Problem Statement

Cocaine is a powerful and addictive nervous system stimulant that comes in several forms including powder, crack, or freebase. In the United States, cocaine is a Schedule II drug, meaning that it has a high potential for abuse and dependence, but there is some acceptable medical use.

Cocaine binds to dopamine transporters, leading to an accumulation of dopamine, causing a euphoric feeling. Cocaine is primarily used intranasally, intravenously, orally, or by inhalation, and is often used with other licit and illicit substances. Cocaine may be intentionally combined with fentanyl and/or heroin and injected ("speedball"). Alternately, an individual may purchase cocaine that has fentanyl and/or heroin added without their knowledge, with increased risk of overdose, especially among non-opioid tolerant individuals. Some individuals use cocaine concurrently with alcohol, resulting in the production of cocaethylene, which tends to have a longer duration of action and more intense feelings than cocaine alone. The formation of cocaethylene is of particular concern because it may potentiate the cardiotoxic effects of cocaine or alcohol.

Nationwide, 4.8 million individuals aged 12 and older reported engaging in cocaine use in 2021. Use was the highest (3.5%) among ages 18 to 25.1 The pandemic placed individuals across the lifespan at higher risk for engaging in substance use. Nationally, about one third of people who misused central nervous system stimulants in the past year used only cocaine. However, national perception of harm in relation to cocaine remains low and therefore can be said to contribute to the growing number of people who use and misuse this substance. 1

According to 2021 data, 1.2% of Connecticut (CT) students reported using some form of cocaine in their lifetime. This is consistent with a decreasing trend since 2007, when the prevalence was 8.3%. ²

Magnitude (prevalence)

Across the state of CT from 2015-2021, cocaine was the 6th most common substance and 4.4% of those fatalities had cocaine in the bloodstream at the time of their death.³ CT continues to see a steady rise in use. In 2015, there were 105 accidental drug intoxication deaths compared to 2021, 656 deaths. Two deaths in 2015 were a combination of fentanyl

and cocaine whereas 561 deaths in 2021 involved the same combination.³ While these findings are consistent with the overall increase in the number of overdose fatalities in CT, it is important to understand the prevalence and potency of cocaine when illicitly mixed with other substances such as fentanyl.

In Southwest (SW) CT from 2015 to 2022 (as of 1/17/23) 450 overdoses involved cocaine.⁴ While 2022 deaths are being finalized by the office of the Chief Medical Examiner, it is important to note that thus far, 2022 data is reflecting an increase in the number of cocaine involved overdose fatalities. In 2021, there were 70 cocaine involved overdose deaths whereas 2022 data thus far reflects 91 cocaine involved overdose deaths.⁴

The most common stimulant involved in overdose deaths in 2021 was cocaine (39.7%) statewide. Across the state, opioids and stimulants, in combination or alone, were responsible for 78.2% of fatal overdoses. 25.5% of those were a lethal combination of cocaine and fentanyl. Another 4.5% of fatal overdoses were cocaine with *no* other stimulants or opioids.⁴

The 2022 Community Readiness Survey revealed that within SW CT, cocaine was not identified by key informants as a top substance of community concern for any age group.⁸

Risk Factors and Subpopulations at Risk

Risk factors include:

- Family history of substance use (youth and adults),
- Lack of parental supervision (youth),
- Substance-using peers (youth and adults),
- Lack of school connectedness and low academic achievement (youth),
- Low perception of harm (youth, adults),
- Perception of cocaine risk is high state-wide and throughout all regions. All regions follow with similar high percentages of risk,
- Childhood trauma (youth and adults),
- Young adults ages 18 to 25 have a higher rate of current use than any other age group,¹
- Men are more likely to use cocaine than women,
- Those with current or previous misuse of other illicit substances, such as marijuana and heroin/fentanyl,
- Individuals with mental health challenges.⁶
- 12.6% of suicides in the state of CT from 2015-2021 involved cocaine reflecting a high correlation between substance use and suicide.³

 The presence of cocaine in an individual who had a positive drug result for cocaine at the time of a homicide across CT increased from 10.1% (2015-2019) to 15.1% (2020-2021).³

In 2021, cocaine use in the past year among people aged 12 or older did not differ among racial or ethnic groups. According to data from the 2021 CT School Health Survey, boys reported higher rates of use (1.7%) than girls (0.6%). The prevalence of lifetime cocaine use was highest among 9th and 11th graders (1.5% each).² Hispanic students reported higher rates (1.4%) than Black (0.4%) or White (1.2%) students.² Within SW CT, local youth surveys do not ask specific questions about cocaine.

According to The Hub's key informant focus group, community members and providers in the region indicate an increase in cocaine usage in the past several years. ⁹ A treatment provider and local Community Care Team outreach worker who participated in this focus group both disclosed that they have seen an increase in cocaine use amongst adults.⁷

Burden (consequences)

Physical short-term consequences of cocaine use include

- Increased heart rate and blood pressure,
- Restlessness, irritability, and anxiety,
- Tremors and vertigo,
- Hypersensitivity to sight, sound, and touch,
- Large amounts can result in bizarre, unpredictable, and violent behavior

Long-term physical consequences of cocaine use include:

- Sensitization, where less cocaine is needed to produce anxiety, convulsions, or other toxic effects (increasing risk of overdose),
- Loss of appetite leading to malnourishment,
- Increased risk of stroke and inflammation of the heart muscle,
- Movement disorders such as Parkinson's disease,
- Impairment of cognitive function,
- Cocaine users are also at risk for contracting blood-borne diseases such as HIV and hepatitis C via needle sharing and other risky behavior,³
- Users are at risk of accidental overdose,

especially in the presence of alcohol or other drugs³

• In 2022, there were 26,710 total treatment admission for cocaine. Region One made up for only ---% of these cases (see chart below).

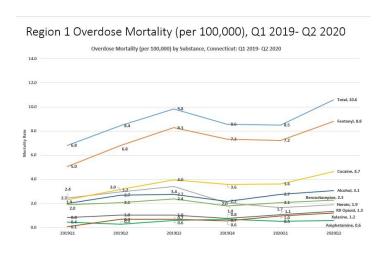
Treatment Admissions: Primary Drug - Crack Cocaine 10

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	СТ	Region	Region	Region	Region	Region
		1	2	3	4	5
FY2020	19,074	2,703	5,584	2,640	4,877	3,287
FY2021	4,432	573	1,086	574	1,461	738
FY2022	1,137	127	354	176	288	192

- In FY 21, it was found that there were 2187 cases in which cocaine was identified as the primary drug of choice at the time of admission.⁸
- In 2021, overdose deaths involving cocaine increased to 70 in SW CT,⁴
- In 2021, OCME reported 579 overdose deaths involving cocaine across the state of Connecticut.⁹

Data reflects that the likelihood of an individual overdosing from cocaine alone is rare; the rate of overdoses which involve cocaine and fentanyl is becoming increasingly responsible for fatalities. Additionally, upward trends in cocaine usage may also lead to increased overall overdose rates due to the illicit and potent combinations of cocaine and fentanyl. ⁴

Per the accidental drug intoxication death report by the OCME, it shows Connecticut has seen an increase in the number of cocaine-involved overdoses since 2015. Additional to the upward trends of cocaine use, individuals are also accessing poly-substances, a mix of drugs such as cocaine with fentanyl. Also, some fentanyl users may utilize cocaine to balance effects as needed.



Capacity and Service System Strengths

Community Readiness Survey: Mean Stage of Readiness for Substance Misuse Prevention

	СТ	Region 1	Region 2	Region 3	Region 4	Region 5
2020	5.37	5.14	5.55	5.21	5.59	5.25
2022	5.31	5.72	5.36	4.89	5.25	5.12

According to the 2022 Community Readiness Survey within SW CT, there were reports of increased community readiness for substance misuse prevention, including cocaine.⁵

SW CT has seen a decrease in the perception of harm in regards to cocaine consumption. However, in SW CT there are over 30 public and nonprofit addiction treatment facilities, private substance use treatment facilities (Mountainside, Clearpoint, Newport Academy, TurnBridge), and specialty hospital programs such as the Addiction Recovery Program at Greenwich Hospital and Silver Hill Hospital, which specializes in behavioral health treatment. Treatment options include inpatient, outpatient, and Intensive Outpatient (IOP) programs. Several programs are catered to address the specific needs of women, men and young adults.

Most provider agencies provide support to clients with cooccurring mental health and substance use disorders. Specialized treatment supports include the Families in Recovery Program (Norwalk), separate IOPs for women and men, and programs in Spanish particularly at CASA in Bridgeport. Child and Family Guidance of Greater Bridgeport runs a teen substance use program in Bridgeport and Norwalk.

Education about cocaine is provided in school health classes as part of information about illicit drugs, often taught by the School Resource Officers. Presentations on illicit drugs and emerging drug trends are available through The Hub and other partners. While the number of overdoses involving cocaine has steadily increased, there have been numerous efforts to increase awareness and availability of harm reduction measures such a Naloxone Nasal Spray and Fentanyl Testing Strips.

Footnotes:

- ¹ NSDUH, 2021
- ² CT School Health Survey, 2021
- ³ CT Violent Death Reporting System, 2015-2021
- ⁴ CT Department of Public Health, 2021
- ⁵ Community Readiness Survey, 2022
- ⁶ National Institute on Drug Abuse (NIDA)
- ⁷ The Hub Stakeholder Focus Group, 2022
- ⁸ CT DMHAS Annual Statistical Report, 2021
- ⁹ CT Office of the Chief Medical Examiner (2021)
- ¹⁰ DMHAS Treatment Admissions FY 21/22

Problem Statement

In Connecticut (CT), the use of heroin often involves the use of fentanyl, either intentionally or unknowingly. We continue to see a rise in the use of fentanyl. This profile will attempt to, where appropriate, describe the concurrent and overlapping use of fentanyl and heroin.

According to the 2021 National Survey on Drug Use and Health (NSDUH), among people aged 12 or older in 2021, 3.3% (or 9.2 million people) misused opioids (heroin or prescription pain relievers) in the past year. Among the 9.2 million people who misused opioids in the past year, 8.7 million people misused prescription pain relievers compared with 1.1 million people who used heroin.¹

Less than one percent (0.26%) of CT residents 18 or older have used heroin in the past year, a rate slightly lower than the national average (0.33%). The highest prevalence is among young adults aged 18-25 years old (0.28%), followed by adults aged 26 or older (0.25%). Adolescents did not report any heroin use for this time period. According to the 2021 Connecticut School Health Survey (CSHS) (CT's Youth Risk Behavior Surveillance survey), an estimated 0.6% of high school students in Connecticut reported to have used heroin.²

Since 2017, fentanyl-related deaths have progressively outnumbered heroin-involved deaths in CT, while the number of drug-related deaths continues to rise (11% increase from 2020-21, 28% increase since 2019). Of deaths involving heroin, 93% also involved fentanyl.³ With 9 out of 10 heroin-involved deaths including fentanyl, and just over 1 in 10 (12%) fentanyl-involved deaths including heroin⁴, most of the heroin consumed in CT contains fentanyl. This puts all individuals who use heroin at risk of fentanyl exposure.³

According to the Drug Abuse Warning Network (DAWN), in 2021, fentanyl was responsible for 62.62% of all drug-related emergency department visits in CT; most of these visits from individuals between the ages of 26-44. Heroin was responsible for 57.33% of all drug-related emergency department visits in CT; most of these visits were from individuals between the ages of 26-44. Most of these individuals were mostly Non-Hispanic White males.⁵

While the number of overdose deaths in CT involving heroin has declined since 2016, these numbers are

misleading due to the associated rise of fentanyl. The increasing number of opioid deaths in CT involving fentanyl and/or heroin relate to the intertwined nature of heroin and fentanyl in the illicit opioid supply. Across New England, fentanyl availability is high, and may be available either mixed with white powder heroin or alone and may be sold in powder form as heroin or as fentanyl.⁶ Fentanyl is often sold under the same or similar "brand" names as heroin, creating confusion and uncertainty among buyers.

The COVID-19 pandemic had a significant impact on individuals' use of and access to substances. Some factors to consider include a combination of stressors and isolation. At the height of the pandemic, barriers were present in Naloxone access. People living with a substance use disorder may also be more vulnerable to health complications related to COVID-19 because of compromised respiratory and pulmonary health. For individuals who are in recovery, the pandemic may have presented many mental health challenges, including isolation, that may have led to individuals relapsing in their recovery or even experiencing or dying from an overdose.⁷

Magnitude (prevalence)

The opioid epidemic does not discriminate and affects all individuals. Overdose deaths are now common across all genders, races, and ethnicities. Opioid overdose deaths more commonly involve illicit drug use and have increased with the presence of fentanyl in such supplies. However, there is a statistically significant decrease in overdose deaths involving heroin in CT from 2019-2020. Decreases in heroin overdoses have corresponded with increases in fentanyl overdoses. Fentanyl almost entirely supplanted heroin in CT's illicit drug supply. This continues into 2022.6

The number of individuals diagnosed with a Heroin Use Disorder has decreased since 2015. Overall rate of use has declined. This includes individuals between the ages of 18-25 who are most likely to use heroin in CT.¹

NSDUH Substate Estimates:

Percent Reporting Past Year Heroin Use, ages 12+

	СТ	Region 1	Region 2	Region 3	Region 4	Region 5
2016- 2018	.60	.47	.59	.64	.67	.61
2018- 2020	.24	.20	.27	.26	.24	.21

Data Source: NSDUH, 2020

According to Office of the Chief Medical Examiner (OCME), there were 1,524 accidental intoxication deaths in CT in 2021. Of these deaths, 1,312 involved fentanyl and 165 involved heroin. Compared to 2020, the number of fentanyl involved deaths (1,159) has increased and the number of heroin involved deaths (262) has decreased.³ From 2019 to 2021, there has been a 4% increase in fentanyl involved drug overdose deaths and a 19% decrease in heroin involved overdose deaths.8

According to Department of Public Health (DPH), Southwestern CT (SW CT) experienced 150 drug overdose deaths in 2021: an increase since 2020 with 136 deaths. In 2022, there were at least 82 deaths from January to September.8

The towns with the largest numbers of overdose deaths in 2021 are as follows: Bridgeport (89), Stamford (23), Norwalk (19) and Fairfield (9). More than half of these overdose deaths happened at a residence.8

In 2021, 26 peopledied in SW CT from a heroin overdose alone. This is a large decrease from the 55 reported in 2020. Bridgeport had the highest in SW CT with 10 deaths reported in 2021 compared to Norwalk's 4 and Stamford's 4.8

In SW CT, individuals between the ages of 45 to 64 saw a total of 31 heroin overdose deaths in 2020. In 2021, this number dropped to 14 deaths in this age range. There was a similar drop in heroin overdose deaths for 55-year-olds (7 deaths in 2021) and 35-year-olds (5 deaths in 2021).8 These numbers indicate that state-wide, young adults are most at risk for a heroin overdose but in SW CT, older adults are most at

risk instead.

According to DPH, there is a new and emerging trend in polysubstance use. The presence of xylazine, an animal tranguilizer, in fentanyl-involved deaths was first seen in 2019 and has risen steadily since then. 8

According to key informant focus groups conducted by The Hub, fentanyl continues to be a serious concern. Oftentimes, individuals are accessing poly-substances, a mix of drugs (cannabis, alcohol, cocaine, xylazine, etc.) including fentanyl. Therefore, many individuals are under the impression that they are obtaining a specific drug, not realizing that their drugs are typically a mix of dangerous substances.9

In SW CT, 49.8% of Department of Mental Health and Addiction Services (DMHAS) treatment admissions were for Substance Abuse care. In 2021, 38.3% of reported drugs used in DMHAS treatment cases were for Heroin & Non-Rx Methadone. This number is higher than other DMHAS regions in CT and has increased in 2022 to 48.1%. These numbers are similar for young adults (18-25) admitted to DMHAS treatment.¹⁰

According to The Hub's key informant focus groups, individuals who are either seeking treatment for substance use disorder or are currently in recovery from substance use disorder are rarely engaging in heroin alone. If someone is using heroin, it is typically with a mix of other substances, including fentanyl. On the other hand, fentanyl is everywhere, and it is increasing. More individuals are using fentanyl, whether intentionally seeking fentanyl, or unknowingly because fentanyl is mixed with other substances. There are variations of fentanyl analogs that are incredibly potent and on the rise. Many stakeholders encourage a harm-reduction approach when providing prevention, treatment, and recovery services. The rise in fentanyl use is creating some challenges in treatment admissions as many agencies need to test individuals for fentanyl before admitting individuals to detox. Often, this fentanyl testing can take up to two days to process, causing a barrier for individuals seeking timely treatment.9

According to local youth surveys, most middle-school and high-school aged students feel that it is difficult to obtain illicit substances such as heroin, cocaine, methamphetamine, phencyclidine (PCP), etc. Nearly all

youth are aware of the risk of misusing illicit drugs. However, the small group of students who have tried illicit substances were mostly 12 years or younger. According to key informants who were interviewed, youth who are seeking substances often do so over social media and unknowingly obtain counterfeit drugs that are laced with fentanyl. 9

- People who are addicted to other substances are more likely to meet criteria for heroin use disorder. Compared to people without an addiction, those who are addicted to alcohol are 2 times more likely to become addicted to heroin. Those addicted to cannabis are 3 times more likely, while those addicted to cocaine are 15 times more likely, and those addicted to prescription pain medications are 40 times more likely to become addicted to heroin;⁶
- Other risk factors include previous overdose, personal or family history of substance misuse, history of depression or anxiety.
 - Other groups at risk include⁸:
- o Non-Hispanic whites.
 - o Males.
 - Young adults (18 to 25);

- o Adults (25 to 44).
- People without insurance or enrolled in Medicaid.
- Seniors prescribed multiple medications.
- Women (due to biological factors and an increased likelihood of being prescribed opioids and being given longer term and higher dose prescriptions).
- People living in urban communities.
- There is a strong correlation between substance misuse and suicide. A new National Institute of Health (NIH) 2022 study found that nationwide, the number of intentional overdose deaths, or suicides, have declined in recent years but have increased among ages 15-24, 75-84 and non-Hispanic Black women. This same study reports that about 5-7 percent of reported overdose deaths are intentional (ie. suicides).⁷

NSDUH Substate Estimates:

Percent Reporting Perception of Great Risk from Trying Heroin Once or Twice, ages 12+

	СТ	Region 1	Region 2	Region 3	Region 4	Region 5
2018- 2020	86.17	84.74	86.01	85.56	85.64	86.17

Data Source: NSDUH, 2019-2020

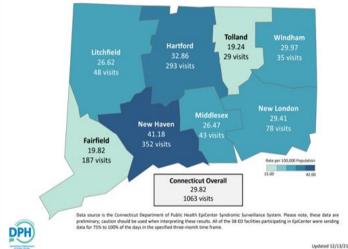
The 2021 CSHS shows that Hispanics reported the highest overall rate (1.1%), which is higher than the prevalence for Black non-Hispanics and White non-Hispanics (0.4% each). One percent of boys and .2% of girls reported ever use of heroin.² Use among high school students in general is of particular concern, as youth use is often linked to continued use and substance use disorder in the future.

Burden (consequences)

 Opioids such as fentanyl and heroin are highly addictive, and their misuse has multiple medical and social consequences including increased risk for HIV/AIDS, property and violent crime, arrest and incarceration, unemployment, disruptions in family environments, and homelessness.

- Chronic opioid misuse may also lead to serious medical consequences such as fatal overdose, scarred and/or collapsed veins, bacterial infections of the blood vessels and heart valves, abscesses, and other soft-tissue infections, and liver or kidney disease. Poor health conditions and depressed respiration from heroin use can cause lung complications, including various types of pneumonia and tuberculosis.
- Opioid misuse during pregnancy can result in a miscarriage or premature delivery, as well as neonatal abstinence syndrome (NAS), and exposure in utero can increase a newborns' risk of sudden infant death syndrome (SIDS).

3-Month Rolling Average Rate per 100,000 Population and Count of ED Visits for "Suspected Drug Overdose" Syndrome in Connecticut, by County of Residence, November 2021



Data Source: DPH, 2021

Opioid-Involved Non-Fatal Overdoses (DPH)

	СТ	Region 1	Region 2	Region 3	Region 4	Region 5
2020	5,842	680	1636	626	1822	1086
2021	5,420	666	1714	520	1552	977

^{*}Numbers are approximate due to suppression

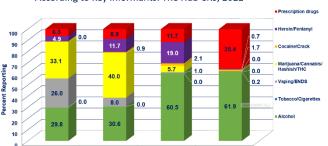
Data Source: DPH, 2021

In one urban core town in SW CT, roughly 1 in 3 adults personally know someone who is struggling with an opioid addiction. According to the Community Wisdom Survey (2021), 51% of respondents reported that the community is struggling with drugs and alcohol. In the Community Wellbeing Survey (2021), 15% of residents reported that the likelihood of youth in the area to abuse drugs or alcohol is Almost Certain.

According to the 2022 Community Readiness Survey, 19.0% of 26-65-year-olds and 11.7% of 18-25- year-olds are concerned about heroin and fentanyl. ¹⁴

Problem Substances of Greatest Community Concern by Age Group

Problem Substances of Greatest Concern for Age Groups, According to Key Informants: The Hub CRS, 2022



Data Source: 2022 CT Community Readiness Survey (CRS)

Capacity and Service System Strengths

Community Readiness Survey: Mean Stage of Readiness for Substance Misuse Prevention

	СТ	Region 1	Region 2	Region 3	Region 4	Region 5
2020	5.37	5.14	5.55	5.21	5.59	5.25
2022	5.31	5.72	5.36	4.89	5.25	5.12

Data Source: 2022 CT Community Readiness Survey (CRS)

According to the 2022 CRS, Region 1 SW CT had the highest mean stage of substance use prevention readiness in CT and has since increased in perceived readiness since 2020.¹⁴

Prevention & Education: SW CT continues to provide awareness about the harmful effects and high potential for substance use disorders to the community at large. We have educated our communities in life-saving interventions, such as Naloxone, and have been able to distribute

Naloxone kits. This has likely contributed to the reversal of many fatal overdose experiences. In 2022, The Hub has trained 295 individuals and multiple stakeholder groups throughout the region in Naloxone administration and gave out nearly 1,862 Naloxone kits. The Hub hosted two Naloxone TOT's, increasing our training capacity to include new Spanish-speaking trainers. Local Prevention Councils (LPCs) have also conducted community education on opioids and overdose reversal and provided Naloxone kits for families, providers and more. The Hub supports these efforts through information, opioid education, and distribution of Naloxone kits, in conjunction with LPCs and through an AmeriCorps Prevention Corps grant. Many LPCs are also supported with the State Opioid Response (SOR) grant and opioid settlement dollars are being distributed to municipalities. Fentanyl-testing strips, safe needle exchanges and other harm reduction programs are also available.

SW CT's Naloxone training includes resources such as Naloxone + Overdose Response (NORA) app, the Live LOUD campaign and You ThinkYouKnow. The Narcan NOW app and the state's newly developed Naloxone + Overdose Response App ("NORA," available at www.norasaves.com) are both useful resources providing information on how to recognize the symptoms of a suspected opioid overdose, administer Naloxone, dispose of medications, and find treatment and recovery resources. NORA also has an anonymous feature to report on kits used in a revival.

Treatment: Medications for Opioid Use Disorder (MOUD), such as buprenorphine, methadone and naltrexone are available at 12 publicly funded nonprofits, 2 private for profits, and individual providers throughout the region. There are detoxification facilities in the region. The state Access Line provides transportation to detoxes when needed.

Recovery: SW CT has many peer support specialists, including Recovery Coaches available. Recovery Coaches are an effective way to use people with lived experience to respond to overdoses that are common in Emergency Departments, connecting people to treatment and recovery support. Other recovery supports include the CT Community for Addiction Recovery (CCAR), the CARES Group, Courage to Speak, SMART Recovery for individuals and Family & Friends support. Many virtual and in-person support groups are available throughout the region and state. Additional resources include Turningpointct.org, a program developed by young people who are in recovery from behavioral health issues, and YouThinkYouKnow, an educational campaign on the dangers of counterfeit drugs causing overdoses.

The Recovery Friendly Workplace initiative empowers agencies with resources, training, and support to promote employee health and success within the work environment in relation to substance

use disorder and recovery. With the support from The Hub, there currently are 6 SW CT agencies that have completed certification and have been declared state certified by Governor Lamont.

Footnote Key:

- ¹ National Survey on Drug Use (NSDUH), 2020
- ² Connecticut School Health Survey (CSHS), 2021
- ³ Connecticut Office of Chief Medical Examiner (OCME), 2021
- ⁴ Center of Disease Control (CDC)
- ⁵ Drug Abuse Warning Network (DAWN), 2021
- ⁶ Datahaven, 2020
- ⁷ National Institute of Health (NIH), 2022
- ⁸ Department of Public Health (DPH), 2021
- ⁹ The Hub's Key Informant Focus Groups, 2022
- ¹⁰ Department of Mental Health and Addiction Services (DMHAS) Treatment Admissions, 2022
- ¹¹ Local Youth Survey Data, 2021
- ¹² Community Health Needs Assessment (CHNA), 2021
- ¹³ Community Wisdom Survey, 2021
- ¹⁴ Community Wellbeing Survey, 2021
- ¹⁵ Community Readiness Survey, 2022