



OD2A

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CDC Overdose Data to Action
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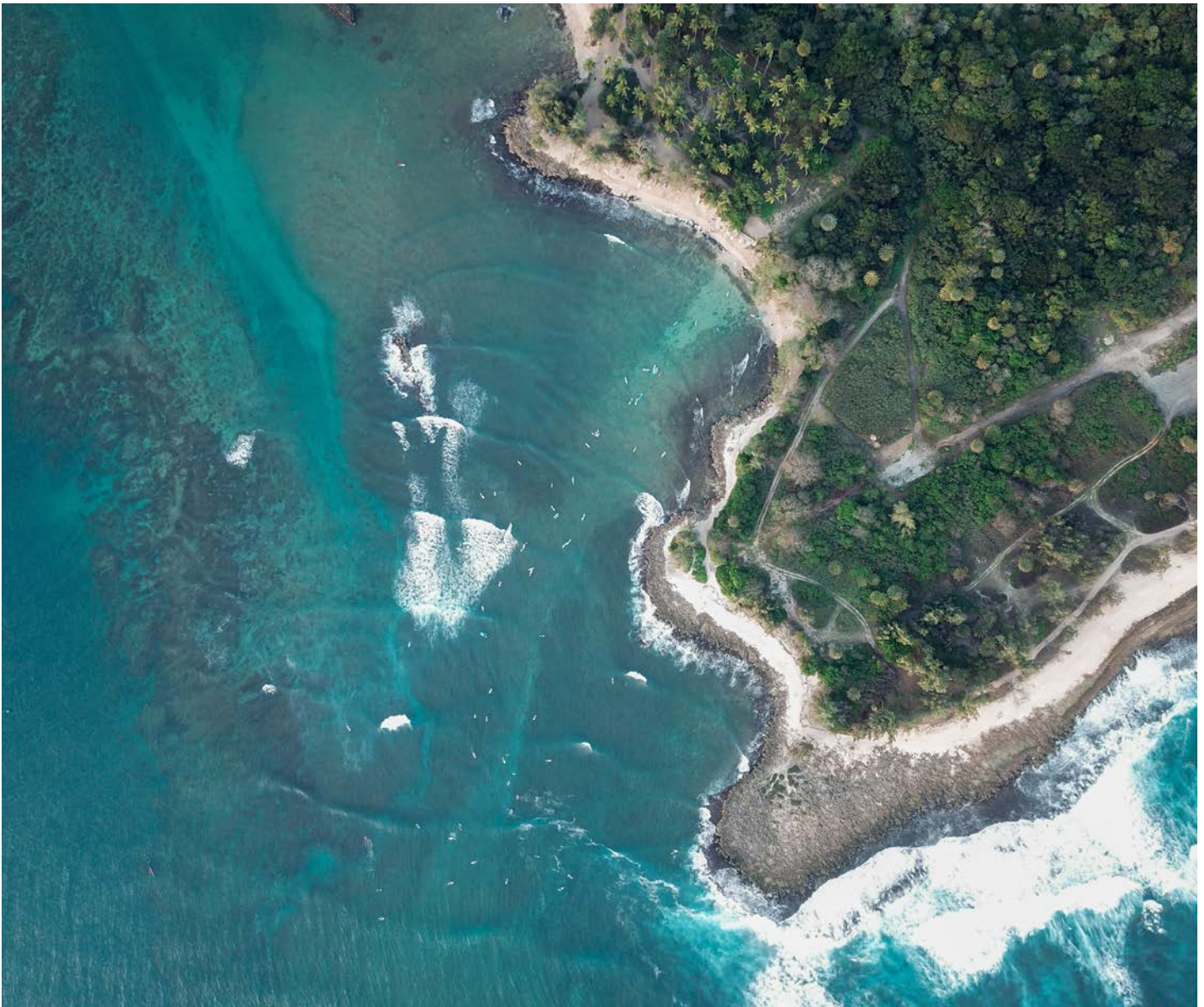


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CDC OD2A and Substance Use in the U.S. and Hawai'i

The Overdose Data to Action (OD2A) program is a grant program funded by the Centers for Disease Control and Prevention (CDC) and administered by state health departments. The program was created in 2019 in response to the opioid epidemic in the United States, which has led to an alarming increase in overdose deaths. The main goal of the OD2A program is to provide funding and technical assistance to states and territories to improve their ability to track and respond to opioid overdoses. Specifically, the program aims to:

1. Strengthen the collection and use of data on opioid overdoses, including fatal and nonfatal overdoses.
2. Enhance prevention activities, such as increasing access to naloxone (an overdose-reversal medication) and promoting the use of evidence-based treatments for opioid use disorder.
3. Improve the coordination of response efforts among different agencies and organizations involved in addressing the opioid epidemic, such as public health departments, law enforcement, and community-based organizations.
4. Evaluate the impact of overdose prevention strategies and share best practices across states.

The OD2A program is an important initiative in the fight against the opioid epidemic, and it has the potential to save countless lives by improving our ability to track and respond to overdoses.

OD2A STRATEGIES IN HAWAI'I

Surveillance Strategies:

- **Morbidity:** Collect and disseminate timely emergency department (ED) data on all drug overdoses.
- **Mortality:** Collect and disseminate descriptions of drug overdose death circumstances using death certificates and medical examiner/coroner data.
- **Innovative Surveillance:** Focus on new and innovative ways to identify and collect data on drug misuse or overdose better tailored to the community's needs.

Prevention Strategies:

- **Prescription Drug Monitoring Programs (PDMP):** Better utilize prescription drug monitoring program (PDMP) data to inform prescribing practices and prevention programs.
- **Integration of State and Local Prevention and Response Efforts:** Improve state and local prevention efforts to build more effective and sustainable surveillance and implement community-level interventions in high-burden areas.
- **Establishing Linkages to Care:** Ensure people are connected to the care they need by leveraging systems and upstream prevention efforts.



- **Providers and Health Systems Support:** Support healthcare providers and health systems with drug overdose prevention and response, including expanding the use of evidence-based prescribing and treatment practices.
- **Partnerships with Public Safety and First Responders:** Develop new and/or enhance existing partnerships with public safety partners to improve data sharing and advance prevention efforts.

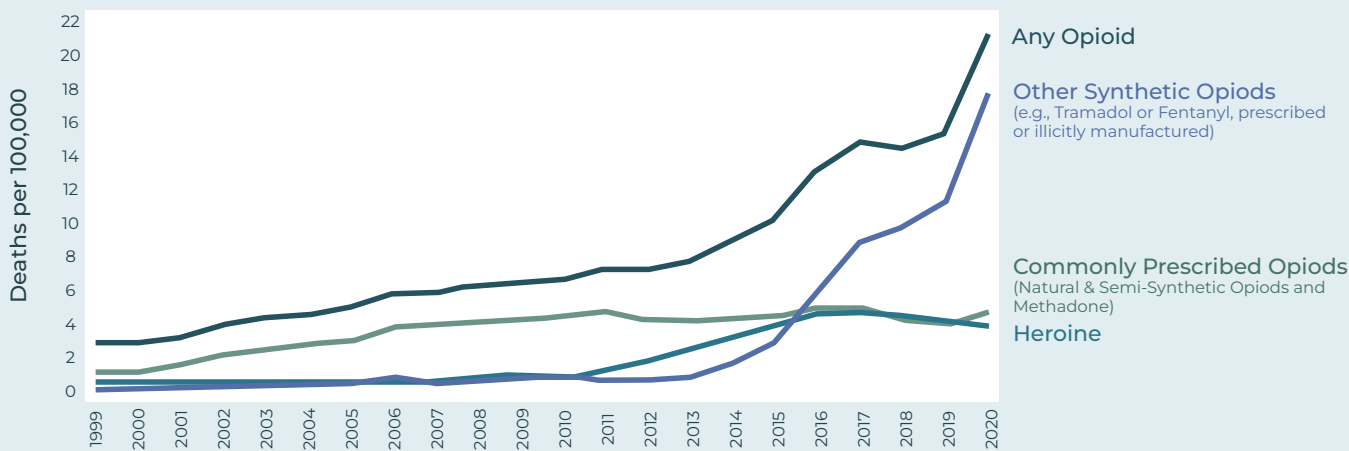
Other Strategies:

- **Peer to Peer Learning:** Foster information-sharing and build capacity among jurisdictions.

SUBSTANCE USE IN THE U.S.

Substance abuse continues to be a significant nationwide public health concern. According to the 2021 National Survey on Drug Use and Health (NSDUH), 46.3 million people aged 12 or older (or 16.5% of the population) met the applicable DSM-5 criteria for having a substance use disorder in the past year, including 29.5 million people who were classified as having an alcohol use disorder and 24 million people who were classified as having a drug use disorder. Drugs included opioids, marijuana, cocaine, hallucinogens, inhalants, methamphetamine, and any use of prescription stimulants, tranquilizers, or sedatives (e.g., benzodiazepines) and pain relievers.

Studies show there are multiple waves in the opioid overdose epidemic.¹ We are currently facing the fourth wave.



Wave 1
Rise In Prescription Opioid Overdose Deaths

The prescription opioid wave: Starting in the late 1990s, there was a drastic increase in the prescribing of opioids for pain management. Doctors were prescribing powerful painkillers such as OxyContin, Vicodin, and Percocet more frequently. This led to a significant increase in opioid-related deaths, as people became addicted to prescription opioids and began misusing them.

Wave 2
Rise In Heroin Overdose Deaths Started in 2010

The heroin wave: Starting in 2010, prescription opioids became more difficult to obtain and people turned to heroin as a cheaper and more readily available alternative. This led to a surge in heroin-related overdoses and reached their peak in 2016.

Wave 3
Rise In Synthetic Opioid Overdose Deaths Started in 2013

The synthetic opioid wave: Starting 2013, synthetic opioids such as fentanyl have become more prevalent in the illicit drug market. These drugs are extremely potent and can be deadly in very small amounts. As a result, deaths from synthetic opioids have skyrocketed in the past few years.

The polydrug wave: More recently, there has been a significant increase in deaths from opioids that have been mixed with other drugs, such as fentanyl, benzodiazepines, heroin or cocaine which has contributed to a sharp increase in opioid overdose deaths in recent years. In parallel, there is an alarming epidemic of methamphetamine use. In this case, mortality is not the primary indicator, as a significant proportion of deaths are related to physical and social impacts over time. Methamphetamine users are more likely to die from illnesses associated with cardiovascular (e.g., heart attack) and neurological (e.g., stroke) conditions because of their long-term use of methamphetamine.⁴

This fourth wave is ongoing and as resulted in the highest number of overdose deaths in US history.

NALOXONE

Efforts to address the opioid crisis include access to overdose prevention measures such as naloxone. Naloxone is a medication used to reverse the effects of opioid overdose. In recent years, there has been a push to increase access to naloxone in communities affected by the opioid epidemic. Several states have implemented naloxone access programs and laws, such as standing orders and Good Samaritan laws, to increase the availability and distribution of naloxone to at-risk populations. This has led to the development of various initiatives aimed at widely distributing naloxone kits, including through the use of naloxone vending machines to individuals at risk of overdose or their family members or friends. Recently, the U.S. Food and Drug Administration (FDA) approved naloxone for over-the-counter, non-prescription use. Naloxone can be administered in various forms, including injection, nasal spray, and auto-injector pens. The increased availability of naloxone has been associated with reduced opioid overdose deaths in the United States. Studies have shown a clear link between the use of naloxone and a decrease in overdose deaths. For example, the CDC website cites an "Analysis of a national database of EMS events". They found that "from 2012 to 2016, the rate of naloxone administrations increased 75.1%, from 573.6 to 1004.4 per 100,000 EMS events, mirroring a 79.7% increase in the age-adjusted opioid mortality rate". The CDC also reported that from 2017 to 2018, the number of naloxone prescriptions dispensed in the US increased by 137%, from 270,000 to over 640,000. Furthermore, the National Institute of Drug Abuse (NIH) shared on their website a "statistical modeling that suggests that high rates of naloxone distribution among laypersons and emergency personnel could avert 21 percent of opioid overdose deaths, and the majority of overdose death reduction would result from increased distribution to laypersons".²

COCAINE

Cocaine use has also been a persistent problem in the United States for several decades. Cocaine use includes the use of crack cocaine. This highly addictive stimulant drug is most commonly used by snorting, but it can also be injected or smoked. According to the National Survey on Drug Use and Health,³ among people aged 12 or older, the percentage who were cocaine users in the past year decreased from 2.5% (or 5.9 million people) in 2002 to 2.0% (or 5.5 million people) in 2019. The rates of cocaine use have been relatively stable in recent years but still pose a significant public health problem.

METHAMPHETAMINE

Methamphetamine is of main concern and is significantly increasing. As explained by the NSDUH,³ "prior to 2015, questions about methamphetamine use were asked in the context of questions about the misuse of prescription stimulants because methamphetamine is legally available by prescription (Desoxyn®). However, most methamphetamine used in the

United States is produced and distributed illicitly rather than through the pharmaceutical industry". Among people aged 12 or older in 2019, 0.7 percent (or 2.0 million people) used methamphetamine in the past year.³ Methamphetamine is a highly addictive drug that can cause significant physical and mental health problems. Chronic use can lead to dental problems, skin sores, and other health issues. Additionally, methamphetamine use has been associated with an increased risk of HIV and hepatitis C transmission due to risky behaviors, such as needle-sharing.

ALCOHOL

Alcohol use disorder seems to decrease but is still a high rate. Among people aged 12 or older, the percentage with a past year alcohol use disorder declined from 7.7 percent (or 18.1 million people) in 2002 to 5.3 percent (or 14.5 million people) in 2019.³

VAPING

The increase in vaping should also be mentioned. Among people aged 12 or older who vaped any substance in the past month, 71.1% vaped nicotine, 40.1% vaped marijuana, and 19.2% vaped flavoring.³

MARIJUANA

In 2019, marijuana was the most commonly used illicit drug, with 18.7% of people aged 12 or older (or 52.5 million people) using it in the past year.³ Currently, many states are legalizing it for medical and/or recreational use.

POLYSUBSTANCE USE

Finally, polysubstance use, which is the consumption of two or more substances simultaneously or consecutively, is a significant issue in the United States. Many people with SUD use multiple substances, including alcohol, tobacco, marijuana, cocaine, fentanyl and prescription drugs, which increases their risk of overdose and addiction. The opioid epidemic has made polysubstance misuse even more dangerous, as many users combine opioids with other drugs or alcohol, putting them at a higher risk of overdose, respiratory failure, and death. Moreover, polysubstance use raises complex treatment-related issues. Treating such individuals often includes dealing with complications arising from multiple substances' consumption, including dependence, overdose, and associated underlying mental or psychological problems. Further, there is no single way established to tackle the problem, thus making it even more challenging.

It should be noted that data are only the tip of the iceberg and do not show the millions of other people indirectly affected, such as families and relatives. Individuals across all age groups, genders, races and socioeconomic classes can be affected.

Substance use has devastating health and social consequences, including the spread of blood-borne diseases such as HIV/AIDS and hepatitis, fatal overdoses, increased criminal activities, homelessness etc. According to the National Survey on Drug Use and Health, 9.9 million Americans aged 12 or older were classified with a co-occurring substance use disorder (SUD) and mental illness in 2019. The COVID pandemic also appears to have had an impact, with increased availability of illicit synthetic opioids and reduced access to care.

The ongoing drug use problem in the US has led to increased efforts to prevent drug addiction, provide access to treatment, and reduce the harms associated with drug misuse. Efforts to reduce the prevalence of substance use disorder in the USA include a combination of public health strategies, education, community services and policy intervention. Treatment, and prevention programs are available for people struggling with addiction, but access to these services often varies depending on location and insurance coverage. Moreover, it is important to keep in mind that recovery is a lifelong process.

SUBSTANCE USE IN HAWAII

Drug use is a significant issue in Hawaii, with high rates of use of illicit drugs such as crystal methamphetamine, marijuana, and prescription opioids. The impact of drug use in Hawaii is significant, with adverse effects on individuals, families, and communities and high economic costs. Specifically, drug use disproportionately affects vulnerable populations in Hawaii, including but not limited to those living in rural areas, homeless and youth populations, and those involved in the criminal justice system. Hawaii has a very low rate of opioid-related poisonings but a high rate of meth-related (psychostimulants) poisonings. Nonetheless, Hawaii has experienced drastic increases in drug use across many substances.

EMERGENCY ROOM AND HOSPITALIZATION STATISTICS

The adjusted opioid poisoning fatality rates for Hawaii from 2018 through 2021 were 4.1 per 100,000, 3.5 per 100,000, 5.3 per 100,000, and 6.3 per 100,000. These rates, averaged, place Hawaii as 2nd lowest state for opioid poisoning fatality rates compared to the rest of the United States. Beginning in 2015, Hawaii has seen a steep increase in synthetic opioid fatal overdoses compared to heroin and natural/semi-synthetic opioids.

METHAMPHETAMINE

When comparing Hawaii's methamphetamine fatality rates to the United States, Hawaii has ranked higher yearly since 2003. Methamphetamine use is a significant public health concern across the United States, but the drug has disproportionately affected Hawaii. There are several reasons Hawaii has higher rates of methamphetamine poisoning fatalities than the rest



of the United States, including high poverty rates, a lack of treatment options, etc.

The adjusted methamphetamine poisoning fatality rates for Hawaii from 2018 through 2021 were 9.9 per 100,000, 10.8 per 100,000, 13.2 per 100,000, and 11.8 per 100,000. Hawaii has the 7th highest average adjusted methamphetamine poisoning fatality rate (11.4 per 100,000) when comparing all 50 states. The overall U.S. rate was 6.6 per 100,000 to put things into perspective.

EMERGENCY ROOM AND HOSPITALIZATION STATISTICS

In 2021, there were a total of 880 emergency department (ED) visits that were related to a drug overdose. These numbers peaked in August 2021 with 92 ED visits. There has been a 77.5% increase in all drug-related overdose ED visits since 2021. When it comes to just all drug-related ED visits, there is a 16% increase from January 2021 to March 2022. According to 2021 ED data, there was a slightly increased number of men (54%) than women (46%), comprising the number of all drug-related ED visits in Hawai'i. The age ranges of 35-54 and 55+ were the age groups with the most significant number of drug-related ED visits in Hawai'i in 2021. Alongside 2021's ED statistics, there were 518 hospitalizations related to drug overdose, representing a 39% increase in all drug-related overdose hospitalizations throughout 2021 and 2022. In the first three months of 2022, there were a documented 94 hospitalizations related to a drug overdose. All Drug-related hospitalizations in CY 2021 and Jan - Mar 2022 were primarily male, with a 2 to 1 ratio. Stimulant-involved hospital visits (40%) exceeded those of opioid-involved hospital visits (18%) in 2021. Of All Drug-related hospital visits, the mean percentage of stimulant-involved visits (40%) was double that of opioid-involved hospital visits (18%). Monthly rates for All Drug-related hospital visits steadily decreased overall (-153%) in 2021 and Jan - Mar 2022.

NALOXONE ADMINISTRATION AND BYSTANDER IMPORTANCE

In 2021, 1007 EMS patients received naloxone in the state of Hawai'i. Oahu naloxone administration rates comprise the most significant portion of that total at 695 patients. Hawai'i County follows in second place with 230 patients, then Maui and Kauai at 124 and 93, respectively. With approximately 1,100 EMS patients a year (averaged across 2012 - 2021) receiving Naloxone, the rates projected for 2022 are even higher. Across the years, approximately 1/3 of these EMS responses are characterized as overdoses. Data shows that about 42% of patients improve after naloxone administration, whether this naloxone is administered by a bystander or upon EMS arrival. Bystander naloxone administration was associated with more favorable patient outcomes, and data showed about 22% of patients received bystander naloxone before EMS arrival.

TEDS-A INSIGHTS

Treatment Episode Data Set (TEDS) is a national data system of annual admissions to and discharges from substance use treatment facilities. TEDS-Admissions (TEDS-A) can be used to collect records on admission demographics (e.g., age, sex, race/ethnicity, employment status) and analyze substance use characteristics (e.g., substances used, age at first use, route of use, frequency of use, number of prior admissions). TEDS-A records represent admissions rather than individuals, as a person may be admitted to treatment more than once in the same reporting year.

When exploring the TEDS-A data for Hawai'i, many patterns of drug use and frequencies of drug use can be identified. The 25-29 and 30-34 age groups comprise the most significant number of admissions by age range. For the age range of 30-34, there were slightly higher admissions for 2019 (+3.47%) compared to the 25-29 age group. However, in 2020 there were higher admissions frequencies within the 25-29 age group compared to (+0.13%) the 30-34 age group. Court/criminal justice/DUI/DWI referrals (29.27% & 34.78%) were one of the most frequent treatment admissions referral types in Hawai'i. Homeless entries comprised 25.56% and 25.02% of admissions.

What TEDS-A also offers is information on the age of first use or initiation of substances. The youngest age category is 11 years old, with 2019 (n=39) and 2020 (n=110) admissions reporting use of their primary substance (primarily methamphetamine/speed as noted above) at age 11. In fact, 59.82% (n=1486) of admissions in 2019 and 56.49% (n=822) of admissions in 2020 reported first use of their primary substance to be under the age of 18 years old. In both years, over half of admissions reported first use of their illicit drug to be in their youth.

Polysubstance use is the simultaneous use of multiple substances, such as alcohol, cannabis, opioids, and stimulants. Polysubstance use can lead to many negative consequences, including addiction, overdose, mental health, and physical health problems. Given that methamphetamine/speed admissions in the TEDS-A dataset were the highest, further analysis was conducted on the reported secondary substance use of those with methamphetamine/speed as their primary substance. It is also important to note that these admissions most likely represent only a tiny portion of Hawai'i's population, and that methamphetamine use is much more prevalent. Cocaine, heroin, and ODDs are also commonly abused throughout Hawai'i, but to a lesser extent.

None, Marijuana/Hashish, and Alcohol were the three prevalent secondary substances in 2019 and 2020. While it is a positive thing that most admissions had no reported second substance use, the focus should be on the substances that did appear quite frequently as secondary substances. The interaction between methamphetamine and marijuana/hashish use can be complex and dependent on several factors, including the dose and frequency of use, individual tolerance, and other factors such as age and underlying health conditions. Marijuana and hashish are both psychoactive substances that can produce various effects, including relaxation, altered perception, and euphoria. Methamphetamine, on the other hand, is a potent stimulant that can increase alertness, energy, and focus.

The interaction between methamphetamine and alcohol use can be hazardous and potentially deadly. Both methamphetamine and alcohol are potent substances that can cause various physical and mental effects. Still, when combined, they can amplify these effects and increase the risk of negative consequences. One of the most significant dangers of mixing





methamphetamine and alcohol is that they can have opposite effects on the body, with methamphetamine being a stimulant and alcohol a depressant. When combined, the opposing effects of these substances can lead to an unpredictable response in the body and increase the risk of overdose.

Addressing the co-use of methamphetamine and alcohol, as well as methamphetamine and marijuana/hashish, are imperative in treating substance use disorders. Polysubstance use and abuse are often linked to social and economic factors such as poverty, homelessness, and mental health issues. Therefore, addressing polysubstance use in Hawai'i requires a multifaceted approach that includes prevention, education, harm reduction, and access to treatment and support services. Integrated treatment approaches that address both substances simultaneously and the unique challenges of co-use can also increase the chances of successful treatment and long-term recovery.

It is clear from the data on poisonings, fatalities, emergency department admissions, emergency response teams, treatment centers, and so much more that drug use presents itself as a significant issue in Hawai'i. Drug use data reveals a disproportionate effect on the state's vulnerable populations. Although there has been an increase in opioid-related fatalities and other substances, methamphetamine has remained and continues to remain the most prevalent illicit drug.

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Morbidity Surveillance

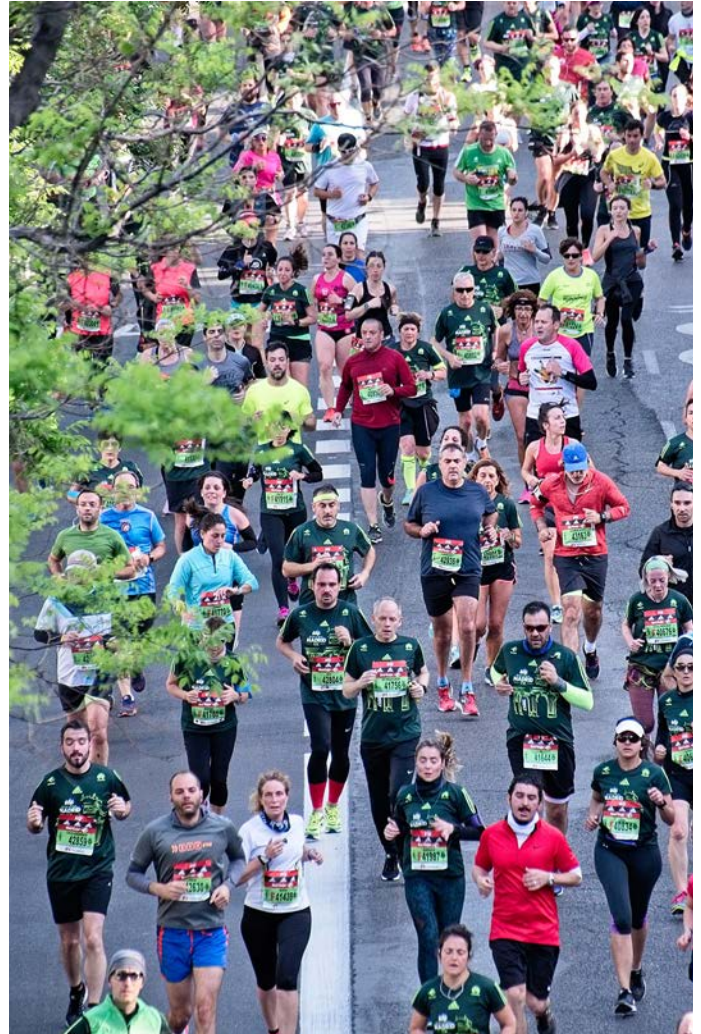
OD2A provides funding and technical support to participating state, county, and city health departments through its Drug Overdose Surveillance and Epidemiology (DOSE) system and OD2A Technical Support Center (OD2A-TAC), to improve the quality and timeliness of drug overdose morbidity data. These data are then leveraged to drive targeted and effective action to prevent drug overdose deaths and substance use-related harms.

Overdose morbidity data, or information on nonfatal drug overdoses, offer a crucial lens through which the factors contributing to drug poisonings in Hawaii can be better understood. Monitoring demographic and geological trends in nonfatal drug overdose data allow for the early detection of emergent drug threats; development of evidence-based interventions and strategies to prevent overdose fatalities; resource allocation to enhance treatment and support services; and increased awareness to reduce stigma around drug use and addiction. Hospital and emergency department (ED) discharge data, for instance, are especially useful to better understand nonfatal drug poisoning dynamics.

The ED is one of the first points of contact for individuals experiencing a drug overdose and is vital insofar as the initial assessment, stabilization, and treatment of such cases. The examination of more severe overdose cases in the hospital setting can help provide information beyond the initial overdose incident (e.g., patient medical history, including any comorbidities and prior interactions with the healthcare system). Both clinical settings serve as prime opportunities to gather data, sometimes in real-time, on new substances in circulation; the incidence and prevalence of drug overdoses in a community; barriers to linkage to care; and even how effective public health interventions are by comparing pre- and post-implementation efforts at the Hawaii county, state, and regional levels.

CDC DRUG OVERDOSE SURVEILLANCE AND EPIDEMIOLOGY (DOSE) SYSTEM

The CDC DOSE system was developed to standardize the submission and analysis of both syndromic surveillance and discharge data by OD2A participants to rapidly identify spikes in ED visits and hospitalizations meeting DOSE definition criteria for suspected *all drug, all opioid, heroin, and all stimulant* overdoses. DOSE case definitions were developed using guidance from the United States Drug Enforcement Administration (DEA), Council of State and Territorial Epidemiologists (CSTE), and the Substance Abuse and Mental Health Services Administration (SAMHSA) and they draw from multiple fields within ED and hospital discharge data. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), including the former



Ninth Revision (ICD-9-CM), Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT) diagnosis codes, and “chief complaint” statements are primarily used to classify ED and hospital visits as overdose-related.

ICD-10-CM is a standardized system of alphanumeric codes developed and maintained by the World Health Organization (WHO). This system is used to classify diseases, injuries, and other health conditions. DOSE uses these codes to categorize drug poisonings in general as well as to categorize them by “unintentional”, “undetermined,” or “intentional” intent.

SNOMED CT, a comprehensive, multilingual healthcare terminology system developed and maintained by SNOMED International, organizes clinical information in a standardized,

machine-readable format. It is a system that facilitates communication, interoperability, and data analysis across different healthcare settings. SNOMED CT diagnosis codes are organized hierarchically with more specific details nested under broader categories. This structure allows for precise classification of clinical information and the ability to aggregate data at different levels of granularity for subsequent analysis and reporting purposes.

Chief complaint statements are concise descriptions of patients' primary reason, or most significant symptom(s), when seeking medical care in an ED or hospital setting. DOSE uses these statements to further refine the categorization of overdose-related encounters to facilitate more precise analysis and identify actionable trends. Nonetheless, the following limitations are inherent to the discharge data collection process and must be considered when interpreting CDC DOSE nonfatal overdose data.

Chief complaint text fields can be incomplete when collected since ED visit and hospitalization data are updated over the course of several weeks. Discharge data submitted by state and jurisdiction health departments can also be delayed, or temporarily stalled, resulting in additional data being missed during quarterly reporting periods. Furthermore, data likely represent an undercount when accounting for inaccuracies in coding and missing chief complaint elements.

In addition, discharge data are not necessarily verified by toxicological testing and are considered "suspected" overdoses—not confirmed cases. Finally, drug overdose cases are not mutually exclusive. They represent the nesting of drug categories. For instance, the suspected all drug category includes the number of suspected opioid- and stimulant-involved overdose visits; suspected opioid-involved overdoses include heroin counts; and overdose cases that involve polysubstance use can include both opioids and stimulants.

CDC DRUG OVERDOSE SURVEILLANCE AND EPIDEMIOLOGY (DOSE) SYSTEM IN HAWAI'I

The Hawai'i State Department of Health (HI DOH) submits ED and hospital morbidity data to the CDC DOSE system via its Secure Access Management Services (SAMS) Partner's Portal according to a tiered submission schedule: Tier 1: "weekly," Tier 2: "monthly," or Tier 3: "quarterly," or every 3 months. HI DOH operates under the Tier 3 quarterly schedule, as there is a 90-day period between patients' discharge date and the processing and of clinical encounter data by Laulima Data Alliance (LDA), a nonprofit subsidiary of the Healthcare Association of Hawai'i. LDA maintains hospital discharge data of all emergency departments in the state and supports

HI DOH in its efforts to meet CDC DOSE data submission requirements on a quarterly basis.

Once available, raw discharge data is sent to HI DOH to be inspected, cleaned, and manipulated. DOSE provides SAS and R statistical programming scripts for both syndromic surveillance and discharge data case definition analysis. HI DOH epidemiologists identify and correct errors, inconsistencies, and inaccuracies in the dataset, if present, as well as address any missing or duplicate values using R statistical software. The cleaned dataset is then transformed using the DOSE R script such that it is restricted to a specified date range, or quarter, for analysis. Categories such as age, sex, state, county, discharge date, Federal Information Processing Standards (FIPS), and diagnosis codes are converted into appropriate formats.

Formatted data are then transferred to a designated DOSE Microsoft Excel template, capturing quarterly jurisdiction and county-level unintentional, or undetermined, and intentional overdose-related ED visits and hospitalizations. Standardized submissions, once reviewed and approved by DOSE support staff, are then generated into aggregate reports. Final aggregate reports provide estimates of suspected all drug, opioid, heroin, and stimulant-involved ED visits and hospitalizations, including demographic (i.e., age and sex), county-level elements, and annual and monthly percent changes in nonfatal overdose counts (n) and rates (%).

CDC DOSE: MORBIDITY OVERDOSE DATA TRENDS IN HAWAI'I

From 2018 to 2021, opioid-involved ED visits in Hawai'i increased at a rate of 6.1 per 1,000 visits. Outpatient visits involving stimulants, however, decreased at a rate of 9.9 per 1,000 ED visits. Demographically, nonfatal overdoses involving opioids were mostly male (61%) and 55 years and older (33%). In 2021, the 35 to 54 and 0- to 14-year-old age categories for all drug-involved ED visits were 23% and 21% respectively, second and third only to the 55 years and older age group at 27%. In the same year, monthly rates for all drug-related ED visits decreased by 24%.

Opioid-involved hospitalizations for the same period decreased 13.6 per 1,000 visits whereas stimulant-involved hospitalizations increased by 0.8 per 1,000 visits, or 80%. Nonfatal inpatient overdoses involving any opioid were mostly male (59%) and 55 years and older (51%). More recently, in 2021, monthly rates for all drug-related hospitalizations decreased by 133% and continue to decline through the third quarter of 2022 (102%).

There are countless long-term benefits to the collection and analysis of CDC DOSE overdose morbidity data under OD2A—the most important of which includes the prevention of fatal drug overdoses. Furthermore, analyzing nonfatal

Chapter 1

Morbidity Surveillance

drug poisonings can reveal trends and patterns in drug use, including the substances most involved in fatal overdoses; demographic groups most at risk; as well as geographical areas with the highest fatality rates. This information allows for targeted provision of harm reduction services such as those offered by the Hawai'i Health and Harm Reduction Center (i.e., syringe exchanges, naloxone distribution, and case management), which can help reduce the risk of fatal overdose by providing a safer environment for drug use and immediate access to potentially life-saving interventions.

Overdose morbidity data are also useful in that they can inform the development of evidence-based strategies, such as educational campaigns, prescription drug monitoring programs (PDMP), guidelines for safe prescribing practices, and increased access to substance use disorder treatment (i.e., Medication-Assisted Treatment, or MAT). On January 12, 2023, the Substance Abuse and Mental Health Services Administration (SAMHSA) and the Drug Enforcement Administration (DEA) issued guidance on the removal of the X-waiver. As stated in the guidance, an X-waiver is no longer required to treat patients with buprenorphine for opioid use disorder.

Specifically, for opioid overdoses that present to the ED, an initial dose of buprenorphine can be initiated to minimize delays in care and allow patients to experience more immediate benefits of MAT. Subsequent daily doses provided by the hospital (either by prescription or by supervised consumption at the hospital pharmacy) act as a “bridge,” to provide patients with provisional care until a referral and “warm hand off” to a clinician can be carried out. CDC DOSE morbidity data served as evidence to reinforce the removal of the X-waiver thereby eliminating a barrier to care. Furthermore, these data can foster collaboration among various stakeholders, including public health agencies (e.g., Hawai'i State Department of Health,

including its administration of Hawai'i Coordinated Access Resource Entry System—HI CARES); healthcare providers (e.g., Queen's Medical Center); law enforcement (e.g., Hawai'i High Intensity Drug Trafficking Areas—HI HIDTA); and community organizations (e.g., Hawai'i Opioid Initiative—HOI, and EndMeth) to address the multifaceted nature of the drug overdose crisis in Hawai'i.

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Mortality



A part of OD2A that the CDC has developed is a national dashboard exhibiting data from the State Unintentional Drug Overdose Reporting System (SUDORS). SUDORS is a state-based surveillance system that collects all unintentional and undetermined drug overdose deaths. SUDORS began in 2016 as part of the CDC's Enhanced State Opioid Overdose Surveillance (ESOOS) program to provide data on opioid overdose deaths. In 2019, SUDORS expanded to collect data on all drug overdose deaths in 47 states and the District of Columbia as part of the CDC's Overdose Data to Action (OD2A) program. Each of these funded jurisdictions collects

and abstracts data on death certificates and medical examiner/coroner reports (including scene findings, autopsy reports, and full postmortem toxicology findings) for entry into a shared web-based CDC platform with the National Violent Death Reporting System (NVDRS). The overall goals of SUDORS are to better understand the circumstances surrounding overdose deaths, improve overdose data timeliness and accuracy, and identify specific substances causing or contributing to overdose deaths, as well as emerging and polysubstance overdose trends to help inform overdose prevention and response efforts. And thus, the SUDORS dashboard provides up-to-date comprehensive information on drug overdose deaths and the circumstances surrounding these events.

SUDORS IN HAWAI'I

Using current research and surveillance data, OD2A jurisdictions translate overdose data into action through prevention programs. OD2A jurisdictions work collaboratively with CDC to implement locally relevant prevention activities that align with each of the overarching OD2A strategies. For Hawai'i, the Hawai'i State Department of Health-Behavioral Health Administration and the University of Hawai'i at Mānoa OD2A team worked together to accomplish strategy 2 objectives. Initially, the Hawai'i OD2A team began with one county but has now expanded across the state and collects data for all counties in the state. The Hawai'i OD2A team first contacted the vital records office to ascertain potential SUDORS cases for each county. The vital records office would generate a list of potential cases based on the CDC's definition of SUDORS cases. Once the Hawai'i OD2A team received the list of potential cases, the Hawai'i OD2A team would then contact the appropriate government departments in all counties to obtain pertinent information for the SUDORS dataset (death certificates, medical examiner/coroner reports, and postmortem toxicology). This process required a high level of coordination between the Hawai'i OD2A team and government agencies in each county.

Once the Hawai'i OD2A team received the necessary documents, Hawai'i OD2A abstractors began reviewing the documents and inputting the needed information into CDC's web portal. CDC's web portal serves as a secure platform to upload data that will later be turned into the SUDORS dataset. It should be noted that all abstractor staff undergoes a variety of training before beginning any abstractions. A series of human subjects' protection and data security training is initiated immediately following their hiring. The training is extensive because all data abstractors manually complete data entry on a case-by-case basis in the SAMS web portal to capture each SUDORS cases' circumstances fully. The data that needs to be captured can be seen in Table 1.

Table 1: Data Sources & Variables Captured in SUDORS Dataset

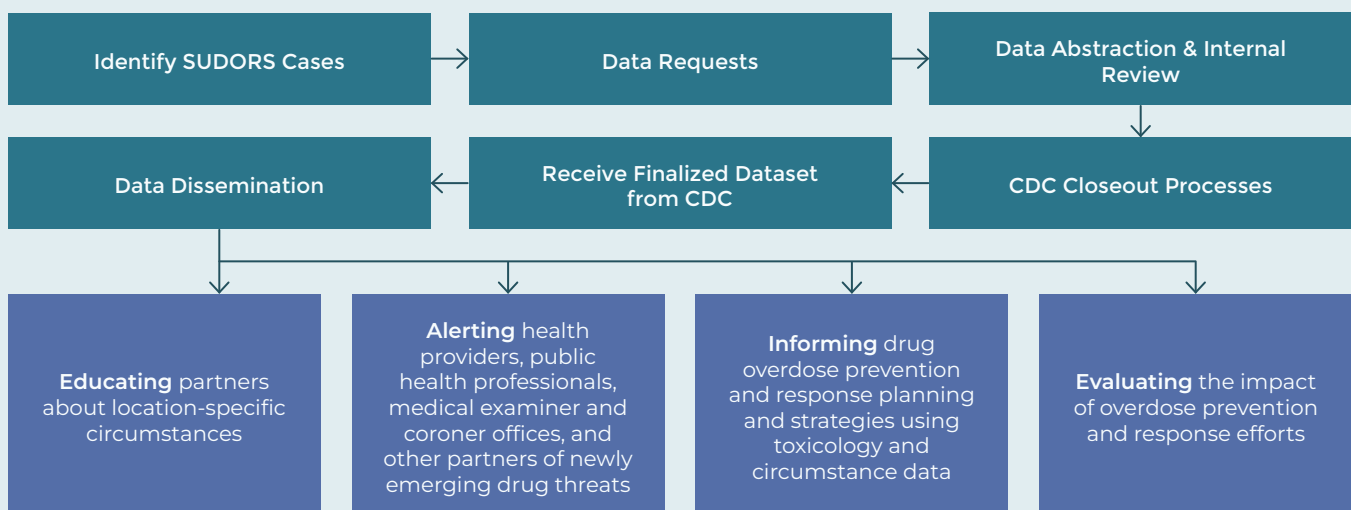
Death Certificates	Medical Examiner/Coroner Reports	Postmortem Toxicology
<ul style="list-style-type: none"> • Demographics • County and state where overdose occurred • Cause and manner of death • Other significant conditions contributing to death • How overdose occurred • Place of death (such as hospital or home) • Date of death 	<ul style="list-style-type: none"> • History of prior overdoses • Treatment for substance use disorder • Prescription drug misuse or illicit drug use history • Routes of drug administration (such as injection or smoking) • Presence of bystanders • Naloxone administration 	<ul style="list-style-type: none"> • All drugs detected. • Drugs contributing to death. • Date specimens were collected.

After data abstraction, the Hawai'i OD2A abstractors perform internal quality assurance checks to fix any mistakes or errors. This allows for data cleaning and provides an opportunity for the Hawai'i OD2A team to identify abstractors who need additional training or attention regarding a particular error type and categories. This also allows for an opportunity to assess the training needs when common errors occur across all data abstractors workers. Each jurisdiction is given a deadline to finish inputting and double-checking the potential SUDORS cases. After the deadline, CDC begins its quality assurance processes called "closeout procedures." This was a multi-stage phase consisting of three stages in the past, but it has recently changed to a two-step procedure. After CDC's closeout procedures, CDC distributes the clean and de-identified data to each jurisdiction respectively. This process of data abstraction and quality assurance occurs bi-annually.

The data submitted and reviewed is a six-month period that occurs approximately seven months before the abstraction deadline. The Hawai'i OD2A submitted its first SUDORS case list to CDC on August 12, 2021, and is still ongoing.

This process of building and establishing the SUDORS database required a high level of coordinated efforts and communication between the Hawai'i OD2A team, counties, different government departments, and medical professionals. By continuing SUDORS, Hawai'i health officials can be better informed about the current health trends Hawai'i residents exhibit concerning deaths caused by accidental or undetermined overdoses. A brief schematic of the SUDORS data processes and potential benefits for SUDORS data dissemination can be seen in Figure 1.

Figure 1: Data Processes & Benefits of SUDORS Data





IMPLICATIONS FOR PUBLIC HEALTH POLICY IN HAWAI'I

SUDORS allows health officials and stakeholders to be well-informed about opioid and drug overdose trends seen in Hawai'i. No other datasets provide the amount of information, breadth, and depth reporting on accidental and undetermined overdose deaths. The possible long-term benefits of SUDORS allow health officials to detect spikes in opioid-related incidents better, develop curriculums and implementation strategies specific to Hawai'i to reduce the harms of active drug use and expand harm reduction programs, educate health providers on overdose prevention strategies and state opioid prescribing guidelines, and share data findings to inform public health/public safety activities. Data for Hawai'i shows many drugs overdose-related deaths reported that bystanders were present. This suggests health officials should consider teaching family, friends, and peers of drug users how to provide overdose intervention such as administering naloxone. Hawai'i data also shows that most drug overdose deaths occur in older adults. This evidence suggests we need to provide health education and raise awareness to let the public and health workers know that older adults are more likely to overdose on medication than younger adults.

Surveillance Data Infrastructure

The Hawai'i Department of Health (DOH), the University of Hawai'i Thompson School of Social Work and Public Health and the Hawai'i Data Science Institute (HI-DSI) have developed the **State of Hawai'i Behavioral Health Dashboard**, an interactive dashboard infrastructure to help provide a centralized portal for data to the OD2A stakeholders, the local community and wider public. The State of Hawai'i Behavioral Health Dashboard presents data on substance use across the state of Hawai'i and includes the co-occurrence of mental health diagnosis information related to substance use and overdose and was released in October 2022 (<https://bh808.hawaii.gov/>).

THE STATE OF HAWAI'I BEHAVIORAL HEALTH DASHBOARD AND INFRASTRUCTURE DATA STORAGE AND PROCESSING

This infrastructure to support the State of Hawai'i Behavioral Health Dashboard was co-developed by DOH and HI-DSI. The data warehouse infrastructure that stores and collects substance use and overdose information consists of a Microsoft Azure government cloud Microsoft SQL instance. It is combined with Microsoft Data Factory for automating the ingestion of data from public and private data providers (see Data Sources) at appropriate periods of update (daily, weekly, monthly, quarterly, yearly). The Microsoft Data Factory executes R and Python codes developed by DOH and HI-DSI for fetching or processing surveillance data related to substance use and overdose data.

DATA SOURCES

Drug Overdose Surveillance & Epidemiology (DOSE)-Discharge Data Case Definitions: Each category includes unintentional, intentional self-harm (analyzed separately), and undetermined intent poisonings for the initial encounter only—does not include assault, adverse effect, or underdosing. Categories includes: All Drug: poisoning by drugs, medicaments and biological substances—does not include assault, adverse effect, underdosing; initial encounter only—does not include subsequent encounter(s) or sequela; All Opioids: poisoning by opium, heroin, other opioids, methadone, synthetic narcotics, fentanyl or fentanyl analogs, tramadol, synthetic narcotics, unspecified narcotics, and other narcotics; Heroin: poisoning by heroin; Stimulants: poisoning by cocaine, unspecified psychostimulants, caffeine, amphetamines, methylphenidate, ecstasy, and other psychostimulants.



CDC's State Unintentional Drug Overdose Reporting System (SUDORS) collects information on drug overdose deaths of unintentional or undetermined intent from a variety of data sources, including death certificates, medical examiner/coroner reports, and postmortem toxicology. Hawai'i submits data to SUDORS twice a year.

Hawai'i Coordinated Access Resource Entry System (CARES)-Hawai'i CARES crisis call data represent incoming calls to the Hawai'i Coordinated Access Resource Entry System (CARES) line which is a free, 24/7 coordination center for support with substance use, mental health and crisis intervention, open to all Hawai'i residents. Individuals may call 808-832-3100 from any island or toll-free 800-753-6879. Callers are routed to Hawai'i CARES if they: Dial 911 and request crisis support, Dial 988 (dialing code for the National Suicide Prevention Lifeline [NSPL]) from a Hawai'i phone number (area code 808). If an individual is calling from a non-Hawai'i phone number, the call will be routed to the local chapter based on their phone's area code.

Hawai'i State Department of Health – Behavioral Health Administration

Alcohol & Drug Abuse Division (ADAD): ADAD aims to reduce the severity and disability effects related to alcohol and other drug use by assuring access to an integrated, high quality, public/private community-based system of prevention strategies and treatment services designed to empower individuals and communities to make health-enhancing choices regarding the use of alcohol and other drugs. ADAD uses the Web Infrastructure for Treatment Services (WITS) to collect, analyze, and report all information from providers of their services. AMHD clients were classified as having co-occurring substance use and mental health disorders if their electronic health record was associated with an F-code diagnosis code other than F10-F19.

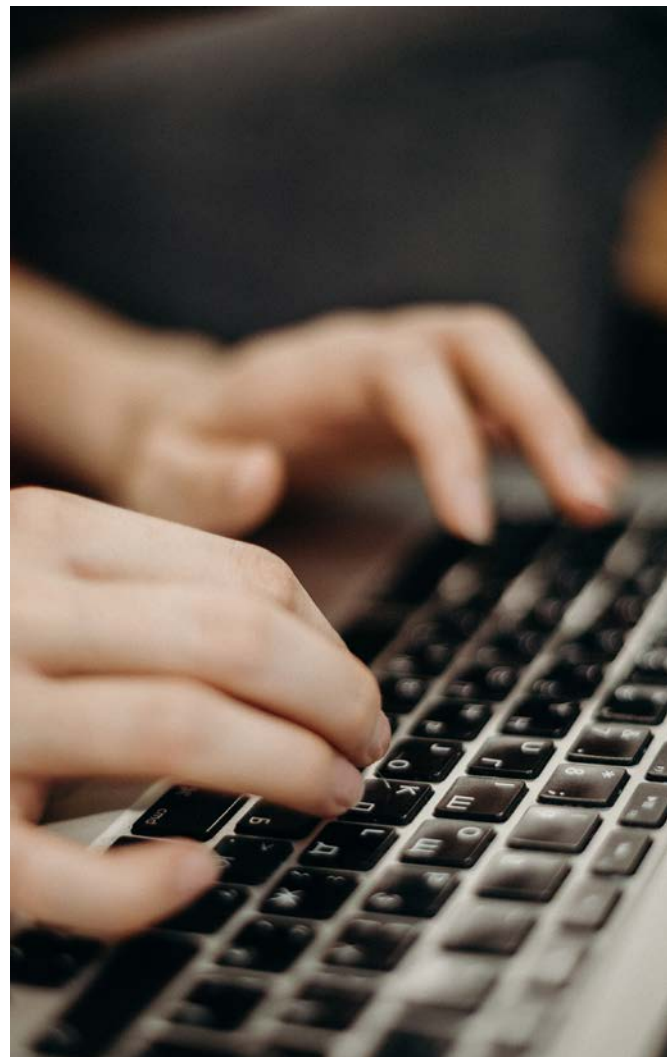
Adult Mental Health Division (AMHD): AMHD seeks to improve the mental health of Hawai'i's people by reducing the prevalence of emotional disorders, and mental illness. Services include mental health education, treatment and rehabilitation through community-based mental health centers, and an in-patient state hospital facility for the mentally ill, including those referred through courts and the criminal justice system. AMHD uses Netsmart myAvatar to collect, analyze, and report information from providers of their services. AMHD consumers were classified as having co-occurring substance use and mental health disorders if their electronic health record was associated with any F10-F19 diagnosis code.

Child and Adolescent Mental Health Division (CAMHD): CAMHD aims to improve the emotional well-being of children and adolescents, and to preserve and strengthen their families by assuring early access to a child and adolescent-centered, family-focused community-based coordinated system of care that addresses the child's and adolescent's physical, social, emotional, and other developmental needs within the least restrictive environment. CAMHD uses the INSPIRE MAX system to collect, analyze, and report all information from providers of their services. CAMHD clients were classified as having co-occurring substance use and mental health disorders if their electronic health record was associated with any F10-F19 diagnosis code.

Developmental Disabilities Division (DDD): DDD's mission is to foster partnerships and provide quality person-centered and family focused services and supports that promote self-determination. DDD uses the INSPIRE system to collect, analyze, and report all information from providers of their services. DDD clients were classified as having co-occurring substance use and mental health disorders if their electronic health record was associated with any F10-F19 diagnosis code.

Treatment Episode Data Set (TEDS) - The Treatment Episode Data Set (TEDS) system comprises demographic and drug history information about these individuals. The dashboard collects TEDS data from the Substance Abuse and Mental Health Service Administrations (SAMHSA) data portal and subsets for the state of Hawai'i.

Laulima Data Alliance - Emergency department discharge data was obtained from Laulima Data Alliance, which is a nonprofit wholly-owned 501(c)(3) subsidiary of the Healthcare Association of Hawai'i (HAH) that collects, analyzes, and disseminates statewide health information. Discharges are classified by the ICD-10 code groups below. Labels may have been abbreviated due to spacing constraints. Mental disorders are classified by the F01-F99 groups (11 total). Substance use disorders are classified by the F10-F19 subgroups (10 total). Numbers are not mutually exclusive; discharges may have involved multiple substance use or mental health disorders. Includes all transfers.

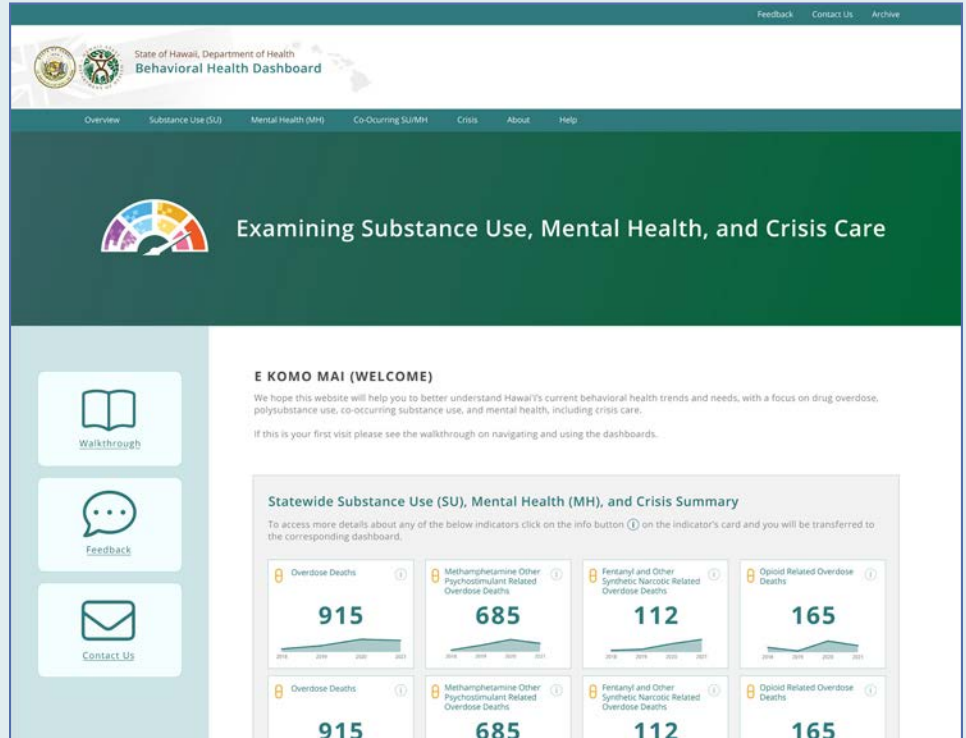


Chapter 3 Surveillance Data Infrastructure

USER INTERFACE

The data warehouse then serves the data to Microsoft Power BI reports, that are hosted in the Hawai'i DOH Azure Power BI server, that are embedded within webpages managed by a WordPress content management system (CMS) hosted by the Hawai'i DOH. This WordPress instance serves the content to stakeholders via modern web browsers as a website (<https://bh808.Hawai'i.gov/>). The website is organized into 5 data sections (Overview, Substance Use (SU), Mental Health (MH), Co-Occurring SU/MH and Crisis). The Overview page summarizes the purpose of the State of Hawai'i Behavioral Health Dashboard and top level trends related to substance overdose and sue, mental health and co-occurrence of substance use and mental health diagnosis (Fig 1.).

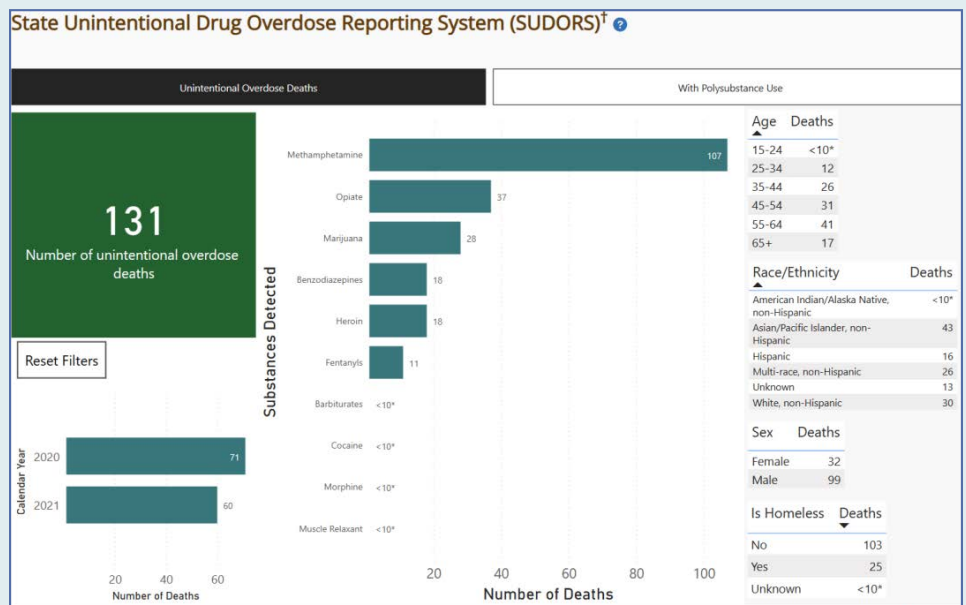
Figure 1: State of Hawai'i Behavioral Health Dashboard Overview page



The Power BI reports enable interactive presentation of the different data sets through charts, graphs and tables with dynamic filters so that stakeholders can explore the information deeper (Fig 2.)

Since its release in October of 2022, the State of Hawai'i Behavioral Health Dashboard has had 5,735 visitors and 7,843 page visits. Further, the dashboard has garnered interested from state officials and new media related to substance use and overdose related to fentanyl and methamphetamine. This large interested from visitors to the site and external stakeholders requesting communications related to the dashboard highlight the effectiveness of this method for presenting surveillance data to the OD2A and wider stakeholder community.

Figure 2: State of Hawai'i Behavioral health Dashboard SUDORS interactive data dashboard



Linkages to Treatment and Retention in Care

Opioid and stimulant treatment linkages to care refer to the various pathways and connections between different healthcare providers and resources that are involved in the treatment of opioid use disorder (OUD) and stimulant use disorder. These linkages are essential in ensuring that individuals with substance use disorders receive the appropriate treatment and support to achieve and maintain recovery. The treatment of stimulant use disorder presents unique challenges, which may require different approaches and interventions than those used for OUD. Effective linkages to care can help to address the complex needs of individuals with substance use disorders, improve treatment outcomes, and reduce the harms associated

with substance use. This may involve a range of providers and services, including primary care physicians, addiction specialists, mental health professionals, and social support services.

There are several types of linkages to care that can support the treatment of opioid and stimulant use disorders. Some examples of these linkages are:

- **Integrated Care:** Integrated care involves coordination and collaboration between different healthcare providers and resources to provide comprehensive treatment for individuals with substance use disorders. This may include co-locating primary care and mental health services with substance use disorder treatment programs. Integrated care can improve treatment outcomes and reduce healthcare costs by addressing the complex needs of individuals with co-occurring conditions.
- **Medication-Assisted Treatment (MAT):** MAT is a treatment approach that involves the use of medications, such as methadone, buprenorphine, and naltrexone, to manage opioid cravings and withdrawal symptoms. MAT can be used to treat both opioid and stimulant use disorders and is typically combined with behavioral therapy and other support services. Linkages to care for MAT may involve connecting individuals with primary care physicians or addiction specialists who can prescribe and manage these medications.
- **Peer Support Services:** Peer support services involve the use of trained individuals with lived experience of substance use disorder to provide support and guidance to others in recovery. Peer support services can be effective in promoting engagement and retention in treatment, and can be provided in a range of settings, such as treatment programs, criminal justice involved who are jail diverted, community-based organizations, and recovery support groups.
- **Community-Based Organizations:** Community-based organizations can provide a range of services and support to individuals with substance use disorders, including housing assistance, job training, and peer support. Linkages to care for community-based organizations may involve connecting individuals with local resources and programs that can provide these services.

Effective linkages to care require a coordinated and collaborative approach that involves a range of providers and resources working together to meet the complex needs of individuals in recovery.





OD2A IN HAWAI'I

INTEGRATED CARE

This infrastructure to support the State of Hawai'i Behavioral Health Dashboard was co-developed by DOH and HI-DSI. The data warehouse infrastructure that stores and collects substance use and overdose information consists of a Microsoft Azure government cloud Microsoft SQL instance. It is combined with Microsoft Data Factory for automating the ingestion of data from public and private data providers (see Data Sources) at appropriate periods of update (daily, weekly, monthly, quarterly, yearly). The Microsoft Data Factory executes R and Python codes developed by DOH and HI-DSI for fetching or processing surveillance data related to substance use and overdose data.

Post-Overdose Response Treatment. In Hawai'i, OD2A has contributed to improving linkages to integrated care in various ways. One of the examples is the Post-Overdose Response Treatment (PORT) program at the Queens Care Coalition which encompasses Queens Medical Center and Queens Medical Center West Oahu. PORT aims to provide immediate support and care to individuals who have experienced a drug overdose. It involves a coordinated response from the Queens ED, emergency responders, and community-based organizations such as HHHRC to provide rapid access to treatment and support services. Within the ED, there is the provision of medication-assisted treatment (MAT) for opioid use disorder, using buprenorphine. Following an overdose, individuals may be more receptive to MAT and other treatment options, making it an ideal time to provide immediate support and to navigate and refer individuals with ongoing care. Also, PORT includes the provision of overdose education and prevention services. This involves providing education on the signs and symptoms of overdose, training on how to administer naloxone, and connecting individuals with resources and support services to help prevent future overdoses.

Hawai'i CARES Crisis Line and Stabilization Bed Data. Department of Health (DOH) Adult Mental Health Division (AMHD) hired additional staff at the start of 2022 to assist with improving data collection systems as a part of OD2A surveillance data infrastructure. In the first half of 2022, Avatar database forms used by the Hawai'i CARES Crisis Call Center Counselors were reviewed and updated by the Crisis Line team. Counselors use these forms to determine the suicide risk of callers, authorize a Crisis Mobile Outreach (CMO) visit for those in crisis and/or determine if someone is eligible for a stabilization bed. Database fields were added to improve data collection for co-occurring mental health and substance use disorders (SUD), stabilization bed and homelessness clients.

The Crisis Line team meets weekly to discuss continuing improvements for data gathering, such as collecting data on calls related to co-occurring issues, referred for mental health services, and transferred to Aloha United Way (AUW) for substance use disorders.

Additionally, staff hired in 2022 have been trained to build and update Avatar forms and create reports using Crystal Reports or Microsoft Access, which alleviates data and report requests to our short-staffed MIS department. All these database updates, improvements and training allowed for new monthly reporting, as well as the ability to gather statistics for grants or legislature requests. New monthly and annual reports include descriptive analysis of stabilization bed clients and reasons for calls to the Crisis Line as well as tracking trends in youth mental health.

Figure 1: County of Co-occurring Stabilization Bed Clients July 1, 2022- Feb 28, 2023

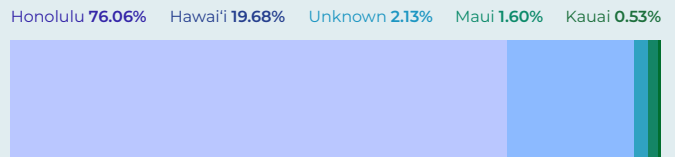
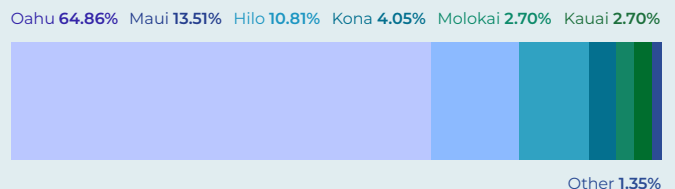


Figure 2: County of Co-occurring Crisis Line Clients September 1, 2022- Feb 28, 2023



CRIMINAL JUSTICE INVOLVED PEER SUPPORT SERVICES NAVIGATING ACROSS INTERCEPT POINTS

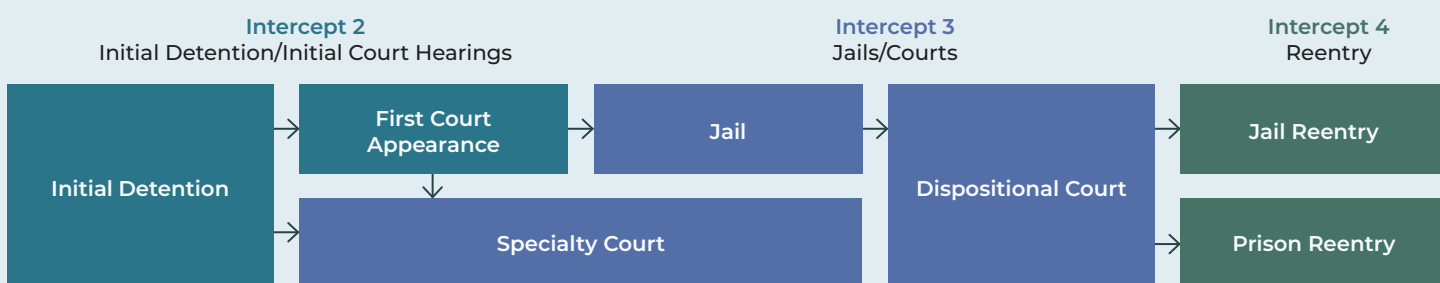
Another OD2A contribution in Hawaii is ensuring linkages to care for the criminal justice involved with SUD. New Directions is a re-entry initiative within the Hawai'i Department of Health Adult Mental Health Division (AMHD) designed to reduce recidivism among persons with co-occurring substance use and mental illness (CSAMI), who are disproportionately represented in the criminal justice system, through early identification and treatment (Adams & Lincoln, 2020). The program partners with state agencies including the Honolulu Police Department (HPD) and the Department of Public Safety, as well as community-based organizations, to assist CSAMI individuals who have been arrested to re-enter community life with supportive behavioral health services. Early identification of CSAMI individuals occurs through two processes at separate points in the criminal justice pathway: court-ordered fitness evaluations, and CSAMI eligibility screenings of detainees at HPD cellblock.

To ensure early identification of CSAMI individuals across pathways, New Directions has implemented a protocol within the HPD central receiving division for all detainees to undergo a brief CSAMI eligibility screening administered by contracted nurses. Based on screening outcomes, nurses refer eligible participants to AMHD for further follow up and referral to

treatment. These screenings also provide valuable data on participation in treatment services and re-arrests among the CSAMI population. Once eligible CSAMI individuals are identified either through court-ordered fitness evaluations or screening at cellblock, the New Directions program then deploys Certified Forensic Peer Specialists (FPS) to provide outreach to eligible participants following their arrest and recruit them into the array of recovery support services available through AMHD, ensuring the complex needs of the CSAMI population are addressed for successful reentry. OD2A has supported the tracking and maintenance of this sensitive data by collaborating with the implementation team, HPD personnel, and nurses to create and maintain a database of program data such as screening outcomes and referrals to treatment and re-arrest.

OD2A has supported the implementation and monitoring of New Directions re-entry program data by identifying variables necessary to monitor program outcomes and creating and maintaining a database of CSAMI participation in services and re-arrests. This involved working in collaboration with the implementation team to identify data sources needed to measure program objectives, participating in regular implementation team and advisory board meetings to maintain awareness of the program activities and needs, and assisting the implementation team in analyzing and synthesizing findings into reports for a variety of audiences (e.g., funders, legislators, administrators). The data on CSAMI participation in treatment services and re-arrests collected by New Directions and OD2A will help inform future treatment options for this population.

Figure 3: Identification and Treatment Across Sequential Intercept Points



Screening for mental and substance use disorders. HPD Cellblock. Nurses conduct CSAMI screening using CAGE Questions Adapted to Include Drug Use (CAGE-AID; CAGE is from the four questions of the tool: Cut down, Annoyed, Guilty, and Eye-opener) and Brief Jail Mental Health Screen & make referrals to Hawai'i CARES.

Initial fitness determination hearing. Court based clinician conducts forensic evaluation to determine fitness capacities.

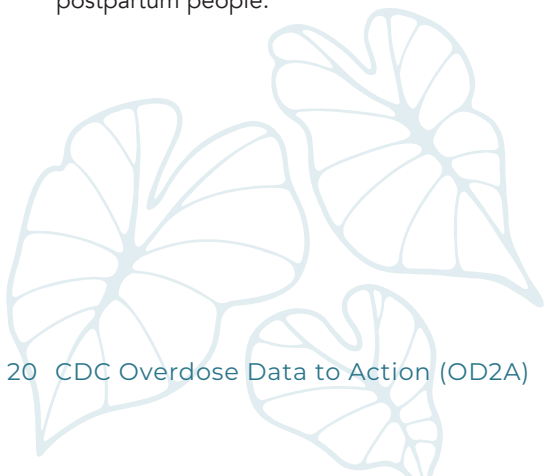
Fitness re-evaluation at Hawai'i State Hospital. Individuals found unfit during the initial evaluation are held at HSH for up to 7 days for continued evaluation and assessment. Individuals found unfit are either involuntarily committed or discharged to services.

Individuals discharged to crisis stabilization unit. Forensic Peer Specialists engage with clients upon admission to stabilization bed facility and throughout treatment.



PEER SPECIALIST SUPPORT FOR PREGNANT AND POSTPARTUM WOMEN

OD2A has also provided funds specifically to increase peer support for pregnant and postpartum women with substance use disorders who are at risk of child welfare service involvement. There is currently a shortage of residential treatment programs available to women and children in Hawai'i, making it difficult for pregnant and postpartum women to access necessary treatment services. This pilot program will aim to increase treatment completion and reduce the risk of child welfare involvement for this population by offering specialized peer support in outpatient treatment settings. Funds will also help develop standardized policies and procedures, training materials, model agreements, and referral manuals for peer specialists working with pregnant/postpartum people.



Overdose Education and Naloxone Distribution



INTRODUCTION

Most adults who use substances report their first use in adolescence or young adulthood. This is alarming as recent CDC data shows that rates of high-risk substance use are increasing among youth, with overdose deaths among youth aged 15-19 doubling from 2019 to 2020.¹ Substance use among youth poses concerns for public health officials because it increases their likelihood of engaging in other risky behaviors that lead to physical and mental illness and hurt their overall wellbeing over time. Such risky behaviors, including high-risk substance use or sexual behavior, among youth is associated with negative outcomes across the lifespan such as lower academic achievement, difficulty obtaining and maintaining employment, and chronic illness.

Substance use prevention and education programs for youth are therefore critical components of jurisdictions' overall overdose prevention strategies. The success of any program aimed at reducing drug misuse and promoting positive health

behaviors among youth is heavily dependent on effective outreach and engagement efforts, demonstrating the need for locally relevant, community-based programs in all jurisdictions.¹ CDC research shows that youth engagement in substance use prevention programs is critical for their success, and community-based organizations are best prepared to develop or implement engaging programs for the youth in their area.

Effective substance abuse prevention programs for youth must include elements that both address community risk factors and maximize protective factors at the community and school level to reduce the risk of youth substance abuse.¹ Schools can utilize evidence-based strategies that have been demonstrated to prevent risky behaviors among youth such as connecting students with caring adults in both the school and the community, providing training for both staff and students on healthy youth development, and equipping students with the knowledge they need to make informed decisions about their health behaviors to increase overall school connectedness.¹ One evidence-based substance use prevention program is the SPORT Alcohol/Drug program for youth developed by Prevention Plus Wellness (PPW). The goal of the PPW program is to prevent substance use through improving mental and physical health. The program integrates substance use prevention with the promotion of protective wellness behaviors such as physical activity, sports participation, healthy nutrition, adequate sleep, stress control, and others among children, adolescents, and young adults.² SPORT PPW is a single-session program that can be implemented in any setting, including community centers, schools, health care facilities, and in the home. The curriculum has demonstrated effectiveness as a prevention program for high-risk youth populations, and the flexibility of the curriculum allows for adaptations and tailoring to specific communities.

The program aims to increase an individual's self-efficacy and motivation to make healthy, future-oriented decisions through a brief, three-step intervention process.² The first step involves administering a screening tool to help youth develop awareness of their current health habits and behaviors. The next step involves a facilitator engaging in discussion with the youth about the benefits of engaging in healthy behaviors and the ways substance use can harm them to increase their motivation for change. The brief intervention concludes with the youth setting their own health goals and developing a contract to monitor their goal progress, increasing their skills of self-control and self-efficacy.

OD2A IN HAWAI'I

To support youth outreach and drug use prevention in communities across Hawai'i, OD2A implemented the SPORT Alcohol/Drug program for youth in two uniquely different communities. The Hawai'i High Intensity Drug Trafficking Areas (HIDTA) ADAPT Team reviewed the curriculum and sought out partnerships with local schools and organizations who expressed interest in implementing the PPW program. Then, HIDTA conducted a "Train-the-Trainer" session for PPW "Implementors".

The PPW Program was first pre-tested at Palama Settlement, a nonprofit, community-based social service agency that provides a multitude of services for youth, adults, and seniors, before being implemented in other organizations across Hawai'i to offer overdose prevention education and training to youth. To effectively reach these populations, we partnered with local community organizations to identify outreach strategies for engaging with youth in underserved areas, as well as conducted focus groups and observation sessions with different students to understand their needs.

PALAMA SETTLEMENT

Palama Settlement is a community-based social service agency that serves an average of 1,000 families in the Kalihi and Palama neighborhoods of Oahu every year.³ These neighborhoods are known for being extremely diverse and having high levels of poverty, houselessness, and immigrant populations.⁴ Many of the youth that participate in Palama Settlement programs are Filipino, Native Hawaiian, Chuukese, or Marshallese, and may face additional challenges such as language barriers or discrimination.

The organization aims to promote health and well-being throughout the community by offering recreational, educational, athletic, and cultural programs to community members of all ages. Most programs are free to community members. Some examples of these programs include:

- **Community Services:** Community services support the basic needs of children, families, and senior citizens living in the Kalihi-Palama area. This includes operating an emergency food pantry, helping community members apply for services like welfare benefits and health insurance, and teaching financial literacy.
- **Youth Programs:** Various after-school programs are offered to support youth development such as sports leagues, tutoring sessions, gardening activities, and music lessons.
- **Digital Arts Program:** The digital arts program offers opportunities for youth to socialize while learning skills like coding, animation, robotics, photography, and graphic design.
- Scholarships to help local students achieve their higher education goals.

PPW Integration. The first implementation of the PPW Elementary School Children's Program in Palama Settlement took place in early December 2022. Prior to implementation, OD2A staff participated in community events, attended meetings with Palama Settlement staff and participants, and attended parent dinners to better understand the specific needs of the community. This initial, pilot session of the PPW program provided facilitators with useful feedback regarding the content and delivery of the curriculum from both participants and staff that trainers were able to then integrate into future sessions. For example, it was noted that a certain level of literacy is required to participate in program activities such as completing surveys, and many students may not meet those levels. This demonstrates the importance of adapting program content to reflect the specific context and needs of each community. Students were generally enthusiastic about the program and were particularly interested in the sports sections, indicating the sports related programming may be effective with similar populations.





KA'U GLOBAL LEARNING LAB

Following the first PPW implementation at Palama Settlement, OD2A then offered the curriculum to the Global Learning Lab (GLL) at Ka'u High and Pahala Elementary School. The GLL is an innovative program in a rural area of Hawai'i Island that focuses on connections between the school and the broader community.⁵ The GLL aims to build a learning community by developing strong partnerships with local partners, creating relationships and opportunities with higher education institutions, and ultimately developing a model for education that can be adapted to low-income communities globally. Their mission is to prepare students to succeed in higher education and to engage in and care for their community post-graduation. To prepare students for academic success, the program utilizes a career academy approach to curriculum, emphasizes student leadership, and provides students with opportunities to participate in higher education as early as 9th grade.

The GLL provides school and community-based services to a diverse youth population, with most of the student body consisting of Native Hawaiian (36.8%), Filipino (20.1%), and other Pacific Islander (22.1%) students.⁶ Nearly 20% of the school population are English Language Learners (ELL). Due to its diverse and rural nature, GLL faces several barriers to providing the education and resources student needs. Behavioral health staff report that their students have high rates of substance abuse, suicide, and sex trafficking risk compared to the overall student population. Additionally, the school's chronic absenteeism rate is 63%, with most chronically absent students being of Native Hawaiian or Marshallese descent. The GLL lacks critical resources to implement effective programming, due to difficulty recruiting and training staff, lacking staff trained in specific disciplines, and an overall lack of staff capacity to effectively reach students.

PPW Integration. OD2A was able to provide valuable support to GLL by visiting the school and facilitating the PPW drug use prevention curriculum with male high school students. Based on feedback from the pilot PPW integration at Palama Settlement, OD2A worked closely with local school administrators and community leaders to ensure that the program was culturally appropriate and tailored to the needs of the community. We also conducted focus groups with Marshallese students to understand their specific health needs and challenges related to drug misuse. Focus groups allowed us to identify specific problems facing this community, such as facing stigma in the community, high rates of sexual abuse, and lacking access to safe drinking water. These efforts will enable us to tailor our outreach and engagement strategies to the specific needs of these communities.

Through our rural outreach efforts, we were able to build strong relationships with community members and better understand the challenges and needs of youth in rural areas.

Our drug use prevention curriculum was well-received by male high school students, and we received positive feedback from community members regarding our efforts. We believe that our efforts will contribute to reducing drug misuse and promoting positive health behaviors among youth in these communities. Engaging with youth in rural areas requires a unique approach that takes into consideration the specific needs and challenges of these communities. In our overdose prevention program, we recognized the importance of understanding the rural context of our outreach efforts to effectively engage with youth in these areas.

NALOXONE DISTRIBUTION

Stigma toward individuals with substance use disorders often leads to discrimination, stereotyping, and social isolation that can prevent them from seeking lifesaving healthcare.⁷ In accordance with CDC recommendations and guidelines, OD2A jurisdictions utilize surveillance data to reduce stigma by implementing locally relevant overdose prevention programs, improving partnerships between state agencies and community organizations, and promoting harm reduction strategies that empower individuals affected by opioid use to make safer choices.⁸ Harm reduction, an approach to public health that aims to mitigate the harmful effects of drug use by prioritizing and de-stigmatizing the needs of individuals who use drugs, consists of evidence-based strategies for preventing opioid overdoses such as syringe services programs, targeted naloxone distribution, and fentanyl testing.⁹

Targeted naloxone distribution programs are especially effective, low-risk prevention programs that focus on training and educating individuals who are most likely to either experience or witness an overdose, such as harm reduction outreach workers, clinicians, first responders, and pharmacists on effective use and administration of naloxone.⁷ Naloxone is a life-saving medication that can reverse overdose from opioids including prescription opioids, heroin, and fentanyl. It can be administered in the form of an injection or a nasal spray, and it works by blocking the effects of opioids and restoring normal breathing within minutes.¹⁰ Targeted naloxone distribution programs ensure that individuals are both equipped with naloxone kits and comfortable administering naloxone in the case of an emergency.⁷

OD2A IN HAWAI'I

State and local communities play important roles in preventing opioid overdoses. Therefore, OD2A has supported naloxone training and distribution efforts across Hawai'i by collaborating with state and local agencies with the goal of putting naloxone in the hands of as many people as possible. These collaborations have resulted in increased local and state capacity for sustainable surveillance and prevention efforts, as well as an increased understanding among providers of the context, resources, and needs across different communities.



OD2A has supported naloxone overdose prevention strategies in Hawai'i through the following contributions:

1. Providing direct funds to support local organizations offering naloxone training and distribution throughout the community.
2. Collaborating with first responders and pharmacists to monitor and improve naloxone administration and access across settings.

COMMUNITY DISTRIBUTION PROGRAMS

People with opioid use disorder and others who are at high risk for experiencing an overdose may be most likely to interact with a harm reduction organization or other outreach organizations for services and supplies. Providing naloxone to these organizations increases the likelihood of getting it into the hands of people who will witness or experience an overdose, resulting in lives saved. Therefore, to support overdose prevention efforts in Hawai'i, OD2A has provided funds to local community organizations to introduce naloxone to their clientele, offer community trainings on overdose prevention and effective use of naloxone, and support wide distribution of naloxone kits throughout their community, targeting different segments of our vulnerable populations.

OD2A Hawai'i provided funding to the Hawai'i Health & Harm Reduction Center (HHHRC) to implement the Naloxone Training and Distribution Program, as well as five additional community agencies that were provided with sub-awards of \$6,000 each to support overdose response training and naloxone distribution in their own communities. HHHRC offers community trainings on opioid overdose prevention and response which explore the

impact of opioids on the body, identify the risks for accidental opioid overdose, and teach participants how to recognize the symptoms of overdose. Participants learn how to administer naloxone in the form of Narcan nasal spray and can obtain naloxone kits containing two doses of Narcan either by walking into the health center or by completing a naloxone request form on the HHHRC website to be sent in the mail.

Because targeted naloxone distribution is most effective when partnerships among stakeholders are strong and collaborative, OD2A prioritizes a Train-the-Trainer approach to prepare other community groups to continue to create awareness of naloxone, the use of naloxone, advocate to reduce the stigma of drug use, and distribute Narcan. Through these collaborations across Hawai'i, OD2A has been able to promote overdose prevention activities and work to create a more sustainable community-based naloxone distribution infrastructure and evidence-based overdose prevention strategies in Hawai'i.

During the grant period, OD2A worked with several community partners who contributed to the success of our overdose prevention efforts. We would like to highlight the success of the following partners:

- Hawai'i Island Community Health Center, a nonprofit network of community health centers located across Hawai'i Island, successfully trained Hawai'i Police Officers in naloxone administration, increasing the availability of naloxone in their community, and improving the responses to overdose emergencies.
- The Maui AIDS Foundation offered naloxone training on Molokai and to the Maui Police Department, increasing awareness of overdose prevention strategies and naloxone administration among law enforcement and healthcare providers in these communities.
- Residential Youth Services and Empowerment (RYSE), a local youth organization for youth experiencing homelessness in Kailua, Oahu, successfully trained all outreach employees to carry naloxone. This has increased the availability of naloxone in areas where young people are known to congregate, reducing the risk of overdose deaths.
- BISAC (Big Island Substance Abuse Council), one of Hawai'i island's primary substance abuse and mental health treatment providers, provided overdose prevention training to community partners including the Office of Hawaiian Affairs, community providers, and predoctoral interns.
- Kumukahi Health & Wellness (KHW), a health clinic that uses a harm reduction approach to provide individuals affected by and living with HIV with client-centered, culturally competent support and education, successfully provided naloxone education to college students by hosting monthly events at the University of Hawai'i at Hilo. This education has increased awareness of overdose prevention strategies and naloxone administration among young adults, who are at increased risk of overdose.

Partnering with community organizations allowed OD2A to reach much larger audiences to provide education on overdose prevention and naloxone administration, and community members are becoming much more aware of naloxone and have advocated for education and awareness of overdose prevention using naloxone.

In addition, Hawai'i HIDTA and law enforcement across all islands carried out statewide naloxone training for police officers.

NALOXONE ACCESS AND ADMINISTRATION

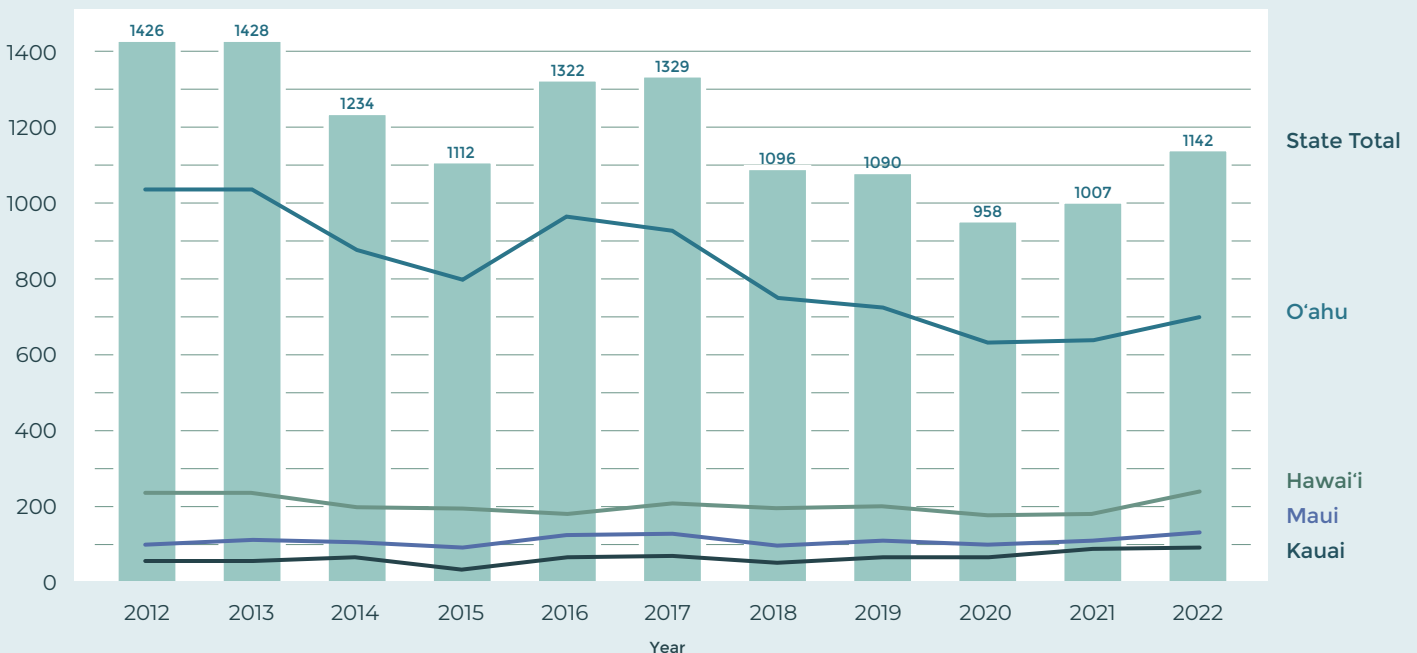
To complement efforts to distribute naloxone throughout the community through local organizations, OD2A also supported widespread naloxone access and administration in two additional settings: emergency medical services (EMS) and pharmacies. Equipping EMS first responders and pharmacists with adequate training and access to naloxone is especially critical in rural communities where transportation times for receiving medical care are longer and healthcare is generally less accessible. By monitoring EMS naloxone administration in the field and partnering with the Daniel K. Inouye College of Pharmacy to implement a brief screening and intervention program within pharmacies, OD2A was able to gather valuable data on areas of high overdose risk across the state, identify resource allocation needs, and provide individuals at risk of

overdose in rural areas with both education on overdose prevention and naloxone kits. OD2A partnered with EMS providers to monitor naloxone administration in the field, providing valuable data on areas of high overdose risk and resource allocation needs.

Naloxone Administration by Emergency Medical Services.

EMS first responders are well equipped to prevent or reverse overdoses through the use of naloxone and airway breathing interventions, and it is therefore imperative that they receive the necessary training and resources to prevent overdose deaths in the field. OD2A collaborated with EMS first responders to monitor naloxone administration across the state, collecting valuable data regarding areas of high overdose risk, pre-EMS administration of naloxone by bystanders, and EMS first responder administration of naloxone.

Figure 1: Annual Number of EMS Patients Receiving Naloxone, by County, 2012-2022



Pharmacy Access. Pharmacists and pharmacy technicians also play a critical role in the distribution of naloxone to communities in need.¹⁰ OD2A supported naloxone access by working with local pharmacies to implement a brief screening and intervention pilot for individuals who may be at risk of overdose. This pilot project involved a brief survey and intervention by a trained pharmacist, including education on overdose prevention, naloxone distribution, and referral to treatment and support services as needed.

The modified screening, brief intervention and referral to treatment (SBIRT) pilot project offered community pharmacy-based intervention services in rural areas of Hawai'i Island from November 2020 to July 2021. Due to the relatively low population density of Hawai'i Island (46 people per square mile) and the scarce number of pharmacies, accessing pharmaceutical care can be extremely difficult for individuals living on Hawai'i Island.¹¹ This intervention was specifically targeted to reach patients in areas without easy access to pharmacies that are at risk of opioid use disorder (OUD) or overdose. In collaboration with the Daniel K. Inouye College of Pharmacy, this pilot project aimed to train technicians and pharmacists in rural Hawai'i Island on how to identify and screen patients for eligibility and carry out the brief intervention including patient counseling. This program, known as the Rural Opioid Modified SBIRT Pilot Project, involved a brief survey and intervention by a trained pharmacist, which included providing the patient with education on overdose prevention, counseling them on proper use of naloxone, and providing them with naloxone kits. Pharmacists and technicians from four locations were trained to screen for eligible patients and carry out the brief intervention.

The screening and brief intervention began with technicians identifying patients based on their prescription and checking their Prescription Drug Monitoring Program history. Once patients were identified, the technician would introduce the patient to an "Opioid Pledge." The pharmacist then discussed naloxone with the patient and provided patients who accepted the recommendation with a handout "How to use Naloxone Handout." Pharmacists also counseled patients on how to properly use Naloxone/Narcan. Patients received a basket including their prescription, educational handouts, 2 doses of Naloxone and a DisposeRX packet. If patients rejected the recommendation, pharmacists documented their decline and shared results with the patient's prescriber.

Future Access to Naloxone. In March of 2023 the U.S. Food and Drug Administration (FDA) approved Narcan nasal spray to be sold for non-prescription, over the counter (OTC) use, making it the first naloxone product to be accessed without a prescription.¹² In theory, this monumental change in policy has the potential to drastically improve access to this life-saving medication for people across the country. Effective naloxone distribution and administration is highly dependent upon its availability in a variety of settings and removing the barrier

of needing a prescription can have profound implications for overdose prevention efforts across the country.

While this change in federal policy is extremely promising for the future of naloxone availability and distribution for all populations, it does not necessarily alleviate the barriers to access that already disproportionately impact disadvantaged communities. While the FDA has approved Narcan for OTC use and sale, the specifics of availability and, perhaps most importantly, the price of the drug has yet to be determined by the manufacturer.¹² With this change, OD2A jurisdictions may face new challenges in the future if the price or availability of OTC Narcan leads to inequities in access for vulnerable populations.

Our overdose prevention efforts during the grant period have had several positive outcomes. There is increased awareness of overdose prevention. Our targeted education and screening programs led to increased awareness of overdose prevention strategies and naloxone administration among individuals who use drugs, their families, and healthcare providers. There is improved collaboration with community partners. Our overdose prevention efforts have led to improved collaboration and engagement with community partners, including local pharmacies, EMS providers, and community organizations. Overall, the outcomes demonstrate the success of the overdose prevention efforts in introducing naloxone to the public and promoting awareness, increasing the availability of naloxone, expanding access to training and resources, and ultimately, contributing to the reduction of opioid-related overdoses and deaths in Hawai'i.

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Workforce Development and Training

INTRODUCTION

This infrastructure to support the State of Hawai'i Behavioral Health Dashboard was co-developed by DOH and HI-DSI. The data warehouse infrastructure that stores and collects substance use and overdose information consists of a Microsoft Azure government cloud Microsoft SQL instance. It is combined with Microsoft Data Factory for automating the ingestion of data from public and private data providers (see Data Sources) at appropriate periods of update (daily, weekly, monthly, quarterly, yearly). The Microsoft Data Factory executes R and Python codes developed by DOH and HI-DSI for fetching or processing surveillance data related to substance use and overdose data.

HAWAII OVERDOSE DATA TO ACTION - CARE COORDINATION AND CAPACITY BUILDING (OD2A-C3)

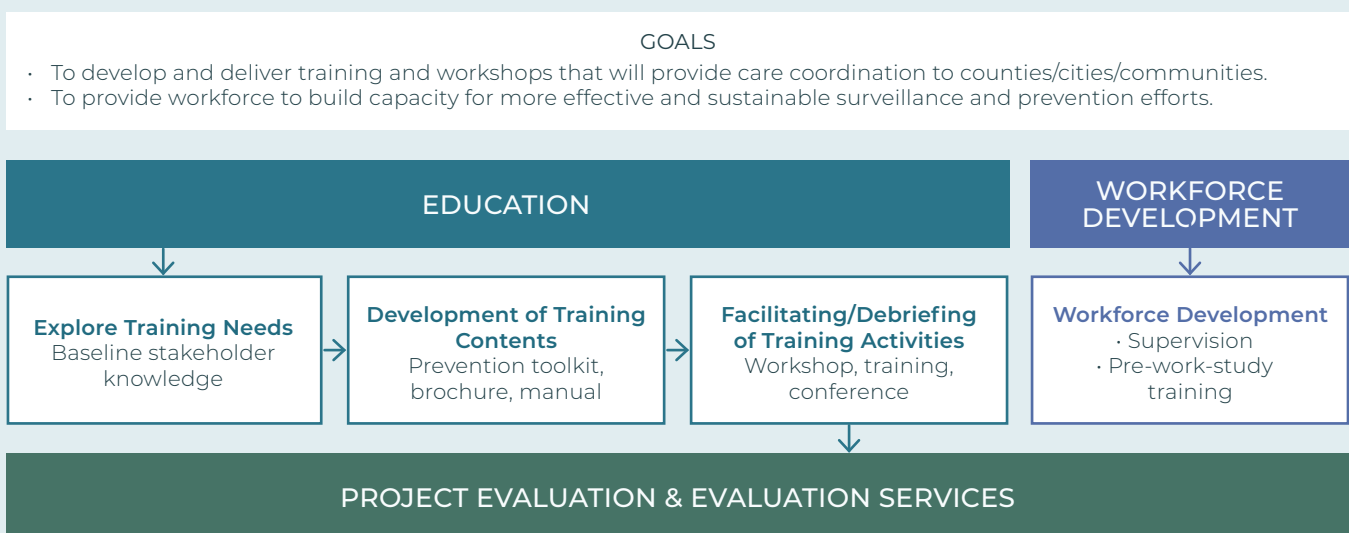
In September 2019, the Hawai'i OD2A-C3 Project began prevention efforts concentrating on strengthening the availability of appropriate prevention services and resources. Managed by a team of faculty and students from the UHM Thompson School, the Hawai'i OD2A-C3 Project combined community training, workforce development, and resource dissemination (Figure 1).

Hawai'i OD2A-C3 provided activities and resources for social workers and other allied health and human services providers to address opioid misuse, abuse, and overdose. The Hawai'i OD2A-C3 Project's goals included CDC OD2A Strategy 5: to integrate state and local prevention efforts, build capacity for effective and sustainable surveillance and prevention efforts, and promote prevention response strategies at the state and local level.

The project coordinated efforts with community partner organizations to leverage community strengths and local resources against substance misuse and overdose. Sustained education and awareness will galvanize and empower communities to seek help and take appropriate preventative action.

Figure 1: OD2A-C3 Project Structure Diagram

C3 - CARE COORDINATION & CAPACITY BUILDING



Over the last three years, the Hawai'i OD2A-C3 Project completed activities in three areas: (1) Training social workers, allied health, and human services professionals; (2) Workforce development (WFD) program: a 12-week intensive, paid internship for community service providers, social work, public health, psychology, and human services students teaching a variety of tailored knowledge, skills, and experience collaborating with community agencies; and (3) Development and dissemination of prevention materials (e.g., infographics, brochures, videos, and handbooks) to enhance public awareness.

TRAINING

The Hawai'i OD2A-C3 Project produces and provides training for social workers and other allied health and human services professionals in Hawai'i. Webinars provide prevention knowledge and skills to help nonprofit and coalition partner organizations implement prevention activities that are evidence-based, data-driven, and targeted to vulnerable populations. These populations are disproportionately affected by social determinants of health and include individuals who may have been, or are, affected by substance use.

Since March 2019, 14 webinars have been provided to Hawai'i communities covering opioids, substance use disorders, behavioral mental health, polysubstance use, co-occurring disorders, recovery, family strengths and resilience issues. The training, presentations, resources, and related documents are easily accessible online to aid community practitioners and providers in their prevention and intervention efforts.

DEVELOPMENT AND DISSEMINATION OF PREVENTION MATERIALS

The Hawai'i OD2A-C3 Project develops and disseminates prevention materials (e.g., infographics, brochures, videos, and handbooks) to promote public awareness of overdose issues in Hawai'i. The purpose of producing prevention materials is to synthesize literature and data on opioid prevention and care coordination activities so that the information can be accessible to local counties, cities, and communities in Hawai'i.

OD2A-C3 fellows and the team researched evidence-based resources, and created user-friendly, culturally informed overdose prevention infographics accessible to the general public, youth, health professionals, and educators. Infographic content addressed drug use prevalence, substance use and misuse, vulnerable populations, drug overdose risk factors, and protective factors.

WORKFORCE DEVELOPMENT (WFD) PROGRAM

The OD2A-C3 Workforce Development (WFD) program is a 12-week intensive, paid internship for community service providers, social work, public health, psychology, and human services students. This funded training and community collaboration focuses on addressing the overdose prevention needs in Hawai'i by increasing awareness,

knowledge, and skills in substance use and mental health prevention, treatment, harm reduction, and recovery. The goal is strengthening foundational practices which facilitate the wellbeing of individuals confronting substance use and behavioral health issues. The process will engage trainees in a variety of tailored educational seminars and experiential collaboration with community agencies.

The WFD program provides learning opportunities for WFD fellows (trainees) to gain exposure, knowledge, skills, and experiences related to the prevention and treatment of opioid misuse, overdose, polysubstance use, and co-occurring disorder(s) through speaker seminars.

The WFD fellows are assigned to an approved community partner and work collaboratively in groups of two to four trainees to work on projects that enhance the community partner's prevention efforts, client service delivery, networking abilities, and/or benefits program function. Community partners support and provide feedback to the WFD fellows as they create and execute their projects. The WFD fellows' project work is done virtually, hybrid, or in-person. Through engagement, fellows learn how the community partner provides services related to opioid use, overdose prevention, polysubstance use, and co-occurring disorders.

LEARNING OBJECTIVES

Through the WFD program, the WFD fellows gain knowledge and skills related to opioid use, overdose prevention, polysubstance use, and co-occurring disorders with a special focus on Hawai'i's unique needs and population. The WFD program focuses on learning objectives in three main areas, which are capacity building, career training, and community collaboration.

In terms of Capacity Building, the WFD fellows foster awareness and culturally informed knowledge of the opioid and overdose epidemic nationally and in Hawai'i. Fellows learn the concept of intersectionality and its importance in opioid and overdose research; and learn to recognize Hawai'i's unique needs (culturally, demographically, geographically) in preventing and treating opioid and overdose issues. Fellows also develop their ability to identify and respond to individuals experiencing an opioid addiction and how to respond in the case of an overdose. Through the program, fellows develop their interest and capacity to work in opioid overdose and misuse prevention, substance use disorder (SUD), mental health, co-occurring disorders, and polysubstance use fields.

In terms of Career Training, WFD fellows learn the value of interprofessional collaboration; and recognize how substance use treatment and prevention is interconnected in the social work, public health, psychology, and related human service fields. The program helps fellows identify possible career opportunities related to the prevention and treatment of the opioid and overdose epidemic in Hawai'i.

WFD fellows also recognize how opioid and other drug abuse intersects with diverse client populations and various human service providers. Overall, through the program, WFD fellows work together to support existing community and state agencies that provide services in relation to opioid use, overdose prevention, polysubstance use, and co-occurring disorders.

Lastly, in terms of Community Collaboration, WFD fellows communicate with community providers to learn about services they provide and their agency's strengths, weaknesses, opportunities, and threats. Through the program, fellows develop a plan to supplement the agencies' areas of weakness or to fill in gaps in communication or service delivery with a community service project. During the service project, fellows create materials to be utilized by agencies to support and enhance their service delivery.

ACHIEVEMENTS

From 2020 to 2023, the OD2A-C3 WFD program has provided comprehensive, innovative training to a total of 70 selected WFD fellows. WFD fellows consisted of community service providers and social work, public health, and psychology undergraduate and graduate students at the University of Hawai'i. During the first three years of the program, the majority of WFD fellows resided on O'ahu, with a few fellows living on Maui and Hawai'i island. However, for year four, the WFD program expanded to recruit more WFD fellows from the neighbor islands. The WFD program team partnered with representatives from the Moloka'i Education Center and Kaua'i Community College to recruit WFD fellows from Moloka'i and Kaua'i.

In year one (Summer 2020), 15 fellows were recruited to the WFD program (13 from O'ahu, 1 from Maui, and 1 from California). Year one WFD fellows consisted of 4 graduate students and 11 undergraduate students in the following degree programs at the University of Hawai'i at Mānoa (UH Mānoa): 4 Master's of Social Work, 8 Bachelor's of Social Work, 2 Bachelor's of Public Health, and 1 Bachelor's of Psychology.

In year two (Summer 2021), 16 fellows were recruited to the program, all of whom resided on O'ahu. Year two WFD fellows consisted of 8 graduate students and 8 undergraduate students in the following degree programs at UH Mānoa: 7 Master's of Social Work, 1 Master's of Public Health, 3 Bachelor's of Social Work, and 5 Bachelor's of Public Health.

In year three (Summer 2022), 15 fellows were recruited to the program (9 from O'ahu, 2 from Maui, and 1 from Hawai'i island). Year three WFD fellows consisted of 3 graduate students and 12 undergraduate students in the following degree programs at UH Mānoa: 1 Juris Doctor, 1 Master's of Social Work, 1 Master's of Educational Psychology, 8 Bachelor's of Social Work, and 4 Bachelor's of Psychology.

In year four (Spring to Summer 2023), 24 fellows were recruited to the WFD program (21 from Moloka'i and 3 from Kaua'i). Year four WFD fellows consisted mainly of Moloka'i and Kaua'i community members and community service providers. Additionally, there were 2 students from the University of Hawai'i Maui College and 2 students from UH Mānoa (1 Master's of Social Work and 1 Bachelor's of Social Work) participating in the program.

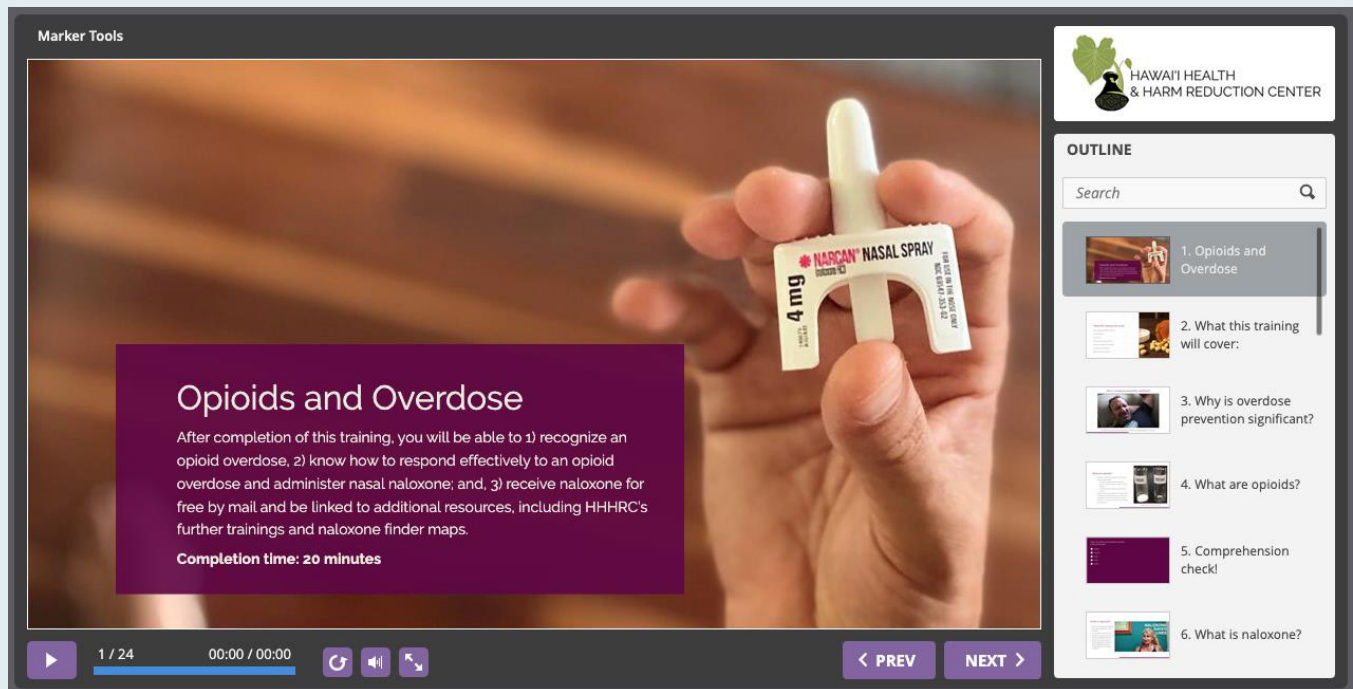
WFD fellows participated in a series of training seminars. From 2020 to 2023, a total of 60 trainings were delivered to WFD program participants (16 trainings in year 1, 16 trainings in year 2, 16 trainings in year 3, and 12 trainings in year 4). The online training seminar topics included but were not limited to naloxone, opioid overdose and misuse, polysubstance use, and co-occurring disorders.

Lastly, WFD fellows worked closely with community partner organizations to develop and execute service projects. The WFD program partnered with a total of 8 community partner organizations across the state of Hawai'i (5 from O'ahu, 3 from Hawai'i Island, _ from Moloka'i, and _ from Kaua'i). Partner organizations included Big Island Substance Abuse Council (BISAC), EndMeth, Hawai'i Health Harm Reduction Center (HHHRC), Hawai'i State Rural Health Association (HSRHA), West Hawai'i Community Health Center (current Hawai'i Island Community Health Center), Coalition for a Drug-Free Hawai'i, Hawai'i High Intensity Drug Trafficking Area (Hawai'i HIDTA), and Papa Ola Lokahi. Teams of WFD fellows developed opioid and substance misuse prevention products to support their sponsor agencies.

WFD FELLOWS' PROJECTS

Small groups of WFD fellows are assigned to community partner organizations to do project-based work. Through their project assignments, WFD fellows learn how the organization carries out their mission and provides services related to opioid use, overdose prevention, polysubstance use, and co-occurring disorders. The objective of the WFD fellows' projects is to contribute to the agency's efforts and improve the outcomes of the services they provide. At the end of the program, WFD fellows showcase their community service projects at a virtual symposium highlighting the group's work, accomplishments, and items they learned.'

Figure 2: Online Overdose Prevention Training Course



Screenshot of the 20-minute self-guided online overdose prevention training course developed by the Year 2 WFD Fellows working with Hawai'i Health Harm Reduction Center (HHRC).

Table 1: Data Sources & Variables Captured in SUDORS Dataset

2020 WFD Fellows Projects	
Partner Organization	WFD Fellows' Project Description
Big Island Substance Abuse Council (Hawai'i Island)	Brochures on General Self-Care Practices, Compassion Fatigue, & Burnout https://bit.ly/3MejgBY
Coalition for a Drug-Free Hawai'i (O'ahu)	Organizational Survey to Collect Feedback from Clients, Employees, & Community Stakeholders on the Organization's Work https://bit.ly/3ZR4tH7
Hawai'i Health & Harm Reduction Center (O'ahu)	Transcript & Training Facilitation Guide for Employees & Medication Assisted Treatment Educational Resources https://bit.ly/40T1oYs
West Hawai'i Community Health Center (Hawai'i Island)	Enhance WHCHC's Website & Create a Substance Use Disorder Help Guide https://bit.ly/3GwdwXh

Table 2: 2021 Workforce Development Fellows Projects

2021 WFD Fellows Projects	
Partner Organization	WFD Fellows' Project Description
Big Island Substance Abuse Council (Hawai'i Island)	Substance Use & Addiction Education & Awareness Presentations for Adults & Youth https://bit.ly/41cd9ZS https://bit.ly/41cd9ZS
EndMeth (O'ahu)	Enhance EndMeth's Social Media Presence & Website to Disseminate Educational Posts, Statistical Data, & Personal Stories https://bit.ly/3UqBadx
Hawai'i Health & Harm Reduction Center (O'ahu)	Naloxone Online Training Module https://bit.ly/41aynak
Hawai'i State Rural Health Association (Hawai'i Island)	Informational Website about Hawai'i's Correctional Facilities, Challenges Faced by Incarcerated People, & Educational Resources https://bit.ly/41eSEvx
West Hawai'i Community Health Center (Hawai'i Island)	Opioid Overdose Recognition & Reversal Training; Requests for Narcan Training & Kits; Recognizing & Responding to an Opioid Overdose Infographic; Substance Use Disorder Website; Cognitive Behavioral Therapy & Reframing Pain Resources https://bit.ly/3MximHI

Table 3: 2022 Workforce Development Fellows Projects

2022 WFD Fellows Projects	
Partner Organization	WFD Fellows' Project Description
Big Island Substance Abuse Council (Hawai'i Island)	Prevention Materials for Community and Statewide Distribution of Naloxone Kits https://bit.ly/43irAgS
Hawai'i Health & Harm Reduction Center (O'ahu)	Safer Smoking and Syringe Exchange Educational Materials https://bit.ly/3GwR5kM
Hawai'i High-Intensity Drug Trafficking Area (O'ahu)	Fentanyl Social Media Campaign and Youth Survey & Community Based Participatory Research (CBPR) Qualitative Study https://bit.ly/3Km8PR3
Hawai'i State Rural Health Association (Hawai'i Island)	Justice-Involved Resource Backpacks https://bit.ly/3Uoiwmq
Papa Ola Lōkahi (O'ahu)	Systematic Literature Review to Aid in Creating Culturally Grounded Native Hawaiian Harm Reduction Tool Kits https://bit.ly/3zJeLP0

FEEDBACK FROM WORKFORCE DEVELOPMENT FELLOWS

After completion of the Workforce Development Program, WFD fellows are given a post-program survey and interviewed one-on-one to get their overall feedback about the program. Participants reported many benefits and takeaways from the WFD program, including gaining knowledge, awareness, understanding, and skills to support career training and capacity building. WFD fellows also reflected on the importance of community and culture in recovery and prevention work. The following quotes are some thoughts and takeaways that fellows expressed about their participation in the WFD program.

"This program has given me significant resources in substance use treatment and recovery services all around the state. It has also given me a paradigm shift with the way I view people being affected by SUD and how I can give them a basis of help. Lastly, the knowledge of various substances, medications, and treatment availability in our state has been very useful in understanding and it gives me more of a reason to be active in advocating for more services or funding for the programs in substance use, seeing how we are so limited in resources."

— 2020 WFD Fellow

"The WFD program influenced my career path because it gave me the opportunity to work on a macro level with an organization for the first time, which I deeply appreciate. Many professional development and capacity-building events also provided me with a wealth of information, which I intend to save for future use."

— 2021 WFD Fellow

"I value diversity and working to create an inclusive environment for all, and the WFD program helped me realize how important it is to include everyone, make everything accessible, and consider evidence-based practices that are adapted for minority populations in my culturally informed work."

— 2021 WFD Fellow

"When I started this internship, I had very little knowledge on substance abuse and substance abuse in Hawai'i. I believe this program has helped have a better understanding about the opioid epidemic in Hawai'i. I was also very surprised about the different training programs that I knew little about... LGBTQ, culture appropriation, anxiety, mental illness and how all of these are related to substance abuse. I am very proud of our end project that we completed with the organization I worked with but I am more proud of myself to have gained such insight on a community that I had little knowledge about."

— 2022 WFD Fellow

"I was able to learn how to collaborate with agencies while simultaneously learning more about their particular services and demographics, and interworking of the organization. I haven't been with an organization such as this prior, so it was a wonderful opportunity to develop this understanding."

— 2022 WFD Fellow

FEEDBACK FROM COMMUNITY PARTNER ORGANIZATIONS

Representatives from community partner organizations are also given a post-program survey and interview to obtain their overall feedback about the WFD program. The following quotes are some thoughts that community partner representatives had about their engagement, interaction, and work with WFD fellows.

"I just really enjoyed the trainings, their questions, and they were very present and very active. It was obvious that this wasn't just an academic exercise for most of them, and I really appreciated that."

— Representative from Hawai'i Health & Harm Reduction Center

"The benefits of participating I think with the outcome of what they did for us, the project, exceeded our expectations."

— Representative from West Hawai'i Community Health Center

"I think the whole process was good, it was a nice benefit for us. I mean, you know, if I grumble a little about the details, overall, we had some really sharp students doing some really good work for us. Stuff that was really kind of on my plate and I didn't know how it was going to get done. So it was a huge benefit to us. And so I'm very grateful for that. And I think overall, they did a great job. So no complaints. And just great appreciation for the students."

— Representative from Coalition for a Drug-Free Hawai'i

"We were like, so proud to say that we can leave our jobs in the future, knowing that our future is bright for social workers and psychologists."

— Representative from Big Island Substance Abuse Council

MOVING FORWARD

In 2023, Hawai'i OD2A-C3 will continue its activities and respectfully approach geographically isolated communities asking their permission to share workforce development training and prevention resources. Depending on the response, the team will collaboratively examine appropriateness of curriculum, make modifications as needed, share training and co-develop resources. The commitment will be to develop local-community relationships and listen to their needs.

CONCLUSION

Hawai'i OD2A-C3 aims to increase local and state capacity for prevention efforts; understand context, resources, and needs in state and local communities; and understand evidence-based, scalable responsible approaches. OD2A-C3 hopes to achieve greater awareness of drugs and opioids overdose epidemic with respect to challenges and resources by increasing preparedness and response at the state and local level.

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Public Communications and Awareness

INTRODUCTION

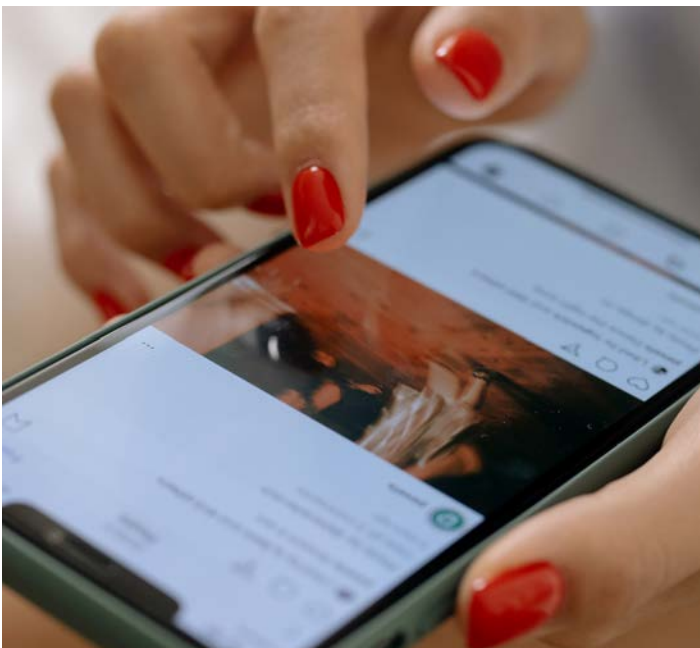
To promote general awareness of opioid use disorder in Hawai'i, both traditional media—TV, radio, newspapers, mailed newsletters, and digital social media are used. Target audiences for messaging include adolescents, individuals in emerging adulthood, adults and older adults. Younger adults are reached primarily using digital social media and adults across all the Hawai'i Islands are reached using traditional media including in-person community meetings. Coverage of disproportionately affected, high burden groups include Native Hawaiians, youth, the LGBTQ+ community, and individuals in rural Hawai'i/the Neighbor Islands (excluding urban Oahu Island) where there is limited access to treatment and care services including pharmacy services.

Through August 2020 and August 2021, the Hawai'i Health and Harm Reduction Center (HHHRC) used social media platforms with educational material about naloxone, training opportunities, and support groups. One of the highlights of the media promotion included "Overdose Awareness: Prevention and Education," which was a half-hour-long documentary with guest speakers including at the time Lieutenant Governor Josh

Green, members of the HHHRC staff, Hawaii State Department of Health (DOH) epidemiologist Dr. Dan Galanis, and other DOH staff (August 2021). This video aims to educate the community about the state's health crises. The documentary can communicate more effectively by bringing in local representatives to educate. The video is still available online and is easily accessible through the HHHRC website as well as on the KHON2 website. The media resources include existing opioid-related policies and communication expertise to reach the targeted audience.

Another informative documentary created by the HHHRC includes "#endoverdoseHI: Harm Reduction in the Pacific." This project aims to introduce the HHHRC and its mission and how severe the opioid crisis is in Hawai'i. With visuals to explain the job of Naloxone and having a medical professional define what the drug is, what it does, and how it works. This video also briefly demonstrates what to look for during an opioid overdose. This also was an excellent opportunity to bring awareness about the "Syringe Exchange" organized by the HHHRC. Through this exchange, individuals can bring syringes and exchange them for a sterile needle. Programs such as this assist in breaking down barriers and getting people the assistance people need. To quote Leilani Maxera, the former outreach and overdose prevention manager at HHHRC, "the stigma is what kills people." Both documentaries and media posts invite the community to learn about the opioid crisis and work towards ending the stigma of opioid overdose.

HHHRC has done extensive outreach for public communication, especially in the LGBTQ+ community. Those who are members of this community, those who are houseless, pregnant women, criminal justice involvement, and those who live in rural areas with limited access to healthcare and resources. Many people in this population are born into environments with easy access to substance use. Creating the "call to action" campaign encourages individuals to share their experiences and ask for help. Another overdose prevention campaign called "B-Akamai" included the creation of postcards to notify the community about upcoming opioid overdose response training (ORT) and a micro-site (www.b-akamai.org). The HHHRC has created many opportunities to reach out to the public about naloxone training/awareness and prevention, including the Colt Brennan KHON2 Special, the Hawai'i EndMeth Summit, the Prevention Plus Wellness project, the Post-Overdose Report Team, and the HHHRC Evaluation plan.



PARTNERS

HAWAI'I HEALTH AND HARM REDUCTION CENTER

Hawai'i Health and Harm Reduction Center or HHHRC, serves Hawai'i communities by reducing the harm and fighting the stigma of HIV, hepatitis, homelessness, substance abuse, mental illness, and poverty in our community. HHHRC produced and released one documentary on harm and overdose education, i.e., #EndOverdoseHI: Harm Reduction in the Pacific." Through social media platforms, the intended audience is millennials (aged 26-41) and generation X (aged 42-57). Social media has played a significant role in HHHRC's communication outreach to their target population, including over forty posts on Facebook with the "#endoverdoseHI." These posts include motivational messages and informative news about how to get access to Naloxone. This platform has explicitly promoted the "Syringe Exchange and Harm Reduction with Aloha," the "#EndOverdoseHI: Harm Reduction in the Pacific," and many other events that educate the community about the signs and symptoms of an opioid use disorder, letting people know that they are not alone, and most importantly where to get assistance if the user or someone they know may need help. In addition to creating a network on the island of Oahu, HHHRC has also been working in rural areas such as the island of Maui, where there are not as many resources available for those who have substance use disorders. An example of this would be one of the Facebook posts in 2022, "HHHRC was happy to provide LGBTQ+ Cultural Humility, Motivational Interviewing, and Trauma Informed Care training to our friends at Ka Hale A Ke Ola on Maui. HHHRC's training institute is available for any business or non-profit group looking to build capacity." Using Motivational Interviewing and Trauma Informed Care, these counseling methods help people resolve ambivalent feelings and insecurities to find their internal motivation to change their behavior. Having the opportunity to discuss insecurities such as this may lead to the internal reason that is needed to make behavior changes. This practice is a short-term and effective process that is practical and empathetic to the individual. The recommended population for these counseling methods include those affected by trauma, such as veterans, those who have experienced domestic violence, physical/sexual abuse, etc. Many of these individuals turn to drugs or alcohol to cope with the pain.

RESIDENTIAL YOUTH SERVICES AND EMPOWERMENT

Residential Youth Services and Empowerment (RYSE) is a non-profit organization operating a youth access center and shelter services in Kailua, Oahu. This program aims to provide a haven for youths and assist in keeping them off the streets. A medical clinic and mental health support are located on the property, and substance abuse counseling and treatment referrals are one of the client services available. Emergency and crisis services information is found on the website for

medical/health emergencies, crisis lines for a local call center, and a national lifeline. Individuals battling substance use and sobriety are welcome to RYSE and given resources to assist them on their journey.

WEST HAWAI'I COMMUNITY HEALTH CENTER - HAWAI'I ISLAND COMMUNITY HEALTH CENTER

Hawai'i Island Community Health Center provides overdose response training to high school athletes at Waiakea High School. Two hundred high school students had overdose response training on August 10, 2022, and within the same month, support staff was able to reverse an overdose in the clinic's parking lot. "Promotes lifelong health and wellness through quality healthcare that is comprehensive, integrated, culturally responsive, and accessible to all." Public communication includes Narcan distribution events, with information on the website and substance use treatment resources. This organization held the Statewide Fentanyl Summit in February 2022 to educate the public about the rise of drug overdoses and fentanyl awareness. There was a panel of local community leaders, including Mayor Mitch Roth, Hawai'i State Epidemiologist Dr. Dan Galanis, 3rd Circuit Judge Wendy DeWeese, Lokahi Treatment Center's Lead Counselor Verna Chartran, Dr. Kevin Kunz, and others. By having a diverse group of individuals with specialized skill sets, they could address questions and concerns.

BIG ISLAND SUBSTANCE ABUSE COUNCIL

Big Island Substance Abuse Council, BISAC, is one of Hawai'i Island's leading substance abuse treatment providers and behavioral health care services to adults and youth. BISAC works with the Office of Hawaiian Affairs and other local organizations to increase overdose prevention education within the community. Through the community's feedback, testimonials were given about the concern for kupuna's risk of overdose when the medication given to them is not monitored constantly. With this information, the team has been able to tailor the overdose response training better to the community.

PAPA OLA LOKAHI

The mission is to improve the health status and well-being of Native Hawaiians and others by advocating for, initiating, and maintaining culturally appropriate strategic actions aimed at improving the physical, mental, and spiritual health of Native Hawaiians and their 'ohana (families) and empowering them to determine their destinies. This organization works to communicate with the Native Hawaiian community about harm reduction and offers education and resources. One of this organization's main accomplishments supported by OD2A is in harm reduction with the development of the Native Hawaiian harm reduction toolkit.



The “Harm Reduction Community Toolkit,” by Papa Ola Lokahi, brings attention to harm reduction in Native Hawaiian communities, strives to develop a foundation for understanding harm reduction, and creates a community and cultural approach to reducing harm and the promotion of healing. Examples given in this toolkit include educating people about substance use and harm reduction, establishing safe use sites, distributing naloxone kits, and making safe drug use equipment available (e.g., sterile syringes, disposal of equipment, and pipes). The toolkit also includes expanding medication-assisted treatments, developing housing options with low barriers and wrap-around services, and providing peer support.

The “Kūkulu Kumuhana is a well-being framework developed by Kānaka Maoli and others for the lāhui and all who live in Hawai‘i. It is a transformative model utilized by individuals, families, and communities for holistic wellbeing.” The dimensions of Native Hawaiian wellbeing are Ea., ‘Āina Momona, Pilina, Waiwai, ‘Ōiwi, and Ke Akua Mana. Each one of these dimensions is essential to understand this close-knit community. Ea is self-determination, having control over your own life, and the healing process is about knowing who you are.

‘Āina Momona is a healthy and productive land, and people are in balance with nature and one another. This includes taking care of the land as you would for your ‘ohana, caring for yourself, your body, and your health as you care for the land. Pilina is to mutually sustain relationships, care about others, and support one another and the community. The theme is healing and building and nurturing connections in one’s life through aloha. Waiwai is ancestral abundance, collective wealth, and seeing value in everyday things. Collective health is collective wealth in the Native Hawaiian community; therefore, support may look different for everyone and can take on many various forms. ‘Ōiwi is cultural identity and native intelligence, meaning knowing where you are from and having a deep understanding of your persona. By learning the history of Native Hawaiians, such as learning ‘ōlelo and engaging in cultural and ‘āina practices, one can have a better understanding of the sense of pride and sense of place, and through this can learn about the personal process of healing and renewal. Lastly is Ke Akua Mana, spirituality, and the sacredness of mana. One’s kuleana, or one’s responsibility in Hawaiian, can assist in finding one’s purpose. Through these pillars in the Native Hawaiian community, it is essential to have a solid foundation to help those in need. Substance use disorder may be complex for a population to understand how one person may heal, but it is also in alignment with Ea. It is about the healing journey and not the destination. Each person heals differently, and it is up to them to reach out to their ‘ohana for assistance, but it is essential to be there when they are ready.

MAUI AIDS FOUNDATION

Maui AIDS Foundation (MAF) is a 501(c)(3) health and social service organization focused on promoting the sexual health and well-being of the members of our community. MAF is the only HIV/AIDS service organization serving Maui County, including Maui, Lanai, and Molokai islands. MAF has worked with Maui Police Department in monthly overdose response training. Also, MAF has worked with rural communities and medical professionals in Maui to implement overdose response training.

Summary of OD2A Achievements and Implications for OD2A in States (OD2AS) in Hawai‘i

This CDC OD2A Hawai‘i Final Report for the grant period September 1, 2020 – August 31, 2023, has highlighted OD2A cooperative agreement achievements and contributions in Hawai‘i.

OD2A funding has built and improved the public health drug surveillance data infrastructure in Hawai‘i. There is now monthly DOSE reporting which tracks suspected all drug, opioid, heroin, and stimulant-involved ED visits and hospitalizations, including demographic (i.e., age and sex), county-level elements, and annual and monthly percent changes in nonfatal overdose counts and rates (Refer to Chapter 1). Additionally, there is now SUDORS data abstraction by the University of Hawai‘i Thompson School COA and reporting by DOH every six months (Refer to Chapter 2). SUDORS data consisting of up to 600 data elements provide information on the circumstances surrounding overdose deaths, improve fatal overdose data timeliness and accuracy, and identify specific substances causing or contributing to overdose deaths. Taken together, DOSE and SUDORS surveillance data identify emerging and polysubstance overdose trends, and highest risk sub-groups in the population. Substance overdose trends from 2018 – 2021, show that opioid-involved hospitalizations decreased 13.6 per 1,000 visits whereas stimulant-involved hospitalizations increased by 0.8 per 1,000 visits, or 80%. Triangulation analysis of DOSE and SUDORS data by University of Hawai‘i Thompson School COA researchers shows that demographically, non-fatal and fatal overdoses were mostly male and aged 50 and older. For these older decedents, 24.8% of fatalities were attributed to opioids and prescription opioids. Most of the other older decedents died from methamphetamine toxicity and related cardiovascular and neurological complications.

CDC will fund the new programming cycle called Overdose Data to Action in States (OD2AS) starting September 1, 2023, for up to five years. The goal of this new funding is to enhance the ability of Hawai‘i DOH to track and prevent nonfatal and fatal overdoses while also identifying emerging drug threats. The funding opportunity emphasizes surveillance strategies and the promotion of evidence-based and evidence-informed interventions that have an immediate impact on reducing overdose morbidity and mortality, with a focus on opioids,



stimulants, and polysubstance use (if addressed in combination with opioids and stimulants).

University of Hawai‘i JABSOM Medical School and University of Hawai‘i Thompson School COA aim to examine the clinical pathways to treatment and care for PWUD aged 50+, within the

hospital setting (OD2AS Component C: Surveillance of Linkage to and Retention in Care). DOH aims to earmark OD2AS funding to continue with DOSE and SUDORS surveillance data reporting (OD2AS Component A: 6A Overdose Surveillance Infrastructure).

OD2A funding has also been used to support the Hawai'i Prescription Drug Monitoring Program (HI – PDMP) surveillance data infrastructure (Refer to Chapter 3). This enables the continuous tracking of Schedule II – IV controlled substances prescribed by treatment providers. PDMP prescribing trends and clinical alerts have enabled the Narcotics Enforcement Division (NED) to determine the extent to which prescribing guidelines, measured at 90 MME are adhered to, and a higher 180 MME exception for patients suffering from cancer. PDMP tracking data of Schedule II – IV controlled substances also act as a proxy to examine user substitution of prescription opioids with illicit street drugs. This information enables NED to improve drug arrests. Also, the PDMP tracking data enhances data sharing with Hawai'i HIDTA and law enforcement agencies to better understand changes in the illicit drug market. Hawai'i DOH looks forward to continuing with PDMP surveillance data reporting and enhancing public health-public safety partnerships during OD2AS (OD2AS Component A: 6A Overdose Surveillance Infrastructure)

Funding for the State of Hawai'i Behavioral Health Dashboard <https://bh808.hawaii.gov/> has been entirely from CDC OD2A (Refer to Chapter 3). This has enabled all substance use disorder and mental health data to be visualized in one location for easy access and use by legislators, policymakers, researchers, and the public. Hawai'i DOH aims to enhance the behavioral health dashboard during OD2AS. (OD2AS Component A: 6A Overdose Surveillance Infrastructure)

Through the cooperative agreement, OD2A has contributed to opioid and stimulant treatment linkages to care in Hawai'i (Refer to Chapter 4). OD2A supported various pathways and connections between different healthcare providers and resources that are involved in the treatment of opioid use disorder (OUD) and stimulant use disorder, including:

- **Post-Overdose Response Treatment (PORT)** – within the hospital setting, Queens Medical Center and Queens Medical Center West Oahu provide immediate support and care to individuals who have experienced a drug overdose. At ED, buprenorphine is administered to patients. After patients are stabilized, they receive navigation support for referrals and warm hand offs to treatment and aftercare support services. The long-term goal is to replicate PORT in other ED hospitals in Hawai'i where standardized data across all ED is collected and analyzed (OD2AS Component C: Surveillance of Linkage to and Retention in Care)
- **Bureau of Justice Assistance New Directions Re-Entry Program** – this pilot program is designed to reduce recidivism among persons with co-occurring substance use and mental illness, who are disproportionately represented

in the criminal justice system, through early identification and treatment. Co-occurring persons receive support from forensic peer specialists who help them navigate through the criminal justice system and the treatment and care support system.

- **Peer Specialist Support for Pregnant and Postpartum Women** – this is a pilot program that aims to link pregnant women with SUD to treatment and to retain them in care when postpartum. They receive peer specialist support to encourage them to complete treatment and to halt drug use during and after pregnancy.
- **Crisis Call Lines and Stabilization Beds** – callers in crisis or at high risk of committing suicide, are counseled. Crisis Mobile Outreach will visit high risk individuals and if determined as necessary, high-risk individuals are offered stabilization beds.

All the above linkages to treatment and care started and evolved in urban Oahu Island. The long-term goal is to expand these pathways in the high burden, low resource rural Neighbor Islands. Hawai'i DOH aims to expand and improve linkages to treatment and retention in care in the rural Neighbor Islands in OD2AS. (OD2AS Component A: 1A Linkage to and Retention in Care)

OD2A funding has actively supported overdose education and naloxone distribution (OEND). The main achievement as a part of the harm reduction strategy in Hawai'i is improving access to and the distribution of Naloxone. The Hawai'i Health and Harm Reduction Center and its community partners across urban Oahu Island and the rural Neighbor Islands have promoted overdose education, increased public awareness, and improved Naloxone distribution (Refer to Chapter 5 and Chapter 8). Also, Daniel K. Inouye College of Pharmacy (DKICP) has led pharmacy initiated SBIRT and Naloxone prescription. Overdose education, Naloxone training and distribution are now carried out in and with:

- EMS and Fire Department first responders
- County Police Departments
- Correctional Facilities
- Hospital EDs
- Treatment programs
- Youth and after school programs
- Schools in Oahu Island and Hawai'i Island ("Big Island")

Secondary Naloxone distribution through non-traditional community-based settings include:

- Restaurants
- Bars

Hawai'i DOH aims to use DOSE and SUDORS data to craft future Naloxone strategies in OD2AS (OD2AS Component A: 2A Harm Reduction). One such strategy will be overseeing the purchase and placement of naloxone vending machines. These vending machines will be placed in locations which were determined to have higher incidences of opioid overdose.



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