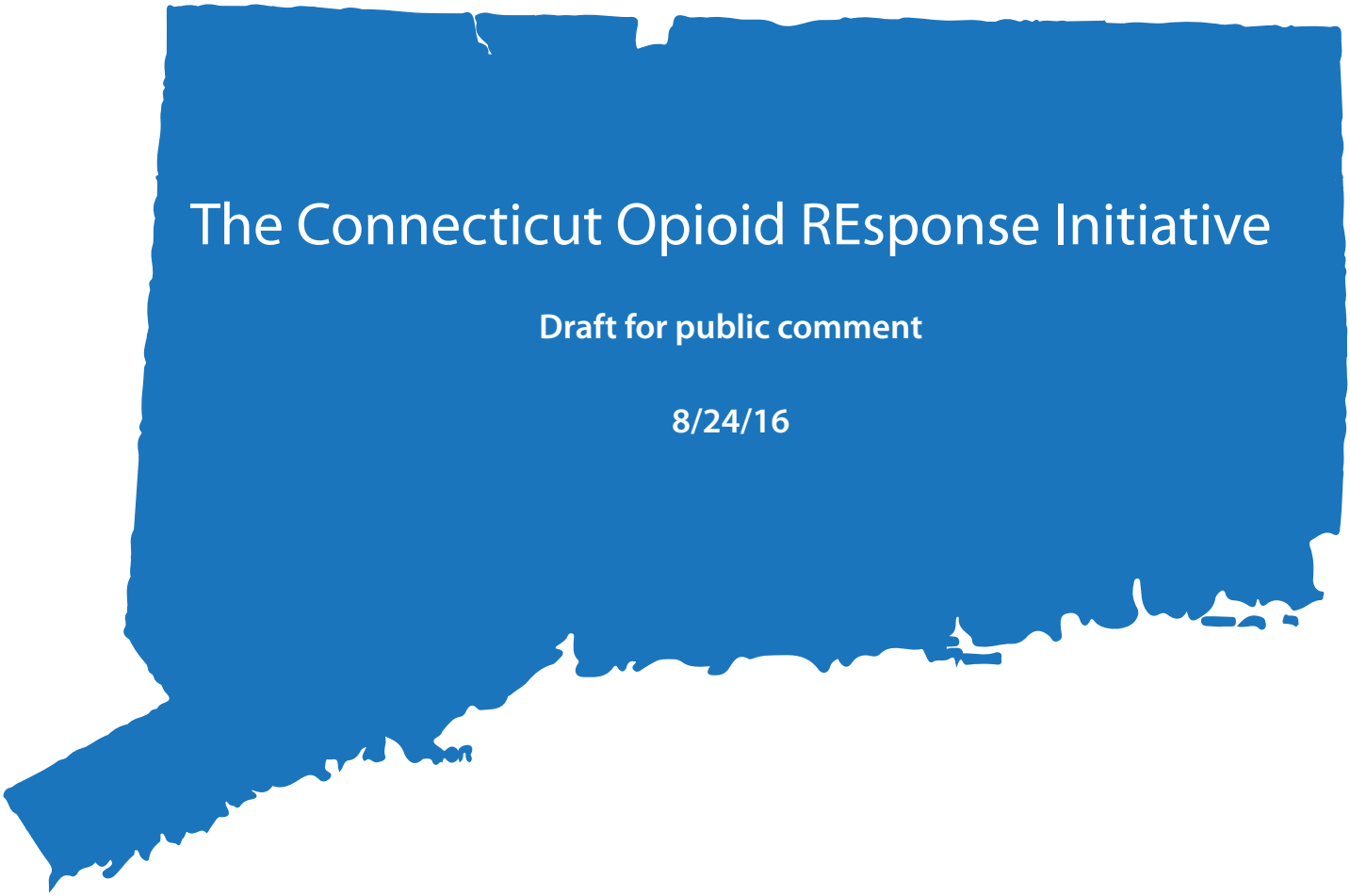

The Connecticut Opioid REsponse Initiative

Draft for public comment

8/24/16

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The genesis of this strategic plan was Governor Dannel P. Malloy's charge to the Alcohol and Drug Policy Council (ADPC), a statewide stakeholder group, to comprehensively address Connecticut's opioid crisis. Governor Malloy engaged the Connecticut Opioid REsponse (CORE) team to supplement and support the work of the ADPC by creating a focused set of tactics and methods for immediate deployment in order to have a rapid impact on the number of opioid overdose deaths in Connecticut. He asked that the CORE team focus on evidence-based strategies with measurable and achievable outcomes. Finally, the Governor requested that the CORE team's strategic plan be cognizant of Connecticut's new economic reality while not shying away from proven strategies that may not be funded currently. Accordingly, the CORE team's strategic plan lays out a series of actions designed to rapidly reduce opioid-related overdose deaths in Connecticut. As a strategic, tactical document, it does not represent a broader strategy to address many of the complex factors that have produced the opioid crisis. The CORE team will continue to work with the ADPC as they lead the state's comprehensive response to the opioid crisis and collaborate on future challenges as they develop.

Mission: To decrease the adverse impact of opioids on Connecticut residents, with an immediate emphasis on reducing overdose mortality.

Vision: To identify sources of current Connecticut data and apply evidence to most urgently and efficiently guide efforts to achieve our stated mission.

Values: Evidence, timeliness, respect, access, collaboration, and high impact efforts.

What the Connecticut Opioid REsponse (CORE) initiative is: A mechanism to articulate data-driven and evidence-based medical, public health and policy strategic initiatives related to treating opioid use disorder, reducing overdose events and a means for achieving these initiatives. To help focus efforts, the CORE initiative will serve as a vehicle to articulate tactics and methods that are most likely to help achieve these aims in the short term. To help monitor progress, the CORE initiative provides measures or metrics that can be tracked to assess progress over time.

National and state representatives and agencies have put forth reasoned and informed recommendations to help address opioid use, addiction and overdose over the past year. Major components of these are outlined in Table 1.

Table 1. Recommendations from stakeholders

Recommendation	National Governors Association Road Map for States	Senator Blumenthal, Opioid Addiction, A call to action	Department of Mental Health and Addiction Services, Triennial State Substance Abuse Plan, Opioid Annex, 2016	Alcohol and Drug Policy Council
Expand access to naloxone	X	X	X	Pending
Prevent opioid use through education	X		X	Pending
Expand access to treatment with medications	X	X	X	Pending
Expand access to treatment with medications in criminal justice settings	X	X	X	Pending
Divert individuals arrested for opioid related crimes into treatment	X	X	X	Pending
Promote improved prescriber adherence to guidelines	X	X	X	Pending
Enhance access to non-opioid treatments for pain	X	X		Pending

The CORE initiative will not comprise a reiteration of comprehensive plans and recommendations outlined by these federal and state representatives. Nonetheless, the CORE initiative provides methods to track the extent to which some of these recommendations have been achieved. To address the current urgent situation, the CORE initiative avoids a listing of strategies that are less likely to have short-term impact. Although these are important and necessary, they have been articulated by others, they may have less compelling scientific evidence to support them or are expected to have less of an immediate impact on overdose deaths.[1] Some of these are included in the CORE Appendix to ensure that they inform overarching and long-term efforts. The CORE

initiative does not address strategies or tactics as they relate to reductions in supplies of illegally trafficked opioids as these are under the purview of federal, state and local law enforcement agencies. Finally, the CORE initiative is not intended to serve as comprehensive guidance on the use of opioids for acute or chronic pain. Pain and addiction are distinct clinical entities. While these sometimes occur in the same individual, guidelines for the use of opioids for acute and chronic pain have been published.[2-5]

A note about language: To address the unfortunate and unwarranted stigma associated with opioid use and addiction it is necessary to articulate basic concepts to help avoid unintentional adverse connotations. We will use person-first language and accurate health terminology and avoid language that can be stigmatizing or inaccurate.[6-8] For instance, we would refer to individuals as people with an addiction, instead of "addicts," we would describe individuals as abstinent rather than "clean," and we would refer to methadone and buprenorphine as medications rather than "drugs."

The use of opioid analgesics (i.e. prescription opioids) for acute and chronic pain: Opioid analgesics are important medications that can provide relief for acute pain, for pain in individuals receiving palliative care and for some individuals with chronic pain.[9] While some individuals have decreased pain and improved function while receiving opioids for chronic pain, the scientific evidence indicates that this may not occur for many individuals.[3] In addition, the scientific evidence indicates that by taking opioids for chronic pain, some individuals are placed at increased risk for addiction, overdose, and other adverse consequences.[10-12] Finally, the dramatic rise in the rate of opioid prescribing for pain has resulted in an unintended overabundant supply of these medications that can be diverted and lead to misuse and addiction. The need to strike a balance between the benefits achieved by some individuals and the devastating outcomes in others has resulted in Pain Medicine specialty societies and the Centers for Disease Control and Prevention (CDC) to develop guidelines to help ensure adequate access to these medications while minimizing risks and adverse public health impacts.[2,4]

Addiction, opioid use disorder and its treatment: Addiction is a chronic illness characterized by changes in brain chemistry and function. The medical term for opioid addiction is opioid use disorder. It is important to distinguish opioid use disorder from the physical dependence that typically occurs when individuals take opioids for medical conditions. The primary factor used in making this distinction is the lack of control over the use of opioids that is seen in individuals with opioid use disorder, but not in those who only have physical dependence. This loss of control, can lead to behaviors that individuals otherwise would avoid, including crime.

The chronic nature of opioid use disorder mandates a long-term view on treatment, not unlike the view that is taken in other medical conditions such as diabetes, hypertension or depression. As with other chronic medical conditions, there is a spectrum from mild to severe and the cause is rooted in genetic, as well as environmental factors. Prevention, especially among youth, can have important long-term benefits. Some psychiatric and medical conditions are seen at an increased rate among individuals with opioid use disorder. Co-use of other addictive substances such as nicotine, marijuana, alcohol, cocaine and benzodiazepines can also occur and require specific treatments. Chronic medical conditions such as opioid use disorder are typically not cured, but rather can be in remission. Recovery, an important concept that connotes a holistic and sometimes spiritual process, can be challenged by relapse. Unfortunately, there are no rapid or short-term treatments for chronic medical conditions such as opioid use disorder, and control or remission are the medical terms used to reflect a lack of substantial influence of the medical condition on one's daily function and health.

As with other chronic medical conditions, the intensity of the treatment services should be matched to the severity of the disorder. The levels of care outlined by the American Society of Addiction Medicine (ASAM) provide a useful guide and include (1) early intervention, (2) outpatient, (3) intensive outpatient/partial hospitalization, (4) residential/inpatient, (5) medically managed intensive inpatient.[13] Not all individuals require or benefit from inpatient (hospitalization) or "detoxification." The changes in brain chemistry and function that occur and persist in individuals with opioid use disorder mean that short-term management such as detoxification is not a stand-alone treatment. In fact, detoxification alone is associated with high rates of relapse and place

individuals at risk for overdose due to a lowered level of physical dependence.[14-19] For many individuals with opioid use disorder, treatment should be initiated with an outpatient or intensive outpatient treatment strategy.

Based on the medical evidence, a range of local, state, federal and international expert organizations including the World Health Organization, the White House Office of National Drug Control Policy, the National Institutes of Health, the Department of Health and Human Services, and the National Governor's Association[20-24] agree that the most effective treatment for opioid use disorder involves medications such as buprenorphine and methadone in combination with counseling and support services. Long-standing institutions such as the Betty Ford and Hazelden Foundations that have historically focused on non-medication treatments for substance use disorders have incorporated buprenorphine into their treatment programs. The provision of methadone for the treatment of opioid use disorder is restricted to opioid treatment programs (OTPs) regulated by the federal government. Buprenorphine can be provided through OTPs or by office-based prescribers who have completed appropriate training in accordance with the Drug Addiction Treatment Act of 2000 (DATA 2000).[25] Expansion of access to and use methadone and buprenorphine has resulted in dramatic decreases in opioid overdose mortality and their cost-effectiveness has been demonstrated.[24,26-28] Naltrexone, an approved treatment for opioid use disorder, may have benefits in select settings and individuals but does not prevent symptoms of withdrawal or address craving.[29,30] Naltrexone's efficacy is less than methadone and buprenorphine and there is less data indicating it has as profound an impact on reducing overdose death, human immunodeficiency virus (HIV) or hepatitis C virus (HCV) transmission, or other adverse consequences associated with opioid use as methadone and buprenorphine.[31-33]

Naloxone for reversing opioid overdose

Naloxone is a medication that reverses and blocks the effects of opioids. It can be a life-saving medication but is not a long-term treatment for an underlying opioid use disorder. It is available in an injectable formulation a self-injector formulation, and an intra-nasal formulation. It is generally effective in reversing opioid-induced lowered respiration within minutes. Although it works fastest when injected intravenously, it produces fewer adverse events when injected into the muscle or inhaled. It can remain effective in the body to reverse the effects of opioid effects for 45-60 minutes, regardless of route of administration.[34] Thus, increasing access in Connecticut should focus on provision of the intranasal and intramuscular formulations.

Although naloxone has been available to emergency medical services and in emergency department to reverse opioid overdoses for a number of years, expansion of its availability to the non-medical community has only recently begun. By 2010, it was estimated that roughly 50,000 non-medical individuals in the U.S. had been trained to use naloxone and naloxone had been administered 10,000 times to reverse acute opioid intoxication.[35] There is compelling evidence that trained non-professionals are comparable to medically trained responders in recognizing the symptoms of an opioid overdose, distinguishing them from other kinds of drug-related loss of consciousness, reporting the proper response to an opioid overdose event, and feeling able to respond should they witness such an event.[36,37] As programs have expanded, community awareness has enabled even untrained responders armed with naloxone to successfully respond to witnessed overdose events.[38]

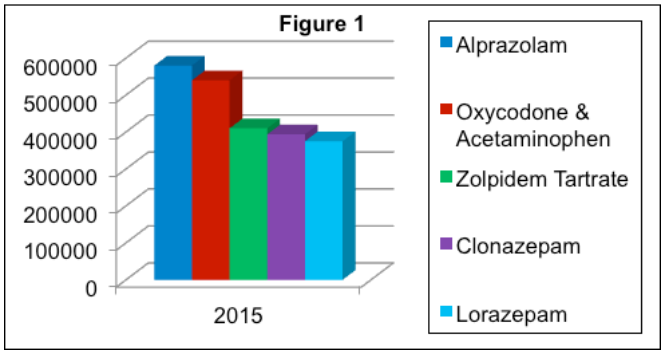
Why the CORE initiative is needed—Epidemiology of opioid use and opioid prescribing in Connecticut

Estimated number of individuals with non-medical use of opioids and heroin

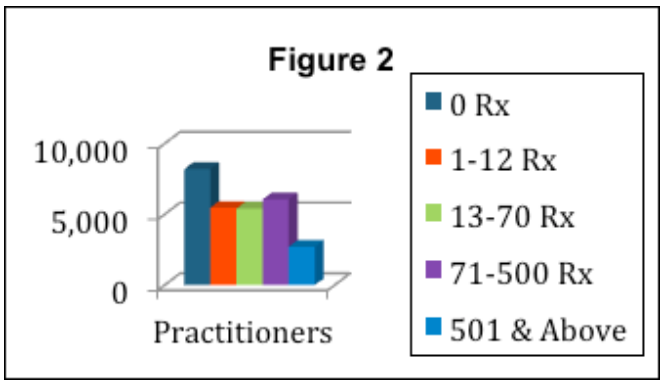
Data from the National Survey on Drug Use and Health indicates that in 2014, there were an estimated 103,000 Connecticut residents with non-medical use of prescription analgesics (pain killers).[39] This reflects individuals taking prescription analgesics that were not prescribed to them or were used for the feeling (i.e. "high" or euphoria) that it caused. In the same year, there were an estimated 12,000 Connecticut residents between the ages of 12 and 17 with non-medical use of prescription analgesics.[39] This represented 4% of all Connecticut adolescents. The same survey indicates that there were 275,000 residents with drug use, although use of heroin was not reported separately.[39] Between 2007 and 2014, only 20% of those with drug use disorders received treatment.

Opioid and benzodiazepine prescribing in Connecticut

The state of Connecticut has adopted a mechanism to track pharmacy dispensing of prescriptions for controlled substances (for example opioids, benzodiazepines). In Connecticut, the system is called the Connecticut Prescription Monitoring and Reporting System (CPMRS). Such systems are associated with decreased diversion and misuse of these medications.[40] However, only 25% of prescribers in Connecticut use the CPMRS.[41] There were an estimated 2,625,042 prescriptions for opioid analgesics provided in Connecticut in 2015.[42] Opioids are the second most commonly prescribed controlled substance in the state, following benzodiazepines, a medication class that is addictive and often involved in fatal and non-fatal overdoses. Three of the top five most commonly prescribed controlled substances in the Connecticut are benzodiazepines (Figure 1) and this class of medication is involved in nearly half of opioid-involved deaths in Connecticut.[41]



While there were 27,856 licensed prescribers in the Connecticut in 2015, 19,648 of them wrote at least one controlled substance prescription, and 2707 prescribers wrote more than 500 prescriptions for controlled substances (Figure 2).[41]



What this means to the CORE initiative: Few prescribers in Connecticut use the CPMRS, a type of system that is associated with decreasing overdose events.[40] Benzodiazepines, a medication that can contribute to overdose and is observed in nearly half of fatal overdoses in Connecticut are widely prescribed. Given that ten percent of controlled substance prescribers in the state provide over 500 prescriptions per year, focusing initial efforts on these prescribers to ensure that they are prescribing in accordance with established guidelines may yield the greatest benefit.[2,4]

Number and distribution of non-fatal overdose events

Statewide data on non-fatal overdose is pending. In one Connecticut hospital there were 210 visits for non-fatal opioid overdoses in 197 adults over a one-year period. Seven of the 197 individuals or 4% subsequently died within 100 days of their initial overdose. In a Connecticut study, adults with opioid use disorder were nearly twice as likely (78% vs. 45%) to be enrolled in addiction treatment 30 days after an Emergency Department visit for overdose (9% of patients) or any other medical reason if they received medication (buprenorphine) plus a referral for ongoing medication and counseling treatment from the Emergency Department rather than a referral to treatment alone.[43]

What this means to the CORE initiative: If someone has a hospital visit for a non-fatal opioid overdose they are at an increased risk of dying within 100 days and could benefit from access to immediate treatment. Emergency Department-initiated treatment, compared to referral alone, nearly doubles the likelihood that individuals with opioid use disorder will be engaged in treatment.

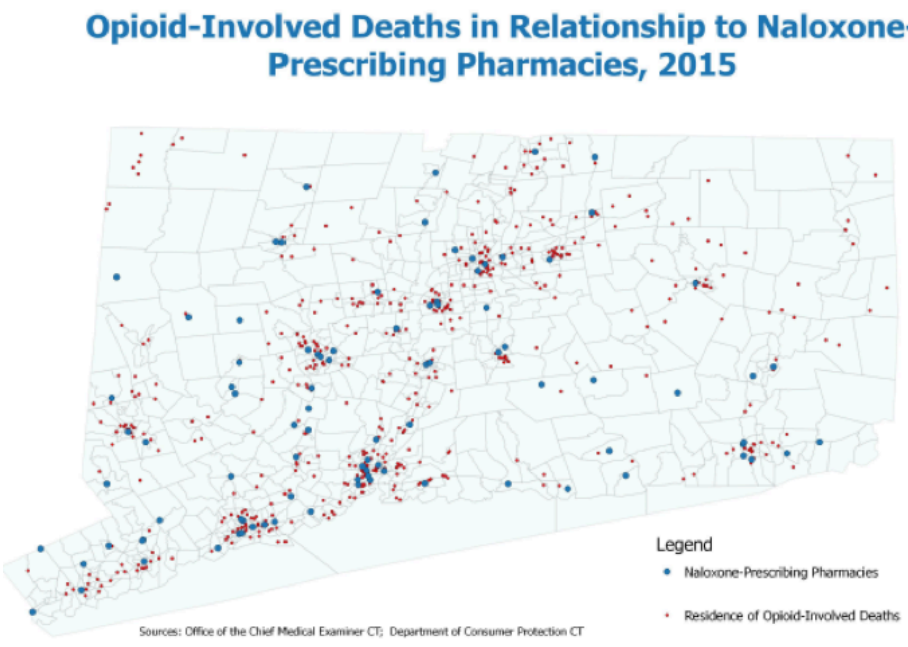
Naloxone use in Connecticut

Naloxone reverses and blocks the effects of opioids in the body. Access to naloxone has been facilitated by the passage of Good Samaritan laws that exempt from any negative outcomes of naloxone use (1) providers who prescribe naloxone in good faith, (2) bystanders who respond to a witnessed opioid overdose, and (3) individuals who call for emergency medical help. In Connecticut, Good Samaritan laws were first passed in 2003 and have subsequently been expanded, most recently in 2016, to cover all three of these situations.[44,45]

The first of Connecticut's syringe service programs (SSPs) began offering naloxone kits to program customers in 2014 in Hartford, followed by the other SSPs. Currently, naloxone distribution is accompanied by a uniform training overseen by the Department of Public Health.[46] In 2015, the SSPs trained nearly 900 people and distributed 855 naloxone kits. Sixty reversals were reported (or 7% of the distributed kits).[47] State troopers, who provide primary policing for 80 towns in Connecticut, were trained to use and equipped with naloxone beginning in October 2015. By the end of June 2016 they had responded to 102 calls with 103 overdose events. In 96 cases, on-site administration of naloxone resulted in survival and in all cases the resuscitated person was taken to a hospital Emergency Department. In addition, approximately 70 of 89 towns with independent police departments have trained members of their force in opioid overdose response and provided them with naloxone. AIDS Connecticut has trained approximately 1,200 individuals and distributed more than over 800 naloxone kits, with more than 100 overdoses reported reversed.[48]

Most recently, an act of the CT legislature enables trained and certified pharmacists to write prescriptions for naloxone. As of mid-July 2016, 981 of 5280 (19%) pharmacists licensed in the state had completed training and 321 pharmacies had at least one trained pharmacist on staff (Figure 3).

Figure 3



The expansion of naloxone access, not just here in Connecticut, but nationwide, is threatened by recent price increases.[49] Efforts to keep naloxone affordable are key to making this medication more widely available.

What this means to the CORE initiative: There are no legal obstacles to undertaking several approaches in combination to make naloxone more widely available to those at greatest risk of an opioid overdose. Identifying, training, and providing naloxone to all relevant stakeholder groups can greatly reduce opioid overdose mortality and morbidity. Furthermore, efforts to address price increases must be developed.

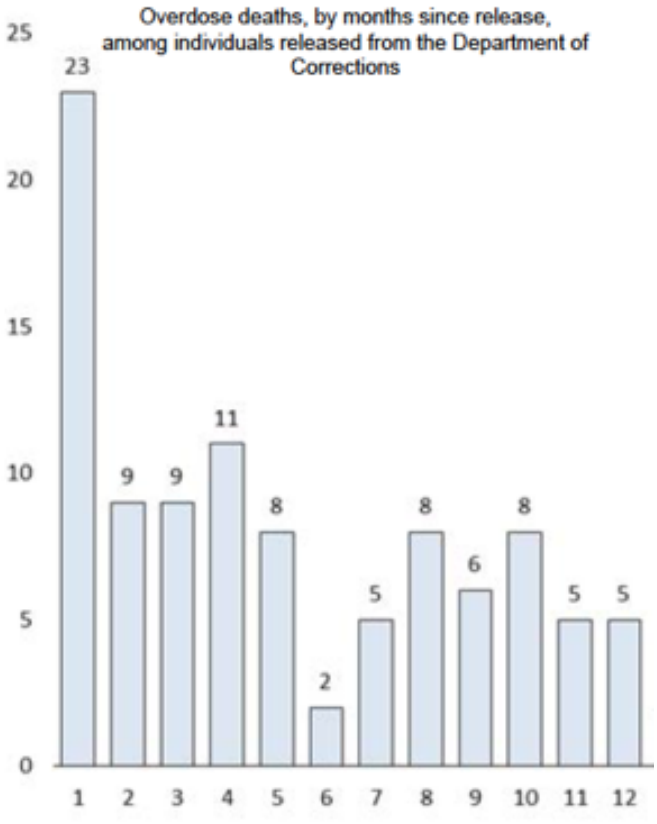
Number, distribution and epidemiology of overdose deaths

In 2015, there were 697 opioid-involved fatalities in the state of Connecticut, 639 of which occurred in Connecticut residents. The average age of decedents was 42 years; 74% were male, 83% were White, 11% Hispanic and 5% Black. In review of research by Dr. Lauretta Grau at the Yale School of Public Health on data from the Connecticut Office of the Chief Medical Examiner for the years 1999-2013, despite the increasing number of deaths, the overall demographics of the 2014 and 2015 opioid-related decedents were consistent with those observed in earlier years. There is some evidence for two populations of decedents, one concentrated among individuals aged 22-30 and the other concentrated among individuals aged 40-56. When town of residence was known among decedents in 2015, six jurisdictions had more than 20 such events: these included Hartford, Waterbury, New Britain, New Haven, Bridgeport and Bristol. The deaths in these six cities accounted for 25% of all fatal events. Forty-one jurisdictions were in the highest 25th percentile with at least 5 fatal overdose events (see Supplemental Data section). Overdose deaths are occurring in multiple jurisdictions that lack opioid treatment programs or buprenorphine providers (Figures 3 and 5) and naloxone prescribing pharmacists.

Injection was the route of opioid administration in 25% of fatal cases. Eighty-one percent of overdoses occurred at a residence (house, apartment). Opioids identified among decedents were heroin/morphine alone (38%), prescription opioid analgesics alone (24%), fentanyl alone (9%) and combination of opioids (30%). In addition, benzodiazepines were identified in 42% of individuals with an opioid-related fatal overdose, and alcohol in 28%.

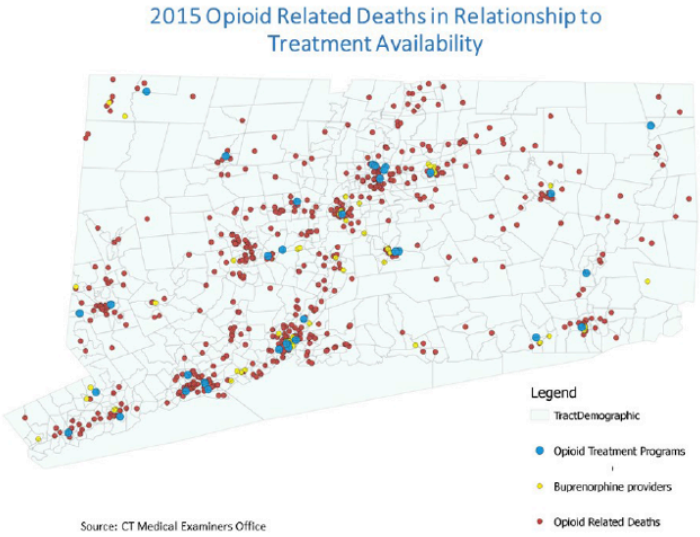
In 2015, 44% of accidental drug intoxication deaths occurred among individuals who had been detained at some point during their life by the Connecticut Department of Corrections.[50] In individuals with opioid use disorder, the risk of overdose is greatest upon release, especially if they have not received opioid treatment medications during their incarceration. In Connecticut, 64% of overdose deaths among individuals released from the Department of Corrections occur within 6 months of release (Figure 4).

Figure 4



Prescription opioids and heroin can both be obtained from families, friends and illegal sources.[51] In Connecticut, among those with opioid-related overdose events in 2014, most (54%) of overdose decedents had no contact with the CPMRS in the year before their death. Thirty-nine percent had received prescriptions for both opioids and benzodiazepines in the past year, however.[42]

Figure 5



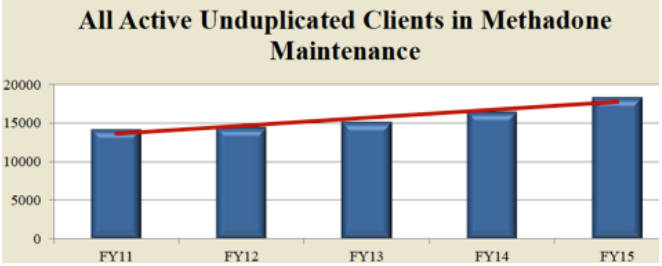
What this means to the CORE initiative: The clusters by age indicate there may be separate groups of individuals at risk for opioid overdose death, which may require different types of interventions to decrease their risk. The concentration of overdose deaths in specific jurisdictions indicates that efforts may have their largest impact if they are initially deployed in specific areas, including those with limited access to opioid treatment programs or buprenorphine prescribers. The preponderance of fatal overdose events occurring in residences supports the need for overdose education and naloxone distribution (OEND) to families, friends, and first responders. The data on overdose deaths in Connecticut support the concern that there are specific populations that are at highest risk for fatal overdose events including those with prior non-fatal overdose, those who take opioids along with alcohol or benzodiazepines, those released from incarceration, and those exposed to high potency opioids such as fentanyl (See Table 3).

Number of individuals receiving medication and counseling treatment for opioid use disorder in Connecticut

The Department of Mental Health and Addiction Services reported that 16,374 individuals reported an opioid as their primary abused drug at entry into treatment in 2015. Connecticut treatment providers have been responsive to the opioid crisis by increasing their

capacity to provide methadone treatment by nearly 30% over the past 4 years (Figure 6). In 2013, 2014 and 2015 prescriptions for buprenorphine were provided to 24,758, 27,497 and 25,298 individuals, respectively.[42]

Figure 6



What this means to the CORE initiative: Opioid treatment programs, which can provide methadone and buprenorphine, the most effective treatments for opioid use disorder, have responded to the increased need for these services. More individuals are receiving buprenorphine in the state than are receiving methadone, which is consistent with national data. Nonetheless, the rising number of opioid overdoses and data from the Nationals Survey on Drug Use and Health indicates there is an unmet need for these treatments in the state.

Building on strengths in Connecticut

Successful strategic planning processes often build on existing strengths and efforts. Over many years, Connecticut has benefitted from a large number of dedicated leaders and organizations that have helped to improve the lives of individuals with opioid use disorder and their families. Table 2 includes a partial listing of these efforts.

Table 2.
Partial listing of efforts throughout Connecticut to address opioid use, addiction and overdose

Expansion of methadone and buprenorphine, including programs with same day treatment, primary care services, integrated counseling
Coverage for buprenorphine by State Medicaid without co-pays, or limitations on duration or dose
Supportive naloxone legislation and distribution/use by trained families, friends, and first responders
Expansion of health care coverage under the Affordable Care Act
Creation of 1-800-563-4086 for opioid treatment referrals
Community forums for outreach to stakeholders
Ongoing medication take-back initiatives for unused controlled substance medications
Participation of 5 Connecticut mentors in the federally-funded Provider's Clinical Support System (PCSS)
Establishment of the Alcohol and Drug Policy Council
Syringe services programs with naloxone distribution
Programs providing methadone to incarcerated individuals
Establishment of a prescription monitoring program (CPMRS) and regulations to promote its use
Development of Emergency Department-based programs for screening, brief intervention and treatment initiation with buprenorphine
Pilot program for rapid response to opioid overdose events focused on linkage to treatment from Emergency Departments
Increasing provision of medication treatment of opioid use disorder by Federally Qualified Health Centers
Development of innovative methods of treating neonatal withdrawal
Family and community organizations providing education and support
Multisystemic Therapy and Multidimensional Family Therapy programs
Robust recovery supports
Programs to improve safety among Veterans receiving care in the Veterans Health Administration who are prescribed opioids for pain
Increased involvement in diversion to treatment by law enforcement
State-based trainings on opioid prescribing and to help providers qualify to prescribe buprenorphine

Strategic Planning Process

On May 27, 2016, Governor Malloy announced the creation of a strategic planning process to help guide a response to the opioid crisis. A team from Yale Schools of Medicine and Public Health began a three-month process designed to gather data and input from a variety of stakeholders around the state and to evaluate evidence-based practices in other states and internationally. This process included face-to-face meetings, email and phone correspondence, attendance at community events and forums, presentations to medical and public health organizations and weekly phone calls with representatives from state agencies. To facilitate input, a dedicated email account, CTopioidplan@yale.edu, was established and disseminated to stakeholders for input. The team conducted a review of plans from other states, the National Governors Association,[1] the Department of Mental Health and Addiction Services 2016 Triennial Report, Opioid Annex, and recommendations from the Alcohol and Drug Policy Council (pending). The team worked with state representatives to review existing data, integrate data from varied sources, and to identify specific data needs and key questions to help focus efforts. Based on the available data, and considering evidence from published work and promising programs the team generated a list of strategic priorities. The final list of strategies was informed by: (1) the strength of the scientific evidence to support a specific strategy, (2) the likely magnitude of the impact of the recommendation if implemented, with a focus on impacting overdose mortality in the next three years, and (3) the availability of a measurable outcome (termed a CORE metric) that could be monitored over time. Based on these three factors, some strategies were deemed to be important and essential, yet less likely to have a measurable short-term impact. These are included in the CORE Appendix.

A draft of the strategic planning document was circulated to stakeholders and made available for public comment (pending).

Implementation and Timeline

The CORE initiative team will work with stakeholders over three years to implement the strategies and tactics outlined in the CORE initiative.

Monitoring, evaluation and communicating results

The CORE initiative team will facilitate monitoring of CORE metrics and in the development of a public-facing internet-based "dashboard" to help disseminate the CORE initiative and assessment of its impacts.

Revising and updating

Based on the evolving nature of the opioid epidemic, and an evolving evidence base, the CORE initiative team will re-evaluate its strategies, tactics and metrics annually and adjust as needed.

STRATEGY 1

Increase access to high-quality treatment with methadone and buprenorphine

Rationale 1: The provision of these medications in conjunction with counseling is the most effective way to decrease the rates of drug use, overdose, transmission of hepatitis B, C and HIV infections, and criminal behavior. Many areas of the state lack adequate access to these treatments. There are inadequate numbers of providers who accept certain insurances, including Medicaid and few who provide this treatment to adolescents and young adults when appropriate. Same-day entry into treatment promotes engagement as individuals may lose interest if there are barriers. Buprenorphine is an alternative to methadone that some individuals prefer.

Tactic 1.a: Strategically expand opioid treatment programs (OTPs)

Method 1.a: Facilitate expansion of existing OTPs and eliminate waiting lists

CORE Metrics:

- Number of individuals receiving medication at OTPs
- Wait time, in days, across all OTPs

Method 1.a.1: Facilitate opening of new OTPs in jurisdictions with need

CORE Metric:

- Number of licensed OTPs in the state

Tactic 1.b: Promote same day treatment at OTPs

Method 1.b: Facilitate same-day initiation of medication at all OTPs by addressing barriers including workforce (physician) shortages and reimbursement

CORE Metrics:

- Proportion of OTP sites in the state providing same-day treatment initiation
- Proportion of new entrants who receive same-day medication induction

Tactic 1.c: Increase access to treatment with medications and counseling for incarcerated individuals with opioid use disorder

Method 1.c: Facilitate expansion of and reimbursement for methadone and/or buprenorphine in criminal justice settings

CORE Metrics:

- Number of individuals with opioid use disorder receiving methadone or buprenorphine in criminal justice settings
- Number of correctional facilities offering methadone or buprenorphine for opioid use disorder

Tactic 1.d: Increase the availability of buprenorphine at OTPs

Method 1.d: Facilitate provision of buprenorphine at all OTPs

CORE Metrics:

- Proportion of OTP sites in the state providing buprenorphine
- Number of individuals in the state receiving buprenorphine through OTPs

Tactic 1.e: Expand access to buprenorphine through office-based, primary care, local mental health agencies, Emergency Department-initiation, Federally Qualified Health Centers, hospital-based clinics, OTPs and other settings.

Method 1.e: Promote awareness of online Drug Addiction Treatment Act (DATA) of 2000 training opportunities for prescribers and care teams, increase DATA 2000 trainings statewide (target of six face-to-face trainings per year), increase use of the Substance Abuse and Mental Health Services Administrations Provider's Clinical Support System for Medication Assisted Treatment (PCSS-MAT), increase the number of PCSS-MAT mentors in Connecticut. Create alliances between buprenorphine providers and opioid treatment programs and psychosocial treatment providers to facilitate coordinated treatment efforts and bidirectional transfers of care as appropriate.

CORE Metrics:

- Number of DATA 2000 waivered buprenorphine prescribers in the state
- Number of DATA 2000 waivered buprenorphine prescribers in the state who accept Medicaid
- Number of individuals in CPMRS receiving buprenorphine
- Number of PCSS-MAT mentors in the state
- Number of coordinated care alliances between OTPs and office-based providers
- Number of Emergency Departments initiating methadone or buprenorphine treatment

Tactic 1.f: Ensure access to medications throughout the continuum of treatment services

Method 1.f: Encourage providers at all American Society of Addiction Medicine levels of care to provide or allow individuals to receive methadone and buprenorphine during their treatment

CORE Metric

- Number of treatment programs providing or allowing individuals to receive methadone or buprenorphine during treatment

Tactic 1.g: Facilitate linkages from acute care medical settings (Emergency Department and hospitals) to treatment with methadone and buprenorphine

Method 1.g: Support the development of Project ASSERT-like programs which provide addiction-focused community outreach workers or health promotion advocates that help link patients to treatment.[52] These advocates develop partnerships with all treatment programs and providers in their area, provide screening, intervention and referral when possible, assist in educating staff in setting up policies and procedures for treatment and referral; follow up with patients that have received treatment and referral to treatment; assist with overcoming barriers to accessing treatment.

CORE Metric:

- Number of Project ASSERT-like programs in the state

STRATEGY 2:

Reduce overdose risk, especially among those individuals at highest risk

Rationale 2: Certain individuals share characteristics that place them at highest risk for opioid overdose (Table 3).

Table 3.

Those who have experienced a prior non-fatal opioid overdose
Those with opioid use disorder leaving controlled settings (e.g. residential treatments, detoxification, incarceration) who have lowered opioid tolerance
Those prescribed doses of opioid analgesics greater than 90 milligram morphine equivalents (MME) per day
Those taking (co-prescription or co-use) opioids and benzodiazepines
Those injecting opioids
Those exposed to high potency opioids (fentanyl, W-18)
Those with low levels of physical tolerance (new initiates) who take opioids
Those with sleep-disordered breathing (e.g. obstructive sleep apnea) who take opioids
Those who drink alcohol and take opioids

Tactic 2.a: Accelerate opioid overdose survivors' entry into opioid agonist treatment.

Method 2.a: Among survivors of opioid-related, non-fatal overdoses who meet criteria for opioid use disorder, facilitate urgent entry into the most effective forms of treatment, buprenorphine or methadone, via Emergency Departments.

CORE Metric:

- Proportion of individuals who are receiving treatment with methadone or buprenorphine within 5 days after an opioid-related non-fatal overdose that results in an Emergency Department visit.

Tactic 2.b.: Naloxone distribution to high-risk individuals

Method 2.b.: In addition to current efforts to provide naloxone via first responders, syringe service programs, families, and friends, ensure that individuals with opioid use disorder leaving settings or treatments that have resulted in lowered opioid tolerance receive overdose education and naloxone distribution (OEND). This includes treatment programs that taper medications (detoxification), residential programs that do not provide or allow methadone or buprenorphine, and incarceration settings that do not provide methadone or buprenorphine. In addition, promote provision of OEND to individuals who are prescribed greater than 90 milligrams morphine equivalents (MME) or who are taking opioids and benzodiazepines (via co-prescription or co-use).

CORE Metrics

- Proportion of individuals with opioid use disorder who receive OEND at release from detoxification
- Proportion of individuals with opioid use disorder who receive OEND at release from residential treatment programs that have not provided or allowed opioid agonist treatments
- Proportion of individuals with opioid use disorder who receive OEND at release from incarceration settings
- Proportion of individuals who receive OEND among those prescribed greater than 90 MME
- Proportion of individuals who receive OEND among those prescribed opioids and benzodiazepines within 30 days of each other

Tactic 2.c: Reducing receipt of opioid analgesic doses greater than 90 MME at the same time preserving patient function

Method 2.c: Identify prescribers who are providing opioid prescriptions greater than 90 MME, a dose associated with increased risk of overdose and death. Target education and implementation efforts for effective strategies for reducing MME below 90 MME while preserving patient function to practitioners who prescribe more than 90 MME.

CORE Metric:

- Number of individuals receiving greater than 90 MME in the CPMRS

Tactic 2.d: Decreasing opioid and benzodiazepine co-prescription and co-use

Method 2.d: Target education and implementation efforts to practitioners who co-prescribe opioids and benzodiazepines on risk and alternatives.

Work with opioid treatment programs that dispense methadone or buprenorphine to individuals prescribed or using benzodiazepines to address risk, and identify alternatives and strategies to taper benzodiazepines, when appropriate, in these indi-

viduals. Work with buprenorphine prescribers who have patients prescribed or using benzodiazepines to provide education on this risk, alternatives and strategies to taper benzodiazepines in these individuals. Educate these providers regarding current guidelines addressing ongoing co-use of buprenorphine and benzodiazepines and how this may be a contraindication for office-based treatment with buprenorphine depending on the level of resources, prescriber training and experience.[53]

CORE Metrics:

- Number of individuals prescribed opioids and benzodiazepines within 30 days of each other in CPMRS
- Number of individuals concurrently receiving methadone and prescribed benzodiazepines
- Number of individuals concurrently prescribed buprenorphine and benzodiazepines in CPMRS

STRATEGY 3

Increase adherence to opioid prescribing guidelines among providers, especially those providing prescriptions associated with an increased risk of overdose and death

Rationale 3: Opioid prescribing guidelines from the Centers for Disease Control and Prevention, the American Pain Society, the American Academy of Pain Medicine, the Department of Veterans Affairs and others have been developed based on review of the evidence regarding the safety and efficacy of opioids for acute and chronic pain conditions.[2,4] Adherence to selected guidelines has been shown to correlate with lower mortality. Increased adherence to prescribing guidelines should result in decreased supply of opioids available for diversion and lower mortality. Methods 2.c. and 2.d address the risks associated with specific prescribing patterns (high-dose opioids, opioid and benzodiazepine co-prescribing). The use of prescription monitoring programs such as the CPMRS is associated with decreased opioid overdose deaths[40] yet only 25% of Connecticut prescribers use the CPMRS.

Tactic 3.a: Increase use of non-opioid, multi-modal treatments for acute and chronic pain

Method 3.a: Provide patient and provider education on the role of non-opioid, multi-modal treatments for acute and chronic pain.

CORE Metric:

- Number of individuals receiving non-opioid, multi-modal treatments for acute and chronic pain

Tactic 3.b: Increase the use of prescription monitoring plan

Method 3.b: Support educational and technological solutions to improve access to the CPMRS system.

CORE Metrics:

- Proportion of prescribers using the CPMRS
- Proportion of individuals with receipt of opioids or benzodiazepines in CPMRS in the 6 months prior to and following a non-fatal opioid-related overdose event that result in an Emergency Department visit
- Proportion of decedents from opioid-related overdose decedents who received opioids or benzodiazepines in the 6 months prior to death, per CPMRS

STRATEGY 4

Increase access to and track use of naloxone

Rationale 4: Naloxone is a safe and effective medication that can decrease opioid overdose morbidity and mortality.[54,55] Efforts in the state have facilitated increased use however, unified methods to track its use are lacking.

Tactic 4.a: Increase naloxone distribution to high-risk individuals

Method 4.a: There are a number ways to expand distribution to those at highest risk (see Method 2.b)—through first responders, through harm reduction programs, through pharmacies, at Emergency Departments for patients presenting with an overdose or opioid use disorder, primary care offices, at OTPs, especially those that provide detoxification and dosage tapering, at release from incarceration, through buprenorphine prescribers, and to patients prescribed opioid doses greater than 90 MME or opioids along with benzodiazepines.

CORE Metrics:

- Number of pharmacists receiving training to dispense naloxone
- Number and spatial distribution of pharmacies with a pharmacist trained to dispense naloxone
- Pharmacy sales of naloxone resulting from prescriptions written by certified pharmacists

- Pharmacy sales of naloxone resulting from prescriptions written by prescribers other than certified pharmacists
- Number of naloxone preparations distributed by SSPs and others

Tactic 4.b: Monitor the use of naloxone in response to witnessed opioid overdose events

Method 4.b: Implement unified reporting mechanism for naloxone use

CORE Metrics:

- Number of overdose reversals reported to SSPs and other harm reduction service providers
- Number of overdose reversals reported by emergency medical services/ambulances
- Number of overdose reversals reported by state troopers
- Number of overdose reversal reported by local police and fire departments
- Number of naloxone administration at Emergency Department, not including that given as a second dose following its administration by a first responder

Tactic 4.c: Ensure affordable access to naloxone

Method 4.c: Support efforts by purchasers and the Attorney General's office to ensure that those at highest risk of an opioid overdose continue to receive and be in possession of naloxone.

CORE Metric:

- The price of the different formulations of naloxone and the amount of each being distributed within the state

STRATEGY 5

Increase data sharing across relevant agencies and organizations to monitor and facilitate responses, including rapid responses to "outbreaks" of overdoses and other opioid-related (e.g. HIV or HCV) events.

Rationale 5: A coordinated response to a public health crisis is aided by rapid access to current data. Some states have created a process for data sharing and analysis that addresses legal and confidentiality concerns and informs efforts related to the opioid addiction and overdose.[56]

Tactic 5.a: Create memorandums of understanding across relevant agencies to allow for data sharing and protection

Method 5.a: Support the use of key datasets from various stakeholders to answer key questions regarding opioid prescribing, non-fatal and fatal overdoses, and treatment of opioid use disorder.

CORE Metrics:

- Number of memorandums of understandings completed
- Number or programmatic or policy changes resulting from analyses of linked data sets
- Number of outbreak detection events resulting from analyses of linked data sets

STRATEGY 6

Increase community understanding of the scale of opioid use disorder, the nature of the disorder, and the most effective and evidence-based responses to promote treatment uptake and decrease stigma.

Rationale 6: Misunderstandings and misperceptions regarding the causes, manifestations, and effective treatments for opioid use disorder and its co-occurring conditions result in stigma and missed opportunities for treatment.

Tactic 6.a: Increase educational efforts regarding opioid use disorder

Method 6.a: Work with media outlets to increase the dissemination of accurate, evidence-based and non-stigmatizing information on the causes, manifestations, and treatments pertaining to opioid use disorder

CORE Metric:

- Number of informational contacts with members of the print, broadcast (radio and TV), and on-line media

Method 6.b: Work with healthcare personnel (physicians, nurses, social workers, nurse practitioners, physician assistants, dentists, podiatrists, pharmacists) to increase awareness of opioid use disorder and the resources available

CORE Metrics:

- Number of health care personnel receiving continuing education training in opioid use disorder
- Number of individuals seeking treatment for opioid use disorder

CORE Appendix

The following strategies are listed here to ensure that they continue to inform overarching and long-term efforts for the state. Each of these high-priority areas should receive serious consideration by stakeholders. These strategies are deemed important but either (1) have less supporting scientific evidence, (2) are less likely to have an immediate impact on overdose deaths, or (3) the magnitude of the impact on overdose deaths is expected to be less than other efforts.

1. **Efforts focused on prevention of initiation of non-medical use of prescription opioids or heroin to help stem the problem at its source.** There are few scientifically valid and proven programs that have focused on preventing prescription opioid and heroin initiation among youth. The limited reports of effective programs report modest short-term benefits[57] with reductions in opioid use noted at six to 14 years.[58] While some programs have evidence of cost-effectiveness, it is noted that there is a need for formal capacity-building prior to large-scale delivery to ensure high-quality implementation and avoid diminished effectiveness of these programs.[59]
2. **Programs designed to address opioid-affected families and the use of community reinforcement approaches.** Much of this work has been done in the field of alcohol with little research on benefits in families and communities impacted by opioids.[60-62] Nonetheless, the current burden of opioid use and opioid use disorder on families and communities mandates a concerted effort to provide compassionate and supportive services.
3. **Diverting individuals from the legal system to the health care and treatment system.** Some opioid use is illegal and the disease of opioid use disorder compels individuals to engage in illegal behavior. Programs designed to divert individuals with low level drug-related offenses away from the legal system to the health care system, such as the Law Enforcement Assisted Diversion (LEAD) program, show promise.[63]
4. **Creation of supervised or safe injection sites.** Some individuals with opioid use disorder who inject opioids do not derive benefit from treatment with methadone or buprenorphine. For these individuals, and those who are not ready to enter treatment, assuring safety and reducing potential harms may provide a pragmatic alternative to incarceration, forced withdrawal or ongoing behavior that places the individual or public at risk. It is in this context that supervised or safe injection environment interventions have been evaluated and shown to decrease overdose.[31,64-66]

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Department of Emergency Services and Public Protection
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Department of Social Services
Insurance Department
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Office of the Governor
Office of Policy and Management
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Expert advisors
Joshua M. Sharfstein, M.D.
Traci C. Green, Ph.D., M.Sc.
Josiah D. Rich, M.D., M.P.H.
Richard S. Schottenfeld, M.D.
Kathryn Hawk, M.D.
Scientific contributors
Lauretta E. Grau, Ph.D.
Russell C. Barbour, Ph.D.

Supplemental Data

Table 1s.
Opioid-related fatal overdose events by town/city in 2015, top 25th percentile

Ansonia	5	Naugatuck	8
Branford	5	Milford	9
Fairfield	5	Windham	9
Glastonbury	5	Norwich	10
Killingly	5	Stratford	10
Putnam	5	Norwalk	12
Seymour	5	Torrington	12
Shelton	5	Danbury	13
Vernon	5	Enfield	14
Wallingford	5	Middletown	14
Wethersfield	5	West Haven	14
Windsor Locks	5	Meriden	15
Griswold	6	Manchester	16
East Hartford	7	New London	16
New Milford	7	Bristol	18
Southington	7	Bridgeport	28
Stamford	7	New Britain	33
East Haven	8	New Haven	33
Groton	8	Waterbury	47
Hamden	8	Hartford	48

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