**Opioid Use Disorder in People Experiencing Homelessness in King County, Washington**

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Honor Pledge: “We have neither given nor received unauthorized aid in preparing this written work.”

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# Part I: Executive Summary

Opioid Use Disorder (OUD) represents a critical public health challenge, particularly among marginalized populations, such as people experiencing homelessness (PEH) in King County, WA. In general, national estimates suggest that one in four PEH also has a drug use disorder (National Coalition for the Homeless, 2017). PEH also has a higher prevalence and frequency of both heroin and polysubstance abuse than individuals with OUD who are not experiencing homelessness (Han et al., 2022). Within this context, King County, WA, faces its crisis, with a notable increase in fentanyl-related overdoses between 2022 and 2023 (DEA, 2023). Although PEH makes up one percent of King County’s population, roughly 20 percent of overdose deaths were attributed to PEH.

As a group, PEH and people with OUD have higher instances of other mental illnesses and traumatic experiences. While mental illnesses and ACEs play a role in the increasing propensity of OUD among PEH, other combined environmental and psychosocial factors impair recovery from OUD. These statistics of opioid overdoses in King County demonstrate a pressing need for an effective intervention. In response to these challenges, initiatives, including overdose education and naloxone distribution (OEND) programs, can dramatically reduce opioid overdose deaths (OOD), with estimates as high as a 65 percent reduction (Keane et al., 2018). Furthermore, the literature has shown that areas with high implementation of OEND programs have significantly fewer overdose fatalities than areas with no or low implementation (Walley et al., 2013). One explanation for the great success of these programs is that they enable bystanders to administer nasal naloxone safely and efficiently. Since populations of PEH are still challenging to reach, evidence suggests that this bystander-focused intervention is particularly promising.

With such challenges and successes in mind, the primary goal of Drug Overdose Prevention and Education Project (DOPE) King County, our version of an OEND program, is to ensure that naloxone, a life-saving medication that can reverse opioid overdoses, is readily available to all PEH in King County who use opioids. Alongside naloxone distribution, we prioritize education on overdose prevention, recognition, and response, aiming to empower community partners and individuals within the priority population. The program's objectives are multifaceted. First, we aim for an increase in knowledge among community partners regarding overdose risk factors, equipping them with the necessary tools to identify and respond to opioid overdoses effectively. Secondly, we aim to ensure that PEH in King County, WA, demonstrates a greater prevalence of having a non-expired dose of nasal naloxone. This involves not only the distribution of naloxone kits but also ongoing efforts to ensure that individuals are educated on their proper use. Lastly, we are committed to ensuring equitable access to naloxone kits, particularly among American Indian and Alaska Native (AIAN) members of the priority population, acknowledging the unique challenges and disparities they may face. We focus on AIAN populations since they have disproportionately high rates of opioid overdose (KCRHA, 2022; “King County Community Health Needs Assessment,” 2024). To evaluate the impact of our intervention, we have developed a robust evaluation plan that utilizes a pre-post-study design with a convenience sample strategy, allowing us to assess improvement across our three primary outcomes. Additionally, we will employ an internal data dashboard to track various program outputs, including the number of trainings conducted, staff trained, and naloxone kits distributed. Through rigorous evaluation efforts, we aim to demonstrate our intervention's efficacy and cost-effectiveness and advocate for long-term financial support from the King County Council to sustain our operations. Furthermore, our evaluation efforts extend beyond mere metrics. We recognize the importance of qualitative data in capturing our intervention's “hidden” impacts. Because of this, we will also use qualitative data collection methods, such as interviews and focus groups, to gather insights from program participants and stakeholders. This qualitative data will provide valuable context and depth to our understanding of the program's effectiveness and inform ongoing program refinement and improvement.

DOPE King County represents a concerted effort to address the complex issue of OOD among PEH in King County, WA. By providing naloxone kits and overdose education, we aim to empower both community partners and individuals within the priority population to prevent and respond to opioid overdoses effectively. Through our evaluation and advocacy efforts, we are committed to ensuring our intervention's long-term sustainability and impact, ultimately contributing to a safer and healthier community for all.

# Part II: Clarifying the Problem

## Part A - OUD Among PEH in King County

Opioid use disorder (OUD) is a biopsychosocial disorder characterized by chronic cycles of relapse and withdrawal related to prioritizing addictive opioids over other life needs (e.g., health, relationships, and career commitments) (Oesterle et al., 2019; Strang et al., 2020). Addiction that contributes to OUD develops in three phases: compulsion to seek out and take the opioid drug for its rewarding effects on the brain, inability to limit opioid intake, and negative emotional states whenever opioids are unavailable. These stages increase an individual’s risk for overdose, OOD, suicide, injuries, incarceration, and blood-borne viral infections (e.g., HIV) (Strang et al., 2020). Because of these increased risk factors and wide-availability of opioids, OUD has become a public health crisis. As of 2018, nearly 50,000 people in the U.S. experienced OOD, and in 2021, 67 percent of the 70,601 overdose deaths were due to opioids. Alongside deaths, the economic costs include 471 billion dollars for OUD and about 550 billion dollars for OOD (Luo et al., 2021; National Institute on Drug Abuse, 2023).

Although OUD affects populations across the U.S., a population disproportionately affected by the disorder is PEH in King County, WA. In general, national estimates suggest that one in four PEH also has a drug use disorder (National Coalition for the Homeless, 2017). PEH also have a higher prevalence and frequency of both heroin (a type of opioid) and polysubstance abuse than individuals with OUD who are not experiencing homelessness (Han et al., 2022). For example, Doran et al. (2018) found that of 2,309 people surveyed, 40.8 percent of PEH used some drug within the past 12 months, a percentage that was more than double the 18.8 percent of participants who used drugs but were not experiencing homelessness. Of the PEH surveyed, 20.6 percent indicated that they used opioids, compared to only six percent of participants not experiencing homelessness. While PEH are, in general, disproportionately affected by overdose deaths, King County, WA is an area of particular interest. WA ranks seventh nationally for the highest rate of homelessness (32.6 per 10,000 persons), and while King County holds 30 percent of the state’s population, it also holds over 50 percent of the state’s population of PEH, with the Seattle-King County region representing the third largest population of PEH in the nation (Pauley, 2023; State of Homelessness, 2023; Washington State Health Assessment, 2018). Although PEH make up one percent of King County’s population, roughly 20 percent of overdose deaths were attributed to PEH. The crisis is even more concerning with the rise of fentanyl, a particularly powerful synthetic opioid common among street markets that has jumped from two fentanyl-related deaths in King County in 2020 to 160 in 2022 (Patrick, 2023).

Focusing on OUD in King County, WA among PEH is important not only because of statistical disproportionalities between PEH and people not experiencing homelessness, but the problem intensifies with personal, practical, and structural barriers that PEH face when it comes to accessing treatments or preventative measures related to OUD (McLaughlin et al., 2021). Personal barriers include past trauma or current/past mental health issues (e.g., depression, PTSD, and schizophrenia), which can prevent PEH from receiving or seeking care, increasing their risk for overdose (Milburn et al., 2019; Strang et al., 2020; Vogel et al., 2022). Practical barriers, such as reliable transportation and operating hours for clinics, also limit PEH. Lastly, structural barriers, including stigma, insufficient/no health insurance, and mistrust of the healthcare system has limited treatment for OUD among PEH. As a whole, support needed to manage OUD, particularly among PEH, is insufficient and needs further addressing (McLaughlin et al., 2021). Some of the most common interventions for OUD include using opioid agonist therapy to decrease withdrawal symptoms, as well as other harm reduction initiatives. While these initiatives are useful, due to the aforementioned barriers, PEH cannot fully receive the benefits of OUD treatment options, which increases their risk of OOD, especially with the rise in fentanyl. Therefore, introducing an alternative approach that not only serves to reduce OOD but also reaches PEH based on their unique needs is imperative to reduce the disproportionalities of OUD and OOD among PEH compared to the general population.

## Part B - Determinants

### Psychosocial and Environmental Factors

Considering that PEH are disproportionately affected by OUD and OOD in King County, WA, understanding reasons behind this disproportionality is important to provide an effective initiative that reduces OOD among PEH. As mentioned, harm reduction initiatives and other methods for treating OUD may not be as effective for PEH due to underlying factors, including psychosocial factors. As a group, PEH and people with OUD have higher instances of other mental illnesses and traumatic experiences. Compared to the general population prevalence of 2.5 percent, 22 percent of PEH have a drug use disorder. Additionally, a common disorder that co-occurs with OUD is schizophrenia, which affects 0.7 percent of the general population but 12.4 percent of PEH in the U.S. (Gutwinski et al., 2021). Experiences of trauma, particularly adverse childhood experiences (ACEs), are common among PEH. ACEs, which includes childhood neglect, parental separation, or abuse (i.e., physical, sexual, or emotional), can impair development and have negative cascading effects across a lifetime, increasing an individual’s risk of developing a substance use disorder or other mental health disorder by as much as 50 percent (Ararso et al., 2021). As ACEs accumulate, the risk for using opioids and developing a mental health disorder (e.g., post-traumatic stress disorder (PTSD), anxiety, and depression) also increases. Such trauma and mental health issues lead many PEH to abuse substances to cope. Like their effects on physical pain, opioids elicit similar effects for psychological pain, which is particularly appealing to someone with a history of trauma and/or mental illness with few other resources available to them as treatment options (Guarino et al., 2021).

While mental illnesses and ACEs play a role in the increasing propensity of OUD among PEH, other combined environmental and psychosocial factors impair recovery from OUD. For example, PEH experience higher rates of daily stress compared to the general population. This includes social stigma, perceived discrimination, peer-pressure to abuse drugs, housing instability, and sleep disturbances (Neale et al., 2022; Urbanoski et al., 2018; Winters et al., 2008). Such factors relate to how PEH experience poverty, which involves lacking stable housing and experiencing water, sanitation, and hygiene (WaSH) insecurity (Avelar Portillo et al., 2023). With limited access to WaSH services and living on the streets, the public develops judgements about PEH for their appearances and isolates them from the community. Isolation further diminishes WaSH services access, further contributing to mental health concerns and negative emotions. The resulting stigma involves labeling, stereotyping, and power imbalances that further contribute to discrimination and/or separation of PEH from the general population. PEH are particularly impacted by perceived stigma, especially with the healthcare industry (Reilly et al., 2022). Healthcare provider (HCP) perceived stigma involves PEH perceiving that an HCP views them as “less human,” follows social stereotypes about PEH (e.g., drug addicts, alcoholics, dirty, etc.), and is unable to recognize the intersecting needs that affect each individual experiencing homelessness. HCP perceived stigma often makes PEH less likely to seek care, decreases positive care outcomes, and creates power imbalances between PEH and medical providers (Reilly et al., 2022). With the general community promoting social stigma about PEH, the quality of healthcare and desire to seek help for something like OUD for PEH decreases, thus intensifying mental health disorders and reliance on opioids to cope with feelings of powerlessness and isolation (Austin et al., 2021; Guarino et al., 2021).

Another combined environmental and psychosocial concern for PEH is peer-influence, especially early influence during adolescence, when many PEH are surrounded by peers using illicit substances and are later exposed to a street culture that supports continued use of such substances (Winters et al., 2008). This places individuals in “high-risk situations,” making individuals recovering from substance abuse disorders more likely to relapse or abuse new drugs after frequently being around others using illicit substances (Ararso et al., 2021; Sureshkuma et al., 2021). Because of social isolation, PEH often seek connections with other PEH for social relationships, and illicit substance use is one common method for forming connections (Tompsett et al., 2014). This suggests that if social stigma were not so harsh, PEH may have alternative means of feeling connected with society and may feel more comfortable seeking help with mental health concerns and/or OUD.

### Political and Economic Factors

Alongside the environment and psychosocial concerns contributing to PEH developing OUD and impairing recovery, other factors, such as policies and economic factors, may be influencing the environment and perpetuating problems associated with homelessness itself. For example, as aforementioned, being constantly surrounded by others who use illicit substances increases the risk of substance abuse. This could relate to limited affordable housing. The U.S. Department of Housing and Urban Development (HUD) budgets for affordable housing in urban areas. From 2010 to 2018, rather than increasing the budget, HUD reduced the budget for affordable housing in urban areas by about three billion dollars, making affordable housing less available (Katz, 2017). This drop in the HUD budget is significant for King County, where 90 percent of the population resides in urban areas, suggesting that the majority of PEH also live in urban areas that lack affordable housing (“Demographics,” 2020). Without affordable housing, PEH have prolonged experiences of homelessness that keep them in environments with higher instances of substance abuse. Additionally, siloed policy practices contribute to the homelessness system’s failure to create data-sharing agreements across sectors. This relates to how silos frequently present between those who fund (e.g., philanthropic organizations), plan (e.g., local government councils), and deliver solutions (e.g., homeless shelters) (Foo et al., 2022; Silas & Siao, 2022). In order to better combat the opioid crisis and treat OUD among PEH, silos between social support systems must be broken, and policy needs to be created to integrate better government agencies that more directly work to improve livelihoods of PEH.

While policies influence homelessness and services provided to PEH, other combined economic and policy-related factors also impact resources and services for PEH. As of 2022, the median hourly income in King County was 40.48 dollars; however, direct service workers and case managers/advocates had median hourly incomes of 19.70 and 24.92, respectively. With low-wages, many service workers and case managers/advocates left their jobs for other opportunities, leaving 300 vacancies at the five largest homeless services providers in King County. Such organizations then had insufficient time and capacity to perform services and assist PEH, likely making accessing resources for general daily needs, as well as substance abuse services, even more difficult for PEH (KCRHA, 2022). Other economic factors relate more directly to OUD treatments. For example, common medication-based treatment include methadone, buprenorphine, and naltrexone, each costing roughly 6,552 dollars, 5,980 dollars, or 14,112 dollars each year, respectively (National Institute on Drug Abuse, n.d.). With high out-of-pocket costs, most of these treatments require insurance; however, roughly 60 percent of PEH lack health insurance (SAMHSA, 2023). PEH have to prioritize basic life needs over other expenses, meaning they not only cannot afford high out-of-pocket costs for OUD treatments, but they also lack the necessary insurance to cover such treatments without an outside organization funding treatment for them. Many PEH who do have insurance have Medicaid; however, Medicaid’s prior authorization policy requires prior approval from a qualified clinician to fill prescriptions for medications used to treat OUD (e.g., buprenorphine), making many PEH either delay or never receive care (Hincapie-Castillo, 2022).

### Genetic Factors

Although policies helped shape environments that predispose PEH to OUD, environments may also influence (and have their effects further influenced by) genetic factors that increase susceptibility to OUD. OUD is associated with a single nucleotide polymorphism (SNP) that alters the DNA of the OPRM1 opioid receptor gene, the target for opioid drugs to elicit their effects (Taqi et al., 2019). Opioid receptors (OPR) help trigger chemical reactions that lead to pain relief, so when the SNP changes OPR activity, responses to pain relief diminishes, increasing the need for higher and higher opioid doses (Al-Eitan et al., 2021). This SNP has been linked to gene-environment interactions (Carver et al., 2016). Of particular focus are early family environments. As aforementioned, many PEH experience ACEs, leading to lifelong effects of mental health issues and trauma. With relation to genetic factors, individuals with the G allele of the polymorphism are more greatly associated with having an increased sensitivity to their environments, compared to AA allele carriers on the OPRM1 opioid receptor gene SNP. Those carrying the G allele are more sensitive to social rewards and punishments, meaning that when exposed to adverse social environments (e.g., ACEs), such individuals experience decreased reward responsiveness. When reward responsiveness decreases, individuals’ desires and need for greater volumes of substances (e.g., opioids) increases for them to actually feel the reward (i.e., pain relief) (Carver et al., 2016). This demonstrates how certain genetic factors may influence how PEH with a history of trauma and current stress are more susceptible to OUD. Additionally, the environments themselves can affect genes. For example, when placed in stressful situations, such as being exposed to the aforementioned psychosocial, environmental, political, and economic factors that affect PEH, people’s bodies adapt with mechanisms that change gene expression and general physiology. When the amount, intensity, or duration of stress becomes overwhelming, individuals develop health risks due to epigenetic alterations (i.e., changes to DNA) or genomic damage (Rossnerova et al., 2020). Such changes and damages in DNA and genes contribute to immune system dysfunction and improper cellular repair mechanisms, both increasing negative health conditions (e.g., chronic disease) (Rossnerova et al., 2020). Like mental health issues and ACEs, many PEH may then be driven to use more opioids in order to cope with the physical pain of such conditions.

## Part C - King County Assets and Needs

Alongside numerous determinants contributing to experiences of both OUD and homelessness among PEH, King County has various needs and assets related to both homelessness and the area itself. To identify which assets are available in King County, we identified healthcare facilities that offer addiction treatment, homeless service providers that house individuals with OUD, harm reduction organizations, and other social supports available to PEH in King County (Table 1). We also navigated the King County Regional Homelessness Authority’s website to identify relevant government organizations and prominent service providers that could help our population (KCRHA, 2022; Table 1). We plan to form community partnerships with these agencies and service providers that have established relationships and trust with PEH, including plans to emphasize our shared aims of addressing the opioid epidemic in King County. We hope to leverage these groups’ perspectives on homelessness in King County, adding a crucial point of view to our needs assessment, as well as using qualitative data to assess each provider’s unique success and barriers, allowing us to highlight the available resources and discern improvement areas through in-depth interviews that robustly evaluate their capabilities in assisting PEH with OUD. We will ask providers about barriers they have faced with PEH, unique strengths of PEH with OUD, and information regarding the effectiveness of current harm reduction strategies that may affect our program’s outcomes and impacts. We hope to create synergy between partners in order to pool resources; therefore, our core team will meet regularly with smaller working groups to leverage SMARTIE goals to focus on specific requirements for developing a CHA that assesses community assets and needs.

To further understand specific assets and needs in King County, we plan to collect qualitative and quantitative data about OUD and PEH, which is frequently analyzed by KCRHA, using mixed-methods, such as interviews, focus groups, existing CHA resources, and public dashboard data, all aligning with SAMHSA’s principles to gather data from those most impacted by OOD (SAMHSA, 2023). Prior to such data collection, we analyzed the most recent Community Health Needs Assessment (CHNA) for 2024/2025 in King County, as well as the KCRHA five-year plan for PEH in King County, and the point-in-time count about PEH in King County. Through the CHNA and five-year plan, we identified several key needs that affect PEH with OUD: more low-income housing options and/or shelter beds, culturally competent healthcare providers (i.e., those trained on how to treat PEH without stigma/judgment), more detox services and wraparound services related to substance abuse, and transportation. We found that there are 472 programs that provide services specifically to PEH; however, only 0.8 percent and 2.5 percent of those explicitly state culturally-competent services for Black/African American individuals or American Indian/Alaska Native (AIAN) individuals, respectively, and each of those groups are disproportionately affected by drug-use disorders and homelessness in King County (KCRHA, 2022; “King County Community Health Needs Assessment,” 2024).

The point-in-time count revealed a need for increased employment opportunities, as well as more accessible mental health services for PEH, as 79 percent of PEH were unemployed in 2020, and 67 percent of those with mental health disorders indicated their condition prevented them from holding a job (All Home, 2020). On a broader scale, one of the main needs was to decrease drug-induced deaths, which had increased from 14.8 per 100,000 in 2016-2018 to 22.0 per 100,000 in 2019-2021, particularly in areas affected by poverty. This included decreasing OOD, as over 50 percent of overdose deaths in King County in 2022 involved opioids (“King County Community Health Needs Assessment,” 2024). In addition to the community partners, other assets to address the aforementioned needs include community-based organizations (CBOs) that serve King County by providing program support, sponsors, grants, or in-kind investments. Such organizations could be useful with budgetary concerns for both our program and other programs aimed at addressing substance use disorders in King County among PEH, as well as providing connections with additional community partners, addressing health inequities in the community alongside local hospitals, working to reduce poverty, and improving employment access (“King County Community Health Needs Assessment,” 2024). Additionally, local hospitals, such as the 19 acute care hospitals connected to Public Health—Seattle & King County (PHSKC), and health systems work to reduce health inequities in the area, as well as provide care for people at risk for OOD (“About Public Health,” n.d.). The KCRHA also indicated that programs available to help PEH in general include emergency shelters, transitional housing, rapid rehousing, faith-based communities who offer volunteers and donors to support services for PEH, federal Emergency Housing Vouchers, bus passes, and hygiene services (All Home, 2020; KCRHA, 2022).

**Table 1. Partner inclusion and engagement table.**

|  |  |
| --- | --- |
| **Partner Name** | **Importance** |
| King County Regional Homeless Authority (KCRHA) | KCRHA is a local government organization heavily involved in data collection/analysis related to PEH, including collecting data about services provided for PEH, transportation data, culturally-competent services, types of shelter for PEH, housing opportunities, and current assets and needs in the community of PEH in King County, WA. More specifically, not only does KCRHA provide data, but they also put out five-year plans with more information about the community context, as well as include information about multiple other community partnership opportunities in the area through their website (KCRHA, 2022). For example, other connections through KCRHA regional access points include CAtholic Community Services - Seattle, Multi-Service Center - Federal Way (South King County), YWCA, Solid Ground, Operation: WelcomeOneHome (for veterans), and Therapeutic Health Services. Many of these additional organizations act as service administrators that help get PEH connected to services/resources through KCRHA. |
| Downtown Emergency Service Center - Hobson Clinic (DESC) | DESC is a substance use service provider that specifically prioritizes marginalized groups, particularly PEH, to provide culturally-competent care that gives PEH the opportunity to change their health outcomes without judgment. Many PEH avoid healthcare services due to practitioner stigma, and DESC is specifically working against that to help better serve this population. With that in mind, DESC not only could serve as a potential site for our program, but it could also serve to teach us more about how to work with PEH without stigma to help gain their trust (DESC, n.d.). |
| Bitfocus - Homeless Management Information System (HMIS) Administrator | Bitfocus is an administrator for the health information exchange program that is used in the city to track information about people experiencing homelessness. The group works to design and implement data systems that can serve as tools for connecting to vulnerable populations, such as PEH, which would help our program more efficiently find and hopefully help PEH in King County who have OUD. The point of Bitfocus is to help connect vulnerable populations with services and resources available to them, so we could potentially work with this partner to include our program in said services/resources (“About Bitfocus,” n.d.). |
| Community House Mental Health Agency (CHMHA) | CHMH is a housing and mental health service provider that provides services like housing, case management, and peer support. With reference to our planned program intervention, which involves secondary dissemination of nasal naloxone, we would be particularly interested in the peer support aspect, which has an emphasis on recovery programs. This could possibly help our program’s recipients connect with more PEH through this type of program, so we would be interested in working with this community partner to help PEH get connected with other PEH (CHMHA, n.d.). |
| Healthcare for the Homeless Network (HCHN) | We could communicate with this local government organization or use their website to better understand the types of healthcare services offered to PEH, which services have been most effective, and what barriers exist to providing healthcare to PEH. This could specifically help us in the process of identifying assets and needs in the community in King County, as well as understanding how to best reach PEH with our program. They could also serve as a connection point to other groups and/or services related to PEH. |
| Health Engagement Action Resource Team (HEART) | HEART is a local government-community response service provision that aids in serving PEH in many ways, including harm reduction, which hits both PEH and OUD/OOD. This organization would be important for helping us with program implementation, as well as assessing the needs/assets of the community of PEH in King County. They could help get PEH connected to our program, which is particularly useful with many PEH being difficult to reach. |
| Street Medicine Team | This local government and medical service provider has experience with naloxone, as they provide overdose training and kits to the community. They could give useful tips for our program, as well as discuss what has been challenging with reaching PEH with overdose training (i.e., what should our education materials include to improve initiatives in the area) (“Street medicine,” n.d.). |
| Homeless Remembrance Project | This is a grassroots community of individuals with lived experience of homelessness that provide support and honor collective memory of community members’ present and past. They could be particularly helpful providing insights about secondary dissemination and getting connected with PEH, as they focus on connections between such people. |
| VOCAL-WA (Voices of Community Activists and Leaders) | This grassroots community group of individuals who have experienced homelessness and/or who have a history of drug-use could provide insights about what past initiatives worked and what they feel is still needed. Their social media platform could help spread the word about our program, as well as providing their own insights about our program during implementation. |
| Neighborcare Health - Homeless Health Service | This healthcare provider goes out into the community to provide services for PEH, something that could benefit our program when trying to reach PEH. |
| The People's Harm Reduction Alliance (PHRA) | This organization provides aid for individuals who use drugs through forms of harm reduction which will help us in assessing how opioid use overdoses impact the community. We plan to place our program under this harm reduction organization and work from their sites. |
| Washington State Department of Health - Drug User Health Programs | This local government harm reduction program will provide helpful information about the types of programs available to people who use drugs, which will add to the community assets and needs element of our project. |
| King County Needle Exchange - Downtown Needle Exchange Medical Clinic | This local government harm reduction program has the type of site/resources to be able to serve as a site for our program’s implementation. They could also be useful when planning the program, as well as during dissemination, as they have experience working with PEH and handling substance abuse concerns. |
| Mary's Place | This partner aids in helping those that experience homelessness which is our target population, so bringing them in provides us access to relationships with that population. |
| Housing and Recovery through Peer Support Program | This group of peers support PEH, so they could help PEH utilize our program and learn about naloxone as a way to prevent OOD. |
| Eagle Village | AIAN individuals are disproportionately impacted by homelessness in King County. Eagle Village can increase our knowledge about the AIAN population, helping our intervention reach AIAN individuals effectively. |
| Seattle Indian Health Board | Native American and Alaska Native individuals are disproportionately impacted by homelessness in the greater Seattle area and this organization provides housing and various other services for that population to help reduce ACEs and many of the influencing factors of OUD. By working with this organization, we can use their knowledge of the AIAN population to better our intervention to positively impact that specific population. Additionally, working with this organization provides us an opportunity to interact with this specific population, which can be tough as they are a minority population. |
| King County Health Department | This organization has lots of data about opioid use, so we could gather previous information to better understand which groups are disproportionately impacted, allowing us to tailor our interventions. This organization’s partners could also give us more connections. |

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# Part III: Reviewing and Prioritizing the Evidence

## Part A - Examine the Evidence

Our team leveraged the L.E.A.D. framework as part of an evidence-based decision making process (Kumanyika et al., 2012). Three databases and three evidence repositories were reviewed for evidence-based programs and policies that could be used to prevent opioid overdose deaths among people experiencing homelessness that use opioids. We located 258 sources, of which 150 were relevant to our topic. In total, 58 sources were evaluated in full and 10 were assembled in our evidence table (table 2 in appendix 1). Through our evaluation of the available evidence, we considered four evidence-based interventions based on our their relevant and completeness for our topic: 1) person-centered component of housing first intervention for people experiencing OUD; 2) low barrier medication assisted therapy (MAT) provided by street medicine teams; 3) supervised injection sites in areas with high concentration of injection drug users; and 4) overdose education and naloxone distribution (OEND) for drug users at community sites (Davidson et al, 2014; Carter et al., 2019; Marshall et al., 2011; Walley et al., 2013).

*Person-centered component of housing first intervention for people experiencing OUD*. The person-centered component of the housing first intervention for PEH that use opioids was found to have high rates of housing retention and to lower rates of opioid use at follow-up for clients that consistently engaged with consumer participant principles (Davidson et al., 2014). These principles emphasized harm reduction approaches, encouraged open communication between clients and service providers related to substance use, and focused on empowering clients to set their own goals related to housing and support services (Davidson et al., 2014).

*Low barrier MAT provided by street medicine teams*. Carter and colleagues (2019) investigated a low barrier buprenorphine treatment program, or MAT, for PEH with OUD. Although retention rates decreased over time, there was a subset of patients that remained engaged in MAT treatment for twelve months after initiating treatment. The study suggests that intermittent MAT treatment may provide significant harm reduction benefits for our priority population (Carter et al., 2019).

*Supervised injection sites in areas with high concentration of injection drug users*. Marshall and colleagues (2011) found that supervised injection sites reduced OOD by 35% in urban areas with a high density of injection drug users. There was a reduction in OOD observed in urban areas with less density of injection drug users, as well. The study found that First Nations peoples accounted for a significant proportion of OOD, particularly in areas further out from densely populated urban centers. Although the intervention was found to be successful, there was a rise in the proportion of OOD among First Nations individuals in areas farther from supervised injection sites (Marshall et al., 2011).

*OEND for drug users at community sites*. A moderate-quality meta-analysis estimates that naloxone, an opioid antagonist, could have an approximate success rate between 80 and 83 percent in pre-hospital settings for reducing OOD (Yousefifard et al., 2020). Another moderate-quality retrospective cohort study suggests that PEH are more likely to use syringe service programs (SSP) than hospitals, but they often experience access barriers (Ballard et al., 2023). Therefore, education via OEND programs about how to use nasal naloxone and distributing naloxone kits could improve outcomes. Additionally, one study demonstrates that providing ten kits per person with each visit could reduce overdose death by at least 45.5 percent, and distributing naloxone at SSPs was associated with a 65 percent decrease in OOD (Keane et al., 2018). A Massachusetts study also demonstrates that with OEND programs, naloxone prevented overdose harm in 98 percent of 153 attempts. The same study shows that areas with high-implementation of OEND programs had significantly fewer overdose fatalities than areas with no or low implementation (Walley et al., 2013).

See Appendix 2 - Evidence Based Decision Making (EBDM) Table.

## Part B - Prioritizing Program Alternatives

Interested parties that would be engaged in the decision-making process include: King County Regional Homeless Authority (KCRHA), People's Harm Reduction Alliance (PHRA), Street Medicine Team, and more (see table 4 in appendix 2). With interested parties, we chose to evaluate the four identified evidence-based interventions on five priorities: access, equity, effectiveness, autonomy, and cost. We identified and used the top priorities of each organization to create weights that informed the final decision-making process, with access and equity emerging with the largest weights (table 5 and table 6 in appendix 2). Based on a Pugh matrix, OEND for drug users at community sites was chosen as our top intervention (table 7 in appendix 2).

OEND programs for those at risk of overdose at community sites meet people in places where they already access and spend time, which is critical for PEH, as transportation and accessibility are often limited. These programs are effective at reducing OOD, in some cases by nearly 40% (Weiner et al., 2019). Additionally, naloxone distribution is recognized as one of the top three ways to help decrease opioid overdose fatalities (Weiner et al., 2019). Further, community distribution of naloxone via OEND interventions is cost-effective, as this can increase the willingness and knowledge of bystander intervention during an overdose, which has potential to decrease downstream costs associated with overdose and overdose fatalities (Cherrier et al., 2022).

Upon reviewing the literature and delegating with our stakeholders, we decided that for our OEND program, three modifications should be adapted for PEH that use opioids in King County, including: 1) expand the intervention to community settings including homeless shelters and harm reduction outreach sites, in addition to syringe service programs, 2) distributing up to 10 naloxone kits per person per visit to a site; and 3) adding a short educational module about distributing naloxone kits to social networks, including friends and families who may witness an opioid overdose (Walley et al., 2013; Weiner et al., 2019). These adaptations are supported by evidence and will enhance the accessibility and reach of the intervention (Razaghizad et al., 2011; Wiener et al., 2019).

## Part C - Parallel Evidence

Although evidence supports OEND as an effective intervention for preventing OOD, gaps in the research related to their effectiveness for preventing OOD among PEH exist. For example, there is no publicly available data in King County that reports the exact number of PEH that use opioids at a population level or broken down by racial/ethnic demographics. This creates a challenge in fully understanding the incidence of opioid overdose death among PEH with OUD in King County. To fill this gap, our team will partner with the King County Public Health Department to access administrative data that captures PEH in King County. The Homeless Management Information System (HMIS) is an information exchange that provides the King County government with cross-sector data and is one example of a system already in place that will enable the collection and reporting of data that will help fill the identified gap in evidence about the incidence of opioid overdose.

With gaps in the evidence related to breakdown by racial/ethnic demographics in mind, this leads to a particular gap with AIAN peoples. Compared to their non-Hispanic white counterparts, AIAN peoples disproportionately experience homelessness and have higher rates OOD; however, there is a gap in the literature about culturally informed, evidence-based interventions for this group. A study published by Nolen et al. (2022) highlighted that racial and ethnic minority groups were less likely to receive naloxone kits as part of an OEND intervention program. Given the gaps in OEND interventions that are specific to PEH, this is particularly important for our program to address. For example, Levchenko et al. (2016) conducted plan-do-study-act cycles as part of continuous quality improvement for an OEND program implemented in California. Our team could use a similar approach during implementation to better reach AIAN communities. Another way that our team will seek to address the gaps in evidence will be through partnerships with Eagle Village, a housing initiative focused on identifying stable housing conditions for AIAN (including those that use opioids) and the Seattle Indian Health Board, a community health center that promotes healthcare for AIAN that is informed by Indigenous knowledge. Partnering with these groups will help our team provide education and naloxone kits that can then be disseminated to AIAN PEH in community locations where they are already likely accessing services. Our team will also hire someone with lived experience that is connected to the AIAN community to facilitate relationship and trust building between our team and community members, as well as to ensure that AIAN needs are centered throughout the intervention implementation process. Partnering with these groups will also provide our team with an opportunity to engage in continuous quality improvement to identify if additional modifications to the program are required to offer the intervention in a culturally informed manner to reach AIAN PEH that use opioids.

Based on such gaps, our team will create a high-quality evaluation plan that will demonstrate the effectiveness of the intervention. We will ethically disseminate high-level findings and lessons learned, which will be relevant to other practitioners in the field and will be an important contribution to the evidence given the existing gaps related to OEND interventions for our priority population.

# Part IV: Design and Implementation

## Part A - Overview of Program Plan

Keeping the gaps in the evidence for OEND programs in mind, our program is centered around opioid overdose education and nasal naloxone distribution to PEH in King County, WA. The DOPE King County Curriculum consists of education materials and training to prevent, recognize, and respond to opioid overdoses. On top of this training, nasal naloxone kits will be disseminated to PEH that use opioids in King County. Community members and potential bystanders will also be trained in how to properly administer nasal naloxone in the event of an opioid overdose to prevent death. To better ensure the program’s success, we will create a team that works under the PHRA. The PHRA will recruit, hire, and train an implementation team of experts in the DOPE King County Curriculum that will be responsible for building relationships with, training and disseminating naloxone kits to our community partner sites. These include syringe service programs (n=4), homeless shelters (n=5), and harm reduction outreach sites (n=5) in King County. Once our community partner sites are trained and equipped with naloxone kits, these sites will hold training sessions for PEH who use opioids in King County. After each training session, up to ten nasal naloxone kits will be distributed per person per visit. The PHRA implementation team will continue to maintain and monitor relationships with community partners to ensure they are continually equipped with the resources they need to successfully implement DOPE King County.

Our implementation strategy involves close collaboration with community partner sites, including syringe service programs, homeless shelters, and harm reduction outreach sites across King County. These sites will serve as hubs for education and naloxone distribution. Community partners will receive comprehensive training on the curriculum and subsequently train PEH in their respective settings. Additionally, our program will deploy non-medical public health workers, including one worker specific to American Indian and Alaska Native (AIAN) communities, to engage directly with PEH in the field and gather feedback on program implementation. To reach our target population of PEH in King County, we will leverage existing relationships with community partner sites. These sites are frequented by PEH and provide a natural entry point for program outreach. Through our partnerships, we aim to minimize barriers to participation and ensure equitable access to education and naloxone kits. Our program plan is based on key assumptions, including the willingness of identified community partners to collaborate and the availability of continued government funding for such programs in King County. These assumptions are grounded in the urgency of addressing opioid overdose fatalities among PEH and the evidence supporting the efficacy of OEND programs.

Our program directly addresses social determinants of health, particularly stigma and negative perceptions of people who use opioids and are experiencing homelessness, within the framework of the Social Ecological Framework (SEF). By focusing on education and outreach efforts that target both individuals and the broader community, we aim to mitigate stigma and foster supportive environments for PEH. Furthermore, our approach acknowledges the interconnectedness of individual, interpersonal, community, and societal factors in shaping health outcomes for this population. The DOPE King County curriculum aims to reduce stigma and negative perceptions of people who use opioids and are experiencing homelessness by educating community partners and other stakeholders through culturally-competent educators. Through this education, we aim to address this social factor contributing to the stigmatization of people experiencing homelessness who use opioids. With community stigma in mind, our program was designed with the sensitive nature of PEH in mind. PEH are transient in nature, which contributed to our program design being implemented in community partner sites where PEH who use opioids tend to frequent. This is an intentional design because our program is centered on a harm reduction approach and focuses on meeting people where they are, rather than asking them to find us. Through the implementation of DOPE King County at homeless shelters, syringe service programs, and harm reduction sites, we will be able to offer our program to PEH that are passing through without adding any further burden to their daily life. Our program will also hire non-medical public health workers, with one worker specific to AIAN communities, to go out into the field to speak with people experiencing homelessness who use opioids in King County to gather information on how the program is reaching the community.

While our program plans to address the specific needs of PEH, there were many assumptions that contributed to our rationale and decision-making while designing our program. We assume the community partners that we have identified, such as the harm reduction sites, syringe service programs, and homeless shelters, will be willing and able to partner with us. Along with the rationale around having willing community partners, we also assume that there will be continued government funding for syringe service programs and sites in King County. A core component of our intervention is the distribution of nasal naloxone kits, and we designed our program with the assumption that nasal naloxone kits will remain available and relatively affordable within King County. A final assumption is that this intervention will be equally effective for all people who use drugs, regardless of their racial identity or whether or not they are currently experiencing homelessness. This assumption is based on the evidence supporting the efficacy of overdose education and naloxone distribution programs across diverse demographic groups.

Alongside our assumptions and core components involved with the program plan, we also made several adaptations to the original OEND program that inspired our intervention. The first adaptation is the setting in which the intervention is implemented. While the original evidence-based solution was implemented at sites that included HIV education drop-in centers, addiction treatment programs, community meeting sites, healthcare settings (both primary and emergency settings), and syringe service sites (Weiner, et al., 2019), our intervention will be implemented mainly at syringe service sites. However, because our priority population is people experiencing homelessness that use opioids, we will additionally implement our program in homeless shelters throughout King County and harm reduction sites as community locations (Enich et al., 2023). Secondly, our intervention has adapted the number of naloxone kits that will be distributed. The original source provided up to two nasal naloxone kits per person per visit, but we will provide up to ten nasal naloxone kits per person per visit (Weiner, et al., 2019). This adjustment reflects our commitment to ensuring that individuals at high risk of opioid overdose, particularly among the homeless population, have access to an adequate supply of naloxone for themselves and their peers. By providing a greater number of kits, we aim to enhance the likelihood of bystander intervention and overdose reversal, thereby reducing fatalities in this vulnerable population. Lastly, our intervention will add a short education module as part of the DOPE King County curriculum about secondary dissemination of naloxone kits to the social networks of PEH that use opioids, as compared to the source intervention that did not cover this topic (Hruschak et al., 2020). Unlike the original intervention, which did not cover this topic, we recognized the importance of empowering individuals within the social networks of PEH to respond effectively to opioid overdoses. By educating peers and support networks, we aim to create a ripple effect of harm reduction practices and overdose prevention strategies within the community. This adaptation underscores our commitment to fostering a culture of mutual support and collective responsibility in addressing the opioid crisis among PEH.

## Part B - Goals and Objectives

With regard to our program plan, a high-level goal of DOPE King County is to make naloxone kits easily available to all PEH that are using opioids in King County and provide them with education related to preventing, recognizing, and responding to opioid overdoses. There are several outcomes that we expect to measure as a result of our program implementation in King County: 1) Within two years of implementation, PEH that use opioids will have a 50 percent greater prevalence of having a non-expired dose of nasal naloxone on them at follow-up compared to baseline data collected in King County (approximately 6,000 individuals per year); 2) Within two years, 75 percent of community partners will report a 50 percent increase in knowledge related to opioid overdose risk factors within 3 months of receiving the DOPE King County curriculum; 3) Within two years of implementation, PEH who are AIAN that use opioids will have the same level of prevalence as the general population of having a non-expired dose of nasal naloxone on them at follow-up as compared to baseline data collected in King County.

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## Part C - Logic Model

**Logic Model for Drug Overdose Prevention and Education Project (DOPE) King County**

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| **RESOURCES/INPUTS** | **ACTIVITIES** | **OUTPUTS** | **OUTCOMES** | **IMPACTS** |
| *In order to accomplish our set of activities we will need the following:* | *In order to address our problem or opportunity we will accomplish the following activities:* | *We expect that once accomplished these activities will produce the following measurable outputs:* | *We expect these activities and outputs will produce the following measurable, short-medium term changes:* | *We expect that these activities and outputs will contribute to the following high-level, longer-term (7–10 years) changes:* |
| Funding for staff (non-medical public health workers)  Funding for naloxone kits  Nasal naloxone kits  Funding for transportation for staff, partners, and clients  Transportation vehicles  Transportation vouchers  Funding for community partner compensation and food for events/trainings  Space to offer Drug Overdose Prevention and Education Program (DOPE) King County (name adapted from Enteen et al., 2010)  Funding for DOPE King County handouts and retention items  Community partner incentive compensation  DOPE King County training curriculum materials (to be adapted from Walley et al., 2013)  Technology (cell phones for workers) | Hire and train 3 part-time, non-medical public health workers to facilitate the DOPE King County curriculum  Modify the DOPE King County curriculum to include a brief module about secondary dissemination of naloxone kits to social networks.  Develop partnerships with community partners, including the People’s Harm Reduction Coalition (PHRC) that runs n=5 harm reduction outreach sites throughout King County.  Develop partnerships with syringe service programs at 4 locations throughout King County (WSDOH, 2024).  Develop partnerships with 5 homeless shelters in King County (Homeless Shelters Directory, 2023).  Train community partner staff in DOPE King County curriculum.  Establish nasal naloxone kit tracking database.  Establish a process for regularly re-supplying community partners with naloxone kits.  Data processing | Non-medical public health workers will facilitate DOPE King County training for 50% of PEH that access services at community partner sites by 2025.  Within two years of implementation, non-medical public health workers will facilitate DOPE King County training for 75% of workers across all community sites.  Within two years of implementation, at least one staff member per community partner site will be trained to facilitate future DOPE King County sessions.  Within four years of implementation, each community partner site will have a 5-year sustainability plan for continually offering DOPE King County.  Reach 90% of workers across all community sites with DOPE King County by 2032.  Reach 6,000 PEH annually with DOPE King County (approximately 50% of the homeless population in King County) by 2032 (CDC, 2023a). | Increase knowledge and skills among PEH related to preventing, recognizing, and responding to opioid overdose deaths.  Increase knowledge and skills among community partners related to preventing, recognizing, and responding to opioid overdose deaths.  Within four years of implementation, 75% of the PEH that use opioids will report that they have disseminated naloxone kits to their social networks.  Within six years of implementation, 90% of the PEH who use opioids will have a non-expired dose of naloxone on them at follow-up.  Within two years of implementation, 50% of PEH that use opioids will have a non-expired dose of naloxone on them at follow-up.  Decrease stigma among workers by 35% across all community sites by 2032 as measured by the University of Pittsburgh Center for Interventions to Enhance Community Health scale (Hruschak et al., 2020).  Decrease rates of opioid overdose death by 35% for the American Indian and Alaska Native (AIAN; 51.9 to 33.7 per 100,000) population by 2032. | Decrease opioid overdose deaths by 35% (11.8 to 7.67 per 100,000) among PEH in King County that use opioids by 2032.  Decrease stigma related to opioid drug use as indicated by the sustained introduction of DOPE King County at 80% of community sites by 2032, ensuring that the training and kits remain free so they are accessible to all people regardless of income. |

## Part D - Implementation Plan

For the successful implementation of our program, the PHRA will recruit, hire and train the implementation team at the start of DOPE King County. The implementation team will identify and start working to build relationships with community partner sites. The PHRA team will schedule and conduct trainings with staff at community partner sites and once completed, nasal naloxone kits will be distributed to each site with a plan of how nasal naloxone will be re-supplied across partner sites. Throughout this process, data will be collected on staff knowledge across sites, as it relates to opioid overdose risk factors. Increasing knowledge among community site workers across participating sites will ensure that PEH who frequent these sites for services will have equitable access to increased opioid overdose education and nasal naloxone kits. To ensure our program is reaching our priority population, we aim to measure that within 2 years of implementation, AIAN PEH that use opioids in King County will have the same level of prevalence as the general population of having a non-expired dose of nasal naloxone on them at follow-up as compared to baseline data collected in King County. Research indicates that individuals that hold a minoritized racial or ethnic identity are less likely to receive naloxone, even when there are free resources available (Nolen et al., 2022). By monitoring the prevalence of AIAN individuals within our priority population that have a non-expired dose of nasal naloxone, our team is centering equity within a population that already holds many intersecting identities. Overall our program will use the aforementioned activities and equity considerations to reach approximately 6,000 people experiencing homelessness in King County annually. Within four years of implementation, each community partner site will have a 5-year sustainability plan for continually offering DOPE King County through the constant communication, relationship-building, and data collection across community partner sites. Lastly, our program aims to reach 90 percent of workers across all community sites by 2032. This approach will be implemented with the guiding principle of diversity and inclusion from the Racial Equity Framework at the forefront. By training such a high rate of workers within King County, there is an equitable distribution of knowledge from the workers who have been trained to the many vulnerable and diverse populations of people experiencing homelessness.

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| Outcome 1: Within 2 years, 75% of community partners will report a 50% increase in knowledge related to opioid overdose risk factors within 3 months of receiving the DOPE King County Curriculum. | | |
| **Strategy/activity:** | **Resources required:** | **Lead person/ organization:** |
| Recruit for three 0.5 FTE non-medical public health workers | Job descriptions, including for 0.5 FTE that prioritizes hiring someone with lived experience working closely with American Indian and Alaska Native populations  Job posting  Recruitment committee (PHRA leadership, program manager)  Interview protocol | Program manager |
| Hire and on-board three 0.5 FTE non-medical public health workers | Salary and benefits for 1.5 FTE non-medical public health workers  On-boarding and training schedule  Infrastructure including office space and technology (i.e., laptop, cell phone) | Program manager |
| Modify the DOPE King County curriculum to include a module about secondary dissemination of nasal naloxone kits to social networks (Keane et al., 2018) | 1 FTE program manager  Curriculum adaptation notes, in addition to the original curriculum developed by the Harm Reduction Coalition and the Chicago Recovery Alliance (Walley et al., 2013).  10-15 minutes of content for the module based on secondary exchange principles  Program delivery materials, plus funding for such materials | Program manager |
| Develop a concrete list of all community sites and point person associated with each site. This includes compiling a “master list” of community partners. | 1 FTE program manager  Knowledge of community sites, including harm reduction coalition outreach sites, syringe service program (SSPs), and homeless shelters  Technology, including access to Microsoft packages (i.e., Excel, Word, Teams) to organize program documents | Senior program coordinator & non-medical public health workers |
| Develop partnerships with 5 harm reduction community outreach sites | Individual relationship building with new employees and existing PHRA employees/volunteers  Non-medical public health worker availability to attend harm reduction outreach events  Community partner compensation | Program manager & non-medical public health workers |
| Develop partnerships with 4 syringe service programs | Program manager and non-medical public health worker to meet with syringe service program site staff at each of the 4 sites  Partnership strategies  Community partner compensation | Program manager & non-medical public health workers |
| Develop partnerships with 5 homeless shelters | Program manager and non-medical public health worker to meet with homeless shelter staff at each of the 5 sites  Partnership strategies  Community partner compensation | Program manager & non-medical public health workers |
| Modify the DOPE King County curriculum to include a module about secondary dissemination of nasal naloxone kits to social networks (Keane et al., 2018). With this modification, develop 10-15 minutes of content for the module, based on secondary exchange principles highlighted by Keane et al. (2018), including encouraging individuals with naloxone kits to distribute extra kits to people in their social networks that do not have any naloxone kits. Integrate this new module into the existing DOPE King County curriculum (based on the program exemplified in Walley et al. (2013)). | 1 FTE program manager  Curriculum developed by the Harm Reduction Coalition and the Chicago Recovery Alliance (used by Walley et al., 2013) + curriculum adaptation  10-15 minutes of content for the module based on secondary exchange principles  Program delivery materials, plus funding for materials | Program manager |
| Purchase nasal naloxone kits to community sites. | Funding for nasal naloxone kits  Purchase order | Program manager |
| Distribute nasal naloxone kits to community sites. | Nasal naloxone kits  Partnerships with community sites where PEH receive services  Management system to track how many kits community partners distribute to determine when they need to be resupplied | Non-medical public health workers |
| Establish nasal naloxone resupply process for community partner sites | 1 FTE program manager  Form to request new supplies  Re-supply protocol | Program manager & senior program coordinator |
| Establish a mechanism for financial sustainability of naloxone kit re-supplying (Baass, 2023) | Funding for naloxone, including exploring funding streams leveraged by other states  Granting writing | Program manager & Executive director |
| Schedule DOPE King County training at community partner sites | 1 FTE senior project coordinator  Space reserved for delivering curriculum plus necessary funding for reserving space | Senior program coordinator |
| Facilitate DOPE King County trainings at community partner sites | 1.5 FTE non-medical public health workers  Space for delivering curriculum plus necessary funding for reserving space  Snacks and refreshments for participants, plus funding for refreshments/snacks  Nasal naloxone kits to be distributed at the same time as delivering curriculum (have up to 10 kits per person participating available)  Funding for nasal naloxone kits  DOPE King County program curriculum  DOPE King County program handouts | Non-medical public health worker |
| Maintain relationships with community partners by connecting with each partner site (individually) 1-2 times each year for check-in conversations and meetings. Biannual meetings with each community partner group will be used to share out updates and foster interagency connection. | Meeting space or virtual meeting space (will require technology and funding for technology)  Website to share materials and information with partners, which includes a DOPE King County logo  Share retention items with partners as part of on-going engagement efforts  1 FTE program manager  1 FTE non-medical public health worker | Program manager & non-medical public health worker |
| Establish a regular reporting process to provide transparent updates with community partners throughout the year. | 1 FTE program manager  Communication Plan  Communication technology (plus funding for technology) | Program manager |
| Build program evaluation and data collection infrastructure (e.g., surveys and databases for metric tracking/nasal naloxone distribution tracking), and operationalize program evaluation measures. | 0.5 FTE Program evaluator  Establish protocol and time for PDSA cycles to improve program implementation based on monitoring (i.e., quarterly review, decision making process for discussing and implementing course corrections to program)  Establish protocol to collect data from workers at partner sites  Funding for necessary data collection technology (e.g., computers)  Funding for necessary transportation expenses  Transportation/Transportation vouchers (if needed for collecting data) | Program evaluator |
| Data collection about community partner staff knowledge related to opioid overdose risk factors. | Opioid Overdose Knowledge Scale  Survey platform (i.e., Qualtrics)  List of all community partner site staff names and emails | Program manager |
| Outcome 1 data analysis | Data analysis plan  Data collected via survey platform  Statistical software (i.e., Stata) | Program evaluator |
| Outcome 1 dissemination to community partners | Complete data analysis  Method of dissemination (i.e., report, newsletter, data walk) | Senior program coordinator & non-medical public health workers |
| **Health equity considerations:** Increasing knowledge among community site workers across participating community sites within King County will ensure that PEH who receive services at those sites will have equitable access to increased education and nasal naloxone kits. We will implement this approach with the guiding principle of diversity and inclusion from the Racial Equity Framework at the forefront. By training such a high rate of workers within King County, we are distributing the same knowledge and information to a variety of people resulting in an equitable outcome. The resulting group of workers reporting an increase in knowledge will be representative of the various populations that they serve as well as allowing for high levels of inclusion for everyone to get involved in the DOPE curriculum. Additionally, by training such a variety of workers across the area, there is an equitable distribution of knowledge from the workers we have trained to the many vulnerable and diverse populations of PEH. | | |

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| **Outcome 2:** Within 2 years of implementation, PEH that use opioids in King County will have a 50% greater prevalence of having a non-expired dose of nasal naloxone on them at follow-up as compared to baseline data collected in King County (approximately 6,000 individuals per year). | | |
| **Strategy/activity:** | **Resources required:** | **Lead person/ organization:** |
| Modify the DOPE King County curriculum to include a module about secondary dissemination of nasal naloxone kits to social networks (Keane et al., 2018). With this modification, develop 10-15 minutes of content for the module, based on secondary exchange principles highlighted by Keane et al. (2018), including encouraging individuals with naloxone kits to distribute extra kits to people in their social networks that do not have any naloxone kits. Integrate this new module into the existing DOPE King County curriculum (based on the program exemplified in Walley et al. (2013)). | * 1 FTE Program manager plus funding for the manager’s salary (for more detail, please see hiring activities in previous rows) * Curriculum adaptation notes, in addition to the original curriculum developed by the Harm Reduction Coalition and the Chicago Recovery Alliance (Walley et al., 2013). * 10-15 minutes of content for the module based on secondary exchange principles * Program delivery materials, plus funding for such materials | * Program manager |
| Develop partnerships with 5 homeless shelters, 4 SSPs, and 5 harm reduction outreach sites in King County via remote communication practices and/or in-person interactions that may require transportation (Homeless Shelters Directory, 2023). Maintain partnership with an annual partnership meeting. | * Funding for staff to conduct outreach with homeless shelter directors to build relationships and collaborate with shelter directions * Salary for our staff members * Funding for transportation costs * Develop outreach schedule and plan * Community partner compensation Ie.g., account for costs of agreeing to engage with DOPE King County program) | * Program manager, senior program coordinator, and non-medical public health workers |
| Schedule DOPE King County curriculum in designated program spaces to workers at SSPs, as well as to workers at homeless shelters. | * 1.0 FTE Program manager * 1.0 FTE Senior program coordinator * Implementation plan * Contact information for community partner sites * Calendar, such as outlook | * Senior program coordinator and program manager |
| Facilitate trainings for community partner staff in DOPE King County curriculum. | * 1.5 FTE non-medical public health workers * Space reserved for delivering curriculum plus necessary funding for reserving space * Snacks and refreshments for participants, plus funding for refreshments/snacks * Nasal naloxone kits to be distributed at the same time as delivering curriculum (have up to 10 kits per person participating available) * Funding for nasal naloxone kits * DOPE King County program curriculum * DOPE King County program handouts | * Non-medical public health workers |
| Purchase nasal naloxone kits for community sites. | * Funding for nasal naloxone kits * Purchase order | * Program manager |
| Distribute nasal naloxone kits to community sites. | * Nasal naloxone kits * Partnerships with community sites where PEH receive services * Management system to track how many kits community partners distribute to determine when they need to be resupplied | * Non-medical public health workers |
| Build a nasal naloxone inventory supply tracker (that includes serial number and expiration date) | * 1.0 FTE senior program coordinator * 0.5 FTE program evaluator * Protocol for tracking nasal naloxone kits * Database infrastructure (i.e., tracker in Excel) | * Senior program coordinator and program evaluator |
| Work with community partners to establish site-specific implementation plans after DOPE King County training is complete | * DOPE King County program curriculum * DOPE King County program handouts * Technical assistance for community partners * Follow-up protocol to learn how many PEH that community partners train | * Program manager and senior program coordinator |
| Establish a mechanism for financial sustainability of naloxone kit re-supplying (Baass, 2023) | * Funding for naloxone, including exploring funding streams leveraged by other states * Granting writing | * Program manager |
| Field data collection to identify how many PEH have a non-expired dose of nasal naloxone on them. | * 1.5 FTE non-medical public health workers * Program evaluation plan * Field data collection protocol * Technology for field data collection (i.e., recording devices, phone to take pictures of naloxone with) * Compensation for PEH that complete semi-structured interviews with close-ended and open-ended questions * Secure data management system * Funding for necessary transportation expenses * Transportation/Transportation vouchers (if needed for collecting data) | * Senior program coordinator and non-medical public health workers |
| Analysis and evaluation of field data, including semi-structured interviews and naloxone tracking | * 0.5 FTE Program evaluator * 1.0 FTE Program manager * Data analysis plan * Establish protocol and time for plan-do-study-act (PDSA) cycles to improve program implementation based on monitoring (i.e., quarterly review, decision making process for discussing and implementing course corrections to program) | * Program evaluator |
| **Health equity considerations:** This specific implementation outcome is equity-centered as it aims to directly reach a vulnerable population of PEH. We aim to do this by meeting this population wherever they are to provide the best support for them and to truly help them by understanding what their needs are. This approach will ultimately help to lessen disparities and provide much needed assistance to our vulnerable priority population. Additionally, through rigorous training and lived experiences, the non-medical public health workers that will be working with this population will synthesize a deep understanding of how best to intervene and assist this population when they are in need. These non-medical public health workers will then be able to disseminate this knowledge and wisdom that they have gained through their direct work and experiences with PEH to a much broader population of people. This will eventually help achieve a decrease in disparities for this vulnerable population. | | |

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| **Outcome 3**: Within 2 years of implementation, American Indian and Alaska Native (AIAN) PEH that use opioids in King County will have the same level of prevalence as the general population of having a non-expired dose of nasal naloxone on them at follow-up as compared to baseline data collected in King County. | | |
| **Strategy/activity:** | **Resources required:** | **Lead person/ organization:** |
| Modify the DOPE King County curriculum to include a module about secondary dissemination of nasal naloxone kits to social networks (Keane et al., 2018). With this modification, develop 10-15 minutes of content for the module, based on secondary exchange principles highlighted by Keane et al. (2018), including encouraging individuals with naloxone kits to distribute extra kits to people in their social networks that do not have any naloxone kits. Integrate this new module into the existing DOPE King County curriculum (based on the program exemplified in Walley et al. (2013)). | 1 FTE Program manager plus funding for the manager’s salary (for more detail, please see hiring activities in previous rows)  Curriculum adaptation notes, in addition to the original curriculum developed by the Harm Reduction Coalition and the Chicago Recovery Alliance (Walley et al., 2013).  10-15 minutes of content for the module based on secondary exchange principles  Program delivery materials, plus funding for such materials | Program manager |
| Develop partnerships with 5 homeless shelters, 4 SSPs, and 5 harm reduction outreach sites in King County via remote communication practices and/or in-person interactions that may require transportation (Homeless Shelters Directory, 2023). Maintain partnership with an annual partnership meeting. | Funding for staff to conduct outreach with homeless shelter directors to build relationships and collaborate with shelter directions  Salary for our staff members  Funding for transportation costs  Develop outreach schedule and plan  Community partner compensation Ie.g., account for costs of agreeing to engage with DOPE King County program) | Program manager, senior program coordinator, and non-medical public health workers |
| Schedule DOPE King County curriculum in designated program spaces to workers at SSPs, as well as to workers at homeless shelters. | 1.0 FTE Program manager  1.0 FTE Senior program coordinator  Implementation plan  Contact information for community partner sites  Calendar, such as outlook | Senior program coordinator and program manager |
| Facilitate trainings for community partner staff in DOPE King County curriculum. | 1.5 FTE non-medical public health workers  Space reserved for delivering curriculum plus necessary funding for reserving space  Snacks and refreshments for participants, plus funding for refreshments/snacks  Nasal naloxone kits to be distributed at the same time as delivering curriculum (have up to 10 kits per person participating available)  Funding for nasal naloxone kits  DOPE King County program curriculum  DOPE King County program handouts | Non-medical public health workers |
| Purchase nasal naloxone kits to community sites. | Funding for nasal naloxone kits  Purchase order | Program manager |
| Distribute nasal naloxone kits to community sites. | Nasal naloxone kits  Partnerships with community sites where PEH receive services  Management system to track how many kits community partners distribute to determine when they need to be resupplied | Non-medical public health workers |
| Build a nasal naloxone inventory supply tracker (that includes serial number and expiration date) | 1.0 FTE senior program coordinator  0.5 FTE program evaluator  Protocol for tracking nasal naloxone kits  Database infrastructure (i.e., tracker in Excel) | Senior program coordinator and program evaluator |
| Work with community partners to establish site-specific implementation plans after DOPE King County training is complete | DOPE King County program curriculum  DOPE King County program handouts  Technical assistance for community partners  Follow-up protocol to learn how many PEH that community partners train | Program manager and senior program coordinator |
| Establish a mechanism for financial sustainability of naloxone kit re-supplying (Baass, 2023) | Funding for naloxone, including exploring funding streams leveraged by other states  Granting writing | Program manager |
| Field data collection to identify how many PEH have a non-expired dose of nasal naloxone on them, with emphasis on collecting race/ethnicity data. | 1.5 FTE non-medical public health workers  Program evaluation plan  Field data collection protocol  Technology for field data collection (i.e., recording devices, phone to take pictures of naloxone with)  Compensation for PEH that complete semi-structured interviews with close-ended and open-ended questions  Secure data management system  Funding for necessary transportation expenses  Transportation/Transportation vouchers (if needed for collecting data) | Senior program coordinator and non-medical public health workers |
| Analysis and evaluation of field data, including semi-structured interviews and naloxone tracking | 0.5 FTE Program evaluator  1.0 FTE Program manager  Data analysis plan  Establish protocol and time for plan-do-study-act (PDSA) cycles to improve program implementation based on monitoring (i.e., quarterly review, decision making process for discussing and implementing course corrections to program) | Program evaluator |
| Outcome 3 dissemination to community partners | Complete data analysis  Method of dissemination (i.e., report, newsletter, data walk) | Senior program coordinator & non-medical public health workers |
| **Health equity considerations:** This specific outcome is aimed at evaluating the program’s reach to the AIAN PEH that use opioids. Research indicates that individuals that hold a minoritized racial or ethnic identity are less likely to receive naloxone, even when there are free resources available (Nolen et al., 2022). By monitoring the prevalence of AIAN individuals within our priority population that have a non-expired dose of nasal naloxone, our team is centering equity within a population that already holds many intersecting identities. | | |

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## Part E - Partner Engagement Strategy

While we plan to engage our community partners throughout all aspects of our program, specifically during the implementation of program activities, we plan to hold focus groups with community partners to help us hear directly from our community partners about what ideas they might have to improve the implementation of the program or what aspects they think work. The goal of engagement at this point is to build relationships and rapport with community partner sites. A vital part of our program is the willingness and ability of community partner sites to hold training sessions and distribute nasal naloxone. To properly determine and engage with community partners, a strong relationship is needed. For example, Mary’s Place is a housing provider that helps PEH, so they could give us access to the relationships they have built with PEH. The Seattle Indian Center is a necessary partner to engage with due to the disproportionate amount of AIAN individuals who use opioids and could help us be better suited to address equity concerns around the AIAN-specific opioid crisis. Lastly, the Health Engagement Action Resource Team (HEART) is a local government community response service provision that aims to assist people experiencing homelessness through harm reduction. This partner aligns directly with the goals of our program and will therefore already understand best practices and approaches for outreach and engagement with people experiencing homelessness who use opioids.

Our partners are intimately involved in the implementation and success of our program, so it is necessary to involve them whenever issues arise. They are the experts when it comes to interacting with PEH in King County. The lived experiences and backgrounds of our community partners will provide valuable insight into how to solve problems along the way. For the implementation of DOPE King County, we will ask our partners to receive training in the curriculum and receive nasal naloxone kits to be stored on site. After this has been completed, we will ask our partners to hold training sessions and workshops with PEH who are accessing their sites for services. For each person that visits the site and completes training, we ask our community partners to distribute up to ten nasal naloxone kits per person per visit and to keep a record log of all the naloxone kits that are distributed. This data will be used by PHRA. Our partners will also contribute important information on equity and inclusion considerations, as they observe how DOPE King County rolls out. Partners will contribute first-hand experience in practicing harm reduction and providing support for PEH who use opioids. This first hand experience has allowed community partners to build a sense of trust and reliability from our priority population, which will ultimately help our program.

## Part F - Timeline

A three-year project timeline was developed that outlines project start-up needs, as well as needs to achieve the three identified project outcomes. The first year of the project will primarily focus on hiring and on-boarding staff, as well as building relationships with 14 community partner sites. The DOPE King County curriculum will be updated to include a module about secondary dissemination of nasal naloxone kits to social networks in the second half of year 1, after the program manager is on-boarded. Baseline data, as part of the evaluation plan, will be collected in the beginning of year 2, before the intervention is implemented at community sites. The majority of year 2 is dedicated to training community partners in the DOPE King County curriculum and working with community partners to establish protocols for implementing DOPE King County with clients that access services at their sites. The first half of year 3 is a continuation of working with community partner sites to ensure that they can implement the DOPE King County independently. Follow-up data will be collected in the latter part of year 3, and the final quarter of year 3 will be dedicated to data analysis and dissemination.

See Appendix 3 - Project Timeline.

## Part G - Sustainability and Scale

While our timeline accounts for three years, we plan to use two primary funding sources to fund the first two years of our efforts. Through this initial short-term funding, we aim to create a stable operational foundation before transitioning to more sustainable local financing in the long term (year 3 and beyond). We plan to apply to the U.S. Substance Abuse and Mental Health Services Administration’s (SAMHSA) Overdose Data to Action (ODA) Grant program for our first short-term funding source to support our efforts. These grants are provided to programs that improve and scale up drug overdose prevention programs and policies (SAMHSA, 2023). For our second short-term funding source, we plan to apply for grants from the Bill and Melinda Gates Foundation (Gates). Gates is an appealing partner for three reasons: 1) Gates is a health-focused philanthropy that has committed to efforts related to homelessness and opioid abuse; 2) Gates is based in Seattle and has demonstrated a vested interest in improving health outcomes in its hometown; 3) Gates' mission has a strong equity focus, which aligns well with our mission to improve equitable outcomes, as discussed throughout this report (Gates, 2009; Gates, n.d.).

While we plan to be partially funded by these two sources for two years, we plan to transition to local funding sources by year three. We hope that through our extensive evaluation efforts, we can demonstrate the efficacy and cost-effectiveness of our intervention and, in turn, persuade the King County Council to provide budgetary support to sustain our operations through the County’s public health budget. King County allocates around $45 million to public health initiatives annually (King County, 2024). Furthermore, using funding from an opioid-related legal settlement, King County has dedicated an additional $21 million toward opioid overdose prevention in the next few years (KCDOH, 2023). Given these vast King County resources, we believe our efficacious program will receive the requested $3 million annually. We expect that once King County takes over as the primary funder, with DOPE King County’s continued demonstration of success, King County will elect to fund Dope King County for the foreseeable future.

Given our proram’s large scale, scope, and level of complexity, we do not plan to scale any further. However, if we were to scale, we would likely start by implementing our intervention at additional homeless service providers. For example, we would consider conducting our training and nasal naloxone distribution to food pantries such as the Rainier Valley Food Bank, drop-in centers such as DESC’s Drop-in Center, and other locations that are common places that our priority population frequents. To do so, we need to adjust our budget to include more implementation materials and additional non-medical public health workers assigned to these new locations. Furthermore, the interventions could be adopted by Snohomish and Pierce Counties relatively quickly, given the cultural similarities in priority populations and proximity to DOPE King County program administrators to provide technical assistance and implementation guidance.

# Part V: Evaluation and Dissemination Plan

## Part A - Evaluation Plan

***Summary of evaluation design.***The current evaluation plan uses a pre-post study design with a convenience sample strategy for assessing all three outcomes. The decision to adopt this study design was driven by several factors intrinsic to our program's goals and the unique characteristics of our target population. Firstly, the pre-post tests offer a streamlined and effective method for evaluating the intervention's effectiveness while conserving resources. By conducting assessments before and after program implementation, we can track changes in knowledge and behavior among participants, providing valuable insights into the program's impact. Additionally, implementing these tests at predestined training events serves to alleviate the burden on participants undergoing training. This approach minimizes disruption to their routines and reduces potential stressors, particularly for the sensitive population of people experiencing homelessness (PEH). Additionally, by integrating evaluation into training events, we ensure a cohesive approach to program implementation and assessment, fostering greater engagement and participation. Lastly, the choice of this study design aligns well with our implementation timeline and process. Its simplicity and flexibility enable seamless integration into our program's workflow, facilitating timely and efficient data collection and analysis. Overall, the pre-post study design with a convenience sample strategy was selected to optimize the evaluation process while prioritizing the well-being and engagement of our target population

***Summary of sampling strategy.***Convenience sampling is used for all data collection activities as a means of maximizing the sample size. The primary audience for the DOPE King County intervention is workers across 14 community partner sites. Given that the size of each community partner's workforce may vary substantially, all workers that participate in DOPE King County training will be invited to participate in the pre- and post-surveys to assess knowledge, and all workers across all sites will be invited to participate in the annual survey. Additionally due to the stigma surrounding PEH receiving healthcare and the constant relocation of this population, it can be difficult to recruit this population using certain methods. Therefore, convenience sampling will be used by non-medical public health workers that regularly conduct field data collection with PEH that use opioids.

***Analysis Plan.***The program team will create an internal data dashboard (using either Excel or Tableau) that will allow for real-time monitoring of the program implementation metrics, such as number of trainings conducted, number of staff that completed pre- and post- trainings, number of naloxone kits distributed, etc. Further, descriptive statistics will be reported for each outcome.

Regarding outcome 1, within subject t-tests will be conducted to analyze the pre-post survey data assessing knowledge before and after community partner participation in the DOPE King County trainings (outcome 1). Between subject t-tests will be conducted annually to assess group-level changes in community partner workers reported knowledge (outcome 1). In analyzing the annual survey data at each individual site, an ANOVA of the Opioid Overdose Knowledge Scale overall scores and subscale scores will be conducted to compare changes in scores over time.

Regarding outcome 2, between group t-tests will be conducted at the two year mark to compare the baseline data (comparison group) with the post-implementation data from PEH in King County. A chi-square analysis will be conducted at the two year mark for each of the two close-ended questions that are included in the semi-structured interview. Field staff will complete a short memo and 'cover sheet' after each interview conducted that includes a high level summary of themes from the conversation. After two years of data collection, thematic analysis will be used to analyze open-ended qualitative data collected as part of the semi-structured interview protocol.

Regarding outcome 3, incidence of OOD among AIAN individuals in King County will be calculated quarterly as new administrative data is received from the King County Medical Examiner Office. Percent difference from baseline incident to quarterly incidence of OOD will be calculated regularly as part of the data analysis plan. Between group t-tests comparing baseline incidence to annual incidence will be calculated on a yearly basis as part of on-going monitoring and evaluation.

***Ethical considerations.***Given that the purpose of data collection is for program evaluation and not research, there are ethical considerations and thus, we will consult with an IRB. Community partners that complete the pre-post survey will be assigned a unique identifier that they will enter on their pre- and post-survey responses, which will allow for anonymous linkage of data to conduct data analysis. Annual surveys of community partners will be anonymous, and no identifying information will be asked. PEH that use opioids will be surveyed anonymously and will be informed that their participation in data collection is completely voluntary. Data collected as part of program evaluation will not be published, given that the project will not pursue an IRB approval.

***Community partner engagement activities*.** Community partner engagement activities across the three outcomes will include: attending community partner staff meetings, including all partners who are able to attend, one time per year to administer annual survey data collection (outcome 1); requesting that community partners email the annual survey link to workers that missed the all staff meeting (outcome 1); having two non-medical public health workers regularly in the field for data collection with PEH as a method of relationship and trust building over time (outcome 2); building relationships with additional community partners, including Eagle Village (homeless shelter primarily servicing AIAN populations), Seattle Indian Health Board, King County Health Department, and the King County Medical Examiner Office (outcome 3); and establishing data sharing agreements with the King County Health Department, who has an existing relationship with the King County Medical Examiner Office (outcome 3).

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| Outcome 1 | **Within 2 years, 75% of community partners will report a 50% increase in knowledge related to opioid overdose risk factors within 3 months of receiving the DOPE King County Curriculum**. |
| Sampling Strategy | Non-probability convenience sample of partners that are trained in DOPE King County curriculum. All partners that participate in a training will be invited to participate in the sample. |
| Comparison Group | Baseline (pre-survey) assessment collected before DOPE King County training |
| Data Collection activities and methods | Community partners will be surveyed using a standardized questionnaire that includes a text box for open-ended feedback. Time will be allocated at the beginning and end of the DOPE King County training for pre- and post- test data collection. DOPE King County staff will attend community partner meetings annually to collect yearly data. |
| Specific measures | **Pre-post test (administered before and immediately after DOPE King County training)**  Unique identifier: Randomly assigned  Which type of site do you work at? (drop-down menu)  Using a 5-point Likert scale where 1 = Strongly Disagree and 5 = Strongly Agree, please respond to the following questions.  I have knowledge about…   1. opioid overdose risk factors 2. signs of an opioid overdose 3. actions to be taken in an opioid overdose 4. naloxone use   Using a 5-point Likert scale where 1 = Strongly Disagree and 5 = Strongly Agree, please respond to the following questions.  I am comfortable teaching others about…   1. opioid overdose risk factors 2. signs of an opioid overdose 3. actions to be taken in an opioid overdose 4. naloxone use   **Annual survey (administered once a year during a community partner meeting and/or via email)**  Which type of site do you work at? (drop-down menu)  Opioid Overdose Knowledge Scale (OOKS; Williams, Strang, Marsden, 2013). This is a 36-item scale to assess knowledge of risk actors and opioid overdose symptoms.  Please describe one change to your regular job that you plan to make as a result of participating in this activity. (Open-ended) |
| Timing of data collection | Pre- and post- test of knowledge will be administered on the day of the training. Community partners will be asked knowledge-based questions annually via survey as part of on-going program monitoring (Williams, et al., 2013). |

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| Outcome 2 | Within 2-years of implementation, PEH that use opioids in King County will have a 50% greater prevalence of having a non-expired dose of nasal naloxone on them at follow-up as compared to baseline data collected in King County (approximately 6,000 individuals per year). |
| Sampling Strategy | Convenience sampling for surveys and observational data collection. |
| Comparison Group | Baseline data collected from PEH that use opioids in King County. |
| Data Collection activities and methods | * Semi-structured interviews with PEH that use opioids. * Non-medical public health workers will go into the field to specific community sites (n=14) with high density of PEH that use opioids to collect data and will verbally administer close-ended and open-ended questions to participants in the sample. * Pictures of naloxone kits will be collected to compare kit serial numbers to a DOPE King County registry of distributed nasal naloxone kits to assess if the kit was (a) distributed by the DOPE King County program and (b) if so, if the kit is currently non-expired. |
| Specific measures | **Semi-structured individual interviews**  Close-ended questions (verbally administered)   * Do you have nasal naloxone on you or close enough to quickly access? Y/N/Unknown * Do you know how to properly administer naloxone? Y/N   + Have you used naloxone within the past 3-months? Y/N * Do you know where to go to get non-expired nasal naloxone? Y/N * Have you shared extra naloxone kits with friends or family? Y/N   Open-ended questions   * How many of your friends or family members carry naloxone? * How often are you carrying it around? * Have you shared naloxone with friends or family members? * What are your perceived barriers to getting naloxone? * Where do you go to get naloxone?   Closing   * Can I take a picture of the serial number of your naloxone? \*\**part of observational data collection\*\**   Demographic   * What racial group do you identify with? (Close-ended) * What is your ethnicity? (Close-ended)   *\*\*Note that this data will be processed by the DOPE King County team and two additional data fields will be generated, which include:*   * *Is this naloxone dose captured in the DOPE King County naloxone registry? (Y/N)* * *If yes to the prior question: Is this naloxone dose expired? (Y/N)* |
| Timing of data collection | 1-2 non-medical public health workers will collect data at the specific community sites (n=14) before implementation and then after the implementation is implemented at all 14 community sites. |

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| Outcome 3 | Within 2-years of implementation, **American Indian and Alaska Native (AIAN)** PEH that use opioids in King County will have the same level of prevalence as the general population of having a non-expired dose of nasal naloxone on them at follow-up as compared to baseline data collected in King County. |
| Sampling Strategy | Convenience sampling for surveys and observational data collection. |
| Comparison Group | Baseline data collected from PEH that use opioids in King County. |
| Data Collection activities and methods | * Semi-structured interviews with PEH that use opioids. * Non-medical public health workers will go into the field to specific community sites (n=14) with high density of PEH that use opioids to collect data and will verbally administer close-ended and open-ended questions to participants in the sample. * Pictures of naloxone kits will be collected to compare kit serial numbers to a DOPE King County registry of distributed nasal naloxone kits to assess if the kit was (a) distributed by the DOPE King County program and (b) if so, if the kit is currently non-expired. |
| Specific measures | **See above** |
| Timing of data collection | 1-2 non-medical public health workers will collect data at the specific community sites (n=14) before implementation and then after the implementation is implemented at all 14 community sites. |

## Part B - Dissemination Plan

The dissemination plan for the evaluation results of the DOPE King County Program targets two distinct audiences to ensure the widest impact and relevance of findings. Firstly, healthcare providers and public health practitioners will be engaged through interactive platforms, such as presentations at community partner monthly meetings and online reports accessible through internal public health networks. These formats provide opportunities for in-depth discussions and knowledge exchange among peers, allowing for a comprehensive understanding of the effectiveness of our naloxone knowledge and distribution program. The use of presentations at our monthly meetings will decrease the burden on our partners by not adding any additional burdens to their already busy schedule by keeping it at our pre-destined monthly meeting time. Additionally, the use of online reports allows those who did not make the presentations and those who want to go back and examine the data at a later time the ability to do so.

The information being presented at these presentations and available in the online reports will be the pre-post tests for each community site to examine the relative change in knowledge related to opioid overdose risk factors as well as the count of non-expired nasal naloxone doses across the PRH population as well as the AIAN population both before and after DOPE King County was implemented to evaluate the effectiveness. This data will not only aid in evaluating the effectiveness of our intervention but will also be able to present which areas in King County need more assistance in their knowledge comprehension and which areas might need more outreach to aid in increasing the amount of non-expired nasal naloxone kits. By sharing insights into the implementation process, outcomes, and lessons learned, this dissemination approach contributes valuable evidence on effective strategies for addressing opioid overdose fatalities among people experiencing homelessness. Moreover, engaging healthcare providers and public health practitioners in the dissemination process enhances the credibility and applicability of our findings, fostering greater acceptance and uptake of recommended interventions.

Secondly, community partners and organizations such as our local government and non-profits will be engaged primarily through partner meetings and participatory data walks, facilitating a more discussion-based environment conducive to collaborative learning and sharing of insights. These settings allow stakeholders with on-the-ground experience to contribute their perspectives and expertise, enriching the interpretation of evaluation results and fostering a sense of ownership and buy-in among implementing organizations. The same information that was presented to the healthcare providers and public health practitioners will be presented to our community partners and organizations as well. Presenting the same data to both sets of our partners will allow us to build out our qualitative data on their thoughts on the data and examine common themes since the data both groups are seeing is the same, just presented in more effective manners for them. By involving community partners in the dissemination process, we not only ensure the relevance and applicability of our findings to local contexts but also promote transparency, trust-building, and sustainability of interventions over time. Additionally, the participatory nature of partner meetings and data walks empowers community partners to identify potential areas for improvement and adaptation, thereby enhancing the scalability and effectiveness of similar interventions in the future.

Our dissemination plan is intricately crafted to ensure that the outcomes of our program are not only shared widely but are also deeply integrated into the existing body of evidence on opioid overdose prevention. We recognize the importance of reaching diverse audiences, from healthcare providers and public health practitioners to community partners and organizations, each of whom plays a critical role in aiding us to address the complex issue of opioid overdose deaths among people experiencing homelessness in King County.

To achieve this, we will employ a multifaceted approach that encompasses various channels and formats. Presentations, detailed online reports, interactive partner meetings, and participatory data walks—each avenue is carefully chosen to maximize engagement and comprehension amongst the different stakeholder groups that we work with. Through these diverse platforms, we aim to facilitate robust discussions, knowledge exchange, and critical reflections on the effectiveness and implications of our intervention. Making sure that we are centering our dissemination plan in open discussions and allowing for firsthand knowledge to support our quantitative data is key. Through these actions we will be allowing for ethical storytelling to take place which is extremely important when working with our sensitive populations of minority racial groups, PEH, and those suffering from OOD. We are aiming to disseminate the data in a way that reduces the current stigma surrounding this topic and these groups while continuously building trusting partnerships across a variety of stakeholders.

By actively engaging healthcare providers and public health practitioners, we offer insights into the nuanced challenges and opportunities associated with naloxone knowledge and distribution programs. Through in-depth presentations and online reports, we provide a comprehensive overview of our program's methodology, findings, and implications for practice. This not only enhances the credibility of our findings but also equips practitioners with practical tools and evidence-based recommendations to inform their own interventions.

Similarly, our engagement with community partners and organizations is grounded in principles of collaboration and shared learning. Through interactive partner meetings and participatory data walks, we create a conducive environment for stakeholders to exchange insights, share best practices, and co-create solutions. This collaborative ethos not only strengthens the relevance and applicability of our findings but also fosters a sense of ownership and commitment among participants. Moreover, our dissemination efforts extend beyond immediate stakeholders to benefit the broader public health community. Through transparent communication and meticulous documentation, we contribute valuable insights and lessons learned to the wider discourse on opioid overdose prevention. By sharing our experiences, successes, and challenges openly, we provide future implementers with a rich repository of resources and evidence-based strategies to guide their own interventions effectively.

In essence, our dissemination strategy serves as a cornerstone for advancing knowledge, promoting collaboration, and driving meaningful change in the field of opioid overdose prevention. Through strategic communication, inclusive engagement, and continuous knowledge exchange, we strive to not only inform practice and policy but also inspire transformative action that saves lives and improves public health outcomes.

# Part VI - Budget and Budget Justification

We are budgeting a total of $4,905,390 for the two-year cost of our program, with $2,500,120 spent in the first year and $2,405,270 in the second year. Given the scale, depth, and multifaceted nature of our intervention (reflected in our other deliverables), this amount of funding will sustain operations for two years, which is centered around our program outcomes. We believe our efficacious program will receive additional funding for years 3 and beyond. For sustainability in future years, we have identified the Gates Foundation, the U.S. Department of Housing and Urban Development (HUD), and SAMHSA as potential funders, specifically the Overdose Data to Action program (CDC, n.d.).

See Appendix 4 - Budget.

### Personnel (total of $284,750/year for each year of implementation)

We have budgeted for a salaried program manager who will give 100% effort. Given our intervention's complexity, which involves both distributing nasal naloxone and administering education, a full-time staff member dedicated to coordinating activities will be crucial (salary will be $81,000/year). Given the complexity, we will also hire a full-time, salaried senior program coordinator to assist and support the program manager on all matters related to research operations ($76,000/year). The program coordinator will be particularly helpful in organizing and training the non-medical public health workers. We will hire 3 non-medical public health workers on a 50 percent hourly basis ($30,000 annually per worker). They will administer the intervention to the service provider community partners. Since they will help support the service providers as needed, we will only need part-time support for these roles. We will also hire an hourly program evaluator consultant with 50 percent effort. We do not anticipate needing a full-time evaluator at the early stages of the intervention (years 1 and 2), so hiring an hourly worker would be the most economical use of our resources (they will be paid $7,500/year). We will use a salaried ($65,000/year) HR support staff member from within the PHRA to hire each listed staff member. This initiative will only be part (20%) of this HR time, since PHRA has numerous grants and projects. Finally, we anticipate that five percent of the PHRA’s executive director (ED) ($120,000/year) will be spent working on our intervention. This time will be used for the ED’s periodic reviews of our work, during which the ED can provide feedback and guidance. The ED’s remaining time will be spent on other matters in which PHRA is involved. For each of the personnel salaries/hourly rates, we utilized Glassdoor, indeed, and salary.com as reference points (links are in the budget).

### Intervention materials ($2,500,120 in year one and $2,405,270 in second year)

Since nasal naloxone kits are a staple of DOPE King County’s intervention, we will need to purchase kits on an ongoing basis. We anticipate supplying several nasal naloxone kits (up to 10) per member of our priority population, costing a total of $2,090,000 annually. We want to supply up to ten because the evidence supports that up to ten during one visit at one site is as effective as opening a second distribution site (Weiner et al. 2019). The price of $22/unit was gathered from the non-generic nasal naloxone treatment used in the Department of Public Health in Denver, CO (link in the budget).

Related to the education component of DOPE King County, we will also make a one-time purchase of training pamphlets that will be important for our intervention. While providing our training, we will distribute the pamphlets to community partners, who will then distribute the pamphlets directly to PEH. We plan to order 9,500 units of the brochures for a total of $14,250. We used our anticipated number of priority populations encountered by our community partners per year to obtain this estimate. We then multiplied this by the printing price per 100 brochures (the link is in the budget).

### Compensation/Vouchers ($22,000 in year one and $8,000 in second year)

Since our priority population is vulnerable, we want to ensure they are fairly compensated for participating in our evaluation efforts. Therefore, we plan to spend $3,200 per year on gift cards for those participating in evaluation activities, such as focus groups and individual interview participants. We expect 160 research participants per year across all data collection efforts. We will also provide $1,000 to our fourteen community partners during the first year as compensation for participating in our implementation efforts. We plan to compensate them as a sign of appreciation for agreeing to implement our project. Finally, we will supply members of our priority population with transportation vouchers to and from implementation sites. This will allow our priority population to receive the intervention by safely arriving at the community partners’ locations. Our priority population’s safe transport to and from sites is crucial to the successful operation. This will total $4,800 per year. To arrive at these prices, we estimated $20 as a fair compensation for an hour spent as a research participant, $1,000 as a fair incentive to the community partners, and $30 as a reasonable price for transportation costs in King County. Ubers cost an estimated $15 each way to get across the County, so $30 vouchers should be able to effectively transport members of the priority population to and from implementation costs (links in budget).

### Overhead Costs ($57,600 in the first year and $52,500 per year in the second year, including $48,000 in-kind per year)

We anticipate overhead costs of $57,600 in the first year, covering the one-time purchase of computers for our program manager, coordinator, evaluator, and tablets for public health workers. Office supplies ($3,000/year) and lunches ($1,500/year) provided at convenings are also included in the overhead estimate. Since we are part of the larger PHRA organization, office space provided will be considered $48,000 worth of in-kind costs (link justifying price in the budget). Furthermore, equipment used by the ED and HR staff member will be regarded as in-kind, since they will continue using the equipment PHRA previously provided. We based the prices for each of these items on fair market prices (links in the budget).

### Utilities ($9,020 for each year)

We anticipate a $9,020/year price for gas, water, internet, and waste removal. These estimates are based on fair market costs for an office of our size and location. These utilities will be necessary to operate our office space within the PHRA facility and effectively implement our intervention. These estimates are based on fair market rates for a facility of PHRA’s size and location. While we are being provided office space in-kind, we will be responsible for paying the utilities. This cost is based on the price for one office space in Seattle (link in budget).

### Transportation ($69,000 in year one and $9,000 in second year)

We anticipate a $69,000/year price for the vans utilized by the public health workers to drive to and from service provider sites, as well as the gas, car insurance, and maintenance required to operate them. We will purchase two vans for $30,000 each, expecting each van to require $1,000 in gas per year, $6,000 in insurance per year, and $500 in annual maintenance. These estimates are based on fair market values for vans and their anticipated maintenance costs.

# 

# Appendix 1 - Evidence Based Decision Making (EBDM) Table

Table 2.

|  |  |
| --- | --- |
| Identification (total number of results obtained) | n = 258 |
| Title/Abstract Screening (How many titles and abstracts did you scan?) | n = 150 |
| Full-text Screening (How many full-text pieces of evidence did your team scan?) | n = 58 |
| Included (total pieces of evidence in your team evidence table) | n = 10 |

Table 3. Evidence table (EBDM II).

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Issue or Potential Intervention | Source | Type | Quality (only needed for 3 of your pieces of evidence) | | | | | n | Effect Size | CI | Relevance | Outcomes/Findings |
| Level  (Score) | Risk of Bias  (Score) | Inconsistency  (Score) | Imprecision  (Score) | Overall Quality |
| Person-centered component of housing first intervention for people experiencing OUD (Davidson et al., 2014) | 1 | Retrospective Cohort Study | B  (2) | Intermediate/Mixed  (2) | N/A  (-) | Intermediate/Mixed  (2) | Intermediate  (2) | n= 550 | OR = 0.17 | [0.07-0.57] | High | People experiencing homelessness who become involved in consumer-participation-consistent housing-first programs (programs that involve individuals in decisions that impact their lives) were less likely to still be using stimulants or opioids upon follow-up than those not in such programs. |
| Naloxone use in pre-hospital settings (Yousefifard et al., 2020) | 2 | Meta analysis | A  (3) | Intermediate/Mixed  (2) | Intermediate/Mixed  (2) | Low/No Serious  Imprecision  (3) | High  (2.5) | n= 965 | OR = 1.01 | [0.42-2.43] | High | Intranasal naloxone is a sufficient substitute for intramuscular/intravenous naloxone |
| Houselessness and syringe service  program utilization (Ballard et al., 2023) | 3 | Retrospective cross-sectional survey study | B  (2) | Intermediate/Mixed  (2) | N/A | Low/No Serious  Imprecision  (3) | Moderate  (2.25) | n= 2394 | OR = 1.24 | [1.01, 1.52] | Moderate | There is evidence that rural people who inject drugs utilize syringe service programs at similar or higher rates as those who are housed.  Homelessness might pose barriers to access to syringe service programs. |
| Medication vs. non-medicated treatments for overdoses (Krawczyk et al., 2020) | 4 | Retrospective cohort study |  |  |  |  |  | n= 48,274 | OR= 0.46 | [0.43, 0.50] | Mixed | Methadone and buprenorphine treatments result in significantly lower overdose deaths compared to non-medication treatments during care. |
| Low barrier access to medication assisted treatment (MAT) for individuals with opioid use disorder that are experiencing homelessness (Carter et al., 2019) | 5 | Retrospective Cohort study |  |  |  |  |  | n= 95 | N/A | N/A | High | Buprenorphine helped reduce opioid use in 23% of participants, and 29% of participants retained buprenorphine treatment for at least 2 of the evaluation periods. Difficulties with administering MOUD treatment to people experiencing homelessness still exists; however, with over 20% of participants having a negative test for opioids and almost 30% having decent treatment retention, buprenorphine could be an effective treatment option. |
| Medication-assisted treatment (MAT) (Berry et al., 2021) | 6 | Retrospective cohort study |  |  |  |  |  | n= 306 | OR= 1.57 | p < 0.001 | High | Participation in counseling was positively associated with retention in medical treatment of OUD among people experiencing homelessness. |
| Overdose education and naloxone distribution program (Razaghizad et al., 2021) | 7 | Umbrella systematic review |  |  |  |  |  | 6 systematic reviews | OR = 2.0 | [1.4-2.9] | High | Education about naloxone that was provided in narrative form (rather than pure facts) was more effective at garnering public support for pro-naloxone policies |
| Policies to prevent opioid overdose (McClellan et al., 2018) | 8 | Ecological study |  |  |  |  |  | N/A: Used 2000–2014 National Vital Statistics System data, 2002–2014 National Survey on Drug Use and Health data, and primary datasets of the location and timing of naloxone access laws and overdose Good Samaritan laws. | N/A | N/A | High | “States with naloxone access laws or Good Samaritan laws had a 14% (p = 0.033) and 15% (p = 0.050) lower incidence of opioid-overdose mortality, respectively.”  “Both law types exhibit differential association with opioid-overdose mortality by race and age.”  “No significant relationships were observed between any of the examined laws and non-medical opioid use.” |
| Opioid education and naloxone distribution (ONED) program (Walley et al., 2013) | 9 | Retrospective cohort study |  |  |  |  |  | n= 2,912 | ARR = 0.73 | [0.57-0.91] | High | ONED redacted opioid overdose deaths significantly in communities where it was implemented with potential bystanders. |
| Supervised opioid injection sites (Marshall et al., 2011) | 10 | Case-control |  |  |  |  |  | n= 290 | Rate Difference = 88.7 per 100k person-years; | [1.6-175.8 per 100k person-years] | Medium | The opening of safe injection sites decreased the number of overdose deaths within a 500m radius by 35%. |

# Appendix 2 - Pugh Matrix and Associated Tables

### Table 4. List top priorities for each community partner.

|  |  |  |
| --- | --- | --- |
| **Community Partner Type** | **Community Partners** | **Top Priorities** |
| Local government | King County Regional Homeless Authority (KCRHA) | Strong evidence, cost, effectiveness, sustainability |
| Mutual aid / non-profit | The People's Harm Reduction Alliance (PHRA) | Equity, autonomy, access, ease of implementation |
| Local government & service provider | Street Medicine Team | Access, equity, feasibility, ease of implementation |
| Local government & service provider | Healthcare for the Homeless Network (HCHN) | Effectiveness, cost, sustainability, access |
| Emergency service provider | Downtown Emergency Service Center - Hobson Clinic | Access, ease of implementation, sustainability |
| Local government & community response service providers | Health Engagement Action Resource Team (HEART) | Access, equity, autonomy |
| Funder | The Gates Foundation | Cost, equity, strong evidence, sustainability, effectiveness |
| Mental health service provider | Community House Mental Health Agency | Equity, autonomy, access |
| Private contractor & health information system manager | Bitfocus - Homeless Management Information System (HMIS) Administrator | Strong evidence, cost, feasibility, sustainability |
| Community health center | Seattle Indian Health Board | Equity, access, feasibility |

### Table 5. Each community partner selects top 3 priorities

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Community Partners** | **Priorities/Criteria** | | | | | | | | |
| **Effectiveness** | **Equity** | **Strong evidence** | **Sustainability** | **Autonomy** | **Cost** | **Access** | **Ease of Implementation** | **Feasibility** |
| King County Regional Homeless Authority (KCRHA) | X |  | X |  |  | X |  |  |  |
| The People's Harm Reduction Alliance (PHRA) |  | X |  |  | X |  | X |  |  |
| Street Medicine Team |  | X |  |  |  |  | X |  | X |
| Healthcare for the Homeless Network (HCHN) | X |  |  | X |  |  | X |  |  |
| Downtown Emergency Service Center - Hobson Clinic |  |  |  | X |  |  | X | X |  |
| Health Engagement Action Resource Team (HEART) |  | X |  |  | X |  | X |  |  |
| The Gates Foundation | X | X |  |  |  | X |  |  |  |
| Community House Mental Health Agency |  | X |  |  | X |  | X |  |  |
| Bitfocus - Homeless Management Information System (HMIS) Administrator |  |  | X |  |  | X |  |  | X |
| Seattle Indian Health Board |  | X |  |  |  |  | X |  | X |
| **TOTAL** | **3** | **6** | **2** | **2** | **3** | **3** | **7** | **1** | **3** |

### Table 6. List top criteria and weights

|  |  |
| --- | --- |
| **Top Decision Criteria** | **Weights (if desired)** |
| Access | 7 |
| Equity | 6 |
| Autonomy | 3 |
| Cost | 3 |
| Effectiveness | 3 |
| Feasibility | 3 |

### Table 7. Pugh Matrix

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Top Criteria** | **Weights** | **Program Options** | | | |
| **1 (reference)** | **2** | **3** | **4** |
| Access | 6 | S | + (+7) | + (+7) | + (+7) |
| Equity | 5 | S | + (+6) | + (+6) | + (+6) |
| Autonomy | 3 | S | + (+3) | + (+3) | + (+3) |
| Cost | 3 | S | + (+3) | + (+3) | S |
| Effectiveness | 3 | S | + (+3) | S | + (+3) |
| Feasibility | 2 | S | + (+3) | S | S |
| Score (unweighted) | - | 0 | **6** | 4 | 4 |
| Score (weighted) | - | 0 | **25** | 19 | 19 |

Program options:

1 = Person-centered component of housing first intervention for people experiencing opioid use disorder (OUD)

2 = Overdose education and naloxone distribution (OEND) for drug users at community sites (i.e., syringe exchange locations, homeless shelters; Walley et al., 2013)

3 = Low barrier Mediation Assisted Therapy (MAT) provided by street medicine team

4 = Supervised injection sites in areas with high concentration of injection drug use

# Appendix 3 - Project Timeline

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **TASK NUMBER** | **TASK TITLE** | **TASK OWNER** | **START DATE** | **DUE DATE** | **DURATION IN MONTHS** | **PCT OF TASK COMPLETE** | **YEAR 1 (2024)** | | | | | | | | | | **YEAR 2 (2025)** | | | | | | | | | | | | **YEAR 3 (2026)** | | | | | | | | | | | |
| **Q1** | **Q2** | | | **Q3** | | | **Q4** | | | **Q1** | | | **Q2** | | | **Q3** | | | **Q4** | | | **Q1** | | | **Q2** | | | **Q3** | | | **Q4** | | |
| **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** | **Oct** | **Nov** | **Dec** |
| **0** | **Project Launch - Hiring, On-Boarding, and Training** | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0.1 | Establish standard on-boarding protocol | Recruitment team/HR staff (led by PHRA Executive Director) | 6/17/24 | 12/30/24 | 6.43 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0.2 | Hire & on-board one full-time Program Manager (1 FTE) | Recruitment team/HR staff (led by PHRA Executive Director) | 3/24/24 | 7/1/24 | 97 | 80% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0.3 | Hire & on-board one full-time Senior Project Coordinator (1 FTE) | Recruitment team/HR staff (led by Program Manager) | 6/1/24 | 12/30/24 | 209 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0.4 | Hire & on-board a part-time Program Evaluator (0.5 FTE) | Recruitment team/HR staff (led by Program Manager) | 6/17/24 | 9/30/24 | 3.43 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0.5 | Establish standard role transition protocol | Program Manager | 6/17/24 | 12/30/24 | 6.43 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0.6 | Acquire work space & work schedule expectations (i.e., in-office, in-field, remote) | Program Manager | 3/24/24 | 7/5/24 | 3.37 | 25% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0.7 | Purchase equipment & technology, including laptops and phones | Program Manager | 3/24/24 | 12/30/24 | 9.20 | 25% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **1** | **Outcome 1** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.1 | Recruit for three 0.5 FTE non-medical public health workers | Program manager | 6/1/24 | 8/1/24 | 2.00 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.2 | Hire and on-board three 0.5 FTE non-medical public health workers | Program manager | 7/1/24 | 12/30/24 | 5.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.3 | Modify the DOPE King County curriculum to include a module about secondary dissemination of nasal naloxone kits to social networks | Program manager | 7/2/24 | 12/30/24 | 5.93 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.4 | Develop a concrete list of all community sites and point person associated with each site. | Senior program coordinator & non-medical public health workers | 8/1/24 | 8/30/24 | 0.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.5 | Develop partnerships with 5 harm reduction community outreach sites | Program manager & non-medical public health workers | 9/1/24 | 12/30/25 | 15.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.6 | Develop partnerships with 4 syringe service programs | Program manager & non-medical public health workers | 9/1/24 | 12/30/25 | 15.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.7 | Develop partnerships with 5 homeless shelters | Program manager & non-medical public health workers | 9/1/24 | 12/30/25 | 15.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.8 | Purchase nasal naloxone kits for community sites | Program manager | 10/1/2024 | 12/30/2024 | 2.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.9 | Schedule DOPE King County trainings at community partner sites | Senior program coordinator | 10/1/2023 | 3/30/2025 | 17.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.10 | Facilitate DOPE King County trainings at community partner sites | Non-medical public health workers | 4/1/2025 | 12/30/2025 | 8.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.11 | Distribute nasal naloxone kits to community sites | Non-medical public health workers | 4/1/2025 | 12/30/2025 | 8.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.12 | Nasal naloxone resupply process for community partner sites | Program manager & senior program coordinator | 7/1/2024 | 9/30/2025 | 14.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.13 | Establish a mechanism for financial sustainability of naloxone kit re-supplying | Program manager & Executive director | 1/1/2024 | 12/30/2024 | 11.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.14 | Maintain relationships with community partners by connecting with each partner site | Senior program coordinator & non-medical public health workers | 4/1/2025 | 12/30/2026 | 20.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.15 | Build program evaluation and data collection infrastructure | Program manager & program evaluator | 7/1/2024 | 12/30/2024 | 5.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.16 | Establish a regular reporting process | Program manager | 4/1/2025 | 12/30/2026 | 20.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.17 | Data collection about community partner staff knowledge related to opioid overdose risk factors. | Program manager | 1/1/25 | 7/30/26 | 18.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.18 | Outcome 1 data analysis | Program evaluator | 8/15/26 | 10/10/26 | 4.50 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.19 | Outcome 1 dissemination | Senior program coordinator & non-medical public health workers | 10/10/26 | 12/30/26 | 4.50 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **2** | **Outcome 2** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2.1 | Modify the DOPE King County curriculum to include a module about secondary dissemination of nasal naloxone kits to social networks | Program manager | 7/2/24 | 12/30/24 | 5.93 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2.2 | Develop partnerships with community sites (5 homeless shelters, 4 syringe service programs, 5 harm reduction outreach site) | Program manger & non-medical public health workers | 9/1/24 | 12/30/25 | 15.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2.3 | Schedule training sessions with 14 community partner sites | Senior program coordinator and program manager | 10/1/2023 | 3/30/2025 | 17.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2.4 | Facilitate trainings with 14 community partner sites | Non-medical public health workers | 4/1/2025 | 12/30/2025 | 8.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2.5 | Purchase nasal naloxone kits for community sites | Program manager | 10/1/2024 | 12/30/2024 | 2.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2.6 | Distribute nasal naloxone kits to community sites | Non-medical public health workers | 4/1/2025 | 12/30/2025 | 8.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2.7 | Build a nasal naloxone inventory supply tracker | Senior program coordinator and program evaluator | 10/1/2024 | 12/30/2024 | 2.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2.8 | Work with community partners to establish site-specific implementation plans after DOPE King County training is complete | Program manager and senior program coordinator | 4/1/2025 | 6/1/2026 | 14.00 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2.9 | Establish a mechanism for financial sustainability of naloxone kit re-supplying | Program manager & Executive director | 1/1/2024 | 12/30/2024 | 11.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2.11 | Field data collection | Non-medical public health workers | 1/1/25 | 7/30/26 | 18.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2.12 | Analysis and evaluation of field data, including semi-structured interviews and naloxone tracking | Program evaluator | 8/15/26 | 10/10/26 | 4.50 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2.13 | Outcome 2 dissemination | Senior program coordinator & non-medical public health workers | 10/10/26 | 12/30/26 | 4.50 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **3** | **Outcome 3** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3.1 | Modify the DOPE King County curriculum to include a module about secondary dissemination of nasal naloxone kits to social networks | Program manager | 7/2/24 | 12/30/24 | 5.93 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3.2 | Develop partnerships with community sites (5 homeless shelters, 4 syringe service programs, 5 harm reduction outreach site) | Program manager & non-medical public health workers | 9/1/24 | 12/30/25 | 15.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3.3 | Schedule training sessions with 14 community partner sites | Senior program coordinator and program manager | 10/1/2023 | 3/30/2025 | 17.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3.4 | Facilitate trainings with 14 community partner sites | Non-medical public health workers | 4/1/2025 | 12/30/2025 | 8.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3.5 | Purchase nasal naloxone kits for community sites | Program manager | 10/1/2024 | 12/30/2024 | 2.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3.6 | Distribute nasal naloxone kits to community sites | Non-medical public health workers | 4/1/2025 | 12/30/2025 | 8.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3.7 | Build a nasal naloxone inventory supply tracker | Senior program coordinator and program evaluator | 10/1/2024 | 12/30/2024 | 2.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3.8 | Work with community partners to establish site-specific implementation plans after DOPE King County training is complete | Program manager and senior program coordinator | 4/1/2025 | 6/1/2026 | 14.00 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3.9 | Establish a mechanism for financial sustainability of naloxone kit re-supplying | Program manager & Executive director | 1/1/2024 | 12/30/2024 | 11.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3.11 | Field data collection | Non-medical public health workers | 1/1/25 | 7/30/26 | 18.97 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2.12 | Analysis and evaluation of field data, including semi-structured interviews and naloxone tracking | Program evaluator | 8/15/26 | 10/10/26 | 4.50 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2.13 | Outcome 3 dissemination | Senior program coordinator & non-medical public health workers | 10/10/26 | 12/30/26 | 4.50 | 0% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

# Appendix 4 - Budget

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# Appendix 5 - Final Program Team Member Effort Form

**Team name:** Mental Health 6

**Team members:** Annie Kelly, Hannah Mabey, Bryn Haden, Noah Lipshie, Sam Hamburger

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Section of final project** | **Sub-sections** | **Team member (s) that worked on the section**  **Team member initials** | | | | |
|  |  | AK | HM | BH | NL | SH |
| Executive summary | No sub-sections |  |  |  | X |  |
| Public Health Issue | Public Health Issue | X |  |  |  |  |
| Intended Population | X |  |  |  |  |
| Determinants | X |  |  |  |  |
| Community assets & needs | X |  |  |  |  |
| EBDM | LEAD Framework |  |  |  |  | X |
| Structured decision-making |  |  |  |  | X |
| Parallel evidence |  |  |  |  | X |
| Design & Implementation | Program plan |  | X | X |  |  |
| Goals & objectives |  | X |  |  |  |
| Logic model |  | X |  |  |  |
| Implementation |  | X |  |  | X |
| Equity |  | X |  |  | X |
| Partner engagement |  | X |  |  |  |
| Timeline |  |  |  |  | X |
| Sustainability |  |  |  | X |  |
| Evaluation & Dissemination | Evaluation plan |  |  | X |  |  |
| Dissemination |  |  | X |  |  |
| Budget |  |  | X |  |  |  |
| Formatting & references |  | X |  | X | X | X |

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