence-based recommendations to update drug approval and renewal decision-making within a population health benefit-risk framework.[184] The agency has also supported development of tamper-resistant medicines and removed one opioid, Opana, from the market in 2017.[185]
  - U.S. Department of Justice (DOJ) and DEA, working with local law enforcement agencies, have launched efforts to crack down on the supply and distribution of illegal opioids and, in August 2017, DEA proposed a 20 percent reduction in the amount of prescription opioids and some other controlled substances that could be manufactured in 2018.[186]
  - The Surgeon General issued a 2016 comprehensive report, *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs and Health,* which looks at the scope of substance misuse, consequences, risk and protective factors and strategies to support prevention and treatment.[187]
- The Comprehensive Addiction and Recovery Act (CARA) and 21st Century Cures Act, passed in 2016, created the State Targeted Response to the Opioid Crisis Grant program, expanding support for evidence-based treatment approaches and authorized around $1 billion in funding for opioid programs.

- National Governors Association's 2016 *Solutions to the Prescription Opioid and Heroin Crisis: A Road Map for States* is a tool to help states respond to the growing crisis of opioid misuse and overdose by assessing their current capacity to address the problem, selecting evidence-based and promising strategies, and evaluating their work — and more than 40 governors have signed a 2016 compact agreement to fight opioid addiction.[188, 189] Six states have declared states of emergency in response to the opioid epidemic.[190] At least 37 state attorneys general and governments have asked insurers to develop financial incentivizes for health systems to promote non-opioid pain treatment options for non-cancer patients.[191]

- State Alcohol and Drug Authority Directors manage many state-level efforts — including publicly funded substance misuse prevention, treatment and recovery systems in states — that support more than 1.5 million Americans receiving treatment annually, more than 18.6 million receiving grant-funded prevention services and 500 million people benefitting from population-level programs.[192]

- State Mental Health Program Directors are responsible for the $37 billion public mental health service delivery systems serving 7.2 million people annually in states around the country.[193]

- The Association of State and Territorial Health Officials President's Challenge for 2017 promotes public health approaches to prevent substance misuse and has issued a prevention framework of leading strategies and policy approaches, including reducing stigma, supporting protective factors and reducing risk factors, multi-sector collaboration, strengthening prevention infrastructure and optimizing cross-sector data for decision-making.[194] State and local health officials and departments around the country are developing and implementing prevention and response strategies, including with support from the Safe States Alliance.

- Every state has created a Prescription Drug Monitoring Program (PDMP) to help support responsible prescribing practices. The scope and impact of the programs can vary significantly, and they are funded and operational at differing levels.

- Law enforcement agencies are putting in place a public health response to connect individuals in need with effective treatment and support, including via the High Intensity Drug Trafficking Areas (HIDTA) program.[195] They are supporting "take back" days or locations, where unused medications can be safely returned and disposed. In addition, law enforcement, emergency responders and emergency department professionals are receiving training in responding to opioid overdoses, including through the expanded availability of overdose rescue drugs. Communities across the country are also developing law enforcement strategies to limit illegal distribution of prescription opioids and contain the surge in illegal opioids, and support liability limitations for helping during overdoses.

- The National Conference of State Legislatures tracks state laws that address opioid and other drug misuse, including those related to PDMPs, rescue drugs, provider training and pain clinics. In 2016 alone, states enacted approximately 150 new laws targeting prescription drug misuse. [196]

- The National Association of Counties (NACo) and the National League of Cities (NLC) joined forces in 2016 to form the National City-County Task Force on the Opioid Epidemic and published *A Prescription for Action: Local Leadership in Ending the Opioid Crisis* examining how cities and counties can strengthen collaboration with each other and state, federal, private-sector and nonprofit partners to tackle the opioid crisis, and featured policy recommendations and best practices.[197]

- The U.S. Conference of Mayors developed an *Action Plan to Address Substance Use Disorders in America's Cities* toolkit to provide resources, recommendations, policies and program solutions to help mayors respond locally to the impact of the national opioid crisis.[198]

- Healthcare providers and systems are supporting education, training and response strategies. For instance, the American Medical Association's (AMA) Task Force to Reduce Opioid Abuse and the American Society of Addiction Medicine (ASAM) support participation in PDMPs and provider education and training for prescribing, as well as identification and treatment of substance misuse.[199, 200] The American Hospital Association (AHA), Catholic Health Association, America's Essential Hospitals, the Children's Hospital Association and other groups have developed patient education tools and resources to help hospitals and emergency departments to set policies and practices to respond to the crisis and support mental health.[201, 202, 203, 204]

- In September 2017, the Pharmaceutical Research and Manufacturers of America (PhRMA) announced support for policies limiting the supply of opioids to seven days for acute pain treatment.[205]

PRESIDENT'S COMMISSION ON COMBATING DRUG ADDICTION AND THE OPIOID CRISIS[206]

In March 2017, President Trump signed an executive order to create a Commission on Combating Drug Addiction and the Opioid Crisis, chaired by New Jersey Governor Chris Christie, to "study the scope and effectiveness of the federal response to drug addiction and the opioid crisis and to make recommendations to the president for improving that response." The commission issued a final report on November 1, 2017 that included more than 50 recommendations, including:[207]

- Block grant federal funding for opioid-related and substance use disorder-related activities to states, and establish systems to track efforts and accountability;
- Collaboration between the U.S. Department of Education and states to deploy Screening, Brief Intervention and Referral to Treatment (SBIRT) in middle school, high school and college levels to identify and support at-risk youth;
- Design and implement a public-private national multi-platform media campaign;
- Support for prescribing guidelines, regulations and education;
- Enhance Prescription Drug Monitoring Programs, including mandatory use, data sharing and integration and electronic prescribing;
- Strategies to reduce the supply of licit and illicit opioids along with enhanced enforcement strategies, such as through increased Take Back efforts, removing pain questions from patient satisfaction surveys, modifying CMS rate-setting policies that discourage other pain treatment, enhancing federal penalties for fentanyl and related drug trafficking, expanded domestic and international anti-trafficking efforts and fentanyl safety recommendations for first responders;
- Establishing drug courts in all 93 federal districts to treat those who need it and lower the prison population;
- Focusing on opioid addiction treatment, overdose reversal and recovery – improving and expanding screening and treatment options; removing reimbursement barriers (including patient and treatment modality limits); expanding use of recovery coaches and services; recruiting more treatment providers and expanding types of providers; supporting availability and ability and protections for administering naloxone; support for interventions and practices to keep impacted families together and provide support, when it can be done safely; and support employment opportunities and workplace support for addiction and treatment services; and
- Research and development efforts for pain management and addiction research; develop and test alternative medications for pain and substance use disorder treatment; and post-market surveillance of opioids and alternatives.

The report also features information about evidence-based prevention programs, noting that:

"When evidence-based programs are selected for specific populations and implemented with fidelity, they can be effective. Prevention programs need to be tested for scalability, fidelity, and sustainability after research champions are no longer present to drive programs. Prevention is most successful when messages are consistent, culturally-appropriate, repeated at home, reinforced in schools, workplaces, and community organizations, and delivered by influential adults and peers…. Risk and protective factors are influential at different times during development, and they relate to changes that occur over the course of development. Risk factors can interrupt developmental patterns and it is therefore important to implement programs designed for early developmental periods by building on the strengths of the child or caregiver. Intervening early in childhood can alter the life course trajectory in a positive direction."[208] Highlighted examples of effective universal programs (that if widely used can have a positive impact across a population) include: Good Behavior Game; Nurse Family Partnership; Life Skills Training (LST); Strengthening Families Program 10-14; and Communities That Care. Examples of highlighted effective selective interventions (delivered to particular communities, families, or children who, due to their exposure to risk factors, are at increased risk of substance misuse problems) include Coping Power and Focus on Families; and examples of effective indicated interventions (directed to those who are already involved in a risky behavior, such as substance misuse, or are beginning to have problems, but who have not yet developed an SUD) include: Project Toward No Drug Abuse; BASICS; and Keepin' it Real.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES OPIOID STRATEGY (5 PRIORITIES):[209]

- Strengthening prevention and public health surveillance
- Supporting cutting-edge research
- Targeting the availability and distribution of overdose-reversing drugs
- Improving access to treatment and recovery service
- Advancing the practice of pain management

COMPREHENSIVE ADDICTION AND RECOVERY ACT AND THE 21ST CENTURY CURES ACT

In 2016, two laws were passed to help combat the opioid epidemic: the Comprehensive Addiction and Recovery Act and the 21st Century Cures Act (Cures Act).[210, 211]

The **Comprehensive Addiction and Recovery Act (CARA)**,[212] signed in July 2016, authorized up to $181 million for programs designed to reduce addiction and promote recovery. It did not, however, appropriate any funds for these programs, and in the FY 2017 budget process $158 million of the authorized $181 million was appropriated to CARA initiatives.[213] CARA promotes a number of strategies, including:

- Prevention and education initiatives, such as community-based drug education programs, PDMPs, outreach to teen athletes, drug take-back programs and research into the causes and cures of opioid addiction;
- Access to Medication-Assisted Treatment (MAT) by authorizing, for the first time, nurse practitioners and physician assistants to prescribe and administer buprenorphine and by expanding access to buprenorphine for many populations, including inmates in correctional facilities;
- Access to overdose treatment by supporting programs to expand naloxone access and training for first responders and community members;
- Diversion programs to steer those with dependence towards treatment instead of jail;
- Prevention of relapses by supporting Building Communities of Recovery;
- Treatment for mothers and children who are dependent on opioids by authorizing a grant for a residential program for pregnant and post-partum women and their children; and
- Veterans Treatment Courts and other programs targeting veterans, such as peer-to-peer mentoring, to increase opioid safety practices and treatment options for veterans struggling with opioid addiction.[214 215 216]

The 21st Century Cures Act,[217] signed into law in December 2016, authorized more than $6 billion in healthcare spending and included $1 billion to target the opioid crisis to be distributed over the subsequent two years. Additionally, several provisions were designed to improve access to mental health care. Congress appropriated the first $500 million of Cures Act funding in December 2016, and the President's FY 2018 budget requests another $500 million for Cures Act programs.[218] The Cures Act supports several initiatives to combat the opioid epidemic, including:

- Federal leadership and accountability for substance misuse and mental health issues by, for example, creating an Assistant Secretary for Mental Health Substance Abuse to coordinate federal mental health programs and a National Mental Health and Substance Use Policy Lab to guide grants awarded by SAMHSA;
- Integration of care between primary and behavioral health systems by, for example, making it a condition for state-level grant dollars and creating a technical assistance center to support integration efforts;

- Evidence-based prevention and treatment practices, including workforce training for prevention, treatment and recovery support for workforces, improvements to PDMPs, opioid treatment programs and other public health activities through block grants to the states;
- Decriminalizing behavioral health issues by, for example, researching the effectiveness of diversion programs for certain individuals with mental illness and creating a federal Drug and Mental Health Court pilot program;
- Improving law enforcement responses to behavioral health situations, including grants for Crisis Intervention Team (CIT) programs and de-escalation training for law enforcement and other first responders;
- Suicide prevention by, for example, revising and reauthorizing suicide hotlines and other suicide prevention programs, including creation of a College Campus Task Force at HHS; and
- Workforce development to encourage, for example, medical residents and fellows to practice psychiatry and addiction medicine in underserved and rural areas, and the establishment of a minority fellowship program for mental health and substance use disorder professionals.[219]

The Cures Act also contains measures to support mental health care programs, including existing SAMHSA programs such as suicide prevention and mental health training. Additional mental health provisions include:

- Same-day billing for mental health and primary care, rejecting a previous interpretation of the Medicaid statute to prohibit reimbursement for mental health and primary care services provided to an individual on the same day;
- Parity enforcement, by requiring HHS to issue new compliance guidance to health plans and to create an action plan for improved federal and state coordination related to parity enforcement;
- Access to mental health and substance use disorder records to provide better continuity of care by requiring HHS to issue final regulations within one year clarifying under the HIPAA circumstances by which a healthcare provider may share protected health information; and
- Preventive services for children receiving inpatient mental health care by specifying that youth under 21, who are receiving Medicaid-covered inpatient psychiatric hospital services, are also eligible for the full range of early and periodic screening, diagnostic and treatment (EPSDT) services.

Key Policies

Many of the current policy strategies to address the epidemic focus on the acute priorities of reducing the availability of prescription and illicit opioids available for misuse and reducing the harms and risks of misuse, addiction and overdoses.

Due to the urgent nature of the crisis, much of the response has focused on emergency services for responding to overdoses and trying to increase the availability of effective treatment of opioid use disorder when there is a shortage of services, providers and issues around coverage and systems for treatment *(see Section B: Improving Behavioral Health Services for more discussion on treatment)*. There are also a number of efforts to support community-based programs that focus on trying to prevent misuse in the first place.

The following section examines key approaches being used to address the opioid epidemic. They are being implemented and funded at varying levels around the country. A broad recommendation would be to ensure the strategies can be effectively scaled and supported to benefit every community where opioids are an issue.

Pain Treatment and Management — and Changing Prescribing Practices.

A top priority is to find additional and effective ways to treat and manage pain and to provide training to all health providers who may prescribe opioids, as well as continuing to support research and development into innovative approaches for addressing pain. A number of health organizations, provider groups, pharmaceutical companies and NIH are working to develop: safe, effective, non-addictive strategies to manage pain; new, innovative medications and technologies to treat opioid use disorders; and improved overdose prevention and reversal interventions to save lives and support recovery.

Another key component is to support better training for informed and responsible prescribing practices. CDC has developed guidelines for prescription opioid use for chronic pain with input from patient and medical groups.

- **Provider Education and Informed Practices.** Education for practitioners is a critical component to reducing incidences of prescription drug misuse — including support for continuing education support, particularly as the field and guidance may change over time.[220] Recommended subject matter include: treating pain in a holistic manner, appropriate prescribing, critical thinking skills, use of state PDMPs and addiction identification and referral to treatment. Many medical, dental, pharmacy and other health professional schools provide only limited training on substance misuse and pain treatment.

  - A number of states have enacted or adopted training requirements for certain prescribers, including through licensing requirements for treatment in pain clinics. In 2016, the National Conference of State Legislatures (NCSL) began tracking provider training on pain management, and at least 11 laws have been enacted in nine states.[221]

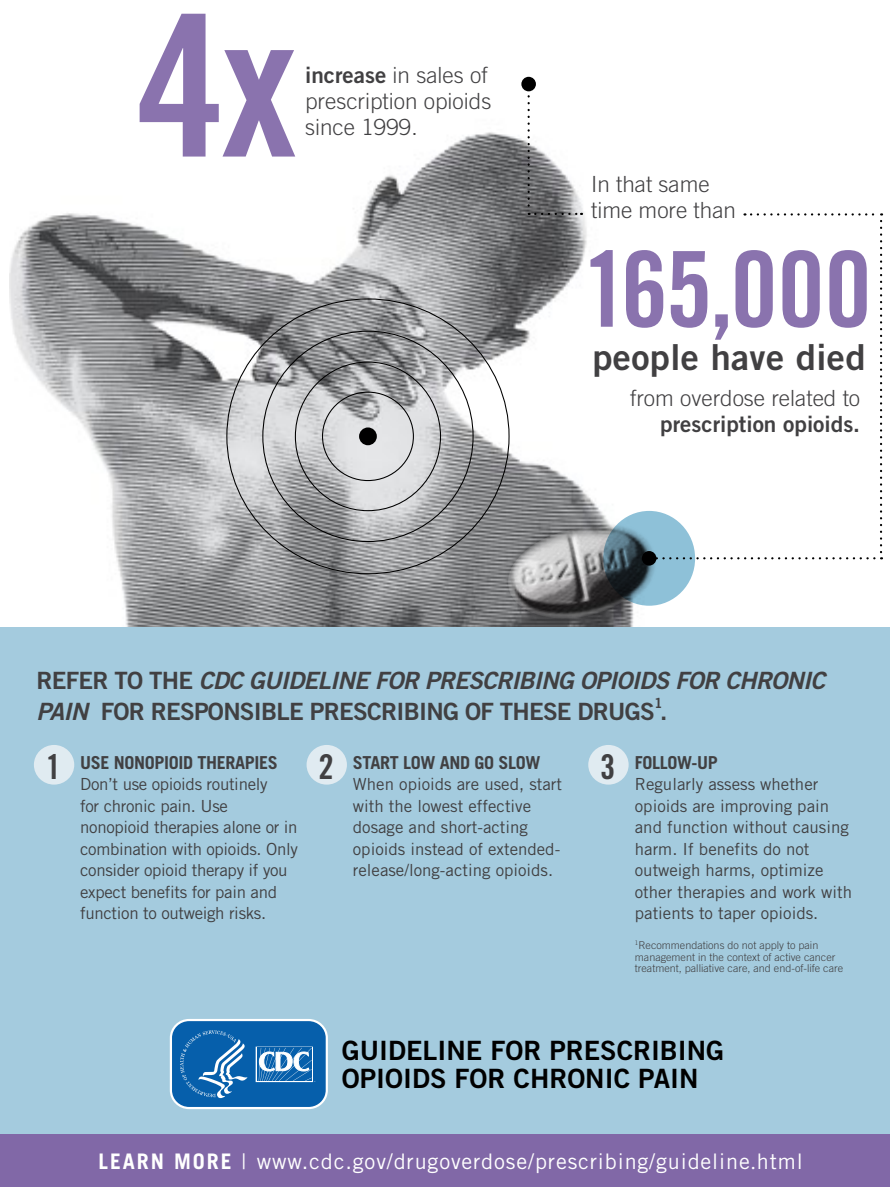
  - The Pain Action Alliance to Implement a National Strategy (PAINS) consortium of leaders working in professional societies, patient advocacy organizations, policy groups, consumers, payers and the private sector, and other provider and patient organizations, recognize there are twin epidemics of pain and opioid misuse. They have issued policy recommendations for ensuring the needs of pain patients — both adults and children — are appropriately recognized in the process of creating best practice guidelines for providers to ensure the needs of these patients are appropriately met. Around 11 percent of adults (25.3 million) and between 5 and 38 percent of children experience chronic pain.[222, 223]

  - In 2016, CDC issued Guidelines for Prescribing Opioids for Chronic Pain, and more than 60 medical schools committed to including it in their curricula. [224, 225] CDC recommends that clinicians consider pain management regimens that do not involve opioid therapy, and states that non-opioid therapy is preferred for managing "chronic pain outside of active cancer, palliative and end-of-life care."[226] Non-opioid pain management therapies include physical therapy, exercise, cognitive behavioral therapy and non-opioid medications, such as acetaminophen or ibuprofen or steroid injections. There are no corresponding guidelines for prescribing for acute pain.

  - CMS issued a set of best practices for opioid prescribing and treatment, including supporting more opioid prescribing education and training for prescribers, and FDA is expected to update its Risk Evaluation and Mitigation Strategy in 2017 requiring manufacturers to offer voluntary

opioid training programs to U.S. licensed prescribers.[227, 228, 229] FDA's prescriber education initiative, Search and Rescue, helps connect prescribers with resources on the latest prescribing guidelines, screening tools and PDMP best practices to help identify at-risk patients, prescribe responsibly and guide patients in need to appropriate care.[230]

- A number of medical professional organizations and schools are expanding efforts to provide opioid-related education and training. According to AMA, more than 118,000 physicians completed training in opioid prescribing, pain management, addiction and other related issues in 2015 and 2016.[231] In April 2017, the Federation of State Medical Boards updated its model policy for medical and osteopathic boards on assessing a clinician's management of pain — whether opioid use is both medically appropriate and in compliance with applicable state and federal laws and regulations.[232] At least 74 schools of medicine have signed onto an Association of American Medical Colleges statement.[233] The American Board of Medical Specialties recognized addiction medicine as a subspecialty in March 2016, and has focused on supporting addiction medicine fellowships to train physicians in preventing, identifying and treating addiction and related physical and psychiatric conditions. In 2017, they offered 40 fellowships and aim to have 65 by 2020 and 125 by 2025.[234, 235]



- **Prescription Drug Monitoring Programs.** PDMPs are a database tool that track dispensed controlled substances in a state. They allow doctors, dentists, pharmacists, other health providers, public health and law enforcement to access information about individual and population prescribing patterns.[236] PDMPs can help support safe and effective prescribing and dispensing practices — informing clinical decision-making, enhancing care and reducing risks of overprescribing and identifying when a patients' pain is not being well managed or may be suffering from pain or a drug dependence (if integrated with Electronic Health Records). They can help identify possible provider overprescribing (intentional and unintentional) and areas with higher than expected rates of prescribing. They help identify providers who may be overprescribing ("bad actors" or "pill mills") and "doctor shopping" individuals. A number of reviews have called for increased research into PDMPs and best practices, and to provide "insight into how variations among PDMPs modify program effectiveness, to suggest potential means of better utilizing PDMP and to limit possible unintended negative outcomes."[237]

  Some related practices to using PDMPs include requiring patient identification prior to dispensing opioids, prohibiting dispensing of certain medication in the office setting (requiring pick up at a separate pharmacy) and for patients with high patterns of receiving prescriptions from multiple providers to be required to be "locked-in" to using a single pharmacy to monitor and coordinate the safety of their prescriptions.[238] Some patients continue to circumvent lock-in policies by paying out-of-pocket for their medicines.[239]

  Every state and Washington, D.C. currently have some level of PDMP, but they vary significantly in the level of funding, support and use they receive. CDC, the Prescription Drug Monitoring Program Training and Technical Assistance Center (PDMP TTAC) at Brandeis University, National Alliance for Model State Drug Laws (both receiving support from DOJ), and Shatterproof have proposed a number of best practices for PDMPs.[240, 241, 242, 243] CDC encourages universal use, real-time reporting, active management and easy use and access for providers.[244] Some key recommendations for improving and expanding the use of PDMPs include:

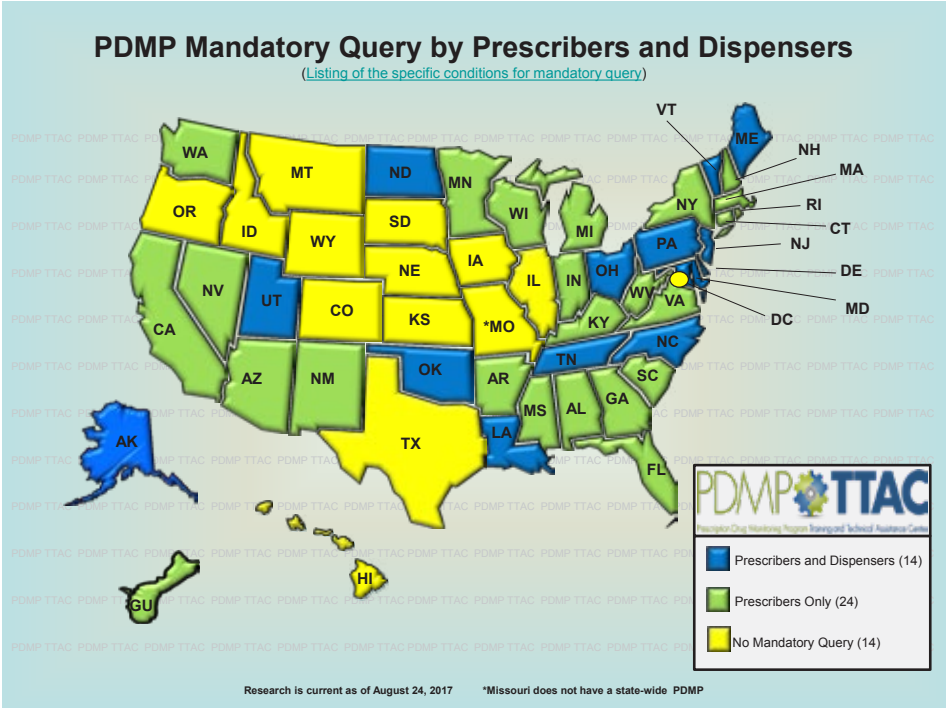
  - **Provide sufficient funding for PDMPs.** States use various mechanisms to fund their PDMPs, including: grants (private, philanthropic or from the federal government); general revenue funds; controlled licensing fees; regulatory board funds; legal settlements; PDMP licensing fees; and/or health insurance licensing fees. Some states do not allow general treasury funds to be used to support PDMPs, and some programs are supported only by time-limited grants. Federal support for PDMPs comes from SAMHSA, CDC's Prevention for States and the DOJ's Harold Rogers PDMP Grant Program.

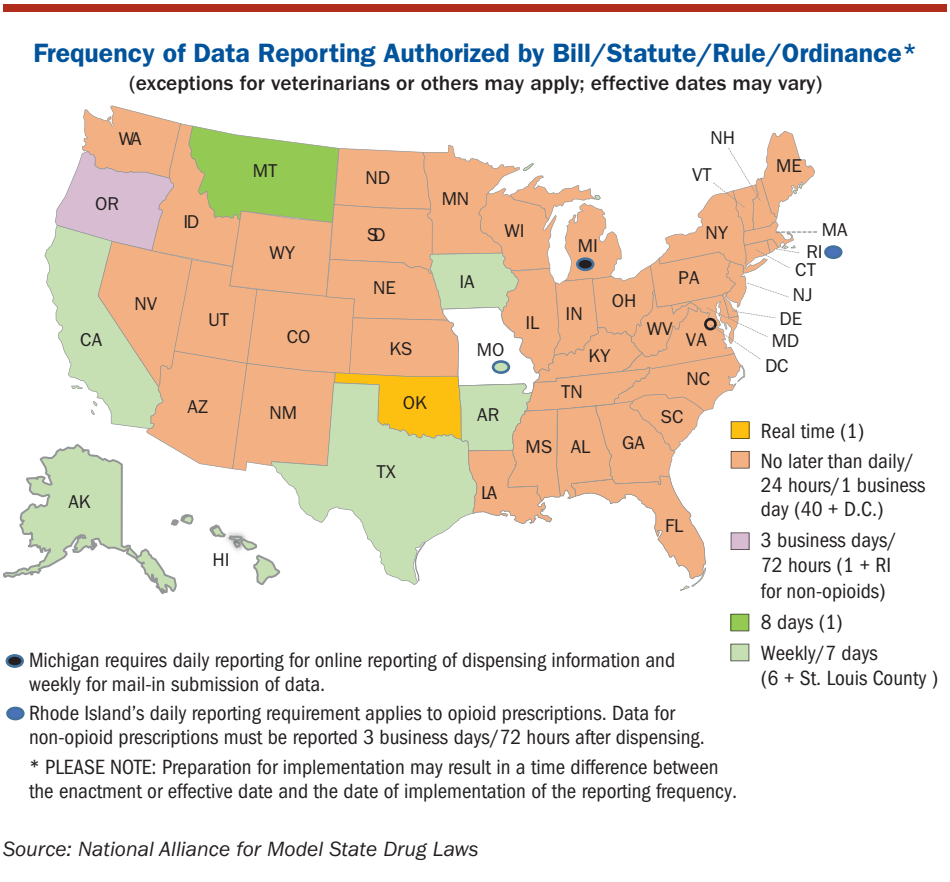
  - **Make use mandatory for all prescribers, require timely reporting of data and link PDMPs to Electronic Health Records.** Some recommended practices are to mandate prescribers use the databases before prescribing opioids and benzodiazepines; allowing "authorized delegates" within healthcare offices to be able to use the systems to support prescribers;[245] ensuring timely entry of prescriptions/data; linking PDMPs to Electronic Health Records according to protocols that protect patient privacy laws; and interstate interoperability/data-sharing. It is also important for states to work with state and local public health, including local health departments, to disseminate analyses of prescribing and overdose trends. Improving data collection and analysis around opioid misuse, dependency and overdose helps the state and local public health to identify concerns and target prevention and reduction strategies.[246]

    - At least 37 states have some mandatory PDMP use requirement — where 23 states and Guam require querying the PDMP before prescribing or dispensing opioids, and 14 additional states require querying the PDMP before prescribing and dispensing opioids.[247] Some studies have shown the effectiveness of mandatory use. For instance, in Kentucky, requirements increased use five-fold; multiple prescriptions were reduced by more than half; and opioid prescribing was reduced by around 12 percent.[248]

In Tennessee, PDMP use increased by more than 400 percent; opioid prescribing decreased by 7 percent within one year; and patients being able to fill multiple overlapping prescriptions decreased by 31 percent.[249] A best practices guidance memo from CMS identified a strategy where state Medicaid programs can consider including language in provider agreements and managed care contracts to require that providers access their state PDMP as a condition of provider agreement and payment, along with mandatory electronic prescribing.[250]

- Forty-two states and Washington, D.C. require pharmacies to submit data daily; one state (Oklahoma) had real-time reporting; three had 72 hours requirements; and four states had 7-8 day requirements (as of October 2017). Oklahoma's real-time reporting is credited with being a contributing factor to a tripling of PDMP use among prescribers (from 24 percent to 86 percent).[251]
- Sharing PDMP information between states, particularly bordering states, is important given that patients may go to doctors or pharmacies across state lines. Forty-four states and Washington, D.C. are sharing data — either PDMPs share data with other PDMPs or allow authorized users to set up accounts with different state programs; five states are implementing data sharing (as of September 2017).[252]





Source: National Alliance for Model State Drug Laws

Community-based Strategies.

There are numerous effective, evidence-based programs that can support local communities to reduce drug misuse and related problems — while also promoting stronger well-being and community vitality. However, there is currently insufficient infrastructure or resources to scale them and ensure they benefit most local areas.

Most states and many local communities have created task force or coalition efforts to deal with the opioid crisis. However, these vary widely in terms of their scope and resources.

The most effective efforts include multi-sector engagement — leveraging the expertise and assets from within a community — bringing together major institutions (across sectors), like hospitals and healthcare systems, universities and schools, businesses, community organizations and faith-based groups *(see Section III-C for recommendations for creating systems to scale and support Multi-Sector Community Health Improvement and Well-being Partnerships)*. Drug misuse is having a negative impact on families and communities throughout the country — including acutely impacting emergency and healthcare services, the workforce, child welfare and foster care and social service systems. Solutions must involve the leaders, institutions and members of communities themselves — leveraging resources, expertise and community engagement. The most effective, long-term efforts have a sustained management structure, a financial agent, and expert and technical assistance support.

Many prevention initiatives also support public education about the risks and use of opioids (for instance CDC's Rx Awareness Campaign) and safe storage and disposal of prescription drugs, including educating the public about the benefits and risks of taking opioids, information about how individuals can develop dependencies and the risks to be alert to when taking opioids, as well as about the need to safely store drugs so they are only used by the prescribed patient and the safe disposal of any excess medications when they are not needed.

SAMHSA, CDC and ONDCP help develop and evaluate best practice policies and programs, and advise and provide assistance to support state and community activities to combat the epidemic.[253] In addition, a number of organizations — including the Community Anti-Drug Coalitions of America (CADCA), Partnership for Drug-Free Kids, Communities That Care, Community Catalyst and numerous other initiatives around the country — have led the way in providing support for community-based efforts to prevent and reduce drug misuse. *(See Section III-D for more discussion on school-community prevention programs)*.

For instance, groups like CADCA, Communities That Care and the PROSPER project provide support and technical assistance to some of the leading efforts in the country. However, the number of communities receiving support and funding are very limited in scale, where nearly every community in the country would benefit from this type of effort. For instance:

- **CADCA** is the largest national membership organization that works to strengthen the capacity of community coalitions to create and maintain drug-free communities. CADCA has engaged in ongoing educational and communications efforts around prescription drug use, including issuing publications to provide community anti-drug coalitions with the research and tools they need to implement effective prevention strategies and train community anti-drug coalitions in effective community problem-solving strategies using local data.[254]
- **Communities That Care**[255] was developed by the Social Development Research Group at the University of Washington to provide a prevention-planning system and network of expert support for the use of evidence-based approaches that promote the positive development of children and youth and prevent problem behaviors. Hundreds of U.S. and international communities have used this evidence-based approach, which involves all parts of a community to target predictors of problems, rather than waiting for problems to occur. It is grounded in research from public health, psychology, education, social work, criminology, medicine and organizational development.

  A randomized controlled test of Communities That Care programs in 24 communities across seven states that followed 4,407 fifth grade youth found that by the spring of eighth grade, significantly fewer students from participating communities had health and behavior problems and were 25 percent less likely to have initiated delinquent behavior; 32 percent less likely to have initiated alcohol use; and 33 percent less likely to have initiated cigarette use.[256] The results were sustained through 10th and 12th grades — with 25 percent lower odds of engaging in violent

behavior. A cost-benefit analysis found a $4.23 benefit for every dollar invested in the Communities That Care operating system.[257]

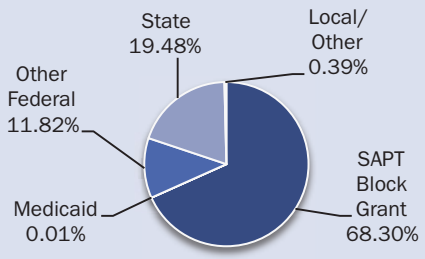
- **The PROSPER project** (PROmoting School/community-university Partnerships to Enhance Resilience),[258, 259, 260] developed by the Partnerships in Prevention Science Institute and the cooperative extension, is an evidence-based delivery system for supporting sustained, community-based implementation of scientifically-proven programs that reduce adolescent substance misuse or other problem behaviors and promote youth competence. The PROSPER delivery system has been shown to reduce a number of negative behavioral outcomes, including drunkenness, smoking, marijuana use, use of other substances and conduct behavior problems, with higher-risk youth benefiting the most.[261, 262, 263] PROSPER also demonstrates positive effects on family strengthening, parenting and youth skills outcomes and reduces negative peer influences.

There are limited sets of federal government grants to support community prevention efforts. Total federal spending to support prevention in states is less than 1 percent of the economic costs of prescription opioid overdoses and misuse (less than $1.5 billion in prevention grants in FY 2016 vs. $78.5 billion on prescription opioid misuse and overdose in 2013).[264] Some larger initiatives include:

- **SAMHSA** supports prevention focused activities in communities — where states are required to direct at least 20 percent of funds from the Substance Abuse Prevention and Treatment Block Grant (funded at $1.85 billion in FY 2016) to support primary prevention efforts. These funds make up 68 percent of all funding for primary prevention in states.[265] Funding for SAPT has decreased by 26 percent over the past decade (adjusting for inflation).

Total federal spending to support prevention in states is less than 1 percent of the economic costs of prescription opioid overdoses and misuse.

Total State Substance Abuse Prevention Expenditures, $536 million, State FY 2014



Source: NASDAD

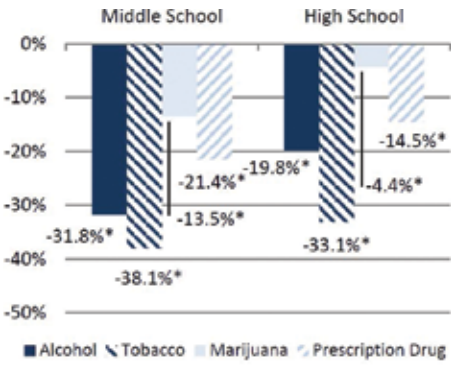
SAMHSA'S STRATEGIC PREVENTION FRAMEWORK (SPF) FOR COMMUNITIES[266]

The steps of the SPF include:

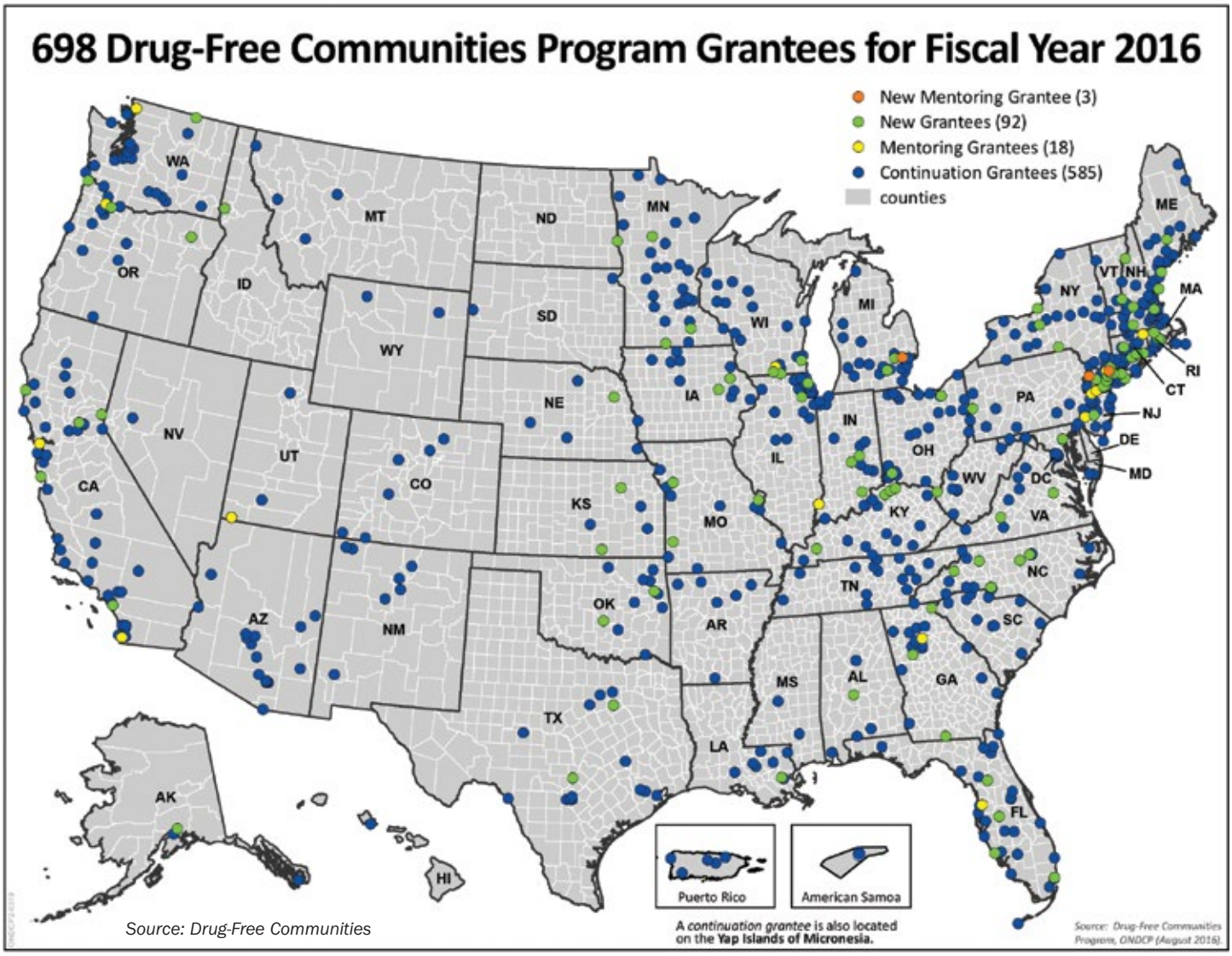
- Step 1: Assess Needs: What is the problem, and how can I learn more?
- Step 2: Build Capacity: What do I have to work with?
- Step 3: Plan: What should I do and how should I do it?
- Step 4: Implement: How can I put my plan into action?
- Step 5: Evaluate: Is my plan succeeding?

Source: SAMHSA

Percentage Change in Past 30-Day Alcohol, Tobacco, Marijuana, and Prescription Drug Prevalence of Use: Significant Long-term Change Among FY 2013 DFC Grantees



- **Drug-Free Community** (DFC) grants support community-based coalitions that work to prevent youth substance misuse, and federal funds require a local-support match.[267] The program, managed by ONDCP and SAMHSA's Center for Substance Abuse Prevention, has funded more than 2,000 coalitions and mobilizes nearly 9,000 community volunteers annually. In FY 2016, $85.9 million funded 92 new DFC grants, 585 continuation grants, three new DFC Mentoring (DFC-M) grants and 18 continuation DFC-M grants.[268, 269]
- For middle school youth living in DFC-funded communities, data from the DFC National Evaluation found: a 24.4 percent reduction in alcohol use, 29.4 percent reduction in tobacco use, 15.1 percent reduction in marijuana use, and a 21.4 percent reduction in prescription drug misuse. Additionally, high school-aged youth have reduced their use of alcohol by 15.5 percent, tobacco by 23.7 percent, marijuana by 4.9 percent and prescription drug misuse by 14.5 percent in DFC-funded communities.



Source: Drug-Free Communities

- **CDC** — there is increased funding for opioids in the FY 2017 Omnibus Appropriations bill — supporting a total of 45 states and Washington, D.C. through its Overdose Prevention in States (OPIS) effort, including:
  - **Prevention for States (PfS).** CDC provided competitive grant funds to 29 states to execute and evaluate prevention strategies for safe prescribing practices and to prevent misuse, dependency and overdoses. Through 2019, CDC plans to give states within the program $750,000 to $1 million to advance: PDMPs, community and/or health system interventions, policy evaluations and rapid hotspot response efforts. For example, the CDC-supported Injury Center supported five state health departments (Kentucky, Oklahoma, Tennessee, Utah and West Virginia) with funding and scientific assistance following the initial identification of the opioid epidemic in their communities.
    - States are actively working to:
      - Enhance and maximize PDMPs;
      - Implement community or insurer mechanisms or health systems interventions;
      - Evaluate the impact of prescription drug-related state policies; and
      - Develop Rapid Response Projects that give states flexibility in quickly responding to changing circumstances in communities.
  - Among the 29 states receiving grant funds, 27 states will receive an additional $19.3 million in supplemental funding for program expansion.

  - **Data-Driven Prevention Initiative (DDPI) —** $4.6 million in additional funds will go to 12 states and Washington, D.C. in program expansion supplemental awards.
    - States are actively working to:
      - Improve data collection and analysis around opioid misuse, dependency and overdose;
      - Develop strategies that impact behaviors driving prescription opioid misuse and dependence; and
      - Engage communities to develop more comprehensive opioid overdose prevention programs.
  - **Enhanced State Opioid Overdose Surveillance (ESOOS) —** $4.7 million in additional funds will go to 32 states and Washington, D.C. to better track and prevent opioid-involved non-fatal and fatal overdoses. Funds will be used by states to implement innovative surveillance activities and to support comprehensive toxicology testing within medical examiner and coroner offices. Many of the 32 states with these grants overlap with PfS and DDPI states.
    - State activities include:
      - Establishing an early warning system to detect sharp increases or decreases in non-fatal opioid overdoses;
      - Collecting information on the number and rate of opioid overdose deaths;
      - Analyzing information from toxicology tests and death scene investigations; and
      - Providing information on key risk factors contributing to opioid overdose deaths.

Surveillance.

Understanding the scope of the problem is essential to helping solve it. CDC, SAMHSA, state and local public health departments and State Alcohol and Drug Abuse Directors often have a primary responsibility for tracking health problems and related contributing factors within communities. Strong surveillance is essential to understanding public health issues within specific areas and developing effective strategies to address and evaluate them. Key national systems that state and local agencies work with in collaboration include: Web-based Injury Statistics Query and Reporting System (WISQARS), Wide-ranging ONline Data for Epidemiologic Research (CDC WONDER), National Violent Death Reporting System (NVDRS), Youth Risk Behavior Surveillance System (YRBSS), National Survey on Drug Use and Health and Monitoring the Future (MTF). Each are essential tools for tracking and understanding the rise in alcohol, drug and suicide deaths and contributing factors, and ultimately inform more effective strategies. For instance, recent reports have tracked patterns in the rising and shifting use of heroin and fentanyl, and reductions in prescription opioid prescribing while at the same time identifying areas where prescribing rates are still higher than the norm. They also have been instrumental in assessing hepatitis C and HIV growth rates in areas of the country related to the increased use of injection drugs. The President's Commission on Combating Drug Addiction and Opioid Crisis interim report identified two key prevention efforts: the need to develop a "national prevention strategy using 'big data analytics' to devise targeted prevention messages that employ cutting-edge methods of marketing and communication."[270]

Safe Storage.

Disposal and Take Back Programs. These strategies help to ensure only intended patients access opioid medications and reduce the number of unused medications that may be available in homes and institutions. A majority (53 percent) of people who misuse prescription drugs get them from friends and family.[271] Of individuals who are more likely to overdose, 27 percent get opioids from their own prescriptions, 26 percent receive free from friends or family, 23 percent buy from friends or family and 15 percent buy from a drug dealer.[272] Controlling the amount of opioids prescribed is important to avoid having excess supply. Important efforts also seek to ensure unused drugs are either taken out of circulation or properly disposed of. Many communities sponsor "Take Back" programs, where people can turn in unused prescription drugs, and an increasing number of police and fire stations and pharmacies have standing Take Back centers. CDC, state and local public health agencies, law enforcement agencies and pharmacies often sponsor Take Back days and public education campaigns. Another emerging strategy is providers and pharmacies supplying patients with safety bags along with their medications where they can seal unused medicines. The bags contain a neutralizing agent that deactivate the drugs so they can then be disposed of in regular garbage.[273]

Tamper-Resistant Formulations.

While FDA notes that it is impossible to make drugs completely tamper-proof and instructions for tampering can be found on the internet, there has been an increase in the development and production of tamper-resistant prescription opioids and the FDA has issued guidance for the industry on the evaluation and labeling of tamper-deterrent opioids.[274] In 2017, FDA requested the removal of one opioid, Opana, from the market in response to reports of misuse and diversion.[275] FDA is taking greater action to take cost-benefit concerns and expand pre- and post-market studies of opioids. Many have expressed concern that tamper-resistant formulations may have had the unintended consequence of contributing to the use of heroin and other illicit opioids.[276]

Stopping the Supply of Heroin, Fentanyl and Carfentanil.

The rising use of illicit opioids — due to lower cost and increased availability — has become a top priority for federal, state and local agencies.[277] Significant portions of the supply are coming from outside of the United States — including by mail — and there have been increasing trends of traffickers mixing the lower-cost and more potent drugs fentanyl and carfentanil with heroin to maximize their profits. Individuals are then often unknowingly using drugs that are even more potent than expected, leading to increases in overdoses (fentanyl can be 50 to 100 times more powerful than heroin, and carfentanil is 100 times more powerful than fentanyl). The Customs and Border Patrol seized approximately 8 pounds of fentanyl in 2014 and nearly 200 pounds of the drug in 2015.[278]

- **Target heroin and fentanyl imports.** Heroin and synthetic opioids are primarily being imported into the United States, with heroin most often coming from Columbia and fentanyl from Canada, Mexico and China.[279, 280]

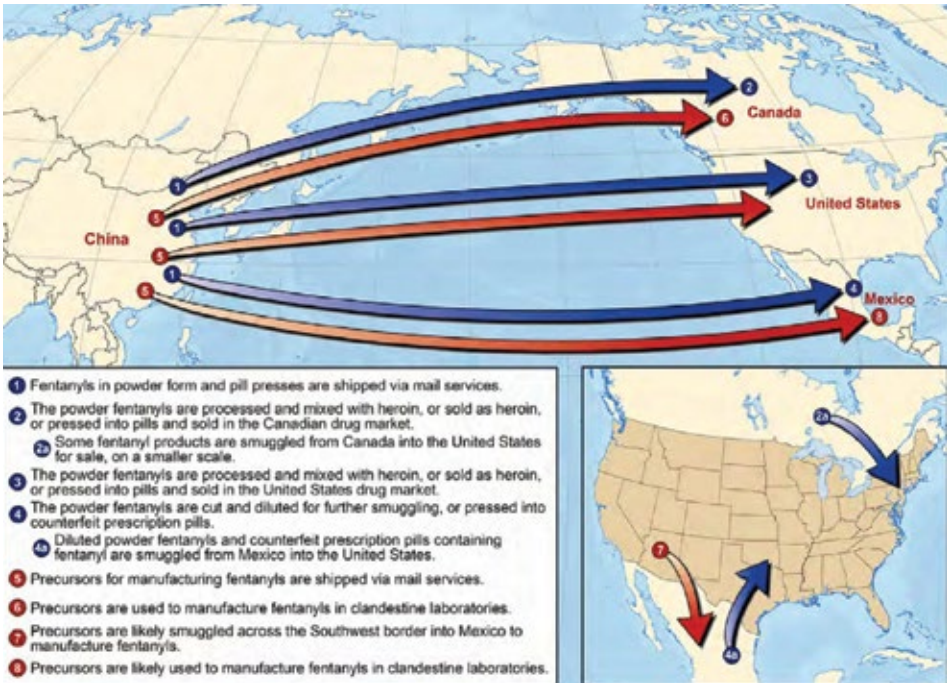
China did not regulate the manufacture or sale of fentanyl until 2017, when it added additional synthetic opioid formulations to its list of controlled substances after requests from the United States.[281, 282] Continuing to work with these countries to limit trafficking into the United States is important — as well as supporting and adequately funding law enforcement efforts to stop large criminal organizations who are most responsible for the overall supply of illegal drugs, like the DOJ's Organized Crime Drug Enforcement Task Forces (OCDETF).[283]

- **Support domestic anti-drug trafficking programs.** Initiatives such as the High Intensity Drug Trafficking Areas program, run by ONDCP, provide grants and other support to federal, state, local and tribal agencies by directing resources to "hot spots" for drug production and trafficking.[284] There are currently 28 HIDTAs covering 49 states, as well as Washington, D.C., Puerto Rico, the U.S. Virgin Islands and the Warm Springs Indian Reservation, and 752 initiatives specific to each geographic area.[285] In addition, 20 states and eight HIDTAs are now coordinating efforts to address the spike in heroin use and fatalities as part of the HIDTA Heroin Response Strategy.

  - The HIDTA program is designed to be flexible, drawing on data from dozens of intelligence and investigative support centers to bring together information, identify trends and assess threats.[286] Every HIDTA sponsors initiatives focused on prevention, coordination and support for local law enforcement strategies. Excluding funding for prevention and treatment, ONDCP estimates that each $1 of HIDTA funding in 2016 yielded a return on investment of $75.34.[287] In 2016, HIDTA-supported programs:

    - Disrupted or dismantled 2,668 drug trafficking or money laundering organizations;
    - Seized 5.2 tons of heroin and 1 ton of prescription opioids;
    - Provided training for 77,913 criminal justice professionals;
    - Apprehended 50,923 fugitives involved with drug trafficking, violent crime and gangs as well as other major crimes; and
    - Seized $547 million in illegally-gained cash from drug trafficking and money laundering organizations to be equitably shared with tribal, local, state and federal government agencies.[288]

Illicit Fentanyl and Fentanyl Precursor Flow Originating in China



Source: DEA

Reducing Harm and Preventing and Reducing Risks of Misuse, Addiction and Overdoses

There are also a number of important strategies to help reduce the harm and impact of substance use disorders. The risk for overdose, vein damage and contracting infections like HIV and hepatitis C have serious life-and-death and other health consequences. The legal and social policies around substance misuse have major implications for individuals and communities. Public health approaches focus on: providing support and connections to treatment and recovery to individuals; reducing the supply of drugs and supporting responsible and appropriate use of prescription medicines; and treating addiction as a public health and not a criminal concern and avoiding compounding the negative impact for families, or advancing high-cost and ineffective approaches within the justice system.

- **Treat Substance Misuse as a Health Issue.** One key priority is focusing on substance use disorders as public health issues and getting treatment and care for individuals to provide support. Moreover, it must also be viewed as a top strategy for reducing additional misuse. Treating substance use disorders as a public health issue is important to reducing stigmas around disorders and seeking help. Evidence supports that arrests and severity of criminal punishment for drug-related offenses have not reduced demand of sales.[289] Some communities have adopted different approaches that, while still criminalizing addiction, are less focused on being "punitive." For instance, some strategies for deterring use include use of drug courts, where individuals are connected with care and services, and programs like Law Enforcement Assisted Diversion (LEAD), which is a pre-booking diversion program that establishes protocols where police divert people away from traditional criminal justice processes into health-based intensive case management where the individual receives support services, including for drug treatment and mental health along with needed supports such as housing.[290]

- **Expanding Naloxone Access and Good Samaritan Laws.** One important area of focus is to respond effectively to overdoses. An emergency prescription medication called naloxone can be used to reverse the effects of an opioid overdose if used promptly.[291] The practice of providing naloxone started with harm reduction programs, especially syringe exchange programs. Expanding naloxone access has gained support over the past decade as the opioid epidemic escalated, with support from the U.S. Conference of Mayors (2008 Resolution), AMA (2012 Resolution), the American Public Health Association (APHA) (2012) and a number of other organizations.[292]

  Most state governments, as well as local and federal programs, have expanded the availability and support for naloxone. This includes ensuring first responders have it available when responding to emergencies. In addition, many public places and institutions are starting to have naloxone on their premises (libraries, community centers, schools and universities) and are providing training to some staff to be able to administer it. Also, many providers and states are supporting policies and practices to prescribe naloxone to individuals or the families of individuals who may be at high risk for overdose, and are changing laws to limit liability for individuals seeking or providing medical assistance for an overdose, called overdose Good Samaritan laws.

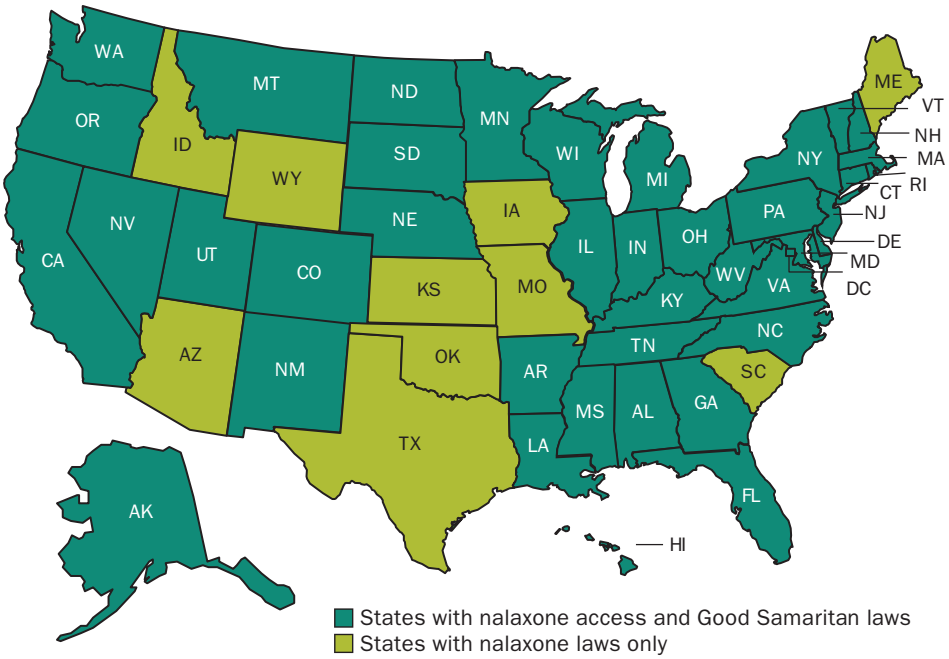
  According to the AMA, more than 32,000 prescriptions were written for naloxone in the first two months of 2017, compared to 4,291 in the entire second quarter of 2015 — and the number of prescriptions increased by almost 500 percent for the first two months of 2017 compared to the first two months of 2016.[293]

  Significant barriers remain to broader use of naloxone, including: 1) the prescription requirement (a change that a number of experts have recommended and the FDA has indicated it is reviewing)[294, 295] and 2) cost.[296, 297] In recent years, the cost of naloxone has increased dramatically, in some instances by more than 1000 percent.[298] Some local governments and overdose treatment clinics are struggling to afford enough of the drug to meet their need, and local lawmakers have proposed rationing dosages.[299]

- **State Naloxone Laws.** As of July 2017, all 50 states and Washington, D.C. have modified their laws to increase access to naloxone by providing immunity to medical professionals who prescribe or dispense naloxone or individuals who possess or administer naloxone, and 48 states and Washington, D.C. allow third party prescribing (all but Kansas and Minnesota).[300] Some laws provide civil, criminal or disciplinary immunity for prescribers, dispensers, laypersons or all three. Other laws permit organizations that are not otherwise permitted to dispense naloxone, such as nonprofits and syringe access programs to distribute the medication.

- Forty-five states and Washington, D.C. provide civil, criminal and/or disciplinary immunity to prescribers; 43 states and Washington, D.C. provide civil, criminal and/or disciplinary immunity to dispensers; and 46 states and Washington, D.C. provide civil and/or criminal immunity to lay administrators.[301]
- Forty-six states' laws allow third-party prescriptions via standing order of naloxone to a family member, friend or other person in a position to assist a person at risk of experiencing an overdose.[302]
- Fifteen states allow laypersons to possess the drug without a prescription.[303, 304]
- In 2016, CMS highlighted steps different Medicaid programs are taking to improve naloxone access, including:[305] expanding community-based naloxone distribution programs; including naloxone on the state's Medicaid Preferred Drug List; making naloxone available without a prescription; increasing trainings on opioid overdose risks and how to respond; and passing laws to assuage liability concerns associated with the prescription, distribution, or administration of naloxone.

Status of Relevant Laws as of May 15, 2017



Source: Network for Public Health Law

- **State Good Samaritan Laws.** Forty states and Washington, D.C. have some form of Good Samaritan law that reduces legal penalties for an individual seeking help for themselves or others experiencing an overdose (as of May 2017).[306] These laws, however, vary significantly from state to state. Thirty states' and Washington D.C.'s Good Samaritan laws prevent an individual who seeks medical assistance for someone experiencing a drug-related overdose from being prosecuted for possession of a controlled substance. However, 21 states, including Alaska, North Carolina and Virginia, do not protect such individuals from being charged. Vermont, Hawaii and Nevada have the broadest version of the law, providing protection from protective or restraining orders, probation or parole violations and civil forfeiture, as well as laws providing that reporting an overdose can be a mitigating factor in sentencing for crimes for which immunity is not provided. Some states have more limited laws where people assisting an overdosing individual receive protection but the individual themselves may not be protected from legal action. Utah requires, and Indiana permits, courts to take the fact that a Good Samaritan summoned medical assistance into account at sentencing.

Increase in new cases of acute hepatitis C infections reported from 2010 to 2013

Sterile Syringe Access.

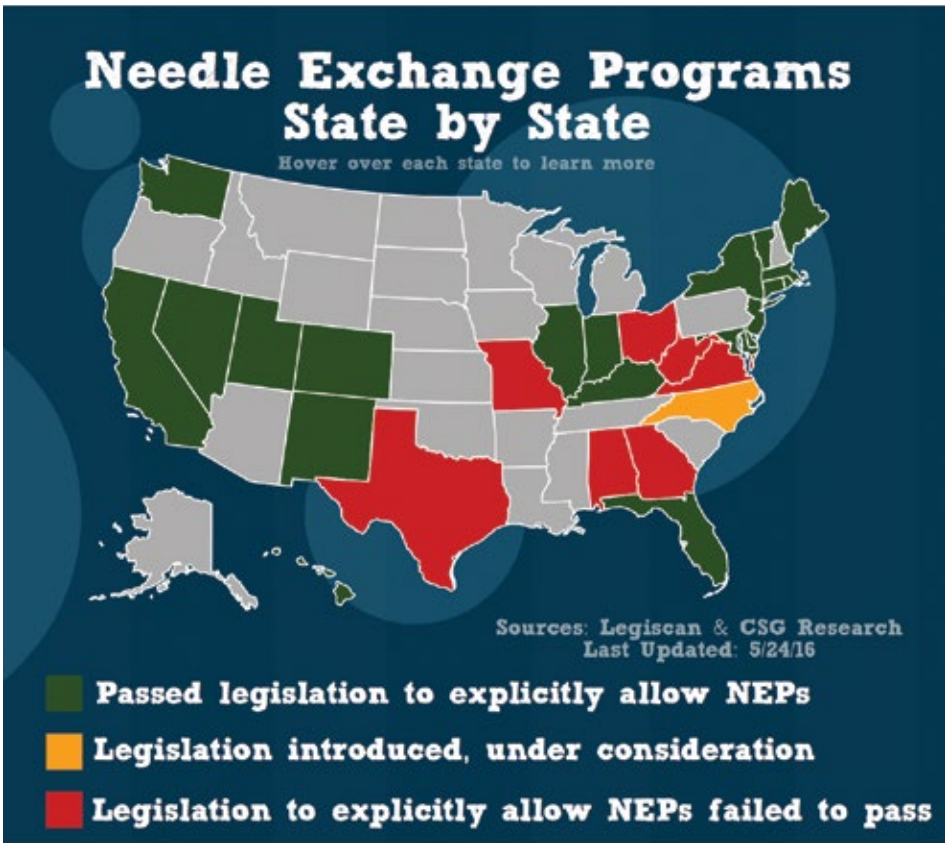
The increase of heroin and opioids that are often injected, in areas where non-evidence-based laws and policies make it difficult to access sterile syringes, has also contributed to a dramatic rise in HIV and hepatitis C virus (HCV) infections in a number of communities and has contributed to many policymakers reexamining syringe exchange policies as an effective strategy for helping to reduce rates.

- New acute hepatitis C infections have increased by 151.5 percent in reported cases from 2010 to 2013 (increases are attributed to both real incidence and heightened detection efforts).[307] Of the 39 states that reported data in both 2010 and 2013, 28 states had an increase in persons newly infected with HCV. According to CDC, the increase has predominantly been among young adults (under 30 years old) who are White, live in non-urban areas, particularly in the East and Midwest, and have a history of injection drug use and previously used prescription opioids.[308, 309]
- In Kentucky, Tennessee, Virginia and West Virginia, acute HCV infections increased by 364 percent from 2006 to 2012 — a majority of those infected have been White adolescents and adults under 30 who inject drugs.[310]
- In May 2015, there were 135 confirmed cases of HIV in rural Scott County, Indiana — and 85 percent of the patients were co-diagnosed with HCV, leading then-Governor Mike Pence to declare a State of Emergency.[311, 312]
- In 2016, CDC issued a report identifying 220 counties in 26 states at high risk for spread of HIV and HCV infections based on analysis of pharmacy sales of prescription opioids, overdose deaths and unemployment rates, among other factors.[313, 314]

Numerous studies have shown that syringe access programs are one of the most effective and scientifically-based methods for reducing the spread of HIV and hepatitis — and do not contribute to increased drug use. Needle exchange programs have been endorsed by leading scientific organizations and individuals, including NAM; the World Health Organization; the American Academy of Pediatrics (AAP); AMA; the American Nurses Association; and the APHA.[315, 316, 317] These programs also provide important points for individuals seeking help and connections to treatment and other social services.[318] Many law enforcement officials also support them as an effective harm reduction strategy to limit the adverse effects associated with drug use to individuals and communities and to limit the exposure of police, emergency workers, healthcare providers and others in the community to contaminated needles.[319] The symptoms of HIV and HCV may not appear for years, so individuals may continue to spread the diseases to others without even knowing they are infected. These programs, however, have been at the center of political debates, many of which are based on some long-held misperceptions, creating a challenge for the medical community and policymakers.

In December 2015, Congress partially lifted restrictions on the use of federal funds to support syringe exchange programs, allowing states and communities to use federal funds to pay for operational costs at syringe exchange programs.[320]

Many communities around the country have safe needle exchange programs, however, 30 states do not provide access to a needle exchange program or provide limited access at only one or two locations (as of April 2017).[321]



- At least 24 states and Washington, D.C. have laws supporting syringe exchange programs. This includes a number of states that have changed their laws in recent years related to the opioid epidemic, including: in 2015, Colorado, Illinois, Indiana and Kentucky; in 2016, Florida, North Carolina and Utah; and in 2017, Montana, New Hampshire and Virginia.[322, 323, 324, 325, 326, 327] This does not reflect other states that may have removed legal barriers to syringe programs but do not directly authorize them.
- Even without legislative authorization, many states and localities operate syringe exchange programs. According to the North American Syringe Exchange Network, as of May 2015, there are 228 syringe exchange programs in 35 states and Washington, D.C.[328]

Some public health officials are calling for exploring the use of safe injection sites, especially in urban locations. Public health officials in other countries also promote the use of safe injection facilities, or safe drug consumption sites.[329] Staff do not administer drugs, but they are available to provide clean needles as well as counseling, monitoring and treatment for overdoses, and connections with social services. Studies suggest that safe injection facilities help prevent overdose deaths, do not increase illicit drug use and help connect users to services and treatment.[330 331] There are currently facilities operating in Canada, Germany and Denmark. In 2017, there have been proposals to open facilities in a few locations in the United States, including San Francisco, New York, Philadelphia, Massachusetts and Seattle.[332, 333, 334] AMA has endorsed trying supervised injection facilities because they can lead to fewer overdose deaths, lower transmission of disease and promote treatment.

EXAMPLES: COMMUNITY AND STATE OPIOID INITIATIVES

Intermountain Healthcare Opioid Community Collaborate is a comprehensive community collaborative launched by a nonprofit healthcare system that aims to decrease the burden of prescription drug misuse and overdose throughout Utah. The hospital uses its community benefit dollars to support the coalition, which is based on the Communities That Care model. Intermountain invested $3.5 million dollars over the course of three years to support the coalition's efforts to promote public awareness messaging and improve treatment. The collaborative works through a multi-pronged approach and includes stakeholders from criminal justice, health centers, local and state behavioral health authorities, prevention coordinating councils, pharmacies, police departments, the University of Utah, and the Utah Department of Health, among others. The coalition educates providers on the danger of prescription opioids, supports public awareness messaging, identifies and treats at-risk individuals, offers chronic disease management courses and provides MAT. The coalition also offers training to other organizations. They have 21 community drop boxes available for medications across the state that have collected over 11,000 pounds of medications for disposal.

The Franklin County Communities That Care Coalition (Massachusetts) provides a successful collaborative example involving healthcare and community partners creating measurable, positive changes in community health. The coalition brings together youth, parents, schools, hospitals, community agencies and local government to promote youth well-being and reduce youth substance misuse — including serving as the prevention arm of the local Opioid Task Force, promoting evidence-based universal education in schools, ensuring family connections through mini-grants to schools and local communities, increasing the use of screenings, offering intervention and referral to treatment in schools and emergency rooms, educating the community about teen substance use disorders and improving clinician prescribing practices. This region-wide approach is co-led by Community Action of the Franklin, Hampshire and North Quabbin Regions and the Franklin Regional Council of Governments' Partnership for Youth and operates within a network of other local coalitions in order to deepen prevention efforts. Between 2003 and 2015, a notable number of the coalitions' priority risk factors (laws and norms favorable to substance misuse, parent attitudes favorable to substance misuse and poor family management) decreased by 17-26 percent.

EXAMPLES: COMMUNITY AND STATE OPIOID INITIATIVES

North Carolina's Comprehensive Approach to Preventing and Reversing Drug Overdoses

Early in 2000, state public health surveillance identified a surge of deaths in North Carolina. CDC conducted an investigation into the increase, finding the main driver was unintentional drug overdoses from prescription drugs.

In 2003, the Governor created the Task Force to Prevent Deaths from Unintentional Drug Overdoses, which helped establish the North Carolina Controlled Substances Reporting System — the state's PDMP.

Since then, North Carolina has implemented a variety of measures to prevent overdoses. With increased access to data from the PDMP and more attention to the issue, public health continued to collect data, finding in 2007 that Wilkes County, in the northwest part of the state, had the third highest drug overdose death rate in the country.

The Child Fatality Task Force (CFTF) is a standing committee of the general assembly that is composed of 10 legislators and numerous technical advisors and serves as a policy component of the state's child death review system.

CFTF provides a unique opportunity for the public health community to present data and bring in outside experts, including law enforcement and subject matter and harm reduction experts to develop consensus on policy recommendations. Since 2010, most bills addressing the overdose epidemic have originated from CFTF, including revisions to the reporting system and better naloxone access laws.

Project Lazarus, established in 2007 — a public health community-based model based on the premise that overdose deaths are preventable and that all communities are responsible for their own health — was one of the first initiatives designed to respond to the extremely high overdose mortality rates in Wilkes County, North Carolina. The program sought to integrate community awareness and coalition-building activities with evidence-based overdose prevention strategies. Through collaboration with the hospital, criminal justice system, first responders, behavioral health providers, primary care and specialty providers and pharmacists, individual communities have developed a sustainable infrastructure and select interventions that resonated with, and were appropriate for, those who are most affected by the misuse of prescription pain medication. This model is conceptualized as a wheel with a hub and seven spokes with the hub representing community-based bottom-up activities and the spokes representing top-down approaches that communities can choose to employ, such as evidence-based best practices for mitigating the unintended consequences of using opioids.

- Coalition formation, capacity building and sustainability practices;
- Chronic pain management;
- Safe prescribing practices for providers;
- Opioid overdose education, awareness and safe medication usage materials;
- Naloxone, the opioid overdose rescue medication;
- Project Pill Drop, a community-based medication disposal program;
- Lazarus Recovery Services, a peer-guided recovery support program;
- Local and state data on overdose and poisoning rates; and
- Local and state funding sources for overdose prevention work.

The University of North Carolina Injury Prevention Research Center (UNC IPRC) is a key partner in addressing the overdose epidemic. UNC IPRC provides evaluation, research, training and technical assistance to partners and programs working to combat the opioid epidemic.

UNC IPRC evaluated Project Lazarus and found an initial drop in the overdose death rate of 40 percent, which grew to a 69 percent decline in 2011, and has saved the health system more than $1 million. The program has since been scaled statewide.

Drug Take Backs: Operation Medicine Drop is a statewide drug take back initiative, started by Safe Kids North Carolina in 2009. It operates within the Office of the Chief Fire Marshall and works with the State Bureau of Investigation and a diverse group of partners. Since its establishment, Operation Medicine Drop has collected and safely disposed of 89.2 million pills at more than 2,000 events and established a network of permanent drop boxes that serve most counties in the state.

The state health agency noted that drug Take Back programs are a great way to get the community involved and raise public awareness of the issue, giving everyone a stake in the challenge when they realize that items in their medicine cabinet could be fueling the drug epidemic. This process helped move the conversation upstream to ensuring people knew of the problems and the steps they could take to prevent people from developing a substance use disorder.

North Carolina's Department of Health and Human Services has worked to improve the state's Controlled Substances Reporting System, and PDMP has proven to be a valuable way for prescribers and dispensers to better manage pain and appropriate prescribing. In 2012, the Child Fatality Task Force convened a study group that resulted in a revision to the CSRS Law in 2013. They added delegate accounts, shortened the time to report and enabled proactive reporting from CSRS to licensing boards and prescribers.

In 2014, the Program Evaluation Division of the General Assembly conducted an extensive evaluation of CSRS, concluding that further funding and improvements of CSRS should be included in the state budget bill of 2015.

In 2017, the STOP Act, the most comprehensive bill in the state to address the opioid epidemic, became law and mandated use of CSRS, placed limits on prescribing opioids consistent with cautionary thresholds described in CDC's Prescribing Guidelines and expanded naloxone distribution among other provisions to address the opioid epidemic.

To develop the Act and identify evidence-based strategies, NC DHHS worked with UNC IPRC, CDC's Prevention for States Program and national experts, including Corey Davis at the Network for Public Health Law.

911 Good Samaritan Law/Naloxone Access is another important part of North Carolina's strategy to address the overdose epidemic and was a founding principle of Project Lazarus. The North Carolina Harm Reduction Coalition (NC HRC) has worked with the law enforcement community to gain their support for enactment of a series of naloxone laws since 2013.

Since the successful passage of naloxone-related legislation, NC HRC distributed more than 41,000 overdose rescue kits and confirmed 7,408 overdose reversals in North Carolina. Additionally, working with law enforcement agencies to develop naloxone programs has resulted in 164 law enforcement agencies with officers carrying naloxone and 403 reported law enforcement reversals by naloxone.

In 2016, the Naloxone Standing Order Law, which enables any pharmacy in the state to offer naloxone without a prescription under the state health director's standing order, became law. The Standing Order Law was developed in response to requests from the retail pharmacy industry, which wanted to easily offer naloxone in their pharmacy outlets across the state. DHHS developed a resource website with UNC IPRC that contains technical resources on how to use the standing order. Nearly 1,400 pharmacies in the state offer naloxone under the standing order law.

North Carolina became the first state in the South to legalize syringe exchanges with passage of House Bill 972. Years of collaborative efforts focused on harm reduction broke down the historical resistance to syringe exchanges and resulted in the decriminalization of needles. Advocates performed demonstration projects and worked with law enforcement early on to identify legislation that the law enforcement community would find helpful and support. In addition, advocates made the case that needle exchanges could save the state money by reducing the number of hepatitis C cases in the future. DHHS noted that Medicaid charges for hepatitis C treatment increased from $3.8 million in 2011 to $85 million in 2016. Following the legalization of the syringe exchanges, DHHS developed the Safer Syringe Initiative and registered 22 syringe programs in the first year of the law, reaching 19 counties. When the STOP Act passed, it included provisions that only prohibited the use of "State Funds," enabling local health departments and other governmental units to use local funds to do needle exchange.

EXAMPLES: PUBLIC HEALTH DRUG DIVERSION APPROACHES

Bexar County Jail Diversion Program in Bexar County, Texas is using an innovative approach from the criminal justice system to expand mental health interventions among youth. Bexar County created a model for aligning its criminal justice system, hospital, mental health services and community partners to transform the mental health system into one focused on diverting people with serious mental illness away from jail and toward treatment. This effort successfully diverted over 100,000 adults from jails and emergency departments and resulted in a cost savings of nearly $100 million over an eight-year period. Recognizing the gap in care within the juvenile system, the county expanded the model to include services for county youth to prevent entry into the criminal justice system. They also created Bexar CARES (Coordinated Access to Resources Equals Success), a program that works in collaboration with police, healthcare providers and community stakeholders to proactively screen children within the child welfare and public school system for behavioral health conditions using a pediatric symptom checklist. This program has reached 741 children in the county and continues to create an environment promoting early intervention of mental illness.

Clayton County Systems of Care in Georgia was created to respond to high numbers of youth involved in the Clayton County Juvenile Court system. An assessment found that around 65 percent of youth who were detained in the youth system were readmitted within three years of release, and that secure facilities cost $91,000 per year per youth compared to around $29,000 for non-secure facilities. The county saw this as an opportunity to change outcomes and decrease costs. They implemented five evidence-based programs and changed incarceration penalties for youth who commit misdemeanors. The juvenile justice system partnered with schools to reduce suspensions and arrests and implement restorative justice practices. The changes have led to the ability to close three facilities and reap savings to reinvest in evidence-based, supportive youth programs. In 2010, a system of care was developed to provide more supportive clinical services and lower healthcare costs for this group. They developed an umbrella services organization within a coordinating agency to oversee and align services agency to coordinate and align services. They focused on identifying students in-need and likely not to complete school, and they developed and provided appropriate supports and services. For instance, "chronically-disruptive" students are referred to a nonprofit where they assess and address the family's risk factors. This approach has led to an 87 percent decrease in disciplinary referrals in schools, a 71 percent decrease in juvenile crime rates, a 83 percent decline in probationers, a 62 percent increase in school attendance and significant improvements in grades and graduation rates. The county has saved more than $4 million over a four-year period. The Georgia Assembly has modeled a new legal code for youth for the state based on the Clayton County approach.

Effective Approaches for Reducing Excessive Alcohol Use

According to the National Institute on Alcohol Abuse and Alcoholism (NIAAA), drinking too much alcohol can "take a heavy toll" on a person's family and interpersonal relationships and on work or school performance — and puts individuals and their families at greater risk for "social harms," such as family disruption, issues in the workplace and financial problems.[335]

Excessive alcohol use — which is often defined as binge drinking or heavy drinking — can be associated with many negative outcomes, including risk for developing an alcohol use disorder, risk of injury, violence, motor vehicle crashes and suicide. While an estimated nine out of 10 individuals who excessively drinks do not develop an alcohol dependency, there are around 15.7 million adults who do have an alcohol use disorder, which increases risk for long-term health conditions such as liver and heart disease and can be co-related to mental health disorders.

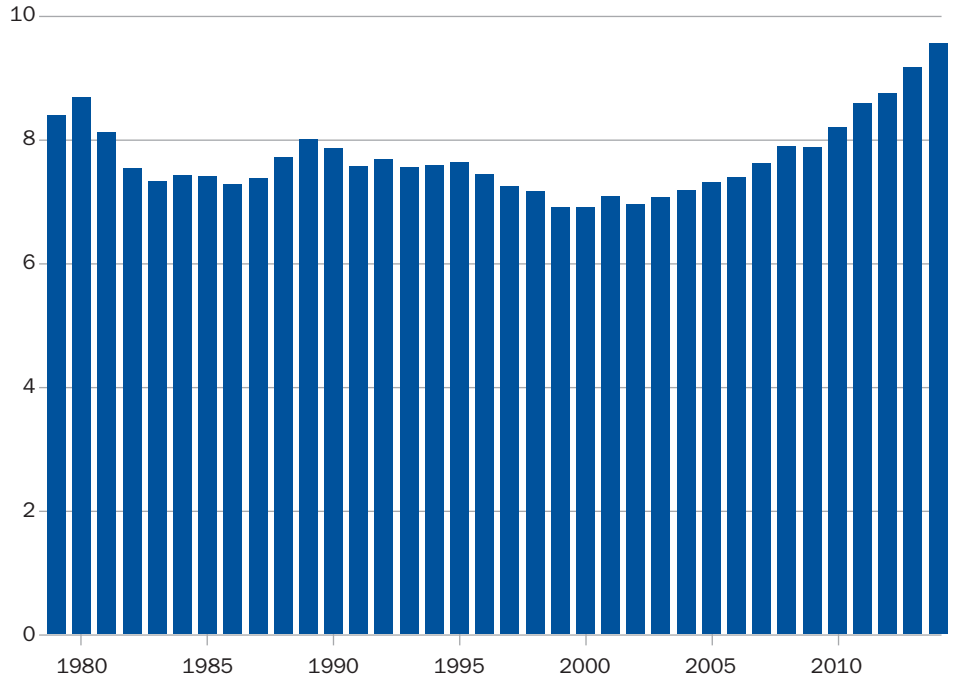
- Approximately two in five violent deaths and one in four emergency department visits for violence-related injuries are due to excessive alcohol use.[336]
- Acute alcohol use is associated with around 23 percent of suicides and around 40 percent of suicide attempts.[337, 338]
- Drunk driving fatalities average around one death every 51 minutes.[339]
- Alcohol use contributes to more than 50 acute and chronic diseases and causes of death.[340]
- Children whose parents misused alcohol and other drugs were three times more likely to be abused and more than four times more likely to be neglected than children from non-misusing families.[341] Additionally, increased risk factors for alcohol misuse include family influences, such as lack of positive parent-child relationship, family relationship with alcohol problems, lack of parent-child communication and bonding and ineffective family management.
- Military personnel ages 18 to 35 have rates of heavy drinking about 60 percent higher than civilians in those age groups.[342]

ALCOHOL TRENDS

- **Alcohol-Induced Deaths.** 33,200 people in the United States died from alcohol in 2015 and 267,000 died over the last decade (2006-2015, based on those recorded directly as "alcohol-induced deaths.").[343] This equated to 10.3 deaths per 100,000 Americans in 2015, 91 per day, 3.8 per hour, and one death every 16 minutes.
  - One study found that when factoring in alcohol-related injuries and motor vehicle crashes, alcohol can be attributed to roughly 88,000 deaths annually,[344] which would make alcohol-related deaths the fourth leading preventable cause of death in the United States (alcohol-impaired driving fatalities accounted for 9,967 deaths, or around one-third of all motor vehicle-related deaths in 2014).[345]
  - Alcohol-induced deaths increased by 47 percent from 2000 to 2015 (7.0 to 10.3 per 100,000), with increases across sexes, regions and nearly all states.
    - Rates are highest among men (15.2 deaths per 100,000), 45-74 year olds (23.4 per 100,000), Whites (11.4 per 100,000) and those who live in the West (15.2 deaths per 100,000).
    - The largest proportional increases were among women (75 percent increase), Whites (61 percent increase) and those living in the Midwest (64 percent increase).
    - Rates remained stable among 15- to 24-year olds, 34- to 55-year olds and individuals aged 75 or older — but grew among 25- to 34-year olds, 45- to 74-year olds and, the most, among 55- to 64-year olds (increasing from 19.9 per 100,000 in 2007 to 28.2 in 2015).
    - Rates grew by more than one-third among Whites and Asians between 2000 and 2015. Death rates among Blacks decreased slightly during this time period. As of 2001, rates were similar for Whites (7.2 per 100,000) and Blacks (7.3 per 100,000), but have since diverged.

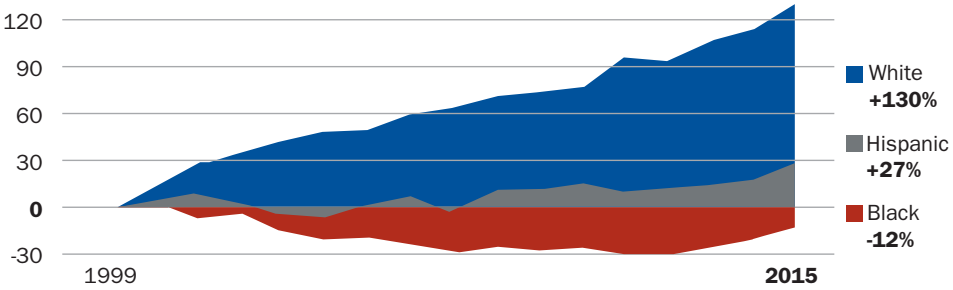
Alcohol Deaths Reach a 35-year High

Deaths from alcohol-induced causes (excluding homicides, drunken driving and other accidents indirectly related to alcohol), 1979-2014, per 100,000 people.



Source: CDC

Percentage change in alcohol-related death rate



Source: CDC

- The alcohol death rate among American Indians/Alaska Natives is 2.6 times higher than for the overall population (27 vs. 10.3 deaths per 100,000). Deaths for this population have increased by 50 percent from 18 per 100,000 in 2000 to 27 per 100,000 in 2015.[346]

- **Alcohol Use Disorders.** More than 6 percent of American adults have an alcohol use disorder — including 9.8 million men and 5.3 million women.[347] More than a quarter of adults report binge drinking in the past month (four drinks for a woman, five for a man) and more than 7 percent binge drink on five or more days.

  - More than 10 percent of U.S. children live with a parent with alcohol problems.[348]

  - About 1.2 million adults received treatment for alcohol use disorder at a specialized facility in 2016 (7.7 percent of adults who needed treatment).[349] This included 777,000 men (8.1 percent of men who needed treatment) and 382,000 women (6.9 percent of women who needed treatment).

- **Underage Drinking.** Around one in three high school students report consuming alcohol in the past month with more than half of those binge drinking and two in five reported consuming eight or more drinks in a single occasion.[350] An estimated 90 percent of adolescent drinking is via binge drinking. [351]

  - More than 1,800 college students die from alcohol-related injuries each year.[352] Alcohol use increases the risk for motor vehicle crashes, injuries, unsafe sexual practices, sexual assault and other forms of violence — and is related to 696,000 student assaults, 599,000 unintentional injuries and 2.7 million college students driving under the influence annually.

  - Two percent of 12-17 year olds (488,000 people) have an alcohol use disorder.[353] NIDA reports that alcohol played a role in the death of 4,000 people under 21 and emergency room care for another 190,000 people under 21 with injuries.[354]

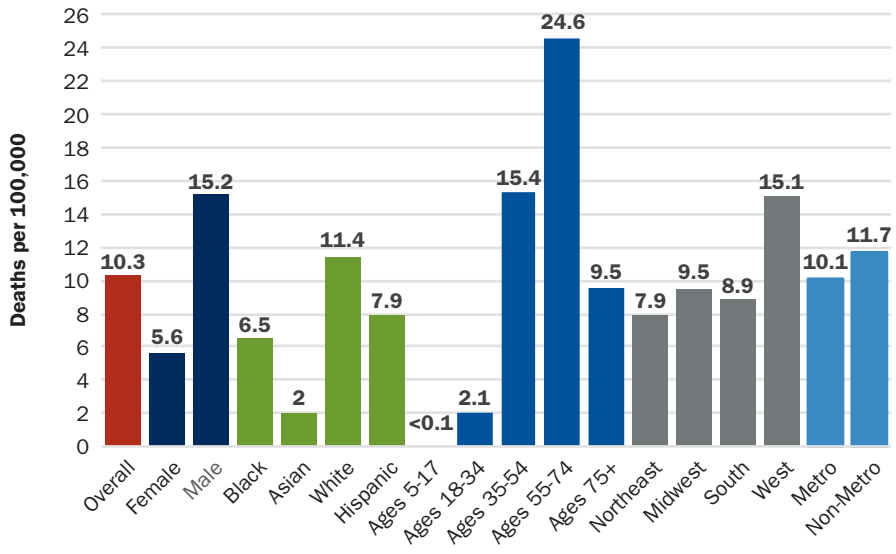
  - An estimated 48,000 adolescents (26,000 males and 22,000 females) received treatment for an alcohol problem in a specialized facility in 2016.[355]

- **Impact of Excessive Alcohol Consumption and Alcohol Use Disorders.** Alcohol misuse increases the risk of social problems, including lost productivity, family problems and unemployment.[356] It also increases risk for fatal and non-fatal injuries and violence (including homicide, suicide, sexual assault and intimate partner violence).[357] It increases risk for a range of long-term health problems, including liver damage and disease (including fatty liver disease), alcoholic hepatitis, cirrhosis, hypertensions, heart disease, stroke, some forms of cancer (mouth, esophagus, pharynx, liver and breast), depression and anxiety.[358, 359] In 2013, about a third of liver transplants were related to alcohol.[360]

- **Fetal Alcohol Spectrum Disorders (FASD).** FASD include Fetal Alcohol Syndrome (FAS) as well as a spectrum of less severe diseases associated with alcohol exposure during pregnancy.[361] While the number of individuals with FASD is unknown, a 2010 CDC study looking at 7- to 9-year olds in several states found 0.3 cases per 1,000 children.[362] FAS is a leading cause of mental retardation and other birth defects, and is irreversible.

- **Collective Economic Burden.** Estimates suggest alcohol misuse costs the United States $249 billion every year (including medical, criminal justice and lost life expectancy costs).[363]

Alcohol Deaths in 2015 (CDC WONDER)



Source: TFAH analysis of CDC data

Key Policies

Reviews by public health experts, the Community Preventive Services Task Force and the Surgeon General's Office have identified the most effective prevention strategies for reducing excessive alcohol consumption. These strategies have been shown to help reduce excessive consumption — and it is important to note this is distinct from being evaluated for the impact of lowering the number of individuals who develop an alcohol use disorder.

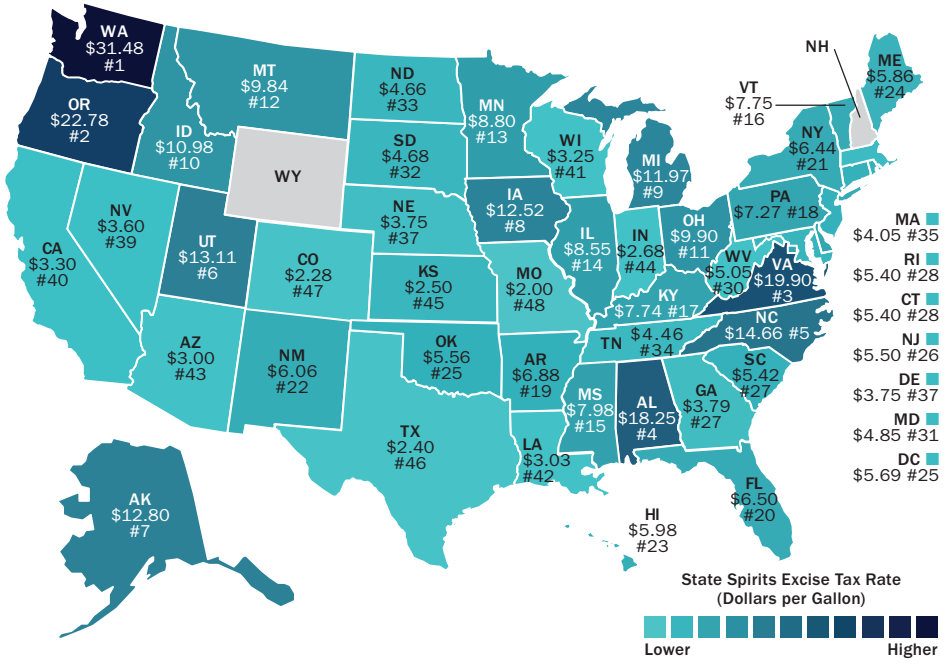
Many of these same strategies are also effective for reducing suicides. As roughly 23 percent of suicides are related to alcohol, reducing drinking also reduces risk for suicide. These include pricing, access and availability (density of bars, restaurants and stores selling alcohol and limiting times of sale) and enforcement of underage drinking and accessibility laws (including commercial and host providing of alcohol to minors).[364, 365, 366]

Top strategies for reducing excessive alcohol consumption include:

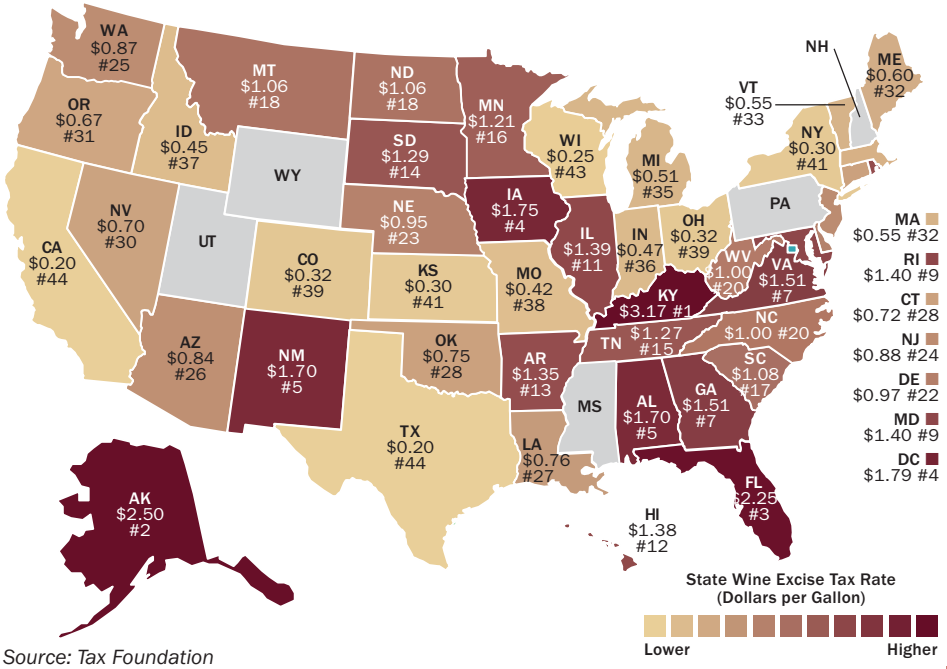
- **Pricing Policies.** The different types of alcohol taxes include excise taxes and sales taxes, which are implemented primarily at the federal and state levels and can be done so alone or in combination. Excise taxes are based on the volume of alcohol sold, while sales taxes are assessed as a percentage of the retail price of alcohol.[367] Consistent evidence shows that higher alcohol prices and alcohol taxes are associated with reductions in both alcohol misuse and related, subsequent harms.[368] Multiple systematic reviews have found that higher alcohol prices or taxes are associated with reduced consumption.[369, 370]

- Higher alcohol prices or taxes have also been consistently related to reductions in motor vehicle crashes and fatalities, alcohol-impaired driving, mortality from liver cirrhosis and unsafe sex practices that can increase risk for sexually transmitted diseases and unplanned pregnancies.[371]

State Spirits Excise Tax Rates (Dollars per Gallon), as of January 2017

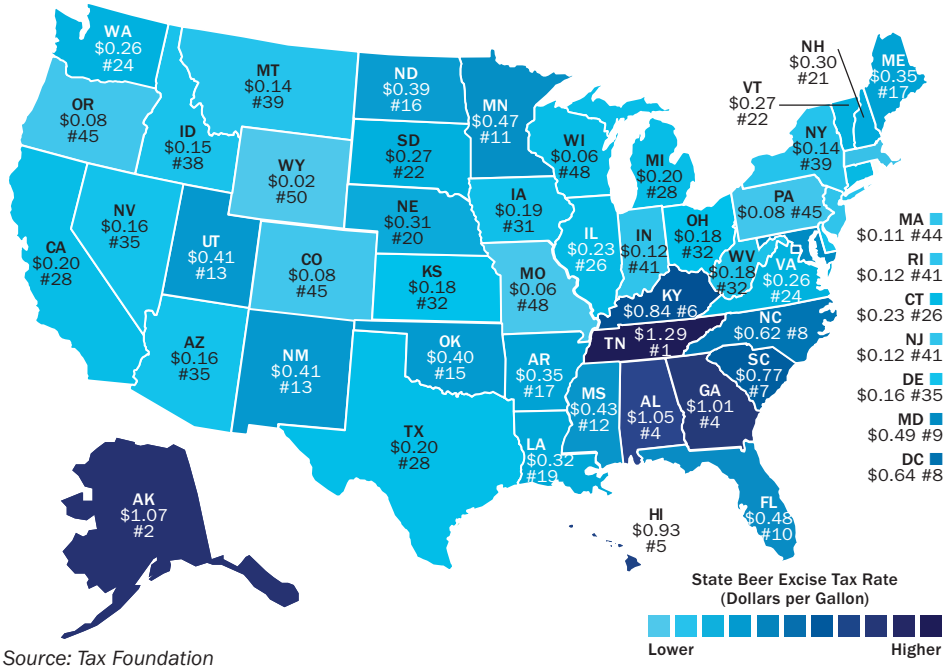


State Wine Excise Tax Rates (Dollars per Gallon), as of January 2017



Source: Tax Foundation

State Beer Excise Tax Rates (Dollars per Gallon), as of January 2016



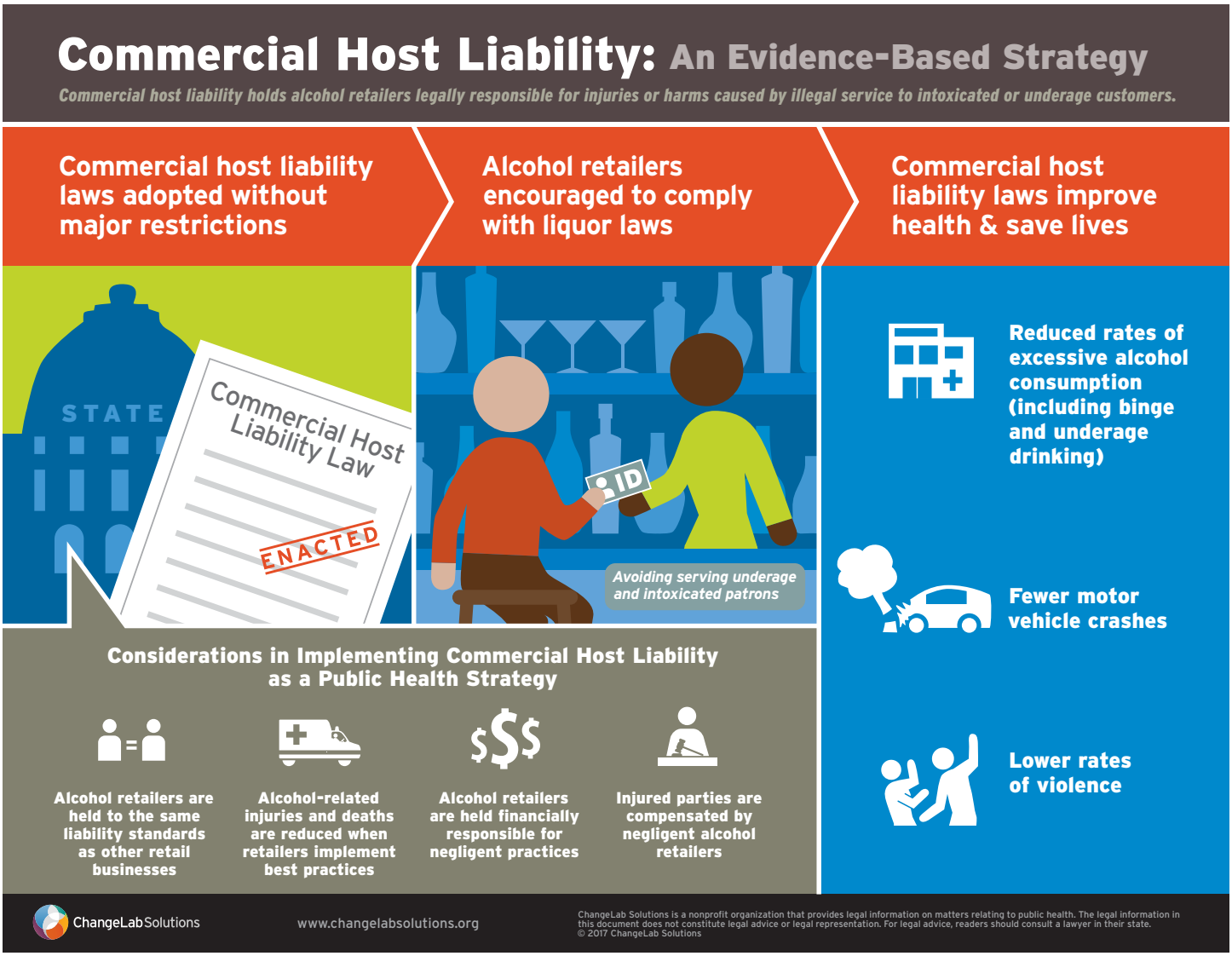
Source: Tax Foundation

- **Access and Availability.** Alcohol density (the number of alcohol retailers in an area) and limits on the days and hours when alcohol can be sold have also been shown to reduce excessive alcohol consumption and related harms.

  - **Alcohol outlet density regulation** involves reducing the number of outlets where alcohol is available for purchase or sale in an area and is often implemented through licensing or zoning processes.[372] The Community Preventive Services Task Force systematic review of 39 studies found that regulating to lower density helped reduce excessive drinking and related harms, including crime, violence and injuries.[373, 374]

  - **Reducing days and hours of alcohol sales** have also been shown to reduce excessive alcohol use and related harms. A range of studies have found that policies (in bars, restaurants and stores) that increase the number of days when alcohol could be sold was associated with increases in alcohol misuse and harms, while fewer days were associated with decreases.[375, 376] Seventeen states ban the sale of some types of alcohol on Sundays. Liquor bans are more common, but some states also ban wine or beer or both.[377] Indiana is the only state that bans all three on Sundays, with exceptions for restaurants and wineries. Minnesota lifted its ban on liquor sales effective July 2, 2017.[378] Sunday bans in many states occur at the local level and vary from county to county.[379]

  - **Avoiding privatization of retail alcohol sales** is another policy strategy that has been shown to be effective in reducing excessive alcohol consumption. A systematic review of studies done for the Community Preventive Services Task Force found that privatizing alcohol sales increased the per capita sales of the privatized beverage, which can be used as a proxy for excessive drinking by a median of 44 percent.[380]



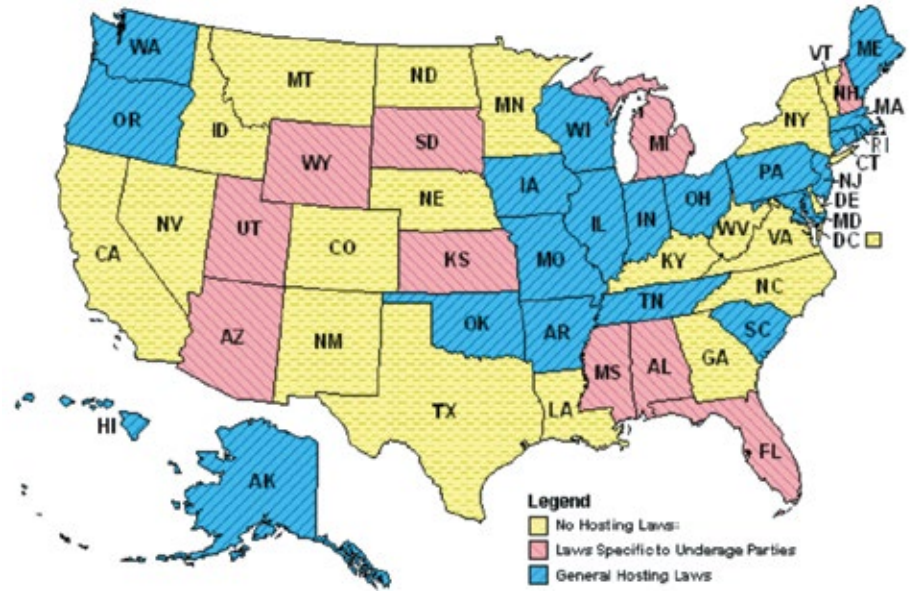
- **Limiting Underage and Intoxicated Customer Sales.** Commercial host liability laws (also known as dram shop liability) hold the owner or server of an establishment liable for harms (including injuries or deaths) resulting from the illegal sale of alcohol to underage or intoxicated patrons.[381, 382] While an underaged or intoxicated person could be the first to be sued by the injured party, dram laws allow the injured to seek monetary damages from the establishment that served the individual, helping prevent illegal alcohol sales.[383]
  - These laws often have not been implemented consistently and/or have been changed over time. As of January 1, 2015, 20 states had dram shop liability laws with no major limitations; 25 states had these laws but with major limitations (e.g., restrictions on who this liability applied to and the evidence required to determine liability); and six states have no dram shop liability laws at all.[384]

- **Reducing Underage Drinking.** Raising the minimum legal drinking age to 21 has been shown to reduce alcohol-related harms, including drunk-driving motor vehicle crashes and deaths, violence and injuries.[385] There is also evidence that the 21 minimum legal drinking age protects drinkers from suicide, homicide and future alcohol and other drug dependence.[386] Youth who start drinking before age 15 years are six times more likely to develop alcohol dependence or excessively consume alcohol later in life than those who begin drinking at or after age 21 years.[387] They are also more likely to experience problems in school, physical and sexual assault and have a higher risk for suicide and homicide.[388] Tween (pre-teen), teen and young adult brains are still developing critical judgment skills, like resisting peer pressure and determining their consumption limits, and drinking can cause problems and other changes in young brain development that may be life-long.

In addition, NIAAA emphasizes that increasing public awareness about the problems associated with underage drinking and countering social acceptance/pressure are important strategies for reducing underage drinking.[389] This includes countering inaccurate perceptions of how much minors think their peers may be drinking. The Surgeon General's report and other expert sources also reinforce the importance of addressing cultural norms and messages around underage drinking, excessive drinking and drinking and driving — including through peer, parental, school-based and community-based efforts, as well as not marketing alcohol to minors. The industry has voluntary codes requiring at least 71.6 percent of intended audiences for alcohol ads to be at least 21 years old.[390] According to a review by Sober Truth on Preventing Underage Drinking (STOP) Act, one in four states (25 percent) is implementing programs to measure and/or reduce youth exposure to alcohol advertising and marketing.[391] The Center on Alcohol Marketing and Youth is working with CDC to monitor and reduce youth exposure to noncompliant alcohol advertising on cable TV.[392]

There are a number of the strong, proven approaches to enforce the drinking age limit and reduce underage drinking. Many include policies, strategies and messages that limit adults enabling or condoning underage drinking. Best practices focus on taking a public health approach that identifies youth at risk for misuse and excessive use and provides critical support, brief intervention and counseling and/or treatment as indicated. Strategies include:[393, 394, 395]

Liability for Hosting Underage Drinking Parties as of January 1, 2016



Source: APIS

- **Minimum legal drinking age compliance checks** that initiate or increase the frequency of monitoring retailer compliance against sales to any persons appearing to be under the age of 21, and which have been shown to decrease underage sales by 42 percent.[396, 397]

- **Penalties for hosting parties with underage drinking,** known as "social host liability laws," where adults who knowingly or unknowingly host underage parties on properties they own, lease or otherwise control, help prevent access to and alcohol use among minors, and reinforces cultural norms. Thirty-two states and Washington, D.C. have some form of social host liability laws, which can be either criminal (which usually require intent) or civil offenses.[398, 399] Criminal laws have been associated with declines in binge drinking (3 percent), driving after drinking (1.7 percent) and alcohol-related traffic deaths (9 percent).[400]

POLICIES TO REDUCE DRINKING AND DRIVING: REDUCING HARM AND IDENTIFYING NEED FOR TREATMENT AND SUPPORT

Drunk driving laws and penalties are among the most effective public health laws in the United States. CDC estimates that U.S. adults drove under the influence around 112 million times (as of 2010). On average, there are around 1.5 million drunk-driving arrests, and more than 10,000 drunk-driving deaths each year (as of 2015).[401] Alcohol-related crashes decreased significantly in the 1980s and 1990s, when the first waves of drunk-driving laws went into effect. An analysis of fatal-crash data from 1982 to 2005 estimated that alcohol safety laws — blood alcohol content (BAC) limits (from .10 to .08), license revocation and zero tolerance laws — accounted for 44 percent of the reduction in fatal crashes (the other percentage being attributable to demographic factors).[402, 403]

These laws and penalties help discourage not only drunk driving, but excessive drinking as well.

Public health and law enforcement officials are also increasingly viewing violations as important opportunities to identify teens, youth and adults at risk for alcohol misuse and addiction as a time to do screening, intervention and connections to support and treatment as appropriate.

For instance, CDC has recommended that health professionals should routinely screen patients with risky driving behaviors and, at a minimum, provide a 10- to 15-minute counseling session for patients who screen positive. And many states and localities have instituted Driving While Intoxicated (DWI) Courts as a model for accountability and long-term treatment. One study found 19 times lower rates of recidivism than use of regular courts.[404]

- **Drunk Driving Laws.** All 50 states and Washington, D.C. currently have laws that make it illegal to operate a motor vehicle at or above a .08 percent BAC level.[405]
- **Mandatory Ignition Interlocks.** Twenty-four percent of alcohol-impaired drivers in fatal crashes in 2013 had had their licenses suspended or revoked within the previous three years for alcohol- and non-alcohol-related offenses.[406] Ignition interlocks devices test a driver's blood alcohol content through a device similar to a Breathalyzer before allowing the car to be operated. All 50 states and Washington, D.C. have ignition interlock laws, and 26 states and Washington, D.C. have made interlocks mandatory for all alcohol-related offenses.[407]
- **Increase use of "sobriety" checkpoints.** After reviewing 11 high-quality studies, CDC determined that sobriety checkpoints reduce alcohol-related fatalities, injuries and property damage crashes by about 20 percent.[408] Thirty-eight states and Washington, D.C. authorize the use of sobriety checkpoints, but few states regularly implement them.[409] In addition, 10 states have outlawed these checkpoints.
- **Tighten DUI penalties.** Alcohol is a factor in more than 30 percent of all traffic fatalities each year.[410] States are experimenting with a number of responses to prevent driving under the influence, including: increasing the number of driver's licenses suspended or revoked in response to DUI incidents; enacting zero tolerance laws for drivers under 21 who have consumed alcohol; mandating special license plates for drunk driving offenders; and enhancing penalties if a child is in the car, if the driver causes an injury or fatality or if the driver has an excessively high blood alcohol content (0.15 percent or higher).[411]
- **Zero tolerance underage drunk driving laws.** These policies are for violations that result in the minor's license being suspended or revoked have been shown to have a strong impact in reducing alcohol-related vehicle crashes, injuries and deaths. Studies have found states with these laws have 20 to 30 percent fewer alcohol-related traffic crashes — and they save 159 lives per year.[412, 413] Some states also have use/lose laws, where they authorize suspension or revocation of driving privileges as a penalty for underage purchase, possession or consumption of alcohol.[414] Drunk driving and/or penalties for overconsumption among minors can also be used as an opportunity to help identify teens and youth at risk for alcohol misuse and problems and provide screening, early intervention and connections to services and support as appropriate.

EXAMPLE: COMMUNITY-BASED UNDERAGE DRINKING INITIATIVE

Healthy Communities That Care of Livingston County New York (2015 CADCA Coalition in Focus awardee) works to reduce underage drinking. A great strength of this coalition is its use of qualitative data to enhance understanding of the local issues contributing to youth alcohol access. "What has made our coalition so effective is our long-term collaborations with key members. Our strong relationship with our schools and the nearby SUNY Geneseo College has enabled us to conduct focus groups in the high schools with over 400 youth each year," explained Rachel Pena, the coalition's Project Director. Driven by the data, the coalition worked to address youth alcohol access at college parties and local bars. In collaboration with local law enforcement partners, stronger compliance checks, fake ID details and party patrols were implemented. A successful county-wide media campaign was also launched to educate adults about the risks and consequences associated with providing alcohol to minors and not monitoring alcohol stored in their home. Between 2010 and 2014, the community saw a 44 percent reduction in the number of parents that report they know teens that are obtaining alcohol at parties hosted by parents. Compliance check failures have also been reduced by 42 percent since 2010. Today, fewer youth report that alcohol is easy to get and youth who reported drinking in the past month has been reduced by 45 percent.

Effective Approaches for Preventing Suicides

There is no single determining cause for suicide. There are a range of influences — social, emotional, psychological, physical, interpersonal and community factors.[415]

According to CDC, key risk factors include: family history of suicide, family history of child maltreatment, previous suicide attempt(s), history of mental disorders (particularly clinical depression), history of alcohol and substance misuse or use disorders, feelings of hopelessness, impulsive or aggressive tendencies, cultural and religious beliefs (e.g. belief that suicide is a noble resolution of a personal dilemma), local epidemics of suicide, isolation (feeling of being cut off from other people), barriers to accessing mental health treatment, loss (relational, social, work or financial), physical illness, easy access to lethal means and unwillingness to seek help because of the stigma attached to mental health and substance use disorders or suicidal thoughts.[416]

Suicidal thoughts and risk can be exacerbated by trauma, "triggering" events and major life disruptions, such as experiencing: abuse; housing insecurity (including inability to afford stable housing, frequent moves, eviction and foreclosure or risk of losing housing); financial insecurity; loss of a job or being at risk for losing a job; changing schools, jobs or homes; emotional distress; divorce or other relationship issues; and death of a family member, friend or partner; and/or injury or illness — which can overwhelm regular coping mechanisms, leading to heightened despair and a sense of hopelessness.

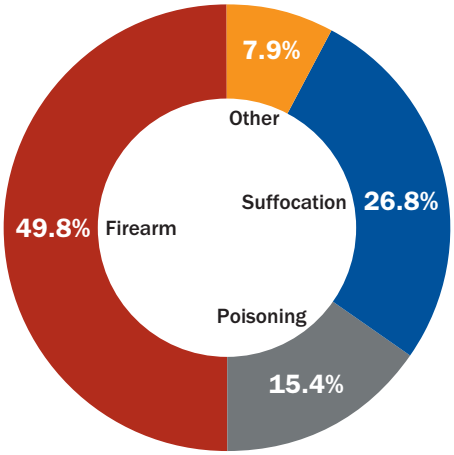
Rates of suicide are highest among males ages 35 to 64 and males ages 75 and older, so it is important to focus heightened attention for risk and programs for support on these age groups. Other groups identified at heightened risk include: veterans and service members and military families, young adult males, Native Americans, LGBTQ individuals, middle-aged women, homeless individuals, those of have experienced foster care, women who are post-partum, transition-aged youth (e.g., moving between schools), ethnic minorities experiencing health and behavioral health disparities and women who experience partner violence.

Key strategies to reduce suicide and suicidal thoughts focus on:

- Reducing problems that lead to suicide risk in the first place (e.g. hopelessness, social isolation, thoughts of suicide, unemployment, mental health programs) by strengthening economic supports (financial and housing stability and security) and supporting positive relationships, community connections and safe environments within organizations and systems;
- Changing social messages and norms around suicide, including avoiding sensationalized or romanticized coverage of suicide that can lead vulnerable people to consider suicide;
- Promoting connectedness through community engagement strategies and peer norm programs;
- Teaching effective life-coping, problem-solving and parenting skills and social-emotional development to help people reduce and cope with adversity;

Suicide is the 10th leading cause of death in the U.S. Each year 44,193 Americans die by suicide.

Suicide Death by Method, 2015



Source: CDC

- Improving systems of care and training professionals (e.g., healthcare providers, social service providers) and laypeople (e.g., teacher, coaches) to identify and support individuals who may be at risk;
- Supporting people at risk and providing crisis intervention;
- Addressing factors that contribute to exacerbating and/or acting on suicidal thoughts, including limiting excessive alcohol use and access to the lethal means for suicides, such as safe storage of medications and firearms among those at risk; and
- Ensuring access and coverage of sufficient and effective mental health services and care after a suicide attempt, including addressing workforce provider shortages in underserved areas and providing care to those at risk for suicide and those who have attempted suicide.

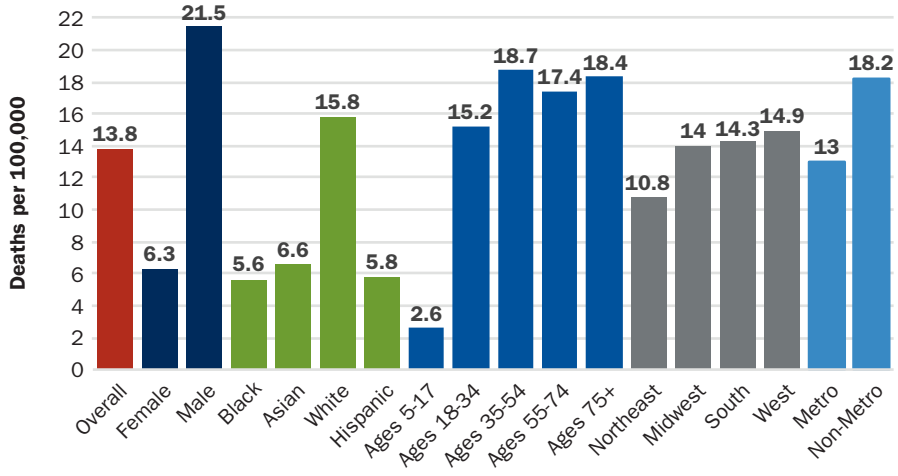
CDC's 2017 technical package of policy, programs and practices highlighted strategies based on the best available evidence to help focus on activities with the greatest potential to prevent suicide.[417]

Strategy	Approach
Strengthen Economic Supports	• Strengthen household financial security • Housing stabilization policies
Strengthen Access and Delivery of Suicide Care	• Coverage of mental health conditions in health insurance policies • Reduce provider shortages in underserved areas • Safer suicide care through systems change
Create Protective Environments	• Reduce access to lethal means among persons at risk of suicide • Organizational policies and culture • Community-based policies to reduce excessive alcohol use
Promote Connectedness	• Peer norm programs • Community engagement activities
Teach Coping and Problem-Solving Skills	• Social-emotional learning programs • Parenting skill and family relationship programs
Identify and Support People At Risk	• Gatekeeper training • Crisis intervention • Treatment for people at risk of suicide • Treatment to prevent re-attempts
Lessen Harms and Prevent Future Risk	• Postvention • Safe reporting and messaging about suicide

SUICIDE TRENDS

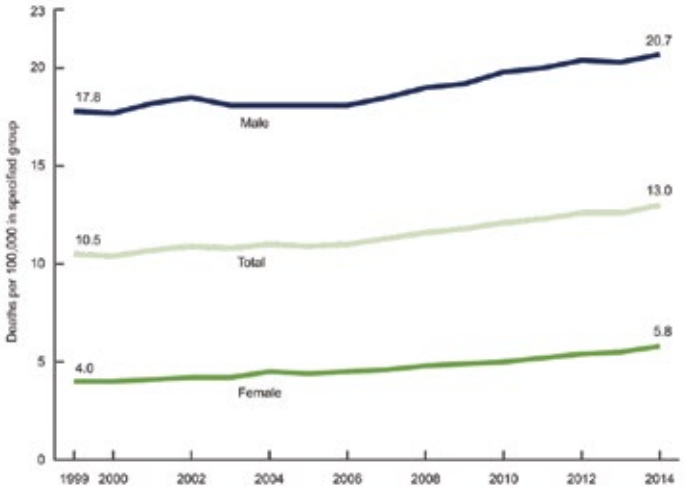
- **Suicides.** Suicide is the 10th leading cause of death in the United States and the second leading cause of death among 15- to 35-year olds.[418, 419, 420] It is the third leading cause of death among 10-14 year olds. Suicide rates among 10-14 year olds have more than doubled since 2007.
  - In 2015, 44,193 Americans died from suicide, a rate of 13.8 suicides per 100,000 people. This averages to 120 per day, five per hour, and one death by suicide every 12 minutes.[421]
  - Male suicide rates are more than three times higher than among females (20.7 vs. 5.8 per 100,000), but more than three times as many women attempt suicide.
  - Suicide rates are highest among American Indian/Alaska Natives (20 per 100,000).
  - Suicide rates among Whites (18.1 per 100,000) are more than 2.5 times those of Asians/Pacific Islanders (7.0), Latinos (6.8) and Blacks (6.5 per 100,000).
- **Suicide Increases.** Between 2000 and 2015, suicide deaths increased nearly one-third (32 percent) from 29,350 to 44,193 per year (10.4 to 13.8 per 100,000).[422]
  - Rates have increased among American Indian/Alaska Natives (more than 26 percent) and Whites (more than 20 percent) between 1999-2007 and 2008-2015.[423] During this time period, rates have increased among:
    - Women by 57 percent and men by 26 percent;
    - Blacks by 4 percent, Whites by 38 percent, Asians by 26 percent, American Indian/Alaska Natives by 26 percent;
    - Northeasterners by 38 percent, Southerners by 26 percent, Midwesterners by 40 percent, Westerners by 30 percent; and
    - Metro residents by 31 percent and non-metro residents by 38 percent.
- **Reported Self-Harm Injuries.** In 2015 alone, more than a half-million Americans went to emergency departments for self-harm injuries.[424]
- **Suicidal Thoughts and Attempts — Adults.** Nearly 10 million Americans (9.8 million, 4 percent of the population) ages 18 and older seriously considered suicide, 2.8 million made a suicide plan and 1.3 million made non-fatal attempts at suicide, in 2016.[425]
- **Suicidal Thoughts and Attempts — Youth.** 18 percent of high school students seriously considered suicide, 15 percent made a suicide plan and 8.6 percent attempted suicide, in 2015. These trends have increased significantly compared to 2009, where 14 percent seriously considered suicide, 11 percent made a suicide plan, and 7.3 percent attempted suicide.[426]
- **Economic Costs.** Suicide costs are estimated to total $93.5 billion in lifetime costs (health expenditures and income loss) per year.[427]
- **Alcohol and Suicide.** Alcohol use is associated with 23 percent of suicides and around 40 percent of suicide attempts.[428, 429] Patients are at increased risk for attempting suicide within a 24-hour period of drinking alcohol or using opioids.[430]
- **Mental Health and Suicide.** 90 percent of those who die by suicide have an underlying mental illness.[431] Nearly one-third (28 percent) of adults who had a major depressive episode in the past year had suicidal thoughts, 9 percent made a suicide plan and 4.2 percent made non-fatal suicide attempts.[432]

Suicide Deaths in 2015 (CDC WONDER)



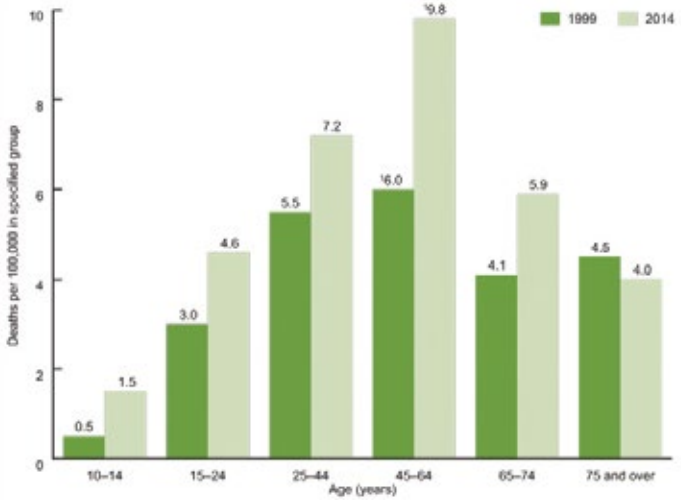
Source: TFAH analysis of CDC data.

Age-adjusted suicide rates, by sex: United States, 1999–2014[434]



Source: CDC

Suicide rates for females, by age: United States, 1999 and 2014[435]



Source: CDC

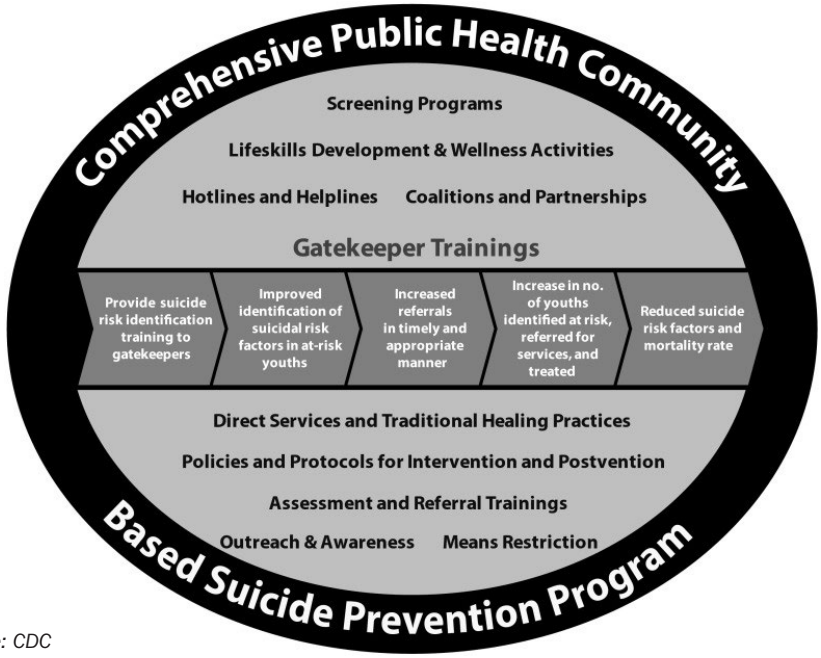
HIGHER RISK GROUPS FOR SUICIDE

Some populations have higher suicide attempt and/or completion rates than the general public, including:

- **Military Veterans.** The 2014 suicide rate was 21 percent higher among veterans when compared with U.S. civilian adults — including 18 percent higher among male veterans and 2.4 times higher among female veterans, respectively.[436] Eighteen percent of suicide deaths were among veterans, while they make up just 8.5 percent of the population. Sixty-seven percent of all veteran deaths by suicide were the result of firearm injuries. Sixty-five percent of veteran suicides are individuals over the age of 50. Twenty veterans, on average, die each day from suicide.
- **Incarcerated Individuals.** Suicide is a leading cause of death in jails and prisons, with more than 800 inmates and prisoners dying of suicide in 2014. It is particularly high in local jails, where inmates died at a rate 50 per 100,000, which is more than three times the general population.[437 438]
- **LGBT Individuals.** Studies suggest LGBT youth are 2-7 times as likely to attempt suicide. The lifetime suicide attempt risk for gay/bisexual men is estimated at four times that of heterosexual men and the lifetime suicide attempt risk for lesbian/bisexual women is twice that of heterosexual women.[439, 440] Suicide rates among the LGBT population is not easy to define as death reports do not include information on sexual orientation or gender identity. One study found 13 percent of youth classified as sexual minority youth (SMY). Significantly more SMY than heterosexual youth reported suicidal ideation (27.95 percent vs. 13.64 percent), a suicide plan (22.78 percent vs. 12.36 percent) and at least one suicide attempt (29.92 percent vs. 12.43 percent) in the past year.[441]
- **Physicians.** Female physicians were more than 250 percent more likely to die by suicide than other women, and male physicians were 70 percent more likely than other men, according to the most recently available review (2005).[442]
- **Adolescent and Young Adult American Indians (AI) and Alaska Natives (AN).** Suicides among AI/AN 18- to 24-year olds is 66 percent higher than the overall suicide rate for the age group, with males dying at rate of 35.5 per 100,000.[443] This population has a particularly high rate of suicide by suffocation (hanging), which has a high fatality rate. Other studies estimate that 14 to 27 percent of AI and AN adolescents attempt suicide in their lifetimes.[444]

Key Policies

Experts have identified a number of strategies that have been shown to be successful in preventing suicides. The Surgeon General's Office, CDC, SAMHSA and other groups including the National Action Alliance for Suicide Prevention, the American Foundation for Suicide Prevention and the Suicide Prevention Action Network have summarized goals and policies, programs and practices for preventing suicide based on the best available research.[445, 446, 447] Many of these support policies, programs and practices that focus on overall well-being and supports, but there are additional actions that can directly help prevent suicides:

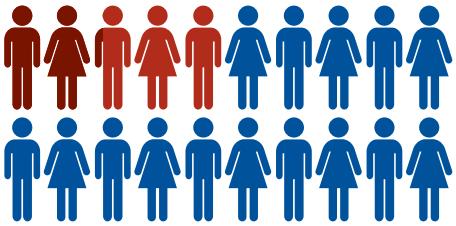


Source: CDC

- **Support statewide suicide prevention plans.** These initiatives should address suicide prevention across all ages and be fully implemented and evaluated. Community plans should involve healthcare providers, schools and colleges — but also a broader range of community and faith groups. They should also take into account providing special focus on groups that are at highest risk. Plans should include providing information and the availability of training for individuals who are in a position to help identify and reach individuals — particularly with the ability to connect with individuals who may be at risk but do not receive routine medical care or may not have access to supportive and positive relationships in their schools or workplaces, such as coaches, clergy and local community leaders.[448] Crisis intervention training should also be made available. Hotlines should be supported and the use of technology and social media strategies should be included. Initial research has found web-based training can be effective, and online crisis intervention may be particularly promising approaches for connecting with at-risk youth and individuals in rural communities.[449, 450] Plans should help support the development of effective responses and protocols for "postventions" that support communities and families after suicides or suicide attempts to respond to emotional and mental health needs and help limit any further attempts. There are also strong evidence-based school-based strategies that should be an integral part of state and local suicide prevention policies *(more information on approaches for school-aged children and youth is available in Section III-D)*.

- **Increase and improve suicide risk and treatment training for health professionals.** A recent study found that 95 percent of people who committed suicide saw at least one health professional in the year before their death, with 64 percent seeking healthcare the month before committing suicide and more than 38 percent seeking out care the week before.[451] Yet a majority of health professionals, including mental health professionals (e.g., psychiatrists, psychologists, social workers, licensed counselors and psychiatric nurses) do not receive training in suicide risk management, assessing individuals for suicidal thoughts or treatment. As of 2016, only five states (Kentucky, Nevada, New Hampshire, Utah and Washington) required health professionals to receive training in suicide assessment, treatment and management, and another three states encouraged training.[452] The Clinical Workforce Preparedness Task Force of the National Action Alliance for Suicide Prevention has proposed guidelines for clinician training that can serve as a model for other states and localities.[453] Emergency department personnel should be trained to support Brief Intervention with Follow-Up Visits for Suicide Risk Interventions, which includes one-hour discharge information sessions that address suicide ideation and attempts, distress, risk and protective factors, alternatives to self-harm and referrals.

Percent of individuals who attempt another suicide within a year of the initial attempt



12% to 25%

- **Implement and enforce parity for mental health and access to affordable mental health treatment.** The need to improve behavioral health services, including their availability and coverage, cuts across all three epidemics of drug, alcohol and suicide and for supporting better well-being. There are some particular aspects of improvement for providing care and services for individuals at risk for suicide or who have attempted suicide, including being connected with and covered for evidence-based care and treatment. Some research suggests that active outreach, face-to-face contact and telephone support in the aftermath of a suicide within a community can reduce suicidal ideation for those impacted.[454] This includes support for the individual as well as for their friends, family and impacted members of the community to help lessen feelings of guilt, depression and grief that may be experienced by survivors. Some effective approaches can include psychotherapy by licensed providers, home visits, regular contact, check-in and case management, particularly approaches that emphasize adherence and continuity of care. Sustained care is important after a suicide attempt — 12 to 25 percent of individuals may attempt another suicide within a year and 3 to 9 percent who have attempted suicide die by suicide within one to five years of an initial attempt.

- **Limit access to suicide "hotspots" and "lethal means" for suicides.** Data from other countries shows that restricting access to lethal and common suicide methods can reduce suicide rates by as much as 30 percent to 50 percent.[455] Nearly half of all suicide deaths are from firearms, one-quarter from suffocation and around 14 percent from poisoning, including drugs.[456] Eighty-five percent of suicide attempts using a firearm result in death. Attempting suicide by drug overdose results in death in around 3 percent of cases.[457]

Studies suggest that the decision to kill oneself is often quick and impulsive, with as few as 5 or 10 minutes between the decision and the attempted act.[458, 459] Research also shows that individuals contemplating suicide who cannot access a highly lethal method for killing themselves typically do not substitute another highly lethal method.[460, 461] Steps to reduce access to the edges of cliffs, bridges, train tracks, and high buildings and to encourage the safe storage of prescription drugs, potentially poisonous household chemicals, and firearms, have been shown to reduce incidents of suicide.[462] Research also indicates that members of the general public and the medical community are not aware of the importance of method availability as a tool to reduce suicides.[463, 464]

Safe storage (such as in locked cabinets) of medications, firearms and other household products can reduce the risk of suicide.[465]

There are a number of policies that help promote firearm safety — that reduce the likelihood of use for suicide. Around 30 percent of American adults reported owning a gun and another 11 percent report living with someone who owns a gun, according to a 2017 Pew

Research Center report.[466] More than a dozen empirical studies have shown an association between the presence of a firearm and the risk of suicide, with the degree of risk in houses having a firearm ranging from two-fold to 10-fold higher than in those houses without.[467] A Harvard study found states with the highest levels of gun ownership had suicide rates twice as high as those with the lowest ownership rates — controlling for poverty, urbanization, unemployment, drug and alcohol use and mental illness and was replicated in studies across time, age groups and cities.[468, 469] A recent study found that after Connecticut enacted a permitting requirement for handguns, suicides-by-firearm fell in the state; conversely, suicides-by-firearm rose in Missouri after it repealed its handgun permitting requirement.

Firearm availability is a particular risk factor for youth suicide and one study estimated that 1.7 million U.S. children and teens live in a home with a loaded, unlocked gun.[470] Compared to other developed countries, the United States has twice the suicide rate among young people aged 5-14 overall, but the rate of non-firearm suicides was the same.[471] More than 80 percent of suicides by firearm among those 18 or younger involved a firearm belonging to a family member.[472]

Research has shown that storing firearms in locked containers, keeping firearms unloaded and separate from ammunition — and removing guns from households during episodes when someone is experiencing suicidal thoughts are important suicide reduction strategies.[473]

- The Emergency Department Counseling on Access to Lethal Means (ED CALM) initiative trained psychiatric clinicians in children's hospitals to provide lethal means counseling and safe storage boxes to parents of patients under age 18 receiving care for suicidal behavior. The effort resulted in 76 percent of parents reporting all medications were locked up (compared to 10 percent before counseling) and 100 percent reporting safe gun storage (up from 67 percent).[474] At least two states, Minnesota and Montana, have laws limiting the ability of physicians to counsel patients on gun safety.[475] Florida had passed a similar law that was struck down by the court in significant part in 2017.[476]

Federal law prohibits sales of firearms to individuals who pose a heightened danger to society or themselves — including certain individuals who are seriously mentally ill — and requires licensed gun dealers to do a background check on prospective purchasers. However, missing recordings in the background check system and no background checks on private sales remain gaps that can perpetuate sales to high-risk individuals. After the shooting at the Newtown, Connecticut elementary school in 2012, a number of states took additional actions to improve their background check systems. Currently, 46 states and Washington, D.C. submit mental health records nationally (and four states use an in-state database) and, as of July 2017, there were nearly 5 million mental health records in the national background check system, up from 500,000 records in October 2007.[477, 478, 479] One study estimated that 40 percent of guns are sold by unlicensed sellers.[480] Thirteen states have additional requirements for private sales requiring background checks for all firearm purchases, and six states require background check for all handgun purchases.[481]

Connecticut and Indiana have laws allowing law enforcement officers to obtain court orders restraining dangerous individuals from purchasing or possessing firearms.

Some states have taken additional steps to keep guns away from children, youth and/or individuals at risk of suicide, including:

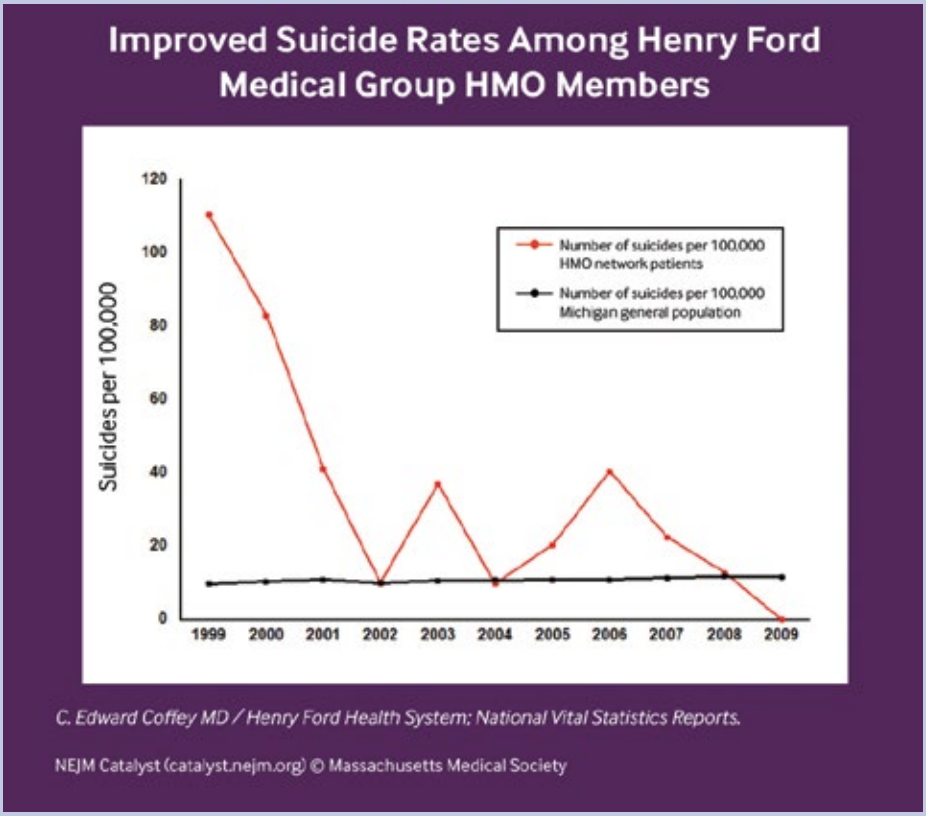
- Safe storage laws at the federal level require dealers to provide a gun lock or secure storage with every handgun purchase, but owners are not required to use the gun lock. Massachusetts is the only state to require all firearms to be locked when not being used; California, Connecticut and New York require locked guns in certain situations.[482]
- Child Access Prevention laws hold gun owners accountable for the safe storage of firearms, imposing liability if they do not take certain measures and children have access to their gun: 27 states and Washington, D.C. have some version of these laws with a wide range of scope and liability among states. The strongest laws impose criminal liability for negligent storage when a child may or is likely to gain access.[483]
- Gun Violence Protective Order laws aim to restrict gun access for individuals in crisis who appear to be an acute danger to themselves or others — similar to domestic violence protection orders. Currently, there are only a few states with these laws. Connecticut and Indiana have laws allowing law enforcement officers to obtain court orders restraining dangerous individuals from purchasing or possessing firearms.[484] A 2016 evaluation of the Connecticut law estimated that that the law reduced suicides by 5 to 10 percent among those who had their guns seized.[485, 486] California (in 2014) and Washington State (in 2016) passed laws that allow family members to seek an order.

- **Expand the National Violent Death Reporting System to all states.** Currently there is funding to support 42 states, Washington, D.C. and Puerto Rico to participate in the National Violent Death Reporting System.[487] According to CDC, "linking information about the 'who, when, where and how' from data on violent deaths [including suicides] provide insights about 'why' they occurred" and informs strategies for how to help prevent them. These systems can help identify common circumstances associated with violent deaths of a specific type, such as clusters or patterns of suicides; help target prevention efforts at groups or individuals at risk; and support evaluations of prevention activities.
- **Encourage responsible media reporting about suicide.** According to SAMHSA, media reports of suicides often sensationalize or even romanticize suicide, and that these types of reports have been shown to increase "contagion," making it more likely that vulnerable individuals will commit suicide. Conversely, reports about suicide that include messages of hope and resilience and links to helpful resources such as hotlines appear to reduce the number of suicides.[488]

EXAMPLES: SUICIDE PREVENTION INITIATIVES AND EFFORTS

The Injury Control Research Center for Suicide Prevention (ICRC-S), a partnership between the University of Rochester Medical Center and the Education Development Center, promotes a public health approach to suicide prevention at the state, regional and national level through research, outreach and education. The Center is enhancing access to data to inform planning prevention activities; addressing challenges to preventing suicide among middle-aged adults; and examining intimate partner violence, substance misuse and other factors that contribute to suicide. The Center conducts and provides pilot grants for suicide prevention research projects and connects researchers, practitioners and other key partners in suicide prevention through webinars, intensive training institutes and a virtual Community of Practice.[489] The Colorado Department of Public Health & Environment, in collaboration with ICRC-S, is taking a public health, prevention-oriented approach to suicide, including a website to engage men in help-seeking for suicide and mental health difficulties (http://mantherapy.org), education of emergency department clinicians about working with caregivers after a youth suicide attempt to reduce youths' access to lethal means and a school-based suicide prevention program.

The **Zero Suicide Initiative** is a comprehensive approach to improve depression care in health systems, integrating suicide prevention into primary and behavioral health care.[490] The model requires primary care doctors to screen every patient during every visit with two questions: How often have you felt down in the past two weeks? And how often have you felt little pleasure in doing things? High scores lead to further questions about sleep disturbances, changes in appetite and/or thoughts of hurting oneself. Providers must indicate on each patient's medical record that they completed the screening — and when they recognize a mental health problem, assign patients to appropriate care, which includes cognitive behavioral therapy, medication, group counseling or new care models such as same-day psychiatric evaluations, drop-in group therapy visits, and hospitalization, if necessary.[491, 492] Hospital staff are trained to make sure that patients who need follow-up care do not leave without an appointment and they conduct follow-up telephone calls. Providers partner with patients and families to limit access to guns or other means of suicide from their homes and create personalized safety plans.[489] Health systems conduct real-time suicide surveillance and, in response to suicides that do occur, analyze root causes to understand if and how similar suicides could be prevented in the future.[493] The model, originally adopted by the Henry Ford Health System's Behavioral Health Services division in 2001, led to an 80 percent reduction in suicide among Henry Ford HMO members (from 110.3 suicides per 100,000 members before the program to an average of 36.21 suicides per 100,000 after the program). This reduction has been maintained for over a decade, even as the overall suicide rate in Michigan has increased. Implementation of this approach had no negative impact on the division's financial health.



The approach has been adopted by more than 200 healthcare organizations in the United States and is a key concept within the National Strategy for Suicide Prevention.[488,494] SAMHSA provides grants to implement the Zero Suicide model in health systems, with the fiscal year 2017 funding opportunity awarding a total of $7.9 million across up to 13 awardees for projects lasting up to five years.[495]

Together for Life — a multicomponent program to prevent suicides among the **Montreal Police Force** — includes training of all units and supervisors on suicide risk and how to give support, a telephone helpline for police officers and an information awareness campaign directed at officers. The program was associated with a 79 percent reduction in suicide rates over 12 years, while police in a comparison group experienced no statistically significant changes.[496]

U.S. Air Force Suicide Prevention Program (AFSPP), launched in 1997, encourages effective help-seeking behavior and early identification and treatment.[497] AFSPP components include: using leaders as role models and agents of change, training personnel, enhancing confidentiality policies, reducing stigma and fear of negative career consequences for seeking mental health care, strengthening social support, addressing risk factors for suicide (such as family violence, alcohol and substance misuse and depression) and creating organizational accountability for implementing the program.[498,499] Five years after program launch, this comprehensive approach was associated with substantial reductions in suicide rates (33 percent), homicide (51 percent), accidental death (18 percent) and severe family violence (54 percent).[500] Average suicide rates continued to be significantly lower than pre-program rates through 2008.

The Jed Foundation, a nonprofit focused on promoting emotional health and preventing suicide among teens and young adult in the United States, approaches their work through several avenues: working with schools and universities to improve their programs and systems; directly reaching and supporting young adults; and educating and providing resources to families and communities on when and how best to help. JED's work with high schools and universities focuses on evaluating and strengthening mental health, substance misuse and suicide prevention programming and systems through a comprehensive, public health approach based primarily on the U.S. Air Force's proven Suicide Prevention Program. Their comprehensive evidence-based model has seven prongs for institutions to consider when thinking about suicide prevention: promote social connectedness; identify students at risk; increase help-seeking behavior; provide substance misuse and mental health services; follow crisis management procedures; restrict access to potentially lethal means; and develop life skills.[501]

Source: Jed Foundation

STATE REPORTS: STORIES FROM THE FRONTLINES OF VIOLENT DEATH SURVEILLANCE FROM THE SAFE STATES ALLIANCE[502]

Alaska: Data from the Alaska reporting system shows that the state has the second highest rates of suicide in the nation, and from 2009 to 2013, it was the leading cause of death among 15- to 44-year olds. The highest rates were among American Indian/Alaska Natives, young male adults and persons living in rural regions. Ninety-two percent had at least one mental health problem and/or life stressor associated with suicide, 22 percent had known alcohol or substance use disorders and 33 percent had intimate partner problems. In addition, 21 percent were current or former U.S. military personnel, while only 15 percent of the state's population was military. This information helped inform strategies for the state's Suicide Prevention Plan, including making mental health services more readily available to current and former military and using Applied Suicide Intervention Skills Training to better equip caregivers and those who provide services for at-risk populations to be able to identify high-risk individuals and provide them support and connection to services. It also helped identify how to provide local "postvention" efforts after suicides, especially in small villages where suicides may have family or community patterns, to reduce risks of suicidal behaviors or actions.

Oklahoma: The state's age-adjusted suicide rate was 33 percent higher than the national rate in 2013. Suicides outnumber homicides by around three to one. The surveillance data helped identify that veteran suicides increased by 34 percent from 2005 to 2012, and suicide rates among veterans was twice that of non-veterans. The state has five military bases, and veterans' health issues impact more than 300,000 Oklahomans. The data helped inform the Oklahoma Strategy for Suicide Prevention, including a collaboration with the Veterans Administration. It focused on circumstances associated with suicides across the lifespan — such as mental and physical illnesses, depressed mood and intimate partner problems, as well as approaches for providing supports.

Rhode Island: Surveillance data found there were 731 suicides in the state from 2004 to 2010. More than half (52 percent) had current mental health problems and 43 percent were receiving mental health treatment. Twenty-five percent had experienced a crisis in the two weeks prior to death and one in five had intimate partner problems. The state created a Suicide Prevention Subcommittee of the Rhode Island Injury Community Planning Group, and built partnerships with the Samaritans, American Foundation for Suicide Prevention, community health and mental health centers, Bradley Children's Hospital, Brown University, Coastline Employee Assistance Program and the Rhode Island Student Assistance Program. They launched an Economic Impact of Depression and Suicide in the Workplace symposium to increase awareness of depression and suicide among working age adults and provided integrated suicide prevention strategies into worksites. The effort included high-level managers and human resources representatives from two of the state's largest employers. The Coastal Employee Assistance Program integrated suicide prevention into its mission statement and provides training in early identification and referral of at-risk employees to their clinical staff as well as to their clients.

SAMHSA developed the **National Suicide Prevention Lifeline** 1-800-273-TALK (Lifeline) and http://www.suicidepreventionlifeline.org/(link is external) allowing the user to "Click to Chat" to connect to immediate help. The Lifeline is a nationwide network of crisis centers that provides help 24 hours a day, seven days a week for individuals in emotional distress or suicidal crisis.

B. IMPROVING BEHAVIORAL HEALTH SERVICES — FOCUSING ON "WHOLE HEALTH"

A National Resilience Strategy must include a major modernization of the mental health care system. A "modern" approach will require making mental health an integral part of the healthcare system to effectively identify individuals with concerns and ensure they receive needed supports and have access to and coverage of evidence-based treatment.

Access to mental health and substance use disorder services have been wholly inadequate, particularly given the scope of Americans impacted. The needs were insufficient before the rise of opioid use — with only around one person per 10 needing treatment receiving it.[503] The new crisis is exponentially driving the need for additional behavioral health services.

A population health approach would support a system that focuses on better "whole health" care that acknowledges the research that shows the strong interconnections between physical and mental health, and how other factors — such as having stable finances and housing and community connections — have a major influence on how healthy people are. This includes focusing on the whole health of individuals, families and communities.

In 2016, 44.7 million American adults experienced a mental health illness, 20.1 million experienced a substance use disorder and 8.2 million experienced both — and these numbers are likely to be underestimated due to issues of stigma.[504] The current system is not at all equipped to provide the services and supports to address those needs. Advances in brain research and effective prevention and treatment strategies have shown that there are effective treatments for most mental health issues and substance use disorders and that most Americans in need are not being well served.

There have been long-standing disconnects between physical and mental healthcare, and another disconnect between the healthcare system and the various other services and supports that individuals and families receive. One issue is that many of the current systems reflect outdated views of mental health, substance misuse and suicide risk that have been rooted in the stigma and lack of understanding about these issues. They often involved ignoring or trying to hide problems hoping they would get better, focused on "will power" or "moral failings," and intervened only when major problems emerged or people hit "rock bottom."

In recent years, there have been significant policy changes that support covering mental health and substance use disorders in "parity" with physical health concerns. However, there are still many systemic gaps and legacy healthcare systems and practices, including shortages of services and professionals, which must be addressed to be able to achieve this goal — and go beyond parity toward considering the inter-relationships between physical and behavioral health.

MENTAL ILLNESS AND SUBSTANCE USE DISORDERS IN AMERICA

Mental Illness

An estimated 44.7 million adults in the United States experienced a mental illness in 2016, including nearly 10.4 million American adults with a serious mental illness that caused disability.[505]

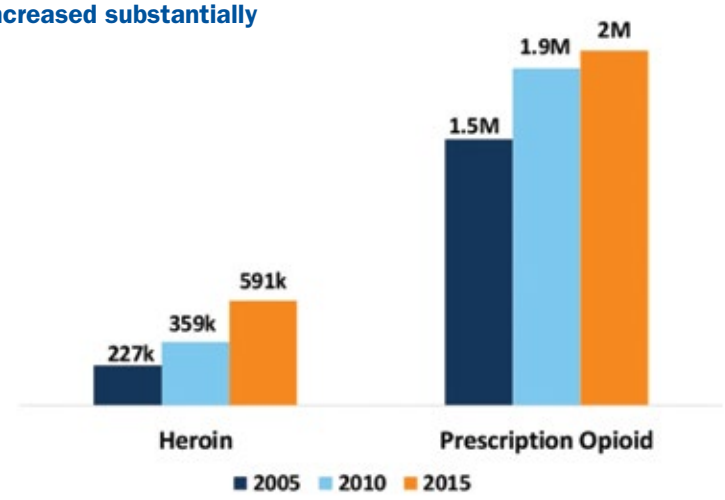
- Women, adults ages 18-50, Whites, American-Indians and individuals with substance use disorders have higher rates of mental illness.[506, 507]
- Anxiety, mood and personality disorders are the most common mental illnesses among adults.[508, 509, 510]
- The cause of mental illness is likely a confluence of genetics, environmental and lifestyle factors.[511]
- As many as one in five children and teens have had a serious debilitating mental disorder, with half of the mental health conditions starting by the age of 14, and three-quarters by the age of 24.[512, 513]
- More than 25 percent of teens are impacted by at least mild symptoms of depression.[514] Teens with untreated depression are at a higher risk to be aggressive, engage in risky behavior, die from suicide, misuse drugs or alcohol, do poorly in school or run away.
- According to a 2017 DOJ report, around one in seven state and federal prisoners and one in four jail inmates report experiences that meet the threshold for serious psychological distress — compared to one in 20 in the general population. Thirty-seven percent of prisoners and 44 percent of inmates have been told in the past by a mental health professional that they have a mental health disorder.[515]
- In 2016, 35 million adults received mental healthcare, including 43 percent of those with any mental illness and 65 percent with serious mental illness.[516]
- A 2008 study estimated that serious mental illness leads to $193 billion in lost earnings in the United States annually.[517]
- 7.4 percent of all health spending in the United States is devoted to mental health treatment services.[518]
- State spending for mental healthcare decreased $4.35 billion from 2013 to 2015.[519]

Substance Use Disorder

In 2016, 20.1 million people ages 12 or older had a substance use disorder, with 15.1 million having an alcohol use disorder and 7.4 million having a drug use disorder, including 2.3 million with both alcohol and drug use disorders.[520]

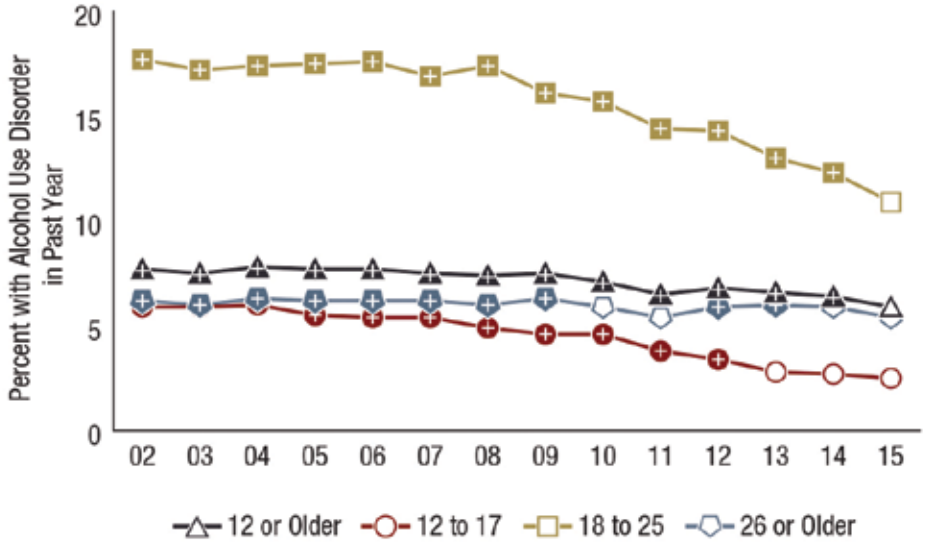
- Alcohol and drug use disorders are markedly higher among young adults ages 18-25 compared with their younger and older counterparts.
  - 10.7 percent of young adults have an alcohol use disorder compared with 2 percent of 12- to 17-year-olds and 5.2 percent of those 26 years old and older.
  - For drug use disorders, 7 percent of young adults ages 18-25 are affected compared with 3.2 percent of 12- to 17-year-olds and 2 percent of those 26 years and older.

From 2005 to 2015, the number of people with heroin and prescription opioid addiction increased substantially



SOURCE: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, *Results from the 2005 National Survey on Drug Use and Health*. Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, *Results from the 2010 National Survey on Drug Use and Health: Summary of National Findings*. Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration *Results from the 2015 National Survey on Drug Use and Health: Detailed Tables*

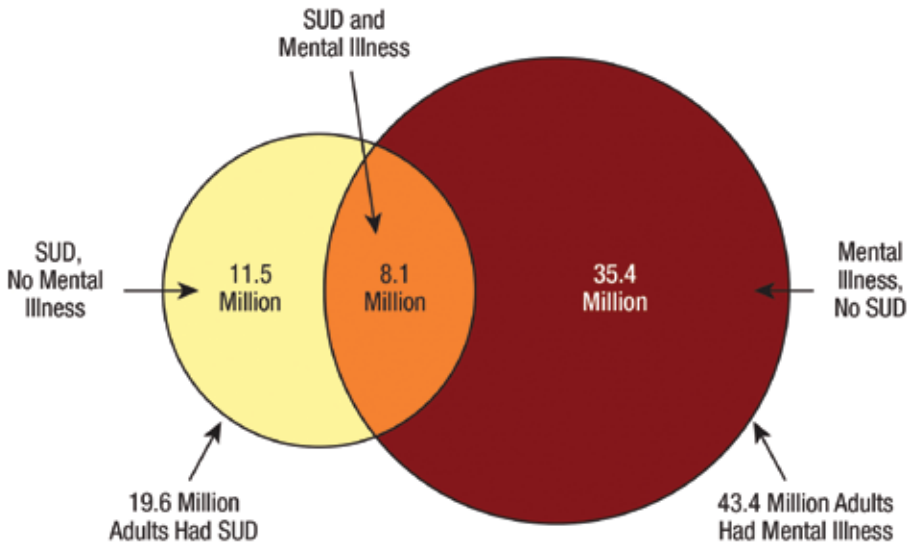
Alcohol Use Disorder in the Past Year among People Aged 12 or Older, by Age Group: Percentages, 2002-2015



Source: SAMHSA, National Survey on Drug Use and Health

- Rates of alcohol use disorder among individuals ages 12 and older held steady in the 2000s and have been declining more recently (moving from 7.7 percent in 2002 to 5.6 percent in 2016), with the greatest decreases seen in adolescents and young adults.[521] However, another study using a more intensive survey found a contradictory result, with alcohol use disorder among adults in the United States increasing by 49 percent between 2001-2002 and 2012-2013 to 12.7 percent.[522]
- About 2.2 million Americans received treatment for a substance use disorder at a specialty facility (inpatient hospital setting, drug or alcohol rehabilitation facility or mental health center) in the past year, which is only 10.6 percent of those who needed treatment. Adolescents and young adults (ages 12-25) were substantially less likely to get the treatment they needed compared with adults ages 26 and older.
- Medicaid covered treatment for one in three individuals receiving opioid use disorder treatment in 2015.[523] An evaluation by the Surgeon General notes that costs of treating a substance use disorder are more than offset in reductions for future expected health costs.[524]
- Around 1 percent of all health spending is devoted to substance use disorder treatment.[525]

Past Year Substance Use Disorder (SUD) and Mental Illness among Adults Aged 18 or Older: 2015



Source: SAMHSA, National Survey on Drug Use and Health

Co-Occurring Mental Illness and Substance Use Disorder

In 2016, 8.2 million adults in the United States had experienced both a mental illness and substance use disorder in the last year.[526]

- More than 40 percent of adults with a substance use disorder in the past year also experienced mental illness compared with 16 percent among the rest of the population, meaning an individual with a substance use disorder is 2.5 times as likely as someone without a substance use disorder to have a mental illness.
- 18.5 percent of adults with a mental illness also had a substance use disorder in the past year compared with 5.4 percent among the rest of the population, and individuals with a mental illness are three times as likely to have a substance use disorder as someone without a mental illness.
- 18.7 percent of adults with mental health disorders used prescription opioids compared to just 5 percent of the general population.[527]
- Six percent of teens have a co-occurrence of mental health disorder and substance use disorder. Some individuals use "negative coping mechanisms" by using drugs or alcohol to respond to symptoms of anxiety, depressive moods, ADHD, trauma and physical, emotional and/or sexual abuse.
- According to the National Alliance on Mental Illness: "Men are more likely to develop a co-occurring disorder than women." Other people who have a particularly high risk of dual diagnosis include individuals of lower socioeconomic status, military veterans and people with more general medical illnesses."[528]

Mental and Physical Health

- Studies show that individuals with severe mental illness die 13-30 years earlier than their peers, mostly due to physical health reasons.[529]
- Individuals with a drug or alcohol use disorder are disproportionately more likely to also have other costly health conditions, including hepatitis, liver disease, coronary disease and hypertension. Substance misuse or use disorders complicates the treatment of these conditions and increases overall health costs.[530]

Medicaid and Behavioral Health

- Medicaid accounted for 25 percent of all mental health spending and 21 percent of substance use disorder spending in 2014.[531] Nearly 30 percent of Medicaid beneficiaries have either a mental disorder or substance use disorder, or both. Medicaid expansion has increased Medicaid support for mental health and substance misuse treatment for low-income persons by $4.5 billion, according to an analysis by Richard Frank of Harvard University and Sherry Glied of New York University.[532]
- Nearly half of all Medicaid spending is on care for the 20 percent of Medicaid beneficiaries who have a behavioral health diagnosis (mental illness and/or substance misuse). Annual expenditures are nearly four times higher for Medicaid patients with a behavioral health diagnosis than without a diagnosis ($13,303 versus $3,564).[533]

There has been a dramatic increase in substance use disorders as the opioid epidemic has grown — generating an urgent need for more services. And the severe shortages of behavioral health providers and services in many areas of the country are driving the need to look for different models for providing and paying for services. Many of the steps in modernizing behavioral healthcare are aimed at systemic change, including issues of coverage, availability, quality and integration of behavioral and physical health services.

This section examines a range of policy and practice recommendations to move toward positive change in mental health care and substance misuse treatment services — sometimes referred to together as behavioral healthcare.

Key areas of focus include:

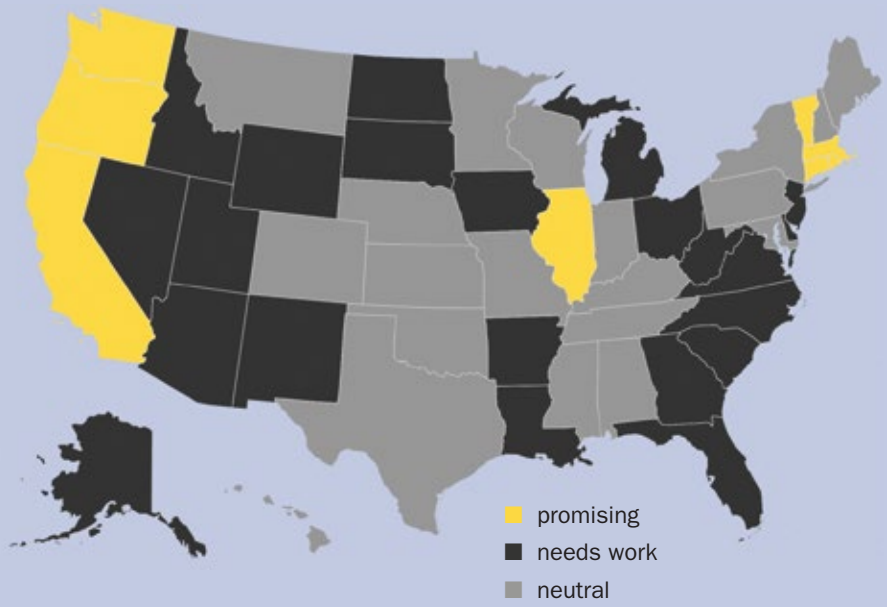
- **Modernize Behavioral Health Services**
- **Modernize Substance Use Disorder Treatment**
- **Expand and Improve the Behavioral Health Workforce**
- **Prioritize Needs in Underserved Communities, Including Low-Income and Rural Communities**
- **Connect Healthcare and Behavioral Health Services with Social Service Supports**
- **Prioritize Early Identification and Connection to Services and Support**
- **Reduce Stigma**

Recent developments that are significant policy levers for modernizing behavioral healthcare include:

- **Coverage of behavioral health.** Two new federal laws set important requirements for certain public and private health coverage to cover behavioral health services that often had been missing otherwise. Specifically, the Affordable Care Act (ACA) added a requirement that individual and small group health insurance must cover behavioral health services starting in 2014 and the Paul Wellstone and Pete Domenici Mental Health Parity and Addiction Equity Act of 2008 required behavioral health services to be covered on parity with physical, medical and surgical care under individual, group and Medicaid expansion plans.[534]
  - However, despite these requirements around coverage, legacy systems and practices continue to make access and availability of services challenging. Additionally, public and private insurance policies still vary significantly, and covered services may be insufficient to meet recommended standards of care. For instance, a 2015 GAO report showed significant variation in the types of behavioral health services provided to Medicaid beneficiaries in different states.[535] In addition, the parity law only applies to employers that provide mental health coverage and have 50 or more employees.
- **Integration with physical healthcare.** There is also a significant movement toward more integrated approaches to physical and mental health, focused on evidence and practices showing strong interconnections and the effectiveness of a "whole person" approach for improved results, including for reducing depression and improving experience of care.[536] A range of experts and organizations, including the Surgeon General's office, the American College of Physicians and the American Society of Addiction Medicine recommend an integrated approach to physical and behavioral healthcare.[537] The Surgeon General noted the question is "no longer whether but how this much-needed integration will occur," and that the "net benefits of integrated treatment include improved health care outcomes and reduced health care costs, as well as reduced crime, improved child welfare, and greater employment productivity… fewer interpersonal conflicts, greater workplace productivity, reduced infectious disease transmission and fewer drug-related accidents, including overdoses and deaths."[538] Despite the fact that 68 percent of patients with a mental health disorder also have a medical problem, traditionally, mental health and substance use disorders have been treated in separate systems — including often with separate coverage and payment policies than physical healthcare.[539]
- **Advancements in treatment and care.** There have been significant advancements in understanding effective treatments, best practices and standards of care for treating mental health illnesses and substance use disorders through therapy and pharmaceuticals — including that long-term, sustained care and recovery are most effective for many patients. There have also been advances in addressing stigma and other barriers that have limited patients seeking care in the past.

PARITY LEGISLATION AND IMPLEMENTATION IN STATES

A ParityTrack review by The Kennedy Forum and Scattergood Foundation found that parity laws and regulation vary significantly across the states.[540]



Source: The Kennedy Forum and Scattergood Foundation

Addiction Solutions Campaign

The National Center on Addiction and Substance Abuse, the Legal Action Center (LAC), Partnership for Drug-Free Kids and the Treatment Research Institute launched the Addiction Solutions Campaign (ASC) in June 2017 — and the group issued analyses reviewing Maryland and New York health coverage policies that found equitable coverage is still lacking primarily due to a reinforcing combination of a lack of transparency by health insurers and insufficient enforcement structures of the Parity Act:

- **Lack of transparency:** The information provided by health insurers to consumers and state insurance departments is often insufficient to determine what substance use disorder services are covered and if there are any interceding requirements for these services (e.g., prior authorization).
- **Insufficient enforcement:** Currently, enforcement of parity primarily depends on consumers raising concerns about compliance, which requires a sophisticated understanding of the Parity Act's requirements and substance use disorder services that many consumers do not have and should not need.

The groups recommend that states should require insurers to provide adequate details about what services their insurance policies cover to easily identify deficits, as well as do more official analyses of Parity Act compliance. If insurance policies do not meet the Parity Act standards, insurers must adjust their policies before being allowed to sell them to consumers, and detailed information should be available to the public for scrutiny as well.[541]

Solutions should include adequate funding for community mental health centers and school-based health services that have the capacity to address behavioral and mental health prevention and treatment needs.

Modernize Behavioral Health Services

Priority policies for moving health insurance and healthcare systems to provide better behavioral and physical "whole health" of individuals include:

- **Continue to improve health insurance coverage affordability of behavioral health services and increase access to care.** Despite significant advances in accessibility and affordability of mental health services, coverage is often limited and does not match what is needed to provide effective and ongoing treatment. Insurance coverage can be improved by expanding parity laws to include all employers; better enforcing parity laws; covering a broader range of mental healthcare services and medications; reducing out-of-pocket costs; and increasing transparency, including publishing clinical criteria used to approve or deny care and accurate lists of mental health providers participating in insurance plans.[542] There is a need to work with experts in the field to continue to define ideal and appropriate modern behavioral health services, along with the corresponding need to update insurance policies and practices to ensure these services and practices are covered.

- **Promote delivery and payment models to increase mental and behavioral health services.** Scaling up value-based care including payment models that promote flexible, team-based care — including community-based supports — can help expand services and integrate with primary care.[543] Solutions should include adequate funding for community mental health centers and school-based health services that have the capacity to address behavioral and mental health prevention and treatment needs. Advanced primary care models that focus on improving outcomes provide new opportunities to develop payment and service models that prioritize whole health — viewing and supporting physical and behavioral health together (such as Accountable Care Organizations, Patient-Centered Medical Homes, Primary Care Case Management and Health Homes). There must be consideration for developing quality measures for substance use disorder treatment and/or risk adjustment methods for inclusion in these types of models.

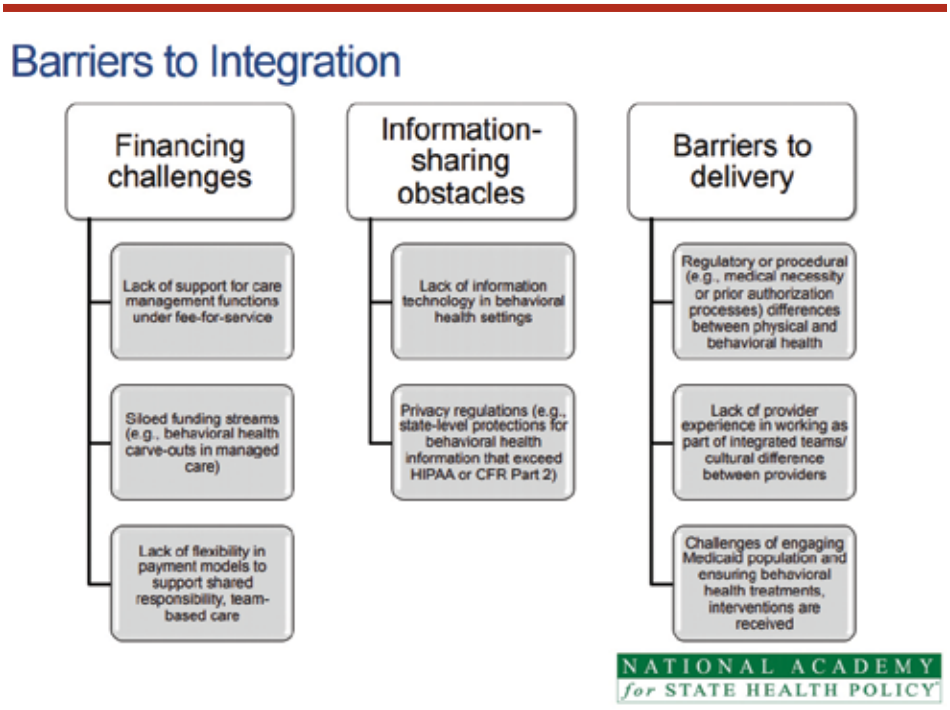
- **Implement effective treatment and recovery practices.** All providers should adopt — and all payers should cover — the latest evidence-based treatment methods with demonstrated ability for improved outcomes, including cognitive behavioral therapy, peer and family support programs and targeted approaches for high-intensity patients, youth transitioning to adulthood and partnerships between law enforcement and mental health services. Currently, only limited numbers of states have all of these policies.

- **Develop and evaluate the most effective models and practices for behavioral health integration.** A number of groups have examined approaches for integrating physical healthcare and behavioral health services. Since they have traditionally been delivered separately, there are issues about how to align care through medical practices and services, including care coordination and system integration (data integration, coverage policies, payment/funding approaches, etc.).[544] Models and approaches must also consider how to coordinate healthcare and behavioral health services with screening for addressing the broader needs of the patients — which relate to health — such as financial assistance and social services.

- The Eugene S. Farley, Jr. Health Policy Center conducted a review of an Advancing Care Together (ACT) demonstration and evaluation study for advancing integrated care involving 11 diverse practices in Colorado and identified key recommendations for health systems including to:
  - Frame integrated care as a necessary paradigm shift to patient-centered, whole-person healthcare;
  - Define relationships and protocols up-front, understanding they will evolve;
  - Build inclusive, empowered teams to provide the foundation for integration;
  - Develop a change management strategy of continuous evaluation and course-correction; and
  - Use targeted data collection pertinent to integrated care to drive improvement and impart accountability.[545]
- SAMHSA and NIH have identified frameworks for models, including: coordinated care — which concentrates on communication; co-located care — which focuses on physical proximity; and integrated care — which emphasizes practice changes.[546] Some emerging approaches have included Patient-Centered Medical Homes; Chronic Health Homes: hub-systems, where primary providers have a network of connected professionals to refer patients needing care, case management and care coordination; and intense case management models for complex case treatment. The Center for Integrated Health Solutions (CHIS) provides training and technical assistance to community behavioral health programs, community health centers, and other primary care organizations,[547] and is funded jointly by SAMHSA and the Health Resources and Services Administration (HRSA), and is run by the National Council for Behavioral Health. The Center's Innovation Communities come together for mutual learning and planning to adopt best practices for integration.[548, 549]

- A Medicaid and CHIP Payment and Access Commission (MACPAC) review found that as of 2015, under their Medicaid plans, 24 states covered some type of psychotherapy, 39 states and Washington, D.C. covered some other type of therapy, 14 states covered some form of peer support for substance use disorders, and nine states and Washington, D.C. covered some version of supported employment under state plan authority.[550]
- Arizona, Connecticut, Florida, Georgia, Idaho and Mississippi have used Medicaid authorities to support integrated physical and behavioral health.

- NASHP has reviewed approaches some states are using for integration, including:[551]
  - Innovating to leverage current Medicaid authorities to provide enhanced payments to practitioners that adopt core components of integrated care, such as multi-disciplinary teams, care coordination and population health strategies, which are otherwise non-reimbursable services (including 1115 demonstration waiver and other State Plan Amendment options).
  - Paying providers and managed care organizations more for integrated care, through Health Homes (in 20 states and Washington, D.C.) and other mechanisms, to support infrastructure enhancement for integrated care (such as multi-disciplinary teams, medical home certification, HIT capacity, population health, care management and quality improvement).
  - Supporting the transition to integrated care by investing resources to provide technical assistance; developing new workforce capacity (such as Community Care Teams in Vermont to link providers to community services); and aligning regulations across sectors.
  - Funding development of data infrastructure for behavioral health providers, who have not generally benefited from the Health Information Technology for Economic and Clinical Health (HI-TECH) Act investments. State Innovation Model (SIM) and other funding have been leveraged to fill this gap in uptake of health information technology by behavioral health providers.



EXAMPLES: MODERNIZING AND/OR INTEGRATING BEHAVIORAL HEALTH SERVICES

Sustaining Healthcare Across integrated Primary care Efforts (SHAPE) is an innovative partnership with Collaborative Family Healthcare Association, the Farley Health Policy Center at the University of Colorado School of Medicine and Rocky Mountain Health Plan (RMHP). It is a three year project, funded by the Colorado Health Foundation aiming to examine the effect of paying for the integration of behavioral health and primary care through a practice payment for behavioral health. Results from an innovative integrated Medicaid and Medicare health plan in Western Colorado suggested that with appropriate payment mechanisms, primary care practices can integrate and sustain behavioral health to improve patient outcomes and reduce the cost of care. The SHAPE project model focuses on payment reform at the system level that allows for easier replication and implementation on a larger scale. The idea of shifting practices and providers away from fee-for-service models that emphasize the volume of encounter toward a focus on quality and outcomes with the practice payment is key for achieving a sustainable model for integrating mental health services both in the primary care setting and beyond. Results of the pilot show that practices receiving a payment for behavioral health from the health plan yielded a 4.8 percent lower total cost of care for their public payer patient population than in the comparison practices. Additionally, patients in practices receiving a payment for behavioral health were more likely to be diagnosed with anxiety and depression after payment implementation than patients in the comparison practices. This effort is part of a larger vision of an accountable community that features clinical integration, value-based payments, social equity, patient engagement, coordinated care and meaningful use of HIT. Due to the program's success and ability to achieve the Triple Aim (improved outcomes, decreased cost, and enhanced patient experience), RMHP has expanded the payment model to other primary care and pediatric practices.

The Massachusetts Child Psychiatry Access Project (MCPAP) seeks to boost the ability of primary care providers (PCPs) to handle behavioral health issues by screening and managing the needs of youth with common mental health conditions such as ADHD, depression, anxiety and substance use disorder. The program, funded by the Massachusetts Department of Mental Health, is free to providers and offers telephone consultation with a child psychiatrist or licensed therapist within 30 minutes of a request, face-to-face consultation, resources and referral to community-based behavioral health services and training and education for PCPs and their staff. In Massachusetts, over 95 percent of the pediatric PCPs are enrolled in MCPAP with 63 percent of these physicians using their services in 2016. This translates to 7,302 children served with 10,412 phone calls, 2,524 consultation visits and 4,701 referrals arranged. The cost to run this program is only about $2.33 per child per year. As a result of its success, MCPAP launched a National Network of Child Psychiatry Access Programs to expand this work across the country.

The Genesee Health System's Health Center and Hope Network, a community-based behavioral health and human services agency serving a predominantly Medicaid and low-income population in Michigan, are co-located on a shared campus. Hope Network connects patients with PCPs in the health center who share patient medical information and develop treatment plans collaboratively with Hope Network staff. The health center also provides pharmacy support, facilitating access to medication and educating patients about medication compliance. Hope Network employs Navigator Teams to monitor and support clients who are receiving primary care at the health center, locates needed specialty care that is not available through the health center and connects patients with community-based services and supports. All needed services and supports are encompassed in a single integrated care plan that is coordinated by the Navigator Teams. Hope Network reports that, for the small cohort of clients who received Navigator Team services and for whom longitudinal data were available, psychiatric inpatient admissions per person fell from an average of 1.95 in the year prior to receipt of navigator services to 0.48 after receiving navigator services for one year.

Colorado is using $65 million in SIM funding to provide "access to integrated primary care and behavioral health services in coordinated community systems, with value-based payment structures, for 80 percent of state residents by 2019." Practices in the first cohort are experimenting with integrating licensed behavioral health providers (BHPs) into their workflows, renovating their practices to make space for additional BHPs, conducting tablet-based behavioral health screenings, training existing and new staff, establishing community and patient engagement programs, and seeking better coordination and referral to specialty mental health settings in their communities. In the first year, practices reported challenges in finding qualified BHPs, billing for BHPs and collecting behavioral health screening data in existing EHRs. Participating SIM practices integrating BHPs have reported decreases in emergency room visits among patients seeing BHPs and increased willingness to try therapy among patients diagnosed with depression.[552]

Modernize Substance Use Disorder Treatment

Any strategies to prevent and reduce substance misuse must focus on providing sustained and ongoing treatment and recovery support — otherwise they are inherently incomplete and ineffective. The final component of developing a full-spectrum strategy is to have an effective, funded and compassionate treatment system in place, over the long-term.

The rapid rise in opioid misuse is dramatically increasing the need for treatment. While there was a reported more than five-fold increase in treatment admissions for opioids in the past decade, millions are still going untreated and undetected.[553] Only around one in 10 persons with a substance use disorder receives recommended treatment.[554]

Substance use disorder is defined as a chronic, relapsing brain disease that is characterized by compulsive drug seeking and use, despite harmful consequences. Researchers have documented how some forms of drug use can change the structure of the brain, with lasting impact. Recommended treatments vary depending on the type of drug dependence. For opioid addition, the treatment typically involves counseling and building a stronger support network of friends, families and services for an individual, but for most, effective treatment also includes use of MAT to ease or eliminate withdrawal symptoms and relieve cravings. Additional considerations are needed for individuals who may be dependent on multiple substances.

The treatment gap has been fueled by lack of funding, limits on insurance coverage, workforce shortages and ongoing stigma around substance use disorders and misperceptions about how effective treatment can be and how it works.

Government and healthcare system policies should promote expanding access to and quality of substance misuse treatment — and aligning practices and coverage policies with evidence-based research for what is most effective.

Key principles experts highlight as essential for appropriate coverage include:

- **High-quality, effective and timely substance misuse treatment** for as long as needed at a location appropriately suited for the patient (including medications).
  - Access to immediate care when an individual is seeking treatment is important to being supportive when an individual is in need and receptive to treatment. There should be "no wrong door" (NWD) entry system for being able to connect to coverage, such as through emergency departments, primary care physicians, other specialists, social services, EMS, Fire Department Safe Houses and other systems.
  - Patients should be able to seek the most effective treatment that works for their conditions and circumstances. This may include a range of inpatient and outpatient therapy, counseling and medications, etc. Services should be provided in locations and facilities that do not create an unreasonable burden on the patient, and that take into account proximity/accessibility and stigma.
  - Treatment approaches should reflect research that shows many patients need multiple treatment attempts before long-term success, and that prior attempts do not reduce likelihood of future positive outcomes.
- **Quality, affordable and comprehensive health coverage** that covers effective, best practice informed treatment — not restricting time or duration — and has streamlined, simple enrollment processes.
  - Additional supports during recovery tailored to needs, like connecting individuals from treatment to recovery/safe places to stabilize or programs that keep families together during treatment. Stable, safe housing and financial stability are often cited as key to longer-term recovery success.

Some priority policy areas for modernizing, expanding and improving treatment, many of which are aligned with broader integrated behavioral health approaches, include:

- **Exponentially expand the workforce.** The behavioral health workforce must be expanded to support the needed availability of providers who can treat and provide services for substance use disorders — including supporting different service delivery models, such as expanding use of community health workers, paramedics, peer counselors and expanding/building on primary care. Some models for bolstering workforce areas have included incentives and loan repayments for professionals.

- **Update provider treatment guidelines — and public and private insurance policies and practices to match recommended standards of care/best practices.** There is an urgent need to update and modernize insurance policies and provider practices to ensure sufficient coverage for the most effective, evidence-based treatment approaches, including: the full scope and duration of the recommended treatment; integrated medical and mental health professional support; and full reimbursement for appropriate, recommended medicines and therapeutic treatments. Currently, many insurance plans limit the number of doctor visits and duration of treatment at levels far below what is recommended to be effective.

SUBSTANCE USE TREATMENT TASK FORCE

As the opioid epidemic has grown over the past decades, so has the need for substance use disorder treatment. The availability and quality of treatment, however, remains uneven and often fails to meet evidence-based care standards.

In early 2017, the Shatterpoof organization brought together a range of expert stakeholders — from advocates and government officials to health insurers and researchers — into a Substance Use Treatment Task Force to facilitate collaboration and provide accountability in improving addiction treatment in the United States. This Treatment Task Force has several work phases planned; they recently finalized a national standard of care that follows the most recent evidence-base and are working to get major health insurers to all agree to identify, promote and reward substance use disorder care that meets these standards.[555] The national standard of care includes eight principles that have been reviewed and approved for accuracy by over 300 independent scientists, and have been accepted and endorsed by all six of the federal agencies most responsible for addiction policy (SAMHSA, NIDA, NIAAA, CDC, FDA and CMS):

1. Universal screening for substance use disorders across medical care settings
2. Personalized diagnosis, assessment and treatment planning
3. Rapid access to appropriate substance use disorder care
4. Engagement into continuing long-term care with monitoring and adjustments to treatment
5. Concurrent, coordinated care for physical and mental illness
6. Access to fully trained behavioral health professionals
7. Access to FDA-approved medications
8. Access to non-medical recovery support services

MEDICATION-ASSISTED TREATMENT

While treatment should match individual needs and circumstances, experts advise that the best evidence-based treatment approaches for many individuals with opioid and alcohol dependency include pairing counseling with MAT when certain medications can ease or eliminate the withdrawal symptoms, relieve cravings and support sustained recovery.[556, 557]

MAT for opioid use disorders has been endorsed by NAM, NAS, NIDA, HHS, CDC, World Health Organization, the Center for Substance Abuse Treatment and others.[558, 559] In addition, a systematic review of the literature on the costs, cost savings and cost-effectiveness of medications for treating alcohol dependence found that pharmacotherapy treatment of alcohol dependence produced marked economic benefits.[560] A 2015 study found that treatment with methadone and buprenorphine treatment episodes was associated with $153 to $223 lower total healthcare expenditures per month than behavioral health treatment without MAT, and that patients were 50 percent less likely to relapse when treatment involved MAT.[561]

Public and private insurers have different policies for covering MAT. Physicians and other providers must receive special authorization under federal law to treat addictions with controlled substances, as a result the number of providers and the availability of medications is limited. Medical doctors with training and one year experience can treat up to 275 patients at a time.[562]

FDA has approved three medications to help treat opioid addictions, prevent or relieve withdrawal symptoms and cravings and help reduce potential for relapse — methadone, buprenorphine and naltrexone.

As of 2012, only 1.4 million of the 2.3 million people with an opioid use disorder could access methadone or buprenorphine treatment.[563] A Blue Cross Blue Shield analysis found that between 2010 and 2016 there was an increase in the number of opioid dependency diagnoses of 493 percent, but only a 65 percent increase in the number of insured patients receiving MAT — an eight-fold gap between diagnosis and treatment.[564]

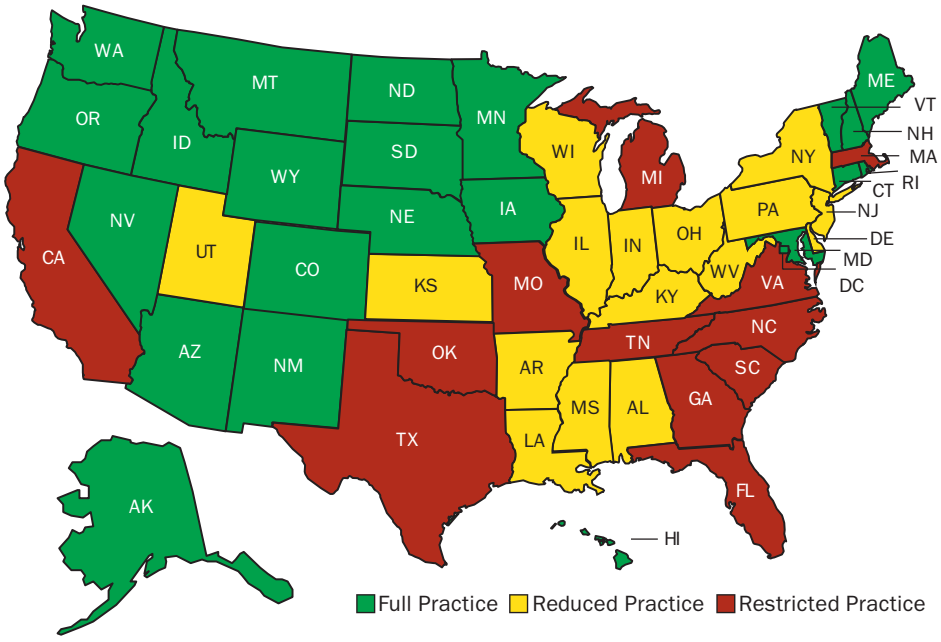
The American Society of Addiction Medicine, whose mission is to increase access to and improve the quality of addiction treatment, recommends against laws, regulations or health insurance practices that impose arbitrary limits on the number of patients who can be treated by a physician or the number and variety of medicines or therapies that can be used for treatment.[565] ASAM finds the current 100-patient prescribing limit per certified provider for buprenorphine to be a major barrier to patient access to care.

- There are shortages and restrictions on the availability of MAT around the country. According to SAMHSA, as of 2014, 43 percent of counties in the United States did not have a doctor licensed to prescribe buprenorphine.[566]
- As of July 2017, there were no opioid treatment programs in Wyoming, only one in South Dakota, three in Idaho and North Dakota and just four in Alaska, Hawaii, Mississippi, Montana and Nebraska.[567]
- Thirteen states have fewer than five physicians certified to provide buprenorphine.[568] A 2017 study of 1,151 opioid-treatment centers found 35.4 percent did not accept Medicaid, and, moreover, that numerous counties have no access to opioid use disorder treatment in programs for Medicaid enrollees with the most notable gaps in coverage in the Great Plains (Idaho, Montana, North and

South Dakota, Nebraska and Wyoming) and portions of the Southeast (Arkansas, Louisiana, Mississippi and Tennessee).[569]

CARA extended the ability to prescribe MAT to authorized nurse practitioners and physicians assistants through 2021.[570] However, at least 12 states still have restrictions on nurse practitioners providing MAT.[571] In addition, a 2015 review by the ASAM found only 30 states and Washington, D.C. provided Medicaid coverage for all three FDA-approved medications via Medicaid. And according to a SAMHSA review in 2014, 30 states and Washington, D.C. had Medicaid fee-for-service programs covering methadone maintenance treatment via outpatient narcotic treatment programs. MAT still has a stigma among many healthcare providers, including among providers delivering care within the criminal justice system, according to a 2016 GAO review.[572]

2017 Nurse Practitioner State Practice Environment



Source: American Association of Nurse Practitioners

RECOVERY-ORIENTED SYSTEMS OF CARE (ROSC)

Definitions of recovery differ. It is often used to mean successful treatment, maintaining remission (not using or control of use) and/or systems of support that help maintain sobriety. Recovery-oriented Systems of Care (ROSC) focus on addressing disorders through a chronic care management model that includes longer-term, outpatient care; recovery housing; and recovery coaching and management checkups.[573] These systems are meant to be "easy to navigate for people seeking help, transparent in their operations and responsive to the cultural diversity of the communities they serve."

Source: SAMHSA

EXAMPLES: MEDICAID EFFORTS TO ADDRESS OPIOID OVERDOSES, MISUSE AND ADDICTION

CMS issued a best practice document underscoring that the agency believes that "ensuring access to a robust set of treatment models is critical to combatting opioid use disorder and its healthcare complications."[574]

Treating substance use disorders is a priority under the CMS Medicaid Innovation Accelerator Program (IAP), which helps provide states and stakeholders with expert resources, coaching services and hands-on programs to support policy, program and payment reforms for substance use disorders and expand coverage for promising and evidence-based services. CMS has also issued Informational Bulletins on Medicaid coverage for behavioral health conditions, including a joint publication with SAMHSA, CDC and NIDA describing best practices, state-based initiatives and useful resources for the delivery of MAT, and on early identification and treatment of teens with a substance use disorder.

HHS has proposed a number of other rules, such as to offer protections for Medicaid beneficiaries under the parity laws; to allow states to claim federal funds for crisis stabilization to improve access to short-term, inpatient behavioral health services; and to allow states, under section 1115 demonstration authority, to support broad and deep substance use disorder treatment transformation efforts, including enabling the ability to provide a full continuum of care by introducing service, payment and delivery service reforms.

Examples of some state approaches include: a nurse manager model in Massachusetts expanding the number and types of providers who can deliver MAT; a team of healthcare and social workers to obtain access to health insurance, primary care providers and referrals to outpatient providers and social workers to continue integrated care in Maryland's Buprenorphine Initiative, which reduced opioid treatment waitlists and heroin-related deaths; and a "hub and spoke" model in Vermont with regional coordination of hubs serving as specialty substance use disorder coordinating centers to treatment and coordinated care for complex patients and spokes of teams of providers who serve less medically complex patients.[575]

EXAMPLES: HEALTH PLAN EFFORTS TO ADDRESS THE OPIOID EPIDEMIC

Reducing Prescription Drug Abuse Collaborative was launched in 2013 by the Association for Community Affiliated Plans (ACAP) with 13 plans participating. To address the high rates of opioid misuse and dependency among beneficiaries, participant programs were tailored to their member's unique characteristics and needs, such as: Screening, Brief Intervention and Referral to Treatment; outreach to Medicaid healthcare providers and beneficiaries; specialized support services for beneficiaries; prescriber and pharmacy lock in programs; and quality improvement for MAT with Suboxone. Based on the work of this collaborative and subsequent interviews with member plans, the affiliated plans published best practices for plans in 2017, including: encouraging providers to screen for substance use disorders; decreasing the number of opioids inappropriately prescribed; limiting permitted dosages of prescription opioids to prevent overuse or misuse; limiting the ability of multiple providers to write concurrent opioid prescriptions; and ensuring access to naloxone and other drugs that prevent overdoses. Specific strategies used by plans include: SBIRT, formulary management (after UPMC took Oxycontin off its formulary, the plan found that 135 of the members previously using it stopped taking it and did not switch to another prescription opioid); alternative approaches to pain management; use of metrics and algorithms to identify at-risk members; member engagement; case management; MAT; provider education; value-based payment; and multi-stakeholder engagement.

Health plans across the nation are taking steps to address the opioid epidemic. Some promising examples include: Harvard Pilgrim Healthcare is encouraging non-opioid approaches to managing pain when appropriate. Blue Cross Blue Shield of Massachusetts implemented an opioid safety management program that requires prior approval to refill short-acting opioid prescriptions and for new prescriptions for long acting opioids. This program reduced opioid prescriptions by about 21 million while still providing accessible and appropriate care. Cigna is working with the ASAM to verify what works in treating patients with addiction, educate the medical community of proven strategies and hasten the adoption of successful methods.

Expand and Improve the Behavioral Health Workforce

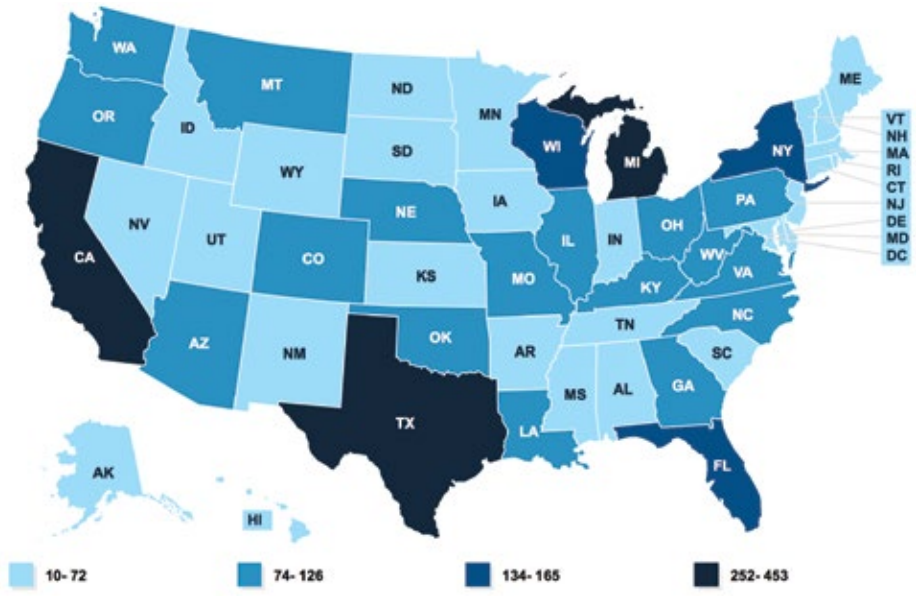
The gap in the behavioral health workforce is a major impediment to meeting the treatment needs in the country. Nationally, there is a reported shortage of 3,400 psychiatrists to meet community needs (not including needs for other mental health professionals), and, as of 2016, every state but one reported having shortages in qualified mental healthcare professionals.[576, 577, 578, 579] Fifty-five percent of U.S. counties do not have any practicing behavioral health workers and 77 percent reported unmet behavioral health needs.[580]

Policies to bolster the workforce moving forward should include: 1) encouraging more Americans to become behavioral health providers through financial incentives, including higher compensation, grants, scholarships and loan forgiveness; 2) expanding and developing more types of behavioral health providers in the workforce (i.e., peer support, recovery coaches, social workers, health educators and non-traditional health workers) who can provide behavioral health treatment; 3) continually updating curriculum and training to match the latest evidence-based guidance for best practices; and 4) promoting knowledge sharing around skills, care and management.[581] Approaches such as learning healthcare systems or incentives through advanced payment models could be used to help support development and adoption of these types of advances.

Efforts to meet the behavioral health needs in underserved areas should include behavioral health workforce development initiatives, such as training for case workers and members of impacted communities to be able to serve as community health workers and peer counselors, and support for telehealth services.

A 2013 SAMHSA report to Congress noted that compensation for medical professionals specializing in behavioral health is significantly below salaries earned in other medical professions and in business.[582] The mental health workforce is also aging; the median age for psychologists, psychiatrists, social workers and counselors is all over 40, with 46 percent of psychiatrists over 65.[583] Further, studies show that most training programs for psychiatrists, social workers and psychologists offer limited or no training on addiction and substance misuse.[584 585]

Mental Health Care Health Professional Shortage Areas (HPSAs)



Source: Kaiser Family Foundation

Prioritize Behavioral Health Service Availability in Underserved Areas — Including Rural and Low-Income Communities

More than 85 million Americans live in areas — particularly rural and low-income urban communities — with an insufficient number of mental health professionals, and more than half of U.S counties (all rural) have no practicing psychiatrists, psychologists or social workers. [586, 587]

CMS and some states are actively developing innovative models and practices for providing care in underserved areas, including via ACOs, frontier community integration initiatives and small hospital reimbursement policies.[588] One example is the pilot Pennsylvania Rural Health Model, where a global budget — a fixed amount that is set in advance for inpatient and outpatient hospital-based services — is provided to focus on efficiently and effectively providing quality care and reducing expenditures while meeting the needs of the rural patients within the hospital system.[589] The Family Health Centers (FHC) in Kentucky has added clinical social workers and psychologists to care teams and has them available to do consultations in conjunction with primary care visits as needed, which facilitates connection to mental health and substance use disorder treatment as needed as well as to social services. This handoff avoids an additional appointment (which may not happen) and means patients receive immediate care. FHC also added a legal services component to help with additional issues that their patients face.[590] In addition, a number of groups are also exploring increasing the use of telehealth services in rural underserved areas.

Some key strategies for increasing and improving behavioral health services for underserved areas include:

- **Bolstering federal investment.** Increase SAMHSA, HRSA and CMMI grants that support behavioral healthcare and/or integration models; particularly increase grants that focus on underserved areas/populations (low income, rural, large racial/ethnic, LGBT, other minority communities).
- **Using leverage as public payer.** Modify public health insurance programs to raise behavioral healthcare and telehealth reimbursement rates, boosting financial incentives for individual and organizations to provide needed care and services, and expand available providers as much as possible. Also create/use funding models for care integration that include behavioral healthcare (e.g., state Medicaid waivers) and provide technical assistance for providers.[591, 592]
- **Maximizing health coverage enrollment.** Expand Medicaid in all 50 states and support robust enrollment efforts for public and private coverage through the Health Insurance Marketplaces.[593]
- **Expanding the workforce and telehealth.** Adjust practice scope/licensing requirements to broaden behavioral healthcare workforce to include more kinds of providers and enable non-physician providers to deliver a wider range of service, and to amend telehealth and school regulations to require insurer reimbursement and reduce barriers to uptake.[594]
- **Incentivizing students to pursue behavioral health careers.** Grow student loan repayment and forgiveness programs and fund additional residency programs for behavioral health providers in underserved areas.[595]
- **Fund innovative community programs that fill gaps.** Many successful programs can be expanded like those providing behavioral health services in public schools and worksites, crisis lines for those in acute needs, and training/education programs (e.g., Mental Health First Aid USA) for community members, such as clergy, child-care providers and police officers to recognize mental illness and provide support and other action steps.[596]

BEHAVIORAL HEALTH AND PERSONS WHO ARE INCARCERATED

Around 10 percent to 25 percent of individuals who are incarcerated in the United States have a serious mental illness, compared to 5 percent of the total population.[597] Some reviews have found that more than half of individuals who are incarcerated have some form of mental health problems, and also that being incarcerated can contribute to and/or exacerbate mental illnesses. In addition, a number of studies have found that more than half of individuals who are incarcerated have a drug and/or alcohol dependence, compared to around 9 percent of the total population. Of those who are incarcerated who have a serious mental illness, 72 percent also have a co-occurring substance use disorder.

A range of mental health organizations and reviews have recommendations that focus on providing more and better available mental health and substance use disorder treatment services in communities, improved approaches where the criminal justice and behavioral health services are aligned in response to people upon incidents or arrests that focus on addressing health needs and providing services, such as diversion to treatment as appropriate, and to provide improved services to those who are incarcerated and ongoing support services upon release.[598, 599, 600, 601]

An example of an approach is more than 2,600 communities have taken is to develop Crisis Intervention Teams, providing training to police departments to respond to psychiatric emergencies in the community, working with mental health providers and families of those affected by mental illness with the aim of preventing violence, avoiding unnecessary arrests and improving mental health services.[602] These include local hospitals and community centers to adopt no-refusal policies, which allow law enforcement officers to confidentially transport a person to an emergency room or other community-based services, in lieu of arrest, and the person will not be turned away from receiving treatment. Two reviews found that in Birmingham, Alabama and Memphis and Knoxville, Tennessee, police were able to resolve more than one-third of calls to scenes through this approach — including transporting 46 percent of these calls to treatment facilities and 13 percent to mental health specialists. Only between 2 percent and 13 percent of mental-health related calls results in arrests.

The siloed nature of health and social service delivery systems means that many individuals in need are not identified and do not receive available support

Focus on Whole Health, Care Coordination and Management, and Connect Health, Mental Health, Social Services and Education Services

Another major gap in the healthcare system is the lack of regular systems to ensure coordinated care — and to identify needs and connections to services within and beyond the healthcare system that support well-being and improved health.

Advances in technology and systems — as well as shifting to a more value-based healthcare system, which incentivizes outcomes and effective lower-cost models — are providing new possibilities for identifying risks and concerns early, and ensuring individuals and families receive appropriate services and care to help prevent, mitigate and/or treat issues.

There is a particular need to improve systems that can identify and provide support to at-risk individuals and families. The siloed nature of health and social service delivery systems means that many individuals in need are not identified, and do not receive available support and/or the support they receive is not coordinated or efficient and not optimally effective.

A stronger focus on coordinated care, health homes, patient-centered care and case worker models and systems help ensure children and adults receive the care and services they need, both through the health system and across other social services. For instance, many hospitals and health systems are increasing "population health" centered approaches, such as using case managers, community health workers and/or peer counselors to help patients navigate systems, providing referrals and follow-up to ensure they receive and access care and services (e.g., stable housing, adequate food and needed non-emergency medical transportation services and others). These approaches can also serve as a platform to administer targeted social programs that address healthcare needs, collaborate with partner organizations and identify ways to generate and share in program savings with the healthcare sector. Some of these models offer a pathway to a more integrated system that aligns health and social services in a manner that lowers costs and improves a person's well-being. Other models, such as Health Leads, support having physicians write prescriptions for care beyond traditional healthcare needs, and Health Lead advocates for voluntary medical students to work with patients to identify and connect them with needed services.

There are increasing numbers of models and efforts to better integrate and connect healthcare and social services, particularly with a growing understanding for how health status is influenced by "social determinants," such as income, education, transportation, housing and other factors.[603, 604, 605, 606] Systems should reflect an understanding that individuals and families may enter through different service points, such as through medical care or through various social services and should support a "No Wrong Door" approach.

In a No Wrong Door entry system, multiple agencies retain responsibility for their respective services while coordinating with each other to integrate access to those services through a single, standardized entry process administered and overseen by a coordinating entity.[607] A No Wrong Door System can provide information and assistance to individuals needing either public or private resources, professionals seeking assistance on behalf of their clients and individuals planning for their future long-term care needs.

Successful efforts have included:

- **"Navigators,"** such as the Accountable Health Communities (AHC) pilot model launched by CMMI, which focus on bridging the gap between clinical medical care and community services by systematically identifying and addressing beneficiaries' health-related social needs and assessing, whether establishing these linkages can reduce healthcare costs and improve quality of care and outcomes.[608, 609] AHCs address housing instability and quality, food insecurity, utility needs, interpersonal violence and transportation needs.
- **Accountable Communities for Health (ACH) Models** have been launched in a number of states to better integrate health and social services — and in some cases are also providing follow-up support to ensure the services are carried out.[610, 611, 612] Some ACHs across the country are beginning to tap into healthcare dollars to fund initiatives, including Medicaid and innovation funds, such as State Innovation Models. As ACHs evolve to seek and manage these funds, they are finding the need to connect to or develop sophisticated financial management skills.
- **The No Wrong Door System**, including Aging and Disability Resource Centers (ADRC) is a collaborative effort of the U.S. Administration for Community Living (ACL), CMS, and Veterans Health Administration to support state efforts to streamline access to long-term services and support options for all populations and all payers.[613]
- Established under Section 223 of the Protecting Access to Medicare Act of 2014, the two-year **Certified Community Behavioral Health Clinic (CCBHC) demonstration program** supports eight states in testing certification and payment for specialized behavioral health clinics, known as CCBHCs, that are designed to increase access to quality, evidence-based behavioral health services in communities. Participating states (Minnesota, Missouri, New Jersey, New York, Nevada, Oklahoma, Oregon and Pennsylvania) are responsible for certifying eligible clinics as CCBHCs per federally-developed criteria and monitoring clinic compliance. Based on similar standards found in state Medicaid plans for federally-qualified health centers and Medicaid Health Homes, the CCBHC criteria are organized within six categories: staffing; availability and accessibility of services; care coordination; scope of services; quality and other reporting; and organizational authority, governance and accreditation.[614] States must certify that each CCBHC provides a comprehensive, core set of behavioral health services either directly or through a designated collaborating organization — including crisis interventions, screening, patient-center treatment planning and care coordination, among others. CCBHCs are compensated through one of two prospective payment systems and may claim CCBHC services at the enhanced Federal Medical Assistance Percentage (FMAP) without seeking Medicaid state plan authority.[615] The demonstration project runs through 2019.

Four priority areas of focus for whole health and coordinated care include:

- **Two-generation healthcare, mental health service and social service support, especially for at-risk families.** Improving the health of children includes ensuring their parents and caregivers are also in good health, so they can provide good care and a supportive, protective environment for their children. For instance, a number of models support an approach that takes into account the whole health needs of children and their families beyond basic physical care. Zero to Three recommends models that integrate Infant and Early Childhood Mental Health services into all child care and services, including: integrating mental health clinicians into primary pediatric healthcare, child care and early education programs; including screening, assessment and referral strategies; providing information to parents and caregivers for how they can support social-emotional development; and offering mental health services that address the needs of young children exposed to adverse life experiences and trauma.[616]

- **Prenatal and preconception care and social service support.** One high-impact and essential area for quality healthcare is for women of childbearing age and all pregnant women to ensure they have quality, accessible, affordable healthcare, mental health services and access to social service support as needed. Evidence suggests that intensive therapies that focus on mothers' mental health and their interactions with their young children can improve child outcomes.[617]

- **Crisis Services.** Crisis services can help provide essential services within communities to help support individuals who are experiencing severe difficulties and distress, providing both mental health support and connection to services that can help support stability, such as financing and housing assistance or during times of family or interpersonal trauma. Effective crises services have been shown to help reduce suicides and substance misuse.[618] Services commonly include: telephone crisis hotlines and "warm" lines; peer crisis services; mobile crisis services; crisis stabilization beds; short-term residential services; and crisis stabilization teams. Crisis services have also been shown to reduce hospitalizations and emergency room visits and increase linkages to outpatient services, contributing to significant cost savings.[619] Delivering an integrated and comprehensive spectrum of crisis services often necessitates cross-sector collaboration and coordination of available local, state and federal funding streams. As local capacities vary, crisis services should be developed according to the community's needs and delivered as a continuum that includes strong partnerships, training and referral systems with mental health service providers, informal support groups and existing community-based organizations.[620] For example, a state or locality could coordinate Medicaid funds for short-term residential services in partnership with the local hospital with housing, community development or grant funds from a local community-based organization to provide bridge services in times of acute instability and distress (i.e., to address displaced housing, financial crises, or other health problems).[621, 622]

- **Trauma-Informed Services and Systems.** For many children, teens and adults experiencing trauma or prolonged stress without the skill base to navigate systems, accessing health, education and social services can compound stress and/or be too challenging to obtain.[623] Federal, state and local government programs, with the support of child care, early childhood education and school systems, are finding ways to take a trauma-informed approach by establishing practices and training that provide respectful, sensitive and culturally-competent care and support that helps identify individuals and families in need of support and connects them to additional services. For instance, in 2013, HHS, ACF, CMS and SAMHSA jointly issued a letter to state agency directors to encourage trauma-informed and social-emotionally sensitive services within the child welfare system, including the possibilities for using Medicaid to support services to meet children's trauma-related behavioral health needs (cognitive behavioral therapy, crisis management services, Alternative Benefit Plans, Home and Community-Based Services, Health Homes, Managed Care, Integrated Care Models and research and demonstration projects).[624, 625] There are multiple ways that Medicaid can support trauma-informed care. This joint guidance encourages the use of trauma-focused screenings, assessments and care to address complex interpersonal trauma.[626] The guidance identifies the impact that symptoms of trauma may have on a child's social-emotional well-being and identifies appropriate assessment and treatment methods to identify, mitigate and ameliorate the symptoms of trauma. And SAMHSA created a Federal Partners Committee on Women and Trauma to identify federal strategies and services to support women who have experienced trauma through domestic and community violence or for those serving in the armed forces or are military veterans.[627]

- **The Trauma-Informed Care for Children and Families Act of 2017** was introduced in March 2017.[628] The bill would establish: 1) an Interagency Task Force on Trauma-Informed Care; 2) a National Law Enforcement Child and Youth Trauma Coordinating Center; 3) a Native American Technical Assistance Resource Center to provide trauma-informed technical assistance; and 4) Medicaid demonstration projects to test innovative, trauma-informed approaches for delivering EPSDT services to eligible children. CDC must encourage states to collect and report data on ACEs. The Department of Education may award grants for the improvement of trauma support services and mental health care for children in educational settings.

EXAMPLES: COORDINATING AND/OR INTEGRATING SERVICES AND SUPPORTS

The Mental Health Center of Denver's Dahlia Campus for Health and Well-Being, opened January of 2016, was built to support all aspects of well-being. The Mental Health Center of Denver engaged in a three-year community engagement process, meeting with community members and other stakeholders to understand their needs. As opposed to a stand-alone mental health center, top priorities in the community included fresh and healthy food, preschool, children's dental care and a place for social and educational activities focused on well-being. In response to these community needs, the Mental Health Center of Denver sought out partnerships with various commercial and nonprofit service providers to create the four-acre Dahlia Campus, which includes a preschool, gym, urban farm, school, greenhouse, dental clinic, community kitchen, mental health services and education classes. By capitalizing on the community's grit, determination, perseverance, and foresight, the treatment center was able to go beyond the traditional mental health clinic model and provide comprehensive services to the communities that need it most. Dahlia Campus offers an infant mental health program, deaf and hard of hearing services, horticultural therapy in therapeutic gardens, learning landscapes, playgrounds, parenting classes, yoga for all ages and more.

Virginia's Children's Services Act (CSA) is a case management model that blends at least seven funding streams across four state agencies (social services, juvenile justice, education and behavioral health), realigns their rules and structures in the service of a common goal and allocates these funds to localities to support the needs of at-risk youth and families. Although the state agencies whose funds had been pooled no longer had exclusive control over those dollars, the agencies participated in the new infrastructure created by the CSA to allocate the pooled funds. Heads of state agencies still serve alongside other stakeholders on the State Executive Council for Children's Services, which oversees the fiscal and programmatic policies of the CSA system. The state budget allocates CSA funds to localities based on a funding formula. The local funds are received and managed by the local Community Policy and Management Team, which is appointed by the local governing body. The Community Policy Management Teams authorize the funds to pay for the services recommended by the local Family Assessment and Planning teams. Localities also contribute matching funds to the CSA state pool and report to the state on pool expenditures as a whole; they do not report on expenditures by stream. At-risk youth are referred through a range of individuals or organizations or schools — and assigned to a Family Assessment and Planning Team who develop an individualized plan. A case manager helps the youth navigate and receive available services — ranging from education, healthcare, housing, transportation and food assistance. Through improved coordination of services and funding streams, case managers have the flexibility to focus on tailoring services to the youth's needs and avoiding unnecessary bureaucracy.[629]

The **Southwest Advocacy Group (SWAG)** is a grassroots, community-based organization working to connect residents in a cluster of neighborhoods in southwest Gainesville, Florida with needed resources and services using a trauma-informed community response.[630] Using GIS mapping, the group was able to overlap data on premature births, child abuse and neglect and domestic violence to identify neighborhood "hotspots" for targeted intervention. SWAG implemented several targeted interventions in these hotspot neighborhoods, including free weekly mobile clinics to provide primary care with a trauma responsive focus; a SWAG Family Resource center to supply concrete family supports such as food, clothing, and shelter; and changes to local law enforcement response to domestic violence victims, including screening for lethality risk and immediate connection by the sheriff deputy's phone with the domestic violence network of services.[631] Within four years, SWAG saw a reduction in premature births and a 45 percent reduction in cases of child abuse and neglect.[632]

Reduce Stigma

A NASEM report, *Ending Discrimination Against People with Mental and Substance Use Disorders: The Evidence for Stigma Change*, pointed to persistent stigma as a major barrier to the success of mental health reform. The report found that several features of the nation's healthcare system also contribute to the problem, including: fragmented bureaucracy for accessing behavioral healthcare; overuse of coercive approaches to care; rejection of facilities by communities; and lower funding for research in areas of behavioral treatment and services than for neuroscience and physical health.

Changing perceptions and normalizing the issue, must mean addressing stigma across multiple levels of society, including the structural level of institutional practices, laws and regulations, as well as among the general public and groups such as healthcare providers, employers and others able to reach those in communities struggling with mental health and addiction challenges.

Effectively addressing stigma must also mean focusing on the individual. Self-stigma, which reflects internalized negative stereotypes, significantly contributes to the masking of problems and avoidance in seeking support — and continues to be among the most pressing challenges to the nation's well-being. Key community-based strategies to reduce stigma include:

- **Public awareness and education,** with content designed to increase understanding of, and normalize, mental and substance use disorders (traditional and social media, community and parent/family direct education programs, etc.);
- **Advocacy and engagement campaigns** (efforts focused on federal, state and local public policy, professional and community leadership/thought-leadership, social media, community- and school-based programs, etc.);
- **Contact-based education programs** to facilitate social contact between people, with and without, behavioral disorders; and
- **Peer programs** in which people who have disclosed their condition offer support through personal experience and expertise (informal peer-led efforts and specialized services).

The report recommends that creating sustainable systemic changes, and normalizing mental health and addiction issues at scale, also requires policy changes at the federal level, including:

- **Non-discriminatory evaluation procedures.** An HHS-led collaborative among federal partners and other stakeholders would ensure the design, implementation and evaluation of policies and programs — including within the criminal justice system and federal and state agencies — do not directly or indirectly discriminate against people with disorders.
- **Stigma-reduction messaging and communications programs.** SAMHSA should design, evaluate and implement evidence-based programming that promote affirming and inclusive attitudes and behavior, and that provide support during recovery and encourage participation in treatment. It is important that this be well-researched and demonstrated effectiveness.

Early Identification of Issues and Connections to Services and Care

The healthcare and mental health systems should increase their emphasis on and incentivize early identification of concerns — and facilitate connecting those in need to care and services.

Early intervention can help prevent and mitigate problems — and there are a range of policies and practices to support regular screenings by someone trained to spot risk factors, counsel on protective factors, and recognize early warning signs of substance misuse or mental illness and connect individuals to professional care to prevent misuse, build resiliency and save lives.

These begin with early childhood and family screening programs and should be a continued practice for teen and adult care. It helps identify individuals at risk for behavioral health concerns, including identifying circumstances like financial or relationship stress or isolation and individuals who may already be struggling with mental illness, such as depression and who may be misusing drugs or alcohol.

This includes better integration of physical and developmental health screenings so they include identifying mental health and social service needs. These types of screenings should be integrated with primary care and regular healthcare services — and made routine and guaranteed as part of annual physicals and well care visits. In addition, professionals and "gatekeepers" in other high-impact roles (such as in schools, community-based and faith groups, human resources roles, etc.) should be trained to identify risk and provide support when needed.[633]

Early identification of substance use disorders is an important area of priority. They can emerge slowly over time and can be averted by early detection and counseling about lifestyle changes. For most adults covered by employer-based healthcare, Medicaid in expansion states and Medicare, preventive screening for alcohol misuse and depression are covered as routine preventive services and depression screening is covered for teens ages 12 to 18, with both recommended by the U.S. Preventive Services Task Force.[634, 635, 636, 637] In addition, AAP recommends substance misuse screening for adolescents.[638] And SAMHSA notes the importance of ensuring that processes include referrals to appropriate care that is culturally sensitive. The agency has found that "the absence of a proper treatment referral will prevent the patient from accessing appropriate and timely care that can impact other psychosocial and medical issues."[639, 640, 641]

Some key strategies for early identification of issues and connections to services and care, include:

- **Early Childhood Screenings.** Even though most public and private insurers cover regular screenings for children, many do not receive them. Screenings are essential tools for identifying physical, mental and behavioral health development and milestones. Early identification and intervention can help prevent, delay or mitigate different conditions and provide an important opportunity to identify adverse experiences and other risks that children and their families may be facing. Recommended screenings include: those required for children enrolled in Medicaid under EPSDT; and AAP's Bright Futures, Guidelines for Adolescent Preventive Services or similar screening tools for children enrolled in the Children's

Health Insurance Program (CHIP) and private insurance.[642] As of 2015, more than 42 million individuals from birth to age 21 were eligible for EPSDT, but participation in the program for was just 58 percent.[643]

- **Part C of the Individuals with Disabilities Education Act (IDEA)** helps provide screening services for children from birth to age 2 for disabilities and helps connect families with early intervention services.[644] The goals of IDEA Part C are to enhance the development of infants and toddlers with disabilities, reduce educational costs by minimizing the need for special education through early intervention, minimize the likelihood of institutionalization and maximize independent living and enhance the capacity of families to meet their child's needs. Twenty-eight states, Washington, D.C. and Puerto Rico meet the requirements for IDEA Part C as of 2017.[645]
- **Early Head Start** requires that children be screened in the areas of development, behavior, motor, language, social and emotional and cognitive status soon after enrollment, and that they be assessed regularly.[646]
- **Screening Infants for Substance Misuse Exposure.** Twenty-one states and Washington, D.C. have specific reporting procedures for infants who show evidence at birth of having been exposed to drugs, alcohol or other controlled substances, which can help identify parents who need treatment and connect families and children with support services. This can help ensure infants get treatment as early as possible to help with withdrawal or early intervention for other medial and developmental problems. It also helps identify parents who need help or treatment for substance misuse and to connect with ongoing support services for the family. Fetal Alcohol Spectrum Disorder is a leading cause of mental retardation and a preventable cause of birth defects (an estimated 400,000 babies are diagnosed annually, costing $5.4 billion to the economy as of 2004).[647, 648] Prenatal drug exposure increases risk for prematurity, low birthweight and other health concerns. In 2012, an estimated 21,000 babies were born with opioid withdrawal symptoms.[649, 650] According to a September 2017 review by the Guttmacher Institute:[651]
  - Twenty-four states and Washington, D.C. consider substance misuse during pregnancy to be child endangerment under civil child-welfare statutes and three consider it grounds for civil commitment. Public health officials advise that screening should be used as a tool to identify the need to provide services and treatment to mothers and children;
  - Twenty-three states and Washington, D.C. require healthcare professionals to report suspected prenatal drug use, and seven states require them to test for prenatal drug exposure if they suspect drug use;
  - Nineteen states have either created or funded drug treatment programs specifically targeted to pregnant women, and 17 states and Washington, D.C. provide pregnant women with priority access to state-funded drug treatment programs; and
  - Ten states prohibit publicly funded drug treatment programs from discriminating against pregnant women.

STATE POLICIES ON SUBSTANCE USE DURING PREGNANCY

	Substance use during pregnancy considered:		When drug use suspected, state requires:		Drug treatment for pregnant women		
	Child Abuse	Grounds for Civil Commitment	Reporting	Testing	Targeted Program Created	Pregnant Women Given Priority Access in General Programs	Pregnant Women Protected from Discrimination in Publicly Funded Programs
Alabama	X*					X	X
Alaska			X				
Arizona	X		X			X	
Arkansas	X		X		X	X	
California			X		X		
Colorado	X				X§		
Connecticut					X		
Delaware						X	
D.C.	X		X			X	
Florida	X				X		X
Georgia						X	
Illinois	X		X		X§	X	X
Indiana	X†			X	X		
Iowa	X		X	X		X	X
Kansas						X	X
Kentucky			X	X	X	X	X
Louisiana	X		X	X			
Maine			X			X	
Maryland	X		X		X		
Massachusetts			X				
Michigan			X				
Minnesota	X	X	X	X	X		
Missouri	XΩ				§	X‡	X
Montana			X				
Nebraska							
Nevada	X		X				
New York					X		
North Carolina					X		
North Dakota	X		X	X			
Ohio	X		X		X§	X	X
Oklahoma	X		X			X	X
Oregon					§		
Pennsylvania			X		X		
Rhode Island	X		X	X			
South Carolina	X*				X		
South Dakota	X	X					
Tennessee					X§	X	X
Texas	X						
Utah	X		X			X	
Virginia	X		X		X§		
Washington	X				X§		
West Virginia						Xμ	
Wisconsin	X	X	X		X	Xß	
TOTAL	**24+D.C.**	**3**	**23+D.C.**	**7**	**19**	**17+D.C.**	**10**

Source: Guttmacher Institute

* The Alabama Supreme Court held that drug use while pregnant is considered chemical endangerment of a child. The South Carolina Supreme Court held that a viable fetus is a "person" under the state's criminal child-endangerment statute and that "maternal acts endangering or likely to endanger the life, comfort, or health of a viable fetus" constitute criminal child abuse.

† Indiana law prohibits a medical provider from releasing information about a pregnant woman's drug or alcohol test without her consent.

‡ Priority applies to pregnant women referred for treatment.

§ Establishes requirements for healthcare providers to encourage and facilitate drug counseling.

Ω Missouri child abuse law considers a parent to be unfit if the woman tests positive for substances within 8 hours after delivery and she has previously been convicted of child abuse or neglect or if she failed to complete a drug treatment program recommended by Child Protective Services.

μ West Virginia substance use providers that accept Medicaid must give pregnant women priority in accessing services.

ß Wisconsin provides priority access to pregnant women in both general and private programs.

- **Family Risk Factor Screening.** AAP and others have also adopted the use of additional tools, such as the Safe Environment for Every Kid (SEEK) program, which helps screen children and their caregivers for ACEs and other risk factors beyond traditional health concerns. These types of screenings provide opportunities to identify family needs and connect them with physical and mental health and substance misuse treatment services as well as social services, family home visiting programs, child care, education, financial, housing and nutrition assistance programs and other resources. A number of new screening tools are being developed and used such as the National Association of Community Health Center's Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences (PRAPARE), a national effort to help health centers and other providers collect the data needed to better understand and act on their patients' social determinants of health. As providers are increasingly held accountable for reaching population health goals while reducing costs, it is important that they have tools and strategies to identify the upstream socioeconomic drivers of poor outcomes and higher costs. With data on the social determinants of health, health centers and other providers can define and document the increased complexity of their patients, transform care with integrated services and community partnerships to meet the needs of their patients, advocate for change in their communities, and demonstrate the value they bring to patients, communities and payers.

- **School-based and Tween/Teen Screenings and Identification of Risks.** A growing number of school systems are supporting screenings for risks — either within the school system by trained professionals or in partnership with healthcare providers — to help with identifications of concerns and connections to services and care. There a number of evidence-based approaches for identifying students at risk for mental health concerns, substance misuse and suicide. School systems can help ensure at-risk students are screened for physical, behavioral and mental health concerns and special education needs via tools from the AAP and special education programs. Examples of two teen-focused early identification screening initiatives and tools include the AMA Guidelines for Adolescent Preventive Services (GAPS) and the Rapid Assessment for Adolescent Preventive Services© (RAAPS).

  - Many school systems are using evidence-based mental and substance misuse risk screening practices, such as CRAFFT, a short behavioral health screening tool for youth under the age of 21 recommended by AAP used to assess when a longer conversation and intervention may be needed, SBIRT and other tools that screen for the impact of prolonged trauma and ACEs to help identify students at risk and connect them with appropriate services. Making these types of screenings routine through brief questionnaires and counseling with teens and youth helps reduce the stigma associated with mental and behavioral health concerns, emphasizes a cultural value of care and support and normalizes the use of systems for providing help and resources. CMS allows state Medicaid plans to cover SBIRT services for adults. Without programs like CRAFFT and SBIRT, many teens and adults are never directly asked about aspects of their behavioral or mental health, and given the opportunity to connect with help or support in a safe environment and by a trained,

The Garrett Lee Smith grant gatekeeper training program helped prevent more than 79,000 suicide attempts from 2007 to 2010.

caring provider. Efforts like these provide reassurance and encourage teens to be open about their needs. It is a quick, low-cost way to reach teens and adults on a broad scale to deter risky behavior, and can be delivered effectively via trained professionals in school, healthcare (primary and emergency care) and community program settings.

- In 2016, Massachusetts passed a law requiring public schools to verbally screen middle and high school students for substance use disorders using a validated screening tool, such as the SBIRT questionnaire.[652]
- Studies show that even a single instance of SBIRT or a brief discussion about a patient's behavioral health can help lower healthcare costs, lessen rates of drug and alcohol misuse and reduce the risk of traumatic events having long-term negative impacts.[653, 654, 655 656,657, 658, 659, 660, 661] Investing in SBIRT has been found to result in savings between $3.81 and $5.60 for every dollar spent.[662, 663]

Investing in SBIRT has been found to result in savings between $3.81 and $5.60 for every dollar spent.

- There are an increasing number of approaches for training educators and other school professionals as well as "gatekeeper" adults who tweens and teens interact with, such as community-group leaders, coaches and faith leaders to help identify concerns (including risks and signs of mental illness, substance misuse or suicidal thoughts) and connect individuals to appropriate supports. Evidence-based training is also available for students/peers, peer leaders and parents. Communities that implemented SAMHSA-supported Garrett Lee Smith grant gatekeeper training programs had significantly fewer suicides (1.3 per 100,000 fewer deaths) among 10- to 24-year olds, and a review found the program helped prevent more than 79,000 suicide attempts from 2007 to 2010.[664]
- The Community Preventive Services Task Force reviewed 31 studies of electronic screening and brief intervention efforts and found that they supported the continued use of technology to reach people at risk of excessive alcohol use, or who may develop an alcohol use disorder, and the Surgeon General noted that web-based approaches can be effective for connecting with youth, individuals in harder to reach areas and/or those who may avoid face-to-face treatment.[665]
- Another school-based practice is to track chronic absenteeism. A high number of missed school days can be a warning sign for health, mental health and family concerns.
- School systems must offer screenings aimed at early identification of concerns and special education and services for preschool and school-aged children (ages 3 to 21) with disabilities, including behavioral health disorders and learning disabilities under IDEA Part B. Twenty-two states, Micronesia, the Marshall Islands and Palau meet the requirements of IDEA Part B as of 2017.[666]

EXAMPLES: EARLY IDENTIFICATION AND CONNECTION TO SERVICES AND SUPPORTS EFFORTS

Screening for Mental Health (SMH) provides online and in-person screenings and risk assessments to identify and treat mental health problems early, before they turn into a crisis, similar to screenings for physical illnesses such as cancer and diabetes. SMH online screenings give individuals a safe and anonymous way to assess their mental health to see if their signs and symptoms are consistent with a mood and anxiety disorder, eating disorder or alcohol use disorder, and access information about local, high-quality treatment options.[667] SMH offerings are used by colleges and universities, workplaces, the military and community organizations to educate, screen and connect users with resources and treatment options specific to their campus, organization or neighborhood.[668] The online platform is also available in the form of a MindKare Kiosk for public spaces, designed to make checking in on mental health as easy and commonplace as checking blood pressure. Other SMH programs include public awareness campaigns and the SOS Signs of Suicide Prevention Program, a two-part middle and high school-based suicide prevention program, which includes an educational curriculum about suicide and depression and a brief depression screening. The SOS Program has reduced self-reported suicide attempts by 40 percent to 64 percent in randomized control studies.[669, 670]

Crittenton Children's Center at Saint Luke's Health System[671] in Kansas City, Missouri developed Head Start-Trauma Smart (HSTS) to help children, ages 3 to 5, handle complex trauma (violence, arrest/incarceration, substance misuse, homelessness, death and others). Elements of HSTS include:

1. HSTS therapist training for all of the people (caregivers, Head Start staff, day-care providers, neighbors, grandparents, etc.) who are part of a child's life to help the child identify and share feelings. This includes props or games to help children develop self-regulation and appropriate competencies.
2. Intensive Individual Trauma-Focused Intervention, which includes short therapy sessions for children and their families. Because it is difficult for an entire family to take part, therapists make weekly phone calls, send notes to parents and, sometimes, make home visits.
3. HSTS therapists provide classroom consultation to all teachers and children, during which the therapist is able to bring the skill-based training into the classroom and support the teacher.
4. Peer-based mentoring for teachers and others to help sustain progress.

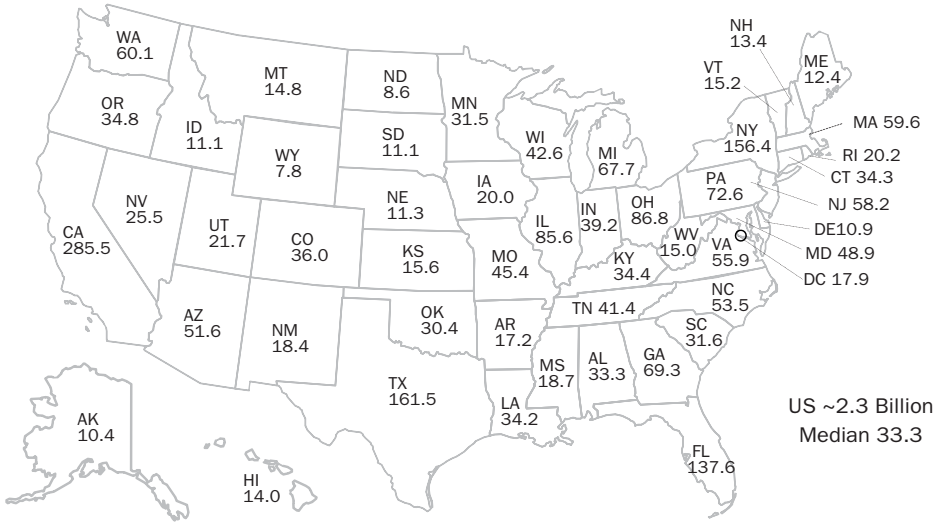
An article in the *Journal of Child and Family Studies* found that HSTS resulted in significant benefits for children by reducing attention deficit, defiant and externalizing issues and hyperactivity, all of which also support improved academic performance.

Early Detection, Intervention and Prevention of Psychosis in Adolescents and Young Adults (EDIPP)[672] is a project funded by Robert Wood Johnson Foundation (RWJF) that focuses on the mental health needs of adolescents and young adults. The initiative connects with those who interact directly with youth (family, teachers, social workers, doctors and nurses) and works to educate them on the early signs of severe mental illness to help identify at-risk teens and young adults. By educating and helping those closest to at-risk individuals, EDIPP is then able to engage and treat these young people earlier. A recent study of EDIPP found that the initiative helps families better support someone with mental illness and that patients succeed better in school and work. According to the study, the early intervention helped at-risk individuals stay in school, remain employed and maintain personal connections.

Lily's Place, in Huntington, West Virginia, is a model clinic focusing on providing comprehensive medical care to infants with Neonatal Abstinence Syndrome and "offer non-judgmental support, education and counseling services to families and caregivers" to help create healthier families.[673]

SafeStart, in Allentown, Pennsylvania, is a special Early Head Start program that provides day care for dozens of infants and toddlers under the age 3 from families with low incomes and parents with drug or alcohol addiction.[674] Many of the kids have health problems, emotional trauma and developmental delays that required extra attention, and the program has low child-teacher ratios and extra specialized therapy to meet these needs. The program has seen success with its methods: in 2016, all of the children who aged out of SafeStart had marked improvement in their symptoms and 84 percent had them resolved. The program has been run since 2003 by the nonprofit organization Community Services for Children in partnership with the Children and Youth Services in Lehigh and Northampton counties; it is funded partially by both federal grant and county funds.

Active Federal Grant Awards to States: Funding to Help Address Prescription Drug, Opioid and Heroin Problems (in Millions)*



Source: National Alliance for Model State Drug Laws

SELECT FEDERAL SUBSTANCE MISUSE AND BEHAVIORAL HEALTH GRANTS

Substance Abuse and Mental Health Services Administration	
State Targeted Response to the Opioid Crisis Grant (Opioid STR)	The Opioid STR is a two-year grant program to increase opioid use disorder prevention, treatment, and recovery services. Authorized in December 2016 in the 21st Century Cures Act; $500 million was appropriated in FY 2017. In April 2017, grants were awarded to states and territories via a formula that is based on unmet need for opioid use disorder treatment and drug overdose deaths.[675]
Targeted Capacity Expansion: Medication Assisted Treatment — Prescription Drug and Opioid Addiction (MAT-PDOA) Grants	MAT-PDOA grants to expand/enhance access to medication-assisted treatment (MAT) services for persons with an opioid use disorder. The funding is restricted to states with the highest admissions rates for heroin and opioids and/or those with the biggest increases. Grant applications were due in July 2017. There is $28 million in grants available for up to five states for up to three years.[676]
Substance Abuse Prevention and Treatment Block Grant (SAPT/SABG)	The SAPT program funds all 50 states, Washington, D.C., Puerto Rico, the U.S. Virgin Islands, six Pacific jurisdictions, and one tribal entity to help plan, implement and evaluate activities that prevent and treat substance use disorders, with at least 20 percent of funds going to substance misuse primary prevention strategies. The grant amounts are determined by the size of the at-risk population, service costs, and certain other factors. SABG is authorized by the Public Health Service (PHS) Act.[677]
Community Mental Health Services Block Grant (MHBG)	The MHBG program funds all 50 states, Washington, D.C., Puerto Rico, the U.S. Virgin Islands, and six Pacific jurisdictions to provide comprehensive community mental health services and monitor progress in implementing a community-based mental health system. The grant amounts are determined by the weighted at-risk population, service costs, and certain other factors. MHBG is authorized by the PHS Act.[678]
Health Resources and Services Administration	
Access Increases in Mental Health and Substance Abuse Services (AIMS) Funding Opportunity	AIMS is a new FY 2017 funding opportunity for $195 million for community health centers to expand access to mental health and substance use disorder services focusing on the treatment, prevention and awareness of opioid misuse. Applications were due in July 2017 and are expected to be awarded in September 2017.[679] [680]
Rural Health Opioid Program (RHOP)	Three-year funding of programs aimed at expanding the delivery of opioid related healthcare services to rural communities and developing broad community consortiums to respond multifaceted to the opioid epidemic in a rural community. RHOP is authorized under the PHS Act. Applications were due July 2017 and awards are expected in September 2017.[681]
Substance Abuse Treatment Telehealth Network Grant Program (SAT-TNGP)	SAT-TNGP funding supports telehealth treatment for substance use disorders and chronic conditions, and will demonstrate how telehealth programs can improve access to healthcare services, particularly substance use disorder treatment services, in rural, frontier, and underserved communities. Grant applications were due in August 2017 and are expected to be awarded in September 2017.[682]

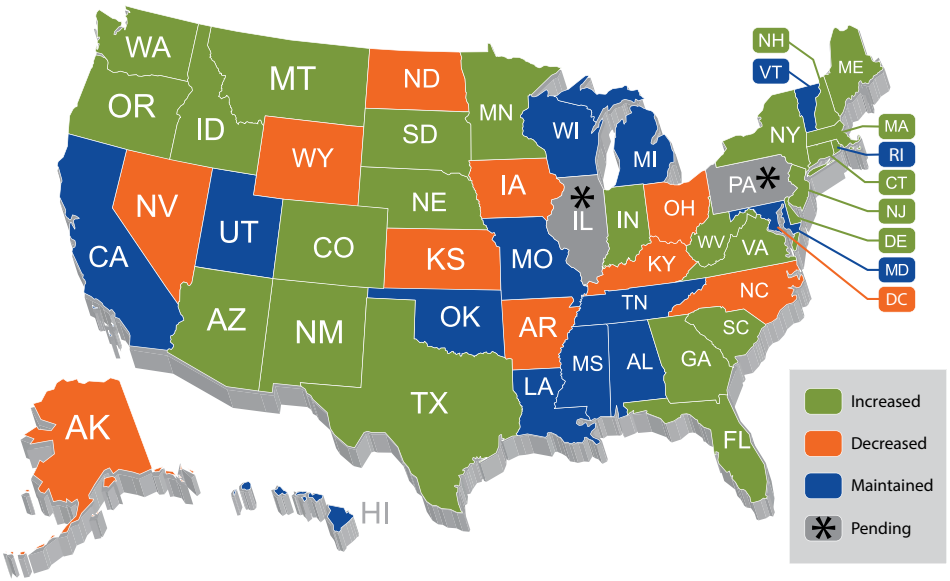
SUBSTANCE ABUSE PREVENTION AND TREATMENT BLOCK GRANT

SAMHSA's Center for Substance Use Treatment administers the Substance Abuse Prevention and Treatment Block Grant, which is distributed by formula to all states and Territories and is managed by the State Alcohol and Drug Authority Directors.

The SAPT Block Grant provides treatment services for 1.5 million Americans. It has shown results in 70 percent of clients demonstrating abstinence from illegal drug use, 83 percent abstinence from alcohol use and 89 percent having stable housing and 93 percent having no arrests upon discharge from treatment.[683] Evaluations have found the grant program is effective in: increasing employment; improving states' infrastructure and capacity; fostering development and maintenance of state agency collaboration; and promoting effective planning, monitoring and oversight. Funding for the grant program has decreased by 29 percent in the past decade, adjusting for inflation.

State Alcohol and Drug Authority Directors design, manage and evaluate the publicly funded substance misuse prevention, treatment and recovery system in each state. State Directors provide leadership by promoting standards of care, evidence-based services and continuous quality improvement innovations. State Directors also ensure that public dollars are dedicated to programs that work through the use of performance data management and reporting, contract monitoring, corrective action planning, on site-reviews and technical assistance.

State Mental Health Funding



State mental health budgets experienced significant cuts during the recession — decreasing by $4.35 billion from FY 2009 to FY 2012. In FY 2015, only 24 states increased mental health funding, while 13 states had level funding and 11 states and Washington, D.C. decreased funding.[684]

Source: National Alliance on Mental Illness

C. PRIORITIZING PREVENTION — SUPPORTING STRONGER, HEALTHIER COMMUNITIES AND RAISING A (MENTALLY AND PHYSICALLY) HEALTHIER GENERATION OF KIDS

The opioid, alcohol and suicide epidemics have serious consequence for individuals, families and communities.

There is an urgent need to take increased action to prevent issues in the first place — and focus on the root causes that can increase risk for substance misuse, mental health issues and/or suicide. These approaches have a broader effect and can also support positive outcomes for a range of other related issues like poor academic and career attainment, bullying, depression, violence, unsafe sexual practices and job and economic attainment.

More than four decades of research have identified effective, evidence-based strategies to reduce these risk factors and that can promote positive "protective" factors. These can help build resiliency and the ability for people to cope with and adapt to challenges and adversity.

Well-being is also impacted by circumstances — including the ability for families to take care of basic needs; social relationships and community connectedness; community support and amenities; and the opportunities that are available in the communities where people live.[685, 686] There are a range of policies and programs that can benefit all members of a community, and that are particularly impactful for those at higher risk for concerns.

Social Determinants of Health

Economic Stability	Neighborhood and Physical Environment	Education	Food	Community and Social Context	Health Care System
Employment	Housing	Literacy	Hunger	Social integration	Health coverage
Income	Transportation	Language	Access to healthy options	Support systems	Provider availability
Expenses	Safety	Early childhood education		Community engagement	Provider linguistic and cultural competency
Debt	Parks	Vocational training		Discrimination	
Medical bills	Playgrounds	Higher education			Quality of care
Support	Walkability				

Health Outcomes
Mortality, Morbidity, Life Expectancy, Health Care Expenditures, Health Status, Functional Limitations

Source: Kaiser Family Foundation

For instance, financial stress and housing stability are identified as two of the most significant factors that can increase risk for mental health issues, substance misuse and suicide — in addition to domestic violence and child abuse.[687, 688]

This section examines a range of policies and programs that promote resilient children, families and communities, including:

- **Supporting Multi-Sector, Place-Based Partnerships for Community-Wide Efforts**
- **The Impact of the Opioid Crisis on Child Welfare — and the Need for Multi-Generational Care**
- **Effective Early Childhood Well-being Policies**
- **Effective School-aged Children, Tweens and Teens Well-being Policies**
- **Opportunities for Families by Addressing Core Needs and Promoting Stability**

STRENGTHENING FAMILIES: PROTECTIVE FACTORS FRAMEWORK

The Center for the Study of Social Policy developed a framework summary of protective factors, which includes:[689]

- **Parental Resilience.** Managing stress and functioning well when faced with challenges, adversity and trauma (including general life stressors and parenting stressors).
- **Social Connections.** Positive relationships that provide emotional, informational, instrumental and spiritual support.
- **Knowledge of Parenting and Child Development.** Understanding child development and parenting strategies that support physical, cognitive, language, social-emotional development (including age-appropriate and developmental expectations, being attuned and emotionally available, nurturing, responsive, predictable, interactive, and having a safe and educationally stimulating environment).
- **Concrete Support in Times of Need.** Access to concrete support and services that address a family's needs and help minimize stress caused by challenges (including navigating and accessing service systems and building financial security).
- **Social and Emotional Competence of Children.** Family and child interactions that help children develop the ability to communicate clearly, recognize and regulate their emotions and establish and maintain relationships.

Supporting Local Multi-Sector, Place-Based Partnerships for Community-Wide Efforts

One of the biggest challenges communities face in countering the opioid crisis is the lack of a standing mechanism that bring all of the needed partners and resources together to address major epidemics within a community.

The problem is bigger and more challenging than any one institution can address (i.e., the health system or public health departments) — and it impacts stakeholders across every sector and corner of a community.

There is a pattern of communities developing task forces or committees to address the latest crisis — or cross-cutting priority problems or concerns. They are often, however, not sufficiently funded or do not address the underlying lack of connections or infrastructure needed to support multi-sector problems. For instance, many state and local areas create child well-being coalitions that are either short in duration or do not have sufficient resources or the ability to support systemic change to be able to fully carry out their goals. Many communities also create task forces or coalitions to respond to public health crises after they have emerged and they are disbanded after the emergency subsides or due the perception of lack of progress, when the issue is often about not having sufficient resources or systems to tackle the problem.

Regarding the opioid epidemic, states and local communities are growing their response while at the same time meeting more immediate needs and emergencies. The lack of ability to tap into and leverage an existing infrastructure or collective partnership across sectors has put most areas behind the curve in their response, or to even consider a long-term well-being strategy.

Experts have identified the most effective way to tackle major health and well-being issues is to develop local partnerships — that bring together the different expertise, capabilities and resources across an entire community. Local leaders, institutions and citizens have both a greater understanding of their community's most pressing challenges and shared interest in addressing them.

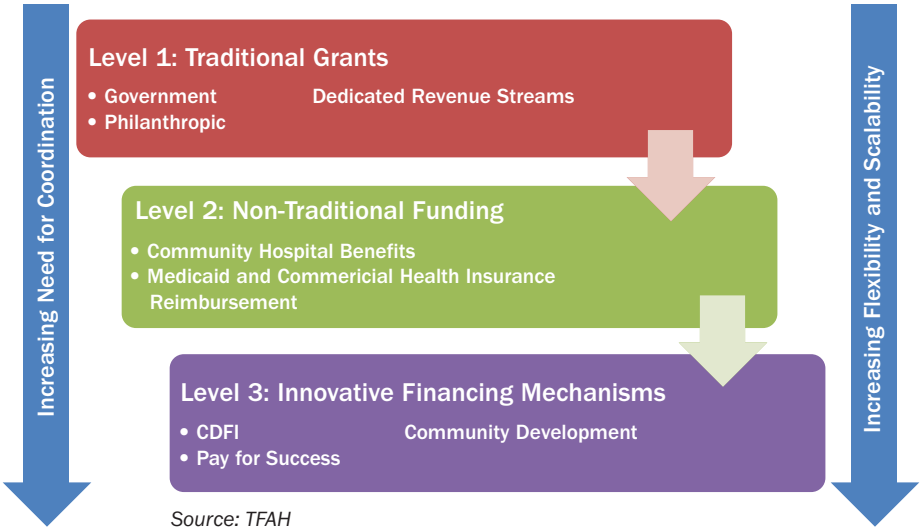
For most communities, there is not a standing mechanism to support and coordinate efforts, services and programs to improve health and well-being. Many current health priorities require cross-cutting responses, which require strong management and coordination. Without a focused, sustained infrastructure to support these types of partnerships, many of the programs are short-lived or fall short.

The opioid epidemic, as well as the suicide and alcohol crises, provide poignant examples of the problem created by this void. When new crises arise, there is a cycle of creating or bolstering community- and sector-connecting mechanisms to quickly respond to the urgent aspects of emergencies. Too often, they are insufficient to address the full-scale impact and/or unable to secure a long-term solution.

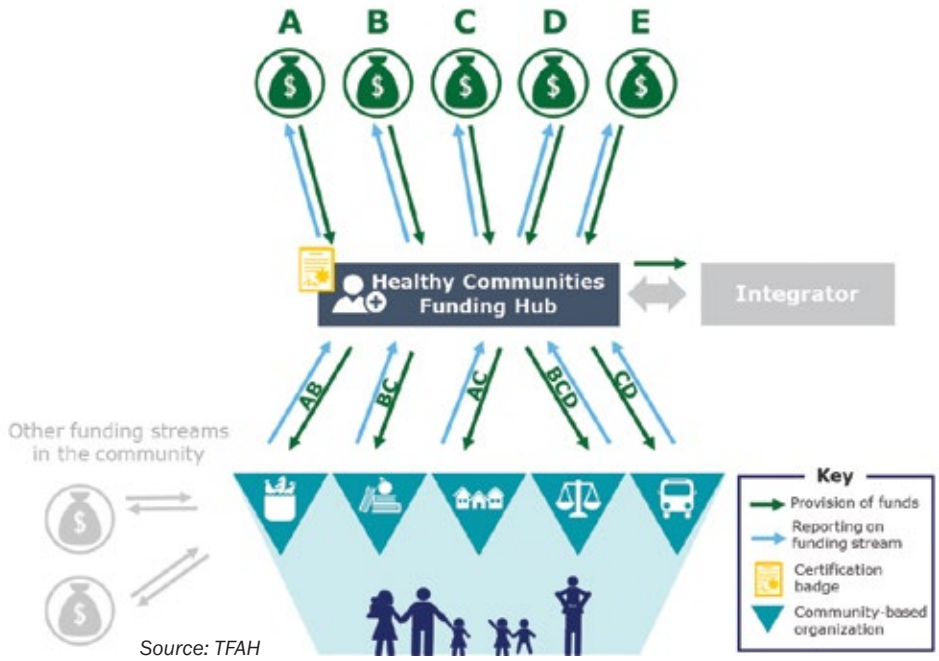
Local health and well-being improvement partnerships provide a mechanism to support and implement evidence-based policies and programs within a community, while at the same time raising critical resources and coordinating efforts from a range of stakeholders. Key partners may include: public health, substance misuse response agencies and treatment providers; mental healthcare providers; hospitals; area businesses; school districts and universities; community and faith groups; local government and law enforcement; nonprofits and social service agencies; and citizens or other local stakeholders.

Best practices for successful public health initiatives have emerged from communities that have built and sustained multi-sector partnerships, and addressed the underlying contributing factors in a community rather than just responding to immediate concerns.

Local Health Trust: Braiding Traditional and Non-Traditional Funding Streams



Source: TFAH



Source: TFAH

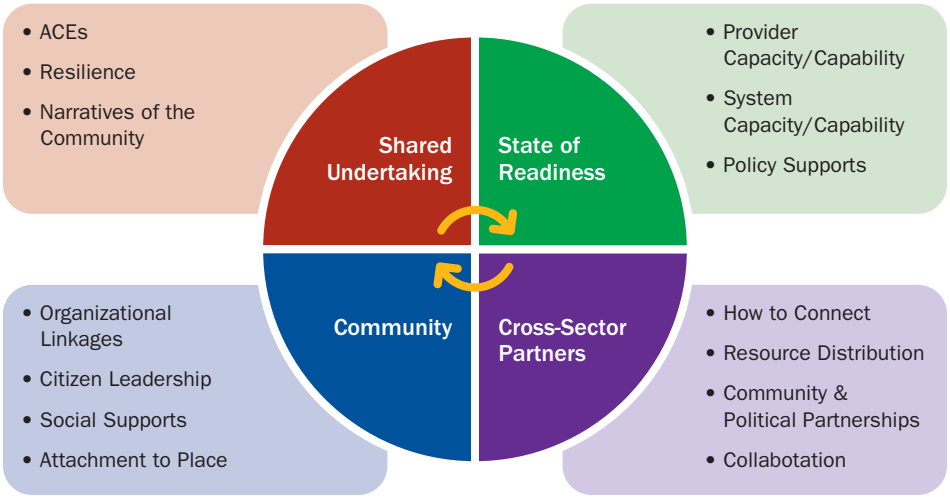
Important elements of a collective approach include:

- **Lead partners** that are responsible for the ongoing management of the efforts, which can often be an already established organization in the community;
- **Strong financial management** that focuses on making sustained, sufficient funding a top priority (such as through a Healthy Communities Funding Hub model — to provide fiduciary oversight and effective use of funds);[690]
- **Expert guidance and technical assistance** to ensure policies and programs being supported are high-quality, evidence-based and effective, and to help with technical assistance for implementation and evaluation; and

- **Chief Health Strategists** where public health departments serve in the role of supporting greater understanding of community health problems or those facing certain segments, as well as best practice strategies for addressing them.

Successful community health initiatives also support community agency — or the community's ability to collectively make purposeful decisions and influence the conditions around them through shared leadership from within the local area.[691] At an individual level, community engagement, agency, control and strong, supportive social networks can serve as a buffer against stressors that can negatively impact both physical and mental health.[692] Supportive, positive relationships can help prevent depression and reduce risk for suicide and substance misuse.

Building Community Resilience: Process of Assessment, Readiness, Implementation and Sustainability



Ellis, W., Dietz, W. (2017) A New Framework for Addressing Adverse Childhood and Community Experiences: The Building Community Resilience (BCR) Model. Academic Pediatrics. 17 (2017) pp. S86-S93. DOI information: 10.1016/jacap.2016.12.011

DISCRIMINATION AND HEALTH

Discrimination, like other traumatic interactions, causes psychological stress in those targeted and can lead to a variety of negative mental and physical health effects with continual exposure. This toxic environment hurts racial and ethnic minorities, LGBTQ individuals, and women in the United States, and can take many forms, from blatant acts of individual-level discrimination or less overt, but continual microaggressions, to societal-level biased treatment that systematically constrains certain groups from opportunities and resources. [693]

Among Blacks in the United States, the adverse impact of discrimination on mental and physical health has been well documented. For instance, one recent study found Black participants had five times the emotional stress (18.2 percent versus 3.5 percent) and six times (9.8 percent versus 1.6 percent) the physical stress as their White counterparts. Another study on emotional stress in Ferguson, Missouri after the 2014 death of Michael Brown found that 43 percent of the majority Black community met the criteria for depression and 34 percent for PTSD, many times the national prevalence of 6.7 and 7.8 percent respectively. [694]

Other racial and ethnic minorities are also harmed by discrimination and harmful individual-level interactions are sufficiently pervasive that stress responses can occur in anticipation of discrimination. As one example, a study of Latina students showed that they had higher blood pressure and heart rates when interacting with someone they perceived to hold racist ideas. [695]

Discrimination, along with related stress and mental health issues, forces individuals to find coping mechanisms, many of which are unhealthy, like increased substance misuse. One study found that young women who experienced higher levels of discrimination had had levels of stress and prior drug misuse.[696]

In addition to the daily harmful interactions, there are many societal-level biases. For example several studies looked at changes in the health of LGBTQ individuals around same-sex marriage laws, and found dramatic changes. One study found that lesbian, gay and bisexual adults who lived in states that passed same-sex marriage bans between 2001 and 2005 had increases in mood disorders (37 percent increase), alcohol use disorders (42 percent increase) and anxiety disorders (248 percent increase) over those four years. LGB adults in states that did not pass same-sex marriage bans had no significant changes in any of these health measures.[697] Another study found that states that enacted same-sex marriage rights between 1999 and 2015 were associated with a reduction in the percent of high school students reporting suicide attempts.[698]

A range of mental and behavioral health expert organizations have identified the importance of governmental policies, programs, and officials to not perpetuate discrimination either overtly or covertly—and where ever possible, should actively counteract the negative health effects of discrimination and lift up affected groups and communities.

EXAMPLES: MULTI-SECTOR COMMUNITY PARTNERSHIPS

Massachusetts General Hospital Center for Community Health Improvement (2015 Foster McGaw Prize Winner) launched four multi-sector coalitions all working together on the prevention of substance use disorder — along with the promotion of healthy eating and active living. The hospital worked with stakeholders at the grassroots level to gain community buy-in and engagement. Prevention initiatives included prescription Take Back programs, naloxone distribution throughout the community and recovery coaches that ensure access to treatment. Contributing their own expertise, the hospital screens all patients for substance misuse as part of their plan to strengthen addiction treatment and early intervention. Through engaged community partners and dedicated staff, the hospital has been able to decrease emergency department visits and inpatient admissions related to substance misuse in the first three months of the initiative by 57 percent and 62 percent, respectively.

The North Hartford Partnership (NHP) was launched by the Cigna Foundation and nonprofit Community Solutions to address the increasing rates of mental illness, substance use disorders and poor chronic care management in the Northeast Hartford community. It focused on the social determinants of health and boosting economic security in the Northeast Hartford community.[699] NHP serves as the backbone organization and convenes community leaders to develop innovative ways to coordinate, integrate and align healthcare and social services. Key partnerships with local and state government, hospitals, universities and community nonprofits are essential to NHP's success. NHP is transforming the once abandoned gold-leafing factory into a community hub that can centrally house cross-sector partners and facilitate innovative collaborations. Initial results are promising. In a pilot intervention, Community Solutions observed a 57 percent drop in the emergency room use among the high utilizers. Moving forward, the Cigna Foundation plans to use its experience in tool development to co-create a neighborhood health risk assessment with Community Solutions to analyze the underlying social, economic and environmental determinants of health in Northeast Hartford. In 2015, NHP received a $125,000 *World of Difference* grant from the Cigna Foundation to continue their work. NHP also receives funding from Fidelity Charitable, Rx Foundation, The Kresge Foundation, Newman's Own Foundation, Boehringer Ingelheim and the John H & Ethel G Noble Charitable Trust to support the initiative, which had a budget of $760,000 in 2015.

Making Connections for Mental Health and Well-being Among Men and Boys was launched by The Prevention Institute in 2014 with support from the Movember foundation to help transform community conditions that influence mental well-being, especially for men and boys of color, veterans and their families. The goal of Making Connections is to change the narrative around mental health to one focused on wellness and prevention. A national assessment of mental health and well-being was conducted to determine common themes, which would later shape the overall goals of the initiative. Sixteen communities across the United States are developing and implementing strategies to enhance their sociocultural, physical/built, and economic and educational environments to impact their mental health and well-being. By focusing on broader community conditions related to men and boys, the effort served as a critical mechanism to address and reduce stigma around mental illness, and was successful in beginning to shift mental health perceptions, from "what is wrong with you?" to "what happened to you?" and ultimately to "what can we change in our community to better support mental well-being for you and others?" The grant includes a 12- to 18-month planning period during which the 16 identified communities established local coalitions to inform and guide the work for the rest of the initiative.

EXPERT GUIDANCE AND TECHNICAL ASSISTANCE FOR COMMUNITIES

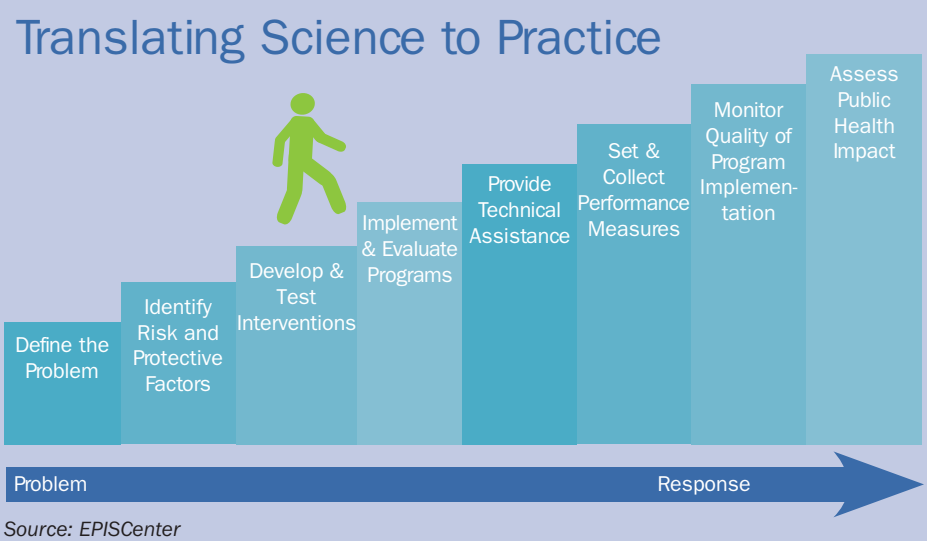
The ability to access expert guidance and support is critical to this collective approach. Experts help identify the most effective evidence-based approaches that fit their local needs, and have the data and tracking information available to accurately assess their community. They also provide the technical assistance to implement policies and programs, and are able to conduct evaluations to measure effectiveness and ensure accountability for efforts.

To be successful and sustained over time, strategies, programs and services need end-to-end support including through networks of experts, access to research and best practices and multi-sector collaboration.

One model is to have a state-level public-private partnership expert organization in a state that can: 1) help conduct needs assessments to match the best policy and program choices to specific community's needs; 2) help develop coalitions and ensure programs are implemented successfully by providing technical assistance and access to learning networks; 3) train and support a range of professionals from different backgrounds and sectors; 4) conduct regular evaluation, measuring results and ensuring accountability; 5) identify and implement plans for sustainability and 6) perform continuous quality improvement and updates to improve programs. Technical support and ongoing data collection and analysis at a community level can help identify patterns of concerns, including risks and protective factors, and help understand where and how to direct programs and efforts. An expert organization, housed at an academic center or a nonprofit organization, can provide assistance to support community-based multi-sector collaborations and coalitions and help identify and braid different funding streams.

EXAMPLE: EXPERT NETWORK SUPPORTING EVIDENCE-BASED APPROACHES AND TECHNICAL ASSISTANCE

Evidence-based Prevention and Intervention Support Center (EPISCenter)[700] is a state-level expert organization that supports community-level infrastructure for prevention planning; evidence-based programs and practices; and continuous improvement of locally-developed juvenile justice and substance misuse programs, which also provide much broader support for positive childhood and youth development. EPISCenter helps communities identify and prioritize risk and protective factors and determine which interventions can best address the identified needs (many of which start in early childhood), as well as provides technical assistance and support for quality implementation of the programs. EPISCenter is a collaborative partnership between the Pennsylvania Commission on Crime and Delinquency (PCCD), the Pennsylvania Department of Human Services (DHS) and the Bennett Pierce Prevention Research Center, College of Health and Human Development at Penn State University. The annual estimated cost for an EPISCenter initiative is around $1 million per year per state, depending on the structure and scope of the programs.



Source: EPISCenter

The Impact of the Opioid Epidemic on Child Welfare — and the Need for Multi-Generational Care

The opioid epidemic has placed a significant new strain on the child welfare and foster system.

States are grappling with how to adapt child welfare laws and policies — including the need to increase budgets for additional social workers, higher stipends for foster parents and child welfare services.[701, 702] Some states, including Alaska, Kansas and Ohio have issued emergency pleas for additional foster parents.

The number of children entering the child welfare and foster system increased by 8 percent from 2012 to 2015 — and state reports suggest that increase will be significantly higher for 2016 and 2017.[703, 704] Some states with particularly high increases around this timeframe include Florida (24 percent increase), Georgia (74.5 percent increase), Indiana (37 percent increase), Kentucky (33 percent increase) and Minnesota (33 percent increase).[705, 706]

The epidemic is also resulting in a growing number of grandparents and other relatives caring for children, which raises different policy and practical needs.

Around 2.5 million children are being raised in "grandfamilies" or "kinship" (other relatives) care.[707] Roughly 29 percent of children in foster care are placed with relatives — and for every child in foster care with relatives, there are 20 being raised by grandparents or other relatives outside the system.[708, 709, 710]

Overall, more than 680,000 children experience severe forms of maltreatment — neglect (79 percent) or physical abuse (18 percent) — each year. Moreover, 400,000 children are in out-of-home foster care at any time.[711, 712] And, of these children, more than 60 percent of infants and 40 percent of older children are from families with active alcohol or drug misuse.[713]

Child abuse and neglect occur at every socioeconomic level, across ethnic and cultural lines, within all religions and at all levels of education.[714] Children are at increased risk for experiencing severe maltreatment if their families experience multiple problems, such as financial distress, lack of a job, inadequate housing, emotional stress, drug or alcohol misuse mental illness and/or domestic abuse.[715] Lifetime costs of just one year of confirmed child maltreatment cases is estimated to be $124 billion nationally (as of 2008).[716]

Each state maintains a system of public and private child and family services, and specific systems vary by state. The Children's Bureau with ACF provides federal level support through research, evaluation, technical assistance, data collection and setting national standards — and providing grants to states. A number of states have moved toward more research-based and trauma-informed approaches, such as implementing a differential response within the child welfare system that allows child protective services to respond in multiple ways to different situations and levels of risk.[717] In cases where a child is removed from a parent due to substance use disorders or other factors, it is important to recognize that the removal is another traumatic experience — and it is essential to build a strong system of support for these children.

Percent of infants in foster care that are from families with active alcohol or drug misuse

60%

Percent of older children in foster care that are from families with active alcohol or drug misuse

40%

Key Policies

- **Support for "grandfamilies" and other relatives.** Generations United has several recommendations for solutions and support for grandparents and other relatives who are "raising the children of the opioid epidemic."[718] These include:
  - Prioritize relative placement and family-like settings for children in foster care, and adopt the Model Family Foster Home Licensing Standards to eliminate unnecessary barriers that prevent suitable relatives and nonrelatives from becoming licensed foster parents.
  - Ensure financial, legal and programmatic support is available, including specifically:
    - Institute broader eligibility for children and relative caregivers under federal child welfare funds for trauma services;
    - Reauthorize and bolster federal funding for Kindship Navigator Programs that help connect caregivers to services and supports;
    - Ensure states are fully using available National Family Caregiver Support Program funds for caregivers age 55 or older;
    - Simplify application requirements and broaden eligibility for the Temporary Assistance for Needy Families (TANF) for these families; and
    - Improve availability of legal aid and resources for extended family caregivers to ensure they understand the continuum of legal relationship options.
- **Modernize the child welfare system.** A number of groups, including AAP, have recommended the need to continue to improve the child welfare system to prevent child abuse and neglect, better serve vulnerable children and their families, and ensure that children and caregivers have access to coordinated, high-quality, trauma-informed health and social services.[719]

FAMILY FIRST PREVENTION SERVICES ACT OF 2017

The Family First Prevention Services Act was introduced in 2016 and was amended and re-introduced in January 2017. The bill includes measures to:[720, 721]

- Strengthen families and reduce unnecessary foster care placements by allowing states to use federal foster care dollars to pay for up to 12 months of family services to prevent children from needing to enter foster care. Biological families, adoptive families and families in which a relative is caring for the child would all be eligible for services, if needed to keep the child safely at home. Only prevention services classified as "promising," "supported," or "well-supported," based on an evidence structure developed by the California Evidence-Based Clearinghouse, would be eligible for reimbursement. These services would include: mental health services; substance use disorder services; and in-home parent "skill-based" programs (parent training, home visiting, individual and family therapy).
- Ensure more foster children are placed with families by ending federal reimbursement when states inappropriately place children in non-family settings, such as group homes or congregate care facilities. To be eligible for federal payment: the state would have to assess the child's needs and determine the non-family setting was the most appropriate, subject to ongoing judicial approval; and non-family settings would be subject to licensing and accreditation standards to ensure they provide appropriate supervision and have the necessary clinical staff to address their needs.
- Support family relationships by allowing states to receive a partial match for evidence-based Kinship Navigator programs to help children remain with family members whenever possible. Kinship Navigator programs provide information, referral and follow-up services to grandparents and other relatives who unexpectedly assume caregiver responsibility for children who cannot remain safely with their parents.
- Help families stay together by reauthorizing the Regional Partnership Grant program, which provides funding to state and regional grantees seeking to provide evidence-based services to prevent child abuse and neglect related to substance misuse. Grant requirements would be updated based on lessons learned from the most effective past grants. In addition, the bill updates the program to specifically address the opioid and heroin epidemic and leverage what's been learned to ensure that new foster care prevention funding provided under the bill is used effectively.
- Improve support for the transition to adulthood by updating the John H. Chafee Foster Care Independence Program to allow states the option of continuing to assist older former foster youth up to age 23, including providing education and training vouchers.
- Reduce the amount of time foster children wait to be adopted, placed with relatives or placed with foster parents, encouraging states to use electronic systems when placing children across state lines.
- Help relative caregivers avoid bureaucracy by promoting best practices for states by providing model foster care licensing standards with a focus on ensuring states promote placements with family members for children in care. Keeping children with family members, when possible, improves outcomes for children and families.
- Support existing child welfare services by extending for five years the Promoting Safe and Stable Families and Child Welfare Services programs (each in Title IV-B of the Social Security Act) as well as the Adoption and Legal Guardianship Incentive Payments, whose authorizations are set to expire at the end of the fiscal year.

EXAMPLES: CHILD WELFARE APPROACHES

Sobriety Treatment and Recovery Teams (START) was developed in Kentucky in 2007 as a Child Protective Services program for families with parental substance use disorders and issues of child abuse and/or neglect to help parents achieve sobriety and keep children with parents when it is possible and safe.[722, 723] The program model uses case manager and family mentor teams to support a small number of families and includes home visits, mentorships, peer support, intensive treatment, child welfare services and subsidies for child care and transportation, and have resulted in a number of notable outcomes. Mothers who participated in START achieved sobriety at nearly twice the rate of mothers treated without START (66 percent and 37 percent, respectively). Children in families served by START were half as likely to be placed in state custody as compared with children in a matched control group (21 percent and 42 percent, respectively). This outcome also resulted in greater cost-effectiveness; for every dollar spent on START, Kentucky avoided spending $2.22 on foster care. In Kentucky, areas have reported that demand for the program is higher than the available services.

Connecticut Family Stability Pay for Success Project was launched in September 2016 by the Connecticut Department of Children and Families (DCF) to promote family stability and reduce parental addiction and substance misuse among DCF-involved families.[724] The program is supported by $11.2 million in investments — and expands Family-Based Recovery programs and services to 500 additional families within the state. Positive outcomes, such as reductions of re-referrals and out-of-home placements, will result in repayment to the investors. The program focuses on:

- Creating long-term and lasting results for families statewide, by supporting parents in substance misuse recovery and improving parent-child interactions;
- Preventing out-of-home placements and re-referrals to DCF and reducing substance misuse by parents and caregivers; and
- Using an independent evaluation to understand the efficacy of the Family-Based Recovery model, providing important insight on how to best scale this program.

Early Childhood Resilience Policies

Investing in well-being for young children is one of the most effective strategies for prevention — it can yield lifelong benefits, including reducing the risk for future substance misuse and suicide — and improving overall well-being.

A healthy start can put children on a path toward achievement in school, career, community, family and life. When children are young, their bodies and brains develop rapidly. During this period, it is important to focus on those areas critical to their long-term success and development: high-quality preventive healthcare, nurturing, stable caretakers and relationships; good nutrition and physical activity; positive learning experiences; and a safe home, neighborhood and environment.

Conversely, unhealthy conditions and prolonged or repeated periods of stress, disruption and trauma can harm and alter their development, impacting them for life. Early intervention is also the best way to forestall what one study recently called a "cascade of risk," or the multi-generational impact of adverse experiences.[725]

Early childhood programs have been shown to have a positive effect on all children — but have the biggest impact on children with risk factors.

Effective early childhood policies, programs and practices focus on supporting positive protective factors and efforts that reduce risks, helping to prevent and mitigate the effects of prolonged stress and ACEs. CDC, NIH, ACF, SAMHSA and other experts have developed and identified research to support key strategies and programs giving greater lift to positive early childhood development.[726, 727] And a number of organizations — such as AAP, Zero to Three, the Alliance for Early Success and the Urban Institute — have outlined shared policy agendas for supporting early childhood efforts.[728, 729, 730, 731]

CHILDHOOD RISKS

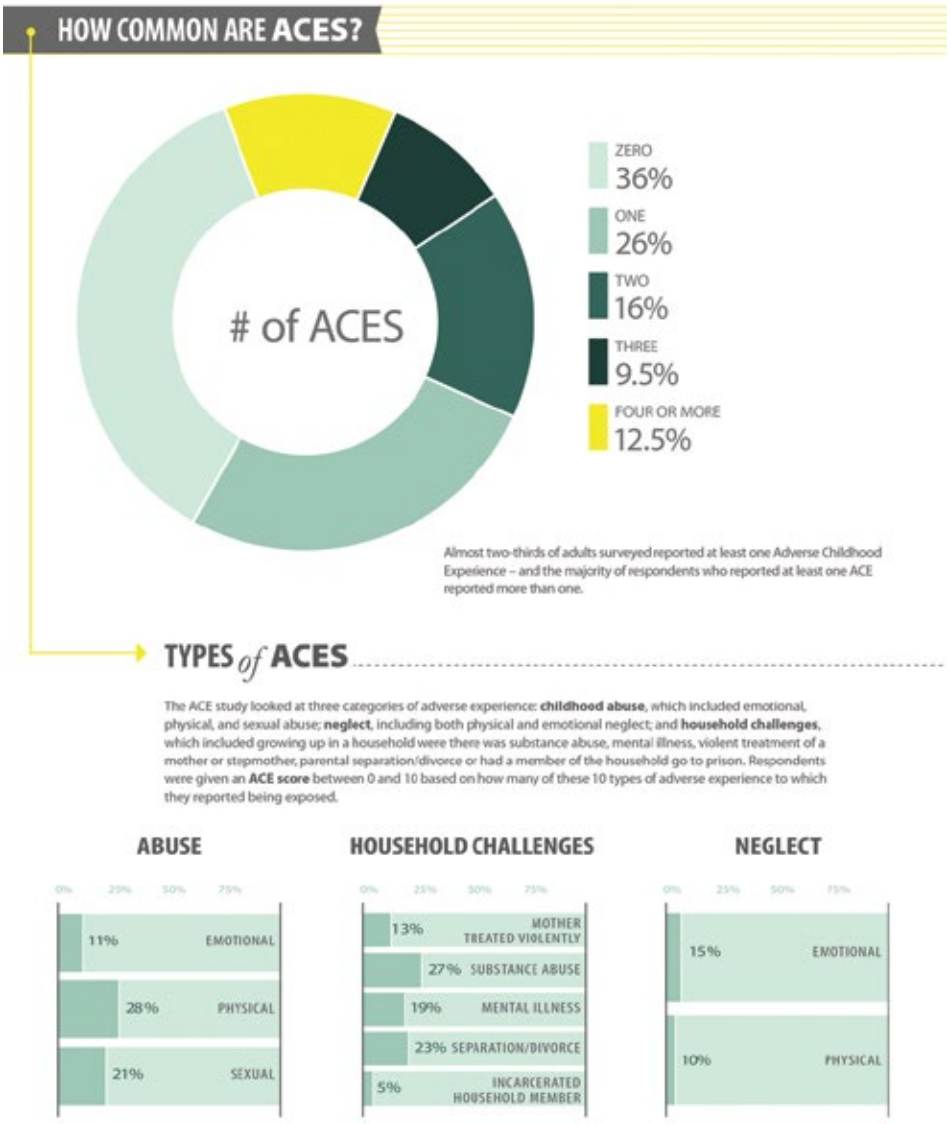
- **Adverse Childhood Experiences.** Two-thirds of Americans report having experienced an ACE while growing up — across all socio-economic levels. Examples of ACEs include substance misuse or mental illness in the household or physical or sexual abuse.[732, 733, 734, 735, 736] Thirty-eight percent of children experience two or more ACEs, and 22 percent experience three or more ACEs.

  - Children who grow up in an environment where a member of the family has a mental illness or alcohol or drug use disorder can have lifelong health consequences — with the impact being strongest for infants and toddlers.[737]

  - Children whose parents misuse alcohol and other drugs are three times more likely to be abused and more than four times more likely to be neglected than from non-abusing families.[738] This in turn makes it more likely that they will develop anxiety disorders, several personality disorders, and misuse alcohol and drugs themselves.[739, 740]

  - Parents who misuse alcohol or other drugs are more likely to be experiencing multiple sources of stress themselves, including low socio-economic status, single parenthood, lack of social support and resources and mental health problems such as depression, or have experienced abuse when they were growing up.[741]

  - One in 11 infants are impacted by their mothers' major depression in their first year of life.[742] In households below the poverty threshold, one in four mothers of infants experience moderate-to-severe levels of depressive symptoms.[743] Children with mothers with depression are at higher risk for cognitive developmental delays, behavior issues and lower school performance and attainment.[744] In addition, children of mothers who were depressed during pregnancy were 1.28 times more likely to have depression by age 18.[745]

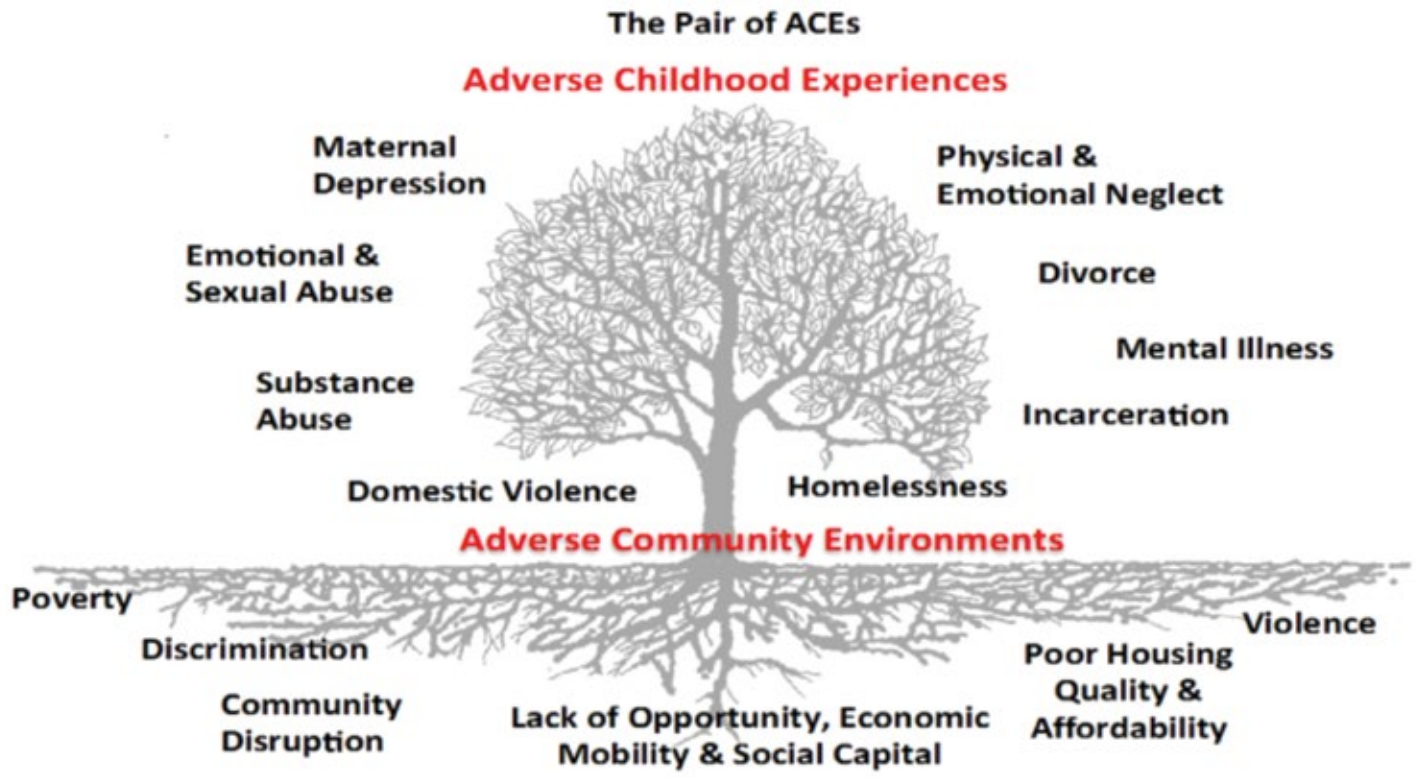


Source: CDC

- **Prolonged Stress and Poverty.** In addition, one in five babies and toddlers (around 23 percent) live below the poverty line, and 45 percent are in low-income families.[746] Children who grow up in persistent poverty or low-income families are more likely to remain poor as adults, and have lower educational, employment and health outcomes.[747]

ACEs, trauma and prolonged stress increase the likelihood that a child will experience cognitive and developmental delays, depression, anxiety, aggression and other mental, behavioral and physical health problems. Traumatized children often have parents who experienced some form of trauma, and many mothers who experienced complex trauma may repeat these patterns of rejection and maltreatment with their own infants.[748] Adults who experience trauma in childhood have higher risks for difficulty in maintaining fulfilling relationships and employment.[749]

- **Building Protective Factors and Reducing Risks.** Research has also shown that negative experiences in childhood can be mitigated or reduced by the introduction of protective factors, such as stable nurturing relationships, positive academic experiences, safe environments and community engagement.[750] For instance, developing secure attachment to at least one caregiver is one of the strongest protective factors for young children. Others include having care that is warm, responsive, consistent and provides positive cognitive stimulation (reading, talking, singing, etc.). Caregivers should have age-appropriate expectations for children and foster positive social interactions, which is critical in helping children develop self-reliance, self-regulation and adaptive coping skills to manage stress and adversity.[751]



Ellis, W., Dietz, W. (2017) A New Framework for Addressing Adverse Childhood and Community Experiences: The Building Community Resilience (BCR) Model. Academic Pediatrics. 17 (2017) pp. S86-S93. DOI information: 10.1016/jacap.2016.12.011

Key policies

- **High-quality home visiting programs.** Home visiting programs have been shown to have one of the strongest evidence bases for results in improving health and broader support for low-income families with young children. They help to ensure needs are identified and individuals and families are connected with critical healthcare, mental health and social services, including financial, employment and food assistance services. They can also help reduce family stress and repeat teen births and child abuse, as well as improve parenting practices, maternal health child development and school readiness.[752, 753] To be effective, home visiting programs must be based on high-quality models and implemented well. It is critical that they also be integrated with other programs and supports, and connected to systems that ensure ongoing service delivery as children and families age-out of the programs. The Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) was created by the Affordable Care Act (P.L. 111–148), and receives its funding via HRSA. HRSA and ACF partnered to implement the program, with the purpose of responding to the diverse needs of children and families in at-risk communities and to provide an opportunity for collaboration and partnership at the federal, state and community levels to improve health and development outcomes for at-risk children through evidence-based home visiting programs.

- **Evidence-based parent education and support initiatives.** Parenting skill and family relationship programs provide caregivers with support and are designed to give parents the tools they need to succeed, as well as enhance positive parent-child interactions and improve children's behavioral and emotional skills and abilities. Targeted programs for at-risk families, when provided in conjunction with other services and support, can help foster a nurturing home environment, manage parents' expectations for age-appropriate behaviors and reduce the risk of disruptive behaviors in children.[754, 755] Zero to Three has recommended the creation of a Parenting Edge Initiative to provide more support to parents through a comprehensive array of public-private approaches, including: placing child development specialists in pediatric practices; providing parents with quality information and support to nurture their child's development; seeding community partnerships to promote support for parents including approaches such as parent peer groups to help parents connect with and support each other, or community-wide efforts to highlight ways parents can support early development; expanding and continuing to innovate home visiting programs that put families at the center of services; and ensuring child welfare programs provide research- and trauma-informed services developed for parents' specific needs in nurturing their babies' development.[756]

- **Invest in quality child care and early childhood education.** Quality early education programs have been shown to produce returns on investment of 7 to 10 percent.[757] Early education can help children learn how to interact with their peers and relate to others, regulate their emotions, adapt to change and build resilience.[758] Federal, state and local policies should focus on promoting high-quality initiatives, with the goal of safe, healthy environments in all child care, day care and early childhood education programs. States can strengthen licensing requirements for child-care settings and implement strong Quality Rating and Information Systems. Child care can vary dramatically in terms of quality. Effective programs provide nutritious meals, the opportunity for physical activity, and age-appropriate, evidence-based experiences to support positive cognitive and behavioral development.[759] Long-term studies have shown that participants in programs such as Early Head Start and Child Parent Centers have better cognitive and language development, higher rates of education and employment attainment and lower rates of violent behavior and arrests.[760] Key focus areas must include: ensuring access to high-quality child care and early education for all families; increasing the number of children in pre-kindergarten; and improving access to proven, high-quality early learning programs. At the federal level, this includes supporting ACF programs, the Office Child Care and the Child Care Development Block Grant (CCDBG), and Head Start and Early Head Start.[761]
  - More than 1.1 million children ages zero to 5 are enrolled in Head Start programs around the country, which provide comprehensive educational, nutritional, health, social and other services to low-income children — and often delivered by public and private nonprofit and for-profit agencies.[762] Roughly 75 percent of Head Start enrollees are 3- to 4-year olds, and 20 percent are zero to 2-year olds.

- **Support social-emotional learning in child care and early education programs**. Social-emotional learning programs — in child care, early education and K-12 — focus on developing and strengthening communication and problem-solving skills, emotional regulation, conflict resolution and coping skills. They provide children and youth with skills to resolve problems in relationships, school

and with peers, and reduce risks for mental health issues, substance misuse and suicide. Some of the key capabilities include: coping and problem solving, emotional regulation, conflict resolution and critical thinking, including avoiding and overcoming hopelessness. States can use new opportunities available through the Every Student Succeeds Act (ESSA) of 2015 to use a portion of Title I funds for early childhood education and the transition from pre-kindergarten to elementary school. In 2016, the Aspen Institute launched the National Commission on Social, Emotional and Academic Development with support from RWJF to outline and widely promote an evidenced-based action plan to accelerate efforts to integrate the social-emotional development of children in educational settings, and facilitate alignment and coordination of education stakeholders toward a shared vision of change in policy and practice.

- **Support a continuum of services between early care and education to elementary school.** A smooth transition of services, programs and supports is critical to building upon and strengthening the social-emotional skills developed in early childhood settings. Schools and early care settings can help support social-emotional learning — and other supports across settings, including: recommending state ESSA plans include language that promotes coordination of services and plans between early child care and schools; coordinating age-appropriate comprehensive early developmental and behavioral screening tools and protocols for action; establishing data sharing agreements between schools and early care settings; and delivering the same services in elementary schools that are available in early childhood programs under Title I funds, such as behavioral health supports and referrals to community-based organizations.[763]

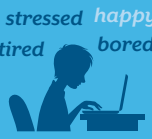
Social, Emotional, and Academic Development Fast Facts

What we know about social, emotional, and academic development.

Nine out of ten teachers believe social and emotional skills can be taught and that it benefits students.[1]

Four in five teachers want more support to address students' social and emotional development.[1]

75% of the words students use to describe how they feel at school are negative. Students most commonly report they are tired, stressed, and bored.[2]



Integrating social and emotional development improves students' attitudes and engagement.[3]

Growth in occupations that require the mastery of social and emotional skills has outpaced growth of all other occupations.[4]

Eight in ten employers say social and emotional skills are the ***most important to success*** and yet are also the hardest skills to find.[5]

Social and emotional competency is at least as predictive of academic and career achievement as is IQ.[6]

Supporting students' social and emotional development produces an ***11-percentage-point gain*** in grades and test scores.[3]

Social and emotional skills help to build cognitive skills. They ***help students learn academic content*** and apply their knowledge.[7]

After paying for college, the next ***biggest concern among parents*** is their children's social and emotional well-being.[8]

Attention to social and emotional development is not only valuable in early childhood. *Sustaining a focus on social and emotional growth through adolescence is crucial* for improving achievement and outcomes beyond school.[9]

Integrating social and emotional development with academic learning returns ***$11 for every $1 invested.***[10]

High social and emotional competency...

Increases high school graduation rates, postsecondary enrollment, postsecondary completion, employment rates, and average wages.[11]

Decreases dropout rates, school and classroom behavior issues, drug use, teen pregnancy, mental health problems, and criminal behavior.[11]

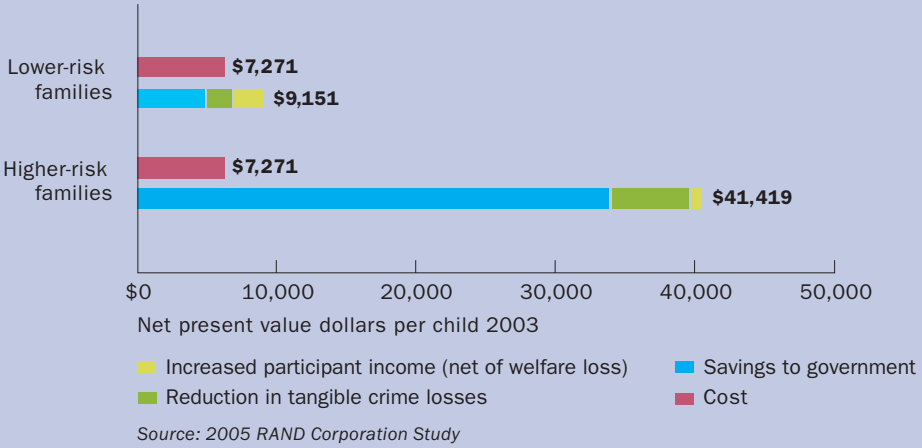
Source: Aspen Institute

EXAMPLES: EARLY CHILDHOOD INITIATIVES, HOME VISITING AND PARENT EDUCATION

Project LAUNCH is a SAMHSA prevention initiative in partnership with other agencies to improve the well-being of children ages birth to 8 by addressing various developmental components (physical, social, emotional, cognitive and behavioral).[764] It involves five core prevention and promotion strategies, including: child screenings and assessments; home visits; mental health consultations; family and parenting skills training; and integrating behavioral health into primary care settings. The effort works to improve coordination across child-serving systems, build infrastructures and increase high-quality prevention and wellness promotion services.

Nurse-Family Partnership (NFP) works with young, low-income, first-time pregnant women who are not ready to take care of a child by, first, establishing a trusted relationship with a public health nurse who meets with the mother from pregnancy until the baby turns two years old.[765] For more than 35 years, NFP, which is supported by RWJF, has enrolled mothers early in their pregnancies and helped public health nurses continuously conduct home visits over a two-and-a-half year period. Home visits are important because they connect first-time mothers with the care and support they need to ensure a healthy pregnancy and birth, and to be the best parent they can. The model has been shown to have dramatic benefits to society. For instance, when Medicaid pays for NFP services, the federal government gets a 54 percent return on its investment. Additionally, NFP services have resulted in lower enrollment in Medicaid and the Supplemental Nutrition Assistance Program (SNAP), a 9 percent reduction in Medicaid costs and an 11 percent reduction in SNAP costs in the 10 years following birth. Also, a 2005 RAND analysis found a net benefit to society of $34,148 (in 2003 dollars) per higher-risk family served, totaling a return of $5.70 for every dollar invested. Another study, in 2012, found long-term benefits of almost $23,000 per participant. Moreover, the program has demonstrated the ability to reduce child abuse and neglect, arrests among children, emergency room visits for accidents and poisonings and behavior and intellectual problems among children.

Monetary Benefits to Society



Source: 2005 RAND Corporation Study

Family Check-Up (FCU) models are designed for children ages 2- to 17-years old, who are typically from high-risk families, to address behavioral challenges before they can become more problematic.[766] FCUs are typically preventive, assessment-driven health maintenance models that emphasize motivation for change. Typically, the FCU begins with three home visits with a trained consultant, who then makes family-specific intervention recommendations that might include parent management training, preschool consultation and/or community referrals. The Early Steps Project, a University of Oregon study of an FCU that included 731 families with children who were 2-years-old recruited at Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) program offices, found the intervention to be associated with reductions in poor behavior and maternal depression and improved language development and inhibitory control.

Abriendo Puertas (Opening Doors) is an evidence-based training program that was developed by Latino parents for Latino parents with children ages zero to 5-years-old.[767] The curriculum uses the "popular education" approach — which focuses on empowering individuals who often feel marginalized in society — and provides lessons that reflect Latino culture. Abriendo Puertas features 10 interactive sessions, each of which promotes school readiness and family well-being by focusing on early childhood development, health, attendance and bilingualism, among others. Since it began in 2007, the program has served over 55,000 families in 256 cities. In June 2014, Child Trends completed an evaluation of Abriendo Puertas, finding that the program strengthened development of parenting practices and improved children's learning and preparation for school. In addition, the study found that Abriendo Puertas successfully increased parent engagement and parent education activities: reading and reviewing the letters of the alphabet in the home; library use; knowledge about the importance of high-quality child care; and others.

Effective School-Aged Children, Tweens and Teens Well-being Policies

Parents and educators know that children who are healthier are better prepared to learn, succeed in school and thrive out-of-school. Good nutrition, physical activity, basic safety, clean air and water, education about making healthy choices, a supportive school environment and access to physical, behavioral and mental health services allow children to flourish. The long-term success of children requires that they are healthy, safe, engaged, supported and challenged.

There is a significant body of research — including multi-decade studies by NIH/NIDA — that shows the value of focusing on social-emotional development, coping and life skills to perform better in school, reduce negative and risky behavior and form better relationships and ties with the community.[768]

Children experience a range of changes that can serve as triggers for increasing risk for negative well-being, substance misuse and depression or suicidal thoughts. The tween, teen and young adult years are the biggest "hot spot" for the emergence of drug and alcohol misuse, depression, suicidal ideation and other mental health concerns.

Transition times, like starting middle school, high school, college, leaving home for the first time and/or starting a job, can be trigger points. Tweens and teens experience less adult supervision, have interaction with wider groups of peers, begin developing romantic interests and relationships, have exposure to peers who may be misusing substances, experience increased academic pressure and face higher expectations for individual responsibility. Some children experience additional disruptions, like moving or parental separation/divorce. Other heightened risks include being withdrawn, having behavior or aggression issues, negative academic performance and experiencing peer rejection. Parents and/or friends who misuse substances, as well as the availability of drugs and alcohol in a community, are also increased risk factors. In addition, during these years, the prefrontal cortex of the brain is still forming, which is related to rational decision-making and risk-taking.

According to NIDA, while the initial decision to take drugs is mostly voluntary — once drug addiction takes over, a person's ability to exert self-control can become seriously impaired. Brain imaging shows that substance misuse can physically alter the brain — including impacting judgment, decision-making, learning, memory and behavior control. It can increase compulsive and destructive behaviors. Tobacco use is often the first substance that tweens or teens misuse and can begin altering brain structure to be more likely to develop an addiction and impact decision-making abilities.[769, 770]

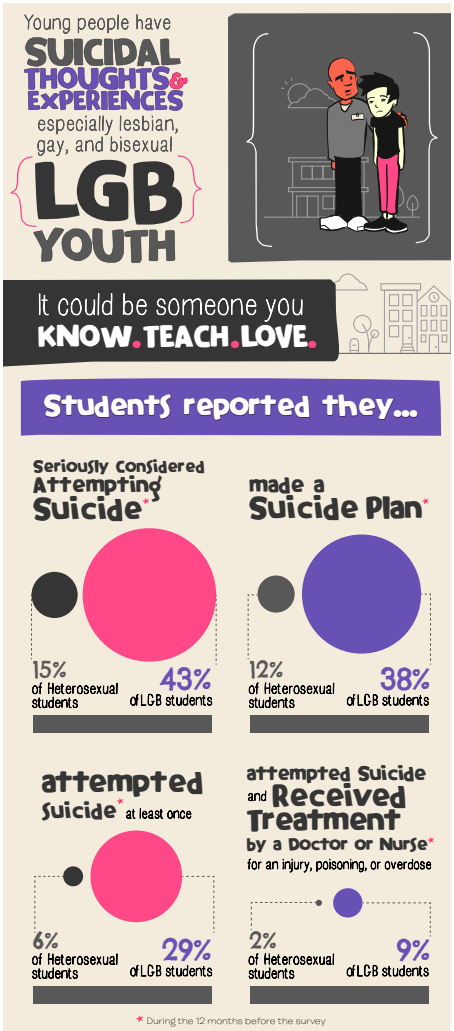
Building protective factors, positive environments and coping skills can mitigate against the risk. Policies and programs that support better well-being show benefits for all school-aged children — including reducing risk for substance misuse and suicide — but benefit those at risk the most significantly.

One major challenge is that traditional school systems are not designed to address these concerns. There are currently 55 million school-aged children — which can make school-based strategies an effective way to reach children, teens and tweens. However, many current health and education policies do not reflect the most effective evidence-based approaches for improving well-being and achievement.

Many school systems have few to no mental health services. And, many widely-used substance misuse prevention strategies are particularly out of date — where many schools have no programs at all, or use "pep rally" approaches or "information about the harms of drugs" in isolation, which have been shown to be ineffective and reinforce stigmas.

A number of leading experts have called for a reboot of mental health and substance misuse prevention in schools. This includes focusing on promoting supportive environments and social-emotional learning, providing behavioral health services, connecting school efforts with broader community programs and systems to identify issues early and connect children with appropriate services and supports. A successful school approach must also require providing training and education for educators and parents about what works best, as well as sufficient funding to implement and scale evidence-based programs over the long-term.

The President's Commission on Combating Drug Addiction and Opioid Crisis interim report reaffirmed this approach. The report identified the importance of using "evidence-based prevention programs for schools, tools for teachers and parents to enhance youth knowledge of the dangers of drug use, as well as early intervention strategies for children with environmental and individual risk factors (trauma, foster care, adverse childhood experiences and developmental disorders)."[771]



SCHOOL-AGED TRENDS (AROUND 55 MILLION CHILDREN AND YOUTH ARE CURRENTLY SCHOOL-AGED)

- **Suicide Risk.** More than one out of every 12 high school students attempted suicide in 2015, and nearly 15 percent had made a "suicide plan."[772]

- **Poverty, Toxic Stress and Food Insecurity.** More than half of U.S. public school students live in poverty and are at increased risk for the negative impact of prolonged stress. [773] Three out of four public school students regularly come to school hungry.[774]

- **Adverse Childhood Experiences.** More than half of children — across socio-economic levels — experience an ACE, such as physical abuse (28.3 percent), substance misuse in the household (26.9 percent), sexual abuse (24.7 percent for girls and 16 percent for boys) and parent divorce or separation (23.3 percent).[775, 776, 777] The more ACEs experienced, the higher likelihood for a range of health and behavioral risks and negative consequences.

- **LGB Youth.** More than 40 percent of lesbian, gay and bisexual youth consider suicide, 34 percent experience bullying and 18 percent experience physical dating violence.[778]

- **Mental Health Disorders.** As many as one in five children and teens, either currently or at some point in the past, have had a serious debilitating mental disorder.[779] More than 25 percent of teens are impacted by at least mild symptoms of depression.

- **Substance Misuse.** 7.4 percent of teens report regular marijuana use, 4.7 percent misuse prescription drugs, 10.8 percent smoked cigarettes, 16.0 percent used e-cigarettes, 32.8 percent of high schoolers drink alcohol and 17.7 percent report binge drinking.[780, 781, 782] More than 90 percent of adults who develop a substance use disorder began using before they were 18 years old.[783]

- **Treatment for Mental Health Issues and Substance Use Disorders.** Only one in 12 teens who needed substance misuse treatment received treatment in 2016; and four in 10 with a major depressive episode received treatment.[784]

- **Bullying.** Around 20 percent of high school students report being bullied on school property and 15.5 percent report being bullied through electronic or social media.[785]

- **Expulsions/Suspensions.** More than 3.3 million students are suspended or expelled from U.S. public schools annually, even though these practices are tied to lower school achievement, higher truancy and dropout rates, behavior problems and more negative school climate.[786] Black students (kindergarten to high school) are almost four times as likely to receive one or more out-of-school suspensions as White students.[787]

- **Chronic Absenteeism.** Chronic absenteeism rates, where students missed more than 10 percent of the school year, are often a warning sign of health, family, financial or other concerns. Thirteen percent of U.S. public school students (6.5 million) missed 15 or more school days in the 2013-2014 school year. Eighteen percent of high school students (3 million); and 11 percent of elementary students (3.5 million) are chronically absent.[788] Rates vary significantly across communities, ranging from 6 percent to 23 percent in six states, and with high poverty urban schools reporting up to one-third of students as chronically absent.[789]

ROI FOR EFFECTIVE SCHOOL-BASED SUBSTANCE MISUSE, VIOLENCE AND SUICIDE PREVENTION PROGRAMS

- Five of the strongest school-based substance misuse prevention strategies have returns on investment (ROI) ranging from $3.80:1 to $34:1 — and have demonstrated results in reducing misuse of a range of drugs, alcohol and tobacco along with other risky behaviors, while improving school achievement and future career attainment.[790, 791, 792, 793]
- A review of 53 school-based violence prevention program studies found reduced violence rates (including suicides) of 29.2 percent among high school students, 7.3 percent among middle school students, 18 percent among elementary school students and 32.4 percent among pre-kindergarten and kindergarten students — all of which led to decreased substance misuse and increased academic performance.[794, 795] ROIs ranged from $15 to $81 for every $1 spent.[796, 797, 798]

Reducing Risks and Increasing Protective Factors for Whether Teens Initiate, Regularly Use or Become Dependent on Alcohol and/or Drugs[799]

	Some Key Risk Factors	Some Key Protective Factors
Family	• Lack of mutual attachment and nurturing by parents or caregivers • Ineffective parenting • A chaotic home environment • Lack of a significant relationship with a caring adult • A caregiver who misuses substances, suffers from mental illness or engages in criminal behavior	• A strong bond between children and their families • Parental involvement in a child's life • Supportive parenting that meets financial, emotional, cognitive and social needs • Setting clear limits and expectations for behavior
Outside the family	• Classroom behavior concerns, such as aggression and impulsivity • Academic failure • Poor social coping skills • Association with peers with problem behaviors, including drug misuse • Misperceptions of the extent and acceptability of drug-abusing behaviors in school, peers and the community	• Age-appropriate monitoring of social behavior, such as curfews, adult supervision, knowing a child's friends, enforcing household rules • Success in academics and involvement in extracurricular activities • Strong bonds with pro-social institutions, such as schools • Acceptance of norms against drug misuse

Key Policies

Some key policy priorities and programs to promote well-being among school-aged children, tweens and teens include:

- **Prioritizing a healthy, positive school climate for all individuals in the school.** State and local school districts and schools can conduct needs assessments and adopt wellness plans to identify school or community specific concerns and the best strategies for addressing them. CDC has defined key strategies that help improve positive protective factors through school connectedness and parent engagement, including promoting: adult support (school staff can dedicate their time, interest, attention and emotional support to students); belonging to a positive peer group (a stable network of peers can improve student perceptions of school); commitment to education (believing that school is important to their future, and perceiving that the adults in school are invested in their education can get students engaged in their own learning and involved in school activities); and a positive school environment (the physical environment and psychosocial climate can set the stage for positive student perceptions of school).[800] Conversely, many traditional punitive-centered approaches to school behavior concerns, such as suspensions and expulsions, have been shown not to improve student behavior or school climate. In fact, they are associated with negative student outcomes, including lower academic performance and engagement, chronic absenteeism, higher dropout rates, failure to graduate on time and increased future disciplinary actions.[801]

  Many schools are also adopting Positive Behavior Interventions and Supports (PBIS) models that emphasize strategies to support social and behavioral improvement, such as character education, social skill instruction, bullying prevention, behavior support and building consultation teams.[802, 803] Research indicates PBIS contributes to decreased classroom disruptions and office discipline referrals, increased academic achievement and performance, and improved school climate and safety.[804] According to a Washington State Institute for Public Policy cost-benefit analysis, for every dollar spent on PBIS, there are $13.49 in societal benefits.[805]

  Some local school districts have also adopted trauma-informed practices to encourage safe, supportive climates in schools and to manage behavior concerns, acknowledging and responding to the role of trauma (ranging from having been physically abused to living in adverse circumstances contributing to a prolonged experience of "toxic stress") in the development of emotional, behavioral, educational and physical difficulties in the lives of children and youth.[806]

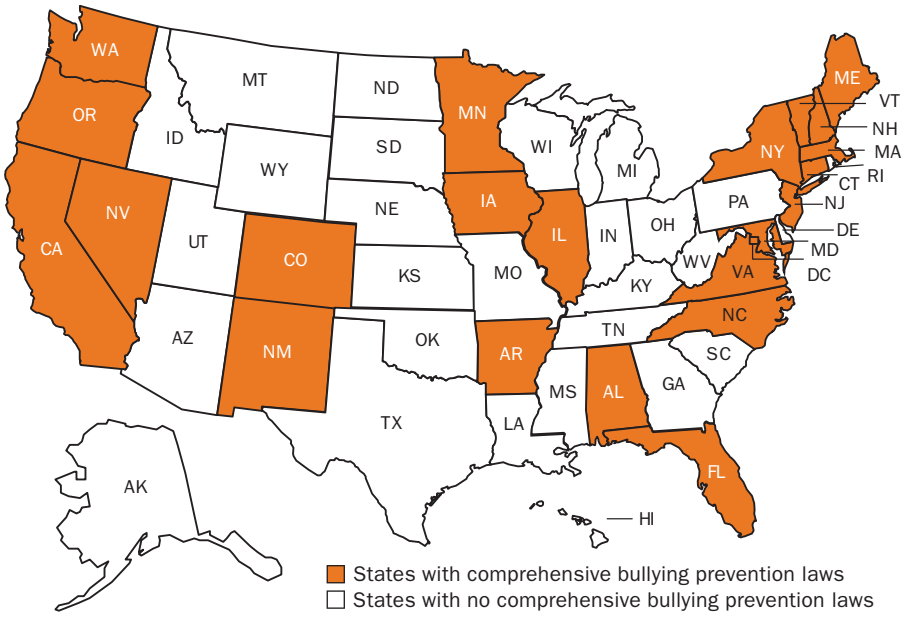
  ESSA also provides a number of new opportunities to support district and/or school-wide health improvement and to support more health-related professional development, including:[807]

  - Integrating measures of mental health and wellness in state accountability systems and report cards;
  - Training school personnel to address school climate issues, such as SEL programming or screening tools, using ESSA professional development funds;
  - Developing academic standards and assessments for social-emotional learning; and
  - Engaging mental health and well-being stakeholders in state plan development and implementation.

- **Investing in evidence-based social-emotional learning, life and coping skill programs.** The benefits of social-emotional learning programs are cross-sectoral — with clear long-term benefits for the education, healthcare, criminal justice and private sectors. Investments to seed and scale these programs, however, are often limited to the education sector. Aligning and coordinating funding streams from these other benefiting sectors — and reinvesting savings in promotion or prevention activities — would greatly increase the opportunities to seed and scale evidence-based mental health program programming. Potential funding streams could include: hospital community benefit dollars, leveraging Medicaid reimbursement in schools under CMS' recent free care policy change, pay-for-success financing or the Community Development Financial Institutions Fund. Efforts should also be made to measure or leverage the benefits of cross-sector investments in these programs. It is important to provide support so high-quality programs are implemented with fidelity — and results are evaluated.

- **Adopting and supporting the wide and sustained use of evidence-based substance misuse prevention programs in schools.** In addition to the broader set of policies and programs aimed at preventing substance misuse, there are specific approaches focused on school-based efforts. While there has been a long history of substance misuse prevention efforts in schools, many of these have been underfunded and limited in duration, and have not been evidence-based. And many substance misuse, suicide and mental health programs are initiated in response to tragic events in a community, and are not sustained beyond an immediate response period. It is important to provide more stable and sustained funding to support a long-term commitment to effective, ongoing evidence-based programs — which is a culture change from previous practices of funding limited and short-term campaigns or grant programs. It is also important to have an expert network to support schools in selecting which of a select menu of evidence-based programs best fit their needs, starting and effectively maintaining a new program, including training and ongoing technical support, providing evaluations and advising on continuous quality improvement. School-based substance misuse programs are most effective and should be developed in context with other programs and supports in a community. Schools and school districts should work with multi-sector child and youth development coalitions and collaborations (such as Communities That Care) to help ensure that programs and efforts are mutually reinforcing and the combined efforts yield better overall results.

22 States Have Comprehensive Bullying Prevention Laws



Source: American Academy of Pediatrics

- **Support anti-bullying programs.** In 2015, more than 20 percent of high school students reported being bullied on school grounds, and 15.5 percent report being bullied through social media.[808] In addition to its pervasive nature, bullying is associated with other forms of violence.[809, 810, 811, 812, 813] Additionally, both youth who bully and those who are bullied report higher levels of suicidal ideation and suicides.[814] Programs that help youth process their emotions, lower their levels of aggression and develop problem-solving skills have been shown to reduce incidents of bullying and delinquency and raise students' levels of academic success.[815] AAP recommends that pediatricians advocate for bullying awareness by teachers, education administrators, parents and children, and supports adoption of evidence-based prevention programs. They recommend that effective state policy clearly defines the role and the authority of the school officials, teachers and other school employees to address bullying and would require a zero-tolerance policy for bullying based on race, ethnicity, gender, sexual orientation, gender identity, disability, religious beliefs and other personal attributes. Additionally, policies should apply to students in all schools, both on or off campus, or through the use of technology (i.e., cyberbullying).

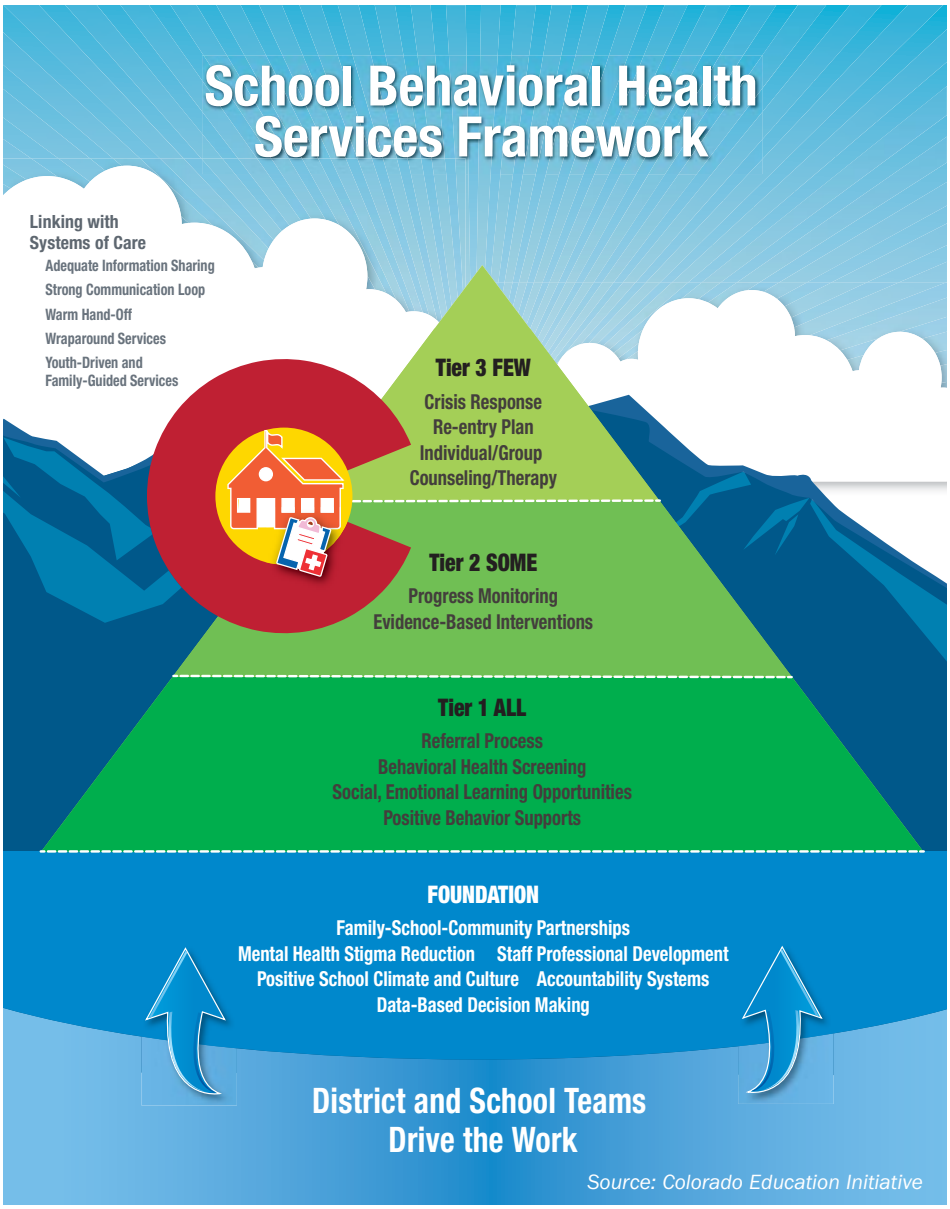
More than 160,000 students in the United States stay home from school every day out of fear of being bullied. It harms a student's ability to learn, is related to declines in grades and self-worth, increases risk for depression and anxiety and can cause physical symptoms such as head and stomach aches. According to AAP, student education and support from adults is particularly important, and more than 55 percent of bullying situations stop when a peer intervenes.

- All states and Washington, D.C., Guam, Puerto Rico and the U.S. Virgin Islands have some form of bullying prevention law or policy. However, according to AAP, only 22 have comprehensive bullying prevention laws.[816]

- **Expand both the number of school counselors and other mental health personnel in schools, and professional development opportunities.** There is a shortage of trained professionals to support social-emotional development and to address the behavioral and mental health needs of U.S. students. For instance, the National Association of School Psychologists (NASP) reported a shortage of more than 9,000 school psychologists in 2010, with a projected shortage of 15,000 by 2020. The national ratio was 457 students to one school psychologist. In some areas, the ratio is as high as 2,000 or 3,500 to one.[817] Currently, school psychologists, counselors and behavior specialists spend a significant portion of their time supporting the academic needs of students and/or dedicated to addressing the needs of around 13 percent of U.S. students who receive special education services. There is little time or resources to provide support for additional mental health and/or social, behavioral and emotional problems. As a result, it is important to increase the number of trained professionals to provide support to the school community and students.[818] These professionals help students in academic achievement, personal/social development and career development. Trained professionals can: provide support and intervention to students; consult with families and teachers; promote positive peer relationships, provide social problem solving and conflict resolution; develop school-wide practices and approaches; and connect and collaborate with community providers for needed services.

- **Increase school health services — including mental, behavioral and oral health — and improve coordination across education, health and other social services.** A number of models — including increased ability for Medicaid to pay for health services in schools under the new free care policy — are emerging to better support children's health needs in schools and/or to connect them to care.[819] Efforts range from increasing the number and functions of school nurses and full on-site school-based health centers to mobile health centers, telehealth and designated caseworkers for creating strong partnerships with local providers, such as hospitals, community health centers, community mental health centers and social service providers.[820] In addition, there are increasing efforts to grow the availability and scope of mental health and behavioral health professionals employed by schools and/or referrals to outside systems of support.

- **Require school-based suicide prevention plans, including prevention training for teachers and other personnel who regularly interact with students.** In 2015, suicide was the second-leading cause of death among young people. Effective school-based prevention plans and efforts have been shown to reduce suicides and suicidal thoughts among tweens and teens. Some best practices include: training teachers, administrators and staff to recognize warning signs and how to connect students with specialized supports; encouraging positive inclusive environments; routine mental health screening; implementing comprehensive anti-bullying approaches; and having "postvention" strategies to help families, students, school staff and communities respond effectively to suicides or suicide attempts.



- The American Foundation for Suicide Prevention (AFSP) found as of 2016, only nine states required annual training for school personnel on suicide prevention.[821] Another 16 states require some training, though not annually, and 14 states encouraged training, but did not mandate it.[822] In 2016, California became the first state to require all middle and high school schools to provide mandatory suicide prevention educations (grades seven to 12).[823]
- AFSP also has recommendations for colleges and university policies and programs to support suicide prevention — stressing gatekeeper training, providing information about crisis intervention services to students, online screening and support programs, availability of mental health services and other efforts. According to their review, five states have laws related to college suicide prevention efforts (Ohio, Pennsylvania, Texas, Washington and West Virginia).[824]

EXAMPLES: SCHOOL-BEHAVIORAL HEALTH PROGRAMS

Georgia Apex Program was created in the 2015 school year, when 29 community mental health providers in Georgia contracted with school partners to implement school-based mental health programs. School staff members and parents referred students to mental health providers, with about one-third of students receiving mental health services for the first time during the first year of this project. Commonly delivered services, 88 percent of which were delivered in a school setting, include individual therapy, community supports/individual services and behavioral health assessments. Trainings, such as youth mental health first aid and suicide prevention, community forums and weekly coffee talks helped to fully integrate this project into the schools and allowed students and staff to receive guidance around the initiative. Providers were encouraged to build infrastructure and create lasting partnerships with the schools for sustainability once the grant ended. After just seven months of the program, the number of students served increased from 234 at baseline to 1,487, with the total number of students served increasing by about 193 students each month.

Mary's Center, a federally qualified health center (FQHC) in Washington, D.C., operates a school based mental health (SBMH) program in 15 schools to decrease access barriers for students and families. By staffing mental health professionals within the school building, the program can operate and self-sustain through Medicaid billing — and as a FQHC, is eligible for an enhanced Medicaid reimbursement rate.[825] Billing for Medicaid services like individual, group or family therapy allows Mary's Center to broaden its support within the school to other typically non-billable school-wide mental health promotion and prevention services, such as lessons on social-emotional wellness, workshops for parents on positive discipline and stress management, and trainings for teachers on trauma-informed education. In the 2016-2017 school year, 57 percent of SBMH clients had an improvement of 10 points or greater during at least three months of treatment on the 30-point Child and Adolescent Functional Assessment Scale.[826]

Wisconsin School Mental Health Project is a five-year initiative launched in 2015 in 25 school districts as a partnership created by Wisconsin's Violent Death Reporting System, Maternal Child Health program and Mental Health America of Wisconsin. It was developed in response to data showing high risk for suicide among youth in rural counties along with American Indians/Alaska Natives and LGBT persons. The highest rates were in rural counties with the lowest numbers of mental health providers per capita. Among youth suicides, they found more than half (52 percent) experienced a crisis in the two preceding weeks, 30.7 percent were experiencing problems related to school and 42.5 percent had a current mental illness. The project is a collaboration among mental health, public health and education agencies and advocates to reduce perceived stigma attached to mental illness and accessing mental health services; train school-community teams; and increase the number of adults who recognize the signs of youth who are having trouble and know how to approach students and their families to access appropriate services. Efforts also included focusing on means reduction, or access to lethal means. This included providing messages about safe storage of lethal means, including storing firearms that are locked, unloaded and with ammunition stored separately and using a best practice approach, CALM: Counseling on Access to Lethal Means, to provide counseling strategies to help youth and families at risk for suicide.

Recovery High Schools[827] are intentionally designed for students recovering from a substance use disorder as part of the continuum of recovery care. These schools offer programs that uniquely meet the education and therapeutic challenges faced by those in recovery and who were struggling to succeed in traditional school settings. They provide an alternative to the justice system and delinquency, and a way to reduce school violence while improving education attainment, by typically providing intensive therapeutic and peer-recovery support and academic curriculum with structured recovery-focused programming. A study found that complete avoidance of alcohol or other drugs increased from 20 percent during the 90 days before entering the school to 56 percent after.

NIAAA RECOMMENDED SCHOOL-BASED ALCOHOL PREVENTION PROGRAMS[828]

According to a review of a broad range of studies and programs, NIAAA has identified key elements of the most effective school-based programs, which include:[829]

- Correcting misperceptions that everyone is drinking;
- Teaching youth ways to say no to alcohol;
- Using interactive teaching techniques (e.g., small-group activities, role plays and same-age leaders);
- Involving parents and other segments of the community;
- Revisiting the topic over the years to reinforce prevention messages;
- Providing training and support for teachers and students; and
- Ensuring efforts are culturally and developmentally on target for the students they serve.[830]

For college students, some effective approaches include brief motivation intervention approaches, cognitive-behavioral interventions (recognizing when or why an individual drinks and tools for changing behavior), challenging expectations or norm-beliefs about alcohol use and using trained counselors (including peer counselors) and some tested web-based programs.

PARTNERSHIP FOR DRUG-FREE KIDS: PARENTS' ROLE IN HELPING THEIR KIDS

The brains of teenagers and young adults are still maturing, and addiction often starts in the teen years.[831] The Partnership for Drug-Free Kids provides advice and support for parents who play an important role in helping their children grow up as healthy as possible, from talking to kids from an early age about drugs and alcohol to helping connect their young adult children with emerging mental health issues with appropriate healthcare. They raise the importance of providing resources for parent education and support efforts. Key roles of parents include:

- **Prevention:** Have ongoing conversations about drugs/alcohol starting at an early age; model appropriate use of prescriptions and alcohol; safeguard prescription drugs; and do not provide alcohol to teens.
- **Identifying problems early:** Understand and look for warning signs of drug use, ongoing mental health issues, or crisis, and be prepared to take action.[832]
- **Connecting kids to care:** Get screenings from primary care providers or psychologist for kids exhibiting concerning behavior; help connect kids with appropriate treatment and support them as much as possible, from health insurance coverage to continuing care needs.

PROVISIONS UNDER ESSA TO ADDRESS MENTAL AND BEHAVIORAL HEALTH IN SCHOOLS

ESSA presents several opportunities to promote and address mental health in school settings. In the report, *Framework for Action: Addressing Mental Health and Well-being through ESSA Implementation,* the Alliance for a Healthier Generation, Healthy Schools Campaign, Mental Health America and TFAH identify key opportunities to promote mental health and well-being under ESSA, including:

- **Integrating measures of mental health and wellness in state accountability systems and report cards.** States are required to include at least one indicator of school quality or student success in their state accountability system — creating an opportunity to integrate measures related to mental health and well-being. Under Title I of ESSA, schools must also include chronic absenteeism in their state report cards. As mental health issues are among the leading causes of chronic absenteeism, reporting on this metric could help to catalyze actions to address the underlying causes of these issues in school settings. Other possible accountability indicators include measures of school climate.[833]
- **Incorporating mental health and wellness into needs assessments and aligning metrics across other community needs assessments.** ESSA includes two needs assessment requirements. Under Title I, local education agencies (LEAs) must complete a needs assessment to identify performance gaps and develop an improvement plan to address the findings. Under Title IV Part A, LEAs must complete a needs assessment on safe and healthy learning environments, access to well-rounded education and personalized learning experiences supported by technology, every three years. Stakeholders can encourage LEAs to include measures related to mental health and well-being in these needs assessments and resulting improvement plans. These measures should be aligned with other existing needs assessments, particularly those conducted in other sectors (such as hospital community health needs assessments) to facilitate greater collaboration and data integration between sectors.
- **Training school personnel to address behavioral health and school climate issues using ESSA professional development funds.** ESSA creates opportunities to train staff, such as administrative staff, teachers and superintendents, to address key school climate issues. ESSA's professional development funds could be used to provide training on social-emotional learning, build school personnel capacity to conduct screenings or treatment referrals, or other ways to create a supportive and healthy school environment.
- **Align measures across education and health needs assessments and standards.** Measures should be streamlined across healthcare and education needs assessments to allow for easier data sharing and integration. The Colorado Department of Education incorporates behavioral and mental health within their health and physical education academic standards through an emotional and social wellness (ESW) standard.[834] And Colorado's comprehensive health and physical education academic standards also include prevention and risk management standards that include competencies to apply knowledge and skills that promote healthy, violence-free relationships; and to apply knowledge and skills to make health-enhancing decisions regarding the use of alcohol, tobacco and other drugs.[835]
- **Engaging mental health and well-being stakeholders in state plan development and implementation.** ESSA requires meaningful stakeholder engagement in state plan development and implementation, which provides opportunities to engage a diverse set of cross-sector community-based organizations and institutions working on issues related to mental health and well-being. Schools may consider engaging stakeholders such as: behavioral health providers, health insurers or hospitals, community mental health centers, universities or colleges — especially those who train education or behavioral health professionals and/or paraprofessionals — local and state health departments and, importantly, families and students.

EXAMPLES: SCHOOL-BASED SOCIAL-EMOTIONAL AND LIFE AND COPING SKILLS PROGRAMS

Students who complete evidence-based social-emotional and life/coping skills development programs have lower rates of alcohol and drug misuse and suicidal ideation. These school-based programs can begin as early as kindergarten and are most effective if implemented in early grade levels.[836]

PAX Good Behavior Game (GBG) is an approach to the management of classroom behaviors that rewards children for displaying appropriate on-task behaviors during instructional times. The GBG presents an opportunity to improve students' performance and allow teachers to teach more effectively. New Mexico recently used this evidence-based approach in an 1115 Waiver to receive Medicaid reimbursement for the program. Results from districts in New Mexico using this approach show a 57 percent to 65 percent reduction in disruptive behaviors (compared to an initial 34 percent to 41 percent). Additionally, studies from across the nation show a 50 to 70 percent reduction in inattentive, unengaged learning, and disturbing, destructive, aggressive and bullying behaviors. GBG also cut the odds of suicide ideation and suicide attempts in half when assessed 15 years later (at ages 19 to 21) compared to peers who were not in GBG.[837] A cost-benefit analysis of PAX GBG shows that the program returns $57.53 for every $1 invested. GBG has also been funded by hospitals, such as Nationwide Children's Hospital as part of their community needs assessment implementation strategy and by health plans such as Trillium Health Plan. In Columbus, Ohio, through a partnership with Columbus City Schools (CCS), Nationwide Children's Hospital supports behavioral health clinicians for first and second grade classrooms to help teachers implement GBG.[838]

Youth Aware of Mental Health (YAM) is a program which has shown 50 percent reductions in attempted suicides and 49.6 percent reductions in suicidal thoughts among teens ages 14 to 16 in 168 schools in 10 European countries. The program focuses on developing interactive dialogue and role-playing to teach about the risk and protective factors associated with suicide (including depression and anxiety) and how to enhance problem solving skills to deal with adverse life events, stress, school and other problems.[839]

Life Skills Training (LST) Program is focused on middle school students and includes a "booster" program for high school students.[840] LST is designed to address a wide range of risk and protective factors by teaching general personal and social skills, along with drug resistance skills and normative education. The program has been extensively tested over the past 20 years and has been found to reduce the prevalence of tobacco, alcohol and illicit drug use relative to controls by 50 to 87 percent. When combined with booster sessions, LST was shown to reduce the prevalence of substance misuse long-term by as much as 66 percent, with benefits still in place beyond the high school years.

ESTIMATES OF BENEFITS RELATIVE TO COSTS*

Evidence-based Approach/Program	Benefits per $1 of Cost
Nurse-Family-Partnership®	$1.61
The Incredible Years® – Parent	$1.65
Strengthening Families 10–14	$5.00
Early Childhood Education Programs (state and district)	$5.05
Good Behavior Game	$64.18
Life Skills® Training	$17.25
Mentoring (school-based)	$14.85 (with volunteer cost) $23.86 (taxpayer only)
Functional Family Therapy	$6.51
Multidimensional Treatment Foster Care	$1.70
Multisystemic Therapy®	$1.74

Source: CDC, A Comprehensive Technical Package for the Prevention of Youth Violence and Associated Risk Behaviors

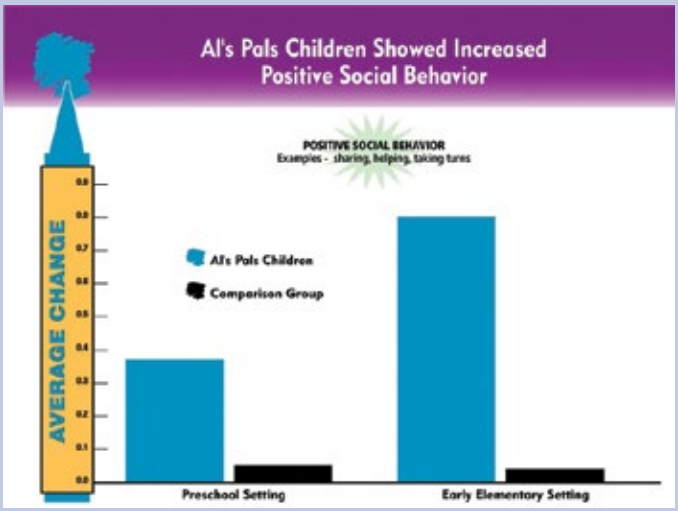
*Dollar estimates by Washington State Institute for Public Policy are in 2015 dollars and are specific to the state of Washington. Estimates are likely to vary across states and communities. The benefit-cost estimates are continually updated, and cost estimates presented are based on information published by Washington State Institute for Public Policy as of September 2016. The latest information is available online at: http://www.wsipp.wa.gov.

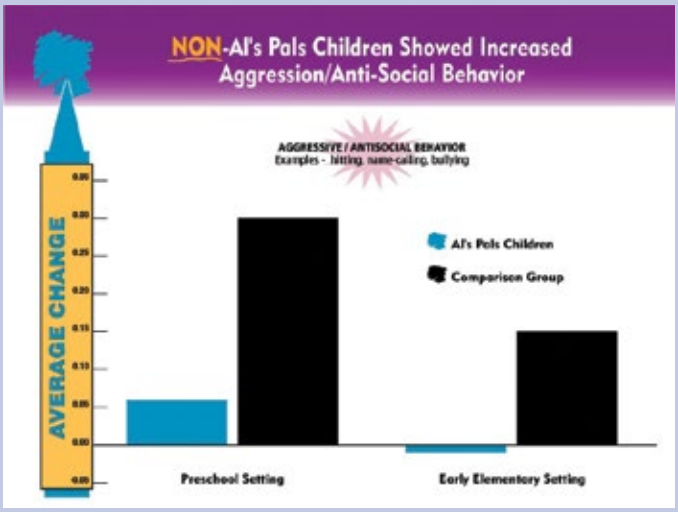
EXAMPLES: SCHOOL-BASED SOCIAL-EMOTIONAL AND LIFE AND COPING SKILLS PROGRAMS

Al's Pals is a comprehensive curriculum and teacher training program that develops social-emotional skills, self-control, problem-solving abilities and healthy decision-making in children ages 3- to 8-years old.[841] The program is nationally recognized as an evidence-based model prevention program and received top rating by the National Center on Quality Teaching and Learning in their Social-Emotional Preschool Curriculum Consumer Report.

Through fun lessons, engaging puppets, original music and effective teaching approaches, Al's Pals:

- Helps young children regulate their own feelings and behavior, allowing educators more time for creative teaching by reducing the need for discipline
- Creates and maintains classroom environments of caring, cooperation, respect, and responsibility
- Teaches conflict resolution and peaceful problem-solving
- Promotes appreciation of differences and positive social relationships
- Prevents and addresses bullying behavior
- Conveys clear messages about the harms of alcohol, tobacco and other drugs
- Builds children's abilities to make healthy choices and cope with life's difficulties





Source: Al's Pals

Family Opportunities — Addressing Core Needs and Promoting Stability

CDC's review of the most effective strategies for preventing suicides include: 1) **strengthening household security** (unemployment benefits, other forms of temporary assistance, livable wages, medical benefits, retirement and disability insurance and similar programs); and 2) **housing stabilization** policies (housing assistance, eviction and foreclosure laws, loan modification programs, move-out planning and financial counseling services).[842]

Across many measures, there is a clear link between a lack of financial stability and the drug, alcohol and suicide crises:

- Regions with the most economic distress also have the highest death rates from drug, alcohol and suicide deaths.[843]
- Financial factors were reported in 37.5 percent of suicide deaths in 2010.[844]
- A study found that higher state spending on income support and medical benefits had lower rates of suicide (estimated spending $45 more per capita would lead to 3,000 fewer suicides per year).[845]
- Unemployment, periods of recession, lower income and lower educational levels have been associated with higher drug and alcohol misuse in a number of studies.[846, 847]

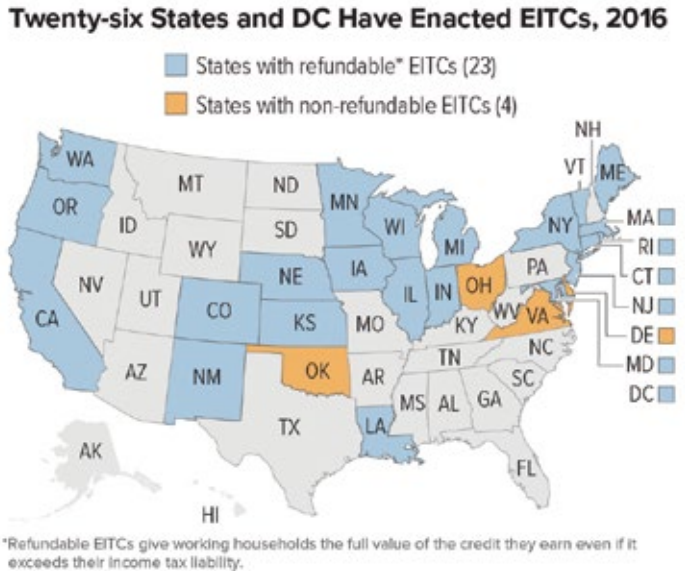
Key Policies

Some of the most effective policies that help provide support to families to meet their basic needs and better well-being include:

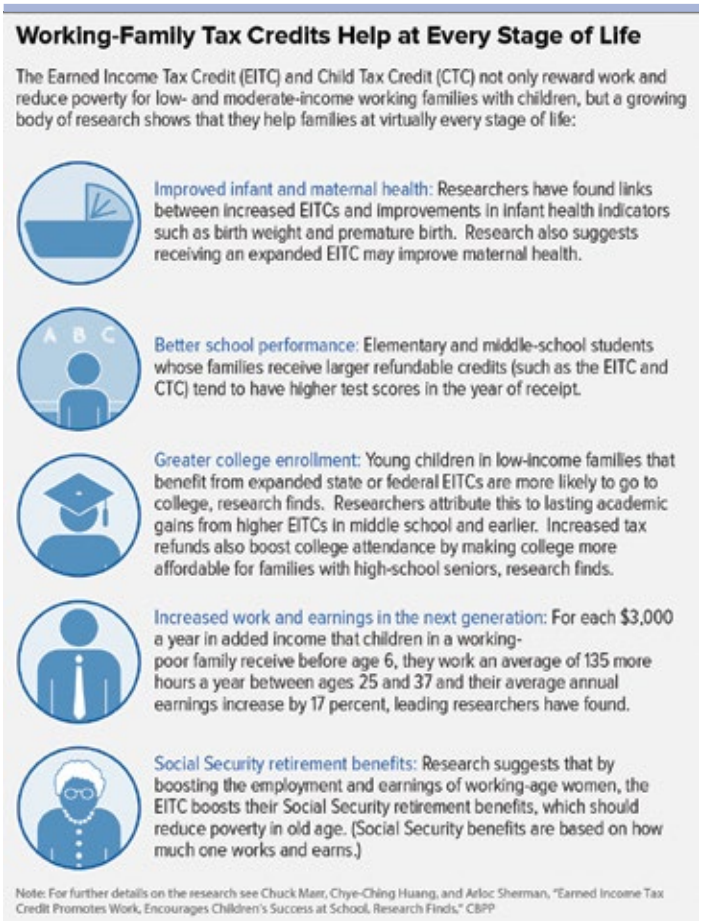
Income Assistance

- **Earned Income Tax Credit (EITC) and Child Tax Credit (CTC).** Two of the most effective and targeted federal anti-poverty programs are the EITC, which is fully refundable, and the CTC, which is partially refundable. The EITC and CTC provide money to low-income individuals who are working (EITC) and who have children (CTC). In 2016, more than 27 million workers and their families received an average EITC of $2,455.[848] The program boosted 9.4 million people, including 5 million children, over the poverty limit in 2013.[849] Studies show the higher amount of refundable tax credits a child's family receives, the more likely that child is to have better school performance, attend college, earn more as an adult and avoid the early onset of disabilities and other illnesses associated with child poverty.[850, 851, 852, 853] States can also offer EITC programs that help leverage federal support and help for working families. As of 2016, 26 states and Washington, D.C. had enacted EITCs, with 23 states making it refundable — including the state of Washington, which does not have a state income tax.[854]

- **Temporary Assistance for Needy Families.** Established in 1996, TANF provides block grants to states to supplement state spending in support of low-income families. In FY 2014, over 1.5 million families and nearly 2.7 million children received TANF assistance.[855] TANF has been subject to several short-term extensions in recent years but is overdue for full reauthorization. The basic TANF amount has not changed since 1996, causing its real value to decline by more than 30 percent. In order to be eligible for TANF assistance, recipients must be working and cannot be immigrants; they also cannot be assisted by the program for more than five years. While the number of Americans in poverty and extreme poverty has increased, the number of people receiving TANF assistance has declined. In 1996, 68 out of 100 poor families received TANF benefits; by 2013, that number had dropped to 26 out of 100.[856] In 1995, TANF's predecessor, Aid to Families with Dependent Children (AFDC), lifted out of deep poverty 62 percent (2 million) of the children who otherwise would have been below half of the poverty line; by 2010, this figure for TANF was just 24 percent (629,000).[857]



Source: Center on Budget and Policy Priorities



Source: Center on Budget and Policy Priorities

- **Minimum Wage.** The federal minimum wage is currently $7.25 an hour, and it is not indexed for inflation. A recent study found that if minimum wage had kept pace with productivity over recent decades, it would be more than $18 an hour.[858] A worker employed full time in a minimum wage job earns just $14,500, which is more than $4,000 below the poverty line for a mother with two children and not enough to afford a one-bedroom apartment in any state.[859] Thirty-one states and Washington, D.C. have minimum wages above the federal limit.[860]

- **Family and Medical Leave.** Only about 12 percent of the U.S. workforce has access to paid family leave benefits to support time off after a child is born or during his or her first year of life.[861] Nearly half of U.S. employees do not work for a company that is required to offer leave under the federal Family and Medical Leave Act, and more than half of those who do cannot afford to take the unpaid leave that the law provides.[862, 863] This can make it more difficult to breastfeed, causes stress for the parent and child and makes it more difficult for parent and children to establish positive, nurturing relationships. Past the first year of life, more than half of working mothers do not have paid sick days to either care for themselves or their children.[864] While some states excuse workers from TANF work requirements during the first six months of a child's life, only three states have created insurance programs that provide paid leave for workers.

- **Unemployment Insurance.** Federal-state unemployment insurance programs support states in providing short-term assistance for many families to fill a gap between jobs — states can define the maximum amount and duration of benefits. During the Great Recession, unemployment insurance helped keep 3.5 million Americans above the poverty line in 2011, including nearly 1 million children.[865] An analysis found that suicide rates were lower in states that provided higher than average benefits (mean: $7,990 per person) and for a duration that could go longer than 26 weeks.[866]

Housing Assistance

- **Housing Choice Vouchers, Section 8 Project-Based Rental Assistance and Public Housing:** There are three major federal rental assistance programs that are administered at the local and state level and help make housing affordable for more than 10 million people, including 4 million children.[867] A recent study found that housing vouchers reduced the number of families living in shelters or the streets by three-fourths; reduced the number of families who lacked their own home or residence by nearly 80 percent; reduced the share of families living in crowded conditions by more than half; and reduced the number of times families moved over a five-year period by close to 40 percent.[868] However, due to funding limitations, only around one in four families eligible for federal assistance receives it. A 2015 report by the Department of Housing and Urban Development found that six out of 10 extremely low-income renters and three out of 10 very low-income renters do not have access to affordable and available rental units, and three-quarters of renters eligible for low-income rental assistance do not receive it.[869 870] The federal government spends three times as much on tax subsidies for homeownership — more than half of which benefits households with incomes above $100,000 — as on rental assistance for low-income families.[871]

- **Mortgage/Foreclosure Assistance:** Between April 2009 and May 2016, the federal government also worked with public and private entities to provide relief on 10.5 million mortgages — for those with high interest loans and owed more than the home's value or were unemployed — through a Making Homes Affordable (MHA) program following the housing crisis in 2008.[872] The program expired in May 2016.

- **State and Local Housing Trusts:** At the state and local community level, there are also a range of housing programs, loans and grants — including 47 states and Washington, D.C. and hundreds of communities have housing trusts, but the amount for these programs varies significantly from area to area.

- **Local, State and Federal Place-Based Community/Neighborhood Development Initiatives:** Local, state and federal place-based initiatives focus on how to improve the overall quality of neighborhoods and areas, supporting housing, equal education and job opportunities, crime reduction, active living and quality healthcare. For instance, the Neighborhood Revitalization Initiative, including Choice Neighborhoods, Promise Zones and Strong Cities, Strong Communities (SC2), focus on improving housing, schools, transportation, healthcare, community design and development and other efforts to be more effective and coordinated. Residing in areas that offer lots of opportunities, such as high-performing schools, high-quality parks and strong community activities, reduce stress and help improve mental health and well-being.

Food Assistance

- **Supplemental Nutrition Assistance Program:** SNAP is the largest nutrition assistance program in the United States, providing benefits equaling around $1.40 per meal to nearly 45 million low-income Americans in FY 2016.[873] In 2016, 44.2 million Americans were enrolled in the Supplemental Nutrition Assistance Program and several million more were SNAP-eligible.[874] According to an analysis by the Center on Budget and Policy Priorities (CBPP), SNAP kept an estimated 8.4 million people out of poverty, including 3.8 million children — and 2.1 million children out of deep poverty (50 percent of the poverty line) in 2014.[875] The average amount of per-person SNAP benefits has decreased since the height of the fiscal crisis.[876] Mothers in food insecure households that receive SNAP benefits are less likely to experience symptoms of maternal depression than mothers in food insecure households not receiving SNAP benefits.[877]

- **Special Supplemental Nutrition Program for Women, Infants, and Children:** WIC is a federal grant-based program that provides nutrition support to low-income pregnant, postpartum and breastfeeding women, infants and children up to age 5 who are at risk for inadequate nutrition.[878] WIC helps provide approved nutritious foods, nutrition education (including breastfeeding promotion and support) and referrals to health and other social services to participants at no charge. The federal grant-based program provided benefits to 7.7 million individuals each month in 2016 (1.9 million infants, 4 million children and 1.8 million women) at an average cost of $42.62 per person a month.[879] Every $1 spent to support good nutrition and early health for infants in the two months after birth through WIC has been shown to lead to a reduction in healthcare costs of $1.77 to $3.13 in the two months after birth (a 2:1 to 3:1 ROI).[880]

- **School Meal Programs:** The National School Meal Programs provides a free or reduced-cost meal to students from families earning below 185 percent of the federal poverty guidelines. In 2016, more than 30 million children received lunch and 14.5 million received breakfast each day through the programs.[881] 2016 was the ninth straight year enrollment in the program increased.[882] School meal programs are widely credited with reducing levels of student truancy and behavioral issues and raising levels of student concentration and achievement.[883] There is also some evidence they may play a role in reducing the risk of developing chronic diseases later in life.[884]

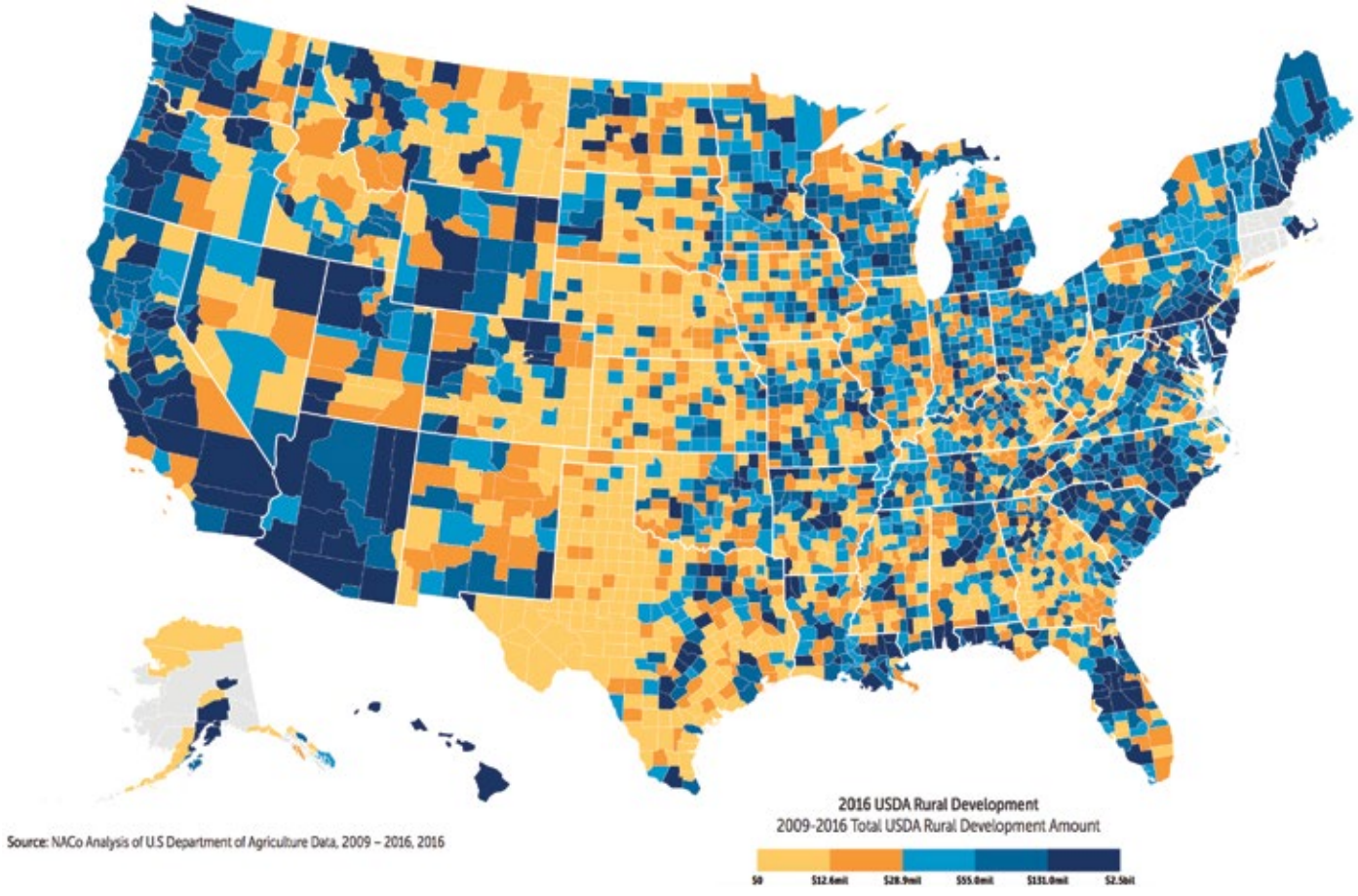
CREATING ECONOMIC OPPORTUNITY

There have been marked shifts in the U.S. economy and labor markets — and it has impacted the vitality and job opportunities within many communities around the country.

While the U.S. economy has improved greatly since the financial crisis and recession of the late 2000s (with the economy growing each year since 2010 and unemployment falling under 5 percent in 2016), there are still areas and populations in the country that are lagging and significant barriers to economic opportunity for many Americans.[885] [886]

- High levels of income inequality (in 2015, half of all income in the United States went to 10 percent of earners) and stagnant wages for the vast majority of Americans (the average income for the lower 90 percent of earners increased by 0.03 percent since 1980 while the income for the top 0.01 percent of earners increased by more than 300 percent over the same time period) remain critical issues in the United States. Moreover, insufficient investment in children's health, education and economic security, which particularly hurts lower-income families, and higher unemployment in rural areas continue to contribute to the nation's challenges.[887] [888]
- Studies show recessions and unemployment cause significant psychological distress and more of those affected turn to alcohol and drugs to cope, which creates additional health issues and further hurts families and communities that are already struggling.[889]

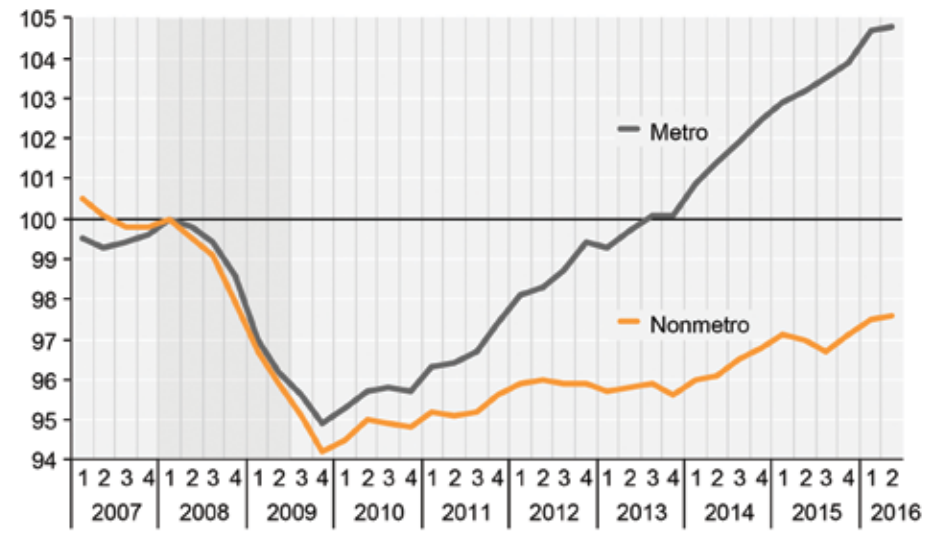
2016 USDA Rural Development Grants



Source: NACo Analysis of U.S Department of Agriculture Data, 2009 – 2016, 2016

To address many of these ongoing issues and ensure there is economic opportunity for all Americans, experts call for additional investment in infrastructure and the workforce (such as direct job creation, adult education, job training and apprenticeship programs) and maintenance of current education grants (e.g., Pell grants) and safety net programs (e.g., SNAP) in the short term; and polices that reduce economic inequality, boost income and wage stagnation, bolster affordable housing, improve public health and healthcare, reform criminal justice and education systems, and continue to support programs that bolster low and moderate income families in the long-term.[890, 891, 892, 893]

U.S. Employment, metro and non-metro areas, 2007-2016 (quarterly)



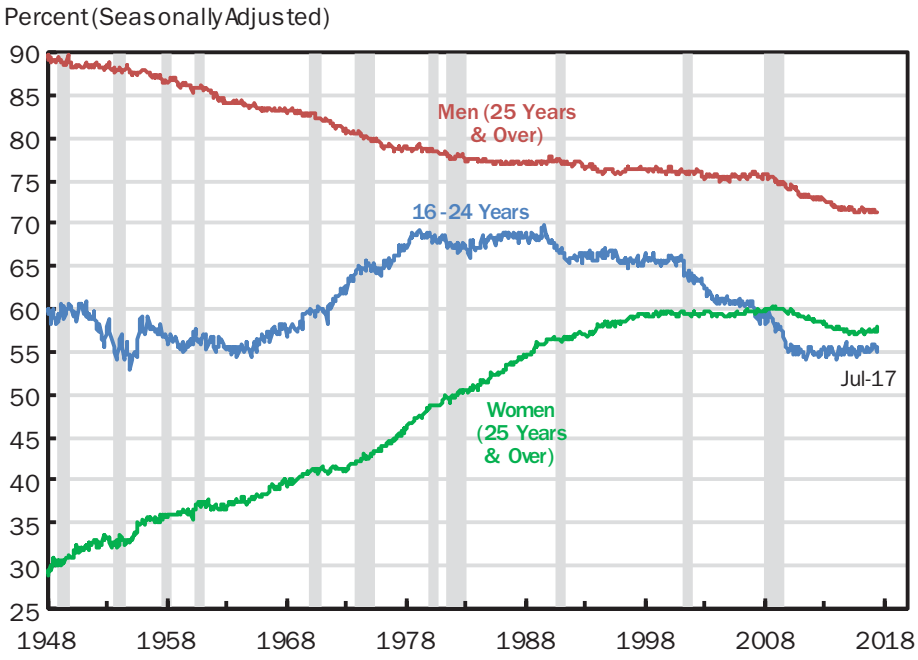
Notes: Data are seasonally adjusted. Shaded area indicates recession period.
Source: USDA, Economic Research Service using data from Bureau of Labor Statistics, Local Area Unemployment Statistics (LAUS).

OPIOID USE AND THE LABOR MARKET

A 2017 analysis by Brookings found that opioid use is having a negative impact on labor force participation rates — estimating that the increase in opioid prescriptions could account for around 20 percent of the labor force decline among men and 25 percent among women between 1999 and 2015.[894] The connection between opioid use and the labor market is clear, but the study cannot determine which causes which.

The research also found that much of the variation of opioid prescription rates between counties comes from differences in prescribing practices separate from the underlying health and demographics that also affected prescribing rates. This shows that prescribing practices alone have played an important role in how many people take opioids and that the connections between opioids and labor force is more than a proxy for underlying health or demographic differences.

Labor Force Participation Rates by Age & Gender



Source: Brookings, 2017.

SECTION 4:

Pain in the Nation: *Public Health Report* SERIES

Recommendations for a National Resilience Strategy — and Reducing Alcohol and Drug Misuse and Suicide

The nation needs much stronger action to counter the rising opioid, alcohol and suicide death trends — and address the underlying pain, prolonged stress, hopelessness, financial insecurity and other factors that contribute to these crises.

This report shows that without a more concerted effort, the problems will continue to get worse — and that limited attention on preventing problems in the first place perpetuates a negative cycle.

It also reviews a broad range of evidence-based and promising policies and programs that are available to tackle the drug, alcohol and suicide death crises — and the factors contributing to these trends, including ways to modernize and expand the behavioral health system to focus more broadly on "whole health" and to support improved well-being in communities and raise a healthier generation of children.

However, the overarching recommendation of the report is the need to bring policies and programs together in a more comprehensive and effective way — to develop a **National Resilience Strategy** to improve the lives of Americans across the country.

In addition, there is a need to continue to support research and development into effective strategies to reduce substance misuse and suicides and improve well-being — along with a need to continue to adapt, evaluate and improve strategies, particularly as aspects of the crises change over time.

SUMMARY OF POLICIES AND PROGRAMS TO REDUCE SUBSTANCE MISUSE AND IMPROVE WELL-BEING

A. Reducing Drug and Alcohol Misuse and Suicide

1. **Opioid Response:** Much of the response to date has been focused on reacting to the acute emergencies of overdoses, insufficient treatment availability and options and limiting the supply of opioids available for misuse. Some key efforts include:

- **Surveillance** — to be able to track problems — and inform and target response activities — including drug use patterns, such as identifying trends in prescription drug misuse, heroin, fentanyl and carfentanil increases in communities — and related harms such as hepatitis C and HIV.

- **Evidence-based community prevention programs** to be scaled and expanded to benefit local areas throughout the country — supporting best-practice, multi-sector partnerships that leverage the leadership, expertise and resources within a community to support a comprehensive strategy — and expert networks to provide advice and technical assistance so effective programs are implemented for maximum impact.

- **Improving pain treatment and management practices, including responsible prescribing of prescription opioids:**

  - **Increased education and training for providers** — including guidance for improving pain management and treatment;

  - **Responsible prescribing of prescription opioids and Prescription Drug Monitoring Programs** — including continued study and use of best practices for PDMPs, and ensuring they receive sufficient support to be fully operational in every state, with a focus on using data to help inform and improve pain treatment for patients and avoiding and treating addiction;

  - **Public education, safe storage, disposal and Take Back programs** to inform patients about safe use and storage and risk of dependence — and reduce the availability of unused medicines in the community — and support tamper-resistant formulations;

  - **Strengthen the "public benefit" considerations of FDA approval practices** and support tamper-resistant and non-addictive formulations; and

  - **Anti-drug trafficking and stopping the supply-chain of heroin, fentanyl and other illicit, synthetic opioids** efforts must be a top priority.

- **Reducing the harms caused by overdoses and misuse** and treating substance use disorders as public health issues first — and the need for community-based, stigma-free harm reduction services that provide people the support and help they need when and where they need them by:

  - **Expanding naloxone availability and Good Samaritan laws** and other policies that make the rescue drug more widely available and able to be prescribed to individuals and families at risk and community institutions (workplaces, libraries, community centers, airports/train and metro stations, universities and schools, etc.) to be able to respond to overdoses and limit liability for helping. Ensuring accessibility and affordability of naloxone is also essential;

  - **Sterile syringe access** to reduce the risk and spread of HIV, hepatitis C and vein infections; and

  - **Diversion strategies** to provide support and treatment to individuals with substance use disorders that focus on treating addiction as a health and not a criminal issue.

- **Treatment as prevention** — expanding the availability and quality of substance misuse services available that meet recommended, modern standards of care.

2. **Preventing Excessive Drinking** which can increase risk for developing alcohol use disorders, as well as injuries, suicide and other forms of violence and a number of chronic diseases. Some top evidence-based policies for reducing excessive drinking include:

- **Pricing, access and availability** — increases in prices, limiting hours and limiting the density of outlets and restaurants/stores/bars selling alcohol;

- **Reducing underage drinking** through minimum legal age compliance checks, zero tolerance for underage drunk driving laws and penalties for hosting parties with underage drinking; and

- **Reducing drinking and driving** — which reduces risks for crashes while also identifying individuals who may need treatment or support — through drunk driving limit laws, mandatory ignition interlocks even for first time offenses, increases in sobriety check points and increasing driving under the influence penalties.

3. **Preventing Suicides** by supporting a cultural shift that focuses on providing help to individuals, especially when experiencing trauma, distress or severe circumstances. Preventing excessive drinking, alcohol use disorders and opioid misuse are also important strategies for reducing the number of suicides. In addition, leading strategies include:

- **National Violent Death Report System** should be expanded to every state to allow for better tracking of suicide patterns and risks to develop stronger, targeted prevention strategies;
- **Statewide suicide prevention plans** that focus on building effective support systems within key institutions, training "gatekeepers" or people in positions that have high contact with tweens, teens and adults (educators, community and faith leaders, human resource and social service providers, etc.) with training to help identify those at risk — and crisis services for those in need. Special focus should be dedicated to school-based efforts and support veterans, Native American/Alaska Native, LGBT and other higher risk communities;
- **Suicide risk identification training for medical professionals — and improving access to mental health services;** and
- **Limiting access to "hotspots" and lethal means for suicide** since most suicides are carried out within a short time of having suicidal thoughts and risk goes down if means are not available, including promoting safety within communities (bridges, building access, etc.) and firearm safety policies, especially for those at risk, including safe storage, child access prevention, gun violence protective orders and background reporting/checks for mental illness and other risks.

B. Improving Behavioral Health Services to Address Whole Health

- **Expanding and modernizing behavioral health services** — with only around one in 10 people receiving the recommended treatment for mental health and substance use disorders — there is an urgent need to expand the availability of behavioral health services. The gaps are particularly acute in rural and lower-income areas. In addition, there is a need to expand the use of modern best practices for treatment in line with the research about what is most effective (including being able to provide different forms of treatment, durations and scopes that match the needs and conditions of individual patients). Parity laws must be implemented and enforced.
- **Bolstering the behavioral workforce and expanding access to services in underserved communities** — expanding the availability of coverage requires also increasing the behavioral health workforce — including with incentivized workforce development initiatives and expanded training and use of community health workers and peer counselor support — and models such as telehealth in many communities and other service delivery models.
- **Medication-Assisted Treatment** should be available for patients as recommended/appropriate — which will require expanding the workforce trained and credentialed to support its delivery.
- **Maximize Medicare and Medicaid** to follow and support state use of best practices to treat opioid use disorder and to broadly modernize the delivery and coverage of behavioral health services. This should include continuing to support and expand integrated/aligned healthcare and behavioral health service models — ensuring guidelines and coverage for the scope and duration and multiple forms of recommended standards of care that meet patient needs and conditions. In addition, continued support should be provided for innovative Medicaid models that support connecting healthcare and social services — including Accountable Health

Communities and expanding screenings for early childhood, teen and family risks and connections to services and supports.

- **Align and integrate behavioral health with healthcare** — where the "whole health" of patients is addressed — including physical and mental health needs. This will require changes that help align systems, payments and incentives for more coordinated and integrated care. Some models include expanding training for types of professionals, referral systems and/or co-location of services. Systems should be trauma-informed to be accessible and supportive of patients and patients should be able to be referred to appropriate services and supports no matter where they start in the system, so there is "no wrong door" for entry to support;
- **Focusing on early identification of issues and connections to care** — there also needs to be increased focus on identifying issues early — and connecting individuals and families to the care and support they need. There are numerous models and tools for screening for trauma, adverse childhood and family experiences, risk for mental illness, risk for and misuse of drugs and alcohol and risk of suicide; and
- **Coordination across healthcare, behavioral health and social services** is also important, since many factors influence health, including social services. Systems must support connections to services and case management to ensure people receive the support that is needed and available.

C. Prioritize Prevention

Supporting Healthier Communities and Raising a Mentally and Physically Healthier Generation of Kids — with a strategy of preventing problems before they start — supporting evidence-based policies and programs that reduce risks for substance misuse, suicide and other harms, and promote protective factors like: safe, secure families, homes and communities; life and coping skills; and social-emotional development, including:

- **Multi-sector collaborative partnerships** that provide support and leadership for comprehensive approaches to problems, like the opioid, alcohol and suicide crises, which impact the whole community. These partnerships provide the infrastructure to leverage the expertise, resources, leadership and capabilities of a broad range of partners — healthcare and hospitals, universities and schools, businesses, community and faith groups, and other organizations — across a community — for stronger collective impact. These partnerships are key for being able to scale and sustain policies and programs to address the opioid, alcohol and suicide epidemics — and to also focus on promoting prevention-focused efforts on an ongoing basis.
- **Expert networks to** provide guidance on evidence-based approaches that best fit a local area's needs and technical assistance for effective implementation and evaluation of the effort.
- **Early childhood strategies,** including high-quality home visiting programs; evidence-based parent education and support initiatives; high-quality child care and early childhood education; services that provide support to transition from early childhood programs to elementary school;
- **Modernizing child welfare system** — and need for multi-generational care — including meeting the increased needs related to the opioid epidemic — prioritizing services and support to parents and children — to help keep families together and reduce the trauma of separation when possible and appropriate; supporting the ability of grandparents and other relatives to provide care for children when possible and appropriate; and comprehensive supports and case manager approaches for children in foster care system;
- **School-aged tween/teen strategies,** including prioritizing healthy, positive school climates for all individuals in the school; investing in evidence-based social-emotional learning and life and coping skill programs; widespread use of modern evidence-based substance misuse prevention programs; anti-bullying programs; expanding availability for school counselors and mental health personnel and increasing school services and coordination across health, education and social services; and school-based suicide prevention plans including training for personnel;
- **Family opportunity programs,** including income assistance programs, housing assistance and transportation, food assistance and healthcare — that address core needs and promote stability;
- **Economic opportunity initiatives** that promote job opportunities and training in targeted areas — and improve infrastructure and community amenities and services.

APPENDIX A:

PREVENTION POLICY INDICATORS		
	Substance Use	Mental Health
Indicator	Newborn Screening for Substance Use Exposure - state requires reporting if newborn has been exposed to drugs, alcohol or other controlled substances	State Mental Health Budget (Increased/Decreased/ Remained Level)
Year	as of April 2015	FY 2015-2016
Alabama		Maintain
Alaska	√	Decrease
Arizona	√	Increase
Arkansas	√	Decrease
California	√	Maintain
Colorado		Increase
Connecticut		Increase
Delaware		Increase
D.C.	√	Decrease
Florida		Increase
Georgia		Increase
Hawaii		Maintain
Idaho		Increase
Illinois	√	Pending
Indiana		Increase
Iowa	√	Decrease
Kansas		Decrease
Kentucky	√	Decrease
Louisiana	√	Maintain
Maine	√	Increase
Maryland	√	Maintain
Massachusetts	√	Increase
Michigan	√	Maintain
Minnesota	√	Increase
Mississippi		Maintain
Missouri	√	Maintain
Montana	√	Increase
Nebraska		Increase
Nevada	√	Decrease
New Hampshire		Increase
New Jersey		Increase
New Mexico		Increase
New York		Increase
North Carolina		Decrease
North Dakota		Decrease
Ohio		Decrease
Oklahoma	√	Maintain
Oregon		Increase
Pennsylvania	√	Pending
Rhode Island		Maintain
South Carolina		Increase
South Dakota		Increase
Tennessee		Maintain
Texas		Increase
Utah	√	Maintain
Vermont		Maintain
Virginia	√	Increase
Washington		Increase
West Virginia		Increase
Wisconsin		Maintain
Wyoming		Decrease
U.S.	**N/A**	**N/A**

State Statutes Search. In Child Welfare Information Gateway. https://www.childwelfare.gov/systemwide/laws_policies/state/

National Alliance on Mental Illness. State Mental Health Legislation 2014. Trends, Themes & Effective Practices. Arlington, VA: National Alliance on Mental Illness. http://www2.nami.org/Template.cfm?-Section=Policy_Reports&Template=/ContentManagement/ContentDisplay.cfm&ContentID=172851"

PREVENTION POLICY INDICATORS

	Childhood Healthcare Indicators — Access and Utilization					
Indicator	Children (ages 1 to 18) Enrolled in Medicaid	Income Eligibility Levels for Children in Medicaid/ CHIP	EPSDT Participation Rate of Children (1- to 2-year-olds) Receiving at Least One Initial or Periodic Screen	EPSDT Participation Rate of Children (3- to 5-year-olds) Receiving at Least One Initial or Periodic Screen	Newborn Screening - out of 34 Conditions listed on the Recommended Uniform Screening Panel	Medicaid/CHIP Income Eligibility Levels for Pregnant Women
Year	**FY 2014**	**as of January 2017**	**FY 2015**	**FY 2015**	**2017**	**as of January 2017**
Alabama	50%	≥300%FPL	1.00	0.66	30	138% up to 200%FPL
Alaska	57%	200% up to 300%FPL	0.65	0.62	31	200% up to 250%FPL
Arizona	49%	200% up to 300%FPL	1.00	0.68	30	138% up to 200%FPL
Arkansas	44%	200% up to 300%FPL	1.00	0.59	31	200% up to 250%FPL
California	32%	200% up to 300%FPL	1.00	1.00	32	≥250%FPL
Colorado	40%	200% up to 300%FPL	0.94	0.66	31	≥250%FPL
Connecticut	37%	≥300%FPL	1.00	0.89	32	≥250%FPL
Delaware	40%	200% up to 300%FPL	1.00	0.83	31	200% up to 250%FPL
D.C.	34%	≥300%FPL	0.95	0.99	30	≥250%FPL
Florida	50%	200% up to 300%FPL	0.89	0.82	31	138% up to 200%FPL
Georgia	58%	200% up to 300%FPL	0.89	0.76	31	200% up to 250%FPL
Hawaii	39%	≥300%FPL	1.00	0.83	31	138% up to 200%FPL
Idaho	61%	<200% FPL	0.79	0.63	30	138% up to 200%FPL
Illinois	40%	≥300%FPL	0.84	0.92	33	200% up to 250%FPL
Indiana	56%	200% up to 300%FPL	0.88	0.81	30	200% up to 250%FPL
Iowa	43%	≥300%FPL	1.00	0.78	31	≥250%FPL
Kansas	60%	200% up to 300%FPL	0.84	0.80	30	138% up to 200%FPL
Kentucky	38%	200% up to 300%FPL	1.00	0.83	33	200% up to 250%FPL
Louisiana	50%	200% up to 300%FPL	1.00	0.86	30	200% up to 250%FPL
Maine	36%	200% up to 300%FPL	1.00	0.96	31	200% up to 250%FPL
Maryland	40%	≥300%FPL	1.00	1.00	31	≥250%FPL
Massachusetts	25%	≥300%FPL	1.00	1.00	28	200% up to 250%FPL
Michigan	44%	200% up to 300%FPL	1.00	0.60	31	200% up to 250%FPL
Minnesota	39%	200% up to 300%FPL	1.00	0.71	32	≥250%FPL
Mississippi	50%	200% up to 300%FPL	0.88	0.58	31	138% up to 200%FPL
Missouri	53%	≥300%FPL	1.00	1.00	33	≥250%FPL
Montana	58%	200% up to 300%FPL	0.79	0.69	31	138% up to 200%FPL
Nebraska	59%	200% up to 300%FPL	0.87	0.72	31	200% up to 250%FPL
Nevada	40%	200% up to 300%FPL	1.00	0.77	30	138% up to 200%FPL
New Hampshire	40%	≥300%FPL	1.00	0.77	28	200% up to 250%FPL
New Jersey	41%	≥300%FPL	1.00	0.91	31	200% up to 250%FPL
New Mexico	40%	≥300%FPL	1.00	0.85	31	≥250%FPL
New York	35%	≥300%FPL	1.00	1.00	33	200% up to 250%FPL
North Carolina	54%	200% up to 300%FPL	1.00	0.79	31	200% up to 250%FPL
North Dakota	40%	<200% FPL	0.95	0.64	31	138% up to 200%FPL
Ohio	41%	200% up to 300%FPL	0.64	0.66	31	200% up to 250%FPL
Oklahoma	55%	200% up to 300%FPL	1.00	0.63	31	200% up to 250%FPL
Oregon	36%	≥300%FPL	0.70	0.58	31	138% up to 200%FPL
Pennsylvania	42%	≥300%FPL	1.00	0.90	34	200% up to 250%FPL
Rhode Island	40%	200% up to 300%FPL	1.00	0.85	31	≥250%FPL
South Carolina	53%	200% up to 300%FPL	1.00	0.56	31	138% up to 200%FPL
South Dakota	59%	200% up to 300%FPL	0.79	0.48	31	138% up to 200%FPL
Tennessee	51%	200% up to 300%FPL	0.83	0.82	31	≥250%FPL
Texas	64%	200% up to 300%FPL	0.98	0.96	31	200% up to 250%FPL
Utah	60%	200% up to 300%FPL	1.00	0.68	31	138% up to 200%FPL
Vermont	32%	≥300%FPL	1.00	0.89	31	200% up to 250%FPL
Virginia	52%	200% up to 300%FPL	0.90	0.85	31	200% up to 250%FPL
Washington	45%	≥300%FPL	1.00	0.68	30	138% up to 200%FPL
West Virginia	36%	≥300%FPL	1.00	1.00	31	138% up to 200%FPL
Wisconsin	40%	≥300%FPL	1.00	0.80	31	≥250%FPL
Wyoming	64%	200% up to 300%FPL	0.90	0.54	30	138% up to 200%FPL
U.S.	**43%**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**

Medicaid enrollment by age. In Kaiser Family Foundation, 2015. http://kff.org/medicaid/state-indicator/medicaid-enrollment-by-age/#(accessed October 2015).

Income Eligibility Levels for Children in Medicaid/CHIP January 2015. In Kaiser Family Foundation, 2015. http://kff.org/medicaid/slide/income-eligibility-levels-for-children-in-medicaidchip-january-2015/

Early and Periodic Screening, Diagnostic, and Treatment. In Medicaid.gov. http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Benefits/Early-and-Periodic-Screening-Diagnostic-and-Treatment.html (accessed July 2015)

State profile information. In NewSTEPs. https://data.newsteps.org/newstepsweb/stateProfile/input.action (accessed October 2015).

Where are States Today? Medicaid and CHIP Eligibility Levels for Adults, Children and Pregnant Women. April 13, 2015. In The Henry J. Kaiser Family Foundation. http://kff.org/medicaid/fact-sheet/where-are-states-today-medicaid-and-chip/ (accessed August 2015)."

PREVENTION POLICY INDICATORS

	Early Childhood				General Welfare/Well-being			
Indicator	Early Childhood Education Enrollment (Enrollment in Head Start or State Supported Pre-K)	Early Childhood Education Funding ($ per child enrolled in preschool)	Early Childhood Education Comprehensive Quality Standards (out of 10)	Early Childhood Education Comprehensive NEW Quality Standards Checklist	Hours Needed at Minimum Wage to Afford a One-Bedroom Unit	Percent of Homeless People Who Are Unaccompanied Children and Youth	Child Maltreatment Rates per 1,000	Number of Children Entering Foster Care
Year	2015-2016 School Year				2017	2015	2015	2015
Alabama	29.1%	$7,299	10	10	61	5.7%	7.7	3,605
Alaska	17.6%	$6,270	7	6	79	7.9%	15.6	1,513
Arizona	17.5%	$3,444	3	1	67	6.3%	7.4	12,722
Arkansas	44.8%	$7,773	9	7	54	7.3%	13.0	4,065
California	38.0%	$6,639	4*	4*	92	9.0%	7.9	32,205
Colorado	30.3%	$4,001	6	5	75	5.7%	8.0	4,926
Connecticut	28.6%	$10,419	5.3*	4.7*	84	3.1%	9.1	1,765
Delaware	18.0%	$7,295	8	6	89	6.0%	7.5	397
D.C.	76.1%	$17,875	4	3	100	2.7%	11.4	437
Florida	77.5%	$2,353	3	3	77	6.6%	10.7	17,672
Georgia	56.3%	$3,934	8	6	72	4.2%	10.8	8,581
Hawaii	11.8%	$7,467	8	7	125	4.0%	4.8	1,189
Idaho	10.9%	No program	No program	No program	59	6.6%	3.7	1,201
Illinois	35.8%	$3,854	8	7	75	6.3%	10.1	4,929
Indiana	13.7%	$6,594	3	1	62	6.4%	16.7	11,175
Iowa	61.7%	$3,386	6.5*	6.5*	58	5.8%	10.8	4,011
Kansas	29.1%	$2,328	7.5*	7.5*	62	3.4%	2.8	3,984
Kentucky	32.6%	$8,110	9	8	57	5.5%	18.7	5,383
Louisiana	38.2%	$4,617	9*	8*	69	9.5%	11.3	4,099
Maine	44.8%	$8,371	9	9	71	6.2%	13.2	902
Maryland	36.3%	$7,533	8	7	101	5.7%	5.0	2,114
Massachusetts	16.5%	$3,309	7*	6.5*	87	2.0%	22.4	6,245
Michigan	33.3%	$6,291	9	9	58	9.3%	15.7	6,982
Minnesota	12.5%	$7,924	9	7	68	9.7%	4.0	6,911
Mississippi	33.2%	$4,031	10	8	61	4.7%	12	3,082
Missouri	15.1%	$4,722	8	8	59	7.3%	4.1	6,906
Montana	18.6%	No program	No program	No program	54	10.0%	8.3	1,940
Nebraska	28.9%	$5,695	6	7	54	8.7%	7.4	2,421
Nevada	12.9%	$4,512	7	6	71	26.4%	7.4	3,486
New Hampshire	12.5%	No program	No program	No program	89	6.3%	2.8	620
New Jersey	34.1%	$12,664	8.3*	8.3*	100	6.4%	4.8	4,594
New Mexico	43.5%	$5,233	8	8	64	7.3%	17.5	1,795
New York	51.8%	$6,716	7	7	98	3.0%	15.8	8,980
North Carolina	25.0%	$7,855	10	9	66	5.9%	3.4	5,597
North Dakota	16.6%	No program	No program	No program	62	10.9%	10.1	1,037
Ohio	20.8%	$4,000	4	5	54	6.9%	8.8	10,360
Oklahoma	73.7%	$7,479	9	6	59	12.2%	15.0	5,467
Oregon	13.4%	$8,929	9	7	58	10.2%	12.1	3,752
Pennsylvania	22.2%	$6,580	6.25*	4.5*	78	5.6%	1.4	11,259
Rhode Island	20.4%	$10,506	10	10	67	4.2%	15.1	1,215
South Carolina	43.6%	$3,367	6	4.5*	66	3.6%	13.6	3,644
South Dakota	19.6%	No program	No program	No program	49	10.4%	5.1	1,039
Tennessee	29.3%	$7,037	9	5	65	7.4%	7.6	5,878
Texas	49.5%	$4,127	4	4	73	6.0%	8.8	17,319
Utah	11.1%	No program	No program	No program	69	4.4%	10.5	2,270
Vermont	65.9%	$7,879	6	5	70	6.6%	7.7	958
Virginia	24.6%	$5,964	5	4	97	4.7%	3.3	2,879
Washington	16.9%	$8,305	9	7	73	6.9%	3.7	5,704
West Virginia	58.7%	$9,898	10	9	53	7.9%	12.8	3,947
Wisconsin	68.2%	$5,791	6	4.5*	67	5.5%	3.7	4,700
Wyoming	22.1%	No program	No program	No program	64	4.6%	7.0	1,141
U.S.	**35.9%**	**$5,696**	**N/A**	**N/A**	**N/A**	**6.5%**	**9.2**	**N/A**

Out of Reach 2015. 2015 Hours at Minimum Wage Needed to Afford Rent. In, National Low Income Housing Coalition, 2015. http://nlihc.org/sites/default/files/oor/OOR2015_Min-Wage-Map.pdf (accessed October 2015).

America's Youngest Outcasts. A Report Card on Child Homelessness. In, The National Center on Family Homelessness at American Institutes for Research, 2014. http://new.homelesschildrenamerica.org/mediadocs/280.pdf.

U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. Child maltreatment 2013. Washington, D.C.: U.S. Department of Health and Human Services, 2015. http://www.acf.hhs.gov/programs/cb/research-data-technology/statistics-research/child-maltreatment.

Numbers of children entering foster care by State. FY 2004 –FY 2013. In, U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau, 2014. http://www.acf.hhs.gov/sites/default/files/cb/entering_foster_care2013.pdf (accessed October 2015).

PREVENTION POLICY INDICATORS

	General Government Assistance							
Indicator	Supplemental Nutrition Assistance Program (SNAP) Participation	United States WIC Participation	Enacted Earned Income Tax Credits (EITCs)	Changes in Real (inflation-adjusted) TANF Benefits Comparing Current Levels with Levels in 1996	Minimum Wage Levels	Consumer Protection from Predatory Payday Loans	Work-Oriented Child Support Programs by State	Family and Medical Paid Leave
Year	**as of March 2017**	**2014**	**2016**	**2016**	**as of Jan 1, 2017**	**2016**	**as of Feb 2014**	**enacted as of July 2017**
Alabama	16.5%	1.50%		-14.0%	none		√	
Alaska	11.8%	0.23%		-34.4%	$9.80			
Arizona	13.2%	1.87%		-47.5%	$10.00	√		
Arkansas	12.9%	1.01%		-34.4%	$8.50	√	√	
California	10.5%	16.46%	R	-22.5%	$10.50		√	√
Colorado	8.4%	1.08%	R	-14.9%	$9.30	√	√	
Connecticut	11.0%	0.64%	R	-28.0%	$10.10	√		
Delaware	15.5%	0.25%	NR	-34.4%	$8.25			
D.C.	17.7%	0.18%	R	-30.3%	$11.50	√	√	√
Florida	15.4%	6.13%	R	-34.4%	$8.10		√	
Georgia	13.8%	3.39%		-34.4%	$5.15	√	√	
Hawaii	11.8%	0.42%		-43.8%	$9.25			
Idaho	10.4%	0.47%		-36.1%	$7.25			
Illinois	14.7%	3.23%	R	-24.9%	$8.25		√	
Indiana	10.2%	1.84%	R	-34.4%	$7.25		√	
Iowa	11.7%	0.81%		-34.4%	$7.25		√	
Kansas	8.0%	0.81%	R	-34.4%	$7.25		√	
Kentucky	14.6%	1.56%		-34.4%	$7.25		√	
Louisiana	19.5%	1.55%	R	-17.2%	none			
Maine	13.6%	0.27%	R	-23.9%	$9.00	√		
Maryland	11.3%	1.64%	R	11.8%	$8.75	√	√	
Massachusetts	11.2%	1.43%	R	-28.3%	$11.00	√		
Michigan	13.9%	3.10%	R	-29.7%	$8.90		√	
Minnesota	8.3%	1.42%	R	-34.4%	$9.50 (lower for small employers)		√	
Mississippi	17.9%	0.91%		-7.1%	none			
Missouri	12.5%	1.58%		-34.4%	$7.70 (exempts small employers)		√	
Montana	11.7%	0.23%		-12.0%	$8.15 (lower for very small employersl)	√		
Nebraska	9.3%	0.44%	R	-21.5%	$9.00			
Nevada	14.9%	0.83%		-27.8%	$8.25 (lower with health benefitsl)			
New Hampshire	7.0%	0.18%		-19.5%	none	√		
New Jersey	9.2%	1.77%	R	-34.4%	$8.44	√	√	√
New Mexico	21.9%	0.67%	R	-31.1%	$7.50			
New York	14.8%	6.13%	R	-10.3%	$9.70	√	√	
North Carolina	14.3%	3.08%		-34.4%	$7.25	√	√	
North Dakota	7.1%	0.15%		-26.1%	$7.25		√	
Ohio	13.1%	2.81%	NR	-9.0%	$8.15 (less for smaller employers)		√	
Oklahoma	15.3%	1.11%	NR	-37.6%	$7.25 ($2 for smaller employers)		√	
Oregon	16.8%	1.16%	R	-27.9%	$10.25	√		
Pennsylvania	14.4%	2.81%		-34.4%	$7.25	√	√	
Rhode Island	14.5%	0.27%	R	-34.4%	$9.60		√	√
South Carolina	14.5%	1.34%		-7.5%	none		√	
South Dakota	10.8%	0.23%		-6.2%	$8.65			
Tennessee	15.9%	1.98%		-34.4%	none		√	
Texas	13.5%	11.36%		-0.6%	$7.25			
Utah	6.9%	0.76%		-21.5%	$7.25			
Vermont	12.4%	0.16%	R	-29.7%	$10.00	√	√	
Virginia	9.2%	1.77%	NR	-24.2%	$7.25		√	
Washington	12.9%	2.17%	R	-37.4%	$11.00		√	√
West Virginia	18.6%	0.52%		-11.9%	$8.75	√	√	
Wisconsin	12.1%	1.27%	R	-17.2%	$7.25		√	
Wyoming	5.8%	0.12%		19.7%	$5.15			
U.S.	**13.0%**							

Note: R=state with refundable EITC, NR = state with nonrefundable EITC

Supplemental Nutrition Assistance Program: Share of Population Participating. In Food Research & Action Center, 2015. http://frac.org/wp-content/uploads/2011/01/snapdata2015_jun.pdf (accessed October 2015)

U.S. Department of Agriculture. WIC Participation and Program Characteristics, 2012 Final Report. Alexandria, VA: Office of Policy Support, U.S. Department of Agriculture, 2013

Tax Credits for Working Families: Earned Income Tax Credit. In National Conference of State Legislators. http://www.ncsl.org/ research/labor-and-employment/earnedincome-tax-credits-for-working-families.aspx (accessed October 2014). Policy Basics: State Earned Income Tax Credits. In Center on Budget and Policy Priorities. http://www.cbpp.org/cms/index.cfm?-fa=view&id=2506 (accessed March 2015).

TANF Cash Benefits Have Fallen by More than 20 Percent in Most States and Continue to Erode. In Center on Budget and Policy Priorities, 2014 http://www.cbpp.org/research/tanf-cash-benefits-have-fallen-bymore-than-20-percent-in-most-states-andcontinue-to-erode (accessed July 2015).

State Minimum Wages: 2015 Minimum Wage by State. In National Conference of State Legislatures. http://www.ncsl.org/research/ labor-and-employment/state-minimumwage-chart.aspx (accessed July 2015). 560 Wage and Hour Division. Minimum Wage Laws in the States – January 1, 2015. In, U.S. Department of Labor, 2015. http:// www.dol.gov/whd/minwage/america.htm (accessed October 2015).

561 Predatory Short-Term Lending Protections. In Assets & Opportunity Scorecard, 2015. http://scorecard.assetsandopportunity.org/latest/measure/predatory-short-term-lending-protection (accessed October 2015). 562 Payday Loans. In, Center for Responsible Lending, 2015. http://www.responsiblelending.org/payday-lending/ (accessed October 2015).

https://www.acf.hhs.gov/css/work-oriented-programs-for-noncustodial-parents-with-active-child-support

Paid Leave is Crucial for Women and Families. Fact Sheet: Employment. In, National Women's Law Center, 2013. http://www.nwlc.org/sites/default/files/pdfs/family_act_fact_sheet.pdf (accessed October 2015).

PREVENTION POLICY INDICATORS					
	Schools				
Indicator	Meet the Requirements of IDEA Part B	Meet the Requirements for IDEA Part C	Require Annual Training for School Personnel on Suicide Prevention	Mandate Training in Suicide Prevention for School Personnel but Do Not Specify it be Annual	Have Laws that Encourage Suicide Prevention Training for School Personnel
Year	2017	2017	2016	2016	2016
Alabama	√	√			√
Alaska			√		
Arizona					√
Arkansas				√	
California					√
Colorado					√
Connecticut	√	√		√	
Delaware	√		√		
D.C.		√			
Florida					√
Georgia		√	√		
Hawaii					
Idaho					
Illinois				√	
Indiana		√		√	
Iowa	√	√			
Kansas	√				
Kentucky	√	√	√		
Louisiana			√		
Maine				√	
Maryland		√		√	
Massachusetts	√			√	
Michigan		√			√
Minnesota	√	√			√
Mississippi		√		√	
Missouri	√	√			
Montana	√				√
Nebraska	√		√		
Nevada		√			√
New Hampshire	√	√			
New Jersey	√			√	
New Mexico		√			
New York		√			√
North Carolina	√	√			
North Dakota	√	√	√		
Ohio		√		√	
Oklahoma	√				√
Oregon		√			
Pennsylvania	√	√		√	
Rhode Island		√			√
South Carolina				√	
South Dakota	√				
Tennessee	√		√		
Texas		√	√		
Utah		√		√	
Vermont					
Virginia	√	√			√
Washington		√		√	
West Virginia		√		√	
Wisconsin	√	√			√
Wyoming	√	√		√	

2017 Determination Letters on State Implementation of IDEA. Washington, DC: U.S. Department of Education, 2017. https://sites.ed.gov/idea/files/ideafactsheet-determinations-2017.pdf (accessed September 2017).

2017 Determination Letters on State Implementation of IDEA. Washington, DC: U.S. Department of Education, 2017. https://sites.ed.gov/idea/files/ideafactsheet-determinations-2017.pdf (accessed September 2017).

https://www.congressweb.com/assets/BackgroundDocuments/70147535-0C42-B1F3-E3DB3ED529C97A80/School%20Personnel%20Training%20Overview_6.pdf

STATE ALCOHOL AND DRUG POLICIES

	Alcohol								
	Excise Tax per Gallon for 5% Beer	Excise Tax per Gallon for 12% Wine	Excise Tax per Gallon for 40% Distilled Spirits	Ban on Sunday Sales of Beer	Ban on Sunday Sales of Wine	Ban on Sunday Sales of Distilled Spirits	Dram Shop Liability Laws	Social Host Liability Laws	Mandatory Ignition Interlock for Alcohol-related Offenses
Alabama	$1.05	$1.70	$18.25	X*	X*	X*		X	X
Alaska	$1.07	$2.50	$12.80				X	X	X
Arizona	$0.16	$0.84	$3.00				X	X	X
Arkansas	$0.35	$1.35	$6.88	X*	X*	X*	X	X	X
California	$0.20	$0.20	$3.30				X		
Colorado	$0.08	$0.32	$2.28				X		
Connecticut	$0.23	$0.72	$5.40					X	X
Delaware	$0.16	$0.97	$3.75						X
D.C.	$0.68	$1.79	$5.69				X		X
Florida	$0.48	$2.25	$6.50				X	X	
Georgia	$1.01	$1.51	$3.79	X*	X*	X*	X		
Hawaii	$0.93	$1.38	$5.98					X	X
Idaho	$0.15	$0.45	$10.98				X		
Illinois	$0.23	$1.39	$8.55				X	X	X
Indiana	$0.12	$0.47	$2.68	X**	X**	X**	X	X	
Iowa	$0.19	$1.75	$12.52				X	X	
Kansas	$0.18	$0.30	$2.50					X	X
Kentucky	$0.83	$3.17	$7.74						
Louisiana	$0.40	$0.76	$3.03	X*	X*	X*			X
Maine	$0.35	$0.60	$5.86				X	X	X
Maryland	$0.52	$1.40	$4.85	X*	X*	X*		X	X
Massachusetts	$0.11	$0.55	$4.05				X	X	
Michigan	$0.20	$0.51	$11.97				X	X	
Minnesota	$0.49	$1.21	$8.80				X		
Mississippi	$0.43		$7.98		X	X	X	X	X
Missouri	$0.06	$0.42	$2.00				X	X	
Montana	$0.14	$1.06	$9.84			X	X		
Nebraska	$0.31	$0.95	$3.75				X		X
Nevada	$0.16	$0.70	$3.60						
New Hampshire	$0.30						X	X	X
New Jersey	$0.12	$0.88	$5.50				X	X	
New Mexico	$0.41	$1.70	$6.06	X*	X*	X*	X		X
New York	$0.14	$0.30	$6.44				X		X
North Carolina	$0.62	$1.00	$14.66			X	X		
North Dakota	$0.39	$1.06	$4.66				X		
Ohio	$0.18	$0.32	$9.90				X	X	
Oklahoma	$0.40	$0.72	$5.56		X	X	X	X	
Oregon	$0.08	$0.67	$22.78				X	X	X
Pennsylvania	$0.08		$7.27				X	X	X
Rhode Island	$0.12	$1.40	$5.40				X	X	
South Carolina	$0.77	$1.08	$5.42	X*	X*	X		X	
South Dakota	$0.27	$1.29	$4.68					X	
Tennessee	$1.29	$1.27	$4.46			X	X	X	X
Texas	$0.20	$0.20	$2.40			X	X		X
Utah	$0.41		$13.11		X	X	X	X	X
Vermont	$0.27	$0.55	$7.75				X		
Virginia	$0.26	$1.51	$19.90						X
Washington	$0.76	$0.87	$31.48				X	X	X
West Virginia	$0.18	$1.00	$5.05			X			X
Wisconsin	$0.06	$0.25	$3.25				X	X	
Wyoming	$0.02						X	X	
	Source: taxfoundation.org/beer-taxes-state	Source: taxfoundation.org/high-wine-taxes-state	Source: taxfoundation.org/states-spirits-taxes-2017	Source: http://www.stateliquorlaws.com/statelist	Source: http://www.stateliquorlaws.com/statelist	Source: http://www.stateliquorlaws.com/statelist * Laws vary by jurisdiction ** Restaurants and wineries permitted	Source: [reflects 2015 TFAH report -- update per CDC and NOLO]	Source: https://alcoholpolicy.niaaa.nih.gov/Prohibitions_Against_Hosting_Underage_Drinking_Parties.html	Source: http://www.ncsl.org/research/transportation/state-ignition-interlock-laws.aspx

STATE ALCOHOL AND DRUG POLICIES

	Drugs				
	Good Samaritan Laws	Naloxone Access - Immunity to Medical Prescribers and/or Dispensers	Naloxone Access - Immunity to Lay Administrators	Naloxone Access - No Criminal Liability for Possession without a Prescription	Naloxone Access - Third Party or Standing Order Prescribing Permitted
Alabama	X	X	X		X
Alaska	X	X	X		X
Arizona		X	X		X
Arkansas	X	X	X		X
California	X	X	X		X
Colorado	X	X	X		X
Connecticut	X	X	X		X
Delaware	X	X			X
D.C.	X	X	X	X	X
Florida	X	X	X		X
Georgia	X	X	X		X
Hawaii	X	X	X	X	X
Idaho		X	X		X
Illinois	X	X	X		X
Indiana	X	X			X
Iowa		X	X	X	X
Kansas		X	X		X
Kentucky	X	X	X		X
Louisiana	X	X	X	X	X
Maine		X	X		X
Maryland	X	X	X		X
Massachusetts	X		X	X	X
Michigan	X	X	X	X	X
Minnesota	X	X	X		X
Mississippi	X	X	X		X
Missouri		X	X	X	X
Montana	X	X	X		X
Nebraska	X	X	X		X
Nevada	X	X	X	X	X
New Hampshire	X	X	X		X
New Jersey	X	X	X		X
New Mexico	X	X	X	X	X
New York	X		X		X
North Carolina	X	X	X		X
North Dakota	X	X	X	X	X
Ohio	X	X	X		X
Oklahoma					X
Oregon	X		X		X
Pennsylvania	X	X	X		X
Rhode Island	X	X	X	X	X
South Carolina		X	X		X
South Dakota	X	X			X
Tennessee	X	X	X		X
Texas		X	X	X	X
Utah	X	X	X		X
Vermont	X	X	X	X	X
Virginia	X	X			X
Washington	X	X	X		X
West Virginia	X	X	X	X	X
Wisconsin	X	X	X	X	X
Wyoming		X	X		X
	Source: https://www.networkforphl.org/_asset/qz5pvn/network-nalox-one-10-4.pdf	Source: https://www.networkforphl.org/_asset/qz5pvn/network-nalox-one-10-4.pdf	Source: https://www.networkforphl.org/_asset/qz5pvn/network-nalox-one-10-4.pdf	Source: https://www.networkforphl.org/_asset/qz5pvn/network-nalox-one-10-4.pdf	Source: https://www.networkforphl.org/_asset/qz5pvn/network-nalox-one-10-4.pdf

STATE ALCOHOL AND DRUG POLICIES

Drugs

	PDMP - Mandatory Query by Prescribers Only	PDMP - Mandatory Query by Prescribers and Dispensers	PDMP - Data Uploaded within 24 Hours	PDMP - Engaged in Interstate Data Sharing	PDMP - Implementing Data Sharing	Laws Supporting Syringe Exchange Programs*
Alabama	X		X	X		
Alaska		X	X	X		
Arizona	X		X	X		
Arkansas	X		X	X		
California	X				X	X
Colorado			X	X		X
Connecticut	X		X	X		X
Delaware		X	X	X		X
D.C.			X	X		X
Florida	X		X	X		X
Georgia	X		X	X		
Hawaii						X
Idaho			X	X		
Illinois			X	X		X
Indiana	X		X	X		X
Iowa				X		
Kansas			X	X		
Kentucky	X		X	X		X
Louisiana		X	X	X		
Maine		X	X	X		X
Maryland		X	X	X		X
Massachusetts	X		X	X		X
Michigan	X		X	X		
Minnesota	X		X	X		
Mississippi	X		X	X		
Missouri			X*		X	
Montana				X		X
Nebraska			X	X		
Nevada	X		X	X		X
New Hampshire	X		X	X		X
New Jersey		X	X	X		X
New Mexico	X		X	X		X
New York	X		X	X		X
North Carolina		X	X		X	X
North Dakota		X	X	X		
Ohio		X	X	X		
Oklahoma		X	X**	X		
Oregon						
Pennsylvania		X		X		
Rhode Island	X		X***	X		X
South Carolina	X		X	X		
South Dakota			X	X		
Tennessee		X	X	X		
Texas			X	X		
Utah		X	X****	X		X
Vermont		X	X	X		X
Virginia	X		X	X		X
Washington	X		X		X	X
West Virginia	X		X	X		
Wisconsin	X		X	X		
Wyoming			X		X	

Source: http://www.pdmpassist.org/pdf/Mandatory_Query_20170824.pdf

Source: http://www.pdmpassist.org/pdf/Mandatory_Query_20170824.pdf

Source: http://www.pdmpassist.org/pdf/PDMP_Data_Collection_Frequency_20171001.pdf

*Missouri does not have a statewide PDMP, only district

**Oklahoma requires point of sale reporting

***Rhode Island requires daily transmission only for opioid prescriptions

****Utah reqyures point of sale/24 hours reporting

Source: http://www.pdmpassist.org/pdf/Interstate_Data_Sharing_20170920.pdf

Source: http://www.pdmpassist.org/pdf/Interstate_Data_Sharing_20170920.pdf

Source: http://knowledgecenter.csg.org/kc/content/four-states-passed-needle-exchange-legislation-2015-two-more-2016

*does not reflect other states that may have removed legal barriers to syringe programs but do not directly authorize them

APPENDIX B: Methodology for Drug, Alcohol and Suicide (DAS) Deaths

Drug-Induced Deaths

- There were 434,000 total drug-induced deaths from 2006 to 2015 (based on CDC WONDER.).
- A baseline-scenario projects that this total could increase to 770,000 between 2016 and 2025.
  - Under best case and worst case scenarios, it would be 725,000 and 830,000, respectively.
  - Under an extreme worst case scenario, drug-related deaths would be about 1,050,000, or about double the number from the previous 10 years. Annual drug-related deaths would reach 163,000 in the year 2025.
- The drug-related death rate under the baseline scenario would increase by 65 percent from 2015 to 2025 (from 17.2 deaths per 100,000 in 2015 to 28.4 deaths per 100,000 by 2025). Under an extreme worst case scenario, the rate would increase by 170 percent to 47.0 deaths per 100,000 by 2025.

Alcohol-Induced Deaths

- There were 267,000 total alcohol-induced deaths from 2006 to 2015 (based on CDC WONDER. "Induced" deaths are as coded by cause of death and are not the same as some definitions used for all alcohol "attributable" deaths, where alcohol may be a related factor in a death).
- The baseline scenario projects that this total could increase to nearly 400,000 between 2016 and 2025.
  - Under best case and worst case scenarios, it would be about 370,000 or 430,000, respectively.
  - Under an extreme worst case scenario, alcohol-related deaths would be nearly 520,000, or about double the number from the previous 10 years.
  - Under an extreme worst case scenario, annual alcohol-related deaths would reach 71,000 in 2025 alone.
- The alcohol-related death rate under the baseline scenario would increase by 26 percent from 2015 to 2025 (from 10.3 deaths per 100,000 in 2015 to 13.0 deaths per 100,000 by 2025). Under an extreme worst case scenario, the rate would nearly double to 20.5 deaths per 100,000 in the same time.

Suicide Deaths

- There were 387,492 total suicide deaths, from 2006 to 2015 (based on CDC WONDER).
- A baseline-scenario projects that this figure could increase to 510,000 between 2016 and 2025. Under best case and worst case scenarios, it would be about 500,000 or 520,000, respectively.
  - The annual growth trend in suicide deaths has been fairly consistent — the population adjusted annual growth rate was between 0.5 percent and 3.2 percent, from 2006 to 2015.
  - The suicide death rate under the baseline scenario would increase by nearly 20 percent from 2015 to 2025 (from 13.8 deaths per 100,000 in 2015 to 16.4 deaths per 100,000 by 2025).

Drug, Alcohol and Suicide Historical Analysis

For the historical analysis, BGR used death data from the CDC Wide-ranging Online Data for Epidemiologic Research (CDC WONDER).

- **Data Source:** BGR used the CDC WONDER online tool for Multiple Cause of Death data from 1999 to 2015. Note: The CDC WONDER tool uses information from the Census Bureau, and is released by the National Center for Health Statistics. (CDC, accessed on July 11, 2017.) https://wonder.cdc.gov/wonder/help/mcd.html#Population 2015)
- **National and State Population:** BGR used the CDC WONDER tool for our state population numbers from 1999 to 2015.
- **Alcohol-Induced Deaths and Drug-Induced Deaths:** BGR used the CDC WONDER tool for data by underlying cause of death (UCD), isolating alcohol-induced deaths and drug-induced deaths, by year and by state.
  - Alcohol-induced deaths and drug-induced deaths are mutually-exclusive. However, these deaths may also be considered suicide deaths.
  - The methodology used by CDC does not rely exclusively on ICD codes published in the International Classification of Diseases, but instead applies some of their own analysis and judgment for these classifications. (CDC, accessed on July 11, 2017. https://wonder.cdc.gov/wonder/help/mcd.html#Drug/Alcohol Induced Causes)
- **Suicide Deaths:** BGR used the CDC WONDER tool for data by underlying cause of death (UCD) and Injury Intent and Mechanism, isolating suicide, by year and by state.
  - Suicide deaths are not necessarily mutually exclusive from drug-induced or alcohol-induced deaths.
  - The methodology used by CDC does not rely exclusively on ICD codes published in the International Classification of Diseases, and does not include a detailed methodology. (CDC, accessed on July 11, 2017. https://wonder.cdc.gov/wonder/help/mcd.html#Drug/Alcohol Induced Causes)

- **Total DAS Deaths:** For total drug, alcohol, or suicide (DAS) deaths, BGR avoided double-counting by subtracting out suicides that were drug-related or alcohol-related, by state and by year.
  - BGR then queried the CDC WONDER data for deaths that were determined to be drug-induced suicides or alcohol-induced suicides, by state and by year.
  - Around 11 percent to 14 percent of suicide deaths each year were also classified as drug-related, while very few (less than 1 percent) were classified as alcohol-related.
- **DAS Death Rate per 100,000:** For our DAS death rate per 100,000, BGR used total DAS deaths and divided by total population, by state and by year.
- **DAS Death Rate per 100,000 Annual Increase:** The DAS Death Rate per 100,000 in a given year divided by the DAS Death Rate per 100,000 in the preceding year.
  - This metric shows the change in DAS deaths while controlling for overall population changes

Assumptions Used to Calculate the DAS Growth Trends and Population Trends for 2016-2025

BGR used historical DAS death trends from 1999-2015 to inform our projected DAS growth trends for 2016 to 2025.

- BGR examined each cause of death separately (alcohol-related, drug-related, and suicide deaths).
- BGR analyzed the changes in annual death rate per 100,000 from 1999-2015.
  - The annual changes fluctuated significantly over the period, particularly those for drug-induced deaths.
  - At the state level, the fluctuations were far more pronounced, particularly in less populated states.
- To account for year-over-year anomalies, BGR examined trends over 10-year periods, the same as our period of analysis.
  - BGR calculated the compound annual growth rates (CAGR) over 10-year periods for each type of DAS death rate.
  - BGR used CAGR rather than the average of annual growth rates over the 10-year period, as it dampens the impact of large annual changes in a given year.
  - CAGR is the annualized average rate of growth between two different years:
    - The CAGR is calculated where Z — X = N, is the number of years between the two given years, is calculated as follows:
      - *CAGR, year X to year Z = [(value in year Z/value in year X) ^ (1/N)-1]*
    - For example, the national alcohol-related death rates per 100,000 in 1999 and 2009 were 6.85 and 12.76, respectively.
      - *The CAGR is [12.76/6.85^ (1/10)-1] = 6.4 percent*
- For the three DAS metrics over the time period 1999-2015, BGR calculated 10-year CAGRs for 7 years (e.g., 1999-2009, 2000-2010, etc.).
  - For our baseline growth rate, BGR took the average of these 10-year CAGRs.
  - For our pessimistic bound (a period where DAS deaths would grow at a faster rate), BGR chose the 10-year CAGR with the highest growth rate.
- For alcohol-related deaths, this was the time period from 2005-2015.
- For drug-related deaths, this was the time period from 1999-2009.
- For suicide deaths, this was the time period from 2005-2015.
  - For our optimistic bound (a period where DAS deaths would grow at a slower rate), BGR chose the 10-year CAGR with the lowest growth rate.
    - For alcohol-related deaths, this was the time period from 1999-2009.
    - For drug-related deaths, this was the time period from 2003-2013.
    - For suicide deaths, this was the time period from 1999-2009.
  - BGR also developed a very pessimistic scenario based on recent experience. Feedback from experts and initial data suggest that we could see a 10-year period of unprecedented DAS deaths. For our very pessimistic scenario, BGR used the DAS death per 100,000 growth from 2014 to 2015 (the most recent year of data available from CDC).
  - Note: BGR did not create state-specific scenarios, due to the volatility in year-to-year trends at the state level.
- For national population growth projections from 2016 to 2025, BGR used the most recent data from the Census Bureau. (Census Bureau, accessed as of July 18, 2017, https://www.census.gov/data/datasets/2014/demo/popproj/2014-popproj.html)
- For state population growth, BGR used the most recent 2025 population projections from state government officials.
  - BGR pulled the data from publicly available data *(see Appendix C for links to sources)*.
  - Georgia and Michigan's state government offices supplied us data after a request.
  - For several states, there were no 2025 data, so BGR used data from the closest year available
    - BGR used the CAGR method to develop an annual growth rate, and applied this to come up with the 2025 state population figures

- The Census Bureau has not updated their state projections since the 2000 census, and refers people to states for more recent estimates.
- The difference in data sources leads to a small difference in totals (less than 1 percent nationally, after taking into account population in territories).

- BGR did not account for demographic changes in population over the time period due to data limitations. At the state level, death rates for any of the DAS categories by demographic segment have small data cell sizes, particularly in less populous states. Some states do not have reported population projections by demographic segment. Those states that do report these projections do not necessarily report consistent measures.
  - Ideally, the projections would account for expected demographic changes. DAS death rates differ by demographic group.
  - However, BGR's analysis supported that any attempts at greater modeling precision is not advisable due to the data limitations.
  - Further, the changes in the demographic makeup of the United States should not be overstated. For example, the aging of Baby Boomers will lead to some changes over the next 10 years, but the Census Bureau estimates that those 65 and older will only go from 15 percent of the country in 2015 to 19 percent by 2025. (Census Bureau data, accessed on July 19, 2017. Link: https://www.census.gov/data/datasets/2014/demo/popproj/2014-popproj.html)
    - The expected changes are likely more pronounced at the state level, but we do not have data to make these adjustments.

2016-2025 National and State Death Projections

- BGR examined each cause of death separately (alcohol-related, drug-related, and suicide deaths).
- BGR used the death rate per 100,000 in 2015 for each of the DAS categories, and applied this population-controlled annual growth rate for the different scenarios (baseline, optimistic, pessimistic, and very pessimistic) from 2016 through 2025.
- BGR then applied the death rate per 100,000 for each DAS category to the population estimate by year.
- To calculate the sum of projected DAS deaths, BGR considered potential double-counting. As noted above, suicide deaths could also count as drug-related deaths or alcohol-related deaths.
  - For our 2016 to 2025 projections, BGR assumed that 12 percent of suicide deaths were also either drug-related deaths or alcohol-related deaths. This is the same percentage as 2015, and within the bound from historical experience.
- For the state death projections, BGR usedthe state-specific death rate per 100,000 for each DAS category.
  - BGR usedthe national projected annual growth rate scenarios per 100,000 from 2016 to 2025.
  - BGR usedthe projected enrollment for 2025 by state, as described above.
    - BGR calculated annual population change from 2015 to 2025 using the CAGR method described above.
    - BGR applied the growth rate to come up with annual population estimates.

The projected scenarios are based on historical experience from 1999-2015 from the CDC WONDER tool for data by underlying cause of death (UCD).

We used the most recent final data available. Although CDC has released preliminary 2016 data, we know that these number are subject to change, and as a result, wanted to use final numbers. Note: we plan to update this report annually to account for more recent CDC data.

To account for year-over-year anomalies, the analysis examined trends over 10-year periods [(using a common technique for smoothing over periods of time called CAGR — or compounded average rate of growth). There were 7 10-year CAGRS (1999-2009; 2000-2010; etc)]

- The pessimistic scenario used the highest (worst) growth rate over the observed 10-year period that has been observed (for each of the DAS categories). This represents the worst 10-year period, based on hard data to date.
- The optimistic scenario used the lowest (relatively best) growth rate over the observed 10-year period (for each DAS category). This represents the best 10-year period, based on hard data to date.
- The baseline scenario uses the average growth rate of 7 different 10-year periods. The average of all the 10-year periods, based on hard data to date.
- The very pessimistic scenario uses the sharp growth rate seen in the most recent data year (2014-2015), to assume the average annual growth rate for 2016-2025. As noted, the preliminary data for 2016 and 2017 has suggested growth rates may actually be exceeding what has happened historically — so our very pessimistic scenario may actually not be pessimistic enough. Historically, there have been years with higher than typical increases — and the baseline longer term analyses help "average out" changes.

APPENDIX C: State Populations Estimate Sources (for 2010 data)

State	Link to data source	Accessed
Alabama	http://cber.cba.ua.edu/edata/est_prj.html	6/9/2017
Alaska	http://live.laborstats.alaska.gov/pop/projections.cfm	6/9/2017
Arizona	https://population.az.gov/population-projections	6/9/2017
Arkansas	http://iea.ualr.edu/population-estimates-a-projections.html#proj	6/9/2017
California	http://www.dof.ca.gov/Forecasting/Demographics/projections/	6/9/2017
Colorado	https://demography.dola.colorado.gov/population/population-totals-colorado-substate/#population-totals-for-colorado-	6/9/2017
Connecticut	http://web2.uconn.edu/ctsdc/projections.html	6/9/2017
Delaware	http://stateplanning.delaware.gov/information/dpc_projections.shtml	6/9/2017
District of Columbia	https://www.mwcog.org/documents/2016/11/16/growth-trends-cooperative-forecasting-in-metropolitan-washington-coc	6/9/2017
Florida	http://edr.state.fl.us/Content/population-demographics/data/MediumProjections_2015.pdf	6/9/2017
Georgia	Requested Data	6/9/2017
Hawaii	http://dbedt.hawaii.gov/economic/databook/2012-individual/_01/	6/9/2017
Idaho	https://lmi.idaho.gov/population-projections	6/9/2017
Illinois	https://www.illinois.gov/sites/hfsrb/InventoriesData/Documents/Population_Projections_Report_Final_2014.pdf	6/9/2017
Indiana	http://www.stats.indiana.edu/pop_proj/	6/9/2017
Iowa	http://www.iowadatacenter.org/datatables/CountyAll/co2010populationprojections20002040.pdf	6/9/2017
Kansas	http://www.cedbr.org/population-projections-4	6/9/2017
Kentucky	http://www.e-archives.ky.gov/pubs/Economic_Dev/2005desk/PopProjection.pdf	6/9/2017
Louisiana	http://louisiana.gov/Explore/Population_Projections/	6/9/2017
Maine	http://www.maine.gov/economist/projections/index.shtml	6/9/2017
Maryland	http://www.mdp.state.md.us/msdc/S3_Projection.shtml	6/9/2017
Massachusetts	http://pep.donahue-institute.org/downloads/2015/new/UMDI_LongTermPopulationProjectionsReport_SECTION_2.pdf	6/9/2017
Minnesota	https://mn.gov/admin/demography/data-by-topic/population-data/our-projections/	6/9/2017
Mississippi	http://www.mississippi.edu/urc/downloads/PopProjections/PopulationProjections.pdf	6/9/2017
Missouri	http://archive.oa.mo.gov/bp/projections/MFCombined.pdf	6/9/2017
Montana	http://ceic.mt.gov/Population/PopProjections_StateTotalsPage.aspx	6/9/2017
Nebraska	https://www.unomaha.edu/college-of-public-affairs-and-community-service/center-for-public-affairs-research/documen	6/9/2017
Nevada	http://nvdemography.org/wp-content/uploads/2014/10/Nevada-Population-Projections-2014-Full-Document.pdf	6/9/2017
New Hampshire	http://www.nh.gov/oep/data-center/documents/2016-state-county-projections-final-report.pdf	6/9/2017
New Jersey	http://lwd.dol.state.nj.us/labor/lpa/dmograph/lfproj/lfproj_index.html	6/9/2017
New Mexico	http://gps.unm.edu/data/Population%20Projections.html	6/9/2017
New York	https://pad.human.cornell.edu/counties/projections.cfm	6/9/2017
North Carolina	https://ncosbm.s3.amazonaws.com/s3fs-public/demog/countytotals_populationoverview.html	6/9/2017
North Dakota	https://www.commerce.nd.gov/census/	6/9/2017
Ohio	https://development.ohio.gov/files/research/P6001.pdf	6/9/2017
Oklahoma	http://okcommerce.gov/wp-content/uploads/2015/06/Population_Projections_Report-2012.pdf	6/9/2017
Oregon	http://www.oregon.gov/das/OEA/Documents/appendixc.pdf	6/9/2017
Pennslyvania	http://www.rural.palegislature.us/documents/reports/Population_Projections_Report.pdf	6/9/2017
Rhode Island	http://www.planning.ri.gov/documents/census/tp162.pdf	6/9/2017
South Carolina	http://abstract.sc.gov/chapter14/pop5.html	6/9/2017
South Dakota	http://dlr.sd.gov/lmic/menu_demographics.aspx	6/9/2017
Tennessee	http://cber.haslam.utk.edu/popproj.htm	6/9/2017
Texas	http://txsdc.utsa.edu/Data/TPEPP/Projections/Index	6/9/2017
Utah	https://gomb.utah.gov/budget-policy/demographic-economic-analysis/	6/9/2017
Vermont	https://addisoncountyedc.org/uploads/documents/VermontPopulationProjections2010_2030%201.pdf	6/9/2017
Virginia	http://demographics.coopercenter.org/virginia-population-projections/	6/9/2017
Washington	http://www.ofm.wa.gov/pop/stfc/stfc2016/stfc_2016.pdf	6/9/2017
West Virginia	http://busecon.wvu.edu/bber/pdfs/BBER-2014-04.pdf	6/9/2017
Wisconsin	http://www.doa.state.wi.us/Documents/DIR/Demographic%20Services%20Center/Projections/FinalProjs2040_Publicatior	6/9/2017
Wyoming	https://www.census.gov/prod/2/pop/p25/p25-1131.pdf	6/9/2017

APPENDIX D: Cost Estimates for Patients with Alcohol, Drug or Suicide Diagnoses

For healthcare cost estimates for those with ADS diagnoses, two data sources were used: Medical Expenditure Survey (MEPS) data Agency for Healthcare Research and Quality (AHRQ) to identify those with an alcohol, drug, or suicide diagnosis code. This data was used to calculate healthcare costs for those with these diagnoses. In addition, per capita National Health Expenditure (NHE) data from the Office of the Actuaries (OACT) from the Centers for Medicare and Medicaid Services (CMS) were used for overall and per capita healthcare spending.

- **Data Sources: MEPS and NHE data**
  - We used MEPS household expenditure data from 2000-2014.[895]
    - MEPS is a household survey that represents the healthcare experience for the U.S. population.
    - MEPS includes detailed information on spending by public and private programs, as well as out-of-pocket spending.
    - The data includes medical events and self-reported conditions by individual.
    - The data do not include state residence information for individuals.
    - MEPS data includes diagnosis codes - International Statistical Classification of Diseases and Related Health Problems — version ICD-9.
    - These codes allow researchers to identify persons with specific events or conditions.
    - The publicly-available versions of MEPS data only include partial diagnosis code information, or truncated information, with 3 digits instead of all 5 ICD-9 digits.
  - We also used CMS NHE data to estimate per capita health spending at the national and state levels. We used the "Expenditures by state of residence: summary tables, 1991-2014".[896]
- **Alcohol-Chronic or Alcohol-Contributable Conditions:** To identify people with alcohol-related events or conditions in a given year, the analysis used the following codes: '291', '303', '305', '357','425','535','571','655', '760', '790', '980', 'E86'
  - This study did not include high causation codes, such as those for cirrhosis, or any other conditions that have been shown to have a causal relationship with alcohol use.
  - Some of these codes include conditions other than alcohol, which can lead to an overrepresentation of prevalence. As noted above, MEPS only includes 3 digits of the ICD-9 codes rather than 5. As a result, it may capture some unrelated diagnoses.
    - For example, code '305' or "Nondependent abuse of drugs" includes both nondependent alcohol use, and several nondependent drug use sub-codes (including for opioids, cocaine, and hallucinogens).
- **Drug-Chronic or Drug-Contributable Conditions:** To identify people with drug-related events or conditions in a given year, we used the following codes: '292','304','305', '648', '655', '760', '779', '790', '965', '969', '968', '977', 'E85', 'V65'
  - Some of these codes include conditions other than alcohol, which can lead to an overrepresentation of prevalence. As noted above, MEPS only includes 3 digits of the ICD-9 codes rather than 5. As a result, it may capture some unrelated diagnoses.
    - For example, code '305' or "Nondependent abuse of drugs" includes both nondependent alcohol use, and several nondependent drug use sub-codes (including for opioids, cocaine, and hallucinogens).
- **Suicide Conditions:** To identify people with suicide events or conditions in a given year, we used the following code: 'E95'
  - There were not any health events in MEPS with suicide-related diagnoses.

Healthcare Costs for Those with an ADS Diagnoses

- **Calculating prevalence for individuals with an ADS diagnoses:** Using MEPS data, we grouped all of the 3-digit diagnoses codes for alcohol, drugs, and suicide.
  - For our numerator, we identified any individual with one or more healthcare events that have one or more ADS diagnosis codes in a given calendar year.
  - For our denominator, we used the total population.
  - We ran the analysis for MEPS data for the years 2001 to 2014.
  - The prevalence was at its lowest point of 2.4 percent in 2001, and reached its highest mark of 3.8 percent in 2014.
  - While the prevalence rates fluctuate over the 14 years, they are relatively tightly bound.
  - They also have an upward trend, similar to the trend seen in the ADS mortality data over the same time period.

- **Calculating average healthcare costs using MEPS:** BRG used the TotXX payment field in MEPS for healthcare spend by individual.
  - BRG calculated the average healthcare spend amount for those with at least one ADS diagnoses.
    - We included all costs, not just events that included the diagnosis code.
  - BRG calculated the average healthcare spend amount for all individuals.
  - BRG ran the analysis for MEPS data years 2001 to 2014.
- **Calculating average spend for those with ADS diagnoses to overall average spend:** BRG calculated the average spend for those with ADS diagnoses relative to the national average by simply taking the ADS average and dividing it by the overall average spend.
  - BRG ran the analysis for MEPS data years 2001 to 2014.
  - Spending for those with ADS diagnoses 240 percent (2.4 times) higher, on average, than the national average from 2001 to 2014.
  - Spending for those with ADS diagnoses was 250 percent (2.5 times) higher, on average, from 2011 to 2014.
- **Estimated Average Healthcare Spend for Those with ADS Diagnoses, National and State:** National health expenditure data is considered the most reliable source for overall and per capita health spend. It is well-documented that the per capita NHE numbers are much higher than those from MEPS.[897, 898] Researchers have typically used findings from MEPS, and then applied them to NHE data (basically, inflating the numbers to match those reported in NHE).
  - BRG used the "US_PER_CAPITA14" from the NHE health expenditures by place of residence tables.
    - National per capita average healthcare spending was $8,045 annually in 2014.
  - BRG applied the ADS diagnosis average spend multiplier of 2.5X from 2011-2014, based on the results from MEPS.
    - The estimated national per capita average heath care spending for those with an ADS diagnosis was $20,113 annually in 2014.
  - BRG also applied the same ADS multiplier to the NHE state averages.
    - For example, the per capital healthcare costs in Alabama were $7,281 annually in 2014, while in Alaska they were $11,064.
    - BRG estimated that the costs for those with an ADS diagnosis in each state in 2014 were $18,203 and $27,660, respectively.
    - BRG did not attempt to control for any state differences due to data limitations.
- **Estimated Total Healthcare Spend for Those with ADS Diagnoses, National:**
  - BRG used national per capita estimates for those with ADS diagnoses for 2014: $20,113.
  - BRG then used the Census Bureau national population number for 2014: 318,857,056.
  - We multiplied the population estimates by the ADS prevalence in 2014, using MEPS data (the methodology is above): 3.8 percent
  - It is estimated that the total health costs for the 3.8 percent of the population with least one ADS diagnoses during the year was $249B in 2014, or roughly 9.5 percent of all total health expenditures in the United States.

APPENDIX E:

APPROPRIATIONS AND REQUESTS FOR SELECT FEDERAL PROGRAMS (IN MILLIONS)			
Total, Health and Human Services	**2016**	**2017**	**2018**
Budget Authority (New Discretionary Spending)	1,119,166	1,126,789	1,112,883

The President's 2018 Budget requests $69.0 billion for HHS, a $15.1 billion or 17.9 percent decrease from the 2017 annualized CR level. This funding level excludes certain mandatory spending changes but includes additional funds for program integrity and implementing the 21st Century CURES Act." (https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/budget/fy2018/2018_blueprint.pdf)

Also cuts $610 billion over 10 years from Medicaid (and another $6 billion from CHIP). (https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/budget/fy2018/budget.pdf)

APPROPRIATIONS AND REQUESTS FOR SELECT FEDERAL PROGRAMS (IN MILLIONS)					
	Program	**2016**	**2017 (CR)**	**2018, Requested**	**2018 +/- 2017**
HHS: Administration for Children and Families (ACF)	Head Start	9,168	9,151	9,168	+17
	Child Care and Development Block Grant (discretionary)	2,761	2,756	2,761	+5
	Child Abuse Prevention	98	98	98	–
	Child Welfare Programs	326	325	316	-9
	Refugees; Unaccompanied Alien Children	948	1,396	948	-448
	Low Income Home Energy Assistance Program	3,390	3,384	–	-3,384
	Community Services Block Grant	715	714	–	-714
	Other Community Services Programs	55	55	–	-55
	Promoting Safe and Stable Families (mandatory only)	472	461	495	+34
	Social Services Block Grant	1,669	1,662	85	-1,577
	TANF	16,737	16,737	15,117	-1,620
	TANF Contingency Fund	583	608	–	-608
HHS: Centers for Disease Control and Prevention (CDC)	Chronic Disease Prevention and Health Promotion	1,177	1,175	952	-222
	Birth Defects, Developmental Disabilities, Disability and Health	136	135	100	-35
	Environmental Health	182	217	157	-60
	Injury Prevention and Control	236	236	216	-19
	Public Health Scientific Services	491	491	460	-31
	Occupational Safety & Health	339	338	200	-138
	Public Health Preparedness and Response	1,413	1,402	1,266	-136

APPROPRIATIONS AND REQUESTS FOR SELECT FEDERAL PROGRAMS (IN MILLIONS)					
	Program	**2016**	**2017 (CR)**	**2018, Requested**	**2018 +/- 2017**
HHS: Health Resources and Services Administration (HRSA)	National Health Service Corps [Mandatory]	310	289	310	+21
	Training for Diversity	83	83	–	-83
	Training in Primary Care Medicine	39	39	–	-39
	Area Health Education Centers	30	30	–	-30
	Health Care Workforce Assessment	5	5	5	–
	Public Health and Preventive Medicine Programs	21	21	–	-21
	Nursing Workforce Development	229	229	83	-146
	Other Workforce Programs	49	48	–	-48
	Rural Outreach Grants	64	63	51	-13
	Rural Hospital Flexibility Grants	42	42	–	-42
	Telehealth	17	17	10	-7
	Rural Health Policy Development	9	9	5	-4
	State Offices of Rural Health	10	9	–	-9
HHS: National Institutes of Health (NIH)	National Institute of General Medical Sciences	2,509	2,509	2,186	-323
	Eunice K. Shriver Natl. Inst. of Child Health & Human Development	1,338	1,337	1,032	-305
	National Institute of Mental Health	1,517	1,545	1,245	-301
	National Institute on Drug Abuse	1,049	1,075	865	-210
	National Institute on Alcohol Abuse and Alcoholism	467	467	361	-105
	National Institute of Nursing Research	146	146	114	-33
	Natl. Institute on Minority Health and Health Disparities	280	279	215	-64
	Natl. Center for Complementary and Integrative Health	130	131	102	-29
HHS: Substance Abuse and Mental Health Services Administration (SAMHSA)	Mental Health	1,167	1,165	912	-252
	Substance Abuse Prevention	211	223	150	-73
	Substance Abuse Treatment	2,195	2,696	2,696	–
Office of National Drug Control Policy (ONDCP, or Drug Czar)	Office of National Drug Control Policy	380	379	369	-10
	High Intensity Drug Trafficking Areas (HIDTAs)	250	249.5	246.5	-3
	Drug-Free Communities Support Program	95	95	92	-3
Department of Housing and Urban Development Programs	Tenant-Based Rental Assistance	19,629	20,292	19,318	-974
	Choice Neighborhoods Initiative	125	138	0	-138
	Community Development Block Grants	3,000	3,000	0	-3,000
	Housing for Persons with Disabilities (811)	151	146	121	-25

Endnotes

1 Hohmann J. "The Daily 202: Trump over performed the most in counties with the highest drug, alcohol and suicide mortality rates." *Washington Post* December 9, 2016. https://www.washingtonpost.com/news/powerpost/paloma/daily-202/2016/12/09/daily-202-trump-over-performed-the-most-in-counties-with-the-highest-drug-alcohol-and-suicide-mortality-rates/584a2a59e9b-69b7e58e45f2e/?utm_term=.d3109d2f4877 (accessed September 2017).

2 Hohmann J. "The Daily 202: Trump over performed the most in counties with the highest drug, alcohol and suicide mortality rates." *Washington Post* December 9, 2016. https://www.washingtonpost.com/news/powerpost/paloma/daily-202/2016/12/09/daily-202-trump-over-performed-the-most-in-counties-with-the-highest-drug-alcohol-and-suicide-mortality-rates/584a2a59e9b-69b7e58e45f2e/?utm_term=.d3109d2f4877 (accessed September 2017).

3 Ahmad FB and Bastian B. *Quarterly provisional estimates for selected indicators of mortality, 2015-Quarter 1,* 2017. Hyattsville, MD: National Center for Health Statistics, 2017.

4 Rudd RA, Aleshire N, Zibbell JE, and Matthew Gladden R. Increases in drug and opioid-involved overdose deaths—United States, 2000 - 2014. *Morbidity and mortality weekly report.* 64(50);1378-82, 2016.

5 Rudd RA et al. Increases in drug and opioid-involved overdose deaths—United States, 2010–2015. *MMWR. Morbidity and mortality weekly report,* 65 (5051), 1445-1452, 2016, https://www.cdc.gov/mmwr/volumes/65/wr/mm655051e1.htm (accessed September 2017).

6 Ahmad FB, Rossen LM, Spencer MR, Warner M, Sutton P. *Provisional Drug Overdose Death Counts.* National Center for Health Statistics. 2017.

7 Opioid Prescribing. In *U.S. Centers for Disease Control and Prevention.* https://www.cdc.gov/vitalsigns/opioids/index.html (accessed September 2017).

8 Guy GP Jr., Zhang K, Bohm MK, et al. Vital Signs: Changes in Opioid Prescribing in the United States, 2006–2015. *MMWR Morb Mortal Wkly Rep,* 66:697–704, 2017

9 Ingraham C. "Americans are drinking themselves to death at record rates." *Washington Post* December 22, 2015. https://www.washingtonpost.com/news/wonk/wp/2015/12/22/americans-are-drinking-themselves-to-death-at-record-rates/?utm_term=.de6c05225e92 (accessed September 2017).

10 Stahre M, Roeber J, Kanny D, Brewer RD, and Zhang X. Contribution of Excessive Alcohol Consumption to Deaths and Years of Potential Life Lost in the United States. *Prev Chronic Dis,* 11:130293, 2016. DOI: http://dx.doi.org/10.5888/pcd11.130293

11 Esser MB, Hedden SL, Kanny D, Brewer RD, Gfroerer JC, Naimi TS. Prevalence of Alcohol Dependence Among US Adult Drinkers, 2009–2011. *Prev Chronic Dis* 2014;11:140329.

12 Curtin SC, Warner M, Hedegaard H. *Increase in suicide in the United States, 1999-2014.* Hyattsville, MD: National Center for Health Statistics, 2016. https://www.cdc.gov/nchs/products/databriefs/db241.htm (accessed September 2017)

13 Stone DM et al. *Preventing Suicide: A Technical Package of Policies, Programs, and Practices.* Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, 2017. https://www.cdc.gov/violenceprevention/pdf/suicide-technicalpackage.pdf (accessed September 2017).

14 https://nccd.cdc.gov/DPH_ARDI/Info/ARDI_Custom_Data_User_Manual.pdf

15 Cherpitel CJ, Borges GLG, Wilcox HC. Acute alcohol use and suicidal behavior: a review of the literature. *Alcoholism: Clinical and Experimental Research.* 2004;28(5 SUPPL.):18S-28S

16 *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health,* Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General, 2016.

17 Case A and Deaton A. Rising morbidity and mortality in midlife among white non-Hispanic Americans in the 21st century. Proceedings of the National Academy of Sciences, 112 (49): 15078-15083, 2015.

18 Case A and Deaton A. Rising morbidity and mortality in midlife among white non-Hispanic Americans in the 21st century. Proceedings of the National Academy of Sciences, 112 (49): 15078-15083, 2015.

19 Diez Roux, AV. Despair as a Cause of Death: More Complex Than It First Appears. AJPH , 107(10), pp. 1566–1567. http://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2017.304041 (accessed October 2017).

20 Stein, EM, et al. The Epidemic of Despair Among White Americans: Trends in the Leading Causes of Premature Deaths, 1999-2015. *AJPH.* 107(10): 1541-1547. http://ajph.aphapublications.org/toc/ajph/107/10 (accessed October 2017).

21 Bonnie RJ, Ford MA, and Phillips JK. *Pain management and the opioid epidemic: balancing societal and individual benefits and risks of prescription opioid use.* Washington, DC: The National Academies of Press, 2017. http://nationalacademies.org/hmd/reports/2017/pain-management-and-the-opioid-epidemic.aspx (accessed September 2017).

22 Ahrnsbrak R. et al. *Key substance use and mental health indicators in the United States: Results from the 2016 National Survey on Drug Use and Health (HHS Publication No. SMA 17-5044, NSDUH Series H-52).* Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, 2017. https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR1-2016/NSDUH-FFR1-2016.pdf (accessed October 2017).

23 Leading Change: *A Plan for SAMHSA's Roles and Actions 2011-2014. HHS Publication No. (SMA) 11-4629.* Rockville, MD: Substance Abuse and Mental Health Services Administration, 2011. http://store.samhsa.gov/shin/content/SMA11-4629/01-FullDocument.pdf (accessed October 2014).

24 Mental Health Conditions. In *National Alliance on Mental Health.* https://www.nami.org/Learn-More/Mental-Health-Conditions (accessed September 2017).

25 Any Disorder Among Children. In *National Institute of Mental Health.* http://www.nimh.nih.gov/health/statistics/prevalence/any-disorder-among-children.shtml (accessed September 2016).

26 Park-Lee E. et al. *Receipt of Services for Substance Use and Mental Health Issues among Adults: Results from the 2016 National Survey on Drug Use and Health.* Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, 2017. https://www.samhsa.gov/data/sites/default/files/NSDUH-DR-FFR2-2016/NSDUH-DR-FFR2-2016.pdf (accessed October 2017).

27 Building the Behavioral Health Workforce. *SAMHSA News,* 22(4), 2014. https://www.samhsa.gov/samhsaNewsLetter/Volume_22_Number_4/building_the_behavioral_health_workforce/ (accessed September 2017).

28 Ahrnsbrak R. et al. *Key substance use and mental health indicators in the United States: Results from the 2016 National Survey on Drug Use and Health (HHS Publication No. SMA 17-5044, NSDUH Series H-52).* Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, 2017. https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR1-2016/NSDUH-FFR1-2016.pdf (accessed October 2017).

29 Mark TL et al. Insurance financing increased for mental health conditions but not for substance use disorders, 1986–2014. *Health Affairs,* 35(6):958-65, 2016.

30 Medicaid and CHIP Payment and Access Commissions (MACPAC). Report to Congress on Medicaid and CHIP. Washington, DC: MACPAC, 2015. https://www.macpac.gov/wp-content/uploads/2015/06/June-2015-Report-to-Congress-on-Medicaid-and-CHIP.pdf (accessed September 2017).

31 Institute of Medicine Report from the Committee on Advancing Pain Research, Care, and Education: Relieving Pain in America, *A Blueprint for Transforming Prevention, Care, Education and Research.* The National Academies Press, 2011. http://books.nap.edu/openbook.php?record_id=13172&page=1. (accessed September 2017).

32 Felitti VJ, Anada RF, Nordenberg D, et al. Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults: The Adverse Childhood Experiences (ACE) Study. *American J of Prev Med,* 14(4): 245-258, 1998.

33 Injury Prevention and Control: Division of Violence Prevention. In *Centers for Disease Control and Prevention.* http://www.cdc.gov/violenceprevention/acestudy/index.html (accessed September 2016).

34 Middlebrooks JS and Audage NC. *The Effects of Childhood Stress on Health across the Lifespan.* Atlanta, GA: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, 2008. http://www.cdc.gov/ncipc/pub-res/pdf/childhood_stress.pdf (accessed October 2014).

35 Adverse Childhood Experiences: Looking at how ACEs affect our lives & society. In *VetoViolence.* https://vetoviolence.cdc.gov/apps/phl/resource_center_infographic.html (accessed September 2017).

36 Gilbert LK, Breiding MJ, Merrick MT, Parks SE, Thompson WW, Dhingra SS, Ford DC. Childhood adversity and adult chronic disease: An update from ten states and the District of Columbia, 2010. *Am J Prev Med.* 2015;48(3):345-9.

37 Child Welfare Information Gateway. *Parental Substance Abuse and the Child Welfare System.* Washington, D.C.: U.S. Department of Health and Human Services, 2009. https://www.childwelfare.gov/pubs/factsheets/parentalsubabuse.cfm (accessed October 2014).

38 National Child Abuse Statistics. In *Childhelp.org.* http://www.childhelp.org/pages/statistics/ (accessed October 2014).

39 Afifi TO, Mota NP, Dasiewicz P, MacMillan HL, Sareen J. Physical punishment and mental disorders: results from a nationally representative US sample. *Pediatrics,* 130(2):184-192, 2012. http://pediatrics.aappublications.org/content/130/2/184 (accessed September 2017).

40 Chang L et al. Harsh parenting in relation to child emotion regulation and aggression. *Journal of family psychology,* 17(4):598, 2003. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2754179/ (accessed September 2017).

41 Harder + Company Community Research. *Harsh Parenting Measurement Study Final Report.* 2012. http://www.first5la.org/files/08059_2%203HPMSFinalReportFinal_06292012.pdf (accessed October 2014).

42 Jiang Y, Granja MR, and Koball H. *Basic Facts about Low-Income Children: Children under 3 Years, 2015.* New York: National Center for Children in Poverty, Columbia University Mailman School of Public Health, 2017. http://www.nccp.org/publications/pdf/text_1171.pdf (accessed October 2017).

43 Ratcliffe C and McKernan S. *Child Poverty and Its Lasting Consequences.* Washington, D.C.: The Urban Institute, 2012. http://www.urban.org/uploadedpdf/412659-child-poverty-and-its-lasting-consequence-paper.pdf (accessed October 2014).

44 U.S. Department of Health and Human Services. Child Maltreatment 2015. Washington, DC: U.S. Department of Health and Human Services, Children's Bureau, 2017. https://www.acf.hhs.gov/sites/default/files/cb/cm2015.pdf#page=10 (accessed July 2017).

45 Administration of Children, Youth, and Families. The AFCARS Report: Preliminary Estimates for FY 2013 as of July 2014. Washington, DC: U.S. Department of Health and Human Services, 2014. http://www.acf.hhs.gov/sites/default/files/cb/afcarsreport21.pdf (accessed July 2015).

46 Child Welfare Information Gateway. *Parental Substance Abuse and the Child Welfare System.* Washington, DC: U.S. Department of Health and Human Services, 2014. https://www.childwelfare.gov/pubPDFs/parentalsubabuse.pdf (accessed July 2015).

47 Crary D. "Number of US foster kids rises; parents' drug abuse a factor." *US News & World Report* October 27, 2016. https://www.usnews.com/news/us/articles/2016-10-27/number-of-us-foster-kids-rises-parents-drug-abuse-a-factor (accessed September 2017).

48 Editorial Board. "Young Victims of the Opioid Epidemic." *New York Times* January 16, 2017. https://www.nytimes.com/2017/01/16/opinion/young-victims-of-the-opioid-epidemic.html?_r=1 (accessed September 2017).

49 DeGarmo J. "America's Opioid Crisis: How Children Are Casualties." *HuffPost* February 27, 2017. http://www.huffingtonpost.com/entry/americas-opioid-crisis-how-children-are-casualties_us_58b44ecfe4b0658fc20f9828 (accessed September 2017).

50 Luthra S. "Opioid crisis strains foster care system; programs aim to keep kids with mom." *PBS* August 20, 2017. http://www.pbs.org/newshour/rundown/opioid-crisis-strains-foster-care-system-programs-aim-keep-kids-mom/ (accessed September 2017).

51 National Institute on Drug Abuse. *Preventing Drug Use Among Children and Adolescents.* Bethesda, MD: NIDA, 2003. https://www.drugabuse.gov/sites/default/files/preventing-druguse_2.pdf (accessed October 2017).

52 Bonnie RJ, Ford MA, and Phillips JK. *Pain management and the opioid epidemic: balancing societal and individual benefits and risks of prescription opioid use.* Washington, DC: The National Academies of Press, 2017. http://nationalacademies.org/hmd/reports/2017/pain-management-and-the-opioid-epidemic.aspx (accessed September 2017).

53 Carpenter CS, McClellan CB, and Rees DI. Economic conditions, illicit drug use, and substance use disorders in the United States. *Journal of Health Economics.* 52:63-73, 2017.

54 Compton WM, Gfroerer J, Conway KP, Finger MS. Unemployment and substance outcomes in the United States 2002–2010. *Drug and alcohol dependence.*142:350-353, 2014.

55 Nagelhout GE, Hummel K, de Goeij MC, et al. How economic recessions and unemployment affect illegal drug use: A systematic realist literature review. *International Journal of Drug Policy,* 44:69-83, 2017. http://www.ijdp.org/article/S0955-3959(17)30087-7/fulltext (accessed September 2017).

56 Stone DM et al. *Preventing Suicide: A Technical Package of Policies, Programs, and Practices.* Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, 2017. https://www.cdc.gov/violenceprevention/pdf/suicide-technicalpackage.pdf (accessed September 2017).

57 Madigan S at al. Maternal Adverse Childhood Experience and Infant Health: Biomedical and Psychosocial Risks as Intermediary Mechanisms. *The Journal of Pediatrics,* 2017.

58 Miller T and Hendrie D. *Substance Abuse Prevention Dollars and Cents: A Cost-Benefit Analysis,* DHHS Pub. No. (SMA) 07-4298. Rockville, MD: Center for Substance Abuse Prevention, Substance Abuse and Mental Health Services Administration, 2008. http://www.samhsa.gov/sites/default/files/cost-benefits-prevention.pdf (accessed September 2016).

59 DrugFacts: Lessons from Prevention Research. In *National Institute on Drug Abuse,* 2014. https://www.drugabuse.gov/publications/drugfacts/lessons-prevention-research (accessed September 2016).

60 Research and Results. In *Communities that Care,* 2016. http://www.communitiesthatcare.net/research-results/ (accessed September 2016).

61 About Us. In *EPISCenter,* 2015. Evidence http://www.episcenter.psu.edu/ (accessed September 2016).

62 Miller T and Hendrie D. *Substance Abuse Prevention Dollars and Cents: A Cost-Benefit Analysis,* DHHS Pub. No. (SMA) 07-4298. Rockville, MD: Center for Substance Abuse Prevention, Substance Abuse and Mental Health Services Administration, 2008. http://www.samhsa.gov/sites/default/files/cost-benefits-prevention.pdf (accessed September 2016).

63 Belfield C, Bowden AB, Klapp A, et al. The economic value of social and emotional learning. *Journal of Benefit-Cost Analysis,* 6(3):508-44, 2015.

64 Washington State Institute for Public Policy. *Good Behavior Game. Benefit-Cost Estimates Updated June 2016. Literature Review* Updated April 2012. Olympia, WA: Washington State Institute for Public Policy, 2016. http://www.wsipp.wa.gov/BenefitCost/ProgramPdf/82/Good-Behavior-Game (accessed September 2016).

65 Washington State Institute for Public Policy. *Life Skills Training. Benefit-Cost Estimates Updated June 2016. Literature Review* Updated June 2014. Olympia, WA: Washington State Institute for Public Policy, 2016. http://www.wsipp.wa.gov/BenefitCost/ProgramPdf/37/Life-Skills-Training (accessed September 2016).

66 Washington State Institute for Public Policy. *Promoting Alternative Thinking Strategies (PATHS). Benefit-Cost Estimates Updated June 2016. Literature Review* Updated April 2015. Olympia, WA: Washington State Institute for Public Policy, 2016. http://www.wsipp.wa.gov/BenefitCost/ProgramPdf/94/Promoting-Alternative-Thinking-Strategies-PATHS (accessed September 2016).

67 Wolfe D, Hovde K, Cote-Ackah C, et al. *Invest in a Strong Start for Children: A Toolkit for Donors on Early Childhood.* Philadelphia, PA: Center for High Impact Philanthropy, University of Pennsylvania, 2015 http://www.impact.upenn.edu/our-analysis/opportunities-to-achieve-impact/early-childhood-toolkit/why-invest/what-is-the-return-on-investment/ (accessed September 2016).

68 Robertson EB, Sims BE, and Reider EE. Drug Abuse Prevention through Early Childhood Intervention, *The Handbook of Drugs and Society,* West Sussex, UK: John Wiley & Sons, Inc, 525-554, 2016.

69 Devaney B, Bilheimer L and Schore J. *The Savings in Medicaid Costs for Newborns and Their Mothers from Prenatal Participation in the WIC Program, Volume 1.* Prepared by Mathematic Policy Research for the Department of Agriculture, Food and Nutrition Service, Office of Analysis and Evaluation. Alexandria, VA: 1990. http://www.fns.usda.gov/savings-medicaid-costs-newborns-and-their-mothers-resulting-prenatal-participation-wic-program (accessed September 2016).

70 Aos S, Mayfield J, Miller M, et al. *Evidence-based treatment of alcohol, drug, and mental health disorders: Potential benefits, costs, and fiscal impacts for Washington State.* Olympia, WA: Washington State Institute for Public Policy, 2006. http://www.wsipp.wa.gov/ReportFile/945/Wsipp_Evidence-based-Treatment-of-Alcohol-Drug-and-Mental-Health-Disorders-Potential-Benefits-Costs-and-Fiscal-Impacts-for-Washington-State_Full-Report.pdf (accessed September 2017).

71 TFAH/Healthsperien analysis.

72 *Focus on Innovation: Sobriety Treatment and Recovery Teams (START).* Washington, DC: Addiction Policy Forum, 2017. http://www.addictionpolicy.org/single-post/2017/03/08/Sobriety-Treatment-and-Recovery-Teams-START (accessed September 2017).

73 Fleming MF, Mundt MP, French MT, et al. Benefit-cost analysis of brief physician advice with problem drinkers in primary care settings. *Medical Care,* 38(1), 7–18, 2000.

74 *SBIRT: Screening, Brief Intervention, and Referral to Treatment: Opportunities for Implementation and Points for Consideration.* Washington, DC: SAMHSA-HRSA Center for Integrated Health Solutions, 2017. https://www.integration.samhsa.gov/SBIRT_Issue_Brief.pdf (accessed September 2017).

75 Elder, R.W., et al., The effectiveness of tax policy interventions for reducing excessive alcohol consumption and related harms. *American journal of preventive medicine,* 2010. 38(2): p. 217-229.

76 The Guide to Community Preventive Services, *Preventing Excessive Alcohol Consumption: Increasing Alcohol Taxes.* February 23, 2015.

77 Alcohol tax revenue in the United States from 2000 to 2022* (in billion U.S. dollars). In *Statistia.* https://www.statista.com/statistics/248952/revenues-from-alcohol-tax-and-forecast-in-the-us/ (accessed October 2017).

78 Butler, JC. 2017 ASTHO President's Challenge: Public Health Approaches to Preventing Substance Misuse and Addiction. *J Public Health Prac Manag.* 2017; 23:531-536 http://journals.lww.com/jphmp/Fulltext/2017/09000/2017_ASTHO_President_s_Challenge___Public_Health.17.aspx (accessed October 2017).

79 Substance Abuse and Mental Health Services Administration. *Leading Change: A Plan for SAMHSA's Roles and Actions 2011-2014. HHS Publication No. (SMA) 11-4629.* Rockville, MD: Substance Abuse and Mental Health Services Administration, 2011.

80 Xu JQ, Murphy SL, Kochanek KD, et al. Mortality in the United States, 2015. NCHS data brief, no 267. Hyattsville, MD: National Center for Health Statistics, 2016. https://www.cdc.gov/nchs/products/databriefs/db250.htm (accessed September 2017).

81 Xu JQ, Murphy SL, Kochanek KD, et al. Mortality in the United States, 2015. NCHS data brief, no 267. Hyattsville, MD: National Center for Health Statistics, 2016. https://www.cdc.gov/nchs/products/databriefs/db250.htm (accessed September 2017).

82 Kochanek KD, Arias E, Bastian BA. The effect of changes in selected age-specific causes of death on non-Hispanic white life expectancy between 2000 and 2014. NCHS data brief, no 250. Hyattsville, MD: National Center for Health Statistics. 2016.

83 Kochanek KD, Arias E, Bastian BA. The effect of changes in selected age-specific causes of death on non-Hispanic white life expectancy between 2000 and 2014. NCHS data brief, no 250. Hyattsville, MD: National Center for Health Statistics. 2016.

84 Case A and Deaton A. Rising morbidity and mortality in midlife among white non-Hispanic Americans in the 21st century. Proceedings of the National Academy of Sciences, 112(49):15078-83, 2015. http://www.pnas.org/content/112/49/15078.full (accessed September 2017).

85 Case A and Deaton A. "Mortality and morbidity in the 21st century." *Brookings Papers on Economic Activity* March 23, 2017. https://www.brookings.edu/bpea-articles/mortality-and-morbidity-in-the-21st-century/ (accessed September 2017).

86 Kaiser Family Foundation. Poverty Rate by Race/Ethnicity. Washington, DC: The Kaiser Family Foundation, 2015.

87 Kochanek KD, Murphy SL, Xu J, et al. Deaths: final data for 2014. Hyattsville, MD: National Center for Health Statistics, 65(4):1-22, 2016. https://www.cdc.gov/nchs/data/nvsr/nvsr65/nvsr65_04.pdf (accessed September 2017).

88 Cook L. "Life Expectancy Drops For Whites, Rises For Blacks and Hispanics." *US News & World Report* April 20, 2016. https://www.usnews.com/news/blogs/data-mine/articles/2016-04-20/life-expectancy-drops-for-whites-rises-for-blacks-and-hispanics (accessed September 2017).

89 *The Foundations of Lifelong Health Are Built in Early Childhood*. Cambridge, MA: Center on the Developing Child at Harvard University, 2010. http://www.developingchild.harvard.edu (accessed September 2014).

90 Garner AS, et al. Early Childhood Adversity, Toxic Stress, and the Role of the Pediatrician: Translating Developmental Science into Lifelong Health. *Pediatrics,* 129: e224-e231, 2011.

91 Institute of Medicine and National Research Council. *Children's Health, The Nation's Wealth: Assessing and Improving Child Health*. Washington, DC: The National Academies Press, 2004.

92 Robertson EB, Sims BE, and Reider EE. Drug Abuse Prevention through Early Childhood Intervention, *The Handbook of Drugs and Society,* West Sussex, UK: John Wiley & Sons, Inc, 525-554, 2016.

93 Health Education Curriculum Analysis Tool. In *Centers for Disease Control and Prevention*. http://www.cdc.gov/healthyyouth/hecat/ (accessed October 2017).

94 Centers for Disease Control and Prevention. *Community Guide to Preventive Services*. https://www.thecommunityguide.org/ (accessed October 2017).

95 National Registry of Evidenced-Based Programs and Practices. In *Substance Abuse and Mental Health Services Administration*. http://www.nrepp.samhsa.gov/ (accessed October 2017).

96 National Institute on Drug Abuse. *Preventing Drug Use Among Children and Adolescents*. Bethesda, MD: NIDA, 2003. https://www.drugabuse.gov/sites/default/files/preventingdruguse_2.pdf (accessed October 2017).

97 The Good Behavior Game's Strong Evidence Base. In *American Institutes for Research*. http://goodbehaviorgame.air.org/evidence_base.html (accessed October 2017).

98 Matrix of Programs as Identified by Various Federal and Private Agencies. In *Center for the Study and Prevention of Violence Institute of Behavioral Science, The University of Colorado*. http://www.colorado.edu/cspv/blueprints/ratings.html (accessed October 2017).

99 Our Mission. In *Coalition for Evidenced-Based Policy*. http://coalition4evidence.org/ (accessed October 2017).

100 What Works Clearinghouse. In *Institute of Education Sciences*. http://ies.ed.gov/ncee/wwc/ (accessed October 2017).

101 Juveniles. In *National Institute of Justice*. http://www.crimesolutions.gov/topicdetails.aspx?id=5 (accessed October 2017).

102 Stone DM et al. *Preventing Suicide: A Technical Package of Policies, Programs, and Practices*. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, 2017. https://www.cdc.gov/violenceprevention/pdf/suicide-technical-package.pdf (accessed September 2017).

103 Breining G. "Stemming the Opioid Epidemic." *AAMC News* February 21, 2017. https://news.aamc.org/patient-care/article/stemming-opioid-epidemic/ (accessed September 2017).

104 Bonnie RJ, Ford MA, and Phillips JK. *Pain management and the opioid epidemic: balancing societal and individual benefits and risks of prescription opioid use*. Washington, DC: The National Academies of Press, 2017. http://nationalacademies.org/hmd/reports/2017/pain-management-and-the-opioid-epidemic.aspx (accessed September 2017).

105 National Institute of Drug Abuse. *Opioid Crisis*. https://www.drugabuse.gov/drugs-abuse/opioids/opioid-crisis (accessed September 2017).

106 Bonnie RJ, Ford MA, and Phillips JK. *Pain management and the opioid epidemic: balancing societal and individual benefits and risks of prescription opioid use*. Washington, DC: The National Academies of Press, 2017. http://nationalacademies.org/hmd/reports/2017/pain-management-and-the-opioid-epidemic.aspx (accessed September 2017).

107 National Institute of Drug Abuse. *Opioid Crisis*. https://www.drugabuse.gov/drugs-abuse/opioids/opioid-crisis (accessed September 2017).

108 Guy GP Jr., Zhang K, Bohm MK, et al. Vital Signs: Changes in Opioid Prescribing in the United States, 2006–2015. *MMWR Morb Mortal Wkly Rep,* 66:697–704, 2017

109 Opioid Prescribing. In *U.S. Centers for Disease Control and Prevention*. https://www.cdc.gov/vitalsigns/opioids/index.html (accessed September 2017).

110 Muhuri PK, Gfroerer JC, Davies MC. Associations of Nonmedical Pain Reliever Use and Initiation of Heroin Use in the United States. *CBHSQ Data Rev*. August 2013.

111 Cicero TJ, Ellis MS, Surratt HL, Kurtz SP. The Changing Face of Heroin Use in the United States: A Retrospective Analysis of the Past 50 Years. *JAMA Psychiatry*. 2014;71(7):821-826. doi:10.1001/jamapsychiatry.2014.366.

112 Carlson RG, Nahhas RW, Martins SS, Daniulaityte R. Predictors of transition to heroin use among initially non-opioid dependent illicit pharmaceutical opioid users: A natural history study. *Drug Alcohol Depend*. 2016;160:127-134. doi:10.1016/j.drugalcdep.2015.12.026.

113 Vowles KE, McEntee ML, Julnes PS, Frohe T, Ney JP, van der Goes DN. Rates of opioid misuse, abuse, and addiction in chronic pain: a systematic review and data synthesis. *Pain*. 2015;156(4):569-576. doi:10.1097/01.j.pain.0000460357.01998.f1.

114 Muhuri PK, Gfroerer JC, Davies MC. Associations of Nonmedical Pain Reliever Use and Initiation of Heroin Use in the United States. *CBHSQ Data Rev*. August 2013.

115 Cicero TJ, Ellis MS, Surratt HL, Kurtz SP. The Changing Face of Heroin Use in the United States: A Retrospective Analysis of the Past 50 Years. *JAMA Psychiatry*. 2014;71(7):821-826. doi:10.1001/jamapsychiatry.2014.366.

116 Carlson RG, Nahhas RW, Martins SS, Daniulaityte R. Predictors of transition to heroin use among initially non-opioid dependent illicit pharmaceutical opioid users: A natural history study. *Drug Alcohol Depend*. 2016;160:127-134. doi:10.1016/j.drugalcdep.2015.12.026.

117 Muhuri PK, Gfroerer JC, Davies MC. Associations of Nonmedical Pain Reliever Use and Initiation of Heroin Use in the United States. *CBHSQ Data Rev*. August 2013.

118 Cicero TJ, Ellis MS, Surratt HL, Kurtz SP. The Changing Face of Heroin Use in the United States: A Retrospective Analysis of the Past 50 Years. *JAMA Psychiatry*. 2014;71(7):821-826. doi:10.1001/jamapsychiatry.2014.366.

119 Carlson RG, Nahhas RW, Martins SS, Daniulaityte R. Predictors of transition to heroin use among initially non-opioid dependent illicit pharmaceutical opioid users: A natural history study. *Drug Alcohol Depend*. 2016;160:127-134. doi:10.1016/j.drugalcdep.2015.12.026.

120 U.S. Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2015 on CDC WONDER Online Database, released 2016. Data are compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. http://wonder.cdc.gov/ucd-icd10.html (accessed July 2017).

121 U.S. Centers for Disease Control and Prevention. *Annual Surveillance Report of Drug-Related Risks and Outcomes — United States, 2017. Surveillance Special Report 1.* Atlanta, GA: U.S. Centers for Disease Control and Prevention, 2017, from https://www.cdc.gov/ drugoverdose/pdf/pubs/2017-cdc-drug-surveillance-report. pdf (accessed September 2017).

122 Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2015, CDC WONDER Online Database. http://wonder.cdc.gov/mcd-icd10.html (accessed July 2017).

123 Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2015, CDC WONDER Online Database. http://wonder.cdc.gov/mcd-icd10.html (accessed July 2017).

124 Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS), 2017. www.cdc.gov/injury/wisqars (accessed July 2017).

125 Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS), 2017. www.cdc.gov/injury/wisqars (accessed July 2017).

126 Ahrnsbrak R. et al. *Key substance use and mental health indicators in the United States: Results from the 2016 National Survey on Drug Use and Health (HHS Publication No. SMA 17-5044, NSDUH Series H-52).* Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, 2017. https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR1-2016/NSDUH-FFR1-2016.pdf (accessed October 2017).

127 *2016 National Survey on Drug Use and Health (NSDUH). Table 1.23A — Any Use of Pain Relievers in Past Year and Misuse of Pain Relievers in Past Year and Past Month among Persons Aged 12 or Older, by Detailed Age Category: Numbers in Thousands, 2015 and 2016.* Rockville, MD: Substance Abuse and Mental Health Services Administration, 2017. https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2016/NSDUH-DetTabs-2016.htm#tab5-23A (accessed October 2017).

128 Opioid Data Analysis. In *U.S. Centers for Disease Control and Prevention.* https://www.cdc.gov/drugoverdose/data/analysis.html (accessed September 2017).

129 Rudd RA et al. Increases in drug and opioid-involved overdose deaths—United States, 2010–2015. *MMWR. Morbidity and mortality weekly report,* 65 (5051), 1445-1452, 2016, https://www.cdc.gov/mmwr/volumes/65/wr/mm655051e1.htm (accessed September 2017).

130 Heroin: Overdose Prevention. In *U.S. Centers for Disease Control and Prevention.* https://www.cdc.gov/drugoverdose/opioids/heroin.html (accessed September 2017).

131 Today's Heroin Epidemic. In *U.S. Centers for Disease Control and Prevention.* https://www.cdc.gov/vitalsigns/heroin/index.html (accessed September 2017).

132 *2016 National Survey on Drug Use and Health (NSDUH). Table 6.10A — Any Use and Misuse of Pain Relievers in Past Year among Persons Aged 12 or Older, by Substance Use Other Than Prescription Psychotherapeutic Use in Past Year: Numbers in Thousands, 2015 and 2016.* Rockville, MD: Substance Abuse and Mental Health Services Administration, 2017. https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2016/NSDUH-DetTabs-2016.htm#tab5-23A (accessed October 2017).

133 Drug Enforcement Agency, (2015). DEA Issues Nationwide Alert on Fentanyl as Threat to Health and Public Safety. [Press Release]. https://www.dea.gov/divisions/hq/2015/hq031815.shtml (accessed September 2017).

134 O'Donnell JK, Gladden M, and Seth P. Trends in Deaths Involving Heroin and Synthetic Opioids Excluding Methadone, and Law Enforcement Drug Product Reports, by Census Region—United States, 2006–2015. *MMWR. Morbidity and Mortality Weekly Report,* 66(34);897–903, 2017. https://www.cdc.gov/mmwr/volumes/66/wr/mm6634a2.htm?s_cid=mm6634a2_w#modalIdString_CDCTable_0 (accessed September 2017).

135 O'Donnell JK, Gladden M, and Seth P. Trends in Deaths Involving Heroin and Synthetic Opioids Excluding Methadone, and Law Enforcement Drug Product Reports, by Census Region—United States, 2006–2015. *MMWR. Morbidity and Mortality Weekly Report,* 66(34);897–903, 2017. https://www.cdc.gov/mmwr/volumes/66/wr/mm6634a2.htm?s_cid=mm6634a2_w#modalIdString_CDCTable_0 (accessed September 2017).

136 O'Donnell JK, Gladden M, and Seth P. Trends in Deaths Involving Heroin and Synthetic Opioids Excluding Methadone, and Law Enforcement Drug Product Reports, by Census Region—United States, 2006–2015. *MMWR. Morbidity and Mortality Weekly Report,* 66(34);897–903, 2017. https://www.cdc.gov/mmwr/volumes/66/wr/mm6634a2.htm?s_cid=mm6634a2_w#modalIdString_CDCTable_0 (accessed September 2017).

137 Bebinger M. "A Deadly First: Carfentanil, An Opioid 100 Times More Potent Than Fentanyl, Traced In Mass." *WBUR* June 8, 2017. http://www.wbur.org/commonhealth/2017/06/08/carfentanil-opioid-found-in-mass (accessed September 2017).

138 Somerville NJ et al. Characteristics of Fentanyl Overdose—Massachusetts, 2014–2016. *MMWR. Morbidity and Mortality Weekly Report.* 66(14);382–386, 2017. https://www.cdc.gov/mmwr/volumes/66/wr/mm6614a2.htm (accessed September 2017).

139 Tomassoni AJ et al. Multiple fentanyl overdoses—New Haven, Connecticut, June 23, 2016. *MMWR. Morbidity and Mortality Weekly Report.* 66(4);107–11, 2017. https://www.cdc.gov/mmwr/volumes/66/wr/mm6604a4.htm (accessed September 2017).

140 Hernandez D. "3 indicted in San Diego in large fentanyl seizure." *The Sand Diego Union Tribune* June 19, 2017. http://www.sandiegouniontribune.com/news/public-safety/sd-me-fentanyl-seizure-20170619-story.html (accessed September 2017).

141 AP. "30,000 Fentanyl Pills Seized by Tempe Police and DEA Agents" *US News & World Report* August 18, 2017. https://www.usnews.com/news/best-states/arizona/articles/2017-08-18/30-000-fentanyl-pills-seized-by-tempe-police-and-dea-agents (accessed September 2017).

142 Centers for Disease Control and Prevention. Annual Surveillance Report of Drug-Related Risks and Outcomes — United States, 2017. Surveillance Special Report 1. Centers for Disease Control and Prevention, U.S. Department of Health and Human Services. Published August 31, 2017. https://www.cdc.gov/ drugoverdose/pdf/pubs/2017 cdc-drug-surveillance-report.pdf (accessed October 2017).

143 Heroin: Overdose Prevention. In *U.S. Centers for Disease Control and Prevention.* https://www.cdc.gov/drugoverdose/opioids/heroin.html (accessed September 2017).

144 HIV and Injection Drug Use. In *U.S. Centers for Disease Control and Prevention.* https://www.cdc.gov/hiv/risk/idu.html (accessed September 2017).

145 Scutti S. "New hepatitis C infections triple due to opioid epidemic." *CNN* May 11, 2017. http://www.cnn.com/2017/05/11/health/hepatitis-c-rates-cdc-study/index.html (accessed September 2017).

146 Hepatitis Awareness Month and Testing Day — May 2017. *MMWR Morbidity & Mortality Weekly Report,* 66:465, 2017. https://www.cdc.gov/mmwr/volumes/66/wr/mm6618a1.htm (accessed September 2017).

147 Park-Lee E. et al. *Receipt of Services for Substance Use and Mental Health Issues among Adults: Results from the 2016 National Survey on Drug Use and Health.* Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, 2017. https://www.samhsa.gov/data/sites/default/files/NSDUH-DR-FFR2-2016/NSDUH-DR-FFR2-2016.pdf (accessed October 2017).

148 Achenbach J and Keating D. "In just one year, nearly 1.3 million Americans needed hospital care for opioid-related issues." *Washington Post* June 20, 2017. https://www.washingtonpost.com/news/to-your-health/wp/2017/06/20/in-just-one-year-nearly-1-3-million-americans-needed-hospital-care-for-opioid-related-issues/ (accessed September 2017).

149 Weiss AJ et al. *Opioid-Related Inpatient Stays and Emergency Department Visits by State, 2009-2014. HCUP Statistical Brief #219.* Rockville, MD: Agency for Healthcare Research and Quality, 2016. http://www.hcup-us.ahrq.gov/reports/statbriefs/sb219-Opioid-Hospital-Stays-ED-Visits-by-State.pdf (accessed September 2017).

150 Owens PL et al. *Hospital Inpatient Utilization Related to Opioid Overuse Among Adults, 1993-2012. HCUP Statistical Brief #177.* Rockville, MD: Agency for Healthcare Research and Quality, 2014. https://www.hcup-us.ahrq.gov/reports/statbriefs/sb177-Hospitalizations-for-Opioid-Overuse.jsp (accessed September 2017).

151 Smith K and Lipari RN. "Women of childbearing age and opioids" in *The CBHSQ Report: January 17, 2017.* Rockville, MD: Center for Behavioral Health Statistics and Quality, SAMHSA, 2017. https://www.samhsa.gov/data/sites/default/files/report_2724/ShortReport-2724.html (accessed September 2017).

152 Ko JY, Patrick SW, Tong VT, et al. Incidence of Neonatal Abstinence Syndrome — 28 States, 1999–2013. *MMWR Morb Mortal Wkly Rep,* 65(31);799–802, 2016. DOI: http://dx.doi.org/10.15585/mmwr.mm6531a2 (accessed September 2017).

153 Muhuri PK, Gfroerer JC, and Davies MC. *Associations of Nonmedical Pain Reliever Use and Initiation of Heroin Use in the United States.* Rockville, MD: Center for Behavioral Health Statistics and Quality, SAMHSA, 2013. http://archive.samhsa.gov/data/2k13/DataReview/DR006/nonmedical-pain-reliever-use-2013.htm (accessed September 2017).

154 Opioid Prescribing. In *U.S. Centers for Disease Control and Prevention.* https://www.cdc.gov/vitalsigns/opioids/index.html (accessed September 2017).

155 Schuchat A, Houry D, and Guy GP. New data on opioid use and prescribing in the United States. *JAMA,* 318(5):425-6., 2017. http://jamanetwork.com/journals/jama/fullarticle/2643332 (accessed September 2017).

156 Guy GP Jr, Zhang K, Bohm MK, et al. Vital Signs: Changes in opioid prescribing in the United States, 2006-2015. *MMWR Morb Mortal Wkly Rep,* 66(26);697–704, 2017. https://www.cdc.gov/mmwr/volumes/66/wr/mm6626a4.htm (accessed September 2017).

157 Opioid Prescribing. In *U.S. Centers for Disease Control and Prevention.* https://www.cdc.gov/vitalsigns/opioids/index.html (accessed September 2017).

158 Guy GP Jr, Zhang K, Bohm MK, et al. Vital Signs: Changes in opioid prescribing in the United States, 2006-2015. *MMWR Morb Mortal Wkly Rep,* 66(26);697–704, 2017. https://www.cdc.gov/mmwr/volumes/66/wr/mm6626a4.htm (accessed September 2017).

159 Schuchat A, Houry D, and Guy GP. New data on opioid use and prescribing in the United States. *JAMA,* 318(5):425-6., 2017. http://jamanetwork.com/journals/jama/fullarticle/2643332 (accessed September 2017).

160 Florence CS, Zhou C, Luo F, et al. The economic burden of prescription opioid overdose, abuse, and dependence in the United States, 2013. *Medical care,* 54(10):901-906, 2016. https://www.ncbi.nlm.nih.gov/pubmed/27623005 (accessed September 2017).

161 *National Drug Threat Assessment 2011.* Washington, DC: National Drug Intelligence Center, US Department of Justice, 2011, https://www.justice.gov/archive/ndic/pubs44/44849/44849p.pdf (accessed September 2017).

162 *Provisional counts of drug overdose deaths, as of 8/6/2017.* Atlanta, GA: National Center for Health Statistics, US Centers for Disease Control and Prevention, 2017 https://www.cdc.gov/nchs/data/health_policy/monthly-drug-overdose-death-estimates.pdf (accessed September 2017).

163 Chason R. "Maryland fentanyl deaths surge again in first quarter of 2017." *Washington Post* August 5, 2017. https://www.washingtonpost.com/local/md-politics/maryland-fentanyl-deaths-surge-again-in-first-quarter-of-2017/2017/08/04/07343642-7953-11e7-9eac-d56bd5568db8_story.html (accessed September 2017).

164 Wallstin R. "What Explains Fentanyl's Grip on New Hampshire? Four Factors to Consider." *New Hampshire Public Radio* March 21, 2017. http://nhpr.org/post/what-explains-fentanyls-grip-new-hampshire-four-factors-consider#stream/0 (accessed September 2017).

165 Associated Press. "New Hampshire AG: 6 Overdose Deaths Linked to Carfentanil." *US News & World Report* May 23, 2017 https://www.usnews.com/news/best-states/new-hampshire/articles/2017-05-23/attorney-general-6-overdose-deaths-linked-to-carfentanil (accessed September 2017).

166 Eyre E. "WV drug OD deaths soared above 840 in 2016." *Charleston Gazette-Mail* May 22, 2017. http://www.wvgazettemail.com/news/20170322/wv-drug-od-deaths-soared-above-840-in-2016 (accessed September 2017).

167 Cicero TJ, Surratt H, Inciardi JA, et al. Relationship between therapeutic use and abuse of opioid analgesics in rural, suburban, and urban locations in the United States. *Pharmacoepidemiol Drug Saf,* 16(8):827–840, 2007.

168 Havens JR, Young AM, and Havens CE. Nonmedical Prescription Drug Use in a Nationally Representative Sample of Adolescents Evidence of Greater Use Among Rural Adolescents. *Arch Pediatr Adolesc Med.* 165(3):250-255, 2011. http://jamanetwork.com/journals/jamapediatrics/fullarticle/384378 (accessed September 2017).

169 Ivey-Stephenson AZ, Crosby AE, Jack SP, Haileyesus T, Kresnow-Sedacca M. Suicide Trends Among and Within Urbanization Levels by Sex, Race/Ethnicity, Age Group, and Mechanism of Death — United States, 2001–2015. *MMWR Surveill Summ* 2017;66(No. SS-18):1–16. DOI: http://dx.doi.org/10.15585/mmwr.ss6618a1. (accessed October 2017).

170 Keyes KM, Cerdá M, Brady JE, et al. Understanding the rural–urban differences in nonmedical prescription opioid use and abuse in the United States. *American journal of public health.* 104(2):e52-59, 2014. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3935688/ (accessed September 2017).

171 Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2015, CDC WONDER Online Database. http://wonder.cdc.gov/mcd-icd10.html (accessed July 2017).

172 Corso C and Townley C. *Intervention, Treatment, and Prevention Strategies to Address Opioid Use Disorders in Rural Areas: A Primer On Opportunities For Medicaid-Safety Net Collaboration*. Washington, DC: National Academy for State Health Policy, 2016. http://nashp.org/wp-content/uploads/2016/09/Rural-Opioid-Primer.pdf (accessed September 2017).

173 Lenardson J and Gale JA. *Distribution of substance abuse treatment facilities across the rural-urban continuum*. Portland, ME: Muskie School of Public Service, University of Southern Maine, 2008. https://muskie.usm.maine.edu/Publications/rural/pb35bSubstAbuseTreatmentFacilities.pdf (accessed September 2017).

174 Lenardson MH, Jennifer D, Race MS, et al. *Few and far away: Detoxification services in rural areas*. Portland, ME: Muskie School of Public Service, University of Southern Maine, 2009. http://muskie.usm.maine.edu/Publications/rural/pb41/Rural-Detox-Brief.pdf (accessed September 2017).

175 Rosenblatt RA et al., Geographic and Specialty Distribution of US Physicians Trained to Treat Opioid Use Disorder. *Annals of Family Medicine,* 13(1), 23-26, 2015.

176 Hing, E, Hsiao, C. US Department of Health and Human Services. *State Variability in Supply of Office-based Primary Care Providers: United States 2012*.NCHS Data Brief, No. 151, May 2014.

177 Hertz T, Kusmin L, Marré A, Parker T. Amber waves: rural employment in recession and recovery. Washington, DC: US Department of Agriculture, Economic Research Service; 2014. https://www.ers.usda.gov/ amber-waves/2014/october/rural-employment-in-recession-and-recovery (accessed October 2017).

178 Chesney E, Goodwin GM, Fazel S. Risks of all-cause and suicide mortality in mental disorders: a meta-review. *World Psychiatry* 2014;13:153–60. https://doi.org/10.1002/wps.20128

179 Paulozzi LJ, Xi Y. Recent changes in drug poisoning mortality in the United States by urban-rural status and by drug type. *Pharmacoepidemiol Drug Saf* 2008;17:997–1005. https://doi.org/10.1002/pds.1626

180 Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2015, Using ICD codes: X40-44, X60-64, X85, Y10-14 + T20.2-40.4. CDC WONDER Online Database. http://wonder.cdc.gov/mcd-icd10.html (accessed July 2017).

181 Kegler SR, Stone DM, Holland KM. Trends in Suicide by Level of Urbanization — United States, 1999–2015. *MMWR Morb Mortal Wkly Rep* 2017;66:270–273. DOI: http://dx.doi.org/10.15585/mmwr.mm6610a2 (October 2017).

182 The White House Office of the Press Secretary. (2017). President Donald J. Trump is Taking Action on Drug Addiction and the Opioid Crisis. [Press Release]. https://www.whitehouse.gov/the-press-office/2017/10/26/president-donald-j-trump-taking-action-drug-addiction-and-opioid-crisis (accessed October 2017).

183 Prescription Opioid Misuse, Heroin, and Fentanyl. In *Office of National Drug Control Policy*. https://www.whitehouse.gov/ondcp/key-issues/prescription-opioid-misuse (accessed September 2017).

184 U.S. Food & Drug Administration. (2017). Statement from FDA Commissioner Scott Gottlieb, M.D., on National Academies of Sciences, Engineering, and Medicine report on pain management and prescription opioid abuse. [Press Release]. https://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm566958.htm (accessed September 2017).

185 U.S. Food & Drug Administration. (2017). FDA requests removal of Opana ER for risks related to abuse. [Press Release]. https://www.fda.gov/newsevents/newsroom/pressannouncements/ucm562401.htm (accessed September 2017).

186 U.S. Drug Enforcement Administration. (2017). DEA proposes reduction to amount of controlled substances to be manufactured in 2018. https://www.dea.gov/divisions/hq/2017/hq080417.shtml (accessed September 2017).

187 *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health,* Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General, 2016

188 Murphy K, Becker M, Locke J, et al. *Finding Solutions to the Prescription Opioid and Heroin Crisis: A Road Map for States*. Washington, DC: National Governors Association Center for Best Practices, July 2016. https://www.nga.org/files/live/sites/NGA/files/pdf/2016/1607NGAOpioidRoadMap.pdf (accessed September 2017).

189 National Governors Association. (2016). "A Compact to Fight Opioid Addiction." [Letter]. https://www.nga.org/cms/news/2016/opioid-compact (accessed September 2017).

190 Shear MD and Goodnough A. "Trump Plans to Declare Opioid Epidemic a National Emergency." *New York Times* August 10, 2017. https://www.nytimes.com/2017/08/10/us/politics/opioid-trump-emergency.html (accessed September 2017).

191 Warren B. "Insurers asked to ante up with financial incentives to curb opioid epidemic." *Courier Journal* September 18, 2017. http://www.courier-journal.com/story/news/2017/09/18/kentucky-opioid-crisis-andy-beshear-financial-incentive-insurance/676629001/ (accessed September 2017).

192 National Association of State Alcohol and Drug Abuse Directors. *Opioids*. Washington, DC: National Association of State Alcohol and Drug Abuse Directors, 2017. http://nasadad.org/wp-content/uploads/2017/05/Opioids-version-IV-FINAL.pdf (accessed September 2017).

193 Glover RW. "NASMHPD Comments on the Draft 2015-2018 Strategic Plan." [Letter]. Washington, DC: National Association of State Mental Health Program Directors, 2014. https://nasmhpd.org/sites/default/files/NASMHPD-Letter-to-SAMHSA-on-2015-18-Strategic-Plan_0.pdf (accessed September 2017).

194 Public Health Approaches to Preventing Substance Misuse and Addictions. In *Association of State and Territorial Health Officials*. http://www.astho.org/addictions/ (accessed September 2017).

195 Office of National Drug Control Policy. High Intensity Drug Traffickking Areas Program. https://www.whitehouse.gov/ondcp/high-intensity-drug-trafficking-areas-program. (accessed September 2017).

196 *Injury Prevention Legislation Database: Opioid Abuse Prevention*. Washington, DC: National Conference of State Legislatures, 2017. http://www.ncsl.org/research/health/injury-prevention-legislation-database.aspx (accessed September 2017).

197 National City-County Task Force on the Opioid Epidemic. In *National Association of Counties*. http://www.naco.org/national-city-county-task-force-opioid-epidemic (accessed September 2017).

198 City of Boston Mayor's Office. (2017). Mayor Walsh Guides Mayors Through Boston's Response to Opioid Crisis. [Press Release]. https://www.boston.gov/news/mayor-walsh-guides-mayors-through-bostons-response-opioid-crisis (accessed September 2017).

199 Prescription Drug Misuse, Overdose & Death. In *American Medical Association*. https://www.ama-assn.org/delivering-care/prescription-drug-misuse-overdose-death (accessed September 2017).

200 Home Page. In *American Society of Addiction Medicine*. https://www.asam.org/ (accessed September 2017).

201 Ending the Opioid Epidemic: New Patient Education Tool and Other Resources for Hospitals. Chicago, IL: American Hospital Association, 2016. http://www.aha.org/advocacy-issues/tools-resources/advisory/2016/160607-quality-adv-opiods.pdf (accessed September 2017).

202 Susman K. *The Opioid Crisis: Hospital Prevention and Response*. Washington, DC: America's Essential Hospitals, 2017. https://essentialhospitals.org/wp-content/uploads/2017/06/Opioid-Brief-1.pdf (accessed September 2016).

203 Donahue S and Trocchio J. Catholic Hospitals Address Substance Abuse. *Health progress,* 97(2):70-72, 2016. https://www.chausa.org/docs/default-source/health-progress/community-benefit-catholic-hospitals-address-substance-abuse.pdf?sfvrsn=2 (accessed September 2017).

204 Children's Hospital Association. Member Highlight: Integrating Mental & Behavioral Health. [Webinar], 2017. https://www.childrenshospitals.org/-/media/Files/CHA/Main/Issues_and_Advocacy/Key_Issues/Child_Health/Population_Health/Webinars/2017/Combined-Slide-Deck–Integrating-Mental-and-Behavioral-Health.pdf

205 Pharmaceutical Research and Manufacturers of America Association. Press Release http://www.phrma.org/press-release/phrma-announces-support-for-seven-day-script-limit-on-opioid-medicines-for-acute-pain?sf117126440=1 (accessed September 2017).

206 The White House (2017). Presidential Executive Order Establishing the President's Commission on Combating Drug Addiction and the Opioid Crisis. [Press Release]. https://www.whitehouse.gov/the-press-office/2017/03/30/presidential-executive-order-establishing-presidents-commission (accessed September 2017).

207 *Commission on Combating Drug Addiction and the Opioid Crisis: Final Report*. Washington, DC: Commission on Combating Drug Addiction and the Opioid Crisis, 2017. https://www.whitehouse.gov/sites/whitehouse.gov/files/images/Final_Report_Draft_11-1-2017.pdf (accessed October 2017).

208 Ibid

209 Price T. (2017). Secretary Price Announces HHS Strategy for Fighting Opioid Crisis. [Speech]. https://www.hhs.gov/about/leadership/secretary/speeches/2017-speeches/secretary-price-announces-hhs-strategy-for-fighting-opioid-crisis/index.html (accessed September 2017).

210 Pub. L. No. 114-255 (2016).

211 Hernandez-Delgado, H. CARA, the 21st Century Cures Act: More Tools to Address the Opioid Epidemic. National Health Law Program. http://www.napsw.org/assets/docs/Advocacy/caracuresact%20 2.22.17%201.pdf (accessed September 2017).

212 Pub. L. No. 114-198 (2016).

213 *Proposed CARA Funding Up $27 Million for FY18*. Washington, DC: Addiction Policy Forum, 2017. http://www.addictionpolicy.org/single-post/2017/07/19/Proposed-CARA-Funding-Up-27-Million-for-FY18 (accessed September 2017).

214 U.S. House. Committee on Energy and Commerce. *Summary of the House–Senate Conference Report on S. 524, the Comprehensive Addiction and Recovery Act, 2016*. https://rules.house.gov/sites/republicans.rules.house.gov/files/114/PDF/114-CRS524-SxS.pdf (accessed September 2017).

215 U.S. House. Committee of Conference. *Joint Explanatory Statement for the Committee of Conference, 2016*. http://docs.house.gov/billsthisweek/20160704/114-CRS524-JES.pdf (accessed September 2017).

216 U.S. House. *Comprehensive Addiction and Recovery Act of 2016, Conference Report*. (To accompany S. 524), 2016. http://docs.house.gov/billsthisweek/20160704/CRPT-114HRPT-S524.pdf (accessed September 2017).

217 Pub. L. No. 114-255 (2016).

218 Office of National Drug Control Policy. *National Drug Control Budget: FY 2018 Funding Highlights*. Washington, DC: Executive Office of the President of the United States, 2017. https://www.whitehouse.gov/sites/whitehouse.gov/files/ondcp/Fact_Sheets/FY2018-Budget-Highlights.pdf (accessed September 2017).

219 Pub. L. No. 114-255 (2016).

220 *Prescription Drug Abuse, Addiction And Diversion: Overview Of State Legislative And Policy Initiatives: Part 3: Prescribing Of Controlled Substances For Non-Cancer Pain*. The National Alliance for Model State Drug Laws And The National Safety Council, 2013. http://www.namsdl.org/library/8595CD-BA-65BE-F4BB-AA4136217F944FE7/ (accessed July 2013).

221 Physician CME Requirements. In *myCME,* 2014. http://media.mycme.com/documents/94/physician_cme_requirements_23287.pdf (accessed September 2017).

222 *Pediatric Chronic Pain: Prevalence, economic impact, and its relevance to the current opioid epidemic*. Kansas City, MO: PAINS Project, 2017. http://painsproject.org/pediatric-chronic-pain-brief/ (accessed September 2017).

223 *Recognizing the Needs of Pain Patients in Substance Use Policy*. Kansas City, MO: PAINS Project, 2017. http://painsproject.org/recognizing-the-needs-of-pain-patients-in-substance-use-policy/

224 *CDC Guideline for Prescribing Opioids for Chronic Pain*. Atlanta, GA: U.S. Centers for Disease Control and Prevention, n.d. https://www.cdc.gov/drugoverdose/pdf/guidelines_at-a-glance-a.pdf (accessed September 2017).

225 Krisberg K. "Medical Schools Confront Opioid Crisis with Greater Focus on Pain, Addiction Education." *AAMCNews* September 29, 2016. https://news.aamc.org/medical-education/article/medical-schools-confront-opioid-crisis/ (accessed September 2017).

226 *CDC Guideline for Prescribing Opioids for Chronic Pain*. Atlanta, GA: U.S. Centers for Disease Control and Prevention, n.d. https://www.cdc.gov/drugoverdose/pdf/guidelines_at-a-glance-a.pdf (accessed September 2017).

227 Wachino V. *Best Practices for Addressing Prescription Opioid Overdoses, Misuse and Addiction*. Baltimore, MD: Centers for Medicare & Medicaid Services, 2016. https://www.medicaid.gov/federal-policy-guidance/downloads/CIB-02-02-16.pdf (accessed September 2017).

228 FDA Opioids Action Plan. In *U.S. Food & Drug Administration,* 2017. https://www.fda.gov/Drugs/DrugSafety/InformationbyDrugClass/ucm484714.htm (accessed September 2017).

229 Bonnie RJ, Ford MA, and Phillips JK. *Pain management and the opioid epidemic: balancing societal and individual benefits and risks of prescription opioid use*. Washington, DC: The National Academies of Press, 2017. http://nationalacademies.org/hmd/reports/2017/pain-management-and-the-opioid-epidemic.aspx (accessed September 2017).

230 Home Page. In *Search and Rescue*. http://www.searchandrescueusa.org/reduce-opioid-abuse/ (accessed October 2017).

231 End the Epidemic. In *American Medical Association*. https://www.end-opioid-epidemic.org/education/ (accessed September 2017).

232 *Guidelines for the Chronic Use of Opioid Analgesics.* Euless, TX: Federation of State Medical Boards, 2017. http://www.fsmb.org/Media/Default/PDF/Advocacy/Opioid_Guidelines_As_Adopted_April2017.pdf (accessed September 2017).

233 Krisberg K. "Medical Schools Confront Opioid Crisis with Greater Focus on Pain, Addiction Education." *AAMCNews* September 29, 2016. https://news.aamc.org/medical-education/article/medical-schools-confront-opioid-crisis/ (accessed September 2017).

234 Accredited Fellowships. In *The Addiction Medicine Foundation.* https://www.addictionmedicinefoundation.org/accreditedfellowships/ (accessed October 2017).

235 Fellowship Resource Center. In *The Addiction Medicine Foundation.* https://www.addictionmedicinefoundation.org/fellowship-resource-center/ (accessed October 2017).

236 Opioid Overdose: What States Need to Know about PDMPs. In *U.S. Centers for Disease Control and Prevention.* https://www.cdc.gov/drugoverdose/pdmp/states.html (accessed September 2017).

237 Davis, CS. Commentary on Pardo (2017) and Moyo et al. (2017): Much still unknown about prescription drug monitoring programs. *Addiction.* Volume 112, Issue 10. October 2017: 1797–1798. http://onlinelibrary.wiley.com/doi/10.1111/add.13936/full (accessed October 2017).

238 Pharmaceutical Care Management Association. (2017). HHS-OIG Report: Pharmacy "Lock In" Programs Increase Patient Safety and Reduce Costs. [Press Release]. https://www.pcmanet.org/hhs-oig-report-pharmacy-lock-in-programs-increase-patient-safety-and-reduce-costs/ (accessed September 2017).

239 Roberts AW, et al. Controlled substance lock-in programs: Examining an unintended consequence of a prescription drug abuse policy. *Health Affairs.*35(10):1884-1892, 2016. http://content.healthaffairs.org/content/35/10/1884.abstract (accessed September 2017).

240 Home Page. In *PDMP TTAC.* http://www.pdmpassist.org/

241 Home Page. In *National Alliance for Model State Drug Laws.* http://www.namsdl.org/

242 What States Need to Know about PDMPs. In *Centers for Disease Control and Prevention.* https://www.cdc.gov/drugoverdose/pdmp/states.html (accessed October 2017).

243 Shatterproof. *Prescription Drug Monitoring Programs: Critical Elements of Effective State Legislation.* March 2016. https://www.shatterproof.org/sites/default/files/2016-11/PDMP-white-paper-2016_0.pdf (accessed October 2017).

244 Centers for Disease Control and Prevention. *What States Need to Know About PDMPs.* https://www.cdc.gov/drugoverdose/pdmp/states.html (accessed October 2017).

245 Urahn SK et al. *Prescription Drug Monitoring Programs: Evidence-based practices to optimize prescriber use.* Washington, DC: The Pew Charitable Trusts, 2016. http://www.pewtrusts.org/~/media/assets/2016/12/prescription_drug_monitoring_programs.pdf (accessed September 2017).

247 PDMP Mandatory Query by Prescribers and Dispensers. In *PDMP TTAC,* August 24, 2017. http://www.pdmpassist.org/pdf/Mandatory_Query_20170824.pdf (accessed October 2017).

248 *Prescription Drug Monitoring Programs: Evidence-based practices to optimize prescriber use.* Philadelphia, PA: The Pew Charitable Trusts, 2016. http://www.pewtrusts.org/~/media/assets/2016/12/prescription_drug_monitoring_programs.pdf (accessed October 2017).

249 *Prescription Drug Monitoring Programs: Evidence-based practices to optimize prescriber use.* Philadelphia, PA: The Pew Charitable Trusts, 2016. http://www.pewtrusts.org/~/media/assets/2016/12/prescription_drug_monitoring_programs.pdf (accessed October 2017).

250 Wachino V. *Best Practices for Addressing Prescription Opioid Overdoses, Misuse and Addiction.* Baltimore, MD: Centers for Medicare & Medicaid Services, 2016. https://www.medicaid.gov/federal-policy-guidance/downloads/CIB-02-02-16.pdf (accessed September 2017).

251 *Prescription Drug Monitoring Programs: Evidence-based practices to optimize prescriber use.* Philadelphia, PA: The Pew Charitable Trusts, 2016. http://www.pewtrusts.org/~/media/assets/2016/12/prescription_drug_monitoring_programs.pdf (accessed October 2017).

252 Interstate Data Sharing. In *PDMP TTAC,* Sept 20, 2017. http://www.pdmpassist.org/pdf/Interstate_Data_Sharing_20170920.pdf (accessed October 2017).

253 Opioid Overdose: Prevention for States. In *U.S. Centers for Disease Control and Prevention.* https://www.cdc.gov/drugoverdose/states/state_prevention.html (accessed September 2017).

254 Community Anti-Drug Coalitions of America. Written Statement For the Record of General Arthur T. Dean Major General, U.S. Army, Retired. http://www.cadca.org/files/Prescription%20Drug%20Epidemic%20.pdf (accessed July 2015).

255 Hawkins JD and Catalano RF. *Investing in Your Community's Youth: An Introduction to the Communities That Care System.* Seattle, WA: Communities That Care, 2005. http://www.communitiesthatcare.net/userfiles/files/Investing-in-Your-Community-Youth.pdf (accessed September 2016).

256 Research & Results. In *Communities that Care,* no date. http://www.communitiesthatcare.net/research-results/ (accessed September 2016).

257 Hawkins JD, Oesterle S, Brown EC, et al. Youth problem behaviors 8 years after implementing the Communities That Care Prevention System. *JAMA Pediatrics,* 168(2):122-129, 2013.

258 Redmond C, Spoth RL, Shin C, et al. Long-term protective factor outcomes of evidence-based interventions implemented by community teams through a community-university partnership. *Journal of Primary Prevention,* 30: 513-530, 2009.

259 Osgood DW, Feinberg ME, Gest SD, et al. Effects of PROSPER on the influence potential of prosocial versus antisocial youth in adolescent friendship networks. *Journal of Adolescent Health,* 53(2): 174-179, 2013.

260 Spoth, R et al. Longitudinal Effects of Universal Preventive Intervention on Prescription Drug Misuse: Three Randomized Controlled Trials with Late Adolescents and Young Adults. *American Journal of Public Health,* 2013.

261 Spoth R, Redmond C, Clair S, et al. Preventing substance misuse through community -university partnerships: Randomized controlled trial outcomes 4? years past baseline. *American Journal of Preventive Medicine,* 40(4), 440-447, 2011.

262 Spoth R, Redmond C, Shin C, et al. PROSPER community-university partnerships delivery system effects on substance misuse through 6? years past baseline from a cluster randomized controlled intervention trial. *Preventive Medicine,* 56, 190-196, 2013.

263 Spoth RL, Trudeau LS, Redmond C, et al. PROSPER partnership delivery system: Effects on conduct problem behavior outcomes through 6.5 years past baseline. *Journal of Adolescence,* 45: 44-55, 2015.

264 Florence CS, Zhou C, Luo F, et al. The economic burden of prescription opioid overdose, abuse, and dependence in the United States, 2013. *Medical care,* 54(10):901-906, 2016. https://www.ncbi.nlm.nih.gov/pubmed/27623005 (accessed September 2017).

265 National Association of State Alcohol and Drug Abuse Directors. *Substance Abuse Prevention and Treatment (SAPT) Block Grant.* Washington, DC: National Association of State Alcohol and Drug Abuse Directors, 2016. http://nasadad.org/wp-content/uploads/2015/02/SAPT-Block-Grant-Fact-Sheet-2016-1.pdf (accessed September 2017).

266 Substance Abuse and Mental Health Services Administration. Strategic Prevention Framework. https://www.samhsa.gov/capt/applying-strategic-prevention-framework (accessed October 2017).

267 Drug-Free Communities Support Program. In *Office of National Drug Control Policy.* https://obamawhitehouse.archives.gov/ondcp/Drug-Free-Communities-Support-Program (accessed September 2017).

268 *Drug-Free Communities (DFC) Support Program-New.* Rockville, MD: Substance Abuse and Mental Health Services Administration, 2017. https://www.samhsa.gov/grants/grant-announcements/sp-17-001 (accessed September 2017).

269 Drug-Free Communities Support Program. In *Office of National Drug Control Policy.* https://obamawhitehouse.archives.gov/ondcp/Drug-Free-Communities-Support-Program (accessed September 2017).

270 President's Commission on Combating Drug Addiction and the Opioid Crisis. In *Office of National Drug Control Policy.* https://www.whitehouse.gov/ondcp/presidents-commission (accessed September 2017).

271 *2016 National Survey on Drug Use and Health (NSDUH). Table 6.53B — Source Where Pain Relievers Were Obtained for Most Recent Misuse among Past Year Misusers Aged 12 or Older, by Age Group: Percentages, 2015 and 2016.* Rockville, MD: Substance Abuse and Mental Health Services Administration, 2017. https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2016/NSDUH-DetTabs-2016.htm#tab5-23A (accessed October 2017).

272 Opioid Overdose: Prescribing Data. In *U.S. Centers for Disease Control and Prevention.* https://www.cdc.gov/drugoverdose/data/prescribing.html (accessed September 2017).

273 Dyer T. "Deterra Bags Offer Safe Home Disposal of Opioids and Other Prescription Drugs." *DrugRehab* July 26, 2017. https://www.drugrehab.com/2017/07/26/deterra-bags-offer-safe-home-disposal-of-opioids/ (accessed September 2017).

274 FDA Opioids Action Plan. In *U.S. Food & Drug Administration.* https://www.fda.gov/Drugs/DrugSafety/InformationbyDrugClass/ucm484714.htm (accessed September 2017).

275 U.S. Food & Drug Administration. (2017). FDA requests removal of Opana ER for risks related to abuse. [Press Release]. https://www.fda.gov/newsevents/newsroom/pressannouncements/ucm562401.htm (accessed September 2017).

276 Alpert A et al. *Supply-Side Drug Policy in the Presence of Substitutes: Evidence from the Introduction of Abuse-Deterrent Opioids.* Santa Monica, CA: RAND Corporation, 2017. https://www.rand.org/pubs/working_papers/WR1181.html. (accessed September 2017).

277 Bonnie RJ, Ford MA, and Phillips JK. *Pain management and the opioid epidemic: balancing societal and individual benefits and risks of prescription opioid use.* Washington, DC: The National Academies of Press, 2017. http://nationalacademies.org/hmd/reports/2017/pain-management-and-the-opioid-epidemic.aspx (accessed September 2017).

278 U.S. Customs and Border Protection. (2016). Commissioner Kerlikowske's Remarks at the Sen. Markey Roundtable in Boston on Fentanyl [Speech]. https://www.cbp.gov/newsroom/speeches-and-statements/commissioner-kerlikowskes-remarks-sen-markey-roundtable-boston (accessed September 2017).

279 UNODC Research. Fentanyl and its analogues - 50 years on. *Global Smart Update.* (17), 2017. http://www.unodc.org/documents/scientific/Global_SMART_Update_17_web.pdf (accessed September 2017).

280 *IV. A Comprehensive Approach Line: 7. Reducing the Supply of Illegal Drugs. In 1999 National Drug Control Strategy.* Washington, DC: Office of National Drug Control Policy, 1999. https://www.ncjrs.gov/ondcppubs/publications/policy/99ndcs/iv-g.html (accessed September 2017).

281 *DEA Intelligence Brief: Counterfeit Prescription Pills Containing Fentanyls: A Global Threat.* Arlington, VA:Drug Enforcement Administration, 2016. https://www.dea.gov/docs/Counterfeit%20Prescription%20Pills.pdf (accessed September 2017).

282 Ganim S. "China's fentanyl ban a 'game-changer' for opioid epidemic, DEA officials say." *CNN* February 16, 2017. http://www.cnn.com/2017/02/16/health/fentanyl-china-ban-opioids/index.html (accessed September 2017).

283 *National Heroin Task Force Final Report and Recommendations.* Washington, DC: National Heroin Task Force, 2015. https://www.justice.gov/file/822231/download

284 High Intensity Drug Trafficking Areas (HIDTA) Program. In *U.S. Office of National Drug Control Policy.* https://www.whitehouse.gov/ondcp/high-intensity-drug-trafficking-areas-program (accessed September 2017).

285 Ibid.

286 Ibid.

287 *ONDCP and the HIDTA Talking Points.* Round Hill, VA: National HIDTA Directors Association, 2017. http://hidtadirectors.org/pdf/HIDTA_Program_Talking_Points_2017.pdf (accessed September 2017).

288 Ibid.

289 *A Public Health and Safety Approach to Problematic Opioid Use and Overdose.* New York, NY: Drug Policy Alliance, 2017. http://www.drugpolicy.org/sites/default/files/Opioid_Response_Plan_041817.pdf (accessed September 2017).

290 *Law Enforcement Assisted Diversion (LEAD): Reducing the Role of Criminalization in Local Drug Control.* New York, NY: Drug Policy Alliance, 2016. http://www.drugpolicy.org/resource/law-enforcement-assisted-diversion-lead-reducing-role-criminalization-local-drug-control (accessed September 2017).

291 Naloxone. In *Substance Abuse and Mental Health Services Administration.* https://www.samhsa.gov/medication-assisted-treatment/treatment/naloxone (accessed September 2017).

292 *Legal Interventions to Reduce Overdose Mortality: Naloxone Access and Overdose Good Samaritan Laws.* Edina, MS: Network for Public Health Law, 2013. http://www.networkforphl.org/_asset/qz5pvn/network-naloxone-10-4.pdf (accessed July 2013).

293 O'Reilly KB. "Critical treatment gap seen in effort to stem opioid epidemic." *AMA Wire* April 25, 2017. https://wire.ama-assn.org/practice-management/critical-treatment-gap-seen-effort-stem-opioid-epidemic (accessed September 2017).

294 Seiler N, Horton K and Malcarney M. *Medicaid Reimbursement for Takehome Naloxone: A Toolkit for Advocates*. Washington, DC: Milken Institute School of Public Health, 2015. http://publichealth.gwu.edu/pdf/hp/naloxone_medicaid_report_gwu.pdf (accessed September 2017).

295 FDA Opioids Action Plan. In *U.S. Food & Drug Administration*. https://www.fda.gov/Drugs/DrugSafety/InformationbyDrugClass/ucm484714.htm (accessed September 2017).

296 *Opioid Overdose: Preventing and Reducing Opioid Overdose Mortality*. New York, NY: United Nations Office on Drugs and Crime, and World Health Organization, 2013. https://www.unodc.org/docs/treatment/overdose.pdf (accessed September 2017).

297 Palmer E. "Amphastar Pays Some Rebates after Price of Overdose Drug Doubles." *FiercePharma* February 18, 2015. http://www.fiercepharma.com/story/amphastar-pays-public-agencies-rebates-after-price-overdose-drug-doubles/2015-02-18 (accessed September 2017).

298 Jacobs H. "The price of the 'antidote' to the overdose crisis is skyrocketing." *Business Insider* August 1, 2016. http://www.businessinsider.com/price-of-naloxone-narcan-skyrocketing-2016-7 (accessed September 2017).

299 "As Opioid Overdoses Bleed City's Budget, Councilman Proposes Stopping Treatment." *WVXU* June 30, 2017. http://wvxu.org/post/opioid-overdoses-bleed-citys-budget-councilman-proposes-stopping-treatment#stream/0 (accessed September 2017).

300 Davis, CS. *Legal Interventions to Reduce Overdose Mortality: Naloxone Access and Overdose Good Samaritan Laws*. The Network for Public Health Law. https://www.networkforphl.org/_asset/qz5pvn/network-naloxone-10-4.pdf (accessed September 2017).

301 Naloxone Overdose Prevention Laws. In *PDAPS*, 2017. http://pdaps.org/dataset/overview/laws-regulating-administration-of-naloxone/592493ecd42e07d567ee64e2 (accessed September 2017).

302 Davis, CS. *Legal Interventions to Reduce Overdose Mortality: Naloxone Access and Overdose Good Samaritan Laws*. The Network for Public Health Law. https://www.networkforphl.org/_asset/qz5pvn/network-naloxone-10-4.pdf (accessed September 2017).

303 Naloxone Overdose Prevention Laws. In *PDAPS*, 2017. http://pdaps.org/dataset/overview/laws-regulating-administration-of-naloxone/592493ecd42e07d567ee64e2 (accessed September 2017).

304 Davis C and Chang S. *Legal interventions to reduce overdose mortality: Naloxone access and overdose good Samaritan laws*. The Network for Public Health Law, 32(19):2, 2013.

305 Wachino V. *Best Practices for Addressing Prescription Opioid Overdoses, Misuse and Addiction*. Baltimore, MD: Centers for Medicare & Medicaid Services, 2016. https://www.medicaid.gov/federal-policy-guidance/downloads/CIB-02-02-16.pdf (accessed September 2017).

306 Davis C and Chang S. *Legal interventions to reduce overdose mortality: Naloxone access and overdose good Samaritan laws*. The Network for Public Health Law, 32(19):2, 2013.

307 Surveillance for Viral Hepatitis — United States, 2013. In *U.S. Centers for Disease Control and Prevention*. http://www.cdc.gov/hepatitis/statistics/2013surveillance/commentary.htm (accessed November 2015).

308 Suryaprasad AG et al. Emerging epidemic of hepatitis C virus among young non-urban persons who inject drugs in the United States, 2006-2011. *Clin Infect Dis*, 59(10):1411-19, 2014.

309 Surveillance for Viral Hepatitis — United States, 2013. In *Centers for Disease Control and Prevention*. http://www.cdc.gov/hepatitis/statistics/2013surveillance/commentary.htm#hepatitisB (accessed November 2015).

310 Zibbell JE et al. Increases in Hepatitis C Virus Infection Related to Injection Drug Use Among Persons Aged ≤30 Years — Kentucky, Tennessee, Virginia, and West Virginia, 2006–2012. *MMWR*, 64(17): 453-458, 2015. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6417a2.htm (accessed November 2015).

311 Advanced Molecular Detection in Action: Tracing Connections in an HIV-1 Outbreak in Indiana. In *U.S. Centers for Disease Control and Prevention*, 2015. https://www.cdc.gov/amd/stories/tracing-connections-hiv.html (accessed August 2016).

312 Kelto A. "CDC Warns More HIV, Hepatitis C Outbreaks Likely Among Drug Users." *NPR News* April 24, 2015. http://www.npr.org/sections/health-shots/2015/04/24/401968600/cdc-warns-of-more-hiv-hepatitis-c-outbreaks-in-drug-users (accessed September 2017).

313 Zibbell JE et al. Increases in Hepatitis C Virus Infection Related to Injection Drug Use Among Persons Aged ≤30 Years — Kentucky, Tennessee, Virginia, and West Virginia, 2006–2012. *MMWR*, 64(17): 453-458, 2015. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6417a2.htm (accessed November 2015).

314 Van Handel MM et al. County-level vulnerability assessment for rapid dissemination of HIV or HCV infections among persons who inject drugs, United States. *JAIDS Journal of Acquired Immune Deficiency Syndromes*.73(3):323-331, 2016. http://journals.lww.com/jaids/Citation/2016/11010/County_Level_Vulnerability_Assessment_for_Rapid.13.aspx (accessed September 2017).

315 Tilson H et al. *Preventing HIV infection among injecting drug users in high-risk countries: an assessment of the evidence*. Washington, DC: Institute of Medicine. 2007.

316 *Policy Brief: Provision of Sterile Injecting Equipment to Reduce HIV Transmission*. Geneva, Switzerland: World Health Organization, 2004. http://apps.who.int/iris/bitstream/10665/68711/1/WHO_HIV_2004.03.pdf (accessed September 2017).

317 *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health*, Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General, 2016

318 Tookes HE et al. A comparison of syringe disposal practices among injection drug users in a city with versus a city without needle and syringe programs. *Drug and alcohol dependence*, 123(1):255-259, 2012. https://www.ncbi.nlm.nih.gov/pubmed/22209091 (accessed September 2017).

319 Luthra S. "Unable To Arrest Opioid Epidemic, Red States Warm To Needle Exchanges." *Kaiser Health News* June 14, 2017. http://khn.org/news/unable-to-arrest-opioid-epidemic-red-states-warm-to-needle-exchanges/ (accessed September 2017).

320 "Congress Eases Restrictions on Funding for Syringe Exchange." *amFAR* January 8, 2016. http://www.amfar.org/congress-eases-restrictions-on-funding-for-syringe-exchange/ (accessed September 2017).

321 *A Public Health and Safety Approach to Problematic Opioid Use and Overdose*. New York, NY: Drug Policy Alliance, 2017.http://www.drugpolicy.org/sites/default/files/Opioid_Response_Plan_041817.pdf (accessed September 2017).

322 Smith N. "Four States Passed Needle Exchange Legislation in 2015, Two More in 2016." [Blog]. The Council of State Governments May 24, 2016. http://knowledgecenter.csg.org/kc/content/four-states-passed-needle-exchange-legislation-2015-two-more-2016 (accessed September 2017).

323 What is Syringer Exchange. In *North Carolina Harm Reduction Coalition*. http://www.nchrc.org/syringe-exchange/ (accessed September 2017).

324 Drug Policy Alliance. (2017). Governor Terry McAuliffe Legalizes Syringe Access Programs in Virginia. [Press Release]. http://www.drugpolicy.org/news/2017/02/governor-terry-mcauliffe-legalizes-syringe-access-programs-virginia (accessed September 2017).

325 Monares F. "Bill allowing needle and syringe exchange program becomes law." *Bozeman Daily Chronicle* June 2, 2017. http://www.bozemandailychronicle.com/news/mtleg/bill-allowing-needle-and-syringe-exchange-program-becomes-law/article_c765d8ab-3e44-581f-a60c-6b4b53cca513.html (accessed September 2017).

326 Associated Press. "Sununu Signs Bill Allowing Needle Exchange Programs." *US News &World Report* June 16, 2017. https://www.usnews.com/news/best-states/new-hampshire/articles/2017-06-16/sununu-signs-bill-allowing-needle-exchange-programs (accessed September 2017).

327 *Syringe Exchange Programs in North Carolina: Information for Law Enforcement.* Raleigh, NC: North Carolina Harm Reduction Coalition, n.d. http://ncja.ncdoj.gov/getdoc/ac5819af-9621-433a-8b9c-5cc8ea8337e3/Instructions-for-Law-Enforcement-Syringe-Exchange.aspx (accessed September 2017).

328 Nasen Directory. In *North American Syringe Exchange Network.* https://nasen.org/ (accessed November 2015).

329 Schatz E and Nougier M. *Drug consumption rooms: Evidence and practice.* London, UK: International Drug Policy Consortium, 2012. http://fileserver.idpc.net/library/IDPC-Briefing-Paper_Drug-consumption-rooms.pdf (accessed September 2017).

330 Schatz E and Nougier M. *Drug consumption rooms: Evidence and practice.* London, UK: International Drug Policy Consortium, 2012. http://fileserver.idpc.net/library/IDPC-Briefing-Paper_Drug-consumption-rooms.pdf (accessed September 2017).

331 Potier C et al. Supervised injection services: what has been demonstrated? A systematic literature review. *Drug and alcohol dependence.* 145:48-68, 2014. http://www.sciencedirect.com/science/article/pii/S0376871614018754 (accessed September 2017).

332 *A Public Health and Safety Approach to Problematic Opioid Use and Overdose.* New York, NY: Drug Policy Alliance, 2017. http://www.drugpolicy.org/sites/default/files/Opioid_Response_Plan_041817.pdf (accessed September 2017).

333 Bebinger M. "AMA Endorses Trying Supervised Injection Facilities." *WBUR* June 16, 2017. http://www.wbur.org/commonhealth/2017/06/16/ama-supervised-injection-facilities-opioids (accessed September 2017).

334 McHugh R and Farrow R. "Safe injection sites are a radical new approach to battling addiction." *TODAY* May 17, 2017. https://www.today.com/health/safe-injection-sites-are-radical-new-approach-battling-addiction-t111585 (accessed September 2017).

335 National Institute on Alcohol Abuse and Alcoholism. Preventing Alcohol Abuse and Alcoholism—An Update. *Alcohol Alert,* Vol 34 (2), 2011. https://pubs.niaaa.nih.gov/publications/AA83/AA83.htm (accessed September 2017).

336 U.S. Centers for Disease Control and Prevention. "Reducing Alcohol Outlet Density Can Reduce Violent Crime." *Preventing Chronic Disease Dialogue* May 28, 2015. https://blogs.cdc.gov/pcd/2015/05/28/reducing-alcohol-outlet-density-can-reduce-violent-crime/ (accessed September 2017).

337 *Alcohol Related Disease Impact (ARDI) Custom Data User Manual.* Atlanta, GA: Centers for Disease Control and Prevention, 2016. https://nccd.cdc.gov/DPH_ARDI/Info/ARDI_Custom_Data_User_Manual.pdf (accessed September 2017).

338 Cherpitel CJ, Borges GLG, Wilcox HC. Acute alcohol use and suicidal behavior: a review of the literature. Alcoholism: Clinical and Experimental Research. 2004;28(5 SUPPL.):18S-28S

339 Drunk Driving. In *National Highway Traffic Safety Administration.* https://www.nhtsa.gov/risky-driving/drunk-driving

340 Alcohol-Related Disease Impact (ARDI) Application. In *U.S. Centers for Disease Control and Prevention.* https://nccd.cdc.gov/DPH_ARDI/default/default.aspx (accessed September 2017).

341 National Child Abuse Statistics. In *Childhelp.org.* http://www.childhelp.org/pages/statistics/ (accessed October 2014).

342 Bray J Mills et al. Evaluating Web-based training for employee assistance program counselors on the use of screening and brief intervention for at-risk alcohol use. *Journal of Workplace Behavioral Health* 24:307–319, 2009

343 Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2015, CDC WONDER Online Database. http://wonder.cdc.gov/mcd-icd10.html (accessed July 2017).

344 Mokdad AH et al. Actual causes of death in the United States 2000. [Published erratum in: *JAMA* 293(3):293–294, 298] *JAMA: Journal of the American Medical Association* 291(10):1238–1245, 2004.

345 National Center for Statistics and Analysis. *2014 Crash Data Key Findings (Traffic Safety Facts Crash Stats.* Report No. DOT HS 812 219). Washington, DC: National Highway Traffic Safety Administration, 2015. https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812219 (accessed September 2016).

346 Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2015, CDC WONDER Online Database. http://wonder.cdc.gov/mcd-icd10.html (accessed July 2017).

347 Alcohol Facts and Statistics. In *National Institute on Alcohol Abuse and Alcoholism.* https://www.niaaa.nih.gov/alcohol-health/overview-alcohol-consumption/alcohol-facts-and-statistics (accessed September 2017).

348 *Data Spotlight: More than 7 Million Children Live with a Parent with Alcohol Problems.* Rockville, MD: Substance Abuse and Mental Health Services Administration, 2012. http://media.samhsa.gov/data/spotlight/Spot061ChildrenOfAlcoholics2012.pdf (accessed September 2016).

349 Park-Lee E. et al. *Receipt of Services for Substance Use and Mental Health Issues among Adults: Results from the 2016 National Survey on Drug Use and Health.* Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, 2017. https://www.samhsa.gov/data/sites/default/files/NSDUH-DR-FFR2-2016/NSDUH-DR-FFR2-2016.pdf (accessed October 2017).

350 Esser MB, Clayton H, Demissie Z, Kanny D, Brewer RD. Current and Binge Drinking Among High School Students — United States, 1991–2015. *MMWR Morb Mortal Wkly Rep* 2017;66:474–478. DOI: http://dx.doi.org/10.15585/mmwr.mm6618a4

351 Underage Drinking. In *National Institute on Alcohol Abuse and Alcoholism.* https://pubs.niaaa.nih.gov/publications/UnderageDrinking/UnderageFact.htm (accessed September 2017).

352 SAMHSA. 2014 National Survey on Drug Use and Health (NSDUH). Table 6.89B—Binge Alcohol Use in the Past Month among Persons Aged 18 to 22, by College Enrollment Status and Demographic Characteristics: Percentages, 2013 and 2014. Available at: http://www.samhsa.gov/data/sites/default/files/ NSDUH-DetTabs2014/NSDUH-DetTabs2014.htm#tab6-89b

353 *2016 National Survey on Drug Use and Health (NSDUH). Table 5.5A — Alcohol Use Disorder in Past Year among Persons Aged 12 or Older, by Age Group and Demographic Characteristics: Numbers in Thousands, 2015 and 2016.* Rockville, MD: Substance Abuse and Mental Health Services Administration, 2017. https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2016/NSDUH-DetTabs-2016.htm#tab5-5A (accessed October 2017).

354 Alcohol. In *National Institute for Drug Abuse for Teens.* https://teens.drugabuse.gov/drug-facts/alcohol?utm_source=twitter&utm_medium=socialmedia&utm_campaign=teenstuesday (accessed September 2017).

355 *2016 National Survey on Drug Use and Health (NSDUH). Table 5.23A — Received Alcohol Treatment at a Specialty Facility in Past Year among Persons Aged 12 or Older, by Demographic Characteristics: Numbers in Thousands, 2015 and 2016.* Rockville, MD: Substance Abuse and Mental Health Services Administration, 2017. https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2016/NSDUH-DetTabs-2016.htm#tab5-23A (accessed October 2017).

356 *More than 7 Million Children Live with a Parent with Alcohol Problems.* Rockville, MD: Center for Behavioral Health Statistics and Quality, SAMHSA, 2012. http://media.samhsa.gov/data/spotlight/Spot061ChildrenOfAlcoholics2012.pdf (accessed September 2017).

357 Alcohol and Public Health: Fact Sheets — Alcohol Use and Your Health. In *U.S. Centers for Disease Control and Prevention.* https://www.cdc.gov/alcohol/fact-sheets/alcohol-use.htm (accessed September 2017).

358 Alcohol and Public Health: Fact Sheets - Alcohol Use and Your Health. In *U.S. Centers for Disease Control and Prevention.* https://www.cdc.gov/alcohol/fact-sheets/alcohol-use.htm (accessed September 2017).

359 Alcohol Consumption. In *National Cancer Institute: Cancer Trends Progress Reports,* 2017. https://www.progressreport.cancer.gov/prevention/alcohol (accessed September 2017).

360 Alcohol Facts and Statistics. In *National Institute on Alcohol Abuse and Alcoholism.* https://www.niaaa.nih.gov/alcohol-health/overview-alcohol-consumption/alcohol-facts-and-statistics (accessed September 2017).

361 Fetal alcohol spectrum disorders (FASDs): Facts about FASDs. In *U.S. Centers for Disease Control and Prevention.* https://www.cdc.gov/ncbddd/fasd/facts.html (accessed September 2017).

362 Fox DJ et al. Fetal Alcohol Syndrome Among Children Aged 7–9 Years — Arizona, Colorado, and New York, 2010. *MMWR Morb & Mort Weekly Report* 64(03);54-57, 2015. https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6403a2.htm?s_cid=mm6403a2_w (accessed September 2017).

363 Sacks JJ et al. 2010 national and state costs of excessive alcohol consumption. *American Journal of Preventive Medicine,* 49(5), e73-e79, 2015.

364 Stone DM et al. Preventing Suicide: *A Technical Package of Policies, Programs, and Practices.* Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, 2017. https://www.cdc.gov/violenceprevention/pdf/suicide-technicalpackage.pdf (accessed September 2017).

365 Xuan Z, Naimi TS, Kaplan MS, et al. Alcohol Policies and Suicide: A Review of the Literature. *Alcoholism, clinical and experimental research.* 2016;40(10):2043-2055. doi:10.1111/acer.13203.

366 Pridemore WA, Snowden AJ. Reduction in Suicide Mortality Following a New National Alcohol Policy in Slovenia: An Interrupted Time-Series Analysis. *American Journal of Public Health.* 2009;99(5):915-920. doi:10.2105/AJPH.2008.146183.

367 Pricing Strategies for Alcohol Products. In *U.S. Centers for Disease Control and Prevention.* https://www.cdc.gov/policy/hst/hi5/alcoholpricing/index.html (accessed September 2017).

368 *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health,* Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General, 2016.

369 Pricing Strategies for Alcohol Products. In *U.S. Centers for Disease Control and Prevention.* https://www.cdc.gov/policy/hst/hi5/alcoholpricing/index.html (accessed September 2017).

370 *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health,* Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General, 2016.

371 Pricing Strategies for Alcohol Products. In *U.S. Centers for Disease Control and Prevention.* https://www.cdc.gov/policy/hst/hi5/alcoholpricing/index.html (accessed September 2017).

372 Task Force on Community Preventive Services. Recommendations for reducing excessive alcohol consumption and alcohol-related harms by limiting alcohol outlet density. *American Journal of Preventive Medicine.* 37(6):570-571, 2009.

373 Task Force on Community Preventive Services. Recommendations for reducing excessive alcohol consumption and alcohol-related harms by limiting alcohol outlet density. *American Journal of Preventive Medicine.* 37(6):570-571, 2009.

374 *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health,* Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General, 2016.

375 Task Force on Community Preventive Services. Recommendations on maintaining limits on days and hours of sale of alcoholic beverages to prevent excessive alcohol consumption and related harms. *American Journal of Preventive Medicine,* 39(6):605-656, 2010.

376 Task Force on Community Preventive Services. Recommendations on maintaining limits on days and hours of sale of alcoholic beverages to prevent excessive alcohol consumption and related harms. *American Journal of Preventive Medicine,* 39(6):605-656, 2010.

377 List of State Liquor Laws. In *State Liquor Laws.* http://www.stateliquorlaws.com/statelist (accessed September 2017).

378 Golden E. "Minnesota liquor stores gear up for the start of Sunday sales." *StarTribune* June 24, 2017. http://www.startribune.com/minnesota-liquor-stores-gear-up-for-sunday-sales/430589443/ (accessed September 2017).

379 List of State Liquor Laws. In *State Liquor Laws.* http://www.stateliquorlaws.com/statelist (accessed September 2017).

380 Community Preventive Services Task Force. Recommendations on privatization of alcohol retail sales and prevention of excessive alcohol consumption and related harms. *American journal of preventive medicine,* 42(4):428-929, 2012.

381 Dram Shop Civil Liberty and Criminal Penalty State Statutes. In *National Conference of State Legislatures*. http://www.ncsl.org/research/financial-services-and-commerce/dram-shop-liability-state-statutes.aspx (accessed October 2015).

382 Centers for Disease Control and Prevention, (2011). Task Force finds commercial liability an effective strategy to reduce alcohol-related problems. [Press Release]. http://www.cdc.gov/media/releases/2011/p0810_alcohol_problems.html (accessed October 2015).

383 *Report to Congress on the Prevention and Reduction of Underage Drinking*. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2011. https://store.samhsa.gov/shin/content/SMA11-4645/SMA11-4645.pdf

384 *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health,* Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General, 2016.

385 Centers for Disease Control and Prevention. Community Guide to Preventive Services: Maintaining Current Minimum Legal Drinking Age (MLDA) Laws. https://www.thecommunityguide.org/findings/motor-vehicle-injury-alcohol-impaired-driving-maintaining-current-minimum-legal-drinking-age (accessed October 2017).

386 Alcohol and Public Health: Fact Sheets - Age 21 Minimum Legal Drinking Age. In *U.S. Centers for Disease Control and Prevention*. https://www.cdc.gov/alcohol/fact-sheets/minimum-legal-drinking-age.htm (accessed September 2017).

387 Alcohol and Public Health: Fact Sheets - Underage Drinking. In *U.S. Centers for Disease Control and Prevention*. https://www.cdc.gov/alcohol/fact-sheets/underage-drinking.htm (accessed September 2017).

388 Alcohol and Public Health: Fact Sheets - Underage Drinking. In *U.S. Centers for Disease Control and Prevention*. https://www.cdc.gov/alcohol/fact-sheets/underage-drinking.htm (accessed September 2017).

389 National Institute on Alcohol Abuse and Alcoholism. Preventing Alcohol Abuse and Alcoholism—An Update. *Alcohol Alert,* Vol 34 (2), 2011. https://pubs.niaaa.nih.gov/publications/AA83/AA83.htm (accessed September 2017).

390 *Self-Regulation in the Alcohol Industry Report of the Federal Trade Commission*. Washington, DC: Federal Trade Commission, 2014. https://www.ftc.gov/system/files/documents/reports/self-regulation-alcohol-industry-report-federal-trade-commission/140320alcoholreport.pdf (accessed September 2017).

391 *Report to Congress on the Prevention and Reduction of Underage Drinking*. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2015.

392 Center on Alcohol Marketing and Youth. www.camy.org (accessed October 2017).

393 National Institute on Alcohol Abuse and Alcoholism. Preventing Alcohol Abuse and Alcoholism—An Update. *Alcohol Alert,* Vol 34 (2), 2011. https://pubs.niaaa.nih.gov/publications/AA83/AA83.htm (accessed September 2017).

394 Alcohol and Public Health: Fact Sheets — Preventing Excessive Alcohol Use. In *U.S. Centers for Disease Control and Prevention*. https://www.cdc.gov/alcohol/fact-sheets/prevention.htm (accessed September 2017).

395 *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health,* Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General, 2016.

396 Community Preventive Services Task Force. *Alcohol — Excessive Consumption: Enhanced Enforcement of Laws Prohibiting Sales to Minors*. Atlanta, GA: The Community Guide, 2006. https://www.thecommunityguide.org/findings/alcohol-excessive-consumption-enhanced-enforcement-laws-prohibiting-sales-minors (accessed September 2017).

397 Community Preventive Services Task Force. *Alcohol — Excessive Consumption: Enhanced Enforcement of Laws Prohibiting Sales to Minors*. Atlanta, GA: The Community Guide, 2006. https://www.thecommunityguide.org/findings/alcohol-excessive-consumption-enhanced-enforcement-laws-prohibiting-sales-minors (accessed September 2017).

398 Underage Drinking: Prohibitions Against Hosting Underage Drinking Parties. In *Alcohol Policy Information System*. https://alcoholpolicy.niaaa.nih.gov/Prohibitions_Against_Hosting_Underage_Drinking_Parties.html?tab=specificDate&date=1%2f1%2f2016&dateStart=1%2f1%2f2016&dateEnd=1%2f1%2f2016&onlyChanges=False (accessed September 2017).

399 *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health,* Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General, 2016.

400 *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health,* Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General, 2016.

401 DUI Arrest Statistics. In *Statistic Brain*. http://www.statisticbrain.com/number-of-dui-arrests-per-state/ (accessed September 2017).

402 Voas RB and Fell JC. Preventing impaired driving opportunities and problems. *Alcohol Research & Health,* 34(2):225, 2011. https://pubs.niaaa.nih.gov/publications/arh342/225-235.htm (accessed September 2017).

403 Dang JN. Statistical analysis of alcohol-related driving trends, 1982-2005. Washington, DC: National Highway Traffic Safety Administration, 2008. https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/810942 (accessed September 2017).

404 Recidivism. In *National Center for DWI Courts*. https://www.dwicourts.org/?s=recidivism (accessed September 2017).

405 What Works: Strategies to Reduce or Prevent Drunk Driving. In *U.S. Centers for Disease Control and Prevention*. https://www.cdc.gov/motorvehiclesafety/impaired_driving/strategies.html (accessed September 2017).

406 2013 Motor Vehicle Crashes Overview. In *National Highway Safety Traffic Safety Administration*. http://www-nrd.nhtsa.dot.gov/Pubs/812101.pdf (accessed January 2015).

407 State Ignition Interlock Laws. In *National Conference of State Legislatures,* 2016. http://www.ncsl.org/research/transportation/state-ignition-interlock-laws.aspx (accessed September 2017).

408 Motor Vehicle Safety: Intervention Fact Sheets. In *U.S. Centers for Disease Control and Prevention*. https://www.cdc.gov/motorvehiclesafety/calculator/factsheet/checkpoints.html (accessed September 2017).

409 Motor Vehicle Safety: Intervention Fact Sheets. In *U.S. Centers for Disease Control and Prevention*. https://www.cdc.gov/motorvehiclesafety/calculator/factsheet/checkpoints.html (accessed September 2017).

410 Ryan J. NCSL State Strategies Meeting. [PowerPoint Slides], June 22, 2016. http://www.ncsl.org/portals/1/documents/health/InjuryMtg2016_JRyan.pdf (accessed September 2017).

411 Alcohol Impaired: Drunk Driving. In *National Conference of State Legislatures*. http://www.ncsl.org/research/transportation/alcohol-impaired-driving.aspx (accessed September 2017).

412 *Countermeasures That Work: A Highway Safety Countermeasures Guide for State Highway Safety Offices, 8th edition. (Traffic Tech Technology Transfer Series. Report No. DOT HS 812 239)* Washington, DC: National Highway Traffic Safety Administration, 2016. https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/812239_countermeasures_8thed_tt.pdf (accessed September 2017).

413 *Countermeasures That Work: A Highway Safety Countermeasures Guide for State Highway Safety Offices, 8th edition. (Traffic Tech Technology Transfer Series. Report No. DOT HS 812 239)* Washington, DC: National Highway Traffic Safety Administration, 2016. https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/812239_countermeasures_8thed_tt.pdf (accessed September 2017).

414 Underage Drinking: Use/Lose: Driving Privileges. In *Alcohol Policy Information System.* https://alcoholpolicy.niaaa.nih.gov/Loss_of_Driving_Privileges_for_Alcohol_Violations_by_Minors_Use_Lose_Laws.html (accessed September 2017).

415 Stone DM et al. *Preventing Suicide: A Technical Package of Policies, Programs, and Practices.* Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, 2017. https://www.cdc.gov/violenceprevention/pdf/suicide-technicalpackage.pdf (accessed September 2017).

416 Centers for Disease Control and Prevention. Suicide: Risk and Protective Factors. https://www.cdc.gov/violenceprevention/suicide/riskprotectivefactors.html (accessed October 2017).

417 Stone DM et al. *Preventing Suicide: A Technical Package of Policies, Programs, and Practices.* Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, 2017. https://www.cdc.gov/violenceprevention/pdf/suicide-technicalpackage.pdf (accessed September 2017).

418 Leading Causes of Death. In *National Center for Health Statistics.* https://www.cdc.gov/nchs/fastats/leading-causes-of-death.htm (accessed September 2017).

419 Suicide Statistics. In *American Foundation for Suicide Prevention.* https://afsp.org/about-suicide/suicide-statistics/ (accessed September 2017).

420 Suicide Prevention. In *U.S. Centers for Disease Control and Prevention.* https://www.cdc.gov/violenceprevention/suicide/ (accessed September 2017).

421 Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS), 2017. www.cdc.gov/injury/wisqars (accessed July 2017).

422 Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS), 2017. www.cdc.gov/injury/wisqars (accessed July 2017).

423 Kegler SR, Stone DM, Holland KM. Trends in Suicide by Level of Urbanization — United States, 1999–2015. *MMWR Morb Mortal Wkly Rep* 2017;66:270–273. DOI: http://dx.doi.org/10.15585/mmwr.mm6610a2.

424 Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS), 2017. www.cdc.gov/injury/wisqars (accessed July 2017).

425 Ahrnsbrak R. et al. *Key substance use and mental health indicators in the United States: Results from the 2016 National Survey on Drug Use and Health (HHS Publication No. SMA 17-5044, NSDUH Series H-52).* Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, 2017. https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR1-2016/NSDUH-FFR1-2016.pdf (accessed October 2017).

426 Kann L et al. Youth Risk Behavior Surveillance — United States, 2015. *MMWR Morb Mortal Wkly Rep* 65(6);1–174, 2016. https://www.cdc.gov/mmwr/volumes/65/ss/ss6506a1.htm?s_cid=ss6506_w (accessed September 2017).

427 Stone DM et al. *Preventing Suicide: A Technical Package of Policies, Programs, and Practices.* Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, 2017. https://www.cdc.gov/violenceprevention/pdf/suicide-technicalpackage.pdf (accessed September 2017).

428 Stone DM et al. *Preventing Suicide: A Technical Package of Policies, Programs, and Practices.* Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, 2017. https://www.cdc.gov/violenceprevention/pdf/suicide-technicalpackage.pdf (accessed September 2017).

429 Borges, G., Bagge, C., Cherpitel, C., Conner, K., Orozco, R., & Rossow, I. (2017). A meta-analysis of acute use of alcohol and the risk of suicide attempt. *Psychological Medicine,* 47(5), 949-957. https://www.cambridge.org/core/journals/psychological-medicine/article/metaanalysis-of-acute-use-of-alcohol-and-the-risk-of-suicide-attempt/E55CA1B9BF55887403D930FB194924EA (accessed October 2017).

430 Bagge CL and Borges G. Acute Substance Use as a Warning Sign for Suicide Attempts: A Case-Crossover Examination of the 48 Hours Prior to a Recent Suicide Attempt. *J Clin Psychiatry* 2017;78(6):691–696. http://www.psychiatrist.com/JCP/article/Pages/2017/v78n06/v78n0610.aspx (accessed October 2017).

431 Risk of Suicide. In *National Alliance on Mental Illness,* 2016. http://www.nami.org/Learn-More/Mental-Health-Conditions/Related-Conditions/Suicide (accessed September 2017).

432 SAMHSA. (2016). 9.8 Million American adults had serious thoughts of suicide in 2015. [Press Release]. https://www.samhsa.gov/newsroom/press-announcements/201609150100 (accessed September 2017).

433 David-Ferdon C. CDC grand rounds: Preventing suicide through a comprehensive public health approach. *MMWR. Morbidity and mortality weekly report,* 65(34);894–897, 2016. https://www.cdc.gov/mmwr/volumes/65/wr/mm6534a2.htm#contribAff (accessed September 2017).

434 David-Ferdon C. CDC grand rounds: Preventing suicide through a comprehensive public health approach. *MMWR. Morbidity and mortality weekly report,* 65(34);894–897, 2016. https://www.cdc.gov/mmwr/volumes/65/wr/mm6534a2.htm#contribAff (accessed September 2017).

435 Curtin SC, Warner M and Hedegaard H. *Increase in suicide in the United States, 1999-2014.* Atlanta, GA: National Center for Health Statistics, 2016. https://www.cdc.gov/nchs/products/databriefs/db241.htm

436 *Suicide among veterans and other Americans, 2001–2014.* Washington, DC: Department of Veterans Affairs, 2016. https://www.mentalhealth.va.gov/docs/2016suicidedatareport.pdf (accessed September 2017).

437 Noonan ME. Mortality In State Prisons, 2001-2014 - Statistical Tables. Washington, DC: Bureau of Justice Statistics, 2016. https://www.bjs.gov/index.cfm?ty=pbdetail&iid=5866 (accessed September 2017).

438 Noonan ME. Mortality In Local Jails, 2000-2014 - Statistical Tables. Washington, DC: Bureau of Justice Statistics, 2016. https://www.bjs.gov/index.cfm?ty=pbdetail&iid=5865 (accessed September 2017).

439 Marshal MP et al. Suicidality and depression disparities between sexual minority and heterosexual youth: a meta-analytic review. *J Adolesc Health,* 49(2):115–123, 2011.

440 *2012 National Strategy for Suicide Prevention: Goals and Objectives for Action: A Report of the U.S. Surgeon General and of the National Action Alliance for Suicide Prevention.* Washington, DC: Office of the Surgeon General, 2012. https://www.ncbi.nlm.nih.gov/books/NBK109909/ (accessed September 2017).

441 Bouris A et al. Effects of victimization and violence on suicidal ideation and behaviors among sexual minority and heterosexual adolescents. *LGBT health.* 3(2):153-161, 2016. https://www.ncbi.nlm.nih.gov/pubmed/26789401 (accessed September 2017).

442 Hampton T. Experts address risk of physician suicide. *JAMA,* 294(10):1189-1191, 2005. http://jamanetwork.com/journals/jama/article-abstract/201513 (accessed September 2017).

443 Jiang C et al. *Racial and gender disparities in suicide among young adults aged 18-24: United States, 2009-2013.* Atlanta, GA: National Center for Health Statistics, 2015. https://www.cdc.gov/nchs/data/hestat/suicide/racial_and_gender_2009_2013.pdf (accessed September 2017).

444 *2012 National Strategy for Suicide Prevention: Goals and Objectives for Action: A Report of the U.S. Surgeon General and of the National Action Alliance for Suicide Prevention.* Washington, DC: Office of the Surgeon General, 2012. https://www.ncbi.nlm.nih.gov/books/NBK109909/ (accessed September 2017).

445 *2012 National Strategy for Suicide Prevention: Goals and Objectives for Action: A Report of the U.S. Surgeon General and of the National Action Alliance for Suicide Prevention.* Washington, DC: Office of the Surgeon General, 2012. https://www.ncbi.nlm.nih.gov/books/NBK109909/ (accessed September 2017).

446 Stone DM et al. *Preventing Suicide: A Technical Package of Policies, Programs, and Practices.* Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, 2017. https://www.cdc.gov/violenceprevention/pdf/suicide-technicalpackage.pdf (accessed September 2017).

447 *Preventing Suicide: A Toolkit for High Schools. HHS Publication No. SMA-12-4669. Rockville,* MD: Center for Mental Health Services, Substance Abuse and Mental Health Services Administration, 2012. https://store.samhsa.gov/shin/content//SMA12-4669/SMA12-4669.pdf (accessed September 2017).

448 Isaac M, Elias B, Katz LY, et al. Gatekeeper training as a preventative intervention for suicide: a systematic review. *Can J Psychiatry,* 54(4):260-268, 2009.

449 Lancaster PG, et al. Feasibility of a web?based gatekeeper training: Implications for suicide prevention. *Suicide and life-threatening behavior.* 44(5):510-23, 2014. http://onlinelibrary.wiley.com/doi/10.1111/sltb.12086/full (accessed September 2017).

450 *State Laws: Suicide Prevention on University and College Campuses.* New York, NY: American Foundation for Suicide Prevention, 2016. http://afsp.org/wp-content/uploads/2016/11/AFSP_Higher-Ed-Issue-Brief.pdf (accessed September 2017).

451 Ahmedani BK et al. Racial/ethnic differences in healthcare visits made prior to suicide attempt across the United States. *Medical care.* 53(5):430, 2015. http://journals.lww.com/lww-medicalcare/Abstract/2015/05000/Racial_Ethnic_Differences_in_Health_Care_Visits.8.aspx (accessed September 2017).

452 *State Laws: Training for Health Professionals in Suicide Assessment, Treatment, and Management.* New York, NY: American Foundation for Suicide Prevention, 2016. https://www.congressweb.com/assets/BackgroundDocuments/70147535-0C42-B1F3-E3D-B3ED529C97A80/Health%20Professional%20Training%20Overview.pdf (accessed September 2017).

453 National Action Alliance for Suicide Prevention: Clinical Workforce Preparedness Task Force. *Suicide prevention and the clinical workforce: Guidelines for training.* Washington, DC: National Action Alliance for Suicide Prevention, 2014. http://actionallianceforsuicideprevention.org/sites/actionallianceforsuicideprevention.org/files/Guidelines.pdf

454 Visser VS, Comans TA, and Scuffham PA. Evaluation of the effectiveness of a community-based crisis intervention program for people bereaved by suicide. *Journal of Community Psychology,* 42(1):19-28, 2014

455 Barber CW and Miller MJ. Reducing a Suicidal Person's Access to Lethal Means of Suicide: A Research Agenda. *Am J Prev Med,* 47(3S2):S264–S272, 2014. http://actionallianceforsuicideprevention.org/sites/actionallianceforsuicideprevention.org/files/Reducing%20a%20Suicidal%20Persons%20Access%20to%20Lethal.pdf (accessed September 2017).

456 Suicide and Self-Inflicted Injury. In *National Center for Health Statistics.* https://www.cdc.gov/nchs/fastats/suicide.htm (accessed September 2017).

457 Drexler M. *Guns & Suicide: The Hidden Toll.* Cambridge, MA: Harvard School of Public Health, 24-35, 2013. https://www.hsph.harvard.edu/magazine/magazine_article/guns-suicide/ (accessed September 2017).

458 Simon OR et al. Characteristics of impulsive suicide attempts and attempters. *Suicide Life Threat Behav,* 32(1 Suppl):49-59, 2001.

459 Deisenhammer EA et al. The duration of the suicidal process: how much time is left for intervention between consideration and accomplishment of a suicide attempt? *J Clin Psychiatry.* 70(1):19-24, 2009.

460 Hawton K. Restricting access to methods of suicide: rationale and evaluation of this approach to suicide prevention. *Crisis,* 28(S1):4-9, 2007.

461 Yip P, Caine E, Yousuf S, Chang S-S, Wu K, Chen Y-Y. Means restriction for suicide prevention. *Lancet,* 379(9834): 2393-2399, 2012.

462 Stone DM et al. *Preventing Suicide: A Technical Package of Policies, Programs, and Practices.* Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, 2017. https://www.cdc.gov/violenceprevention/pdf/suicide-technicalpackage.pdf (accessed September 2017).

463 Miller M, Azrael D, and Hemenway D. Belief in the inevitability of suicide: Results from a national survey. *Suicide and Life Threatening Behavior.* 36:1-11, 2006.

464 Betz ME et al. Lethal means restriction for suicide prevention: Beliefs and behaviors of emergency department providers. *Depression and Anxiety,* 10:2013-2020, 2013.

465 Stone DM et al. *Preventing Suicide: A Technical Package of Policies, Programs, and Practices.* Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, 2017. https://www.cdc.gov/violenceprevention/pdf/suicide-technicalpackage.pdf (accessed September 2017).

466 Igielnik R and Brown A. *Key takeaways on Americans' views of guns and gun ownership.* Washington, DC: The Pew Charitable Trusts, 2017. http://www.pewresearch.org/fact-tank/2017/06/22/key-takeaways-on-americans-views-of-guns-and-gun-ownership/ (accessed September 2017).

467 Miller M and Hemenway D. Guns and suicide in the United States. *New England Journal of Medicine,* 359(10):989-91, 2008. http://www.nejm.org/doi/full/10.1056/NEJMp0805923 (accessed September 2017).

468 Harvard School of Public Health. (2007). Guns in Homes Strongly Associated with Higher Rates of Suicide. [Press Release]. http://archive.sph.harvard.edu/press-releases/2007-releases/press04102007.html (accessed September 2017).

469 Suicide. In *Harvard Injury Control Research Center.* https://www.hsph.harvard.edu/hicrc/firearms-research/gun-ownership-and-use/ (accessed September 2017).

470 Okoro CA et al. Prevalence of household firearms and firearm-storage practices in the 50 states and the District of Columbia: findings from the Behavioral Risk Factor Surveillance System, 2002. *Pediatrics,* 116(3):e370-e76, 2005. http://pediatrics.aappublications.org/content/116/3/e370.full (accessed September 2017).

471 Miller M and Hemenway D. Firearm Prevalence and the Risk of Suicide: A Review. *Harvard Healthy Policy Review.* 2(2), 2001. http://www.hcs.harvard.edu/~epihc/currentissue/Fall2001/miller2.htm (accessed September 2017).

472 Johnson RM et al. Who are the owners of firearms used in adolescent suicides?.*Suicide and life-threatening behavior.* 40(6):609-11, 2010. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3085447/ (accessed September 2017).

473 Grossman DC et al. Gun storage practices and risk of youth suicide and unintentional firearm injuries. *JAMA,* 293(6):707-714, 2005.

474 Runyan CW et al. Lethal means counseling for parents of youth seeking emergency care for suicidality. *West J Emerg Med* 17(1):8-14, 2016.

475 Jena AB and Prasad V. Primary care physicians' role in counseling about gun safety. *Am Fam Physician,* 90(9):619-620. 2014. http://www.aafp.org/afp/2014/1101/p619.pdf (accessed September 2017).

476 Parmet WE, Smith JA, and Miller M. Physicians, Firearms, and Free Speech—Overturning Florida's Firearm-Safety Gag Rule. *New England Journal of Medicine,* 376(20):1901-1903, 2017. http://www.nejm.org/doi/full/10.1056/NEJMp1702516?query=TOC& (accessed September 2017).

477 *National Instant Criminal Background Check System Operational Report 2007.* Washington, DC: Federal Bureau of Investigation, 2007. https://www.fbi.gov/file-repository/2007_operations_report.pdf/view (accessed September 2017).

478 Mental Health Reporting. In *Giffords Law Center.* http://smartgunlaws.org/gun-laws/policy-areas/background-checks/mental-health-reporting/ (accessed October 2017).

479 *Active Records in the NICS Indices.* Washington, DC: Federal Bureau of Investigation, 2017. https://www.fbi.gov/file-repository/active_records_in_the_nics-indices.pdf/view (accessed September 2017).

480 Cook PJ and Ludwig J. Guns in America: National Survey on Private Ownership and Use of Firearms, U.S. Department of Justice, National Institute of Justice Research in Brief 6–7. Washington, DC: National Institute of Justice, 1997. https://www.ncjrs.gov/pdffiles/165476.pdf (accessed September 2017).

481 Mental Health Reporting. In *Law Center to Prevent Gun Violence.* http://smartgunlaws.org/gun-laws/policy-areas/background-checks/mental-health-reporting/ (accessed September 2017).

482 Safe Storage. In *Law Center to Prevent Gun Violence.* http://smartgunlaws.org/gun-laws/policy-areas/child-consumer-safety/safe-storage/

483 Child Access Prevention. In *Law Center to Prevent Gun Violence.* http://smartgunlaws.org/gun-laws/policy-areas/child-consumer-safety/child-access-prevention/

484 Gun Violence Protective Orders. In *Law Center to Prevent Gun Violence.* http://smartgunlaws.org/gun-laws/policy-areas/who-can-have-a-gun/gun-violence-protective-orders/

485 Khanna S. "One State's Temporary Gun Removal Law Shows Promise in Preventing Suicides." *Duke Health* November 17, 2016. https://corporate.dukehealth.org/news-listing/one-state%E2%80%99s-temporary-gun-removal-law-shows-promise-preventing-suicides (accessed September 2017).

486 Swanson JW et al. Implementation and Effectiveness of Connecticut's Risk-Based Gun Removal Law: Does It Prevent Suicides. *Law & Contemp. Probs,* 80:179, 2017. http://heinonline.org/HOL/LandingPage?handle=hein.journals/lcp80&div=22&id=&page= (accessed September 2017).

487 National Violent Death Reporting System. In *U.S. Centers for Disease Control and Prevention.* https://www.cdc.gov/violenceprevention/nvdrs/stateprofiles.html (accessed September 2017).

488 Niederkrotenthaler T et al. Media and suicide. Papageno v Werther effect. *BMJ,* 341:c5841, 2010.

489 Home Page. In *Injury Control Research Center for Suicide Prevention.* http://suicidepreventionicrc-s.org/ (accessed July 5, 2017).

490 Education Development Center, Inc. "Zero Suicide — An Effective Approach to Suicide Prevention." *Education Development Center,* Inc. June 22, 2016. https://www.edc.org/zero-suicide-effective-approach-suicide-prevention (accessed July 5, 2017).

491 Silberner J. "What Happens if You Try to Prevent Every Single Suicide?" *NPR* November 2, 2015. http://www.npr.org/sections/health-shots/2015/11/02/452658644/what-happens-if-you-try-to-prevent-every-single-suicide (accessed July 5, 2017).

492 "As US suicide rate surges, Henry Ford Health System is closing in on zero suicides." *Advisory Board* April 22, 2016. https://www.advisory.com/daily-briefing/2016/04/22/suicide-rates-reach-new-highs. (accessed July 5, 2017).

493 Coffey MJ and Coffey CE. "How We Dramatically Reduced Suicide." *New England Journal of Medicine Catalyst* April 20, 2016. http://catalyst.nejm.org/dramatically-reduced-suicide/ (accessed July 5, 2017).

494 Hogan M. "Commentary: Leading the way to 'Zero Suicide'." *Modern Healthcare* June 21, 2016. http://www.modernhealthcare.com/article/20160621/NEWS/160629979/commentary-leading-the-way-to-zero-suicide. (accessed July 5, 2017).

495 Cooperative Agreements to Implement Zero Suicide in Health Systems Funding Opportunity Announcement. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2017. https://www.samhsa.gov/grants/grant-announcements/sm-17-006. (accessed July 5, 2017).

496 Mishara BL and Martin N. Effects of a comprehensive police suicide prevention program. *Crisis,* 33:162–168, 2012.

497 Stone DM et al. *Preventing Suicide: A Technical Package of Policies, Programs, and Practices.* Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, 2017. https://www.cdc.gov/violenceprevention/pdf/suicide-technicalpackage.pdf (accessed September 2017).

498 Knox KL et al. The US Air Force suicide prevention program: implications for public health policy. *American Journal of Public Health,* 100(12), 2457-2463, 2010.

499 David-Ferdon, C. CDC grand rounds: Preventing suicide through a comprehensive public health approach. *Morbidity and Mortality Weekly Report,* 65(34);894–897, 2016. https://www.cdc.gov/mmwr/volumes/65/wr/mm6534a2.htm. (accessed July 5, 2017).

500 Knox KL et al. Risk of suicide and related adverse outcomes after exposure to a suicide prevention programme in the US Air Force: cohort study. *BMJ,* 327:1376–80, 2003.

501 https://www.jedfoundation.org/what-we-do/

502 *NVDRS: Stories from the Frontlines of Violent Death Surveillance.* Atlanta, GA: Safe States Alliance, 2013. http://c.ymcdn.com/sites/www.safestates.org/resource/resmgr/NVDRS/NVDRS_Stories_-_2015.pdf (accessed September 2017).

503 Ahrnsbrak R. et al. *Key substance use and mental health indicators in the United States: Results from the 2016 National Survey on Drug Use and Health (HHS Publication No. SMA 17-5044, NSDUH Series H-52).* Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, 2017. https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR1-2016/NSDUH-FFR1-2016.pdf (accessed October 2017).

504 Ahrnsbrak R. et al. *Key substance use and mental health indicators in the United States: Results from the 2016 National Survey on Drug Use and Health (HHS Publication No. SMA 17-5044, NSDUH Series H-52).* Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, 2017. https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR1-2016/NSDUH-FFR1-2016.pdf (accessed October 2017).

505 Ahrnsbrak R. et al. *Key substance use and mental health indicators in the United States: Results from the 2016 National Survey on Drug Use and Health (HHS Publication No. SMA 17-5044, NSDUH Series H-52).* Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, 2017. https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR1-2016/NSDUH-FFR1-2016.pdf (accessed October 2017).

506 Any Mental Illness (AMI) Among U.S. Adults. In *National Institute of Mental Health.* https://www.nimh.nih.gov/health/statistics/prevalence/any-mental-illness-ami-among-us-adults.shtml (accessed September 2017).

507 Bose J et al. *Key Substance Use and Mental Health Indicators in the United States: Results from the 2015 National Survey on Drug Use and Health.* Rockville, MD: Center for Behavioral Health Statistics and Quality, 2016. https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR1-2015/NSDUH-FFR1-2015/NSDUH-FFR1-2015.htm (accessed September 2017).

508 Any Anxiety Disorder Among Adults. In *National Institute of Mental Health.* https://www.nimh.nih.gov/health/statistics/prevalence/any-anxiety-disorder-among-adults.shtml (accessed September 2017).

509 Any Personality Disorder. In *National Institute of Mental Health.* https://www.nimh.nih.gov/health/statistics/prevalence/any-personality-disorder.shtml (accessed September 2017).

510 Any Mood Disorder Among Adults. In *National Institute of Mental Health.* https://www.nimh.nih.gov/health/statistics/prevalence/any-mood-disorder-among-adults.shtml (accessed September 2017).

511 Mental Health Conditions. In *National Alliance on Mental Health.* https://www.nami.org/Learn-More/Mental-Health-Conditions (accessed September 2017).

512 *Leading Change: A Plan for SAMHSA's Roles and Actions 2011-2014.* HHS Publication No. (SMA) 11-4629. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2011. http://store.samhsa.gov/shin/content/SMA11-4629/01-FullDocument.pdf (accessed October 2014).

513 Mental Health Conditions. In *National Alliance on Mental Health.* https://www.nami.org/Learn-More/Mental-Health-Conditions (accessed September 2017).

514 Any Disorder Among Children. In *National Institute of Mental Health.* http://www.nimh.nih.gov/health/statistics/prevalence/any-disorder-among-children.shtml (accessed September 2016).

515 Bronson J and Berzofsky M. Indicators of Mental Health Problems Reported by Prisoners and Jail Inmates, 2011-12. Washington, DC: Bureau of Justice Statistics, 2017. https://www.bjs.gov/content/pub/pdf/imhprpji1112.pdf (accessed October 2017).

516 Ahrnsbrak R. et al. *Key substance use and mental health indicators in the United States: Results from the 2016 National Survey on Drug Use and Health (HHS Publication No. SMA 17-5044, NSDUH Series H-52).* Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, 2017. https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR1-2016/NSDUH-FFR1-2016.pdf (accessed October 2017).

517 Mental Health in America. In https://www.nami.org/Learn-More/Mental-Health-By-the-Numbers

518 Substance Abuse and Mental Health Services Administration. *National Expenditures for Mental Health Services and Substance Abuse Treatment, 1986–2009.* HHS Publication No. SMA-13-4740. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2013. http://store.samhsa.gov/shin/content//SMA13-4740/SMA13-4740.pdf (accessed October 2014).

519 National Association on Mental Illness (NAMI). *State Mental Health Legislation.* Arlington, VA: NAMI, 2015.

520 Ahrnsbrak R. et al. *Key substance use and mental health indicators in the United States: Results from the 2016 National Survey on Drug Use and Health (HHS Publication No. SMA 17-5044, NSDUH Series H-52).* Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, 2017. https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR1-2016/NSDUH-FFR1-2016.pdf (accessed October 2017).

521 Ahrnsbrak R. et al. *Key substance use and mental health indicators in the United States: Results from the 2016 National Survey on Drug Use and Health (HHS Publication No. SMA 17-5044, NSDUH Series H-52).* Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, 2017. https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR1-2016/NSDUH-FFR1-2016.pdf (accessed October 2017).

522 Grant BF et al. Prevalence of 12-month alcohol use, high-risk drinking, and DSM-IV alcohol use disorder in the United States, 2001-2002 to 2012-2013: results from the National Epidemiologic Survey on Alcohol and Related Conditions. *Jama Psychiatry,* 74(9):911-23, 2017. http://jamanetwork.com/journals/jamapsychiatry/fullarticle/2647079 (accessed September 2017).

523 *Medicaid and the Opioid Epidemic.* Washington, DC: MACPAC, 2017. https://www.macpac.gov/wp-content/uploads/2017/06/Medicaid-and-the-Opioid-Epidemic.pdf (accessed September 2017).

524 *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health,* Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General, 2016.

525 Substance Abuse and Mental Health Services Administration. *National Expenditures for Mental Health Services and Substance Abuse Treatment, 1986–2009.* HHS Publication No. SMA-13-4740. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2013. http://store.samhsa.gov/shin/content//SMA13-4740/SMA13-4740.pdf (accessed October 2014).

526 Ahrnsbrak R. et al. *Key substance use and mental health indicators in the United States: Results from the 2016 National Survey on Drug Use and Health (HHS Publication No. SMA 17-5044, NSDUH Series H-52).* Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, 2017. https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR1-2016/NSDUH-FFR1-2016.pdf (accessed October 2017).

527 Caruso C. "51 percent of opioid prescriptions go to people with depression and mood disorders." *PBS* June 27, 2017. http://www.pbs.org/newshour/rundown/51-percent-opioid-prescriptions-go-people-depression-mood-disorders/ (accessed September 2017).

528 Dual Diagnosis. In *National Alliance on Mental Health.* https://www.nami.org/Learn-More/Mental-Health-Conditions/Related-Conditions/Dual-Diagnosis (accessed September 2017).

529 Hert M et al. Physical illness in patients with severe mental disorders. I. Prevalence, impact of medications and disparities in health care. *World psychiatry,* 10(1):52-77, 2011. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3048500/ (accessed September 2017).

530 *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health,* Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General, 2016.

531 Mark TL et al. Insurance financing increased for mental health conditions but not for substance use disorders, 1986–2014. *Health Affairs,* 35(6):958-65, 2016.

532 Frank R and Glied S. "Keep Obamacare to keep progress on treating opioid disorders and mental illnesses." *The Hill* January 11, 2017.

533 Medicaid and CHIP Payment and Access Commissions (MACPAC). Report to Congress on Medicaid and CHIP. Washington, DC: MACPAC, 2015. https://www.macpac.gov/wp-content/uploads/2015/06/June-2015-Report-to-Congress-on-Medicaid-and-CHIP.pdf (accessed September 2017).

534 Beronio et al. *Affordable Care Act Expands Mental Health and Substance Use Disorder Benefits and Federal Parity Protections for 62 Million Americans.* ASPE Research Brief. Washington, DC: Office of the Assistant Secretary for Planning and Evaluation, 2013. http://aspe.hhs.gov/health/reports/2013/mental/rb_mental.cfm (accessed October 2014).

535 *Behavioral Health: Options for Low-Income Adults to Receive Treatment in Selected States.* Washington, DC: U.S. Government Accountability Office, 2015. http://www.gao.gov/assets/680/670894.pdf (accessed September 2017).

536 Balasubramanian BA et al. Outcomes of Integrated Behavioral Health with Primary Care. *The Journal of the American Board of Family Medicine,* 30(2):130-139, 2017.http://www.jabfm.org/content/30/2/130 (accessed September 2017).

537 *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health,* Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General, 2016.

538 *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health,* Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General, 2016.

539 Advisory Board. "How 2 health systems are rethinking mental health care for a value-based world." *Advisory Board* June 5, 2017. https://www.advisory.com/daily-briefing/2017/06/05/mental-health (accessed September 2017).

540 The Kennedy Forum and Scattergood Foundation. *Parity Track: State Reports.* https://paritytrack.org/parity-reports/state-reports/ (accessed September 2017).

541 Feliz J. "Addiction Solutions Campaign Forms Against Backdrop of Healthcare Policy Debates, National Opioid Epidemic." *Partnership for Drug Free Kids* June 20, 2017. https://drugfree.org/newsroom/news-item/addiction-solutions-campaign-forms-against-backdrop-of-health-care-policy-debates-national-opioid-epidemic/ (accessed October 2017).

542 National Alliance on Mental Illness. *Mental Health Parity: What do Health Insurance Consumers Say?* Arlington, VA: NAMI, 2015. http://namimd.org/uploaded_files/347/Mental_Health_Parity_What_do_Health_Insurance_Consumers_Say.pdf (accessed September 2017).

543 Klein S and Hostetter M. In Focus: *Integrating Behavioral Health and Primary Care.* Washington, DC: The Commonwealth Fund, 2014. http://www.commonwealthfund.org/publications/newsletters/quality-matters/2014/august-september/in-focus (accessed September 2017).

544 Integrated Care. In *National Institute of Mental Health.* https://www.nimh.nih.gov/health/topics/integrated-care/index.shtml (accessed September 2017).

545 Gold SB, Green LA, and Peek CJ. From Our Practices to Yours: Key Messages for the Journey to Integrated Behavioral Health. *The Journal of the American Board of Family Medicine,* 30(1):25-34, 2017. http://farleyhealthpolicycenter.org/wp-content/uploads/2017/01/25.full-1.pdf (accessed September 2017).

546 Integrated Care. In *National Institute of Mental Health.* https://www.nimh.nih.gov/health/topics/integrated-care/index.shtml (accessed September 2017).

547 Home Page. In *SAMHSA-HRSA Center for Integrated Health Solutions.* https://www.integration.samhsa.gov (accessed September 2017).

548 About CIHS. In *SAMHSA-HRSA Center for Integrated Health Solutions.* https://www.integration.samhsa.gov/about-us/about-cihs (accessed September 2017).

549 Innovation Communities 2017. In *SAMHSA-HRSA Center for Integrated Health Solutions.* https://www.integration.samhsa.gov/about-us/innovation_communities_2017 (accessed September 2017).

550 *Medicaid and the Opioid Epidemic.* Washington, DC: MACPAC, 2017. https://www.macpac.gov/wp-content/uploads/2017/06/Medicaid-and-the-Opioid-Epidemic.pdf (accessed September 2017).

551 Purington K and Townley C. *Physical and Behavioral Health Integration: State Policy Approaches to Support Key Infrastructure.* Washington, DC: National Academy for State Health Policy, 2017. http://www.nashp.org/wp-content/uploads/2017/05/CMWF-Brief.pdf (accessed September 2017).

552 Quiat M. *SIM small grants fuel practice transformation.* Colorado State Innovation Model, n.d. https://www.colorado.gov/pacific/healthinnovation/sim-small-grants-fuel-practice-transformation

553 *Treatment Episode Data Set (TEDS) 2000-2010: National Admissions to Substance Abuse Treatment Services.* Rockville, MD: Substance Abuse and Mental Health Services Administration, 2012.

554 Ahrnsbrak R. et al. *Key substance use and mental health indicators in the United States: Results from the 2016 National Survey on Drug Use and Health (HHS Publication No. SMA 17-5044, NSDUH Series H-52).* Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, 2017. https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR1-2016/NSDUH-FFR1-2016.pdf (accessed October 2017).

555 Shatterproof. Substance Use Disorder Treatment Task Force. https://www.shatterproof.org/substance-use-disorder-treatment-task-force (accessed October 2017).

556 Topics in Brief: Prescription Drug Abuse. In *National Institute on Drug Abuse.* http://www.drugabuse.gov/publications/topics-in-brief/prescription-drug-abuse (accessed September 2017).

557 *Medication-Assisted Treatment for Opioid Treatment.* Rockville, MD: SAMHSA, 2011. http://store.samhsa. gov/shin/content//SMA09-4443/SMA09- 4443.pdf (accessed September 2017).

558 *A Public Health and Safety Approach to Problematic Opioid Use and Overdose.* New York, NY: Drug Policy Alliance, 2017. http://www.drugpolicy.org/sites/default/files/Opioid_Response_Plan_041817.pdf (accessed September 2017).

559 *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health,* Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General, 2016.

560 Schwappach D et al. Strategies for evaluating the economic value of drugs in alcohol dependence treatment. *Drug Alcohol Depend,* 122:165–173, 2012.

561 Clark RE et al. Risk factors for relapse and higher costs among Medicaid members with opioid dependence or abuse: opioid agonists, comorbidities, and treatment history. *Journal of substance abuse treatment.* 57:75-80, 2015. http://www.journalofsubstanceabusetreatment.com/article/S0740-5472(15)00106-3/abstract (accessed September 2017).

562 Johnson KA. *Dear Colleague 275 Limit.* Rockville, MD: Substance Abuse and Mental Health Services Administration, 2016. https://www.samhsa.gov/sites/default/files/programs_campaigns/medication_assisted/dear_colleague_letters/2016-colleague-letter-275-limit.pdf (accessed September 2017).

563 Jones CM et al. National and state treatment need and capacity for opioid agonist medication-assisted treatment. *American Journal of Public Health,* 2015. http://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2015.302664?journalCode=ajph (accessed September 2017).

564 Lopez G. "America's failed response to the opioid epidemic, in one statistic." *Vox* June 29, 2017. https://www.vox.com/policy-and-politics/2017/6/29/15889014/opioid-epidemic-bcbsa-report (accessed September 2017).

565 Gitlow S. (2014). "Overdose Prevention and Opioid Addiction Treatment Recommendations." [Letter]. https://www.asam.org/docs/default-source/advocacy/letters-and-comments/opioid-epidemic-recommendations_secy-burwell_2014-07-31.pdf?sfvrsn=4 (accessed September 2017).

566 Stein BD et al. Supply of buprenorphine waivered physicians: the influence of state policies. *Journal of substance abuse treatment,* 48(1):104-11, 2015. https://www.sciencedirect.com/science/article/pii/S0740547214001470 (accessed September 2017).

567 Opioid Treatment Program Directory. In *Substance Abuse and Mental Health Services Administration.* http://dpt2.samhsa.gov/treatment/directory.aspx (accessed September 2017).

568 *A Public Health and Safety Approach to Problematic Opioid Use and Overdose.* New York, NY: Drug Policy Alliance, 2017. http://www.drugpolicy.org/sites/default/files/Opioid_Response_Plan_041817.pdf (accessed September 2017).

569 Abraham AJ et al. Geographic Disparities in Availability of Opioid Use Disorder Treatment for Medicaid Enrollees. *Health Serv Res.* 2017.

570 Qualify for Nurse Practitioners (NPs) and Physician Assistants (PAs) Waiver. In *Substance Abuse and Mental Health Services Administration.* https://www.samhsa.gov/medication-assisted-treatment/qualify-nps-pas-waivers (accessed September 2017).

571 State Practice Environment. In *American Association of Nurse Practitioners.* https://www.aanp.org/legislation-regulation/state-legislation/state-practice-environment/66-legislation-regulation/state-practice-environment/1380-state-practice-by-type (accessed September 2017).

572 *Opioid Addiction: Laws, Regulations, and Other Factors Can Affect Medication-Assisted Treatment Access.* Washington, DC: U.S. Government Accountability Office, 2016. http://www.gao.gov/assets/690/680050.pdf (accessed September 2017).

573 *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health,* Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General, 2016.

574 Wachino V. *Best Practices for Addressing Prescription Opioid Overdoses, Misuse and Addiction.* Baltimore, MD: Centers for Medicare & Medicaid Services, 2016. https://www.medicaid.gov/federal-policy-guidance/downloads/CIB-02-02-16.pdf (accessed September 2017).

575 *Medicaid Coverage and Financing of Medications to Treat Alcohol and Opioid Use Disorders. HHS Publication No. SMA-14-4854.* Rockville, MD: Substance Abuse and Mental Health Services Administration, 2014. https://store.samhsa.gov/shin/content//SMA14-4854/SMA14-4854.pdf (accessed September 2017).

576 Ali MM, Teich JL and Mutter R. Reasons for Not Seeking Substance Use Disorder Treatment: Variations by Health Insurance Coverage. *The journal of behavioral health services & research.* 44(1):63-74, 2017. https://link.springer.com/article/10.1007/s11414-016-9538-3 (accessed September 2017).

577 Mental Health Care Health Professional Shortage Areas (HPSAs). In *Henry J. Kaiser Family Foundation.* http://www.kff.org/other/state-indicator/mental-health-care-health-professional-shortage-areas-hpsas/?activeTab=map&currentTimeframe=0&selectedDistributions=practitioners-needed-to-remove-hpsa-designation&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D (accessed September 2017).

578 Weil TP. Insufficient Dollars and Qualified Personnel to Meet United States Mental Health Needs. *The Journal of Nervous and Mental Disease,* 203.4: 233-40, 2015.

579 Hoge MA et al. Mental Health And Addiction Workforce Development: Federal Leadership Is Needed To Address The Growing Crisis. *Health Affairs,* 32(11):2005-2012, 2013.

580 Building the Behavioral Health Workforce. *SAMHSA News,* 22(4), 2014. https://www.samhsa.gov/samhsaNewsLetter/Volume_22_Number_4/building_the_behavioral_health_workforce/ (accessed September 2017).

581 *The State of the Behavioral Health Workforce: A Literature Review.* Washington, DC: American Hospital Association, 2016. http://www.aha.org/content/16/stateofbehavior.pdf (accessed September 2017).

582 *Report to Congress on the nation's substance abuse and mental health workforce issues.* Rockville (MD): Substance Abuse and Mental Health Services Administration. 2013.

583 *Report to Congress on the nation's substance abuse and mental health workforce issues.* Rockville (MD): Substance Abuse and Mental Health Services Administration. 2013.

584 Institute of Medicine, & Committee on Crossing the Quality Chasm. *Improving the quality of health care for mental and substance-use conditions.* Washington, DC: National Academies Press, 2006.

585 Isaacson JH et al. A national survey of training in substance use disorders in residency programs. *Journal of Studies on Alcohol and Drugs,* 61(6), 912-915, 2000.

586 Shortage Areas. In *Health Resources & Services Administration Data Warehouse.* https://datawarehouse.hrsa.gov/topics/shortageAreas.aspx/ (accessed September 2017).

587 *An Action Plan for Behavioral Health Workforce Development. (HHS Publication No. SMA 11-4629.)* Rockville, MD: Substance Abuse and Mental Health Services Administration, 2007. http://www.samhsa.gov/workforce/annapolis/workforceactionplan.pdf (accessed September 2017).

588 *CMS Innovation Center: Report to Congress 2016.* Baltimore, MD: Centers for Medicare & Medicaid Services, 2016. https://innovation.cms.gov/Files/reports/rtc-2016.pdf (accessed September 2017).

589 Centers for Medicare & Medicaid Services. (2017). Pennsylvania Rural Health Model. [Press Release]. https://www.cms.gov/Newsroom/MediaReleaseDatabase/Fact-sheets/2017-Fact-Sheet-items/2017-01-12.html (accessed September 2017).

590 Searing A and Hoadley J. "Medicaid Expansion: Driving Innovation In Behavioral Health Integration." *Health Affairs* Blog July 5, 2016. http://healthaffairs.org/blog/2016/07/05/medicaid-expansion-driving-innovation-in-behavioral-health-integration/ (accessed September 2017).

591 *The State of the Behavioral Health Workforce: A Literature Review.* Chicago, IL: American Hospital Association, 2016. http://www.aha.org/content/16/stateofbehavior.pdf (accessed September 2017).

592 *A Federal State Discourse on Primary Care and Behavioral Health Integration.* Washington, DC: National Academy for State Health Policy, n.d. http://www.nashp.org/sites/default/files/Primary-Care-Behavioral-Health-Integration.pdf (accessed September 2017).

593 Searing A and Hoadley J. "Medicaid Expansion: Driving Innovation In Behavioral Health Integration." *Health Affairs Blog* July 5, 2016. http://healthaffairs.org/blog/2016/07/05/medicaid-expansion-driving-innovation-in-behavioral-health-integration/ (accessed September 2017).

594 National Council Medical Director Institute. *The Psychiatric Shortage Causes and Solutions.* Washington, DC: National Council for Behavioral Health 2017. https://www.thenationalcouncil.org/wp-content/uploads/2017/03/Psychiatric-Shortage_National-Council-.pdf (accessed September 2017).

595 National Council Medical Director Institute. *The Psychiatric Shortage Causes and Solutions.* Washington, DC: National Council for Behavioral Health 2017. https://www.thenationalcouncil.org/wp-content/uploads/2017/03/Psychiatric-Shortage_National-Council-.pdf (accessed September 2017).

596 Rural Project Examples: Mental health. In *Rural Health Information Hub.* https://www.ruralhealthinfo.org/community-health/project-examples/topics/mental-health (accessed September 2017).

597 National Research Council. 2014. *The Growth of Incarceration in the United States: Exploring Causes and Consequences.* Washington, DC: The National Academies Press. https://doi.org/10.17226/18613.

598 National Research Council. 2014. *The Growth of Incarceration in the United States: Exploring Causes and Consequences.* Washington, DC: The National Academies Press. https://doi.org/10.17226/18613.

599 American Psychological Association. Incarceration Nation. *Monitor on Psychology.* October 2014. http://www.apa.org/monitor/2014/10/incarceration.aspx (accessed October 2017).

600 National Alliance on Mental Illness. *Jailing People with Mental Illness.* https://www.nami.org/Learn-More/Public-Policy/Jailing-People-with-Mental-Illness (accessed October 2017).

601 Vera Institute. *The Burden of Mental Illness Behind Bars.* https://www.vera.org/the-human-toll-of-jail/inside-the-massive-jail-that-doubles-as-chicagos-largest-mental-health-facility/the-burden-of-mental-illness-behind-bars (accessed October 2017).

602 Vera Institute. *The Burden of Mental Illness Behind Bars.* https://www.vera.org/the-human-toll-of-jail/inside-the-massive-jail-that-doubles-as-chicagos-largest-mental-health-facility/the-burden-of-mental-illness-behind-bars (accessed October 2017).

603 Heiman HJ and Artiga S. Beyond Health Care: The Role of Social Determinants in Promoting Health and Equity. *KFF Issue Brief,* 2015. http://kff.org/disparities-policy/issue-brief/beyond-health-care-the-role-of-social-determinants-in-promoting-health-and-health-equity/ (accessed September 2017).

604 Taylor LA, Coyle CE, Ndumele C, et al. *Leveraging the Social Determinants of Health: What Works? Executive Summary.* New Haven, CT: Yale Global Health Leadership Institute, 2015. http://bluecrossfoundation.org/sites/default/files/download/publication/Social_Equity_ExecSumm_final.pdf (accessed September 2017).

605 Bachrach D, Pfister H, Wallis K, et al. *Addressing Patient's Social Needs. An Emerging Business Case for Provider Investment.* Washington, DC: The Commonwealth Foundation, Skoll Foundation and Pershing Square Foundation, 2014. http://www.commonwealthfund.org/~/media/files/publications/fund-report/2014/may/1749_bachrach_addressing_patients_social_needs_v2.pdf (accessed September 2017).

606 Prevention Institute. *The Accountable Community for Health: An Emerging Model for Health System Transformation.* Oakland, CA: Prevention Institute, 2016. https://www.preventioninstitute.org/sites/default/files/publications/ACH%20-%20An%20Emerging%20Model%20for%20Health%20System%20Transformation.pdf (accessed September 2016).

607 What are No Wrong Door (NWD) Systems? In *No Wrong Door,* 2016. https://nwd.acl.gov/about.html (accessed September 2017).

608 Accountable Health Communities Model. In *Centers for Medicare and Medicaid Services.* https://innovation.cms.gov/initiatives/AHCM (accessed September 2016).

609 Accountable Health Communities Model Fact Sheet. In *Centers for Medicare and Medicaid Services.* https://www.cms.gov/Newsroom/MediaReleaseDatabase/Fact-sheets/2016-Fact-sheets-items/2016-01-05.html (accessed September 2016).

610 Heider F, Rosenthal J and Kniffin T. State Levers to Advance Accountable Communities for Health. *National Academy for State Health Policy Brief,* May 2016. http://www.nashp.org/wp-content/uploads/2016/05/ACH-Brief-with-Appendix.pdf (accessed September 2017).

611 Bau I. Changelab: Accountable Communities for Health — Legal and Practical Recommendations. *Health Care Consultation Services:* Ignatius Bau, 2016. https://ignatiusbau.com/2015/09/29/changelab-accountable-communities-for-health-legal-and-practical-recommendations/ (accessed September 2017).

612 Cantor J, Tobey J, Houston K, et al. *Accountable Communities for Health. Strategies for Financial Sustainability.* Boston, MA: JSI Research & Training Institutes, Inc., 2015. http://www.jsi.com/JSIInternet/Resources/publication/display.cfm?txtGeoArea=US&id=15660&thisSection=Resources (accessed September 2016).

613 What are No Wrong Door (NWD) Systems? In *No Wrong Door,* 2016. https://nwd.acl.gov/about.html (accessed September 2017).

614 *Criteria for the Demonstration Program to Improve Community Mental Health Centers and to Establish Certified Community Behavioral Health Clinics.* Rockville, MD: Substance Abuse and Mental Health Services Administration, 2016. https://www.samhsa.gov/sites/default/files/programs_campaigns/ccbhc-criteria.pdf (accessed September 2017).

615 *Grants for Certified Community Behavioral Health Clinics.* Rockville, MD: Substance Abuse and Mental Health Services Administration 2015. https://www.samhsa.gov/sites/default/files/grants/pdf/sm-16-001.pdf#page=94 (accessed September 2017).

616 *An Infant-Toddler Agenda for the New Administration and Congress: Building Connections for Stronger Families, Communities, and Our Country's Future.* Washington, DC: Zero-to-Three, 2016. https://www.zerotothree.org/resources/1665-an-infant-toddler-agenda-for-the-new-administration-and-congress (accessed September 2017).

617 *Maternal Depression Can Undermine the Development of Young Children.* Cambridge, MA: Center on the Developing Child at Harvard University, 2009. http://www.developingchild.harvard.edu (accessed October 2014).

618 Stone DM et al. P*reventing Suicide: A Technical Package of Policies, Programs, and Practices.* Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, 2017. https://www.cdc.gov/violenceprevention/pdf/suicide-technicalpackage.pdf (accessed September 2017).

619 *Crisis Services: Effectiveness, Cost Effectiveness, and Funding Strategies. HHS Publication No. (SMA)-14-4848.* Rockville, MD: Substance Abuse and Mental Health Services Administration, 2014.

620 *Practice Guidelines: Core Elements for Responding to Mental Health Crises. HHS Pub. No. SMA-09-4427.* Rockville, MD: Center for Mental Health Services, Substance Abuse and Mental Health Services Administration, 2009.

621 *Crisis Services: Effectiveness, Cost Effectiveness, and Funding Strategies. HHS Publication No. (SMA)-14-4848.* Rockville, MD: Substance Abuse and Mental Health Services Administration, 2014.

622 *Practice Guidelines: Core Elements for Responding to Mental Health Crises. HHS Pub. No. SMA-09-4427.* Rockville, MD: Center for Mental Health Services, Substance Abuse and Mental Health Services Administration, 2009.

623 Klain EJ and White AR. *Implementing Trauma-Informed Practices in Child Welfare.* Washington, DC: American Bar Association, 2013.

624 Letter to State Directors. In *Department of Health and Human Services.* http://www.medicaid.gov/Federal-Policy-Guidance/Downloads/SMD-13-07-11.pdf (accessed July 2015).

625 Klain EJ and White AR. *Implementing Trauma-Informed Practices in Child Welfare.* American Bar Association, 2013. http://childwelfaresparc.org/wp-content/uploads/2013/11/Implementing-Trauma-Informed-Practices.pdf (accessed July 2015).

626 Letter to State Directors. In *Department of Health and Human Services.* http://www.medicaid.gov/Federal-Policy-Guidance/Downloads/SMD-13-07-11.pdf (accessed July 2015).

627 *Women and Trauma. Trauma-Informed Approaches: Federal Activities and Initiatives.* Washington, D.C.: The Federal Partners Committee on Women and Trauma, 2013. http://csgjusticecenter.org/mental-health/publications/trauma-informed-approaches-federal-activities-and-initiatives/ (accessed September 2017).

628 Congress.gov. Summary of S.744, 115th Congress. https://www.congress.gov/bill/115th-congress/senate-bill/774 (accessed October 2017).

629 Clary A and Riley T. Pooling and Braiding Funds for Health-Related Social Needs: Lessons from Virginia's Children's Services Act. *National Academy for State Health Policy Brief,* June 2016. http://www.nashp.org/wp-content/uploads/2016/06/CSA-Virginia-Brief-1.pdf (accessed September 2017).

630 Who is SWAG? In *SWAG SW Advocacy Group.* http://swadvocacygroup.org/who-is-swag/ (accessed October 2017).

631 Starecheski L. "A Sheriff And A Doctor Team Up To Map Childhood Trauma." *NPR* March 10, 2015. http://www.npr.org/sections/health-shots/2015/03/10/377566905/a-sheriff-and-a-doctor-team-up-to-map-childhood-trauma (accessed October 2017).

632 Eversole C. "A Model for Early Learning in Alachua County." *Home Living in Greater Gainesville* February 2017. http://homemagazinegainesville.com/model-early-learning-alachua-county/

633 Early Identification and Intervention for those at Risk. In *Mental Health America,* 2016. http://www.mentalhealthamerica.net/issues/early-identification-and-intervention-those-risk (accessed September 2016).

634 *Final Recommendation Statement: Drug Use, Illicit: Screening.* Washington, DC: U.S. Preventive Services Task Force, 2014. https://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/drug-use-illicit-screening (accessed September 2017).

635 *Screening, Brief Intervention and Referral to Treatment (SBIRT) in Behavioral Healthcare.* Rockville, MD: Substance Use and Mental Health Service Administration, 2011. https://www.samhsa.gov/sites/default/files/sbirtwhitepaper_0.pdf (accessed September 2017).

636 Preventive care benefits for adults. In *Healthcare.gov.* https://www.healthcare.gov/preventive-care-adults/ (accessed September 2017).

637 Preventive & screening services. In *Medicare.gov.* https://www.medicare.gov/coverage/preventive-and-screening-services.html (accessed September 2017).

638 American Academy of Pediatrics. (2011). AAP Recommends Substance Abuse Screening as Part of Routine Adolescent Care. [Press Release]. https://www.aap.org/en-us/about-the-aap/aap-press-room/pages/AAP-Recommends-Substance-Abuse-Screening-as-Part-of-Routine-Adolescent-Care.aspx

639 *Screening, Brief Intervention and Referral to Treatment (SBIRT) in Behavioral Healthcare.* Rockville, MD: Substance Use and Mental Health Service Administration, 2011. https://www.samhsa.gov/sites/default/files/sbirtwhitepaper_0.pdf (accessed September 2017).

640 SAMHSA-HRSA Center for Integrated Solutions. (2015). Three Strategies for Effective Referrals to Specialty Mental Health and Addiction Services. [PowerPoint slides]. https://www.integration.samhsa.gov/about-us/Referrals_Webinar_PPT_FINAL.pdf (accessed September 2017).

641 Young NK. *Integrating substance abuse treatment and vocational services.* Rockville (MD): Substance Abuse and Mental Health Services Administration, 2000. https://www.ncbi.nlm.nih.gov/books/NBK64299/ (accessed September 2017).

642 Health Assessments in Primary Care: Appendix 6: Assessments for Adolescents. In *Agency for Healthcare Research and Quality.* https://www.ahrq.gov/professionals/prevention-chronic-care/improve/system/health-assessments/health-assessment-ap6.html (accessed September 2017).

643 Early and Periodic Screening, Diagnostic, and Treatment. In *Medicaid.gov.* https://www.medicaid.gov/medicaid/benefits/epsdt/index.html (accessed September 2017).

644 IDEA 2004: Building the Legacy Part C (birth - 2 years old). In *U.S. Department of Education.* http://idea.ed.gov/part-c/search/new (accessed October 2014).

645 *2017 Determination Letters on State Implementation of IDEA.* Washington, DC: U.S. Department of Education, 2017. https://sites.ed.gov/idea/files/ideafactsheet-determinations-2017.pdf (accessed September 2017).

646 *Questions and Answers (Q&A) on the Release of the New Head Start Program Performance Standards.* Washington, DC: Administration for Children and Families, 2016 https://eclkc.ohs.acf.hhs.gov/sites/default/files/docs/pdf/hs-prog-pstandards-final-rule-qa.pdf (accessed September 2017).

647 Alcohol and Pregnancy: Know the Facts. In *American Congress of Obstetricians and Gynecologists.* https://www.acog.org/About-ACOG/News-Room/News-Releases/2008/Alcohol-and-Pregnancy-Know-the-Facts (accessed October 2014).

648 Office on Child Abuse and Neglect, Children's Bureau. *Protecting Children in Families Affected by Substance Use Disorders.* Washington, D.C.: U.S. Department of Health and Human Services, 2009. https://www.childwelfare.gov/pubs/usermanuals/substanceuse/chapterthree.cfm#exhibit_3_1 (accessed October 2014).

649 Patrick SW et al. Neonatal Abstinence Syndrome and Associated Healthcare Expenditures: United States, 2000-2009. *JAMA,* 307(18):1934-1940, 2012.

650 Phibbs CS, Bateman DA and Schwartz RM. The neonatal costs of maternal cocaine use. *JAMA,* 266(11): 1521–1526, 1991.

651 *Substance Use During Pregnancy.* Washington, DC: Guttmacher Institute, 2017 https://www.guttmacher.org/state-policy/explore/substance-use-during-pregnancy (accessed September 2017).

652 An Act Relative to Substance Use, Treatment, Education and Prevention. 2016 Mass. Gen. Laws Chapter 52. March 14, 2016.

653 Quanbeck A et al. A cost-benefit analysis of Wisconsin's screening, brief intervention, and referral to treatment program: adding the employer's perspective. *State Medical Society of Wisconsin,* 109(1):9-14 6, 2010.

654 Gentilello LM et al. Alcohol intervention for trauma patients treated in emergency department and hospitals: a cost benefit analysis. *Annals of Surgery,* 241 (4), 541-550, 2005.

655 Borsari B, Carey KB. Effects of a brief motivational intervention with college student drinkers. *Journal of Consulting & Clinical Psychology,* 68:728–33, 2000.

656 Walton MA et al. Effects of a brief intervention for reducing violence and alcohol misuse among adolescents: a randomized controlled trial. *Journal of the American Medical Association,* 304(5):527-535, 2010.

657 D'Amico EJ et al. Brief motivational interviewing for teens at risk of substance use consequences: a randomized pilot study in a primary care clinic. *Journal of Substance Abuse Treatment,* 35(1):53-61, 2008.

658 Winters KC and Leitten W. Brief intervention for drug-abusing adolescents in a school setting. *Psychology of Addictive Behaviors,* 21(2):249-54, 2007.

659 Bernstein E, Edwards E, Dorfman D, et al. Screening and brief intervention to reduce marijuana use among youth and young adults in a pediatric emergency department. *Academic Emergency Medicine,*16:1174–85, 2009.

660 McCambridge J, Strang J. The efficacy of single-session motivational interviewing in reducing drug consumption and perceptions of drug-related risk and harm among young people: Results from a multi-site cluster randomized trial. *Addiction,* 99:39-52, 2004.

661 *SBIRT: Screening, Brief Intervention, and Referral to Treatment: Opportunities for Implementation and Points for Consideration.* Washington, DC: SAMHSA-HRSA Center for Integrated Health Solutions, 2017. https://www.integration.samhsa.gov/SBIRT_Issue_Brief.pdf (accessed September 2017).

662 Fleming MF et al. (2000). Benefit-cost analysis of brief physician advice with problem drinkers in primary care settings. *Medical Care,* 38(1), 7–18.

663 *SBIRT: Screening, Brief Intervention, and Referral to Treatment: Opportunities for Implementation and Points for Consideration.* Washington, DC: SAMHSA-HRSA Center for Integrated Health Solutions, 2017. https://www.integration.samhsa.gov/SBIRT_Issue_Brief.pdf (accessed September 2017).

664 Walrath C et al. Impact of the Garrett Lee Smith youth suicide prevention program on suicide mortality. *American journal of public health,* 105(5):986-993, 2015. https://www.ncbi.nlm.nih.gov/pubmed/25790418 (accessed September 2017).

665 Community Preventive Services Task Force. *Preventing Excessive Alcohol Consumption: Electronic Screening and Brief Interventions (e-SBI).* Atlanta, GA: The Community Guide, 2013. https://www.thecommunityguide.org/sites/default/files/assets/Alcohol-e-SBI.pdf (accessed September 2017).

666 *2017 Determination Letters on State Implementation of IDEA.* Washington, DC: U.S. Department of Education, 2017. https://sites.ed.gov/idea/files/ideafactsheet-determinations-2017.pdf (accessed September 2017).

667 Home Page. In *Screening for Mental Health, Inc.* https://mentalhealthscreening.org/ (accessed July 5, 2017).

668 *Military Pathways.* Boston, MA: Screening for Mental Health, Inc., n.d. https://www.myarmyonesource.com/cmsresources/Army%20OneSource/Media/PDFs/Events/National%20Volunteer%20Week/SMH-Military%20Pathways%20Brochure.pdf (accessed July 5, 2017).

669 Aseltine RH et al. Evaluating the SOS suicide prevention program: a replication and extension. *BMC Public Health,* 7(1);161, 2007.

670 Schilling EA, Aseltine Jr RH and James A. The SOS suicide prevention program: Further evidence of efficacy and effectiveness. *Prevention Science,* 17(2); 157, 2016.

671 Trauma Smart. In *Saint Luke Health System.* http://www.saintlukeshealthsystem.org/head-start-trauma-smart (accessed September 2017).

672 Grants Explorer. In *Robert Woods Johnson Foundation.* http://www.rwjf.org/en/grants/programs-and-initiatives/N/national-demonstration-of-early-detection–intervention-and-prev.html (accessed September 2017).

673 Home Page. In *Lily's Place.* http://www.lilysplace.org/

674 Urban M. "Allentown early education program focuses on children of drug-addicted parents." *Berks & Beyond* October 3, 2017. http://www.readingeagle.com/news/article/allentown-early-education-program-focuses-on-children-of-drug-addicted-parents (accessed October 2017).

675 *State Targeted Response to the Opioid Crisis Grants. Funding Opportunity Announcement.* Rockville, MD: Substance Abuse and Mental Health Services Administration, 2016. https://www.samhsa.gov/grants/grant-announcements/ti-17-014 (accessed September 2017).

676 *Targeted Capacity Expansion: Medication Assisted Treatment - Prescription Drug and Opioid Addiction. Funding Opportunity Announcement.* Rockville, MD: Substance Abuse and Mental Health Services Administration, 2017. https://www.samhsa.gov/grants/grant-announcements/ti-17-017

677 Substance Abuse Prevention and Treatment Block Grant. In *Substance Abuse and Mental Health Services Administration.* https://www.samhsa.gov/grants/block-grants/sabg (accessed September 2017).

678 Community Mental Health Services Block Grant. In *Substance Abuse and Mental Health Services Administration.* https://www.samhsa.gov/grants/block-grants/mhbg (accessed September 2017).

679 FY 2017 Access Increases in Mental Health and Substance Abuse Services (AIMS) Supplemental Funding Technical Assistance. In *Health Resources & Services Administration.* https://bphc.hrsa.gov/programopportunities/fundingopportunities/supplement/ (accessed September 2017).

680 HHS Press Office. (2017). HHS announces the availability of $195 million to expand substance abuse and mental health services at health centers nationwide. [Press Release]. https://www.hhs.gov/about/news/2017/06/26/hhs-announced-195-million-funding-to-expand-mental-health-and-substance-abuse-service-access.html (accessed September 2017).

681 Rural Health Opioid Program. In *Health Resources & Services Administration.* https://www.hrsa.gov/ruralhealth/programopportunities/fundingopportunities/?id=5b14a72b-a116-4041-bfa0-7d2e894e52d3 (accessed September 2017).

682 Substance Abuse Treatment Telehealth Network Grant Program. In *Health Resources & Services Administration.* https://www.hrsa.gov/ruralhealth/programopportunities/fundingopportunities/?id=96bf4ead-18a6-4c34-a02d-bfa6a7f624b8 (accessed September 2017).

683 National Association of State Alcohol and Drug Abuse Directors. *Opioids.* Washington, DC: National Association of State Alcohol and Drug Abuse Directors, 2017. http://nasadad.org/wp-content/uploads/2017/05/Opioids-version-IV-FINAL.pdf (accessed September 2017).

684 *State Mental Health Legislation 2015: Trends, Themes & Effective Practices.* Arlington, VA: National Alliance on Mental Illness, 2015. https://www.nami.org/About-NAMI/Publications-Reports/Public-Policy-Reports/State-Mental-Health-Legislation-2015/NAMI-StateMentalHealthLegislation2015.pdf

685 *Principles of Substance Abuse Prevention for Early Childhood.* Bethesda, MD: National Institute on Drug Abuse, 2016. https://www.drugabuse.gov/publications/principles-substance-abuse-prevention-early-childhood (accessed September 2017).

686 *Essentials for Childhood: Steps to Create Safe, Stable, Nurturing Relationships and Environments.* Atlanta, GA: National Center for Injury Prevention and Control, 2014. https://www.cdc.gov/violenceprevention/pdf/essentials_for_childhood_framework.pdf (accessed September 2017).

687 Reeves A et al. Increase in state suicide rates in the USA during economic recession. *The Lancet,* 380(9856):1813-1814, 2012.

688 Luo F et al. Impact of business cycles on US suicide rates, 1928-2007. *American journal of public health.* 101(6):1139-1146, 2011.

689 *Core Meanings of the Strengthening Families Protective Factors.* Washington, DC: Center for the Study of Social Policy, 2015. http://www.cssp.org/reform/strengtheningfamilies/2015/Core-Meanings-of-the-SF-Protective-Factors-2015.pdf (accessed August 2015).

690 Kohli J and De Biasi A. Supporting healthy communities: How rethinking the funding approach can break down silos and promote health and health equity. *Deloitte University Press,* 2017. https://dupress.deloitte.com/dup-us-en/industry/health-care/building-and-funding-healthy-communities.html?id=us:2em:3na:dup3608:awa:dup:MMDDYY:author (accessed September 2017).

691 Tamber PS and Kelly BB. Fostering Agency to Improve Health. Bridging Health and Community. Seattle, WA: Bridging Community & Health, 2017.

692 *Principles of Community Engagement, 2nd Edition.* Clinical and Translational Science Awards Consortium, Community Engagement Key Function Committee Task Force on the Principles of Community Engagement. Atlanta, GA: Centers for Disease Control and Prevention, Agency for Toxic Substances & Disease Registry, 2011. http://www.atsdr.cdc.gov/communityengagement/pdf/PCE_Report_508_FINAL.pdf (accessed September 2017).

693 *Racism and Mental Health.* Arlington, VA: American Psychiatric Association, 2017. https://www.psychiatry.org/news-room/apa-blogs/apa-blog/2017/10/racism-and-mental-health (accessed October 2017).

694 *Racism and Mental Health.* Arlington, VA: American Psychiatric Association, 2017. https://www.psychiatry.org/news-room/apa-blogs/apa-blog/2017/10/racism-and-mental-health (accessed October 2017).

695 *Racism and Mental Health.* Arlington, VA: American Psychiatric Association, 2017. https://www.psychiatry.org/news-room/apa-blogs/apa-blog/2017/10/racism-and-mental-health (accessed October 2017).

696 Roi A and Choi KY. Effects of Gender Discrimination and Reported Stress on Drug Use among Racially/Ethnically Diverse Women in Northern California. *Womens Health Issues* 20(3): 211-218, 2010. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2869482/ (accessed October 2017).

697 Mark L. Hatzenbuehler, Structural Stigma: Research Evidence and Implications for Psychological Science, *American Psychologist* 2016, Vol. 71, No. 8, 742–751

698 Raifman J, Moscoe E, Austin SB et al. Difference-in-differences analysis of the association between state same-sex marriage policies and adolescent suicide attempts. *JAMA pediatric.* 171(4):350-356, 2017.

699 Haggerty R and Figliuzzi D. Cigna Foundation and Nonprofit Aim To Revitalize Distressed Neighborhood: Community Development At Work. *Health Affairs Blog.* 2014

700 Evidenced-Based Prevention and Intervention Support (EPIS) Center. *2014 Annual Report.* Connecting Research, Policy, and Real-World Practice. University Park, PA: EPISCenter, 2014. http://www.episcenter.psu.edu/sites/default/files/outreach/EPISCenter-Annual-Report-2014.pdf (accessed September 2016).

701 Torres K. "To combat shortage, new state budget gives big boost to foster parents." *Politically Georgia* July 2, 2017. http://www.myajc.com/news/state–regional-govt–politics/combat-shortage-new-state-budget-gives-big-boost-foster-parents/gynshq9NMtivtKdBegU41H/ (accessed September 2017).

702 Stein P and Bever L. "The opioid crisis is straining the nation's foster-care systems." *Washington Post* July 1, 2017. https://www.washingtonpost.com/national/the-opioid-crisis-is-straining-the-nations-foster-care-systems/2017/06/30/97759fb2-52a1-11e7-91eb-9611861a988f_story.html?utm_term=.7a0e1c5b269e (accessed September 2017).

703 Crary D. "Number of US foster kids rises; parents' drug abuse a factor." *US News & World Report* October 27, 2016. https://www.usnews.com/news/us/articles/2016-10-27/number-of-us-foster-kids-rises-parents-drug-abuse-a-factor (accessed September 2017).

704 Editorial Board. "Young Victims of the Opioid Epidemic." *New York Times* January 16, 2017. https://www.nytimes.com/2017/01/16/opinion/young-victims-of-the-opioid-epidemic.html?_r=1 (accessed September 2017).

705 DeGarmo J. "America's Opioid Crisis: How Children Are Casualties." *HuffPost* February 27, 2017. http://www.huffingtonpost.com/entry/americas-opioid-crisis-how-children-are-casualties_us_58b44ecfe4b0658fc20f9828 (accessed September 2017).

706 Luthra S. "Opioid crisis strains foster care system; programs aim to keep kids with mom." *PBS* August 20, 2017. http://www.pbs.org/newshour/rundown/opioid-crisis-strains-foster-care-system-programs-aim-keep-kids-mom/ (accessed September 2017).

707 Annie E. Casey Foundation Kids Count Data Center. 2013-2015 CPS ASEC.

708 Annie E. Casey Foundation Kids Count Data Center. Child Trends analysis of data from the Adoption and Foster Care Analysis and Reporting System (AFCARS), made available through the National Data Archive on Child Abuse and Neglect (NDACAN). Retrieved from http://datacenter.kidscount.org/data/tables/6247-children-infoster-care-by-placement-type (accessed October 2017).

709 Generations United calculated this figure based on the following two data sources: Annie E. Casey Foundation Kids Count Data Center. 2013-2015 CPS ASEC. | Annie E. Casey Foundation Kids Count Data Center. Child Trends analysis of data from AFCARS, made available through NDACAN.

710 https://dl2.pushbulletusercontent.com/qdCNUO2JMMZKzKRjyIlwbgjMtf39xk-Ka/16-Report-SOGF-Final.pdf

711 U.S. Department of Health and Human Services. *Child Maltreatment 2015*. Washington, DC: U.S. Department of Health and Human Services, Children's Bureau, 2017. https://www.acf.hhs.gov/sites/default/files/cb/cm2015.pdf#page=10 (accessed July 2017).

712 Administration of Children, Youth, and Families. *The AFCARS Report: Preliminary Estimates for FY 2013 as of July 2014*. Washington, DC: U.S. Department of Health and Human Services, 2014. http://www.acf.hhs.gov/sites/default/files/cb/afcarsreport21.pdf (accessed July 2015).

713 Child Welfare Information Gateway. *Parental Substance Abuse and the Child Welfare System*. Washington, DC: U.S. Department of Health and Human Services, 2014. https://www.childwelfare.gov/pubPDFs/parental-subabuse.pdf (accessed July 2015).

714 National Child Abuse Statistics. In *Childhelp.org*. http://www.childhelp.org/pages/statistics/ (accessed October 2014).

715 Rhode Island Kids Count. *Getting Ready: Finding from the National School Readiness Indicators Initiative a 17 State Partnership*. Providence, RI: Rhode Island Kids Count, 2005. http://www.gettingready.org/matriarch/d.asp?PageID=303&PageName2=pdfhold&p=&PageName=Getting+Ready+-+Full+Report%2Epdf (accessed October 2014).

716 Fang, X., Brown, D. S., Florence, C. S., & Mercy, J. A. (2012). The economic burden of child maltreatment in the United States and implications for prevention. *Child Abuse and Neglect,* 2, 156-65.

717 About Differential Response. In *American Humane Association*. http://www.americanhumane.org/children/programs/differential-response/about-differential-response.html (accessed March 2015).

718 *Raising the Children of the Opioid Epidemic: Solutions and Supports for Grandfamilies*. Washington, DC: Generations United, 2016. https://dl2.pushbulletusercontent.com/qdCNUO2JMMZKzKRjyIlwbgjMtf39xk-Ka/16-Report-SOGF-Final.pdf (accessed October 2017).

719 American Academy of Pediatrics. *Blueprint for Children: How the Next President Can Build a Foundation for a Healthy Future*. Washington, DC: American Academy of Pediatrics, 2016.https://www.aap.org/en-us/transitions/pages/blueprint-for-children.aspx

720 Congress.gov. Summary of H.R.5456 - Family First Prevention Services Act of 2016. https://www.congress.gov/bill/114th-congress/house-bill/5456 (accessed October 2017)

721 Summary Prepared by Human Resources Subcommittee Staff. https://waysandmeans.house.gov/wp-content/uploads/2016/06/Family-First-Prevention-Services-Act-Summary-061016.pdf (accessed October 2017).

722 *Focus on Innovation: Sobriety Treatment and Recovery Teams (START)*. Washington, DC: Addiction Policy Forum, 2017. http://www.addictionpolicy.org/single-post/2017/03/08/Sobriety-Treatment-and-Recovery-Teams-START (accessed September 2017).

723 Luthra S. "Opioid crisis strains foster care system; programs aim to keep kids with mom." *PBS* August 20, 2017. http://www.pbs.org/newshour/rundown/opioid-crisis-strains-foster-care-system-programs-aim-keep-kids-mom/ (accessed September 2017).

724 *Connecticut Family Stability Pay for Success Project: Fact Sheet*. Hartford, CT: Connecticut Department of Children and Families, 2016. http://portal.ct.gov/-/media/Office-of-the-Governor/Press-Room/20160928-Connecticut-Family-Stability-Pay-for-Success-Project.pdf?la=en (accessed September 2017).

725 Madigan S at al. Maternal Adverse Childhood Experience and Infant Health: Biomedical and Psychosocial Risks as Intermediary Mechanisms. *The Journal of Pediatrics,* 2017.

726 *Principles of Substance Abuse Prevention for Early Childhood*. Bethesda, MD: National Institute on Drug Abuse, 2016. https://www.drugabuse.gov/publications/principles-substance-abuse-prevention-early-childhood (accessed September 2017).

727 *Essentials for Childhood: Steps to Create Safe, Stable, Nurturing Relationships and Environments*. Atlanta, GA: National Center for Injury Prevention and Control, 2014.

728 American Academy of Pediatrics. *Blueprint for Children: How the Next President Can Build a Foundation for a Healthy Future*. Washington, DC: American Academy of Pediatrics, 2016.https://www.aap.org/en-us/transitions/pages/blueprint-for-children.aspx

729 Policy Framework. In *Alliance for Early Success*. http://earlysuccess.org/our-work/policy-framework (accessed September 2017).

730 *An Infant-Toddler Agenda for the New Administration and Congress: Building Connections for Stronger Families, Communities, and Our Country's Future.* Washington, DC: Zero-to-Three, 2016. https://www.zerotothree.org/resources/1665-an-infant-toddler-agenda-for-the-new-administration-and-congress (accessed September 2017).

731 Adams G et al. *Stabilizing Children's Lives: Insights for Research and Action.* Washington, DC: Urban Institute, 2016. http://www.urban.org/research/publication/stabilizing-childrens-lives/view/full_report (accessed September 2017).

732 Felitti VJ, Anada RF, Nordenberg D, et al. Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults: The Adverse Childhood Experiences (ACE) Study. *American J of Prev Med,* 14(4): 245-258, 1998.

733 Injury Prevention and Control: Division of Violence Prevention. In *Centers for Disease Control and Prevention.* http://www.cdc.gov/violenceprevention/acestudy/index.html (accessed September 2016).

734 Middlebrooks JS and Audage NC. *The Effects of Childhood Stress on Health across the Lifespan.* Atlanta, GA: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, 2008. http://www.cdc.gov/ncipc/pub-res/pdf/childhood_stress.pdf (accessed October 2014).

735 Adverse Childhood Experiences: Looking at how ACEs affect our lives & society. In *VetoViolence.* https://vetoviolence.cdc.gov/apps/phl/resource_center_infographic.html (accessed September 2017).

736 Gilbert LK, Breiding MJ, Merrick MT, Parks SE, Thompson WW, Dhingra SS, Ford DC. Childhood adversity and adult chronic disease: An update from ten states and the District of Columbia, 2010. *Am J Prev Med.* 2015;48(3):345-9.

737 Child Welfare Information Gateway. *Parental Substance Abuse and the Child Welfare System.* Washington, D.C.: U.S. Department of Health and Human Services, 2009. https://www.childwelfare.gov/pubs/factsheets/parentalsubabuse.cfm (accessed October 2014).

738 National Child Abuse Statistics. In *Childhelp.org.* http://www.childhelp.org/pages/statistics/ (accessed October 2014).

739 Afifi TO, Mota NP, Dasiewicz P, MacMillan HL, Sareen J. Physical punishment and mental disorders: results from a nationally representative US sample. *Pediatrics,* 130(2):184-192, 2012. http://pediatrics.aappublications.org/content/130/2/184 (accessed September 2017).

740 Chang L et al. Harsh parenting in relation to child emotion regulation and aggression. *Journal of family psychology,* 17(4):598, 2003. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2754179/ (accessed September 2017).

741 Harder + Company Community Research. *Harsh Parenting Measurement Study Final Report.* 2012. http://www.first5la.org/files/08059_2%203HPMSFinalReportFinal_06292012.pdf (accessed October 2014).

742 Center on the Developing Child at Harvard University. *Maternal Depression Can Undermine the Development of Young Children: Working Paper No.8.* Boston, MA: Center on the Developing Child at Harvard University, 2009. http://developingchild.harvard.edu/index.php/resources/reports_and_working_papers/working_papers/wp8/ (accessed July 2015).

743 Center on the Developing Child at Harvard University. *Maternal Depression Can Undermine the Development of Young Children: Working Paper No.8.* Boston, MA: Center on the Developing Child at Harvard University, 2009. http://developingchild.harvard.edu/index.php/resources/reports_and_working_papers/working_papers/wp8/ (accessed July 2015).

744 Child Trends Databank. *Parental Depression. Indicators on Children and Youth.* Bethesda, MD: Child Trends Databank, 2014. http://www.childtrends.org/?indicators=parental-depression#sthash.vuQSJyn5.dpuf (accessed July 2015).

745 Pearson RM, Evans J, Kounali D, et al. Maternal Depression during Pregnancy and the Postnatal Period: Risks and Possible Mechanisms for Offspring Depression at Age 18 Years. *JAMA Psychiatry,* 70(12):1312-1319, 2013.

746 Jiang Y, Granja MR, and Koball H. *Basic Facts about Low-Income Children: Children under 3 Years, 2015.* New York: National Center for Children in Poverty, Columbia University Mailman School of Public Health, 2017. http://www.nccp.org/publications/pdf/text_1171.pdf (accessed October 2017).

747 Ratcliffe C and McKernan S. *Child Poverty and Its Lasting Consequences.* Washington, D.C.: The Urban Institute, 2012. http://www.urban.org/uploadedpdf/412659-child-poverty-and-its-lasting-consequence-paper.pdf (accessed October 2014).

748 Chu AT and Lieberman AF. Clinical implications of traumatic stress from birth to age five. *Annual Review of Clinical Psychology,* 6:469-494, 2010. http://www.ncbi.nlm.nih.gov/pubmed/20192799; https://m.medicalxpress.com/news/2017-06-psychology-adverse-childhood.html

749 Understanding Child Trauma. In *The National Child Traumatic Stress Network.* http://www.nctsn.org/sites/default/files/assets/pdfs/policy_and_the_nctsn_final.pdf (accessed October 2014).

750 *Principles of Substance Abuse Prevention for Early Childhood.* Bethesda, MD: National Institute on Drug Abuse, 2016. https://www.drugabuse.gov/publications/principles-substance-abuse-prevention-early-childhood (accessed July 2017).

751 Robertson EB, Sims BE, and Reider EE. Drug Abuse Prevention through Early Childhood Intervention, *The Handbook of Drugs and Society,* West Sussex, UK: John Wiley & Sons, Inc, 525-554, 2016.

752 Cawthorne A and Arons J. *There's no place like home: Home visiting programs can support pregnant women and new parents.* Washington, DC: Center for American Progress. 2010. http://cdn.americanprogress.org/wp-content/uploads/issues/2010/01/pdf/home_visitation.pdf (accessed September 2017).

753 DiLauro E. *Reaching Families Where They Live: Supporting Parents and Child Development Through Home Visiting.* Washington, DC: Zero-to-Three, 2012. http://www.zerotothree.org/public-policy/policy-toolkit/homevisitssing_mar5.pdf (accessed September 2017).

754 Chrisler A and Moore KA. *What Works for Disadvantaged and Adolescent Parent Programs: Lessons from Experimental Evaluations of Social Programs and Interventions for Children.* Washington, D.C.: Child Trends, 2012. http://www.childtrends.org/wp-content/uploads/2013/04/Child_Trends-2012_08_20_WW_ParentPrograms.pdf (accessed July 2015).

755 Cawthorne A and Arons J. *There's no place like home: Home visiting programs can support pregnant women and new parents.* Washington, DC: Center for American Progress. 2010. http://cdn.americanprogress.org/wp-content/uploads/issues/2010/01/pdf/home_visitation.pdf (accessed September 2017).

756 *An Infant-Toddler Agenda for the New Administration and Congress: Building Connections for Stronger Families, Communities, and Our Country's Future.* Washington, DC: Zero-to-Three, 2016. https://www.zerotothree.org/resources/1665-an-infant-toddler-agenda-for-the-new-administration-and-congress (accessed September 2017).

757 Heckman JJ. *Invest in Early Childhood Development: Reduce Deficits, Strengthen the Economy.* Chicago, IL: Heckman Equation Project, 2012. https://heckmanequation.org/resource/invest-in-early-childhood-development-reduce-deficits-strengthen-the-economy/ (accessed September 2017).

758 National Scientific Council on the Developing Child. *Establishing a Level Foundation for Life: Mental Health Begins in Early Childhood.* Working Paper No. 6. Cambridge, MA: Harvard, Center on the Developing Child, 2006.

759 National Scientific Council on the Developing Child. *Establishing a Level Foundation for Life: Mental Health Begins in Early Childhood.* Working Paper 6. Updated Edition. Cambridge, MA: National Scientific Council on the Developing Child, 2012

760 Stone DM et al. *Preventing Suicide: A Technical Package of Policies, Programs, and Practices.* Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, 2017. https://www.cdc.gov/violenceprevention/pdf/suicide-technicalpackage.pdf (accessed September 2017).

761 American Academy of Pediatrics. *Blueprint for Children: How the Next President Can Build a Foundation for a Healthy Future.* Washington, DC: American Academy of Pediatrics, 2016.https://www.aap.org/en-us/transitions/pages/blueprint-for-children.aspx

762 Head Start Program Facts: Fiscal Year 2016. In *Head Start.* https://eclkc.ohs.acf.hhs.gov/data-ongoing-monitoring/article/head-start-program-facts-fiscal-year-2016 (accessed October 2017).

763 *State ESSA Plans to Support Student Health and Wellness: A Framework for Action.* Chicago, IL: Healthy Schools Campaign and Alliance for a Healthier Generation, 2016. https://healthyschoolscampaign.org/wp-content/uploads/2017/03/ESSA-State-Framework.pdf (accessed September 2017).

764 Project LAUNCH. In *National Resource Center for Mental Health Promotion & Youth Violence Prevention,* 2015. http://www.healthysafechildren.org/grantee/project-launch (accessed August 2015).

765 *Benefits and Costs: A rigorously tested program with measurable* results. Denver, CO: Nurse Family Partnership, 2016. https://www.nursefamilypartnership.org/wp-content/uploads/2017/07/NFP_Benefit_Cost_2016.pdf (accessed September 2017).

766 Gill AM, Hyde LW, Shaw DS, et al. The family check-up in early childhood: A case study of intervention process and change. *Journal of Clinical Child & Adolescent Psychology;* 37(4):893-904, 2008. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2710141/ (accessed October 2017).

767 Curriculum. In *Abriendo Puertas/Opening Doors.* http://ap-od.org/curriculum (accessed September 2017).

768 National Institute on Drug Abuse. *Preventing Drug Use Among Children and Adolescents.* Bethesda, MD: NIDA, 2003. https://www.drugabuse.gov/sites/default/files/preventingdruguse_2.pdf (accessed October 2015). https://www.drugabuse.gov/sites/default/files/preventingdruguse_2.pdf (accessed September 2017).

769 Morales, A. M.; Ghahremani, D.; Kohno, M.; Hellemann, G. S.; London, E. D. Cigarette exposure, dependence, and craving are related to insula thickness in young adult smokers *Neuropsychopharmacology,* 2014; 39(8): 1816-22.

770 Galvan, A.; Schonberg, T.; Mumford, J.; Kohno, M.; Poldrack, R. A.; London, E. D. Greater risk sensitivity of dorsolateral prefrontal cortex in young smokers than in nonsmokers *Psychopharmacology* (Berl), 2013; 229(2): 345-55.

771 *Commission on Combating Drug Addiction and the Opioid Crisis: Interim Report.* Washington, DC: Commission on Combating Drug Addiction and the Opioid Crisis, 2017. https://www.whitehouse.gov/sites/whitehouse.gov/files/ondcp/commission-interim-report.pdf (accessed September 2017).

772 Kann L et al. Youth Risk Behavior Surveillance — United States, 2015. *MMWR Morb Mortal Wkly Rep* 65(6);1–174, 2016. https://www.cdc.gov/mmwr/volumes/65/ss/ss6506a1.htm?s_cid=ss6506_w (accessed September 2017).

773 Suitts S and Barba P. *Research Bulleting: A New Majority — Low Income Students Now a Majority in the Nation's Public Schools.* Atlanta, GA: Southern Education Foundation, 2015. http://www.southerneducation.org/getattachment/4ac62e27-5260-47a5-9d02-14896ec3a531/A-New-Majority-2015-Update-Low-Income-Students-Now.aspx (accessed September 2016).

774 No Kid Hungry. *Hunger in Our Schools.* Washington, DC: No Kid Hungry, 2015. http://hungerinourschools.org/img/NKH-HungerInOurSchoolsReport-2015.pdf (accessed June 2015).

775 Felitti VJ, Anada RF, Nordenberg D, et al. Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults: The Adverse Childhood Experiences (ACE) Study. *American J of Prev Med,* 14(4): 245-258, 1998.

776 Injury Prevention and Control: Division of Violence Prevention. In *U.S. Centers for Disease Control and Prevention.* http://www.cdc.gov/violenceprevention/acestudy/index.html (accessed September 2016).

777 Middlebrooks JS and Audage NC. *The Effects of Childhood Stress on Health across the Lifespan.* Atlanta, GA: U.S. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, 2008. http://www.cdc.gov/ncipc/pub-res/pdf/childhood_stress.pdf (accessed October 2014).

778 Kann L, Olsen EO, McManus T, et al. Sexual Identity, Sex of Sexual Contacts, and Health-Related Behaviors Among Students in Grades 9–12 — United States and Selected Sites, 2015. *MMWR Surveill Summ,* 65(No. SS-9):1–202, 2016. DOI: http://dx.doi.org/10.15585/mmwr.ss6509a1. (accessed September 2016).

779 Any Disorder Among Children. In *National Institute of Mental Health.* http://www.nimh.nih.gov/health/statistics/prevalence/any-disorder-among-children.shtml (accessed September 2016).

780 Singh T, Azzazola RA, Corey CG, et al. Tobacco Use Among Middle and High School Students—United States, 2011–2012015. *MMWR,* 65(14):–5, 2015.361–367, 2016. http://www.cdc.gov/mmwr/volumes/65/wr/mm6514a1.htm (accessed September 2016).

781 Substance Abuse and Mental Health Services Administration. *Behavioral Health Barometer: United States, 2015.* HHS Publication No. SMA-16-Baro-2015. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2015.

782 High School YRBS. Tobacco Use. In *U.S. Centers for Disease Control and Prevention,* 2016. https://nccd.cdc.gov/Youthonline/App/QuestionsOrLocations.aspx?CategoryId=C02 (accessed September 2016).

783 Healthday. "Addiction Starts Early in American Society, Report Finds." *U.S. News and World Report* July 29, 2011. http://health.usnews.com/health-news/family-health/childrens-health/articles/2011/06/29/addiction-starts-early-in-american-society-report-finds (accessed October 2015).

784 Ahrnsbrak R. et al. Key substance use and mental health indic*ators in the United States: Results from the 2016 National Survey on Drug Use and Health (HHS Publication No. SMA 17-5044, NSDUH Series H-52).* Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, 2017. https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR1-2016/NSDUH-FFR1-2016.pdf (accessed October 2017).

785 High School YRBS. 2015 Results. In *U.S. Centers for Disease Control and Prevention,* 2016. https://nccd.cdc.gov/Youthonline/App/Results.aspx?TT=B&OUT=0&SID=HS&QID=H25&LID=LL&YID=RY&LID2=&YID2=&COL=&ROW1=&ROW2=&HT=&LCT=&FS=&FR=&FG=&FSL=&FRL=&FGL=&PV=&TST=&C1=&C2=&QP=&DP=&VA=CI&CS=Y&SYID=&EYID=&SC=&SO= (accessed September 2016).

786 Losen DJ and Martinez TE. *Out of School & Off Track: The Overuse of Suspensions in American Middle and High Schools.* Los Angeles, CA: UCLA, The Center for Civil Rights Remedies, 2013. https://civilrightsproject.ucla.edu/resources/projects/center-for-civil-rights-remedies/school-to-prison-folder/federal-reports/out-of-school-and-off-track-the-overuse-of-suspensions-in-american-middle-and-high-schools/OutofSchool-OffTrack_UCLA_4-8.pdf (accessed September 2017).

787 *2013-2014 Civil Rights Data Collection. Key Data Highlights on Equity and Opportunity Gaps in Our Nation's Public Schools.* Washington, DC: U.S. Department of Education, Office of Civil Rights, 2016. http://www2.ed.gov/about/offices/list/ocr/docs/2013-14-first-look.pdf (accessed September 2016).

788 *2013-2014 Civil Rights Data Collection. Key Data Highlights on Equity and Opportunity Gaps in Our Nation's Public Schools.* Washington, DC: U.S. Department of Education, Office of Civil Rights, 2016. http://www2.ed.gov/about/offices/list/ocr/docs/2013-14-first-look.pdf (accessed September 2016).

789 Balfanz R and Byrnes V. C*hronic Absenteeism: Summarizing What We Know From Nationally Available Data.* Baltimore, MD: Johns Hopkins University Center for Social Organization of Schools, 2012. https://ct.global.ssl.fastly.net/media/W1siZiIsIjIwMTQvMDgvMTUvMjE1dnkya3BzOF9GSU5BTENocm9uaWNBYnNlbnRlZWlzbVJlcG9ydF9NYXkxNi5wZGYiXV0/FINALChronicAbsenteeismReport_May16.pdf.pdf?sha=ffcb3d2b (accessed May 2016).

790 Miller T and Hendrie D. *Substance Abuse Prevention Dollars and Cents: A Cost-Benefit Analysis,* DHHS Pub. No. (SMA) 07-4298. Rockville, MD: Center for Substance Abuse Prevention, Substance Abuse and Mental Health Services Administration, 2008. http://www.samhsa.gov/sites/default/files/cost-benefits-prevention.pdf (accessed September 2016).

791 DrugFacts: Lessons from Prevention Research. In *National Institute on Drug Abuse,* 2014. https://www.drugabuse.gov/publications/drugfacts/lessons-prevention-research (accessed September 2016).

792 Research and Results. In *Communities that Care,* 2016. http://www.communitiesthatcare.net/research-results/ (accessed September 2016).

793 About Us. In *EPISCenter,* 2015. http://www.episcenter.psu.edu/ (accessed September 2016).

794 Community Preventive Services Task Force. *Preventive Services. What Works to Promote Health?* New York: Oxford University Press, 2005. http://www.thecommunityguide.org/library/book/Front-Matter.pdf (accessed September, 2016).

795 Community Preventive Services Task Force. *Violence: School-Based Programs.* Atlanta, GA: The Community Guide, 2005. https://www.thecommunityguide.org/findings/violence-school-based-programs (accessed September 2016);

796 Washington State Institute for Public Policy. *Good Behavior Game. Benefit-Cost Estimates Updated June 2016. Literature Review Updated April 2012.* Olympia, WA: Washington State Institute for Public Policy, 2016. http://www.wsipp.wa.gov/BenefitCost/ProgramPdf/82/Good-Behavior-Game (accessed September 2016).

797 Washington State Institute for Public Policy. *Life Skills Training. Benefit-Cost Estimates Updated June 2016. Literature Review Updated June 2014.* Olympia, WA: Washington State Institute for Public Policy, 2016. http://www.wsipp.wa.gov/BenefitCost/ProgramPdf/37/Life-Skills-Training (accessed September 2016).

798 Washington State Institute for Public Policy. *Promoting Alternative Thinking Strategies (PATHS). Benefit-Cost Estimates Updated June 2016. Literature Review Updated April 2015.* Olympia, WA: Washington State Institute for Public Policy, 2016. http://www.wsipp.wa.gov/BenefitCost/ProgramPdf/94/Promoting-Alternative-Thinking-Strategies-PATHS (accessed September 2016).

799 National Institute on Drug Abuse. *Preventing Drug Use Among Children and Adolescents.* Bethesda, MD: U.S. Department of Health and Human Services, 2003. https://d14rmgtrwzf5a.cloudfront.net/sites/default/files/preventingdruguse_2_1.pdf (accessed October 2015).

800 U.S. Centers for Disease Control and Prevention. *School Connectedness: Strategies for Increasing Protective Factors Among Youth.* Atlanta, GA: U.S. Department of Health and Human Services, 2009. http://www.cdc.gov/healthyyouth/protective/pdf/connectedness.pdf (accessed October 2015).

801 Rethinking Discipline. In *U.S. Department of Education.* http://www2.ed.gov/policy/gen/guid/school-discipline/index.html (accessed October 2015).

802 Evers T. *Using Positive Behavioral Interventions & Supports (PBIS) to Help Schools Become More Trauma-Sensitive.* Madison, WI: Wisconsin Department of Public Instruction, n.d. http://dpi.wi.gov/sites/default/files/imce/sspw/pdf/mhtraumausingpbis.pdf (accessed September 2016).

803 Cole SF, Greenwald O'Brien J, Gadd, MG, et al. *Helping Traumatized Children Learn.* Cambridge, MA: Massachusetts Advocates for Children, Harvard Law School, and The Task Force on Children Affected by Domestic Violence, 2009. https://traumasensitiveschools.org/wp-content/uploads/2013/06/Helping-Traumatized-Children-Learn.pdf (accessed September 2016).

804 KOI Education. *What is Positive Behavioral Intervention and Support?* Phoenix, AZ: KOI Education, n.d. http://www.koi-education.com/pbis/ (accessed September 2017).

805 Washington State Institute for Public Policy. *Other School Wide Positive Behavior Programs.* Olympia, WA: Washington State Institute for Public Policy. http://www.wsipp.wa.gov/BenefitCost/ProgramPdf/540/Other-school-wide-positive-behavior-programs (accessed September 2017).

806 Trauma Definition. In *Substance Abuse and Mental Health Services Administration.* http://www.samhsa.gov/traumajustice/traumadefinition/approach.aspx (accessed September 2014).

807 *Framework for Action: Addressing Mental Health and Well-being through ESSA Implementation.* Chicago, IL: Healthy Schools Campaign, 2017. https://healthyschoolscampaign.org/wp-content/uploads/2017/05/Framework-for-Action-Addressing-Mental-Health-and-Well-being-through-ESSA-Implementation.pdf (accessed September 2017).

808 High School YRBS. 2015 Results. In *U.S. Centers for Disease Control and Prevention,* 2016. https://nccd.cdc.gov/Youthonline/App/Results.aspx?TT=B&OUT=0&SID=HS&QID=H25&LID=LL&YID=RY&LID2=&YID2=&COL=&ROW1=&ROW2=&HT=&LCT=&FS=&FR=&FG=&FSL=&FRL=&FGL=&PV=&TST=&C1=&C2=&QP=&DP=&VA=CI&CS=Y&SYID=&EYID=&SC=&SO= (accessed September 2016).

809 Espelage, DL, Basile KC, and Hamburger ME. Bullying perpetration and subsequent sexual violence perpetration among middle school students. *Journal of Adolescent Health,* 50(1), 60-65, 2012.

810 Hertz M et al. Association between bullying and health risk behaviors among high school students in the United States. *Journal of School Health,* 85(12), 833-842, 2015.

811 Klomek AB, Sourander A, and Gould M. The association of suicide and bullying in childhood to young adulthood: A review of cross-sectional and longitudinal research findings. *Canadian Journal of Psychiatry,* 55(5), 282-288, 2010.

812 Nansel T et al. Relationships between bullying and violence among U.S. youth. *Archives of Pediatric & Adolescent Medicine,* 157(4), 348-353, 2003.

813 Foshee VA et al. Bullying as a predictor of adolescent dating violence: A longitudinal assessment. *Journal of Adolescent Health,* 55(3), 439-444, 2014.

814 *The Relationship Between Bullying and Suicide: What We Know and What it Means for Schools.* Chamblee, GA: National Center for Injury Prevention and Control, 2014. https://www.cdc.gov/violenceprevention/pdf/bullying-suicide-translation-final-a.pdf (accessed September 2017).

815 Stone DM et al. *Preventing Suicide: A Technical Package of Policies, Programs, and Practices.* Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, 2017. https://www.cdc.gov/violenceprevention/pdf/suicide-technicalpackage.pdf (accessed September 2017).

816 *State Advocacy Focus: Bullying Prevention.* Elk Grove Village, IL: American Academy of Pediatrics, 2017. https://www.aap.org/en-us/advocacy-and-policy/state-advocacy/Documents/Bullying%20Prevention.pdf (accessed September 2017).

817 National Association of School Psychologist. In *NASP Online.* http://www.nasponline.org/ (accessed October 2015).

818 Bridgeland J and Bruce M. 2011 *National Survey of School Counselors Counseling at a Crossroads.* New York, NY: College Board Advocacy and Policy Center, 2011. http://www.civicenterprises.net/MediaLibrary/Docs/counseling_at_a_crossroads.pdf (accessed October 2015).

819 Medicaid Payment for Services Provided without Charge (Free Care). In *Centers for Medicare and Medicaid Services.* http://www.medicaid.gov/federal-policy-guidance/downloads/smd-medicaid-payment-for-services-provided-without-charge-free-care.pdf (accessed September 2016).

820 About School-Based Health Centers. In *California School-Based Health Alliance.* http://www.schoolhealthcenters.org/school-health-centers-in-ca/ (accessed September 2016).

821 *State Laws on Suicide Prevention Training for School Personnel.* New York, NY: American Foundation for Suicide Prevention, 2016. https://www.congressweb.com/assets/BackgroundDocuments/70147535-0C42-B1F3-E3D-B3ED529C97A80/School%20Personnel%20Training%20Overview_6.pdf (accessed October 2017).

822 *State Laws: Suicide Prevention on University and College Campuses.* New York, NY: American Foundation for Suicide Prevention, 2016http://afsp.org/wp-content/uploads/2016/11/AFSP_Higher-Ed-Issue-Brief.pdf (accessed September 2017).

823 Ennis D. "California to be first state to require suicide prevention classes in schools." *LGBTQ Nation* September 1, 2016. https://www.lgbtqnation.com/2016/09/california-first-state-require-suicide-prevention-classes-schools/ (accessed October 2017).

824 *State Laws: Suicide Prevention on University and College Campuses.* New York, NY: American Foundation for Suicide Prevention, 2016http://afsp.org/wp-content/uploads/2016/11/AFSP_Higher-Ed-Issue-Brief.pdf (accessed September 2017).

825 School-Based Mental Health Program. In *Mary's Center.* http://www.maryscenter.org/SBMH

826 Parrella M. *Mary's Center School Based Mental Health Program 2016-2017.* [PowerPoint slides]. http://www.maryscenter.org/sites/default/files/SBMH%20reception%20ppt%202017.SLIDES.OUTCOMES.pdf (accessed September 2017).

827 Association of Recovery Schools. https://www.recoveryschools.org/ (accessed October 2015).

828 National Institute on Alcohol Abuse and Alcoholism. Preventing Alcohol Abuse and Alcoholism—An Update. *Alcohol Alert,* Vol 34 (2), 2011. https://pubs.niaaa.nih.gov/publications/AA83/AA83.htm (accessed September 2017).

829 National Institute on Alcohol Abuse and Alcoholism. Preventing Alcohol Abuse and Alcoholism—An Update. *Alcohol Alert,* Vol 34 (2), 2011. https://pubs.niaaa.nih.gov/publications/AA83/AA83.htm (accessed September 2017).

830 National Institute on Alcohol Abuse and Alcoholism. Preventing Alcohol Abuse and Alcoholism—An Update. *Alcohol Alert,* Vol 34 (2), 2011. https://pubs.niaaa.nih.gov/publications/AA83/AA83.htm (accessed September 2017).

831 Preventing Teen Drug Use: Risk Factors & Why Teens Use. In *Partnership for Drug-Free Kids.* https://drugfree.org/article/risk-factors-why-teens-use/ (accessed October 2017).

832 Looking for Warming Signs. In *Partnership for Drug-Free Kids.* https://drugfree.org/article/look-for-warning-signs/ (accessed October 2017).

833 *Framework for Action: Addressing Mental Health and Well-being through ESSA Implementation.* Chicago, IL: Healthy Schools Campaign, 2017. https://healthyschoolscampaign.org/wp-content/uploads/2017/05/Framework-for-Action-Addressing-Mental-Health-and-Wellbeing-through-ESSA-Implementation.pdf (accessed September 2017).

834 *A Brief Overview of Colorado's Emotional and Social Wellness Standards.* Denver, CO: Colorado Department of Education, n.d. https://www.cde.state.co.us/sites/default/files/documents/pbis/bullying/downloads/pdf/briefoverview_coloradoemotionalsocialwellnessstandards.pdf (accessed September 2017).

835 *A Brief Overview of Colorado's Emotional and Social Wellness Standards.* Denver, CO: Colorado Department of Education, n.d. https://www.cde.state.co.us/sites/default/files/documents/pbis/bullying/downloads/pdf/briefoverview_coloradoemotionalsocialwellnessstandards.pdf (accessed September 2017).

836 Hawkins JD et al. Youth problem behaviors 8 years after implementing the Communities That Care prevention system: A community-randomized trial. *JAMA Pediatrics,* 168(2), 122-129, 2014.

837 Stone DM et al. *Preventing Suicide: A Technical Package of Policies, Programs, and Practices.* Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, 2017. https://www.cdc.gov/violenceprevention/pdf/suicide-technicalpackage.pdf (accessed September 2017).

838 Care Connection (School-Based Health Services). In *Nationwide Children's.* http://www.nationwidechildrens.org/care-connection (accessed September 2017).

839 Stone DM et al. *Preventing Suicide: A Technical Package of Policies, Programs, and Practices.* Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, 2017. https://www.cdc.gov/violenceprevention/pdf/suicide-technicalpackage.pdf (accessed September 2017).

840 National Institute on Drug Abuse. *Preventing Drug Use Among Children and Adolescents.* Bethesda, MD: NIDA, 2003. https://www.drugabuse.gov/sites/default/files/preventingdruguse_2.pdf (accessed October 2015).

841 Al's Pals: Kids Making Healthy Choices Overview. In *Wingspan.* http://wingspanworks.com/healthy-al/ (accessed September 2017).

842 Stone DM et al. *Preventing Suicide: A Technical Package of Policies, Programs, and Practices.* Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, 2017. https://www.cdc.gov/violenceprevention/pdf/suicide-technicalpackage.pdf (accessed September 2017).

843 Monnat SM. *Deaths of Despair and Support for Trump in the 2016 Presidential Election.* State College, PA: Pennsylvania State University, 2016. http://aese.psu.edu/directory/smm67/Election16.pdf (accessed September 2017).

844 Hempstead KA and Phillips JA. Rising Suicide Among Adults Aged 40–64 Years. *American Journal of Preventive Medicine,* 48(5):491-500, 2015.

845 Flavin P and Radcliff B. Public policies and suicide rates in the American states. *Social Indicators Research,* 90(2):195-209, 2009. https://link.springer.com/article/10.1007/s11205-008-9252-5

846 Compton WM et al. Unemployment and substance outcomes in the United States 2002–2010. *Drug and alcohol dependence,* 142:350-353, 2014. .https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4127107/ (accessed September 2017).

847 Nagelhout GE et al. How economic recessions and unemployment affect illegal drug use: A systematic realist literature review. *International Journal of Drug Policy.* 44:69-83, 2017. http://www.ijdp.org/article/S0955-3959(17)30087-7/fulltext (accessed September 2017).

848 *EITC Fast Facts.* Washington, DC: Internal Revenue Services, 2017. https://www.eitc.irs.gov/EITCCentral/static_assets/FASTFACT2017.pdf (accessed October 2017).

849 Ibid

850 Marr C, Huang C, Sherman A, Debot B. *EITC and Child Tax Credit Promote Work, Reduce Poverty, and Support Children's Development, Research Finds.* Washington, D.C.: Center on Budget and Policy Priorities, 2015. http://www.cbpp.org/research/federal-tax/eitc-and-child-tax-credit-promote-work-reduce-poverty-and-support-childrens (accessed July 2015).

851 Chetty R, Friedman JN, Rockoff J. *New Evidence on the Long-Term Impacts of Tax Credits.* Statistics of Income Paper Series, Internal Revenue Service, 2011, http://www.irs.gov/pub/irs-soi/11rpchettyfriedmanrockoff.pdf (accessed July 2015).

852 Maxfield M. *The Effects of the Earned Income Tax Credit on Child Achievement and Long-Term Educational Attainment.* Michigan State University, 2013,https://www.msu.edu/~maxfiel7/20131114%20Maxfield%20EITC%20Child%20Education.pdf (accessed July 2015).

853 Dahl G and Lochner L. The Impact of Family Income on Child Achievement: Evidence from The Earned Income Tax Credit. *American Economic Review,*102(5): 1927-1956, 2012.

854 *Policy Basics: State Earned Income Tax Credits.* Washington, DC: Center on Budget and Policy Priorities, 2017. http://www.cbpp.org/research/state-budget-and-tax/policy-basics-state-earned-income-tax-credits (accessed October 2017).

855 TANF Caseload Data 2014. In *Office of Family Assistance, An Office of the Administration for Children and Families.* http://www.acf.hhs.gov/programs/ofa/resource/caseload-data-2014 (accessed July 2017).

856 Family Income Support. In *Center on Budget and Policy Priorities.* http://www.cbpp.org/research/?fa=topic&id=42 (accessed July 2015).

857 Chart Book: TANF at 18. In *Center on Budget and Policy Priorities,* 2014 http://www.cbpp.org/research/chart-book-tanf-at-18 (accessed July 2015).

858 Economic Policy Institute. (2015, January 6). Wage stagnation in nine charts. Washington DC: Author. Retrieved from: http://www.epi.org/publication/charting-wage-stagnation/.

859 Vogtman J, Robbins KG. *Higher State Minimum Wages Promote Fair Pay for Women.* Washington, D.C.: National Women's Law Center, 2014. http://www.nwlc.org/sites/default/files/pdfs/higher_state_minimum_wages_promote_fair_pay_for_women_march_2014.pdf (accessed October 2014).

860 Minimum Wage Laws in the States - September 30, 2017. *In Department of Labor.* https://www.dol.gov/whd/minwage/america.htm (accessed October 2017).

861 Paid Leave is Crucial for Women and Families. In *National Women's Law Center.* http://www.nwlc.org/sites/default/files/pdfs/family_act_fact_sheet.pdf (accessed July 2015).

862 Wage and Hour Division: FMLA Surveys. In *United States Department of Labor.* http://www.dol.gov/whd/fmla/survey/ (accessed July 2015).

863 Paid Leave is Crucial for Women and Families. In *National Women's Law Center.* http://www.nwlc.org/sites/default/files/pdfs/family_act_fact_sheet.pdf (accessed July 2015).

864 Building a Secure and Healthy Start: Family Leave in the Early Years. In *Zero to Three.* http://www.zerotothree.org/public-policy/policy-toolkit/familyleavesingmar5.pdf (accessed July 2015).

865 Sherman A, Trisi D, Parrott S. Various Supports for Low-Income Families Reduce Poverty and Have Long-Term Positive Effects On Families and Children. Washington, D.C.: Center on Budget and Policy Priorities, 2013. http://www.cbpp.org/cms/?fa=view&id=3997 (accessed July 2015).

866 Cylus J, Glymour MM, Avendano M. Do generous unemployment benefit programs reduce suicide rates? A state fixed-effect analysis covering 1968–2008. *American journal of epidemiology.* 180(1):45-52, 2014.

867 *Policy Basics: Federal Rental Assistance.* Washington, DC: Center on Budget and Policy Priorities, 2017. https://www.cbpp.org/research/housing/policy-basics-federal-rental-assistance (accessed October 2017).

868 Fischer W. *Research Shows Housing Vouchers Reduce Hardship and Provide Platform for Long-Term Gains Among Children.* Washington, D.C.: Center on Budget and Policy Priorities, 2014. http://www.cbpp.org/cms/?fa=view&id=4098 (accessed July 2015).

869 Steffen BL et al. *Worst Case Housing Needs: 2015 Report to Congress*. Washington, DC: U.S. Department of Housing and Urban Development, 2015. https://www.huduser.gov/portal//Publications/pdf/WorstCaseNeeds_2015.pdf (accessed October 2017).

870 *The State of the Nation's Housing 2017: Fact Sheet*. Washington, DC: Joint Center for Housing Studies at Harvard University, 2017. http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/harvard_jchs_son_2017_fact_sheet.pdf (accessed October 2017).

871 *Policy Basics: Federal Rental Assistance*. Washington, DC: Center on Budget and Policy Priorities, 2017. https://www.cbpp.org/research/housing/policy-basics-federal-rental-assistance (accessed October 2017).

872 Avoiding Foreclosure. In *U.S. Department of Housing and Urban Development*. https://portal.hud.gov/hudportal/HUD?src=/topics/avoiding_foreclosure (accessed October 2017).

873 Oliveira, V. *The Food Assistance Landscape: FY 2016 Annual Report, EIB-169*. Washington, DC: U.S. Department of Agriculture, Economic Research Service, 2017.

874 Rosebaum D and Keith-Jennings B. *SNAP Caseload and Spending Declines Accelerated in 2016*. Washington, DC: Center on Budget and Policy Priorities, 2017. http://www.cbpp.org/research/food-assistance/snap-caseload-and-spending-declines-accelerated-in-2016 (accessed October 2017).

875 *Chart Book: SNAP Helps Struggling Families Put Food on the Table*. Washington, DC: Center on Budget and Policy Priorities, 2017. http://www.cbpp.org/research/food-assistance/chart-book-snap-helps-struggling-families-put-food-on-the-table#part4 (accessed October 2017).

876 Oliveira, V. *The Food Assistance Landscape: FY 2016 Annual Report, EIB-169*. Washington, DC: U.S. Department of Agriculture, Economic Research Service, 2017.

877 Goldman N, Ettinger de Cuba S, Sheward R, Cutts D, Coleman S. *Food Security Protects Minnesota Children's Health*. Series — Hunger: A New Vital Sign. Boston, MA: Children's HealthWatch, 2014.

878 Nutrition Program Facts : WIC – The Special Supplemental Nutrition Program for Women, Infants and Children. In *U.S. Department of Agriculture, Food and Nutrition Service*. http://www.fns.usda.gov/sites/default/files/WIC-Fact-Sheet.pdf (accessed July 2015).

879 Oliveira, V. *The Food Assistance Landscape: FY 2016 Annual Report, EIB-169*. Washington, DC: U.S. Department of Agriculture, Economic Research Service, 2017.

880 Oliveira V and Frazão. *The WIC Program: Background, Trends, and Economic Issues, 2015 Edition*. Economic Information Bulletin, No. 134., 2015. Washington, D.C.: U.S. Department of Agriculture, 2015.

881 Oliveira V and Frazão. *The WIC Program: Background, Trends, and Economic Issues, 2015 Edition*. Economic Information Bulletin, No. 134., 2015. Washington, D.C.: U.S. Department of Agriculture, 2015.

882 Oliveira V and Frazão. *The WIC Program: Background, Trends, and Economic Issues, 2015 Edition*. Economic Information Bulletin, No. 134., 2015. Washington, D.C.: U.S. Department of Agriculture, 2015.

883 Johnson AD and Markowitz AJ. Associations Between Household Food Insecurity in Early Childhood and Children's Kindergarten Skills. *Child Development,* 2017.

884 Scuttl S. "How does nutrition affect children's school performance?" *KSL.com* March 22, 2017. http://www.ksl.com/?sid=43576691&nid=1009&title=how-does-nutrition-affect-childrens-school-performance

885 *GDP growth (annual %)*. Washington, DC: The World Bank, n.d. http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?end=2016&locations=US&name_desc=true&start=1961&view=chart (accessed September 2017).

886 *Labor Force Statistics from the Current Population Survey*. Washington, DC: U.S. Department of Labor, 2017. https://data.bls.gov/timeseries/LNU04000000?years_option=all_years&periods_option=specific_periods&periods=Annual+Data (accessed September 2017).

887 Gilson D and Rios E. "11 Charts That Show Income Inequality Isn't Getting Better Anytime Soon." *Mother Jones* December 22, 2016. http://www.motherjones.com/politics/2016/12/america-income-inequality-wealth-net-worth-charts/ (accessed September 2017).

888 Bernstein J. "Improving Economic Opportunity in the United States." *Testimony of Jared Bernstein, Senior Fellow, Center on Budget and Policy Priorities, Before the Joint Economic Committee* April 5, 2017. https://www.cbpp.org/improving-economic-opportunity-in-the-united-states (accessed September 2017).

889 Nagelhout GE et al. How economic recessions and unemployment affect illegal drug use: A systematic realist literature review. *International Journal of Drug Policy*. 44:69-83, 2017. http://www.ijdp.org/article/S0955-3959(17)30087-7/fulltext (accessed September 2017).

890 Bernstein J. "Improving Economic Opportunity in the United States." *Testimony of Jared Bernstein, Senior Fellow, Center on Budget and Policy Priorities, Before the Joint Economic Committee* April 5, 2017. https://www.cbpp.org/improving-economic-opportunity-in-the-united-states (accessed September 2017).

891 Braga B et al. *Wealth Inequality Is a Barrier to Education and Social Mobility*. Washington, DC: Urban Institute, 2017. http://www.urban.org/research/publication/wealth-inequality-barrier-education-and-social-mobility (accessed September 2017).

892 Ratcliffe C and Kalish EC. *Escaping Poverty*. Washington, DC: U.S. Partnership on Mobility from Poverty, Urban Institute, 2017. http://www.mobilitypartnership.org/publications/escaping-poverty (accessed September 2017).

893 Nightingale DS and Simms M. "Trump's budget deals a double whammy to people struggling to gain a foothold in today's economy." *Urban Wire* June 14, 2017. http://www.urban.org/urban-wire/trumps-budget-deals-double-whammy-people-struggling-gain-foothold-todays-economy (accessed September 2017).

894 Krueger AB. "Where have all the workers gone? An inquiry into the decline of the U.S. labor force participation rate." *Brookings Papers on Economic Activity* September 7, 2017. https://www.brookings.edu/bpea-articles/where-have-all-the-workers-gone-an-inquiry-into-the-decline-of-the-u-s-labor-force-participation-rate/ (accessed September 2017).

895 Agency for Healthcare Research and Quality. Medical Expenditure Panel Survey (MEPS) data. Household expenditure data 2000-2014. Rockville, MD: Agency for Healthcare Research and Quality. https://meps.ahrq.gov/mepsweb/ (accessed July 2017).

896 Centers for Medicare and Medicaid Services. *Health Expenditures by State of Residence, 1991-2014*. Baltimore, MD: Centers for Medicare and Medicaid Services. https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsStateHealthAccountsResidence.html (accessed July 2017).

897 Sing M et al. Reconciling Medical Expenditure Estimates from the MEPS and NHEA, 2002. *Health Care Financing and Review* 28 (1): 25-40, 2006.

898 Bernard D et al. Reconciling Medical Expenditure Estimates from the MEPS and NHEA, 2007. *Medicare & Medicaid Research Review* 2 (4): E1-E20, 2012.

1730 M Street, NW, Suite 900
Washington, DC 20036
(t) 202-223-9870
(f) 202-223-9871

www.wellbeingtrust.org