

Increasing rates of opioid misuse, overdose, and death in America represent a complex public health emergency that merits widespread public and private resources and solutions.

Drug overdose is now the leading cause of death in the United States—opioids drive this pattern, representing 63.1% of these deaths.¹ Since 1999, the number of overdose deaths involving opioids (including prescription opioids and heroin) quadrupled. In 2015, 33,091 American lives were lost due to opioid-related overdose.² That's 91 Americans every day who die from an overdose involving opioids.³

Recent trends in opioid-related deaths indicate that synthetic opioids (such as fentanyl and carfentanil, sometimes mixed with heroin or cocaine) are driving these increases, with a 72.2% rise in death rates between 2014 and 2015.⁴

In 2015, based on 2010 data, the director of the Centers for Disease Control and Prevention (CDC) estimated that for every opioid overdose death, there were 15 admissions into treatment for substance use disorders, 26 emergency room visits, 115 people who use or are dependent, and 733 nonmedical users, resulting in more than \$4.3 million in health care costs⁵ (see Exhibit 1).

The epidemic of prescription opioid misuse and heroin use also has led to increased numbers of people who inject drugs, placing new populations at increased risk for HIV. Nonurban areas with limited HIV prevention and treatment services and substance use disorder treatment services, traditionally areas at low risk for HIV, have been disproportionately affected.⁶

American Institutes for Research: Response to the Crisis

As a complex public health emergency, many players must contribute to the national shared purpose to prevent and treat opioid use disorders; support sustained recovery; and reduce the devastating impact of opioid-related overdose and mortality on our children, families, and communities. Deep content knowledge about contributing factors and outcomes of the opioid epidemic is essential to addressing this highly complex, fast-changing, and multi-faceted issue, as are working relationships with multiple stakeholders including healthcare providers, patients, first responders, law enforcement professionals, state and local governments, and communities. American Institutes for Research (AIR) offers an experienced team, composed of

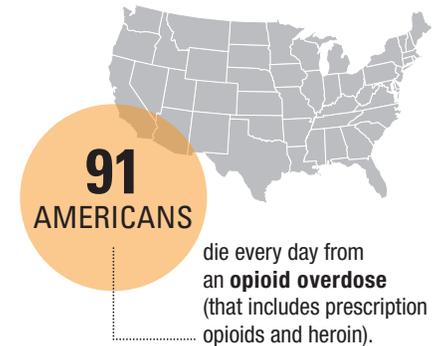
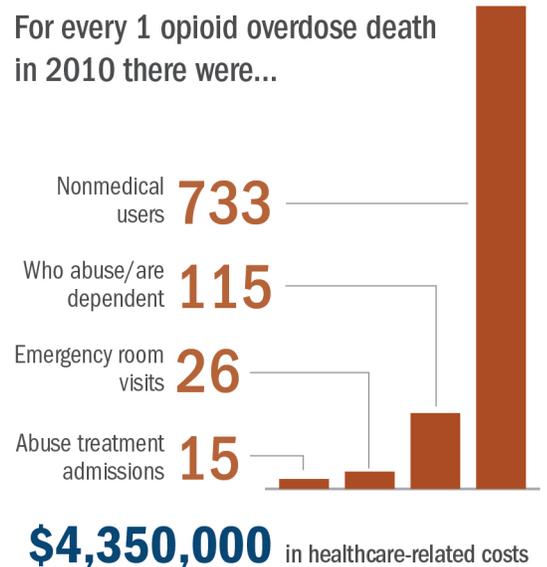


Exhibit 1. Breakout of Opioid Overdose Deaths



¹ Rudd, R. A., Seth, P., David, F., & Scholl, L. (2016, December 30). Increases in drug and opioid-involved overdose deaths—United States, 2010–2015. *Morbidity and Mortality Weekly Report*, 65(50-51), 1445–1452.

² <https://www.cdc.gov/mmwr/volumes/65/wr/mm655051e1.htm>

³ <https://www.cdc.gov/drugoverdose/epidemic/index.html>

⁴ Centers for Disease Control and Prevention. (2016, December). Increases in drug and opioid-involved overdose deaths—United States, 2010–2015. *Morbidity and Mortality Weekly Report*. Retrieved from <https://www.cdc.gov/mmwr/volumes/65/wr/mm655051e1.htm>

⁵ Dr. Anne Schuchat, Acting CDC director, tweet, March 31, 2015.

⁶ <https://www.cdc.gov/hiv/risk/idu.html>

highly qualified and experienced experts in preventing and treating addiction, opioid use and dependence, substance use disorder treatment, mental health, behavioral health, and trauma-informed care. Solutions also require intersections with healthcare and other systems serving persons with or at risk of developing opioid use disorders. Our response brings together expertise across the health and social services sectors, at a critical juncture, to effect needed change on a societal problem of increasing scope that speaks directly to our core mission “to conduct and apply the best behavioral and social science research and evaluation toward improving people’s lives, with a special emphasis on the disadvantaged.”

AIR Services

Supporting several federal, state, and local partners, AIR brings 16 years of experience to address this complex and far-reaching issue and offers multi-faceted solutions, working across systems and focusing on:

- Expanding access to, and quality of, Medication-Assisted Treatment (MAT) through implementation science, training, technical assistance, and evaluation studies;
- Enhancing awareness and behavior change through communication campaigns and tools for providers and consumers;
- Supporting evidence-informed decision making through data analytics;
- Understanding the interrelationship of systems that touch affected individuals and communities and fostering systems integration to leverage resources and create sustainable solutions;
- Working with health care providers, law enforcement, and other first responders to provide the training and technical assistance for new responses, using online courses for efficiency and reach; and
- Identifying primary prevention strategies to support early intervention in our schools and communities and build resilience for those most vulnerable.

Medication-Assisted Treatment: Implementation, Training, Technical Assistance, and Evaluation

AIR supports evidence-based opioid use disorder treatment through implementing systems of care that combine the use of FDA-approved medications with behavioral health services. We design and implement MAT delivery models, train and support providers, evaluate programs, and disseminate outcomes to foster best practice. Specific experience includes:

- Developing, implementing, and testing an intervention to support primary care providers in four regions of rural Oklahoma in their adoption of MAT as an evidence-based strategy for treating persons with opioid use disorder⁷;
- Supporting the Division of Pharmacologic Therapies (DPT) at SAMHSA’s Center for Substance Abuse Treatment (CSAT) in its regulatory oversight of the nation’s 1500+ opioid treatment programs (OTPs), including monitoring the accreditation and certification of OTPs and their compliance with mandated reporting requirements;
- Providing early technical support to SAMHSA/CSAT for the roll-out of the waiver program created by the Drug Abuse Treatment Act of 2000 (DATA 2000) that authorized qualified physicians to prescribe buprenorphine-based medications in office-based settings to treat opioid use disorder;
- Educating the medical community, the treatment community, and the general public about the availability and correct use of the medication; convening consensus panels and drafting content of SAMHSA’s Treatment Improvement Protocol #40, “Clinical Guidelines for the Use of Buprenorphine in the Treatment of Opioid Addiction”; conducting detailed analyses of the effects of the introduction of buprenorphine on the existing treatment system; and
- Gaining a nuanced understanding of the recent Comprehensive Addiction and Recovery Act (CARA) legislation that expands the buprenorphine waiver to qualified mid-level practitioners (nurse practitioners and physician assistants). Through our ongoing work in Oklahoma, we are working through, in real time, associated policy and workforce implications of the new law to guide states and providers.

⁷ The Rural Oklahoma MAT Expansion Project is funded by grant #R18HS025067 from the Agency for Healthcare Research and Quality (AHRQ).

Communication Campaigns, Technical Assistance, and Evaluation of Provider Practices

AIR brings extensive experience in tailoring behavior change campaigns to educate, normalize, and inspire safer prescriber and consumer behaviors around opioid use. We also evaluate communication efforts related to safe prescribing practices and guidelines, as well as assess, recommend, and develop needed communication tools. Specific experience includes:

- Evaluating CDC’s communication tools and strategies for disseminating and fostering uptake of the CDC “Guideline for Prescribing Opioids for Chronic Pain.” In subcontract to a small business partner, we developed a provider survey and are analyzing qualitative and quantitative data to understand the reach and receptivity of guideline communication tools to recommend next steps to CDC for its guideline communications efforts;
- Evaluating the effectiveness of the FDA’s Center for Drug Evaluation and Research’s Partnership for Drug-Free Kids’ Prescriber Education Campaign, a six-state pilot study promoting safe prescribing practices and encouraging primary care clinicians and pain specialists to consult their state’s prescription drug monitoring program;
- Developing award-winning campaigns for specific users, customizing channels for dissemination, and using data for continuous quality improvement. We bring first-hand experience of the strategies needed to address factors (barriers, incentives, motivations, readiness) that can affect uptake and use of the messages and resources promoted by communications efforts; and
- Using evidence-based strategies, AIR fosters patient and family engagement with health care providers to prevent and reduce adverse drug effects, especially related to opioid use. Funded by the Centers for Medicare and Medicaid Services, AIR provides technical assistance to improve safety in many potential areas of harm to Hospital Improvement Innovation Networks and hospitals through the Partnership for Patients initiative.

Data Analytics for Decision Making

AIR has developed a system-wide assessment process for reviewing all aspects of the opioid crisis and the many intersecting service systems it touches whether at a county, state, or regional level.

- AIR is developing an opioids-related “data lake” with integrated county-level data to measure the reach of the epidemic and to anticipate and evaluate the effects of interventions. The data lake includes county-level data on Affordable Care Act (ACA) marketplaces, Health Practitioner Shortage Areas, MAT (including both OTPs and office-based MAT with buprenorphine), providers and prescribers, and mental health services availability and beds in residential drug treatment facilities. We also have county-level data on hospital admissions for opioid-related overdose and mortality.
- Recognizing the multi-faceted nature of the epidemic, we collect and analyze geo-coded data from a wide array of sources including public health, medical claims and hospitals, mental health, public safety, jails and prisons, other law enforcement, homeless services, and veterans’ services. In addition, we harvest and structure social media data, by geography, to track the nature of the epidemic, how it may have changed over time, and how communities are mobilizing to respond.
- These data, along with qualitative interviews with diverse stakeholders, and review of evidence-based best practices, enable AIR analysts and community stakeholders to better understand current events, needs, and trends.
- This data analysis also contributes to making sense of the complex, fast-changing relationship of factors over time in a given system, and across systems, to identify key leverage points and action steps to better treat and prevent opioid use disorders and their consequences.

Systems Integration

AIR’s approach to systems change is to engage all sectors as part of the solution: healthcare, behavioral healthcare, criminal and juvenile justice, law enforcement, homelessness services, education, and foster care in collaboration to share data, coordinate referrals and services, and change policy. Specific experience includes:

- Creating research-informed guidelines for juvenile drug courts for the Department of Justice that will promote effective practice and quality service delivery for juveniles with substance use disorders. (The guidelines hold implications for practice and research, with the goal of continued performance improvement and capacity building of juvenile drug courts.);

- Working with state and local correctional institutions to implement evidence-based treatment, evaluating results and working to decrease diversion;
- Working with criminal justice systems to implement reentry programs to reduce recidivism; and
- Working with education and mental health state and local agencies to increase use of evidence-based programs that prevent use of alcohol and other drugs.

School-Based Prevention

AIR has a long history of identifying, developing, and implementing evidence-based prevention programming to address substance use and mental/behavioral health in schools. Our work involves assessing needs for primary prevention, determining the audience(s) most in need of such prevention strategies, selecting appropriate evidence-informed interventions, and ensuring that all strategies are culturally and linguistically competent and evidence-based.

Through the National Resource Center for Mental Health Promotion and Youth Violence Prevention funded by SAMHSA, we provide training and technical assistance to state Departments of Mental Health and Addiction Services, and education systems, on how to develop and implement comprehensive evidence-based prevention programs in the school setting. Specific experience includes:

- Working with social workers, mental health providers, and school staff on conducting needs assessments and environmental scans to select interventions that meet their intended outcomes;
- Developing a three-part Evidence-Based Prevention (EBP) self-paced online learning module series on selecting, preparing for, and implementing EBPs in school settings and an EBP Brief with numerous worksheets to assess implementation readiness and monitor fidelity;
- Providing teacher and coach trainings and train-the-trainer sessions to build local capacity to sustain the program over time; and
- Partnering with districts and states to implement and adapt programs as needed, maintaining fidelity while addressing local needs.

For the U.S. Department of Education's Every Student Succeeds Act, Title IV, Part A, AIR will provide support to states and districts in three areas: safe and healthy students (including substance abuse and violence prevention), well-rounded students, and increasing students' access and use of technology.

Clients and Funding Partners in Opioid Misuse and Treatment of Opioid Use Disorder

Agency for Healthcare Research and Quality

American Association for the Treatment of Opioid Dependence

American Society of Addiction Medicine

Centers for Disease Control and Prevention, National Center for Injury Prevention and Control

State of Oklahoma, Department of Mental Health and Substance Abuse Services

Substance Abuse and Mental Health Services Administration

Center for Mental Health Services, Mental Health Promotion Branch

Center for Substance Abuse Treatment, Division of Pharmacologic Therapies

University of New Mexico Health Sciences Center, Extension for Community Health Outcomes Institute

U.S. Food and Drug Administration, Center for Drug Evaluation and Research

U.S. Department of Education, Office of Safe and Healthy Students

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