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On December 29, 2015, Rocky Mountain High Intensity Drug Trafficking Area (RMHIDTA) sponsored a meeting with representatives from the Colorado Department of Public Health and Environment (CDPHE), the Colorado Department of Human Services (CDHS), the Colorado Attorney General’s Office (COAG), the Colorado Drug Investigators Association (CDIA) and the Drug Enforcement Administration (DEA) to discuss assessing Colorado’s heroin problem. This group of partners formed the Heroin Response Work Group, comprising a Steering Committee and an Advisory Committee. The Steering Committee, consisting of leaders from RMHIDTA, DEA, CDPHE, DHS, COAG, the Colorado Consortium for Prescription Drug Abuse Prevention coordinator, and a representative from the recovery community gathered a multi-disciplinary group of subject matter experts to advise on various aspects of heroin use in Colorado. The Heroin Response Work Group became one of the working groups under the Colorado Consortium for Prescription Drug Abuse Prevention, a large coalition formed in 2013 to oversee implementation of the Colorado Plan to Reduce Prescription Drug Abuse. RMHIDTA, CDPHE, DEA, and the Colorado National Guard, Counter Drug Program all contributed staff to support the project.

The Heroin Response Work Group’s first phase was to assess the extent of the heroin problem in Colorado. If the assessment revealed significant heroin problems, then the Work Group committed to developing and implementing strategies to address the heroin problems affecting Colorado.

The five initial objectives of Phase 1 included:

1. Collect and analyze data from various data sources on the trends related to heroin availability and abuse in Colorado.
2. Gain a better understanding of heroin abuse in Colorado with information collected from individuals who have experienced heroin addiction.
3. Identify various practices and approaches to prevention, intervention and treatment.
4. Determine whether there is a need for an appropriate platform for information exchange between law enforcement, treatment and prevention partners.
5. Enhance the working relationship between law enforcement, treatment providers and public health practitioners to develop a mutual partnership.

This document includes an assessment of the heroin problem in Colorado and information from individuals who experience heroin addiction. The Heroin Response Work Group compiled the data in this report from the following agencies: RMHIDTA, DEA, CDPHE, CDHS, the Rocky Mountain Poison and Drug Center, and the El Paso Intelligence Center. All of these agencies reviewed drafts of the assessment and provided edits to ensure the accuracy of the data presented. Each data source has limitations and there are information gaps. A gap analysis and recommendations to improve data collection and reporting will be addressed in Phases II and III of this project.
In May 2016, the Heroin Response Work Group was officially established as part of the Colorado Consortium for Prescription Drug Abuse Prevention. The work group established a number of goals, including an assessment of the extent of the heroin problem in Colorado.

Numerous data sources indicate Colorado is experiencing an increasing problem with heroin. This is supported by data showing increased rates of heroin seizures and arrests, heroin overdoses, administration of naloxone, new cases of hepatitis C, neonatal abstinence syndrome (NAS), heroin exposure and treatment for heroin use.

Findings:

Section 1: Heroin Seizures and Arrests
- Reported heroin seizures in Colorado by law enforcement have increased from 2011 - 2015.
  - The number of incidents of heroin seizures increased 2,035 percent from 20 to 427 incidents.
  - Pounds of heroin seized increased 1,562 percent from 16.1 to 268.7 pounds.
- Reported arrests for heroin offenses in Colorado have increased by 515 percent from 743 in 2011 to 4,575 in 2015.

Section 2: Fatal and Non-Fatal Overdoses
- Heroin-related deaths among Colorado residents have doubled in four years.
  - 2011 – 79 deaths
  - 2015 – 160 deaths
- The age-adjusted rate of heroin-related overdose deaths increased by 93 percent from 2011-2015.
  - 2011 – 1.5 deaths per 100,000 Colorado residents
  - 2015 – 2.9 deaths per 100,000 Colorado residents
- The age-adjusted heroin-related hospitalization rate increased by 41 percent from 2011-2014.
  - 2011 – 2.07 hospitalizations per 100,000 residents
  - 2015 – 2.92 hospitalizations per 100,000 residents
- The age-adjusted rate of heroin-related emergency department visits has doubled from 2011 to 2014.
  - 2011 – 4.45 per 100,000
  - 2014 – 9.28 per 100,000

Section 3: Naloxone
- The documented use of naloxone by emergency medical services (EMS) in Colorado to treat suspected heroin overdoses has increased 240 percent from 2011 – 2015.
  - 2011 – 997 events
  - 2015 – 3,393 events

Heroin in Colorado
Section 4: Disease Transmission and Heroin Use
• Reported cases of hepatitis C virus (HCV) have increased, and most people become infected with the HCV by sharing needles or other equipment for injection drug use.
  • Although HCV surveillance systems do not directly measure acute cases attributed to injection drug use, potentially related new cases of hepatitis C have increased 80 percent from 2011 – 2015.
    • 2011 – 379 cases (7.4 cases per 100,000 population)
    • 2015 – 729 cases (13.4 cases per 100,000 population)

Section 5: Neonatal Abstinence Syndrome (NAS)
• Cases of neonatal abstinence syndrome in Colorado newborns have increased, while state birth rates have remained relatively stable. Neonatal abstinence syndrome can be caused when a newborn is exposed to opiate drugs in the womb.
  • From 2010 – 2015, NAS rates have increased by 83 percent
    • 2010 – 132 cases
    • 2015 – 242 cases

Section 6: Heroin Exposure Calls
• Calls to the Rocky Mountain Poison and Drug Center for heroin related exposures in Colorado have increased 60 percent from 2011 to 2015.
  • 2011 – 40 calls
  • 2015 – 64 calls

Section 7: Heroin Treatment Admissions and User Information
• The number of people in treatment for heroin addiction has increased 128 percent from 2,994 in 2011 to 6,815 in 2015.
• The majority of the clients in treatment for heroin use are white males between the ages of 18 and 42 who have never married and are unemployed.

Section 8: Denver Metro Treatment Client Survey
• The majority of survey clients were white, non-Hispanic between the ages of 25 and 34 with some college and who own or rent their own residence. The rates of male and female were fairly evenly distributed.
• The majority (70 percent) of survey respondents said prescription painkillers played a role in their decision to use heroin.
• Of the 61 percent who said they had experienced a heroin overdose, the median number of overdose experiences was three.
Section 1: Heroin Seizure and Arrest Data

Heroin Seizure and Arrest Data

In the law enforcement community, intelligence indicating an emerging threat is often compared with data to help assess the validity of the information. In the case of heroin in Colorado, the intelligence indicates an emerging trend which is supported by the increases in heroin seizures and arrests for heroin offenses.

The El Paso Intelligence Center (EPIC) tracks data related to drug seizures as reported by law enforcement (local, state and federal). The database is known as the National Seizure System (NSS). This is not a mandatory reporting process for all law enforcement agencies and not all Colorado agencies report drugs seized to EPIC’s NSS:

Figure 1.1 Number of Heroin Seizure Incidents Reported in Colorado

Findings

• Heroin Seizures – Reported heroin seizures in Colorado by law enforcement have increased from 2011–2015.
  • The number of incidents of heroin seizures increased 2,035 percent from 20 to 427 incidents.
  • Pounds of heroin seized increased 1,562 percent from 16.17 to 268.7 pounds.
  • RMHIDTA drug task forces in Colorado heroin seizures increased 477 percent from 19.5 to 112.6 pounds.
• Reported arrests for heroin offenses in Colorado have increased by 515 percent from 743 in 2011 to 4,575 in 2015.
In Colorado, RMHIDTA supports and funds eleven drug task forces in the more populated counties and the Colorado State Patrol criminal interdiction efforts. These initiatives are comprised of local, state and federal law enforcement personnel. The mission of the task forces is to identify significant drug trafficking organizations (DTOs) operating in the state, investigate them and subsequently disrupt or dismantle their ability to traffic drugs. The task force seizure data represents 100 percent reporting for each calendar year.

There was a 477 percent increase in reported pounds of heroin seized from 2011 to 2015.

The yearly average price per gram for heroin in Denver decreased from 2012 to 2015. This is usually indicative of a greater supply in the market. It is important to note that these prices are based on a pure milligram of heroin purchased in Denver through the DEA Domestic Monitoring Program. Heroin street sales in Colorado cost less and usually under $100 per gram.
Heroin Seizure and Arrest Data

Figure 1.5  The Average Heroin Purity Levels in Denver

The average heroin purity levels in Denver decreased from 31.9 percent in 2012 to 17.1 percent in 2015. This may be attributed to dealers adding diluents to the heroin, thus increasing the volume and maximizing profits.

Source: DEA/Heroin Domestic Monitoring Program (2011-2015)

Figure 1.6  Arrests for Heroin - Colorado

There was a 515 percent increase in arrests for heroin from 2011 to 2015.

Source: Colorado Bureau of Investigation

There was a 515 percent increase in arrests for heroin from 2011 to 2015.
Findings

- Heroin-related deaths among Colorado residents have doubled in four years.
  - 2011 – 79 deaths
  - 2015 – 160 deaths
- The age-adjusted rate of heroin-related overdose deaths has doubled in four years.
  - 2011 – 1.5 deaths per 100,000 Colorado residents
  - 2015 – 2.9 deaths per 100,000 Colorado residents
- The age-adjusted heroin-related hospitalization rate increased by 41 percent.
  - 2011 – 2.07 hospitalizations per 100,000 residents
  - 2015 – 2.92 hospitalizations per 100,000 residents.
- The rate of heroin-related emergency department visits has doubled from 2011 to 2014.
  - 2011 – 4.45 per 100,000
  - 2014 – 9.28 per 100,000
- Colorado’s heroin death rates are lower than national rates.
  - National – Age-adjusted rate in 2015: 4.1 per 100,000
  - Colorado – Age-adjusted rate in 2015: 2.9 per 100,000

Heroin Fatal & Non-Fatal Overdoses

Opioid use disorders have become a significant public health concern nationally and in Colorado. Drug overdoses are a leading cause of injury death in Colorado. The Colorado Department of Public Health and Environment (CDPHE) monitors the severity of Colorado’s drug overdose epidemic using a variety of available data, including mortality data from death certificates and non-fatal data from hospital discharges and emergency department discharges. While each of these data sources provide valuable information, they also have limitations. For example, reporting bias limits the analysis of death certificate data. CDPHE does not have access to the toxicology reports on deaths and cannot determine whether the drugs that were not indicated on the certificate represent negative test results or whether the drug was not part of the testing. However, compared to earlier years, more drug overdose death certificates for 2011-2015 include specific drug results, which suggests that the data quality is improving. Similarly, hospitalization and emergency department data comes from medical billing codes, which vary in their completeness and can limit CDPHE’s availability to ascertain the specific drug or drugs that are associated with a non-fatal overdose. The required billing codes for hospitalization and emergency department visits changed in 2015, so the non-fatal heroin overdoses from these sources are limited to 2011 through 2014 and represent health care encounters, not individuals.

This section of the report includes rates of fatal and non-fatal overdoses. Rates are calculated by dividing the number of overdoses that occur in specified period of time by the average population (e.g., the population of Colorado residents or the population of nation as a whole). After a rate is calculated, it is often multiplied by 100,000, so that it is easy to determine how many events happen per 100,000 people in the population. The rates reported in this section are age-adjusted, which means that they allow communities with different age distributions to be compared. For example, if Colorado has a slightly younger population than the nation as a whole, it is important to statistically adjust for the age difference to accurately compare Colorado’s rates to national rates.
Heroin Overdose Deaths in Colorado

From 2000-2015, there were 10,552 drug overdose deaths among Colorado residents with age-adjusted rates rising almost every year. In nearly every year, Colorado’s rate of drug overdose was significantly higher than the national rate. Opioid-related overdoses, which comprise a significant proportion of total drug overdose deaths, tripled over the 15-year time period in Colorado. Heroin-related overdose deaths are a subset of total drug poisoning deaths; although these rates in Colorado have tripled from 2010-2015, there are signs to suggest that heroin overdose death rates have since stabilized. The 2014 and 2015 rates were not significantly different from one another.

Figure 2.1 Age-adjusted Rates for Drug Overdose Deaths in Colorado and in the US, 2000-2015

![Graph showing age-adjusted rates for drug overdose deaths in Colorado and the US from 2000 to 2015. The graph displays the trend of overdose rates in Colorado compared to the US, with Colorado consistently having higher rates.]

Source: Colorado Department of Public Health and Environment (CDPHE)

Figure 2.2 Number of Heroin Overdose Deaths in Colorado, 2000-2015

![Bar chart showing the number of heroin overdose deaths in Colorado from 2000 to 2015. The chart displays a steady increase in the number of deaths each year, with a peak in 2015.]

Source: Colorado Department of Public Health and Environment (CDPHE)
Heroin Fatal & Non-Fatal Overdoses

Figure 2.3 Age-Adjusted Heroin-Related Overdose Death Rates in Colorado, 2000-2015

The highest rates of heroin-related death occurred in urban regions of the state, as defined by the Colorado Health Statistics Regions. Pueblo County had the highest age-adjusted rate of heroin-related overdose in 2013-2015 (8.7 deaths per 100,000 residents), which was over three times the state rate. Denver County and the southeast corner of the state had a rate that was higher compared to the rest of state rate.

Figure 2.4 Colorado Heroin Use by County

Source: Colorado Department of Public Health and Environment (CDPHE)
Non-Fatal Heroin-Related Overdoses in Colorado

Not all heroin overdoses result in death. Between 2011-2014, there were 1,430 emergency department visits related to heroin overdose in Colorado where a Colorado resident was treated and discharged and an additional 541 hospitalizations related to heroin overdose. The rate of emergency visits and hospitalizations related to heroin overdose increased almost every year during this period. Specifically, the age-adjusted rate of heroin-related hospitalizations rate increased by 41 percent from 2011-2014, going from 2.07 hospitalizations per 100,000 residents in 2011 to 2.92 hospitalizations per 100,000 residents in 2014. Emergency department visits doubled in the same time frame. In 2014, there were 494 emergency department visits statewide among Colorado residents, or 9.28 visits per 100,000 residents.

Figure 2.5 Heroin-Related Hospitalizations & Emergency Department Visits in Colorado

Source: Colorado Department of Public Health and Environment (CDPHE)
Naloxone Use

Naloxone, commonly known under its trade name “Narcan,” is a medication called an “opioid antagonist” used to rapidly counter the effects of opioid overdose, including a heroin overdose. Specifically, naloxone is used in opioid overdoses to counteract life-threatening depression of the central nervous system and respiratory system, allowing an overdose victim to breathe normally. Naloxone is a nonscheduled (i.e., non-addictive) prescription medication that only works if a person has opioids in their system, but does no harm if a person does not. Although traditionally administered by emergency response personnel, naloxone can be administered by minimally trained laypeople, which makes it ideal for treating prescription opioid and heroin overdose. Naloxone has no potential for abuse. It may be injected in the muscle, vein or under the skin or sprayed into the nose. It wears off in 30-90 minutes.5

Since most overdoses are witnessed and happen over hours, it is essential that drug users have access to this lifesaving medication. In Colorado, drug users have had access to naloxone since 2012. In 2013, Colorado SB 13-014 was passed to allow third parties to access naloxone such as mothers, homeless service providers, roommates, and law enforcement. In 2015, SB 15-053 passed, allowing pharmacies and harm reduction organizations to dispense naloxone without a physician present, allowing for naloxone access for opioid users and third parties. As a result of the new law, the chief medical officer of the Colorado Department of Public Health and Environment (CDPHE) may issue standing orders for naloxone to be dispensed by pharmacies and harm reduction organization employees and volunteers to help expand statewide naloxone access to those who need it most. As of November 2016, over 250 pharmacies, 93 law enforcement agencies, and four county jails are carrying naloxone.

Findings

• From 2012 – 2016, the Harm Reduction Action Center, Colorado’s largest public health agency that works specifically with people who inject drugs, trained more than 1100 drug users with 461 lives saved.

• The documented use of naloxone by emergency medical services (EMS) personnel in Colorado to treat suspected heroin overdoses has increased 240 percent from 997 events in 2011 to 3,393 events in 2015.
There has been a 240 percent increase in the use of Naloxone from 2011-2015. Some of this increase reflects the increased availability of Naloxone, in addition to the increase in incidence of overdose cases.
Disease Transmission and Heroin Use

Injection drug use (IDU) is associated with high risk of bloodborne infections, including human immunodeficiency virus (HIV), hepatitis B virus (HBV), and hepatitis C virus (HCV). Each of these viruses can be transmitted by sharing needles, syringes, or other drug injection equipment (such as cookers, rinse water, cotton) that were used by a person who is currently infected. Although curative treatment is available for HCV and effective suppressive therapy is available for HBV and HIV, each can cause fatal disease.

Based on a study of people who inject drugs in the Denver metro area, the majority reported using non-sterile injection materials. However, the proportion of people who inject drugs who reported sharing a needle or syringe declined from 40.9 percent in 2009 to 35.5 percent in 2012, indicating syringe exchange programs appear to be having a positive impact on the availability of sterile needles. Onward transmission of bloodborne infections to others is common through shared injection drug use equipment, especially for HCV, which is highly infectious and can sometimes persist for weeks in a syringe. Currently, most new HCV infections are caused by sharing needles or other equipment for injection drug use. Among drugs used in Colorado, heroin is the drug most predominantly injected.

In this context, Colorado is vulnerable to outbreaks of bloodborne disease driven by injection drug use. Outbreaks have been previously documented in other states, most dramatically in Indiana where an explosive co-outbreak of HIV and HCV driven by injection drug use occurred in 2015. In June of 2016, the Centers for Disease Control and Prevention (CDC) concluded that “Colorado is at risk for an increase in viral hepatitis or HIV infections due to injection drug use,” based on a CDPHE assessment of nine variables related to substance abuse and injection drug use. This type of analysis, using variables in lieu of direct measurement of injection drug use-driven transmission of disease, is necessary because public health surveillance systems are not fully funded to monitor new HCV infections related to unsafe injection practices. Eight counties have established a legal basis for syringe access based on Colorado state law (CRS 25-1-520). Currently, seven counties have operational points of service, with ten total access points. However, with very limited resources available, none of these sites fully met the criteria for comprehensive syringe services programs as defined by CDC.

Findings

- HCV: In the absence of direct measurement of new HCV infections related to unsafe injection practices, proxy measures can be used, such as acute HCV cases and newly diagnosed chronic HCV cases among persons 15-29 years of age. The rate of reported cases in these categories have increased 80 percent in Colorado from 2011 – 2015:
  - 2011: 379 cases (7.4 cases per 100,000 population)
  - 2015: 729 cases (13.4 cases per 100,000 population)
Disease Transmission and Heroin Use

Figure 4.1 HCV Cases in Colorado: Acute and Newly Reported Chronic Cases Among Persons 15-29 Years of Age

Source: Colorado Department of Public Health and Environment (CDPHE)

Figure 4.2 Rates of Hepatitis C in Colorado Counties

Source: Colorado Department of Public Health and Environment (CDPHE)
Rates of newly diagnosed HIV cases in Colorado remained fairly stable from 2011 – 2015. The average yearly rate for new cases is 365 persons per year. In approximately 60 percent of all new cases, male-to-male sexual contact was the leading cause of new exposures. Injection drug use has historically accounted for a small percentage of new diagnoses, averaging 3.5 percent between 2011 and 2015.

***Preliminary data November, 2016; projected changes between 2015 and 2016 are not statistically significant.

Source: Colorado Department of Public Health and Environment (CDPHE)
Section 5: Neonatal Abstinence Syndrome

Neonatal Abstinence Syndrome

The U.S. National Library of Medicine defines Neonatal Abstinence Syndrome (NAS) as, “...a group of problems that occur in a newborn who was exposed to addictive opiate drugs while in the mother’s womb.” This includes drugs from both the opiate and opioid families. NAS is often caused by a woman taking prescription opioids in pregnancy, but using heroin, methadone or buprenorphine during pregnancy can also cause NAS. As the mother continues to use these drugs during pregnancy, the unborn child is at risk of developing a drug dependency. Among infants exposed to opiate or opioids in utero, 55-94 percent will exhibit signs of withdrawal, according to a literature review by the American Academy of Pediatrics. Withdrawal symptoms often include tremors, high-pitched crying, temperature instability, and gastrointestinal tract dysfunction exhibited by poor feeding, loose stools, vomiting, dehydration or poor weight gain. Symptoms commonly occur within 2-3 days after birth. Withdrawal symptoms also may occur in babies exposed to alcohol, benzodiazepines, barbiturates, and certain antidepressants. Data on long-term developmental outcomes related to NAS are limited.

Findings

- Identified cases of infants born with neonatal abstinence syndrome (NAS) in Colorado have increased, while Colorado birth rates have remained relatively stable.
- From 2010 – 2015, cases of NAS births have increased by 83 percent.
  - 2010 – 132 cases
  - 2015 – 242 cases
- From 2010 – 2015, NAS rates in newborns addicted to opiate drugs have increased 80 percent.
  - 2010 – 2.0 per 1,000 births
  - 2015 – 3.6 per 1,000 births

The NAS data presented in this section uses hospital discharge coding based on the International Classification of Diseases-9. It is not possible to determine from these codes what caused the NAS for these infants. Therefore, the cases of NAS reported here likely were caused by a variety of different drugs, including, but not limited to heroin.
Neonatal Abstinence Syndrome (NAS)

Figure 5.1 Colorado NAS Cases

Data from the Colorado Department of Public Health and Environment indicates that there was an 83 percent increase in NAS cases among Colorado infants from 2010 – 2015.

Source: Colorado Department of Public Health and Environment (CDPHE)

Figure 5.2 Colorado NAS Rates

Similarly, although Colorado recorded birth rates remained relatively stable from 2011–2015, the rates of NAS, which take into account changes in birth rates, increased 80 percent during this time period. This indicates that the increase in NAS in Colorado is not due to more infants being born in Colorado.

Source: Colorado Department of Public Health and Environment (CDPHE)
Heroin Exposure Calls

The Rocky Mountain Poison and Drug Center (RMPDC) is part of the national network for the American Association of Poison Control Centers (AAPCC). They are responsible for a wide variety of public health projects and services aimed at reducing the incidence of toxicity, disease and injury. The RMPDC collects data on callers reporting incidents of “exposures” and requests for information on various drugs, to include illicit drugs such as heroin.

The AAPCC defines an “exposure” as an incident where there is actual or suspected contact (e.g., ingestion, inhalation, absorption, etc.) reported with a particular substance. By contrast, an “information” case is when a caller contacts the poison center with questions about a particular substance, but does not indicate exposure.

Findings

- Exposure to heroin calls increased 60 percent in Colorado from 2011 to 2015.

Figure 6.1 Heroin Exposure Calls - Colorado

Source: Rocky Mountain Poison and Drug Center (RMPDC)
Heroin Exposure Calls

The number of calls related to heroin exposures in Colorado has increased 60 percent. Nationally for the same period, calls increased 81 percent.
Section 7: Heroin Treatment Admissions and User Information

The data in this section comes from the Colorado Department of Human Services, Office of Behavioral Health. The Drug and Alcohol Coordinated Data System (DACODS) provides information on substance abuse treatment admissions in Colorado.

Findings
- There was a 127 percent increase in treatment admissions for heroin use from 2011 (2,994 admissions) to 2015 (6,815 admissions).
- The majority of the clients in treatment for heroin use are white males between the ages of 18 through 44 who have never married and are unemployed.

Figure 7.1 Heroin Treatment Admissions*

*Clients who identified heroin as their primary, secondary, or tertiary drug of use on their admissions DACODS.

SOURCE: Colorado Department of Human Services, Office of Behavioral Health, DACODS

Characteristics of Heroin Treatment Admission Clients: 2011 and 2015

Figure 7.2 Gender

SOURCE: Colorado Department of Human Services, Office of Behavioral Health, DACODS
Figure 7.3 Age

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percent of All Admissions</th>
<th>2011 n = 2,225</th>
<th>2015 n = 5,063</th>
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<tbody>
<tr>
<td>17 or Under</td>
<td>2%</td>
<td></td>
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<tr>
<td>18-24</td>
<td>1%</td>
<td></td>
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<td>25-34</td>
<td>31%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35-44</td>
<td>37%</td>
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<td>45-54</td>
<td>16%</td>
<td></td>
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</tr>
<tr>
<td>55-64</td>
<td>14%</td>
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<td></td>
</tr>
<tr>
<td>65 +</td>
<td>9%</td>
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</tr>
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</table>

SOURCE: Colorado Department of Human Services, Office of Behavioral Health, DACODS

Figure 7.4 Race

<table>
<thead>
<tr>
<th>Race</th>
<th>Percent of All Admissions</th>
<th>2011 n = 2,968</th>
<th>2015 n = 5,593</th>
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<tbody>
<tr>
<td>White</td>
<td>77.9%</td>
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<tr>
<td>Black</td>
<td>2.7%</td>
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</tr>
<tr>
<td>Hispanic/Latin</td>
<td>16.4%</td>
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<td></td>
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<tr>
<td>Other</td>
<td>3.1%</td>
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SOURCE: Colorado Department of Human Services, Office of Behavioral Health, DACODS
Figure 7.5 Marital Status

<table>
<thead>
<tr>
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<td>Never Married</td>
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<td>Married</td>
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<tr>
<td>Widowed/Widower</td>
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<td>2.0%</td>
</tr>
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<td>Separated</td>
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<td>4.7%</td>
</tr>
<tr>
<td>Divorced</td>
<td>12.8%</td>
<td>11.0%</td>
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</table>

2011: n = 2,994
2015: n = 6,815

SOURCE: Colorado Department of Human Services, Office of Behavioral Health, DACODS

Figure 7.6 Military Status

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Non-Veteran</td>
<td>96.2%</td>
<td>97.1%</td>
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<tr>
<td>Veteran</td>
<td>3.8%</td>
<td>2.9%</td>
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</table>

2011: n = 2,994
2015: n = 6,815

SOURCE: Colorado Department of Human Services, Office of Behavioral Health, DACODS
Figure 7.7 Primary Source of Income

<table>
<thead>
<tr>
<th>Source of Income</th>
<th>2011</th>
<th>2015</th>
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<tbody>
<tr>
<td>Wages</td>
<td>39.9%</td>
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<tr>
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</tr>
<tr>
<td>Other</td>
<td>4.6%</td>
<td>20.2%</td>
</tr>
<tr>
<td>None</td>
<td>28.3%</td>
<td>16.3%</td>
</tr>
</tbody>
</table>

SOURCE: Colorado Department of Human Services, Office of Behavioral Health, DACODS

Figure 7.8 Employment Status

<table>
<thead>
<tr>
<th>Employment Status</th>
<th>2011</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-Time Employed</td>
<td>18.5%</td>
<td>18.3%</td>
</tr>
<tr>
<td>Part-Time Employed</td>
<td>11.2%</td>
<td>8.8%</td>
</tr>
<tr>
<td>Not Employed</td>
<td>55.4%</td>
<td>56.9%</td>
</tr>
<tr>
<td>Diabled</td>
<td>7.5%</td>
<td>5.7%</td>
</tr>
<tr>
<td>Inmate</td>
<td>4.5%</td>
<td>1.7%</td>
</tr>
<tr>
<td>Other</td>
<td>6.9%</td>
<td>4.6%</td>
</tr>
</tbody>
</table>

SOURCE: Colorado Department of Human Services, Office of Behavioral Health, DACODS
Heroin Treatment Admissions and User Information

Figure 7.9 History of Mental Health Problems

![Bar chart showing the percentage of all admissions for history of mental health problems by year and category.](chart1)

- **No**: 45.0% (2011), 39.0% (2015)
- **Yes**: 35.3% (2011), 48.4% (2015)
- **Missing**: 16.0% (2011), 16.3% (2015)

SOURCE: Colorado Department of Human Services, Office of Behavioral Health, DACODS

Figure 7.10 Source of Illicit Drugs

![Bar chart showing the percentage of all admissions by source of illicit drugs.](chart2)

- **Stranger**: 40.2% (2011), 34.3% (2015)
- **Friends**: 36.9% (2011), 33.3% (2015)
- **Family**: 3.1% (2011), 2.7% (2015)
- **Other***: 22.4% (2011), 27.1% (2015)

*Includes school, internet, refused and unknown

SOURCE: Colorado Department of Human Services, Office of Behavioral Health, DACODS

---

Heroin in Colorado
Heroin Treatment Admissions and User Information

Figure 7.11 Referrals to Treatment

<table>
<thead>
<tr>
<th>Year</th>
<th>Heroin Treatment Admissions</th>
<th>Voluntary</th>
<th>Criminal Justice</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>2,225</td>
<td>74%</td>
<td>26%</td>
</tr>
<tr>
<td>2015</td>
<td>5,063</td>
<td>66%</td>
<td>34%</td>
</tr>
</tbody>
</table>

SOURCE: Colorado Department of Human Services, Office of Behavioral Health, DACODS

Table 7.1 User Characteristics for Clients in Treatment in 2015 n=6,815

<table>
<thead>
<tr>
<th>Heroin User</th>
<th>Prescription Opioid User</th>
<th>All Treatment Admissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ages</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 – 24</td>
<td>35%</td>
<td>19.3%</td>
</tr>
<tr>
<td>25 – 34</td>
<td>42%</td>
<td>42.9%</td>
</tr>
<tr>
<td>35 – 44</td>
<td>14%</td>
<td>21.8%</td>
</tr>
<tr>
<td>White</td>
<td>76.1%</td>
<td>77.8%</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>11.8%</td>
<td>21.2%</td>
</tr>
<tr>
<td>Never Married</td>
<td>70.4%</td>
<td>53.9%</td>
</tr>
<tr>
<td>Employment Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fulltime Employee</td>
<td>18.3%</td>
<td>23.8%</td>
</tr>
<tr>
<td>Unemployed</td>
<td>56.9%</td>
<td>47.5%</td>
</tr>
<tr>
<td>History of Mental Health Problems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problems</td>
<td>48.4%</td>
<td>51.3%</td>
</tr>
<tr>
<td>Source of Drugs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>From Friend</td>
<td>33.3%</td>
<td>28%</td>
</tr>
<tr>
<td>From Strangers</td>
<td>36.9%</td>
<td>24.8%</td>
</tr>
</tbody>
</table>

SOURCE: Colorado Department of Human Services, Office of Behavioral Health, DACODS
Denver Metro Treatment Client Survey

*Learning more about heroin abuse from individuals who have experienced heroin addiction.*

An anonymous and voluntary survey was conducted in all nine of the Denver-Metro methadone clinics from October to November 2016. Five survey assistants were trained in survey ethics and equipped with laptops to administer the survey. Surveying occurred weekdays between 5 a.m. and 1 p.m. A total of 699 survey responses were collected.

In addition to the nine methadone clinics, one treatment clinic with both inpatient/outpatient and transitional living services, participated. For these sites, clinic staff was trained on survey content, informed consent and voluntary participation. A total of 14 responses were collected during the survey period.

**Purpose of the Survey**

- Gather demographic information on respondents
- Learn about heroin use behaviors
- Understand the introduction and transition to heroin use
- Learn about the transition to injection drug use
- Identify perceived gaps and ways to improve prevention and treatment
- Gauge awareness of Colorado’s Good Samaritan Law
- Gather information on overdose experiences

**Survey Categories**

The survey was organized into 11 content areas:

1. Demographic Information
2. Current/Former Heroin Use
3. Role of Prescription Pain Killers in Heroin Use
4. Heroin: First Time
5. Heroin: Injection
6. Drug Use Behaviors
7. Overdose Behaviors
8. Abstinence
9. Preventing Heroin Use
10. Suggestions to Improve Treatment Effectiveness
11. How to Help Those Already Addicted

The following subsections are organized by these categories and further organized by survey
The following subsections are organized by these categories and further organized by survey question. Not all 713 survey respondents answered each question. The total number of respondents for each question (N) will be included with each corresponding figure and table. Percentages were calculated by total responses per question, unless otherwise specified. A full copy of the survey may be found in Appendix A.

**Demographic Information**

The table below (Table 8.1) shows the demographic characteristics of survey respondents along with the missing number of responses per question.

**Findings**

Respondents were between 19 – 75 years old, with a median age of 35 years old. Survey respondents were predominantly White/Non-Hispanic, and evenly distributed between males and females (55.1 percent and 44.3 percent respectively). Almost half of the respondents (46.5 percent) had one to three years of college experience, and more than half (62.3 percent) rented or owned their own residence. Of those who responded, 38.7 percent never married, 37 percent were employed, and 48 percent had a household income of less than $25,000.
### Table 8.1
Demographic characteristics of survey respondents, Heroin Strategies Survey – Denver-Metro Methadone Clinics, 2016 (N = 713)

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
</tr>
<tr>
<td>Median Age</td>
<td>35</td>
</tr>
<tr>
<td>Mean Age</td>
<td>39</td>
</tr>
<tr>
<td><strong>Age Groups</strong></td>
<td></td>
</tr>
<tr>
<td>18 – 25</td>
<td>8.0%</td>
</tr>
<tr>
<td>25 – 34</td>
<td>33.9%</td>
</tr>
<tr>
<td>35 – 44</td>
<td>21.6%</td>
</tr>
<tr>
<td>45 – 54</td>
<td>10.0%</td>
</tr>
<tr>
<td>55+</td>
<td>14.9%</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>146 (22.0%)</td>
</tr>
<tr>
<td>Non – Hispanic/Latino</td>
<td>518 (78.0%)</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>513 (79.4%)</td>
</tr>
<tr>
<td>Black/African-American</td>
<td>28 (4.3%)</td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>17 (2.5%)</td>
</tr>
<tr>
<td>Asian</td>
<td>1 (0.15%)</td>
</tr>
<tr>
<td>Native Hawaiian or Pacific Islander</td>
<td>2 (0.31%)</td>
</tr>
<tr>
<td>Other</td>
<td>85 (13.2%)</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
</tr>
<tr>
<td>Never married</td>
<td>258 (38.7%)</td>
</tr>
<tr>
<td>Married</td>
<td>144 (21.6%)</td>
</tr>
<tr>
<td>Divorced</td>
<td>103 (15.5%)</td>
</tr>
<tr>
<td>A member of an unmarried couple</td>
<td>86 (12.9%)</td>
</tr>
<tr>
<td>Separated</td>
<td>41 (6.2%)</td>
</tr>
<tr>
<td>Widowed</td>
<td>34 (5.1%)</td>
</tr>
</tbody>
</table>
Table 8.1 Continued

<table>
<thead>
<tr>
<th>Highest Education</th>
<th>Frequency (n (%))</th>
</tr>
</thead>
<tbody>
<tr>
<td>College 1 to 3 years</td>
<td>311 (46.5%)</td>
</tr>
<tr>
<td>12+ Grade/GED</td>
<td>205 (30.6%)</td>
</tr>
<tr>
<td>College 4 years or more</td>
<td>83 (12.4%)</td>
</tr>
<tr>
<td>&lt;12+ grade</td>
<td>70 (10.5%)</td>
</tr>
<tr>
<td>Missing = 44 (6.2%)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current Living Situation</th>
<th>Frequency (n (%))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rent/own residence</td>
<td>417 (62.3%)</td>
</tr>
<tr>
<td>Parent’s house</td>
<td>109 (16.3%)</td>
</tr>
<tr>
<td>Homeless, no permanent residence</td>
<td>49 (7.3%)</td>
</tr>
<tr>
<td>Living with friends</td>
<td>42 (6.3%)</td>
</tr>
<tr>
<td>Other</td>
<td>52 (7.8%)</td>
</tr>
<tr>
<td>Missing = 44 (6.2%)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current Employment Situation</th>
<th>Frequency (n (%))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed for wages</td>
<td>247 (37.0%)</td>
</tr>
<tr>
<td>Unable to work</td>
<td>103 (15.4%)</td>
</tr>
<tr>
<td>Self-employed</td>
<td>92 (13.8%)</td>
</tr>
<tr>
<td>Out of work for less than 1 year</td>
<td>85 (12.7%)</td>
</tr>
<tr>
<td>Out of work for more than 1 year</td>
<td>51 (7.7%)</td>
</tr>
<tr>
<td>Retired</td>
<td>40 (6.0%)</td>
</tr>
<tr>
<td>A homemaker</td>
<td>31 (4.6%)</td>
</tr>
<tr>
<td>A student</td>
<td>18 (2.7%)</td>
</tr>
<tr>
<td>Missing = 46 (6.5%)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency (n (%))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>365 (55.1%)</td>
</tr>
<tr>
<td>Female</td>
<td>294 (44.3%)</td>
</tr>
<tr>
<td>Non-conforming</td>
<td>4 (0.6%)</td>
</tr>
<tr>
<td>Transgender</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>Missing = 50 (7.0%)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Household Income</th>
<th>Frequency (n (%))</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; $10,000</td>
<td>131 (19.7%)</td>
</tr>
<tr>
<td>$10,000 to &lt; $15,000</td>
<td>93 (14.0%)</td>
</tr>
<tr>
<td>$15,000 to &lt; $25,000</td>
<td>95 (14.3%)</td>
</tr>
<tr>
<td>$25,000 to &lt; $50,000</td>
<td>161 (24.2%)</td>
</tr>
<tr>
<td>$50,000+</td>
<td>118 (17.7%)</td>
</tr>
<tr>
<td>Don’t know/Unsure</td>
<td>67 (10.1%)</td>
</tr>
<tr>
<td>Missing = 48 (6.7%)</td>
<td></td>
</tr>
</tbody>
</table>
**Current/Former Heroin Use**

Among respondents, 512 (76.5 percent) were current or former heroin users, and 157 (23.4 percent) reported never using heroin (Figure 8.1).

**Figure 8.1 Are you a current or former heroin user? (N = 669)**

![Survey Results](chart1)

**Role of Prescription Pain Killers in Heroin Use**

Findings: The majority (70 percent) of respondents said that prescription pain killers played a role in their decision to use heroin (Figure 8.2). Of those who responded yes, the median age of first time prescription drug abuse was 18 years, but ranged from 9 – 60 years old. Out of those who indicated prescription pain killer misuse as a reason for trying heroin, 131 (37 percent) said they got their first pain killer with a legal prescription from their doctor (Figure 8.3).

**Figure 8.2 Did prescription pain killers play a role in your decision to use heroin? (N = 506)**

![Pain Killer Role](chart2)
Figure 8.3 How individuals obtained prescription opioids for non-medical use. (N = 352)

Heroin – First Time

Individuals who reported ever using heroin (N = 512) were given a series of questions about their first-time experiences. The age range for first time heroin use was 9 – 62 years old, with a median age of 22 years. When asked where they got their heroin the first time, 64 percent said they received the drugs for free from a friend (Figure 8.4). The most common type (68.8 percent) of heroin used the first time was black tar (Figure 5), and the two most common ways for first time use were smoking or injecting (Figures 6). For those who injected their first time, 89 percent reported using a sterile syringe.

The most common reason (39.5 percent) for trying heroin was curiosity/experimentation (Figure 8.7). There were 62 respondents who chose ‘other.’ The top response themes were withdrawal from prescription pills and taking heroin to help with pain.
Figure 8.4 The first time you used heroin, who introduced you? (N = 503)

- A friend gave it to me: 64.3%
- I bought it from a friend: 9.9%
- A family member gave it to me: 9.9%
- I bought it from a dealer/stranger: 7.7%
- A dealer/stranger gave it to me: 4.0%
- I bought it from a family member: 2.4%
- I don't know: 1.0%
- Other: 0.4%
- Military: 0.4%

Figure 8.5 What type of heroin did you use the first time? (N = 506)

- Black Tar: 69.8%
- White Powder: 22.5%
- Brown Powder: 5.5%
Denver Metro Treatment Client Survey

Figure 8.6 When you used heroin for the first time, how did you use it? (N = 508)

- Smoked: 42.5%
- Injected: 36.0%
- Snort/sniff: 20.3%
- Orally: 1.2%

Figure 8.7 What is the primary reason that you used heroin for the first time? (N = 506)

- I was curious/experimenting: 39.5%
- It was cheaper than other alternatives: 21.0%
- Other: 13.4%
- It was easier to find/buy than other alternatives: 12.7%
- My friends/family were using heroin: 11.2%
- Other drugs were less effective or didn't work anymore: 5.6%
- Pressure from friends, relatives, or sex partner: 4.8%
- To come down from another drug (like meth cocaine): 1.9%
- I was forced into using it: 1.7%
- I don't know: 1.1%
- I was high on another drug and didn't know what I was doing: 0.4%
Heroin – Injection

The majority (85 percent) of respondents indicated they injected heroin at some point. When asked about the primary reason for transitioning to injection use, the two primary reasons cited were curiosity/experimentation (32.1 percent) and to get a better/quicker high (24.7 percent) (Figure 8.9). Although a set of answers were provided, 80 individuals selected ‘other’. The top two themes from the ‘other’ responses were “I was already injecting other drugs” and “it was more effective for pain.”

Those who said they had never injected heroin cited a fear of needles as the primary reason for abstaining from injection use. There were 15 individuals who selected ‘other’ and the most common theme from these responses was “I knew it was too far.”

Figure 8.8 Have you ever injected heroin? (N = 505)
Figure 8.9 Why did you decide to try injecting heroin? (N = 428)

- Curious/experimenting: 32.1%
- To get a better/quicker high: 24.7%
- Other: 14.1%
- Friends were injecting: 13.9%
- Less expensive to get high: 10.5%
- Sexual partner encouraged me: 7.2%
- Pressure from friends: 4.1%
- Easier to find/buy than other alternatives: 4.1%
- Forced into injecting: 3.3%

Figure 8.10 If you have never injected heroin, what has kept you from doing so? (N = 74)

- Fear of needles: 44.9%
- Fear of overdose: 30.4%
- Stigma: 15.9%
- Other: 8.7%
Drug Use Behaviors

Nearly half of respondents (48.8 percent) who used heroin reported using it four or more times daily (Figure 8.11); 46 percent reported paying for heroin using their legal income (Figure 8.12); and 70.9 percent responded that they had access to regular suppliers compared to other forms of supply (Figure 8.13). Black tar was the most common type (79.1 percent) of heroin used (N = 498).

Only 10 percent of ever-heroin users reported using social media to acquire heroin (Figure 8.14). Of the 40 individuals who responded to this question, 95 percent cited Facebook as the type of social media used.

The majority (71.9 percent) reported injection use as their method of choice (Figure 8.15), and of those, 92 percent reported having access to clean injection materials (Figure 8.16).

Out of all survey respondents, including those who were never heroin users, 30.5 percent said that property theft was the biggest crime problem resulting from heroin use (Figure 8.17).

Figure 8.11 How often do/did you use heroin? (N = 498)
Figure 8.12 Most of the time, how do/did you support/pay for your drugs? (N = 494)

- Legal income: 46.0%
- Theft: 17.0%
- Borrowing money: 9.1%
- Exchanging/bartering: 6.6%
- Dealing: 6.4%
- Sex work: 5.9%
- Panhandling: 5.3%
- Other: 3.8%

“When you are hurting for the drug, you are willing to do almost anything to not hurt anymore.”

Survey Respondent

Figure 8.13 Most of the time, how do/did you get heroin? (N = 495)

- Regular supplier: 70.9%
- Street level dealer: 27.7%
- Other: 1.4%
Figure 8.14 Have you ever used social media (such as Facebook, Twitter, etc.) to get heroin? (N = 496)

What type of social media have you used? n=40

- Facebook: 95%
- Craigslist: 12.5%

Figure 8.15 How do/did you typically use? (N = 498)

- Inject: 71.9%
- Smoking: 21.9%
- Snort/sniff: 5.1%
- Orally: 1.0%
- Other: 0.2%
Figure 8.16 Do/did you have access to clean injection materials? (N = 354)

- Yes: 92%
- No: 8%

Figure 8.17 In your opinion, what is the biggest crime issue resulting from heroin use? (N = 624)

- Property theft: 30.5%
- Drug sales/trafficking: 21.3%
- Persons crimes: 16.0%
- Prostitution: 10.1%
- Prescription fraud: 8.7%
- Fraudulent checks: 7.8%
- Other: 3.5%
- I don't know: 2.1%
**Overdose Behaviors**

Of those who reported ever using heroin (N=512), 61 percent reported never overdosing. Of those who reported having had an overdose (N = 193), the median number of overdoses per person was three. When asked about what happened following any overdose, 20.5 percent reported that someone called 911 (Figure 8.18) and 15.6 percent of respondents reported being revived by naloxone either by first responders or a bystander.

Survey respondents were asked about situations in which they had witnessed a heroin overdose. Of those who responded, 70 percent said they had been in a situation where someone else had overdosed on heroin. Among those who reported being a bystander in a heroin overdose (N = 342), the average number of overdoses witnessed per person was three. When asked about their responses to overdose situations, 21.8 percent reported calling 911 and 8.6 percent reported administering naloxone (Figure 8.19).

In order to assess respondent’s awareness of Colorado’s law in place to protect those calling 911 in overdose situations, each individual who reported ever using heroin was asked if they aware of Colorado’s Good Samaritan Law. Of those who responded, 43 percent said they had no prior knowledge of the law (Figure 8.20).

**Figure 8.18  In the situations where you have overdosed on heroin, what followed? (N = 185)**

- Someone called 911: 20.5%
- The people I was with rubbed, shocked, or slapped me: 16.1%
- The people I was with put me in a shower/bath: 12.1%
- The people I was with performed CPR: 11.9%
- First responders administered naloxone: 10.4%
- Nothing, I was alone when I overdosed: 8.9%
- I was taken to the hospital by someone other than first...: 6.7%
- A bystander administered naloxone: 5.2%
- The people I was with left out of fear of law enforcement: 5.0%
- Other: 3.2%
Figure 8.19 In situations where you were with someone else when they overdosed on heroin, what did you do? (N = 326)

- Called 911: 21.8%
- Rubbed, shook, or slapped them: 21.1%
- Put the individual in a shower/bath: 17.5%
- Performed CPR: 16.1%
- Administered naloxone: 8.6%
- Transported them to the hospital: 7.9%
- Other: 4.2%
- Left out of fear of law enforcement: 2.9%

Figure 8.20 Are you aware of the laws in Colorado to protect those calling 911 in overdose situations? (N = 489)

- Yes: 278
- No: 211
Abstinence

Individuals who reported ever using heroin were asked questions regarding periods of abstinence. Participants were asked about the longest period of time away from heroin use, how they were able to support their abstinence, and to tell us about reasons for relapse. Results revealed that the longest length of abstinence varied drastically between person to person and that averages or general comparisons could not be easily made.

Of those who reported having a period of abstinence, 29.6 percent cited medication assisted treatment as a reason for their longest heroin-free time (Figure 8.21). There were 378 respondents who chose to provide text responses. The top two themes among those responses were: stress/anxiety and a stressful/traumatic life event (Table 8.2).

Figure 8.21 During this time, how were you able to keep from using heroin? (N = 448)

Table 8.2 Primary reason for relapse – list of top five qualitative themes from the text responses, including the percentage of total responses. (N = 378)

<table>
<thead>
<tr>
<th>Theme</th>
<th>% of Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress/anxiety</td>
<td>11%</td>
</tr>
<tr>
<td>Stressful/traumatic life event</td>
<td>9.8%</td>
</tr>
<tr>
<td>Unstable medication assisted treatment</td>
<td>7.8%</td>
</tr>
<tr>
<td>Because of withdrawal</td>
<td>6.4%</td>
</tr>
<tr>
<td>Had never experienced a relapse</td>
<td>5.1%</td>
</tr>
</tbody>
</table>
Preventing Heroin Use

Respondents who reported ever using heroin were asked what they believe could have prevented their heroin use. Of the 378 who responded, 96.5 percent mentioned ways their addiction could have been prevented. The top five themes from their responses are provided in the table below (Table 8.3). The full list of qualitative themes for this question is located in the report appendix (Appendix A).

Table 8.3 How heroin use could be prevented – List of top five qualitative themes from the text responses, including percentage of total responses. (N = 378)

<table>
<thead>
<tr>
<th>Theme</th>
<th>% of Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>If I had never used pain pills</td>
<td>8.9%</td>
</tr>
<tr>
<td>If I had different friends</td>
<td>8.7%</td>
</tr>
<tr>
<td>If there had been better drug education</td>
<td>7.7%</td>
</tr>
<tr>
<td>If the doctors would have done something differently</td>
<td>7.5%</td>
</tr>
<tr>
<td>If I would have received proper pain management</td>
<td>5.5%</td>
</tr>
</tbody>
</table>

Suggestions to Improve Treatment Effectiveness

Survey respondents were asked for suggestions to help improve treatment effectiveness. Although a set of answers was provided, 173 individuals selected ‘other’ and provided text responses (Figure 8.22). The ‘other’ top two qualitative themes from responses were stigma reduction and reduced cost of services.

Figure 8.22 Choose one option to help improve treatment effectiveness? (N = 631)
How to Help Those Already Addicted

Respondents were asked how we can better help those currently struggling with heroin addiction. There were 474 individuals who provided text responses, the top five qualitative themes from these responses are listed below, along with the percentage of total responses (Table 8.4).

Table 8.4 How to better help those addicted to heroin – list of top five qualitative themes from the test responses, including percentage of total responses. (N = 474)

<table>
<thead>
<tr>
<th>Theme</th>
<th>% of Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>More awareness of services</td>
<td>9.1%</td>
</tr>
<tr>
<td>More education on treatment</td>
<td>7.4%</td>
</tr>
<tr>
<td>Easier access to services</td>
<td>7.1%</td>
</tr>
<tr>
<td>Stigma reduction</td>
<td>6.9%</td>
</tr>
<tr>
<td>Reduced cost of services</td>
<td>5.8%</td>
</tr>
</tbody>
</table>
The data in this assessment indicates a recent increase in the presence and use of heroin in Colorado. To reduce the adverse impacts of heroin use and trafficking, greater effort needs to be placed on a coordinated response between law enforcement, prevention, treatment and recovery communities. Members of the Heroin Response Work Group are committed to using the information presented in this assessment to identify strategies to address gaps in data collection and reporting related to heroin and to prevent adverse outcomes associated with heroin use. The work group is in the process of identifying existing prevention, intervention and treatment programs, as well as policies aimed at reducing heroin use. The work group is also reviewing best practices from around the country to develop ways to enhance those efforts. Using the compiled information, the work group will create and implement programmatic and policy recommendations to mitigate the impact of heroin abuse.
References

1. El Paso Intelligence Center (EPIC), National Seizure System (NSS) data – Run date 08-18-16
3. Colorado Bureau of Investigation, Heroin Arrests in Colorado 2011 - 2015 - Data date: 08-18-16
5. Harm Reduction Coalition, Understanding Naloxone, 2016
6. Colorado Department of Public Health and Environment (CDPHE) / Emergency Medical and Trauma Services' Data Section – Naloxone Summary 2011 – 2015
12. Centers for Disease Control and Prevention, Syringe Services Programs Determination Panel. Response from CDC re: SSP DON [Determination of Need]. Received by Daniel Shodell, CDPHE, June 25, 2016.
13. CDC Program Guidance for Implementing Certain Components of Syringe Services Programs, 2016
16. Colorado Department of Public Health and Environment - NAS Data Based on ICD-9 Code 779.5
17. American Association of Poison Control Centers (AAPCC) database – (Data date: 08-24-16)
Appendix A

Heroin Strategies Survey

P1. CONSENT

What the survey is about: The purpose of this survey is to gain valuable insight to help us learn how and why Coloradans use drugs like heroin and how we can improve prevention and treatment services.

What we will ask you to do: If you agree to participate in this survey, you will be asked to answer questions about your history of drug use as well as your age, education, employment, current housing, etc.

Risks: You may find some of the questions about current and former drug usage to be very personal. You can choose not to answer any question, but some answers are required if you want to continue the survey. If you wish to talk to someone about your reactions to any issues you have during the survey, a list of resources will be provided at the end of the survey.

Benefits: Your information will help to guide and inform state and local policy and program creators on changes to the current system that could improve support and care for those dealing with substance use problems.

Compensation: You will not be paid for completing the survey.

Your answers will be confidential. Your survey answers will be kept in locked filing or on a protected computer by the Colorado Department of Public Health and Environment (CDPHE). This survey does not collect information that can identify you. Our report will not include any information that would make it possible to identify individuals from the survey. Please do NOT include your name, the names of others, or any other personal identifiable information in the open field sections of the survey.

Taking part is voluntary: Taking part in this survey is completely voluntary. You may skip questions that you do not wish to answer. If you decide not to take part or decide to skip some of the questions, you will not lose any benefits from a treatment or recovery site or the Colorado Department of Public Health and Environment. You are free to stop answering questions at any time.

If you have questions about the survey, you may contact us at lindsey.kato@state.co.us.
Please select "agree" if you wish to participate and agree to the following:

- You have read the above information
- You voluntarily agree to participate in the survey
- You voluntarily agree to provide demographic information
- You are at least 18 years of age
- You will take this survey one-time only

Select "disagree" if you do not want to participate in the survey.

Agree
Disagree

P2. DEMOGRAPHICS

What is your age? (Please list age in years)
[Open Field]

Are you Hispanic or Latino?
- Yes
- No

Which one of the following would you say best represents your race? (Choose one)
- White
- Black or African American
- Asian
- Native Hawaiian or Other Pacific Islander
- American Indian or Alaska Native
- Other (please specify)

What is your marital status? (Choose one)
- Married
- Divorced
- Widowed
- Separate
- Never married
- A member of an unmarried couple
Appendix A

What is the highest grade or year of school you completed? (Choose one)
Never attended school or only attended kindergarten
Grades 1 through 8 (Elementary)
Grades 9 through 11 (Some high school)
Grade 12 or GED (High school graduate)
College 1 to 3 years (Some college or technical school)
College 4 years or more (College graduate)

Where do you currently live? (Choose one)
Parent’s house
Living with friends
Rent/own my own residence
Homeless, no permanent residence
Other (please specify)

What is your current employment situation? (Choose one)
Employed for wages
Self-employed
Out of work for less than 1 year
Out of work for more than 1 year
A homemaker
A student
Retired
Unable to work

Please mark your annual household income from all sources: (Choose one)
Less than $10,000
$10,000 to less than $15,000
$15,000 to less than $20,000
$25,000 to less than $35,000
$35,000 to less than $50,000
$50,000 to less than $75,000
$75,000 or more
Don’t know/Not sure

What is your gender?
Male
Female
Transgender
Non-conforming
Appendix A

P3. HEROIN: CURRENT/FORMER

Are you a current or former heroin user?
  Current
  Former --- (SKIP TO P13)
  No --- (SKIP TO P32)

P4. CURRENT – PRESCRIPTION PILLS

Did prescription painkillers play a role in your transition to heroin use? (Ex. Oxycontin, Vicodin, Morphine, Percocet)
  Yes
  No --- (SKIP TO P6)

P5. CURRENT – PRESCRIPTION PILLS (YES) – FIRST TIME

How old were you the first time you used a prescription painkiller without a prescription or in ways other than what was prescribed for you? (Please list age in years)
[Open Field]

How did you get the prescription painkiller the first time you used it without a prescription or in ways other than what was prescribed for you? (Choose one)
  I had a prescription from the doctor for a medical reason
  A friend gave them to me
  A family member gave them to me
  I bought the pills from a friend
  I bought the pills from a family member
  I bought the pills from a dealer or stranger
  I bought the pills on the internet
  I stole the pills from a friend
  I stole the pills from a family member
  I stole the pills from a doctor's office, clinic, hospital, or pharmacy
  I don't know
  Other (please specify)
Appendix A

P6. CURRENT – HEROIN – FIRST TIME

How old were you when you first used heroin? (Please list age in years)
[Open Field]

The first time you used heroin, who introduced you? (Choose one)
- A friend gave it to me
- A family member gave it to me
- A dealer/stranger gave it to me
- I bought it from a friend
- I bought it from a family member
- I bought it from a dealer/stranger
- I bought it on the internet
- I stole it from a friend
- I stole it from a family member
- I don’t know
- Other (please specify)

What is the primary reason you used heroin for the first time? (Choose one)
- I was curious/experimenting
- My friends/family were using heroin
- It was cheaper than other alternatives
- It was easier to find/buy than other alternatives
- Other drugs were less effective or didn’t work anymore
- Pressure from friends, relatives, or sex partner
- I was high on another drug and didn’t know what I was doing
- To come down from another drug like methamphetamine or cocaine
- I was forced into using it
- I don’t know
- Other (please specify)

What type of heroin did you use the first time?
- White powder
- Black tar
- I don’t know
- Other (please specify)

When you used heroin for the first time, how did you use it? (Choose one)
- Orally
- Smoked
- Injected --- (SKIP TO P9)
- Snort/sniff
- Other (please specify)
Appendix A

P16. FORMER – INJECTION

Have you ever injected heroin?
   Yes
   No --- (SKIP TO P19)

P17. FORMER – INJECTION – AGE

How old were you when you first injected heroin? (Please list age in years)
[Open Field]

P18. FORMER – INJECTION – WHY

Why did you decide to try injecting heroin? (Choose one)
   I was curious/experimenting
   My sexual partner encouraged me to do it
   Pressure from friends
   It was less expensive than other alternatives
   It was easier to find/buy than other alternatives
   To get a better high or rush
   My friends were injecting
   I was forced into injecting
   Other (please specify)

When you injected heroin for the first time, did you inject with a new sterile syringe?
   Yes
   No
   I don’t know

(AFTER CURRENT PAGE IS COMPLETED --- SKIP TO P20)

P19. FORMER – INJECTION – NO

You have never injected heroin, what has kept you from doing so?
   Fear of overdose
   Stigma
   Fear of needles
   Other (please specify)
P20. FORMER – HEROIN – HOW OFTEN

When you used heroin, how often did you use?
   Once daily
   1-3 times daily
   4 or more times daily
   Other (please specify)

What type of heroin did you typically use?
   White powder
   Black tar
   Other (please specify)

Approximately how much did this cost per dose? (Please provide amount in dollars)
[Open Field]

How did you support/pay for your drugs? (Choose one)
   Legal income (Ex. Salary, savings)
   Borrow money
   Exchange/bartering
   Panhandling
   Sex work
   Theft
   Other (please specify)

How did you typically get heroin? (Choose one)
   Regular supplier
   Street level dealer
   Stranger
   Internet
   Other (please specify)

How did you usually use?
   Orally --- (SKIP TO P22)
   Smoked --- (SKIP TO P22)
   Injected
   Sniff/snorted --- (SKIP TO P22)
   Other (please specify) --- (SKIP TO P22)
P12. CURRENT – ACCESS CLEAN NEEDLES

Do you have access to clean injection materials?
   Yes
   No

(AFTER CURRENT PAGE IS COMPLETED --- SKIP TO P22)

P13. FORMER – PRESCRIPTION PILLS

Did prescription painkillers play a role in your transition to heroin use? (Ex. Oxycontin, Vicodin, Morphine, Percocet)
   Yes
   No --- (SKIP TO P15)

P14. FORMER – PRESCRIPTION PILLS (YES) – FIRST TIME

How old were you the first time you used a prescription painkiller without a prescription or in ways other than what was prescribed for you? (Please list age in years)
[Open Field]

How did you get the prescription painkiller the first time you used it without a prescription or in ways other than what was prescribed for you? (Choose one)
   I had a prescription from the doctor for a medical reason
   A friend gave them to me
   A family member gave them to me
   I bought the pills from a friend
   I bought the pills from a family member
   I bought the pills from a dealer or stranger
   I bought the pills on the internet
   I stole the pills from a friend
   I stole the pills from a family member
   I stole the pills from a doctor’s office, clinic, hospital, or pharmacy
   I don't know
   Other (please specify)
Appendix A

P21. FORMER – ACCESS CLEAN NEEDLES

Did you have access to clean injection materials?
  Yes
  No

P22. SOCIAL MEDIA

Have you ever used social media (such as Facebook, Twitter, etc.) to get heroin?
  Yes
  No --- (SKIP TO P24)

P23. SOCIAL MEDIA (YES)

What type of social media have you used to get heroin? (Select all that apply)
  Twitter
  Facebook
  Instagram
  Kik
  Craigslist
  Other (please specify)

P24. ABSTINENCE

What is the longest time you have stopped using heroin for? (Please list time in months)
[Open Field]

During this time, how were you able to keep from using heroin?
  Support from family/friends
  Disconnecting from friends who use
  Medication Assisted Treatment --- (SKIP TO P25)
  Behavioral therapy/counseling
  Incarceration
  Support/recovery groups
  Other (please specify)

If you returned to using after this period of time, list the primary reason for returning to heroin use:
[Open Field]

(AFTER CURRENT PAGE IS COMPLETED --- SKIP TO P26, UNLESS MAT SELECTED)
Appendix A

P25. MAT (YES)

What type of medication assisted treatment helped to keep you from using heroin?
- Methadone
- Suboxone
- Vivitrol
- Naltrexone

P26. OVERDOSE – YOU

Have you ever overdosed on heroin?
- Yes
- No --- (SKIP TO P28)

P27. OVERDOSE – YOU (YES)

How many times have you overdosed on heroin?
[Open Field]

In the situations where you have overdosed on heroin, what followed? (If you have had multiple overdoses, please select all that apply)
- Nothing, I was alone when I overdosed
- Someone called 911
- A friend/family member or bystander administered naloxone
- First responders administered naloxone
- The people I was with left out of fear of law enforcement
- I was taken to the hospital by someone other than first responders
- The people I was with performed CPR
- The people I was with rubbed, shook, or slapped me
- The people I was with put me in a shower/bath
- Other (please specify)

P28. OVERDOSE – SOMEONE ELSE

Have you ever been with someone else when they have overdosed on heroin?
- Yes
- No --- (SKIP TO P30)
Appendix A

P29. OVERDOSE – SOMEONE ELSE (YES)

Approximately how many times have you been with someone else when they have overdosed on heroin?
[Open Field]

In the situation(s) where you were with someone else when they overdosed on heroin, what did you do? (If there have been multiple situations, please select all that apply)
- Left out of fear of law enforcement
- Called 911
- Administered naloxone
- Transported them to the hospital
- Performed CPR
- Rubbed, shook, or slapped them
- Put the individual in a shower/bath
- Other (please specify)

P30. GOOD SAMARITAN

Are you aware of the Good Samaritan Laws in Colorado?
- Yes
- No

P31. PREVENTION

What do you think could have prevented you from using heroin or prevented your addiction?
[Open Field]

(AFTER CURRENT PAGE IS COMPLETED --- SKIP TO P34)

P32. HEROIN: “NO” – OVERDOSE – SOMEONE ELSE

Have you ever been with someone else when they have overdosed on heroin?
- Yes
- No --- (SKIP TO P34)
Appendix A

P33. HEROIN: “NO” – OVERDOSE – SOMEONE ELSE (YES)

Approximately how many times have you been with someone else when they have overdosed on heroin?
[Open Field]

In the situation(s) where you were with someone else when they overdosed on heroin, what did you do? (If there have been multiple situations, please select all that apply)
- Left out of fear of law enforcement
- Called 911
- Administered naloxone
- Transported them to the hospital
- Performed CPR
- Rubbed, shook, or slapped them
- Put the individual in a shower/bath
- Other (please specify)

P34. CRIMINAL JUSTICE

In your opinion, what is the biggest crime issue resulting from heroin use?
- Prostitution
- Prescription fraud
- Fraudulent checks
- Property theft
- Persons crimes (ex. robbery, assault)
- Drug sales/trafficking (selling, not buying)
- Other (please specify)

P35. TREATMENT

What would help to improve treatment effectiveness?
- Longer treatment programs
- More involvement/support from my family
- Stable housing
- Improved transportation
- Medication Assisted Treatment
- Improved aftercare/follow-up