Hawai'i State Department of Health Alcohol and Drug Abuse Division State Plan

Intersections of Substance Use Among Public Sectors and Health Disparities Populations: Implications for a System of Care

Final Version for Dissemination December 2022

Acknowledgments and Disclosures

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Substance use is a significant health problem in Hawaiʻi, and solutions primarily come under the purview of the Hawaiʻi State Department of Health, Alcohol and Drug Abuse Division (ADAD). However, substance use is an important consideration among many public sector services and disproportionately impacts specific populations in our state. Therefore, ADAD is updating its state plan to highlight the intersection of substance use and public sectors and substance use and health disparity populations (https://health.hawaii.gov/substance-abuse/state-plan/). The 2022 State Plan for Substance Abuse (State Plan) is meant to serve as a blueprint and reference document so that local and state organizations have a framework for centering substance use in their future action. By taking an intersectional approach, cross-sector and population specific strategies may be implemented prospectively. Through a relational design strategy with the University of Hawaiʻi Department of Psychiatry, John A. Burns School of Medicine in collaboration with ADAD, local professionals statewide from a variety of public, private, and community-based entities have contributed their subject matter expertise to author these intersectional areas in the State Plan. By leveraging the wisdom of our local practitioner and scholar experts, we aspire to elevate community voices – those of the clients and their families, as well as of the professionals.

The State Plan project spanned the period of 2019-2022 and consisted of four cores, each with its own emphasis – the Data Analytics Infrastructure Core, the System of Care Implications Core, the Emerging Adult Treatment Core, and the Culture Case Study Core. The System of Care Implications Core coordinated the intersectional chapters of the State Plan project which are presented here in this volume. The Data Analytics Infrastructure Core contributed to the establishment of the Hawaiʻi Behavioral Health Data Dashboard and the State Plan Statistical Report. The Culture Case Study and Emerging Adult Treatment Cores focused on emerging issues with youth and young adult substance use prevention and treatment & recovery. The respective reports for the latter three cores are available on the Department of Health ADAD website at https://health.hawaii.gov/substance-abuse/survey/.

As the work on the State Plan evolved, it became evident that there were few authoritative sources in the existing literature that bridged research and practice-based knowledge to make recommendations around these important intersections of substance use and public sectors and populations. Therefore, the scope of the State Plan specifically addresses the context of Hawaiʻi's systems of care, which includes both healthcare systems as well as broader systems that serve populations of differing needs and reflect much diversity. This volume of chapters reflects the intersection of substance use and the public sector (mental health, homelessness, criminal justice, juvenile justice, and family violence), as well as substance use and health disparity populations (Native Hawaiians, sexual and gender minorities, rural, pregnant and parenting women with children). Alongside these intersectional foci, the final chapter discusses potential cross-cutting initiatives to improve public sectors and health disparity populations with the integration of substance use specialty care in Hawaiʻi primary care settings. We also encourage readers of the State Plan to also view the special supplement in the *Hawaiʻi Journal of Health and Social Welfare* which includes many of the same chapters presented here.

This effort has been spearheaded by ADAD to simultaneously and critically examine implications of these specific intersections on the substance use system of care, which had not been undertaken in prior plans (https://health.hawaii.gov/substance-abuse/state-plan/). This novel approach leverages not only academic but also practice-based subject matter experts. These experts allow for a much deeper and comprehensive outlook on the landscape of substance use treatment and recovery in relationship to other continua of care and support systems in our state and potential directions to guide policy and practice.

The chapters in this volume: (1) highlight relevant literature and describe available Hawaiʻi-specific data, (2) offer expert practitioner and scholar insights, which have been vetted in statewide public forums, around the current system of care from practice-based knowledge, (3) relate appropriate evidence-based interventions or innovative approaches relevant for Hawaiʻi, and (4) synthesize the aforementioned to offer observations and recommendations around implications for the systems of care in Hawaiʻi.

The literature review method for the development of each chapter entailed a comprehensive initial review beginning 2020 by the Department of Psychiatry System of Care Implications Core team

around the current literature, using PubMed, PubMed Central, and Google Scholar or other database searches with key index terms respective to each topic. After screening the abstracts for relevance to substance use and systems of care in Hawaiʻi, a set of full-text articles were screened further and selected for inclusion. Selected articles were compiled into an initial literature review package with an annotated bibliography and given to each of the chapter lead authors. Authors were able to add to the literature review based on their subject matter expertise, either on their own or with assistance from the System of Care Implications team.

Available data systems were examined to describe primary issues or problems in substance use and related systems of care. These were most often publicly available data from the literature, technical reports, or accessible databases. In some cases, stakeholder organizations granted permission to include the sharing of available aggregated data statistics, quality improvement data, or data from non-published internal reports. Where data were unavailable or inaccessible, recommendations around these gaps were often noted.

The current systems of care for each intersection topic illustrate where individuals may be accessing services, or conversely where linkages across systems are absent. Descriptions around the current system of care were gathered in consultation with direct service providers and key stakeholders in order to define different levels of care, highlight examples of intervention models or modalities, and share specific examples of service providing organizations or program resources in the state.

These chapters include evidence-based interventions and approaches from the literature as well as community-driven practice-based interventions and approaches. Unfortunately, there are few published studies that distinctly demonstrate the effectiveness of evidence-based interventions in Hawaiʻi. Given the deep cultural contexts of our populations, particularly for Native Hawaiians, recognition of Indigenous ways of knowing and innovative interventions or approaches are also discussed. The inclusion of innovative approaches was also purposeful, as ADAD has expanded the opportunity for funding these types of prevention and treatment services into the systems of care.

Finally, each chapter offers observations and recommendations for systems of care implications in our state. These recommendations were based on the subject matter experts' perspectives from having synthesized knowledge from both the literature and from practice. Practice-based feedback was received from a variety of stakeholders such as ADAD, substance use treatment and recovery providers and organizations, and individuals who may have lived experiences around the intersections in the systems of care. In this way, it is hoped that the community voice is reflected in guiding potential future directions of state and community level efforts to address substance use from an integrated behavioral health perspective in practice and policy.

There are a number of ideas that become evident when reading these chapters, ranging from conceptual, to policy and practice, to research and evaluation. Beginning with the conceptual, many chapters resonate a humanistic stance that is person-first and destigmatizing, upholds a belief in human dignity and transformation, recognizes the non-linearity of the healing journey, and leverages the power of restorative and assets-based approaches (vs. punitive, deficit models). Policy discussions are in line with this humanism – at the local and program level, and especially for larger system change via legislation and institutionalization of standards at the state and federal levels. For example, in the area of child abuse and neglect (Chapter 5: Intersections among Family Violence and Substance Use), referral pathways can be made more complete/consistent in order to increase the likelihood of timely treatment and completion. At the state level, discussions to facilitate increasing access for integrated and extended care in mental health-substance use disorder civil commitment (Chapter 3: Establishing a System of Care for Severe and Refractory Dual Disorder), advocacy for restorative justice for youth through reinvestment/diversion (Chapter 4: Implications for a System of Care in Hawaiʻi for Youth Involved in the Justice System), leveraging federal and state resources for more flexible streams of funding (Chapter 7: Rural Substance Use) , the explicit inclusion of cultural (Chapter 6: Conceptualizing a New System of Care in Hawaiʻi for Native Hawaiians)or other contexts (trauma; Chapter 5: Intersections among Family Violence and Substance Use), and incentives for private sector (reimbursement and collaborative care model in primary care; Chapter 10: Implications for a System of Care in Hawaiʻi: Primary Care Integration) are ways in which policy and program level initiatives may begin to take hold.

Practice implications across the chapters converged on a set of interrelated improvements. First, culturally and contextually specific practice will improve treatment and recovery (Chapter 4: Implications for a System of Care in Hawaiʻi for Youth Involved in the Justice System; Chapter 6: Conceptualizing a New System of Care in Hawaiʻi for Native Hawaiians; Chapter 7: Rural Substance Use ; Chapter 8: Implications for a System of Care in Hawaiʻi for Pregnant and Parenting Women; Chapter 9: Systems of Care Implications in Hawaiʻi: Sexual and Gender Minorities), particularly when coupled with cross-sector care coordination informed and supported by a robust set of community-based resources (Chapter 1: Housing First; Chapter 2: Implications for a System of Care in Hawaiʻi for Criminal Justice). Second, this means that professional development (e.g., training and relationship building) of the existing workforce would be aligned accordingly (Chapter 2: Implications for a System of Care in Hawaiʻi for Criminal Justice; Chapter 7: Rural Substance Use; Chapter 10: Implications for a System of Care in Hawaiʻi: Primary Care Integration). Concomitantly this would require workforce development to privilege lived experience on par with other professional criteria, as models of recovery coaches and peer support were a common theme (Chapter 5: Intersections among Family Violence and Substance Use; Chapter 6: Conceptualizing a New System of Care in Hawaiʻi for Native Hawaiians; Chapter 8: Implications for a System of Care in Hawaiʻi for Pregnant and Parenting Women). While none of this is expected to happen overnight, fortunately some of this is happening already in our state.

More specific research and evaluation is needed on a variety of levels to demonstrate the evidence base of effective and sustainable interventions and programs, specifically for Hawaiʻi. There is a need for improved data collection and definition within the existing systems (e.g., specific gender: Chapter 9: Systems of Care Implications in Hawaiʻi: Sexual and Gender Minorities; ethnicity identification: Chapter 6: Conceptualizing a New System of Care in Hawaiʻi for Native Hawaiians), where ideally data elements are standardized and cross-linked across multiple platforms. Cross-linked data are especially useful to study utilization and improve services for individuals and families that have needs across multiple service systems (mental health, housing/shelter, substance use treatment; Chapter 1: Housing First; Chapter 3: Establishing a System of Care for Severe and Refractory Dual Disorder). Furthermore, it may be important to evaluate more closely and rebalance the metrics of success in traditionally punitive systems that may begin expanding more toward intervention or connecting to treatment and recovery (e.g., examining target numbers of attempted and successful diversions to treatment, continuity of treatment through the system vs. number of drug related arrests, drugs seized, and citations; Chapter 2: Implications for a System of Care in Hawaiʻi for Criminal Justice). Additionally, because the roots of Western perspectives in research disadvantage research on underrepresented or small populations, it is important to elevate Indigenous research methodologies and ways of knowing into the evidence base, particularly for Native Hawaiian models of care and healing (Chapter 6: Conceptualizing a New System of Care in Hawaiʻi for Native Hawaiians).

Reflecting on the past 3 years since our initial relational design meetings to elucidate both the realities and aspirations for a comprehensive State Plan for a substance use system of care, this collection of chapters reveals both hope and challenge. They reflect a paradigm shift from traditional care systems toward a system of healing and population-based management for substance use in Hawaiʻi that transcends the existing hierarchical dichotomy (e.g., caregivers and clients; well people are good and deserving, and ill people are bad and undeserving). Given the themes around person-centered care and healing, cultural and contextual practice, and the need for working in teams as well as integration with primary care, it is important to develop a statewide pipeline for our workforce. Workforce initiatives must include types of training and work that resonate with lived experience and workforce pathways that are responsive to regional and community needs.

Lastly, we wish to acknowledge the lead champions and the writing teams of each of the chapters and the many unnamed individuals and stakeholder groups that have provided their manaʻo (insight) and have graciously offered feedback throughout this process - mahalo nui loa for persevering in this effort through challenging pandemic impacted times, and believing in your passion enough to bring forth an important set of ideas, observations, and recommendations that offer hope for a healing system of care for substance use in our state.

CHAPTER 1: HOUSING FIRST: HARM REDUCTION AT THE INTERSECTION OF HOMELESSNESS AND SUBSTANCE USE

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ABSTRACT

Despite a considerable overlap between people experiencing homelessness and people living with substance use disorder, there is a marked lack of integration between Hawai'i's systems of care for these populations. This gap in the current system of care often creates barriers to services for those living at the nexus of homelessness and substance use. This chapter describes Hawai'i's current homelessness and substance use systems of care, paying particular attention to the intersection between these two systems. With Hawai'i consistently ranking among the highest per capita rates of homelessness in the United States, this chapter argues that the intersection of homelessness and substance use is a pivotal site of intervention for addressing significant social problems. This chapter positions the Housing First paradigm as a critical model for bridging gaps and eliminating barriers in service provision through systems integration at the program level. Greater fidelity to the broader harm reduction principles underlying this model will effectively organize and equip programs to successfully address the needs of people experiencing homelessness and struggling with substance use.

BACKGROUND & INTRODUCTION

Scope, Significance, and Prevalence

For people experiencing homelessness (PEH) and struggling with harmful substance use or substance use disorder (SUD), a lack of integration between Hawai'i's homelessness and substance use systems of care (SoCs) presents consistent barriers to effective service provision. For example, participation in residential treatment programs may disqualify a person who is seeking housing assistance from accessing permanent housing support; or a housing program may exit a housed individual from the program for recurrent substance use. As Hawai'i continues to have one of the highest per capita rates of homelessness in the nation, the intersection of homelessness and substance use is an increasingly pivotal site of intervention. This chapter was developed as part of the Hawai'i State Department of Health Alcohol and Drug Abuse Division (ADAD) State Plan. For more background and context around the overall State Plan project, readers are referred to the Introductory Notes of this State Plan System of Care Implications Volume.

This chapter proposes that the Housing First (HF) paradigm represents the most promising solution to addressing homelessness and substance use and that greater fidelity to the harm reduction principles underlying this model will be most effective in organizing successful programs. Building on the humane spirit of HF, which aims to provide permanent supportive housing without preconditions of sobriety or treatment participation, this chapter asserts that PEH and SUD have the right to housing and treatment without risking one by choosing the other, regardless of their relationships with substance use.

Data from Hawai'i's 2022 Point in Time Count shows that on a single night in March, there were approximately 3,951 individuals experiencing homelessness on O'ahu and 2,022 individuals on the neighbor islands.[1] Of those counted, 614 (18%) indicated harmful substance use on O'ahu and 576 (28%) on the neighbor islands. Compared to neighboring islands, substance use was slightly more represented among both sheltered (333, 29%) and unsheltered (281, 33%) populations on O'ahu.[2] Approximately one in five PEH on O'ahu reported problematic substance use as a cause of homelessness, making it the third most common self-reported cause of homelessness (19% of respondents), behind an inability to pay rent and the loss of employment. These findings are consistent with other populations experiencing homelessness in comparable municipalities in the continental US. [1,2]

Current data and the historical persistence of homelessness in Hawai'i suggest that ongoing structural forces significantly contribute to homelessness and the trauma experienced when living unsheltered.[3-5] For example, economic causes of homelessness significantly outweigh alcohol and drug use (45% versus 19%).[1] In understanding these structural roots of homelessness, this chapter argues for integrated programmatic solutions that work across multiple levels to meet individuals with compassion and support rather than moralizing or stigmatizing harmful behavior. Hawai'i can fortify existing interventions, such as permanent supportive housing and intensive case management, to better meet the needs of PEH.

Homelessness and substance use are embedded within a complex network of structural forces (e.g., economic, political, and social conditions). While treatment of SUD still focuses on the individual level, appropriate care requires interventions that consider personal health within the context of larger structural forces that provide leverage points for effecting change. Trauma and structural violence further exacerbate homelessness and substance use. In recent years, Hawai'i's laws have increasingly criminalized those visibly experiencing homelessness. Where structural violence limits individual choices, harm reduction offers an integrated public health approach to structural change that affords greater agency to individuals living with trauma through holistic, person-centered methods.

Grounded in social justice and human rights, harm reduction is a set of practical strategies and ideas designed to reduce the negative consequences associated with harmful substance use.[6] Close adherence to harm reduction principles will effectively organize and equip programs to successfully address homelessness and substance use on multiple levels and across complex systems. Existing programs can increase fidelity to these principles by addressing multiple levels of trauma, integrating the homelessness and substance use SoCs, and helping clients maintain eligibility for supportive services throughout their journey of care. HF is an evidence-based intervention exemplary of harm reduction principles that considers individual, community, and structural levels in its design.

This chapter positions the HF paradigm as the most promising solution for addressing homelessness and substance use. HF is an integrated approach to homelessness that aims to "quickly and successfully connect individuals and families experiencing homelessness to permanent housing without preconditions and barriers to entry, such as sobriety, treatment, or service provision."[7] The model is built around the belief that PEH have the right to housing as a foundation for improving their quality of life regardless of their status of harmful substance use. While remaining recovery-oriented, HF better retains clients in care and provides more effective treatment because it does not condition housing or support on abstinence or penalize recurrent substance use. In this way, HF accommodates the fluctuating position of clients in their process of change. The following sections illustrate that harm reduction interventions such as HF, diversion, and managed alcohol programs (MAPs) have been successful thus far, demonstrating the benefit of implementing full-scale programs and expanding resources to provide housing and wraparound support for PEH.

Theoretical Frameworks

The Social-Ecological Model (SEM) contextualizes individual behaviors like substance use as embedded within complex social and political networks. While treatment of SUDs remains focused on the individual level, the SEM considers individual health within the context of larger social forces that provide leverage points for effecting change. On the individual level of the SEM, existing literature examines the prevalence of co-morbid mental health conditions among PEH. Conditions include alcohol-related problems,[8,9] co-occurring serious mental illness, and other psychiatric illness.[9,10] PEH have higher rates of tuberculosis, hypertension, asthma, and HIV/AIDS than the general population.[11-13] PEH also have higher rates of infectious disease due to compromised immune systems.[14] Additionally, childhood trauma increases the risk for adverse health outcomes according to research involving adverse childhood experiences (ACEs). When utilizing the 10-question ACE survey, people with four or more ACEs are two to five times as likely to develop clinical depression, experience an SUD, and experience homelessness compared to those with no ACEs.[15] Locally, through Hawai'i's syringe exchange program, the ACE survey was administered to 100 people who inject drugs and found that 63.5% had an ACE score of 4 or higher.[16]

At the community level, homelessness has been identified as a significant risk factor for large substance injection networks.[17] Kennedy et al[18] found that integrating motivational interviewing into social networks (i.e., facilitated group sessions) may efficaciously impact readiness to change alcohol and other drug (AOD) use and AOD use among formerly homeless individuals who are transitioning to permanent supportive housing. The continued criminalization of substance use provides a significant barrier to accessing housing opportunities and primary and specialized health care services by PEH:

> "[The] criminalization of substance use further stigmatizes people who use drugs, making it more difficult to engage people in health care and other services, a tendency that is often compounded by sociocultural factors associated with problematic drug-using populations, such as fear, lack of information and education, general physical and mental health problems, homelessness, and incarceration."[19]

Kleinman & Morris[20] note that the criminalization of personal substance use and substance possession "[does] not seem to effectively manage the health-related effects of substance use, yet contribute[s] to mass arrest and incarceration, exacerbate[s] racial and socio-economic disparities, [and perpetuates] stigmatization of substance use."[20] HF programs that rely on the framework of harm reduction, such as Managed Alcohol Programs (MAPs), described below, are able to supportively assist clients with problems associated with SUD without employing stigmatization and criminalization. MAPs focus on reducing harm through the provision of safer spaces and supply of alcohol, with opportunities for reconnection with family and friends and, where applicable, Indigenous culture and traditions.[21]

Homelessness and harmful substance use are exacerbated by trauma and structural violence. For PEH in Hawaiʻi, this includes the historical trauma of annexation, minority stress, and the individual trauma of ACEs. Prior to annexation, Kanawai Mamalahoe, or The Law of the Splintered Paddle, explicitly protected the rights of people to "lie by the roadside without fear of harm" in the Kingdom of Hawaiʻi."[22] In recent years laws in Hawaiʻi have increasingly criminalized those who are visibly homeless. The criminalization of homelessness "creates a costly revolving door that circulates individuals experiencing homelessness from the street to the criminal justice system and back."[23,24] Those involved in the criminal justice system face significant obstacles to accessing evidence-based care for SUD, "placing them at risk for adverse health outcomes."[20] Punitive state and local enforcement still persist, despite the decision in Martin v. Boise which held that the enforcement of a statute prohibiting outdoor sleeping against unhoused persons without functional access to alternative shelter violated the Cruel and Unusual Punishments Clause of the Eighth Amendment.[25,26] In addition to the criminalization of basic activities associated with unsheltered homelessness (e.g., sleeping on the sidewalk in front of a business or in a park after hours), criminal justice system involvement of PEH for personal substance use and possession is far reaching, with many facing months or years of correctional supervision through parole and probation systems.[20] Hawaiʻi leads the nation in its average term of probation at 59 months.[27] In contrast to structural violence that limits individual choice, harm reduction is a public health approach that aims to change this structure in ways that are holistic and person-centered to afford greater agency for individuals living with trauma.

HAWAIʻI'S CURRENT SYSTEM OF CARE

Hawaiʻi's current SoCs for homelessness and substance use encompass an evolving network of resources and referrals that intersect the behavioral health system. The Coordinated Entry System (CES) for shelter and housing and the Hawaiʻi Coordinated Access Resource Entry System (CARES) for substance use represent the fundamental components of these systems. CES facilitates the coordination of housing assistance within the housing SoC by quickly and effectively linking eligible individuals and families to resources and services that best meet their needs.[28] Partners in Care (on Oʻahu) and Bridging the Gap (for neighbor islands) represent Hawaiʻi's homeless services provider coalition.[29] CARES is a free, 24-hour referral program for substance use and mental health services. Prior to the launch of these programs, access to housing assistance or state-funded substance use treatment was fragmented into distinct entry processes for each program. CES and CARES provide a solution by offering a single-entry point for each SoC.

PEH who struggle with substance use may access housing resources through formal residential treatment or outpatient treatment services. "Clean and sober" homes can be accessed through the Department of Health's (DOH) Alcohol and Drug Abuse Division (ADAD) Clean and Sober Homes Registry.[30] Emergency and transitional shelters can be accessed directly. The Office of the Governor's Coordinator on Homelessness produces a vacancy list for these sites that is updated daily with available bed spaces and eligibility criteria for access.[31] Sites include traditional homeless shelters and specialized housing, such as DOH's Adult Mental Health Division-funded housing for people struggling with mental health challenges.[32] In addition to residential treatment facilities that provide temporary housing and SUD treatment, ADAD funds nine therapeutic living programs (TLPs) statewide. TLPs are long-term supervised living arrangements that provide mental health and substance use services to individuals or families transitioning to independent living.[33] TLPs can be utilized across the SUD SoC to provide PEH with stable shelter as they access treatment and other services.

For individuals seeking access to substance use treatment services while unsheltered, the main access point is the CARES line. Access to CARES is available via telephone, requiring that PEH have their own

phone to call the crisis line and receive calls with updates once a program has space available, unless a case manager or outreach worker is the point of contact and knows where to find them. ADAD has addressed this gap by funding outreach and transportation as part of its treatment contracts.[34] Other barriers include a lack of accommodations for those who continue to use substances or use certain pharmacotherapies, which would not be a barrier to housing placement under the HF model.

PEH who struggle with substance use and are not ready for treatment can access housing through CES. PEH seeking housing services are assessed using the Vulnerability Index–Service Prioritization Decision Assistance Tool (VISPDAT), which assigns an acuity number to determine the eligibility and prioritization of an individual for available resources. Once a person receives a VISPDAT score and consents to enrollment in the Homeless Management Information System (HMIS) database, they are placed on the "By Name List," which CES utilizes to match people with available housing resources. There may be upwards of 3,000 individuals on the list at any given time. On average, CES facilitates housing for 50 individuals per month.[28] Paradoxically, participation in residential treatment for 90 days or more constitutes a break in an episode of homelessness, which may cause a PEH to lose their chronic homelessness status and fall down the list for prioritization of housing resources.

Table 1. Substance Use Disorder Treatment Modalities in Hawaiʻi from 2015 to 2017[a]

	Outpatient	Residential	Therapeutic & Supportive Living	Intensive Outpatient	Social Detox	Methadone
No. of admissions per year (rounded to 50)	2,500-2,850	500-550	150-200	950-1,000	450-500	1-50
Admissions by modality per year (%)	55-56%	9-11%	3-4%	19-21%	8-10%	0.7-1%
Federal and state funds expended by modality per year (%)	43-44%	30-33%	7-8%	9-11%	2-3%	3%
$ spent (millions, rounded)	$7-8	$5-6	$1	$1-2	$0.4-0.5	$0.5

[a]Adapted from Kim & Zhang, 2018

Services for PEH who live with SUD focus on facilitating traditional treatment modalities, including outpatient, residential, therapeutic, and supportive living, intensive outpatient, social detox centers, and methadone maintenance. **Table 1** describes the size of admissions and fund expenditures by type of treatment in Hawaiʻi. The numbers are aggregated based on a report by Kim and Zhang[35] from 2015 to 2017. **Figure 1** shows the percentages of the admissions and funds in **Table 1** by year. Outpatient programs were the highest expenditure of funding sources, costing $7-8 million dollars or 44% of all funds. In contrast, social detox programs and treatments using methadone are relatively underutilized, with no more than 500 patients admitted per year. This underutilization creates a noticeable bottleneck in the treatment system because detox or medication management for SUD are required before admissions to residential treatment programs, which currently do not have the funding or capacity to handle acute medical symptoms of substance use dependence.
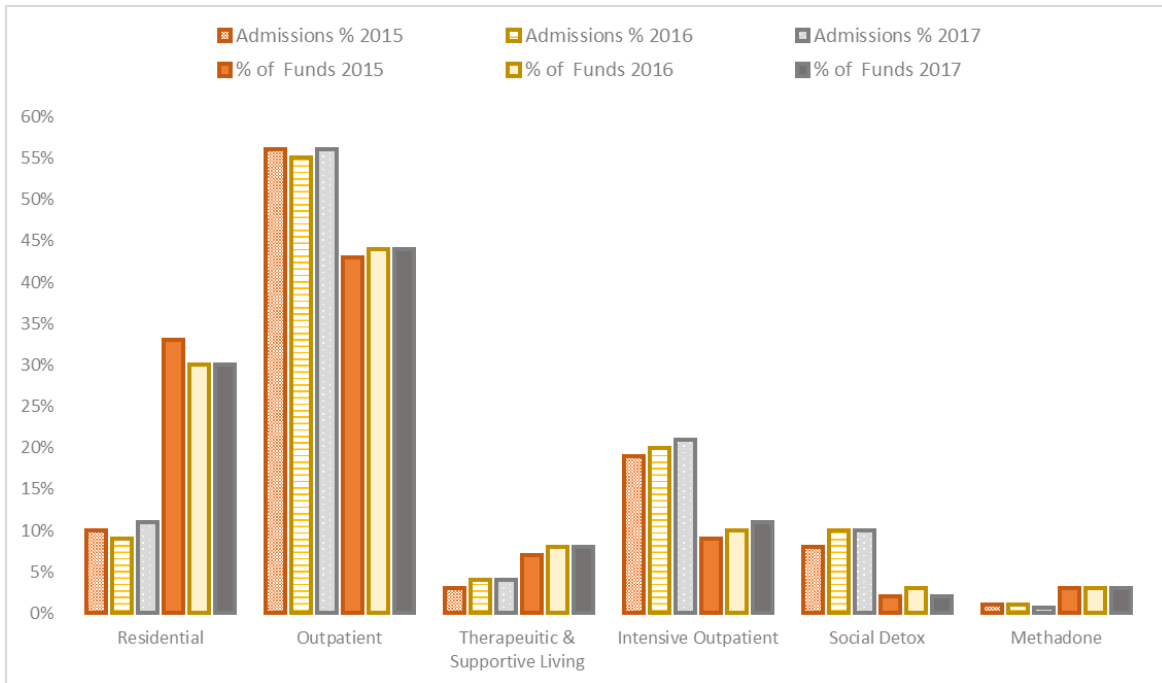
Figure 1. Percentages of Admissions and Funds Expenditure by Type of Treatment (2015 - 2017)[a]
[a]Adapted from Kim & Zhang, 2018

Social detox programs, with an average cost of a little less than a half million dollars per year in Hawaiʻi, are also relatively inexpensive. Residential treatment programs are only 9-11% of all admissions but with expenditures roughly on par with outpatient programs costing about $11,000 per patient per year, providing shelter for only 30-90 days at a time for PEH. In 2020, Hawaiʻi spent $3 million on year-round shelter through HF programs for 351 individuals, costing about $8,500 per person each year.[36] Continued reliance on a historically static model of abstinence-based residential programs presents substantial obstacles for PEH who seek treatment.

Few homelessness services include substance use treatment, and few SUD providers offer specific homeless services, although most services lay somewhere in between.[34] PEH who complete residential substance use treatment have limited resources for housing after clinical discharge. Substance use treatment programs have resources to assist with housing placement through clean and sober homes; however, these are difficult for PEH to access as they typically require a security deposit and the first month's rent.[30] Emergency and transitional shelters are accessible individually, but few provide certified substance abuse counselors on-site. Centralization of shelter and specialty housing vacancies at CARES would facilitate better integration of the housing and substance use SoCs. **Figure 2** maps an individual's journey through both SoCs, noting where there are barriers and gaps in services and resources that keep a client cycling through these systems without successful navigation toward reaching their goals.
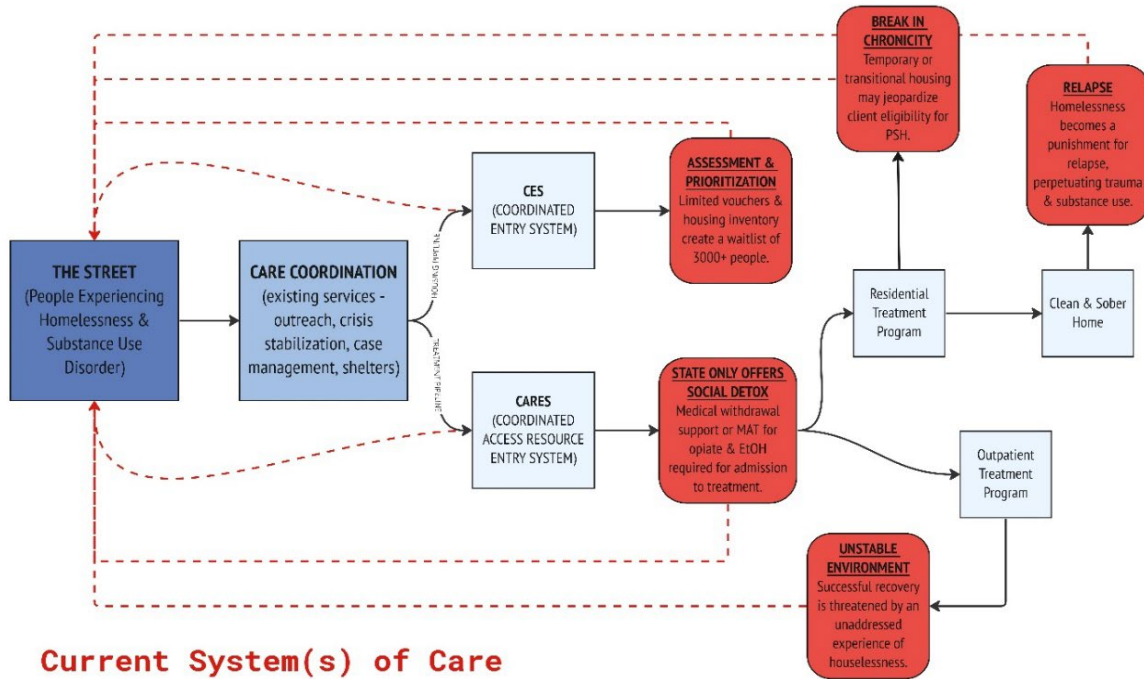
Figure 2. A simplified map illustrating barriers in the current homelessness and SUD SoCs.[a]
[a]Hawaiʻi Health & Harm Reduction Center, 2022.

INTERVENTIONS AND RECOMMENDATIONS

The pervasiveness of homelessness in Hawaiʻi is a multilayered issue requiring an integrated, multidimensional approach at many levels and across various social systems. Hawaiʻi should look to HF and the innovative implementation of harm reduction principles in programs like Seattle's Law Enforcement Assisted Diversion (LEAD)[37] and 1811 Eastlake[38] for ways to integrate the homelessness and substance use SoCs. The continuing problem of SUD among PEH requires closer fidelity to the harm reduction principles underlying the ideal model of HF. Hawaiʻi can build upon its existing HF programs and make major strides towards resolving homelessness for those experiencing a SUD by: (1) scaling up available HF vouchers to meet the needs of all those who qualify; (2) integrating the entry systems (CES and CARES); (3) utilizing innovative harm reduction-based and trauma-informed approaches for those actively engaged in substance use; and (4) relying upon larger, interdisciplinary teams of support for clients, as demonstrated by the intensive case management of LEAD participants, which follows clients into housing and works with HF programs to ensure housing success. **Figure 3** imagines an ideal system that maps the proposed interventions to successfully navigate PEH and SUD towards greater stability and health.
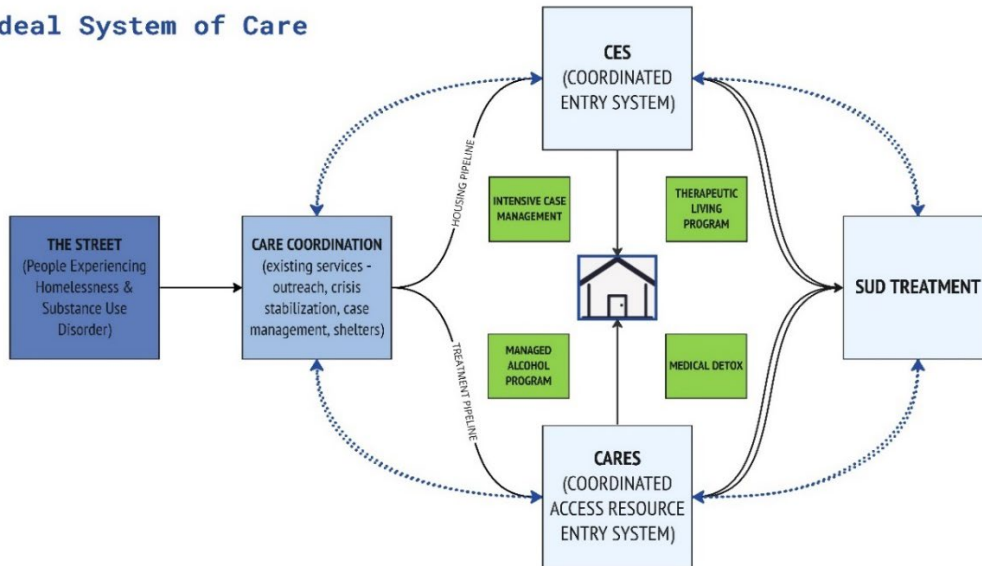
Figure 3. Map of the ideal SoC in which collaboration between the homelessness and substance use continuums facilitates client navigation toward stability.[a]
[a]Hawai'i Health & Harm Reduction Center, 2022.

Given the myriad of challenges in finding shelters for those struggling with SUD, state and local policymakers have increasingly focused on funding HF.[39] In Hawai'i, HF was initially launched in 2014 through Hawai'i's Pathways Project,[40] funded by the Substance Abuse and Mental Health Services Administration through ADAD. Hawai'i's Pathways Project was modeled after the original Pathways to Housing project, which housed 99 individuals with substance use and mental health challenges. The evaluation of the original project found an 88% housing retention rate and an estimated healthcare cost savings of $6,197 per client per month. Subsequent HF programs were funded statewide by the Hawai'i Department of Human Services, Homeless Programs Office (HPO).[39] The City and County of Honolulu also funds HF permanent supportive housing. A 2019 evaluation of the first increment of the program found that only 8% of participants fell back into homelessness after five years.[41]

Studies that have examined the effectiveness of HF programs have illustrated its success as an integrated intervention. When implemented with wraparound support services and interdisciplinary care teams, 88% of HF tenants remained housed after five years.[42] PEH who use substances report preferring harm reduction services that include shelter and identified that compassion and non-judgment of staff were components of effective treatment.[43] Given the success of HF nationally and in Hawai'i, the model has become the preferred method for working with PEH who also use substances and is required for those programs funded by HPO and the City and County of Honolulu.[44,45]

Founded in King County, Washington, as a response to the disproportionate imprisonment of minority populations for substance use, LEAD provides a promising example of a non-punitive approach to SUD treatment. Hawai'i recently implemented the model in Honolulu, where 98% of participants reported homelessness within three years prior to enrollment. The 2018 Honolulu pilot found that 78% of referred clients reported methamphetamine use, while 36% reported alcohol and opioid use. There was 23% reduction in methamphetamine used by the second year of the pilot. The Honolulu LEAD pilot worked to provide the necessary SUD wraparound support and service navigation alongside HF and homeless service providers, which saw clients spend 47% fewer days sleeping on the street. Someone using injection drugs who is not ready for SUD treatment can be connected to the syringe exchange program for safer use supplies or hepatitis C testing and treatment. A person who does not want to stay in a shelter can work with a LEAD case manager in the field to apply for housing resources through CES. Honolulu's LEAD pilot program shows that a harm reduction approach works in Hawai'i, where methamphetamine use is a major issue and for which there are generally fewer options for

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medication-assisted treatment or other non-abstinence-based modalities. LEAD meets individuals at their level of readiness to engage for both housing and SUD treatment, scaffolding steady change that can be sustained over time.[46]

MAPs are integrated harm reduction interventions for individuals living with alcohol dependence, chronic poverty, and homelessness that focus on reducing harms through the provision of safer spaces and supply of alcohol. MAPs utilize an HF framework to provide accommodation, health, and social support and include the administration of beverage alcohol to stabilize drinking patterns.[21] Seattle's 1811 Eastlake supportive housing program models an HF framework built for people living with alcohol use disorder. The facility includes a clinic and on-site SUD therapists to offer mediation to clients who have difficulty managing anger. Despite only setting out with the goal to provide housing services to underserved individuals, the program reported a 35% decrease in heavy drinking among participants during the first two years.[38] The 1811 Eastlake facility saved over $4 million in foregone costs associated with the provision of public support and health services for PEH in its first year.[38] As with other HF interventions, replicating MAPs in supportive housing environments like 1811 Eastlake in Hawaiʻi would foreseeably result in reduced costs to the health care and criminal justice systems. This low-threshold approach will reach many people experiencing chronic homelessness who have been rejected by abstinence-based services and likely result in improvements in well-being and substance use. Hawaiʻi's SoCs will be able to more effectively respond to the ongoing behavioral health needs of those who have experienced chronic homelessness and a lack of success in abstinence-based programs. Maintaining fidelity to the HF model and harm reduction principles is a cost-effective way to see a measurable reduction in harmful substance use.

CONCLUSION

With one-fifth of PEH on Oʻahu also reporting substance use, integration between the homeless and substance use SoCs will be an important part of any serious effort to solve homelessness and support clients in maintaining stability once housed. Increased coordination between the homelessness and substance use SoCs through CES and CARES can ensure that clients are able to access programs that will address their most pressing concerns. For clients who will require permanent housing support after leaving a residential program, it requires attention to contradictions within the two systems; for example, clients who have completed 90 days or longer in a residential program will lose their chronically homeless status and thus be ineligible for many HF programs. While this problem must be addressed on a larger systemic level, individual programs can ensure client retention and success by weaving harm reduction-based treatment into their permanent housing programs. Building on the example of the MAP at 1811 East Lake, Hawaiʻi's HF programs can work with clients to maintain housing while mitigating the negative consequences of harmful substance use. HF and the harm reduction approach to public health more broadly offer the most promising paradigm from which to treat PEH who struggle with SUD. By addressing substance use among PEH with compassion and with the non-punitive approach of harm reduction, housing and treatment programs in Hawaiʻi can ameliorate a persistent structural problem in the state and set an example for other jurisdictions in the nation.

REFERENCES

1.	Partners in Care. *2020 Oʻahu Point-in-Time Count*. Partners in Care. Published 2020. Accessed March 15, 2022. https://www.honolulu.gov/rep/site/ohou/PIC2020PITCountReportFinal.pdf

2.	Barile JP, Pruitt AS, Parker JL. A latent class analysis of self-identified reasons for experiencing homelessness: Opportunities for prevention. *J Community Appl Soc Psychol.* 2018;28(2):94-107. doi:10.1002/casp.2343

3.	Ji E-G. A study of the structural risk factors of homelessness in 52 metropolitan areas in the United States. *Int Soc Work.* 2006;49(1):107-117. doi:10.1177/0020872806059407

4.	Main T. How to think about homelessness: Balancing structural and individual causes. *J Soc Distress Homeless.* 1998;7(1):41-54. doi:10.1023/a:1022966631533

5.	Elliott M, Krivo LJ. Structural determinants of homelessness in the United States. *Soc Probl.* 1991;38(1):113-131. doi:10.1525/sp.1991.38.1.03a00070

6.	National Harm Reduction Coalition. Harm Reduction Principles | National Harm Reduction Coalition. Accessed March 13, 2022. https://harmreduction.org/about-us/principles-of-harm-reduction/

7.	HUD Exchange. Housing First in Permanent Supportive Housing Brief - HUD Exchange. Published 2014. Accessed March 13, 2022. https://www.hudexchange.info/resource/3892/housing-first-in-permanent-supportive-housing-brief/

8.	Panadero, Vázquez, Martín. Alcohol, poverty and social exclusion: Alcohol consumption among the homeless and those at risk of social exclusion in Madrid. *Addicciones.* 2017;29(1).

9.	Skalisky J, Leickly E, Oluwoye O, et al. Prevalence and correlates of cannabis use in outpatients with serious mental illness receiving treatment for alcohol use disorders. *Cannabis Cannabinoid Res.* 2017;2(1):133-138. doi:10.1089/can.2017.0006

10.	Bauer LK, Brody JK, Leon C, Baggett TP. Characteristics of homeless adults who died of drug overdose: A retrospective record review. *J Health Care Poor Underserved.* 2016;27(2):846-859. doi:10.1353/hpu.2016.0075

11.	Fazel S, Geddes JR, Kushel M. The health of homeless people in high-income countries: descriptive epidemiology, health consequences, and clinical and policy recommendations. *The Lancet (British edition).* 2014;384(9953):1529-1540. doi:10.1016/S0140-6736(14)61132-6

12.	Gelberg L, Robertson MJ, Arangua L, et al. Prevalence, distribution, and correlates of Hepatitis C virus infection among homeless adults in Los Angeles. *Public Health Rep.* 2012;127(4):407-421. doi:10.1177/003335491212700409

13.	Zlotnick C, Zerger S. Survey findings on characteristics and health status of clients treated by the federally funded (US) Health Care for the Homeless Programs. *Health & social care in the community.* 2009;17(1):18-26. doi:10.1111/j.1365-2524.2008.00793.x

14.	Ramin B, Svoboda T. Health of the homeless and climate change. *J Urban Health.* 2009;86(4):654-664. doi:10.1007/s11524-009-9354-7

15.	Metzler M, Merrick MT, Klevens J, Ports KA, Ford DC. Adverse childhood experiences and life opportunities: Shifting the narrative. *Child Youth Serv Rev.* 2017;72:141-149. doi:10.1016/j.childyouth.2016.10.021

16.	Stupplebeen DA, Maxera L, Lusk HM, Pham T. *2019 Syringe exchange program annual report*. Honolulu, HI: Hawaiʻi Health & Harm Reduction Center. Published 2020.

17.	Boodram B, Mackesy-Amiti ME, Latkin C. The role of social networks and geography on risky injection behaviors of young persons who inject drugs. *Drug Alcohol Depend.* 2015;154:229-235. doi:10.1016/j.drugalcdep.2015.06.042

18.	Kennedy DP, Osilla KC, Hunter SB, Golinelli D, Maksabedian E, Tucker JS. A pilot test of a motivational interviewing social network intervention to reduce substance use among Housing First residents. *J Subst Abuse Treat.* 2018;86:36-44. doi:10.1016/j.jsat.2017.12.005

19.	American Public Health Association. Policy statement: Defining and implementing a public health response to drug use and misuse. Published 2013. Accessed September 9, 2021. https://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2014/07/08/08/04/defining-and-implementing-a-public-health-response-to-drug-use-and-misuse

20.	Kleinman RA, Morris NP. Rethinking the criminalization of personal substance use and possession. *J Gen Intern Med.* 2021. doi:10.1007/s11606-021-06628-5

21. Pauly B, Brown M, Evans J, et al. "There is a Place": Impacts of managed alcohol programs for people experiencing severe alcohol dependence and homelessness. *Harm Reduct J.* 2019;16. doi:10.1186/s12954-019-0332-4

22. Lee LH. *Law of the Splintered Paddle, Kānāwai Māmalahoe*. Hawaii Legal Auxiliary. Published 1994. http://hdl.handle.net/10125/67602

23. U.S. Interagency Council on Homelessness. *Searching out solutions: Constructing alternatives to the criminalization of homelessness*. Published 2012. https://www.usich.gov/resources/uploads/asset_library/RPT_SoS_March2012.pdf

24. National Law Center on Homelessness and Poverty. *Housing not handcuffs 2019: Ending the criminalization of homelessness in U.S. cities*. Published 2019.

25. Eighth Amendment - Criminalization of homelessness - Ninth Circuit refuses to consider invalidation of ordinances completely banning sleeping and camping in public - Martin v. City of Boise. *Harv L Rev.* 2019;133(2):699-706.

26. *Martin v. City of Boise*, 920 F.3d 584 (9th Cir. 2019)

27. The Pew Charitable Trusts. *States can shorten probation and protect public safety: Wide variations in policies and term lengths across states point to opportunities for reform*. Published 2021. https://www.pewtrusts.org/en/research-and-analysis/reports/2020/12/states-can-shorten-probation-and-protect-public-safety

28. Partners in Care. CES Oversight — PARTNERS IN CARE. Accessed August 19, 2022. https://www.partnersincareoahu.org/ces-oversight

29. Bridging The Gap Hawaii. Coordinated Entry System (CES) | Bridging The Gap Hawaii. Published 2021. Accessed September 9, 2021. https://www.btghawaii.org/reports/periodic-monitoring-reports/coordinated-entry-system/

30. Alcohol and Drug Abuse Division. Alcohol and Drug Abuse Division | Clean & Sober Homes. Published 2021. Accessed September 9, 2021. https://health.hawaii.gov/substance-abuse/clean-sober-homes/

31. Homelessness Initiative. Statewide Office on Homelessness and Housing Solutions (OHHS) | Daily Emergency Shelter Vacancy. Published 2021. Accessed September 9, 2021. https://homelessness.hawaii.gov/daily-emergency-shelter-vacancy/

32. Adult Mental Health Division. *Array of Services by County*. Published 2017. Accessed March 15, 2022. https://health.hawaii.gov/amhd/files/2013/06/AMHD-Array-of-Services.pdf

33. 2020 Hawaii Revised Statutes Title 19. Health 321. Department of Health 321-16.6 Therapeutic living programs HRS § 321-16.6(2020).

34. Alcohol and Drug Abuse Division. *ADAD Contracted Treatment Providers – 2019 – 2021*. Published 2021.

35. Kim J, Zhang J. *Alcohol and Drug Treatment Services Report: Hawaiʻi, 2015 · 2016 · 2017*. Honolulu, HI: University of Hawaiʻi, Center on the Family. Published 2018. Accessed March 15, 2022. https://health.hawaii.gov/substance-abuse/files/2018/12/TREATMENT_2018_WEB.pdf

36. Pruitt A, Barile J. *Unsheltered in Honolulu: Examining Unsheltered Homelessness in Honolulu from 2017-2020*. Mayor's Office of Housing, The City & County of Honolulu, Partners in Care, Oʻahu's Continuum of Care. Published 2020. Accessed March 15, 2022. https://www.honolulu.gov/rep/site/ohou/UnshelteredHNL-2020-compressed.pdf

37. Seattle King County. Community care and coordination. Accessed September 20, 2022. https://leadkingcounty.org/

38. McElroy M. Homeless heavy drinkers imbibe less when housing allows alcohol. *UW News.* January 19, 2012. Accessed October 14, 2022. https://www.washington.edu/news/2012/01/19/homeless-heavy-drinkers-imbibe-less-when-housing-allows-alcohol/

39. Statewide Office on Homelessness and Housing Solutions. Statewide Office on Homelessness and Housing Solutions (OHHS) | Housing First. Published 2022. Accessed August 19, 2022. https://homelessness.hawaii.gov/housing/

40. Helping Hands Hawaiʻi. Hawaii Pathways Project – Three-Year Pilot Project Results – Helping Hands Hawaii. Published 2018. Accessed September 9, 2021. https://helpinghandshawaii.org/hawaii-pathways-project-three-year-pilot-project-results/

41. Pruitt AS, McKinsey E, Barile J. *Evaluation Report - City & County of Honolulu's Housing First Program - Year 5*. Published 2019. Accessed March 15, 2022.

https://www.honolulu.gov/rep/site/ohou/Housing_First_Year_5_Evaluation_Report_Final_with_Appendices.pdf

42. Tsemberis S, Gulcur L, Nakae M. Housing First, consumer choice, and harm reduction for homeless individuals with a dual diagnosis. *Am J Public Health*. 2004;94(4):651-656. doi:10.2105/AJPH.94.4.651

43. Carver H, Ring N, Miler J, Parkes T. What constitutes effective problematic substance use treatment from the perspective of people who are homeless? A systematic review and meta-ethnography. *Harm Reduct J*. 2020;17(1):10. doi:10.1186/s12954-020-0356-9

44. Partners in Care. *Oʻahu Continuum of Care Cordinated Entry System Policies & Procedures*. Published 2021. Accessed March 15, 2022. https://static1.squarespace.com/static/5db76f1aadbeba4fb77280f1/t/62bce2be6c861760b64cba13/1656545984351/06_16_2022+PIC+CES+Policies+and+Procedures.pdf

45. United States Interagency Council on Homelessness. *Housing First Checklist: Assessing Projects and Systems for a Housing First Orientation*. Published 2016. Accessed October 14, 2022. https://www.usich.gov/resources/uploads/asset_library/Housing_First_Checklist_FINAL.pdf

46. Willingham M, Gralapp S, Barile JP. *Law Enforcement Assisted Diversion Honolulu 2-Year Program Evaluation Report*. Published 2020. Accessed March 15, 2022. https://homelessness.hawaii.gov/wp-content/uploads/2020/10/FINAL_LEAD-HNL-Report_Year-2.pdf

CHAPTER 2: IMPLICATIONS FOR A SYSTEM OF CARE IN HAWAI'I FOR CRIMINAL JUSTICE AND SUBSTANCE USE

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ABSTRACT

Significant opportunities to improve treatment for substance use disorders can occur within the criminal justice system. This chapter will review the current system of care, understand current interventions available, and explore recommendations to better address community needs. With rising numbers of substance use and substance-related deaths, this threat to the community is predicted to worsen without intervention. There are multiple points in the justice system throughout the pretrial, court, and sentencing periods where the opportunity to help people with substance use disorder may occur. These points of diversion can focus on a more rehabilitative approach to crimes in the context of substance use disorder rather than punitive incarceration without adequate treatment. Police diversion can be increased and new police metrics incentivizing such efforts can be implemented in place of informal disposition by officers. Further training of law enforcement officers and continued development of support staff will help change practice allowing those with substance use disorders in the criminal justice system to connect to appropriate services. Data collection for research and analysis of recidivism among those engaged with diversion services compared to those who have not will help further guide future policy and resources for such programs.

BACKGROUND & INTRODUCTION

Significant work in stopping drugs and drug-related crimes by law enforcement and the criminal justice agencies in Hawai'i has led to a collection of studied data. According to the Hawai'i High Intensity Drug Trafficking Area (HIDTA) 2019 Drug Threat Assessment Report, methamphetamine and high-potency marijuana pose the greatest threats to the community.[1] For example, in 2015, there were 186 methamphetamine substance abuse treatment admissions per 100 000 people and 141 marijuana treatment admissions per 100 000 people.[2] These drugs surpassed treatment admissions when compared to other substances such as cocaine, heroin, diverted prescription medications, and any other drugs.[1] Methamphetamine posed the greatest overall public health threat due to drug-related deaths despite both marijuana and methamphetamine being the most widely available.[1] Given the scope of the problem, it is important to review the system of care in Hawai'i, understand current interventions available, and explore recommendations to better address community needs around the intersection of substance use and the criminal justice system. This chapter was developed as part of the Hawai'i State Department of Health Alcohol and Drug Abuse Division (ADAD) State Plan as a way of accomplishing the aforementioned aim. For more background and context around the overall State Plan project, readers are referred to the Introductory Notes of this State Plan System of Care Implications Volume.

The Purpose of the Criminal Justice System

The criminal justice system can be broadly described as the, "…structure of laws, rules, and agencies designed to hold criminals accountable for their misdeeds and help them to restore their victims as much as possible."[3]

CURRENT SYSTEM OF CARE IN HAWAI'I

The Components of the Criminal Justice System

Generally, the Hawai'i criminal justice system has four distinct components. The first component of the criminal justice system is the police, who are the "gatekeepers" for entry into the system. The traditional role of the police in the US (and Hawai'i) includes order, maintenance, crime control, law enforcement, and service delivery. The community commonly perceives the core roles of the police to be service delivery and social service. The police are therefore referred to as social servants (people who work for community benefit), crime fighters, watchmen, and law enforcers.[4]

The second component of the Hawai'i criminal justice system is the courts. The role of the courts in the criminal justice system is to hold trials for those who are accused of crimes and to determine whether a suspect is guilty or innocent. To determine whether a suspect is guilty or innocent, the courts have three responsibilities. First, the courts ensure that a suspect's civil rights are protected during the judicial process. Second, the courts determine who may or may not be released prior to trial. Third, the courts

determine whether there is enough evidence to proceed with a trial where they can determine fault and sentencing for those who are found guilty.

The third component of the Hawai'i criminal justice system is the corrections system. Traditionally, the correction system has had two roles. First, historically the corrections system was designed to separate offenders from the community by incarcerating and punishing them for crimes committed. Second, the corrections system was also designed to rehabilitate offenders by, "…preparing an individual to successfully reintegrate into the society."[5]

The fourth component of the criminal justice system is the juvenile justice system. The juvenile justice system is discussed in another chapter of this State Plan System of Care Implications volume. This chapter on criminal justice deals specifically with the adult criminal justice system.

The United States Substance Abuse and Mental Health Administration (SAMHSA) uses a model known as the Sequential Intercept Model (SIM) as a way of describing how individuals with mental and substance use disorders come into contact with and move through the criminal justice system.[6] Based on the aforementioned criminal justice system components described earlier, SAMHSA describes six intercepts where those with mental and/or substance use disorders intercept with the justice system: community services, law enforcement, initial court hearings, initial detention, jails and courts, reentry and community corrections. In many ways, this plan corresponds with SAMHSA's SIM model.

How Does the Criminal Justice System Work?

The criminal justice system begins with the reporting of a crime to the police. When crimes are reported to the police, the police perform their role by investigating, identifying the offenders, and arresting those responsible. **Figure 1** describes the start of the criminal justice system process by the police.

Crime → **Investigation** → **Arrest**
- Released without Prosecution
- Charges Filed
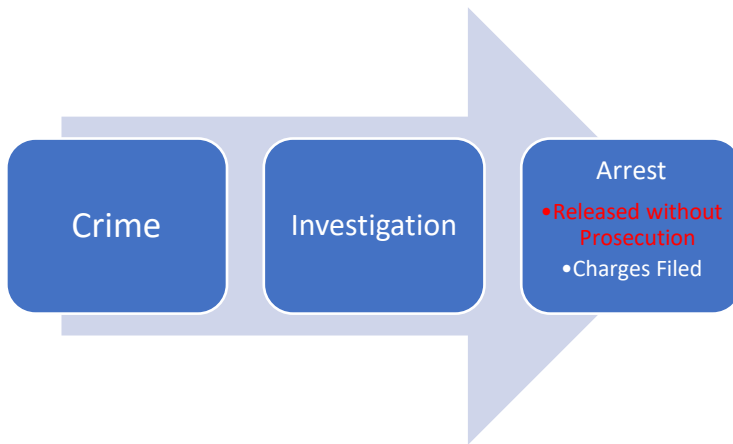
Figure 1. Initial Stages of the Criminal Justice System Process by the Police. Adapted from the Bureau of Justice Statistics[7] flow chart titled, "What is the sequence of events in the criminal justice system?"

An important observation in the flow chart is the stage of arrest. The decision is left with the police officer, who has options to release without prosecution or to proceed with charges. The police's use of discretion increasingly supports the community's idea of justice, guiding the "gatekeeping" of people brought into the system. The end of this chapter will further discuss the use of discretion in the criminal justice system.

Second, if a person is arrested and charges are filed, the court assumes authority over the offender. There are two phases in the process for movement in the criminal justice system courts: the pretrial phase and the adjudication phase. In the pretrial phase, there are a series of hearings designed to give defendants their due process. The basic pretrial process is diagrammed below in **Figure 2**.
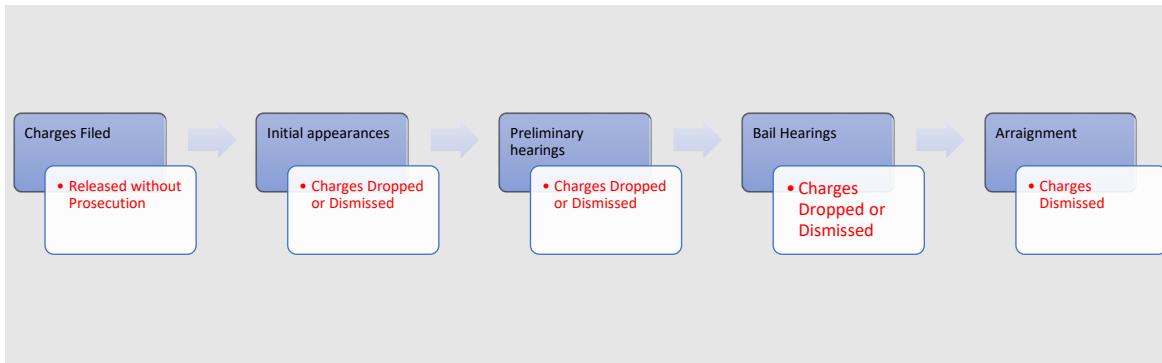
Figure 2. The pretrial process in the court component of the criminal justice system. Adapted from the Bureau of Justice Statistics[7] flowchart titled, "What is the sequence of events in the criminal justice system?"

As an offender moves through the pretrial phase of the criminal justice system offenders can have their charges dropped or dismissed at multiple points of the process. These numerous opportunities are again, in part, based on the discretion provided to the court members (e.g., prosecutors and judges) of the criminal justice system.

When a case is not dismissed or settled through a plea bargain, defendants are brought to trial to determine their guilt or innocence. **Figure 3** illustrates the process in the trial phase of the court system.
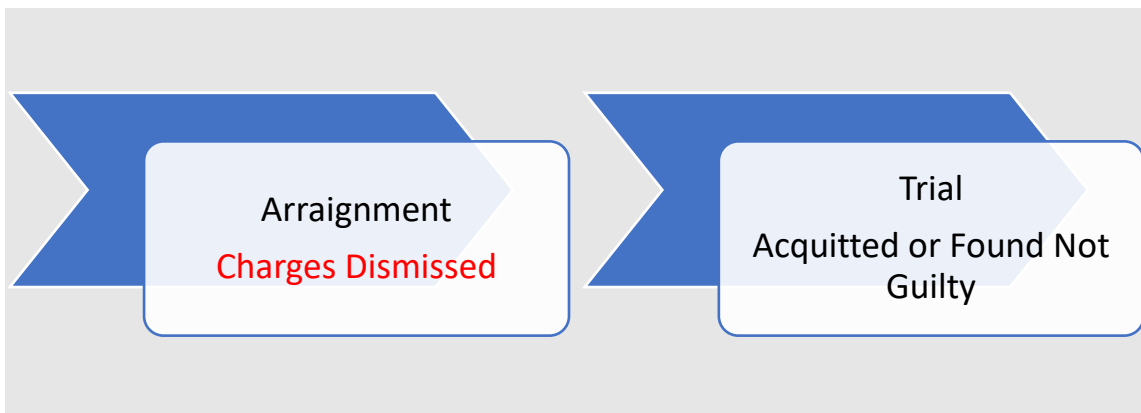
Figure 3. The Trial Process in the Criminal Justice System. Adapted from the Bureau of Justice Statistics[7] flow chart titled, "What is the sequence of events in the criminal justice system?"

Before the trial phase, a trial date is set at arraignment (the formal notification to a defendant of the charges faced). During the arraignment, the defendant is given written notice of the charges and the defendant's plea is recorded. Both the prosecutor and/or the judge have the discretion to dismiss the offender's charges. Moreover, at any point in the pretrial phase, the defendant can plead guilty and start the process to determine punishment. Should the defendant plead not guilty, the defendant's case will be set for trial. Simultaneously, when a defendant's case is set for trial, there are customarily plea negotiations or "plea bargaining" to settle cases before the trial. During that process, a defendant can have the charges reduced or even dismissed by the prosecutor. Ultimately, cases that are not settled will go to trial. Even at trial, charges or even the whole case can be dismissed. Considerations for dismissing the charges include: if the prosecutor cannot prove the case, if the judge finds that there is not enough evidence to support a charge, or if there is a violation of the offender's rights during court proceedings. Furthermore, when an offender goes to trial, there is always a significant chance that the offender will be acquitted. The case can be acquitted when the offender is found not guilty or where the prosecution has not proven the case beyond a reasonable doubt. This

means that defendants with substance use disorders may be missed by the criminal justice system if they become expelled because the charges are dismissed.

If an offender is adjudicated guilty in the courts, then they enter the corrections component of the criminal justice system. The corrections component has two parts: 1) Probation – which is the supervision of the defendant in the community without incarceration and 2) Incarceration – which is imprisonment in a correctional facility. The diagram below (**Figure 4**) describes the general process within the corrections component of the criminal justice system.

Sentencing
(Potential Appeal)

Probation or Incarceration
(Pardon or Clemency)

Out of System
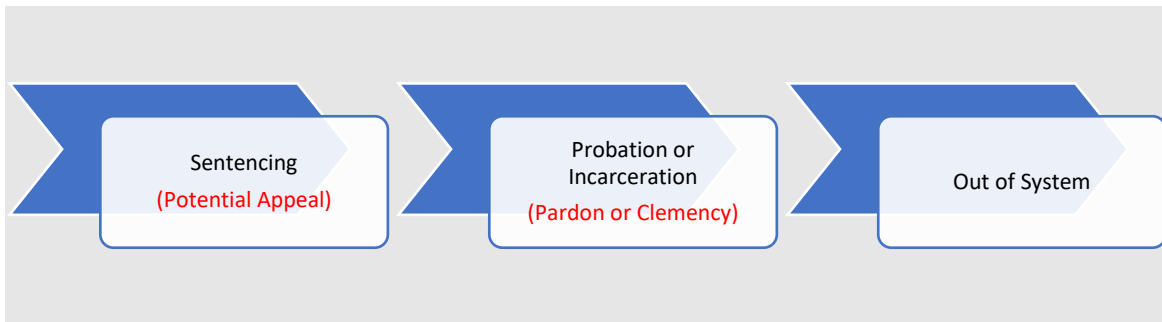
Figure 4. The Corrections Component in the Criminal Justice System. Adapted from the Bureau of Justice Statistics[7] flow chart titled, "What is the sequence of events in the criminal justice system?"

The correctional flowchart illustrates ample opportunity for an offender to be diverted from entering the criminal justice system or be released. Within the corrections component, offenders have the right to appeal which may lead to the dropping of convictions and accompanying sentences. Offenders may also be granted pardons (forgiveness of their crimes) or clemency (reductions in their sentences). Ultimately, an offender may also "max out" or meet the conditions of their sentencing.

The Systems of Care and the Hawaiʻi Criminal Justice System

The United States Department of Health and Human Services has defined a "system of care" as a "broad, flexible array of services and supports for a defined population(s) that is organized into a coordinated network, integrating service planning, coordination, and management across multiple levels. This coordinated network is culturally and linguistically competent, builds meaningful partnerships with families and youth at service delivery, management, and policy levels, and has supportive management and policy infrastructure."[8] The aim of this chapter is to review the current system of care, understand current interventions available, and explore recommendations to better address community needs at the intersection of substance use and the criminal justice system.

Traditional Systems of Care for the Police Component of the Criminal Justice System

In Hawaiʻi, a common access point for the care of individuals with substance use disorders is arrest. This leads a person into the criminal justice system. After arrest, a person with a substance use disorder can be supervised by the courts and later by corrections officials to get substance use treatment. However, there are two scenarios within the Hawaiʻi law for officers to engage with individuals who are not criminally arrested. The first is when an officer determines an appropriate response to individuals who are imminently dangerous to themselves or others. In such cases, a common action is for police to take such people into custody if probable cause is determined.[9] Through this engagement individuals will have the opportunity for mental health treatment and services outside the criminal justice environment.

At the state-level, law enforcement officers are directed to conduct rudimentary assessments of substance use in certain police encounters. The first situation typically seen by law enforcement is when an officer must determine an appropriate response to people who may be imminently

dangerous to themselves or others. In such circumstances, if the person is, "…imminently dangerous to self or others based on the totality of circumstances and observations of behaviors believed to be associated with mental illness or substance use disorder law enforcement will take such people into custody if probable cause of being imminently dangerous to self or others is determined."[9] In practice, the assessment of substance use in this situation is relegated to determining whether substance use is contributing to behavior that makes a person dangerous to themselves or others rather than determining exactly what is going on with a person who may be struggling with a substance use disorder. This assessment is not for determining the underlying causes of substance use.

The second situation is the substance-use recognition assessments made by drug recognition experts to determine whether to make an arrest in a driving under the influence (DUI) case. In this situation, a specially trained police officer investigates physical (e.g., increased heart and respiration rates) and cognitive clues (e.g., inability to count numbers or recite the alphabet) to determine if a person is under the influence of controlled substances.

Law Enforcement Assisted Diversion (LEAD)

The second scenario is diversion or alternatives to arrest which falls into two categories. The first category involves the pre-arrest stage where the officer utilizes discretion to not arrest. In the pre-arrest diversion, specialized training of officers and/or ancillary support staff to address mental health and substance use disorders is essential. Diversion and mental health training for officers may lead to a decrease in informal dispositions. Such dispositions conveniently decrease paperwork and officer downtime as there is no engagement with mental health resources or processes for arrest.[10] Diversion can also involve specialized teams to improve pre-booking assessments. Examples include teams where officers receive specialized training in mental health and substance use disorders. In this model, officers can make referrals to services or transports to emergency care with a "no refusal" policy, which is seen commonly throughout the United States. This model may also involve a mobile crisis team where behavioral health experts help police decide a course of action.[11]

The second category is the Law Enforcement Assisted Diversion (LEAD) initiative which allows diversion
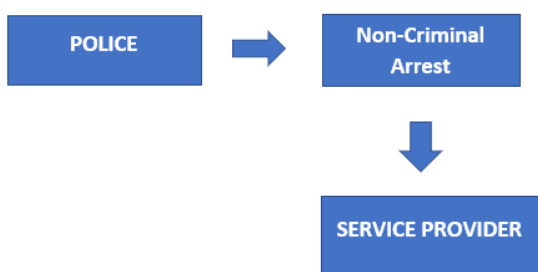
from prosecution.[12,13] LEAD is focused on individuals where criminal activity is due to behavioral health issues. Typically, the suspect has committed minor offenses where police may offer a referral to a LEAD worker who can coordinate services to address housing, medical care, substance use and mental health care. In Hawaiʻi, this category has yet to be practiced in a meaningful way. **Figure 5** shows the pathway of how a non-criminal arrest is diverted to a healthcare service provider.

Figure 5. Non-criminal arrest and diversion to a healthcare provider.

The Hawaiʻi LEAD program has had some early successes based on the referrals through social contacts in collaboration with police and LEAD team members. But it can be more meaningful if true diversion, diversion from entry into the criminal justice system by not arresting people for low-level offenses, is practiced. To do this, prosecuting attorneys and police managers must agree on which lower-level offenders may be diverted away from criminal arrests and towards services provided by LEAD.

Police Performance Evaluation

Police performance is evaluated in multiple ways which impact the system of care for substance users. Traditional police performance metrics have historically come in the form of easy-to-track metrics such as: number of arrests made, calls responded to, and reports taken. Enforcement activities give close attention to metrics that include: arrests, warnings, and the like. For law enforcement agencies, crime rates tend to be the go-to metric in determining effectiveness. This happens despite the fact that issues outside of a police agency's control can have a tremendous impact on crime in a given community.[14] For example, a community's economic health can affect crime rates, yet law enforcement can do little to improve on the issue. Law enforcement agencies, especially in Hawaiʻi, are tracked by metrics

that are easily ascertained like those mentioned above. For example, in a review of the Honolulu Police Department's 2019 Annual Report, the department published in its statistics section of their report, the number of adults and juveniles arrested based on traditional "Part I" and "Part II" crimes under the FBI's Uniform Crime Reporting (UCR) program. The FBI's UCR program has been administered by the FBI since 1930.[15] Under the UCR Program, law enforcement agencies report crime statistics categorized as Part I which are seven serious offenses such as murder and forcible rape, and Part II offenses which are less serious offenses such as arson, forgery, and fraud. Substance use offenses are listed in the Part II offense report under the category "Drug Laws." Furthermore, the State of Hawai'i, Narcotics Enforcement Division reports its crime statistics annually using the following performance measures in **Table 1**.

Table 1. List of the Narcotics Enforcement Division Performance Measures (Source: Franco (2010)[16])

1.	Total number of cases that resulted in successful prosecution
2.	Total number of cases conferred and accepted by prosecuting agencies
3.	Total number of cases referred and declined by prosecuting agencies
4.	Total number of cases referred to Federal agencies
5.	Number of criminal cases investigated from the Honolulu International Airport, correctional facilities, and other locations
6.	Number of regulatory actions taken
7.	Number of drug education and training sessions conducted

A review of both the HPD Annual Report and the State's Variance Report shows that both agencies use the numbers of arrests and total cases as the basis for the performance of police. High police performance is measured by ostensibly high numbers of arrests or, in the case of the State, successful prosecutions or referrals for prosecution.

At the federal level in Hawai'i, law enforcement performance is based on "drug threat" in similar to state and local police metrics such as numbers of arrests and cases. A review of the 2022 Hawai'i HIDTA Annual Threat Assessment Report shows that federal law enforcement performance metrics are based largely on the amounts of substances seized and the numbers of drug trafficking organizations identified, disrupted, or dismantled. The report contains graphs of "Methamphetamine Seized" and "Methamphetamine Related Percent of Overdose Deaths in Hawai'i" as a way of emphasizing the threat of methamphetamine in Hawai'i.[1]

System of Care and the Courts
In Hawai'i, there are generally three situations where the courts are involved in care for substance use disorders: bail, drug treatment courts, and probation.

BAIL INVESTIGATIONS
The first situation, bail, is where the system of care in the courts begin. This occurs after a person is arrested and charged with a crime and is taken for their initial appearance before a court. When a person is arrested by the police, they are generally entitled to bail, which is money to be withheld from the defendant to secure their future attendance in court. The Constitutions of both United States and the State of Hawai'i protect a defendant's fundamental right to bail. In Hawai'i, a defendant, with little exception, is nearly guaranteed the right to bail, and that right triggers an assessment by the courts to determine a defendant's fitness for bail in comparison to their potential risk to the community.

The Department of Public Safety performs bail investigations and recommendations for defendants who do not post bail at the police station. However, the Department of Public Safety normally makes bail recommendations for those defendants involved in family crimes, serious misdemeanors, or felony offenses. Consequently, not every defendant at the state level has the opportunity for a pretrial bail

assessment. However, when a pretrial bail assessment is done, the Department of Public Safety uses the Ohio Risk Assessment Survey (ORAS) as a tool to determine risk and pretrial success. Among other things, the ORAS asks two questions: one about recent substance use and another about one's perception of their use. Consequently, those defendants who are not assessed represent a missed opportunity in the current system in identifying those who may have substance use issues and to offer them treatment services.

USE OF DRUG TREATMENT COURTS
The second situation in the Hawai'i courts system of care is the use of drug treatment courts. In the chapter, "Drug Courts: Background, Effectiveness, and Policy Issues for Congress," Franco[17] writes that "[o]verall, GAO (Government Accounting Office)'s assessment found that drug court programs led to statistically significant recidivism reductions (i.e., reductions in rearrests and convictions)".

USE OF SPECIALIZED PROBATION
The third situation is when the courts sentence a person to probation. Probation is a sentence served in the community while under court supervision. In Hawai'i, all probationers must comply with conditions that include: a restriction not to use illegal substances, a requirement to submit to drug testing, and if directed, a requirement to participate satisfactorily in substance use treatment. Accordingly, the courts work with community organizations to treat offenders who are directed to substance use treatment.

Hawai'i's Opportunity Probation with Enforcement (HOPE) Probation is one such community organization that helps improve ongoing treatment interventions within the criminal justice system. HOPE Probation is, "a strategy to effect positive behavioral change for those under court supervision. The premise is that clearly stated and easily understood rules are more readily followed by offenders when any rule violation quickly results in a brief stint in jail."[18] Under the Hawai'i HOPE probation model, the courts can provide a more tailored intervention. The HOPE program is not a diversion program but is a court intervention that seeks to target resources for higher-risk individuals more likely to commit new crimes. Such high-risk offenders can be those with more serious criminal histories, severe substance use, failure with regular probation, sex offenders, and felonies. Program effectiveness may be attributed in part to closer supervision and more timely action seen by an expedited warrant for arrest with a court hearing to take place within two business days. The consequences for violations also follow a model of being consistent and proportionate to the magnitude of the violation. Research has shown improved outcomes among those in the HOPE program compared to the standard probation. In a randomized controlled trial, improved outcomes were seen as reductions in positive drug tests, probation revocations, missed appointments, days incarcerated, and recidivism.[19]

THE HAWAI'I CORRECTIONS INTERSECTION WITH THE SYSTEM OF CARE
The Hawai'i Corrections System has an established treatment program consisting of several parts. The first is screening. The Department of Public Safety uses instruments for incoming inmates that assist in classifying risk and predicting recidivism. The Hawai'i Interagency Council on Intermediate Sanctions reported that these tools include the Level of Service Inventory-Revised (LSI-R) instrument which contains a subdomain for substance use and the Adult Substance Use Survey (ASUS).[20] The LSI-R and ASUS were used to measure criminogenic and alcohol/drug dependency risk levels, as well as the severity of criminogenic and alcohol/drug patterns, known as subdomains.[20] This report further notes that "all offenders are classified by risk levels, which provide invaluable information needed for case supervision purposes and determining treatment levels."[20] There were significant associations with increased LSI-R score and offender recidivism, and with subdomains including criminal history, education/employment, companions, alcohol/drugs, and accommodations.[20] The ASUS social subdomain was also found to be associated with offender recidivism.[20] It is important to note that these instruments help classify offenders to allow for appropriate treatment determination which is evidence-based for substance use disorders.

Another risk assessment tool that may help determine supervision level is the ORAS, a collection of five different risk assessment tools. The ORAS was designed and validated to allow more accurate risk assessment for offender recidivism at different points in the criminal justice system. It includes five different risk assessment tools for the different stages of the criminal justice system. These include the Ohio Risk Assessment System tools for: Pretrial Assessment, Community Supervision, Community

Supervision Screening, Prison Intake, and Reentry. These tools are also used to determine supervision level and to assist case managers to determine possible modifiable risk factors and treatment barriers. These modifiable or dynamic risk factors can include substance misuse, association with antisocial peers, mental health needs, low-income status, and problems with employment.[21]

The next stage following assessment is treatment. The corrections system uses a variety of treatment types including: "no" treatment, increased urinalysis testing with drug/alcohol education, weekly outpatient therapy, intensive outpatient therapy, residential treatment, and therapeutic community treatment. The Hawai'i corrections system also has a medication-assisted treatment (MAT) program that uses regularly prescribed medications such as buprenorphine to treat opioid use disorders.

INTERVENTIONS

LEAD

Presently, the county police departments and the Sheriff Division are involved in the LEAD program.[22] LEAD's goal is to reduce client recidivism for minor offenses. LEAD diverts offenders on the front end of the criminal justice system by diverting individuals away from the criminal justice system to a more rehabilitative approach. There are short-term goals over the initial six months to coordinate resources to improve housing stability, increase social support, reduce substance use, and for stress mitigation. The long-term goals include improved quality of life, reductions in emergency room use, inpatient hospital stays, and arrests.[22] **Table 2** shows the results of the LEAD program in Honolulu after two years.

The LEAD 2-Year Program Evaluation Report released in 2020[29] showed significant improvement in the community for many of the aforementioned goals. Between July 1, 2018 and July 31, 2020, 101 individuals through different outlets were encountered and assessed for LEAD. Of the 101, 57 individuals were referred to LEAD through social contacts (the majority being from the Sheriff's Division or Honolulu Police Department Health Efficiency Long-term Partnership Initiative). Of those, 50 were enrolled and were provided services through the LEAD program, while 44 were triaged to other service providers; the remaining seven were not enrolled due to incomplete intake and assessment. For the short-term goals, the LEAD program evaluation found a 47% reduction in the average number of days sleeping on the street, park, or bench (**Table 2**). There was also an increase from 13% to 48% in the percentage of individuals who were housed for the entire previous month at the time of their last assessment (not shown in table).[29] There was a 50% decrease in the average number of days spent in an emergency shelter with a concurrent 46% increase in the average number of days in transitional housing. Furthermore, there was a 118% increase in days living in a shared apartment or independent apartment. There was a 23% decrease in the average number of days of methamphetamine use by clients since the start of the program. Overall, there was a 20% reduction in the average number of days (9.29) for opioids/heroin use in the 30 days prior, compared to the first assessment (11.67). However, when excluding the period after the COVID-19 emergency orders, the average number of days (5.82) for opioids/heroin use in the 30 days prior, decreased by 50% (not shown in table).[29] There was an 11% increase in the number of days of alcohol use from 6.3 to 7.0 days over the past month. Finally, with community resource engagement, the number of days clients felt hopeful increased by 70%.

Table 2. Law Enforcement Assisted Diversion (LEAD) Honolulu 2-Year Program Data Results, July 1, 2018 and July 31, 2020, n=50.[a]

Short Term Measures (% change from baseline to last follow up assessment)[b]	
Housing	↓ **47%** days sleeping on street/park/beach ↓ **50%** days staying in emergency shelter ↑ **46%** days living in transition housing ↑ **118%** days living in shared apartment ↑ **531%** days living in independent apartment
Substance Use	↓ **36%** days used benzodiazepines past month ↑ **11%** days used alcohol past month ↓ **25%** days used marijuana/hashish past month ↓ **20%** days used opioids/heroin past month ↓ **23%** days used methamphetamine past month ↓ **6%** days used cocaine past month
Stress	↓ **12%** days felt unable to control the important things in life ↓ **9%** days felt difficulties could not be overcome ↑ **19%** day felt that things were going their way ↑ **18%** days felt confident about ability to handle personal problems ↑ **70%** days felt hopeful about future
Long Term Measures (% change from baseline to last follow up assessment)[b]	
Emergency & Hospital use	↓ **56%** percentage gone to the emergency room in the past month ↓ **30%** percentage admitted to hospital in the past month
Crime & Recidivism[c]	↑ **7%** frequency of cited encounters
Community Support	↓ **78%** times visited a spiritual group in last month ↓ **92%** times attended a community group in the last month ↑ **67%** times engaged in recreational activities in the last month ↓ **88%** times participated in a support group in the last month
Social Support	↑ **33%** someone able to help if confined to bed ↑ **25%** someone to take to doctor if needed ↑ **24%** someone to share private worries and fears with ↑ **17%** someone to turn to for suggestions about how to deal with personal problems ↑ **24%** Someone to do something enjoyable with ↑ **26%** someone to love and make you feel wanted
Health & Wellbeing	↑ **3%** general health improvement ↑ **5%** # physically unhealthy days past month ↓ **32%** # mentally unhealthy days past month ↓ **26%** # activity limitation days past month ↓ **24%** # days in pain past month ↓ **29%** # days depressed past month ↓ **38%** # days anxious past month ↓ **32%** # days not enough sleep past month ↑ **47%** # days full of energy past month
Experiences with Trauma	↓**23%** experienced violence, trauma, or sexual maltreatment/assault in past month ↓ **5%** witnessing physical or emotional trauma

[a] Percentages are rounded, adapted from Willingham et al. (2020)[29]
[b] Percent change values are based on comparison of baseline first assessment to last follow-up assessment data for LEAD enrolled individuals.
[c] Percent change value is based on comparison of pre-enrollment to post-enrollment in LEAD.

The long-term goals showed improvements in multiple domains as well.[23] Overall, there was a 30% decrease in hospital admissions in the past month (from 10% at baseline to 7% of clients at last assessment) (**Table 2**); furthermore, hospital admission decreased 43% (from 10% to 5.7%) when excluding the period after the COVID-19 emergency orders (not shown in table). There was a 56% decrease in emergency room visits in the past month from 32% at baseline to 14% of clients at last assessment (**Table 2**); furthermore, emergency room visits decreased 64% (from 32% to 11.4%) when excluding the period after the COVID-19 emergency orders (not shown in table). On average, there were 304% more citations per month with referred LEAD clients compared to the 82% increase seen with clients triaged to other services and not enrolled in LEAD (not shown in table). However, it is important to note that the most common citations for LEAD clients were for entering closed parks, sitting/lying on sidewalk, and jaywalking, while the citations for triage-only clients were commonly related to vehicles, such as expired safety checks or vehicle registrations or driving without a license. In contrast, there was only an increase of 7% more encounters with law enforcement resulting in a citation issued for LEAD clients (**Table 2**) compared to the 93% increase for triaged only clients (not shown in table).

Drug Treatment Courts

The second intervention in Hawai'i involves drug treatment courts. The Hawai'i Judiciary reported in 2019 that more than 2100 people have graduated from Drug Court programs in the state since 1996.[24] The Government Accounting Office assessed the effectiveness of drug court programs leading to statistically significant recidivism reductions (i.e., reductions in rearrests and convictions).[17] Because these programs provide offenders with court supervision, mandatory drug testing, substance use treatment, and other social services; drug courts are considered to be an important strategy for reducing incarceration, providing access to treatment, and reducing drug use and recidivism. The National Institute of Justice's multi-site adult drug court evaluation showed that drug court participants were less likely to have a drug relapse, report criminal activity, or need employment, educational, or financial services at 18 months.[25]

OBSERVATIONS AND RECOMMENDATIONS

Discretion and Legal "Hard Stops" in the Criminal Justice System

One key observation is the concept of discretion in the criminal justice system. Discretion is traditionally defined as "an authority conferred by law to act in certain conditions or situations in accordance with an official's or an official agency's own considered judgment and conscience."[26] Discretion provides officials with authority conferred by law to act with a range of choices including choices to: not enforce laws, arrest, drop cases, grant bail, dismiss charges, and reward and punish defendants.[27,28] In the criminal justice system, the following criminal justice officials have wide discretion, especially in the following areas shown in **Table 3.**

Table 3. Discretion in Criminal Justice. Adapted from the Bureau of Justice Statistics[7] flow chart titled, "Who exercises discretion?"

Criminal Justice Official	Decide whether or not or how to
Police	Enforce specific laws Investigate specific crimes Search people, vicinities, buildings Arrest or detain people
Prosecutors	File charges or petitions for adjudication Seek indictments Drop cases Reduce charges
Judges	Set bail or conditions for release Accept pleas Determine delinquency Dismiss charges Impose sentence Revoke probation
Corrections Officials	Assignment to type of correctional facility Award privileges Punish for disciplinary infractions
Paroling Authorities	Determine date and conditions of parole Revoke parole

Discretion impacts the way in which the system deals with those with substance use disorders. Entry into the criminal justice system requires the police to make an arrest. Thus, if police exercise their discretion when investigating a crime and choose not to arrest, a person suffering from a substance use disorder will not receive services and treatment within the criminal justice system. Moreover, even if the police were to arrest that person, there is an opportunity for prosecutors, judges, and other criminal justice officials to exercise discretion. Consequently, the criminal justice system is a filtering process that may either fail to identify people who have a substance use disorder or exclude people who might otherwise use criminal justice system services and treatment.

Management of criminal justice discretion is important to connect people with treatment regardless of the decision made. First, it is important that the police and the courts be well-connected to non-criminal justice treatment providers who can take referrals for people who never entered or are filtered out of the system.

A second critical aspect is that people in the criminal justice system who have not been convicted are presumed innocent and are generally entitled to receive bail upon arrest. Consequently, a defendant who has been given the opportunity for bail may post bail leading to release anywhere along the pretrial timeline. Forecast data published by the Hawaiʻi Department of Public Safety in 2021 showed the amount of time to settle one's affairs with the court was about 200 days or more in 2020, and the felony court processing time was 400 days or more in 2020.[29] It is important to note that there are limited to no substance use treatment options in pretrial jail. Those who bail out of pretrial detention may have limited community supervision for substance use. Therefore, treatment opportunities for those out on bail, especially those on bail for long periods must be enduring and made available.

A third key point is that people who have been convicted and sent to prison with a substance use disorder cannot be forced into correctional drug treatment programs. This is concerning for those who "max out" or complete their prison sentences without even starting a program, or for those who do not complete substance use treatment. The recidivism rate for maximum-term release prisoners was 57%.[30] Consequently, two important ideas should be mandated. First, procedures should be implemented to reduce the number of offenders who "max out" with no treatment. Research by Florida State University and the Florida Department of Corrections into the benefits of supervised or conditional release has shown that offenders who undergo conditional or supervised release are less likely to re-offend.[31] Offenders should be required to participate in conditional release or community

supervision programs where treatment can be mandated or continued. Second, offenders should be incentivized to complete treatment while incarcerated. Currently, earned time credit towards early release does not occur in Hawai'i. Attractive incentives such as earned time credits, moves to lower levels of security supervision, increased privileges should, or continue, to be a carrot for treatment engagement. These two ideas taken together would ensure that a greater number of offenders start treatment and continue their treatment upon release, thereby offering greater opportunity to be successful after release by reducing offender recidivism.

To improve the criminal justice system of care in Hawai'i, the following recommendations across the components of the criminal justice system (police, courts, and corrections) should be considered. Recommendations were synthesized based on the literature, available data, and historical perspective and conversations with stakeholders over several decades by the lead author from within the criminal justice system.

Priority placed on alternatives to arrest and incarceration

When the LEAD program was introduced in Hawai'i, a pilot project was completed to gauge the effectiveness of the program. The results of the project showed a 23% decrease in methamphetamine use by clients since the start of the program.[23] This measurable decrease in methamphetamine use shows the promise of LEAD's impact in reducing drug use. When LEAD's efficacy was studied in Seattle, where LEAD has been practiced for a longer time, the study showed that the effects of LEAD in reducing arrests revealed lower odds of recidivism resulting in arrest.[13] This is promising because offenders tend to achieve better outcomes when substance use treatment is community-based rather than occurring in incarceration. Consequently, alternatives to arrest and incarceration coupled with community-based treatment should be prioritized in the future.

Harness opportunities to offer services and treatment

The police traditionally do not screen for substance use disorders. In the pretrial phase, there are currently limited assessments for substance use. The police and others should use the opportunity when people are in custody to assess and coordinate referrals for services. Brief assessment tools, such as the ORAS Pretrial Assessment Tool,[32,33] may be a simple starting place in identifying opportunities to begin the process of helping people.

Ensure continuity of care while justice-involved people move through the criminal justice system

The Hawai'i criminal justice system must ensure uninterrupted continuity of care. Those who have initiated treatment and/or services prior to their arrest and introduction into the criminal justice system must be assured that their treatment can continue while they are involved with the justice system. Similarly, those who are released from the criminal justice system because their charges are dropped, or they are found not guilty must also be assured that any treatment that was started can continue even after their justice system involvement is over. Moreover, the role of continuity of care on recidivism should be studied. This will help determine if continuity of care lowers the rate of recidivism whether started before, during, or after involvement with the justice system.

Incentive programs that motivate participation in treatment programs while incarcerated

A significant situation within the corrections population is when offenders do not participate in any treatment programming during incarceration and eventually "max out" of the system. The 2019 recidivism rate amongst the maximum sentence offender group was 57%. To reduce the recidivism rate in this group, treatment programs can be incentivized to increase participation and complete the requirements of such programs.

REFERENCES

1. Hawai'i High Intensity Drug Trafficking Area. *2019 Hawai'i HIDTA Annual Threat Assessment (private report, G. Yabuta)*. Hawai'i HIDTA. Published 2019.

2. Substance Abuse and Mental Health Services Administration. *Treatment Episode Data Set (TEDS) 2005-2015 State Admissions to Substance Abuse Treatment Services*. Department of Health and Human Services Substance Abuse and Mental Health Services Administration. Published 2017. Accessed September 8, 2022. https://www.samhsa.gov/data/sites/default/files/2015_Treatment_Episode_Data_Set_National/2015_Treatment_Episode_Data_Set_National.pdf

3. University of Massachusetts Global. What is criminal justice? Investigating its purpose and professions. University of Massachusetts Global. Accessed October 14, 2022. https://www.umassglobal.edu/news-and-events/blog/what-is-criminal-justice

4. Hess Orthman C, Hess KM. *Introduction to Law Enforcement and Criminal Justice*. Ninth Edition ed: Wadsworth; 2008.

5. Bayley B, Gutierrez L, Stringham K, Kapenda J. Why we incarcerate: Rehabilitation. In. *Corrections 1*2012.

6. Substance Abuse and Mental Health Services Administration. The Sequential Intercept Model (SIM) | SAMHSA. Published 2021. Accessed. https://www.samhsa.gov/criminal-juvenile-justice/sim-overview

7. Bureau of Justice Statistics. The Justice System. In. *Bureau of Justice Statistics*2021.

8. National Technical Assistance and Evaluation Center for Systems of Care. *An Overview of Systems of Care in Child Welfare*. Fairfax, VA: Published 2009. Accessed December 7, 2021. https://www.childwelfare.gov/pubPDFs/overview.pdf

9. Honolulu Police Department. *Policy - Law Enforcement Operations (Policy Number 4.22)*. Published 2020. Accessed September 8, 2022. https://www.honolulupd.org/wp-content/uploads/2020/01/MH1ApplicationforEmergencyExaminationandHospitalization-12-27-2019-15-09-37.pdf

10. Teplin LA, Pruett NS. Police as streetcorner psychiatrist: Managing the mentally ill. *Int J Law Psychiatry*. 1992;15:139-156. doi:10.1016/0160-2527(92)90010-X

11. Hartford K, Carey R, Mendonca J. Pre-arrest diversion of people with mental illness: Literature review and international survey. *Behav Sci Law*. 2006;24(6):845-856. doi:10.1002/bsl.738

12. Collins SE, Lonczak HS, Clifasefi SL. Seattle's Law Enforcement Assisted Diversion (LEAD): Program effects on recidivism outcomes. *Eval Program Plann*. 2017;64:49-56. doi:10.1016/j.evalprogplan.2017.05.008

13. Collins SE, Lonczak HS, Clifasefi SL. *Summary of "LEAD Program Evaluation: Recidivism Report"*. Seattle, WA: Published 2015. Accessed July 8, 2022. https://depts.washington.edu/harrtlab/wordpress/wp-content/uploads/2015/04/2015-04-08-LEAD-Press-Release-and-Evaluation-Summary.pdf

14. Roufa T. Performance measures for police officers. In. *The Balance Careers*2018.

15. Federal Bureau of Investigation. About the uniform crime reporting program. In:2011.

16. Narcotics Enforcement Division. Variance report data collection sheet for fiscal years 2020, and multi-year estimates. In: Division NE, ed2020.

17. Franco C. *Drug Courts: Background, Effectiveness, and Policy Issues for Congress*. Library of Congress. Congressional Research Service. Published 2010. Accessed October 23, 2021. https://digital.library.unt.edu/ark:/67531/metadc805741/m2/1/high_res_d/R41448_2010Oct12.pdf

18. Institute for Behavior and Health. *State of the Art of HOPE Probation*. Rockville: Institute for Behavior and Health, Inc. Published 2015.

19. Hawken A, Kleiman M. Managing Drug Involved Probationers with Swift and Certain Sanctions: Evaluating Hawaii's HOPE (Document No. 229023. Award No. 2007-IJ-CX-0033). Washington, DC.: National Institute of Justice. Published 2009. https://www.ojp.gov/pdffiles1/nij/grants/229023.pdf

20. Wong T. *State of Hawai'i, 2008 – 2016 Reporting Period: Validation of LSI-R and ASUS Criminogenic Risk Instruments* Research and Statistics Branch, Crime Prevention and Justice Assistance Division, Department of the Attorney General Published 2020. Accessed

December 7, 2021. https://icis.hawaii.gov/wp-content/uploads/2020/02/Validation-of-the-LSI-R-and-ASUS-Criminogenic-Risk-Assessment-Instruments-2008-2016.pdf

21. Latessa E, Smith P, Lemke R, Makarios M, Lowenkamp C. *Creation and Validation of the Ohio Risk Assessment System: Final Report*. University of Cincinnati School of Criminal Justice Center for Criminal Justice Research. Published 2009. Accessed October 23, 2021. https://www.ocjs.ohio.gov/ORAS_FinalReport.pdf

22. Gralapp S, Willingham M, Pruitt A, Barile JP. *Law Enforcement Assisted Diversion Honolulu 1-Year Program Evaluation Report*. Department of Psychology, University of Hawai'i at Mānoa. Published 2019. Accessed October 23, 2021. https://homelessness.hawaii.gov/wp-content/uploads/2019/10/191030-LEAD-Honolulu-Evaluation-FINAL-USE-THIS-ONE-2.pdf

23. Willingham M, Gralapp S, Barile JP. *Law Enforcement Assisted Diversion Honolulu 2-Year Program Evaluation Report*. Department of Psychology, University of Hawai'i at Mānoa. Published 2020. Accessed September 12, 2022. https://homelessness.hawaii.gov/wp-content/uploads/2020/10/FINAL_LEAD-HNL-Report_Year-2.pdf

24. Hawai'i State Judiciary. *Hawai'i State Judiciary Annual Report 2019*. Hawai'i State Judiciary Communications and Community Relations Office. Published 2019. Accessed October 23, 2021. https://www.courts.state.hi.us/wp-content/uploads/2021/02/2019_Hawaii_State_Judiciary_Annual_Report_online_ADA.pdf

25. Rossman SB, Roman JK, Zweig JM, Rempel M, Lindquist CH. *The Multi-Site Adult Drug Court Evaluation: Executive Summary*. Washington, DC: Urban Institute Justice Policy Center. Published 2011. Accessed April 1, 2022. https://www.ojp.gov/pdffiles1/nij/grants/237108.pdf

26. Pound R. Discretion, dispensation and mitigation: The problem of the individual special case. *N Y Univ Law Rev*. 1960;35:925-937.

27. Miller JL, Sloan JJ. A study of criminal justice discretion. *J Crim Justice*. 1994;22(2):107-123.

28. Huff J. Understanding police decisions to arrest: The impact of situational, officer, and neighborhood characteristics on police discretion. *J Crim Justice*. 2021;75:101829. doi:10.1016/j.jcrimjus.2021.101829

29. Hawai'i State Department of Public Safety. *Oahu Community Correctional Center Forecast Final Report-August 2, 2021*. Honolulu, HI: Published 2021. Accessed December 7, 2021. https://dps.hawaii.gov/wp-content/uploads/2021/08/OCCC-Forecast-Report-FINAL-August-2021.pdf

30. Wong T. *State of Hawai'i, FY 2016 Cohort: 2019 Recidivism Report*. Research and Statistics Branch, Crime Prevention and Justice Assistance Division, Department of the Attorney General Published 2021. Accessed April 1, 2022. https://icis.hawaii.gov/wp-content/uploads/2021/05/2019-Hawaii-Recidivism-Update.pdf

31. Clark C, Bales WD, Scaggs S, Ensley D, Coltharp P, Blomberg TG. *Assessing the Impact of Post-Release Community Supervision on Post-Release Recidivism and Employment*. Tallahassee, FL: Published 2016. Accessed December 7, 2021. https://www.ojp.gov/pdffiles1/nij/grants/249844.pdf

32. Latessa EJ, Lovins B, Lux J. The Ohio Risk Assessment System. In: Singh JP, Kroner DG, Wormith S, Desmarais SL, Hamilton Z, eds. *The Handbook of Recidivism Risk/Needs Assessment Tools*. Jon Wiley & Sons; 2018:147-164.

33. Latessa EJ, Lemke R, Makarios M, Smith P, Lowenkamp C. The creation and validation of the Ohio Risk Assessment System (ORAS). *Fed Probat*. 2010;74(1).

CHAPTER 3: ESTABLISHING A SYSTEM OF CARE FOR SEVERE AND REFRACTORY DUAL DISORDER IN THE STATE OF HAWAI'I

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ABSTRACT

Dual disorder is the diagnosis of both substance use disorder and a psychiatric disorder in the same individual. This chapter focuses on the cohort of persons with severe and refractory dual disorders (SRDD). This cohort exhibits disproportionately high use of emergency services, poor response to existing care resources, high risk of homelessness, and elevated risk of violent deaths. Clarifying the unique and problematic aspects of SRDD can provide direction for intervention and policy within the system of care in Hawai'i. Data regarding the prevalence of dual disorder in Hawai'i are reviewed along with Hawai'i data on emergency room utilization, violent death rates, and reduced life expectancy relevant to a cohort of individuals with SRDD. The current system of care in Hawai'i is examined. Although not an official component of the public health system or system of care, the O'ahu Community Correctional Center is presented as a potential model for longer-term stabilization for those with SRDD. Interventions from the literature for dual disorders and their implications for SRDD are discussed. Based upon this review, the following recommendations are made: (1) strengthen specific dual disorder diagnosis data collection, including stratification of dual disorder severity; (2) enhance coordination and establish uniform state data governance across public safety, public health, and private sectors; (3) develop a care environment that makes long-term and integrated treatment available; (4) enhance case management services and patient engagement; and (5) encourage policy discussions of longer-term civil commitment for residential treatment for individuals with SRDD.

BACKGROUND & INTRODUCTION

Purpose

Recommendations are provided for the system of care (SoC) for persons with severe and refractory dual disorder (SRDD) in Hawai'i based on knowledge of the properties of SRDD and examinations of effective interventions in the current SoC and from the literature. Dual pathology or dual disorder is the coexistence of mental disorders with substance use disorders (SUDs).[1] Individuals with dual disorders exhibit high use of emergency services, high rates of homelessness, and high risks of premature death.[2-5] Among those with dual disorders, there is a subgroup of individuals who have severe mental and SUD and who do not respond well to available treatment.[4,6] These individuals are categorized as having SRDD. Individuals with SRDD have a disproportionately high use of emergency services, poor response to existing care resources, high rates of homelessness, and high risk of violent death. Thus, there is a need to identify and implement additional services to assist persons with SRDD with more sustained recovery. This chapter was developed as part of the Hawai'i State Department of Health Alcohol and Drug Abuse Division (ADAD) State Plan. For more background and context around the overall State Plan project, readers are referred to the Introductory Notes of this State Plan System of Care Implications Volume.

Definition & Prevalence

Although this chapter focuses on SRDD, there is a paucity of research on this subgroup of dual disorders. A dual disorder is the co-occurrence of more than one condition in the same person. In a patient with "a particular index disease (the primary diagnosis of the dual disorder), the term co-morbidity refers to any additional co-existing ailment."[7] The terms co-morbid disorders, co-occurring disorders, dual diagnosis, dual pathology, and dual disorders are used interchangeably. The World Health Organization defines dual disorder as: "the co-occurrence in the same individual of a psychoactive SUD and another psychiatric disorder."[8] In addition, since 2012, the World Psychiatric Association has designated a new section for this issue and has chosen to use the term "dual disorders/pathology."[9] The term "dual disorder" will be used herein due to its standardized global use by the World Health Organization.

According to the 2020 National Survey on Drug Use and Health (NSDUH),[10] 17 million Americans have dual diagnoses. Among individuals with a mental illness, 47% also had an SUD, and 80% of individuals with an SUD had a mental illness.[11] A 1990 study demonstrated that, compared to those without mental illness, individuals with schizophrenia were more than 5 times more likely to have an SUD, and individuals with bipolar disorder were 11 times more likely to have an SUD.[12] A multicenter study in Europe found people who use cannabis daily have 3.2 times greater odds of having a psychotic

disorder than never users.[13] In addition, a Spain-based study showed that 76.5% of patients in treatment for a cannabis use disorder have a dual disorder, predominantly mood and anxiety disorders.[14] The most common dual disorder is SUD comorbidity with major depressive disorder. Compared to persons with SUD only, those with SUD and major depression reported poorer quality of life, overall health, and vitality.[15]

Properties of SRDD

Many of the properties of dual disorders in general also apply to SRDD. Protective conditions for dual disorders include strong familial, peer, and community connections.[16] Also, early detection of dual disorder increases treatment access.[17] People with dual disorders have more frequent recurrence and relapse than people with substance use or mental health disorders alone. Accordingly, the costs of managing people with dual disorders may exceed the combined costs of treating people with co-occurring conditions separately.[18] The co-occurrence of SUD among people with bipolar disorder[4] and schizophrenia[6] is known to be associated with poor treatment adherence.

Persons with SRDD frequently encounter the concept of wrong door syndrome.[3,19] A wrong door incident occurs when a patient with dual disorder enters the system and receives diagnosis and treatment for only one of their conditions. Integrated treatment for both SUD and psychiatric disorders is known to be effective; however, nationally only 50% of SUD treatment facilities provided customized treatment programs for dual disorders in 2018.[20] When dual disorders are not adequately treated, for some individuals, there may be a progression into SRDD.

Dual disorder in general is often underdiagnosed and undertreated.[20] There are service gaps between the need for SUD and mental disorders treatment, and care delivery.[3,21] Individuals with dual disorders experience an earlier onset of their index disease, have more severe disease manifestation, experience delayed treatment caused by diagnostic complexity, and exhibit decreased response to treatment[4] because of the misalignment of available services and their needs. Health care utilization may be increased in terms of hospital days, emergency room (ER) visits, municipal emergency services in the form of Mental Health-1s (MH-1s; involuntary application for mental health evaluation by the police), and use of SUD and mental health services.[3,4] Persons with dual disorders also experience significantly increased rates of psychiatric hospitalization and a higher risk of premature deaths, including those resulting from suicide, than their counterparts without comorbid mental disorders.[3]

Dual Disorders in Hawai'i

The NSDUH[10] provides the only available survey estimates of the percentage of people who have dual disorders in Hawai'i. In 2019-2020, 7.1% of Hawai'i residents ages 12 and older (75 000 people) reported both alcohol and illicit drug use and any mental illness in the past year **(Table 1)** and 2.9% (29 000) reported both alcohol and illicit drug use and serious mental illness in the past year**.** Persons who used drugs and alcohol in the past year were significantly more likely to report any mental illness ($P<.001$) and serious mental illness ($P=.003$) than those with no drug or alcohol use. Persons with marijuana dependence or abuse in the past year ($P=.010$) and those with nicotine dependence in the past month ($P<.012$) were also significantly more likely to report any mental illness than their non-dependent counterparts. However, since these findings are based on a household survey, they may underestimate the number of people with dual disorders, as the survey does not adequately capture the disease burden for people experiencing homelessness (PEH), hospitalization, or incarceration.

There are limited emergency department- and treatment-related data on dual disorder prevalence in Hawai'i. According to the State of Hawai'i Behavioral Health Dashboard, in 2021, there were 1170 consumers in Adult Mental Health Division treatments, 721 clients in ADAD services, and 224 clients in Child and Adolescent Mental Health Division and Developmental Disabilities Division treatments, who had dual disorders.[22] Also, in 2021, there were 878 emergency department discharges related to co-occurring SUD (as the primary diagnosis) and mental health disorder (as the secondary diagnosis), and 899 discharges related to co-occurring mental health disorder (primary) and SUD (secondary).[22] Because patients with dual disorders are in treatment services in multiple sectors of the government in Hawai'i, a challenge is the lack of a uniform data system for data collection, prevention, identification, and/or management of dual disorders in Hawai'i.

Table 1. Past Year Mental Health Indicator by Illicit Drug and Alcohol Use from the National Survey on Drug Use and Health 2019-2020,[10] Hawaiʻi Data.

The National Survey on Drug Use and Health 2019-2020 Hawaiʻi data			
Illicit Drug and Alcohol Use - Past Year[a]		No Past Year *Any* Mental Illness	Past Year *Any* Mental Illness[d]
No drug or alcohol past year use	Weighted Count	769 000	115 000
	Total % (CI)	72.7% (67.6% - 77.2%)	10.8% (8.1% - 14.4%)
Both drug and alcohol past year use	Weighted Count	100 000	75 000
	Total % (CI)	9.4% (7.1% - 12.3%)	7.1% (5.1% - 9.7%)
Wald Chi-Square Test of Association: *P*-value < .0001			
Illicit Drug and Alcohol Use - Past Year[a]		No Past Year *Serious* Mental Illness	Past Year *Serious* Mental Illness[e]
No drug or alcohol past year use	Weighted Count	858 000	25 000
	Total % (CI)	81.1% (76.8% - 84.7%)	2.4% (1.3% - 4.3%)
Both drug and alcohol past year use	Weighted Count	146 000	29 000
	Total % (CI)	13.8% (11.0% - 17.2%)	2.7% (1.6% - 4.5%)
Wald Chi-Square Test of Association: *P*-value = .003			
Marijuana Dependence or Abuse - Past Year[b]		No Past Year *Any* Mental Illness	Past Year *Any* Mental Illness[d]
No/Unknown	Weighted Count	856 000	176 000
	Total % (CI)	80.9% (76.7% - 84.4%)	16.6% (13.4% - 20.4%)
Yes	Weighted Count	13 000	14 000
	Total % (CI)	1.2% (0.5% - 3.0%)	1.3% (0.70% - 2.2%)
Wald Chi-Square Test of Association: *P*-value = .010			
Nicotine Dependence in the Past Month Based on NDSS Score[c]		No Past Year *Any* Mental Illness	Past Year *Any* Mental Illness[d]
No/Unknown	Weighted Count	837 000	170 000
	Total % (CI)	79.1% (75.0% - 82.6%)	16.1% (12.9% - 19.8%)
Yes	Weighted Count	32 000	20 000
	Total % (CI)	3.0% (2.0% - 4.5%)	1.9% (1.1% - 3.0%)
Wald Chi-Square Test of Association: *P*-value = .012			
Nicotine Dependence in the Past Month Based on NDSS Score		No Past Year *Serious* Mental Illness	Past Year *Serious* Mental Illness[e]
No/Unknown	Weighted Count	960 000	47 000
	Total % (CI)	90.7% (88.3% - 92.7%)	4.4% (3.2% - 6.1%)
Yes	Weighted Count	44 000	7000
	Total % (CI)	4.2% (2.90% - 5.90%)	0.7% (0.3% - 1.40%)
Wald Chi-Square Test of Association: *P*-value = .071			

[a] Illicit Drug and Alcohol Use - Past Year = having used alcohol *and* illicit drug (used cocaine, hallucinogens, heroin, inhalants, methamphetamine, or marijuana; or misused pain relievers, sedatives, stimulants, or tranquilizers) in the past year.
[b] Marijuana Dependence or Abuse - Past Year = defined as having either marijuana abuse or dependence.
[c] Nicotine Dependence in the Past Month Based on NDSS Score = classified as having nicotine dependence in the past month if their Nicotine Dependence Syndrome Scale (NDSS) score was greater than or equal to 2.75.
[d] Past Year Any Mental Illness = any mental illness in the past year based on the 2012 revised predicted probability of serious mental illness.

SRDD in Hawai'i

Given the high rates of homelessness among persons with dual disorders[5] and SRDD, anecdotal and/or approximate data have been gathered from a variety of agencies within the state to obtain relevant data. The following paragraphs are descriptions of data that were used with permission.

The Queen's Medical Center (QMC) in Honolulu County is a non-profit hospital located in geographic proximity areas with a large population of PEH. A quality improvement workgroup at QMC (Hyperutilizer Team) has examined medical records of patients who have the greatest ER utilization, including the reasons for their frequent ER visits, and proposes solutions to reduce ER utilization. According to the QMC Hyperutilizer Team in 2021 there were 15 patients who made total of 718 ER visits.[23] Of the 15 people, 67% had SUD, 93% had behavioral health problems, and 67% were experiencing homelessness. Sixty percent of the 15 patients had both SUD and behavioral health problems. Moreover, 53% of them fell in all three categories: having SUD, behavioral health problems, and experiencing homelessness. This cohort is characterized by the highest utilization of emergency resources, including ambulance arrivals and frequency of police use of MH-1s, the involuntary detention of individuals with psychiatric disorders that present a danger to self or others. A single hyperutilizer, on average, accounted for approximately 47.9 ER visits, 21.7 ambulance arrivals, and 2.5 MH-1s. These results are disproportionately higher than those for the average ER patient who has 1.61 ER visits, 0.43 ambulance arrivals, and 0.03 MH-1s per patient visit/year. The hyperutilizer data demonstrate that the SoC lacks a treatment component necessary for sustained recovery in this cohort.

Hawai'i violent death data from the National Violent Death Review System (NVDRS) reveals the prevalence of dual disorders among individuals who died violent deaths. Hawai'i NVDRS data from 2015, 2016, and 2019 (the database does not include 2017-2018) revealed that 24% of decedents who were homeless (20 of 85) had dual disorders compared to 11.6% of decedents who were not homeless (129 of 1110).[24] Dual disorder appears to be frequent among non-homeless people whose deaths were recorded in the NVDRS, and twice as common among PEH compared to those who were not experiencing homelessness. A limitation of this data may be that this database does not separate SRDD from dual disorder in general. However, the QMC Hyperutilizer data[23] showed that many patients with SRDD are also experiencing homelessness; it is possible that a portion of the decedents and homeless decedents in the NVDRS data were patients with SRDD. Those with SRDD may potentially be at risk for premature, violent deaths than those without SRDD or dual disorders.

The data from medical examiners on the deaths of PEH can be used to make a rough inference about the life expectancy of people with SRDD who are experiencing homelessness. Many PEH are also struggling with mental illness and addiction in Hawai'i.[25] Moreover, there is a high degree of overlap between people experiencing chronic homelessness and patients who have the greatest ER utilization in Hawai'i.[25] Therefore, the medical examiners' data on the deaths on PEH may capture some data on deaths of individuals with SRDD. According to the medical examiner's office of the City and County of Honolulu, 373 PEH died on O'ahu from 2014 to 2018, and the average age of these deaths was just under 53 years,[26] which is about 30 years shorter than the State's average life expectancy.[27] Medical examiner's review of 109 deaths of PEH in 2020[28] revealed that 62 were positive for methamphetamine, seven for fentanyl, zero for cocaine, and three for heroin. Data from the medical examiner's office provides a sample of the total deaths in this specific population and is consistent with observations made by QMC ER medical staff.[29]

CURRENT SYSTEM OF CARE IN HAWAI'I

In order to better understand the current SoC and needs related to substance use among individuals with SRDD, information was gathered through conversations with relevant stakeholders such as administrators at the Hawai'i State Department of Health, QMC, treatment centers on O'ahu and neighbor islands. Monthly discussions with psychiatric service providers, mental health emergency workers, and emergency treatment providers also contributed to understanding the current SoC in Hawai'i. **Figure 1** describes the treatment programs that are not tailored for people with SRDD. Individuals with SRDD may have cycled through some of these services at some point of their disease progression without achieving recovery because the services are not suitable for their needs.

In each component of care shown in **Figure 1**, the patient can leave treatment, except for the Hawaiʻi State Hospital (identified in the last bullet of **Figure 1,** Inpatient, for mental health disorders only), which is only available for forensic patients with psychiatric disorders. Patients who have not entered the criminal justice system do not have access to Hawaiʻi State Hospital. Note that no long-term residential confinement for the non-forensic SRDD population is available in the current SoC.

- **Outpatient ambulatory assessment, and treatment services—predominantly clinic-based with limited mobile services.** Some of these outpatient providers treat dual diagnosis, while others treat psychiatric disorders only. These outpatient providers are the frontline for engaging and managing those patients with the greatest severity.
- Intensive outpatient treatment for either or both dual disorders.
- Partial hospital program for either or both disorders.
- **Short-term residential treatment for SUD only.** Some short-term residential treatment providers may recognize need for mental health treatment.
- Longer-term treatment for SUD only (e.g., Sand Island).
- **Inpatient, for mental health disorders only**, may be a mental health disorder resulting from SUD (e.g., Hawaiʻi State Hospital [only forensic and compulsory]) .

Figure 1. Components of Existing Treatment Services for Mental Health, SUD, or Both, but Are Not Tailored for Patients with SRDD.

An important element that does not function within the current SoC in Hawaiʻi is the Oʻahu Community Correctional Center (OCCC), which operates under the Department of Public Safety but provides a critical role in the SoC — a longer-term treatment setting. OCCC has four mental health treatment modules: psychiatric intensive, subacute, residential, and women's services for pre-trial detainees. Each module is a self-contained detention and psychiatric treatment environment, designed to manage the level of acuity in terms of staffing.

The mental health modules at OCCC provide an example of long-term involuntary treatment for people with SRDD. When a patient with SRDD is incarcerated in this facility and has psychiatric acuity, they remain in this care system for a relatively long stay compared to the existing treatment service array for the general population. One disadvantage of the OCCC's mental health modules for SRDD treatment is the absence of SUD treatment. Still, while in OCCC's mental health modules, patients are prevented from being on the streets or other environmental adversity, as well as provided with sanitation, nutrition, medication, clothing, structure, safety, and therapeutic support. The extended time in treatment allows the distinction of substance-induced psychosis from chronic psychotic disorders. Clinical observation reveals that the same patients with SRDD who may have cycled repeatedly through the SoC with little to no benefit, are able to attain significantly more progress and stability while in these mental health modules, although there is no SUD treatment at OCCC. There is no data sharing between the Department of Health and Department of Public Safety so the treatment outcomes of these two systems are not available for statistical analysis.

Entry Points into the Current SoC for Patients with SRDD
Currently, there are two main entry points into the SoC for persons with SRDD – clinical or forensic. **Figure 2** illustrates how patients with SRDD enter the SoC but do not receive adequate treatment. The most common path into the SoC is through an ER at a hospital in Honolulu County, where patients with SRDD often arrive involuntarily on MH-1s. On average, patients stay in the ER for 16 hours. During the brief stay, patients are stabilized for intoxication and dangerous behavior. Upon discharge, patients are placed in the current SoC, which lacks the treatment resources needed to adequately treat SRDD.
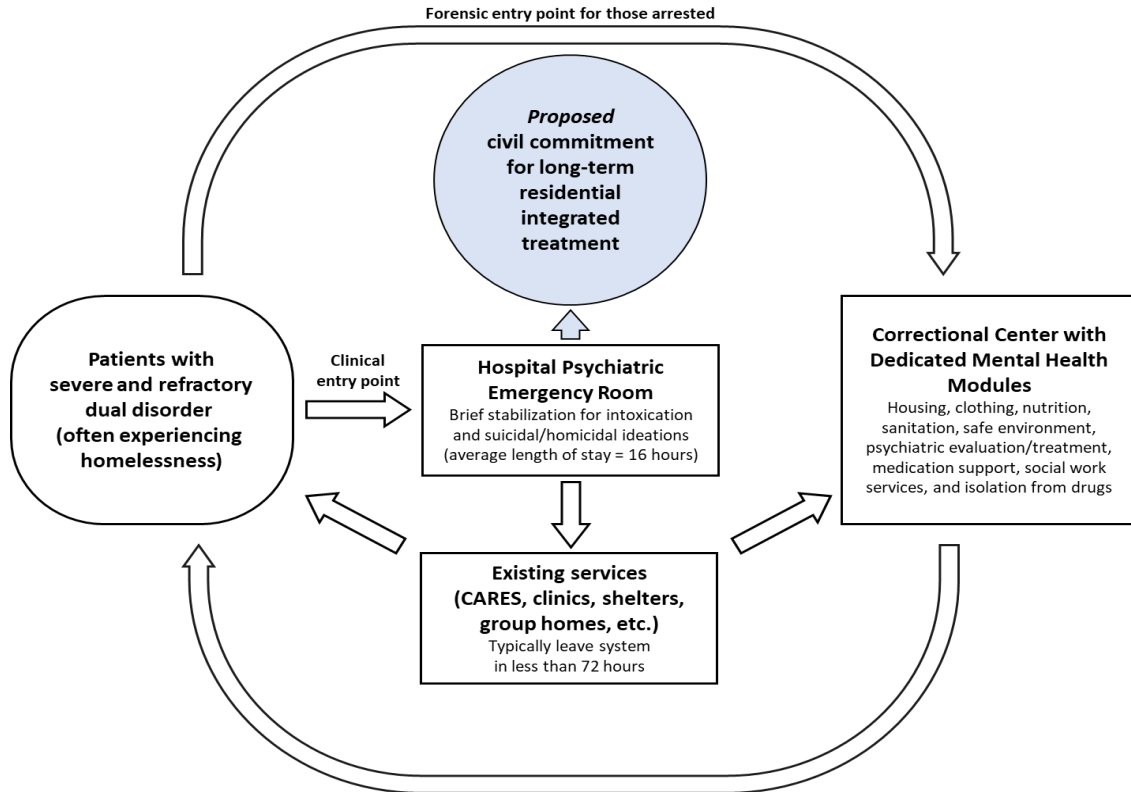
Figure 2. Entry Points into the Conceptual System of Care for Patients with Severe and Refractory Dual Disorder.

Another entry point into the SoC is forensic, through arrest and detention for alleged criminal conduct. A small number of the cohort of individuals with SRDD with criminal charges are placed in Honolulu pre-trial detention facility's mental health treatment modules. The treatment modules at the pre-trial detention facility provides patients with a safe, structured, substance-free environment, as well as comprehensive mental health services. The average length of stay at the facility is between six months to two years. During their stay, some patients start to recover. However, after release, many experience substance use relapse, despite placement in residential substance use facilities. By contrast, many patients who are discharged from the psychiatric ER leave the SoC in less than 72 hours and return to homelessness and substance use.

The structured, drug-free environment of OCCC can lead to a period of recovery for patients with SRDD. The current SoC and the State of Hawai'i have civil commitment laws for psychiatric and SUDs.[30] However, what is lacking is a structured treatment venue that would replicate the long-term compulsory aspects of OCCC and Hawai'i State Hospital, and also include specialized dual treatment of dual disorders (the shaded circle in **Figure 2**).

Entry points into the SoC for patients with SRDD are available in Honolulu County and most other island counties, however, more specialized treatment environments are only available in Honolulu. For example, Hawai'i, Kaua'i, and Maui Counties each have a pre-trial detention center, yet they do not have mental health modules like OCCC. Patients with complex and refractory psychiatric disorders are transferred to OCCC.[31]

Challenges

One of the most fundamental problems of the current care delivery system, modeled after the traditional complaint-driven presentation to a clinic or hospital, is the notion that the patient must present for treatment to prove that they are motivated for treatment. However, patients with dual disorders (and SRDD) are unlikely to seek treatment[32]; some lack decision-making capacity for their self-care.[33] One of the biggest barriers to care may be that patients with SRDD tend not to seek or

receive treatment.[4,6,32] According to clinical observations, they enter the SoC for serious medical complications or compelling consequences (such as criminal arrest or MH-1).

INTERVENTIONS

Improving Data Collection

It is beneficial to clearly define and differentiate types of dual disorders to capture the heterogeneity of each subtype in diagnosis and data collection endeavors. Different subpopulations of people with dual disorders may have different characteristics. For example, the combinations of methamphetamine and psychosis, of opioids and depressive disorders, and alcohol and anxiety disorders are heterogenous.[32] Clearly differentiating subtypes of people with dual disorders including the general severity will provide more guidance than aggregating all cases and combinations of SUD and psychiatric disorders in diagnosis and data collection efforts.

Improving Treatment and Care Delivery

Findings from studies on dual disorders in general can provide guidance about improving treatment and care delivery for patients in this cohort. First of all, there is support for integrated treatment of dual disorders in the literature.[20,34] A recent review of best practices indicates that integrated treatment is more effective than sequential treatment.[34] Hawai'i has a coordinated intake system for evaluation and disposition for substance use treatment and psychiatric treatment services: Hawai'i Coordinated Access Resource Entry System (CARES). Hawai'i CARES, used in conjunction with integrated treatment facilities for dual disorder and SRDD, can be beneficial in preventing wrong door incidents. Making integrated treatments available through Hawai'i CARES can help prevent patients with dual disorders from progressing to SRDD. Also, if patients with SRDD can readily be referred to integrated treatments regardless of their entry point into the SoC, they would have better access to services and achieve better treatment outcomes.

Research suggests that drug addiction treatments in general should be a long-term process.[35] Based on national outcome studies from 1969 to 1995,[36] which assessed approximately 70 000 patients, of whom 40-50% were court-referred or otherwise mandated to residential and outpatient treatment programs, two important findings emerged. One is that the duration of treatment was a predictor of the patients' treatment performance. After three months of time in treatment the outcomes were in a positive correlation with the length of time in treatment[35,36]; moreover, it was found that at least 1 year was needed in order for a treatment to be effective.[35,36] The National Institute on Drug Abuse[35] suggests that programs should seek ways to engage and keep patients in treatment, since patients often leave treatment before positive outcomes are stable. However, helping patients with SRDD to seek treatment is especially hard since some of their abilities to make decisions are impaired.[33]

Case management is an important element for patients with dual disorder in general, providing a lifeline for continuity of care as well as promoter of treatment engagement and adherence.[32] Case management can be used to engage a patient with dual disorder who is otherwise reluctant to enter/continue treatment. Even though case management is beneficial for engagement of patients in general, it alone is not sufficient for engaging patients who have an impaired ability to make decisions for themselves, as they are unlikely to seek or remain in treatment voluntarily. Nevertheless, case management may still be useful for patients with dual disorders before they progress to SRDD, or after patients with SRDD start recovering and are able to make conscious decisions for treatment.

Extended civil commitment for integrated residential treatment of SUD and mental illness is needed to adequately treat patients with SRDD. Patients with dual disorders (and SRDD) are unlikely to seek or stay in treatment voluntarily,[4,6] As mentioned, recovery from addiction is a long-term process[35,36] and integrated treatment achieves better treatment outcomes than sequential treatment[20,34]; therefore, extended and integrated treatment is beneficial. Clinical observation reveals that patients with SRDD achieve more progress at OCCC's mental health modules, even though there is no SUD treatment at OCCC. So, a residential setting can be beneficial for patients with SRDD, as it will provide basic necessities, structure, therapeutic support, and protection in protracted substance-free environment. Some patients with SRDD have impaired decision-making capacity; from such individuals, consent to treatment is often not attained.[33] Given that patients with SRDD may be at increased risk for mortality, civil commitment may be one of the options. Hawai'i has a law for civil commitment to a psychiatric

facility for mental illness and substance use[30]; however, a venue for the type of longer-term care needed for recovery is missing in the SoC. Hence, civil commitment for long-term residential integrated treatment of SUD and mental illness is necessary to help patients with SRDD survive and recover.

RECOMMENDATIONS

(1) Strengthen specific dual disorder data collection, including stratification of dual disorder severity. This will require state-wide standardization of health data, including all medical hospitals as well as psychiatric units, residential treatments, partial hospitalization programs, intensive outpatient programs, outpatient services, and case management services. Data collection needs to be standardized throughout the SoC, and this would include different public sectors.

(2) Enhance coordination across different public sectors, including the Department of Health, Department of Public Safety, and Department of Human Services (which is in charge of housing- and homelessness-related policies). Dual disorder-related public functions are scattered across many divisions of the government. The structure of these various divisions needs to be partly modified to better serve patients with dual disorder. The structure should be set up with a "no wrong door" policy in mind, so that referrals to appropriate services can be made in a timely and seamless manner. A "no wrong door" policy would help prevent patients with dual disorder from progressing to SRDD.

(3) Develop legislative proposals for funding long-term (at least one year) and integrated treatment, including treatment venue, staffing, and funding for non-forensic patient care. These proposals would start with obtaining the current cost of care for the SRDD cohort in terms of emergency services and MH-1s in comparison to estimates of longer-term residential care.

(4) Enhance case management services. Case management should be in place to help patient engagement before, during, and after SRDD treatment. As noted above, case management coordination across and within public sector systems would be essential.

(5) Encourage policy discussions of protracted court-ordered commitment for integrated residential treatment for individuals with SRDD. Data demonstrating high psychiatric ER utilization and increased danger of mortality can help substantiate legislation supporting a greater than or equal to 12 months period of residential confinement for integrated treatment (see the shaded circle in **Figure 2**).

REFERENCES

1. Lopera Lopera RE, Rincón Hurtado A, Vargas Gonzalez V, et al. Cognitive impairment in patients with dual pathology. *Addict Disord Their Treat*. 2019;18(1):53-57. doi:10.1097/adt.0000000000000150

2. de Mooij LD, Kikkert M, Theunissen J, et al. Dying too soon: Excess mortality in severe mental illness. *Front Psychiatry*. 2019;10. doi:10.3389/fpsyt.2019.00855

3. Volkow ND, Torrens M, Poznyak V, et al. Managing dual disorders: A statement by the Informal Scientific Network, UN Commission on Narcotic Drugs. *World Psychiatry*. 2020;19(3):396-397. doi:10.1002/wps.20796

4. Salloum IM, Brown ES. Management of comorbid bipolar disorder and substance use disorders. *Am J Drug Alcohol Abuse*. 2017;43(4):366-376. doi:10.1080/00952990.2017.1292279

5. Drake RE, Xie H, McHugo GJ. A 16-year follow-up of patients with serious mental illness and co-occurring substance use disorder. *World Psychiatry*. 2020;19(3):397-398. doi:10.1002/wps.20793

6. Kikkert M, Goudriaan A, de Waal M, Peen J, Dekker J. Effectiveness of Integrated Dual Diagnosis Treatment (IDDT) in severe mental illness outpatients with a co-occurring substance use disorder. *J Subst Abuse Treat*. 2018;95:35-42. doi:10.1016/j.jsat.2018.09.005

7. Feinstein AR. The pre-therapeutic classification of co-morbidity in chronic disease. *J Chronic Dis*. 1970;23(7):455-468. doi:10.1016/0021-9681(70)90054-8

8. World Health Organization. Lexicon of alcohol and drug terms published by the World Health Organization. Published 2010. Accessed May 25, 2021. http://www.who.int/substance_abuse/terminology/who_lexicon/en/

9. World Psychiatric Association. Dual disorders/pathology. Published 2014. Accessed May 25, 2021. http://www.wpanet.org/detail.php?section_id=11&content_id=1206

10. Substance Abuse and Mental Health Services Administration. National Survey on Drug Use and Health: 2-Year Restricted Online Data Analysis System (2019-2020). 2022.

11. Substance Abuse and Mental Health Services Administration. Key Substance Use and Mental Health Indicators in the United States: Results from the 2020 National Survey on Drug Use and Health. Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Published 2020. Accessed August 29, 2022. https://www.samhsa.gov/data/sites/default/files/reports/rpt35325/NSDUHFFRPDFWHTMLFiles2020/2020NSDUHFFR1PDFW102121.pdf

12. Regier DA, Farmer ME, Rae DS, et al. Comorbidity of mental disorders with alcohol and other drug abuse: Results from the Epidemiologic Catchment Area (ECA) Study. *JAMA*. 1990;264(19):2511-2518.

13. Di Forti M, Quattrone D, Freeman TP, et al. The contribution of cannabis use to variation in the incidence of psychotic disorder across Europe (EU-GEI): A multicentre case-control study. *Lancet Psychiatry*. 2019;6(5):427-436. doi:10.1016/s2215-0366(19)30048-3

14. Arias-Horcajadas F, Szerman N, Vega P, Basurte I, Mesías B. Chapter 7 - Dual Disorders in Cannabis Misuse. In: Preedy VR, ed. *Handbook of Cannabis and Related Pathologies*. San Diego: Academic Press; 2017:61-69. https://www.sciencedirect.com/science/article/pii/B9780128007563000089

15. Marquez-Arrico JE, Navarro JF, Adan A. Health-related quality of life in male patients under treatment for substance use disorders with and without major depressive disorder: Influence in clinical course at one-year follow-up. *J Clin Med*. 2020;9(10). doi:10.3390/jcm9103110

16. Jones TM, Hill KG, Epstein M, Lee JO, Hawkins JD, Catalano RF. Understanding the interplay of individual and social–developmental factors in the progression of substance use and mental health from childhood to adulthood. *Dev Psychopathol*. 2016;28(3):721-741. doi:10.1017/S0954579416000274

17. Priester MA, Browne T, Iachini A, Clone S, DeHart D, Seay KD. Treatment access barriers and disparities among individuals with co-occurring mental health and substance use disorders: An integrative literature review. *J Subst Abuse Treat*. 2016;61:47-59. doi:10.1016/j.jsat.2015.09.006

18. Valderas JM, Starfield B, Sibbald B, Salisbury C, Roland M. Defining comorbidity: Implications for understanding health and health services. *Ann Fam Med*. 2009;7(4):357-363. doi:10.1370/afm.983

19.   Szerman N, Martínez-Raga J, Baler R, et al. Joint statement on dual disorders: Addiction and other mental disorders. *Salud Ment (Mex)*. 2017;40(6):245-247. doi:10.17711/sm.0185-3325.2017.031

20.   Substance Abuse and Mental Health Services Administration. *Substance Use Disorder Treatment for People with Co-Occurring Disorders - TIP 42*. Published 2020. Accessed August 29, 2022. https://store.samhsa.gov/sites/default/files/SAMHSA_Digital_Download/PEP20-02-01-004_Final_508.pdf

21.   Clark HW, Power AK, Le Fauve CE, Lopez EI. Policy and practice implications of epidemiological surveys on co-occurring mental and substance use disorders. *J Subst Abuse Treat*. 2008;34(1):3-13. doi:10.1016/j.jsat.2006.12.032

22.   Hawaiʻi State Department of Health. State of Hawaiʻi Behavioral Health Dashboard -BETA. Published 2022. Accessed November 10, 2022. https://bh808.hawaii.gov/co-occurring/

23.   Shearer A. Queen's Emergency Department Hyperutilizer Group (Email Communication with Gerald Busch). 2021.

24.   Galanis D. Hawaiʻi State Department of Health Investigation of Decedents. The National Violent Death Review System (NVDRS) Hawaiʻi Data (Email Communication with Gerald Busch). 2021

25.   Lt. Governor of the State of Hawaiʻi Josh Green. Josh Green | Homeless In Hawaii : Facts and Resources. Accessed October 17, 2022. https://ltgov.hawaii.gov/homeless-in-hawaii-facts-and-resources/

26.   Ladao M. 373 homeless people died on Oahu from 2014 to 2018. *Honolulu Star-Advertiser*. June 6, 2019. Accessed October 10, 2022. https://www.staradvertiser.com/2019/06/06/hawaii-news/373-homeless-people-died-on-oahu-from-2014-2018/

27.   National Center for Health Statistics. Hawaii. Key Health Indicators. Published 2022. Accessed April 13, 2022. https://www.cdc.gov/nchs/pressroom/states/hawaii/hi.htm

28.   Kobayashi M. Medical Examiner Data from the City and County of Honolulu (Email Communication with Gerald Busch). 2021.

29.   Cheng D. Interview with Daniel Cheng, M.D., M.P.H., Medical Director of the Queen's Medical Center Emergency Department (Personal Communication with Gerald Busch). 2021.

30.   2013 Hawaii Revised Statutes Title 19. Health 334. Mental Health, Mental Illness, Drug Addiction, and Alcoholism 334-60.2 Involuntary hospitalization criteria. HRS § 334-60.2(2013).

31.   Hashimoto S. Monthly Inter-Island Work Group via Zoom, Arranged by Dr. Hashimoto at OCCC (Personal Communication with Gerald Busch). 2021, 2022.

32.   Pacini M, Maremmani AGI, Maremmani I. The conceptual framework of dual disorders and its flaws. *J Clin Med*. 2020;9(7). doi:10.3390/jcm9072098

33.   Haning W. Commentary on "Civil commitment for SUDs: A national survey of addiction medicine physicians". *J Addict Med*. 2021;15(4):283-284. doi:10.1097/ADM.0000000000000849

34.   Hakobyan S, Vazirian S, Lee-Cheong S, Krausz M, Honer WG, Schutz CG. Concurrent disorder management guidelines. Systematic review. *J Clin Med*. 2020;9(8). doi:10.3390/jcm9082406

35.   National Institute on Drug Abuse. *Principles of Drug Addiction Treatment: A Research-Based Guide (Third Edition)*. Published 2018. Accessed August 29, 2022. https://www.drugabuse.gov/download/675/principles-drug-addiction-treatment-research-based-guide-third-edition.pdf?v=74dad603627bab89b93193918330c223

36.   Satel SL. *Drug Treatment: The Case for Coercion*. Washington, DC: The AEI Press; 1999.

CHAPTER 4: IMPLICATIONS FOR A SYSTEM OF CARE IN HAWAI'I FOR YOUTH INVOLVED IN THE JUSTICE SYSTEM AND SUBSTANCE USE

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ABSTRACT

The shift from punitive responses to restorative public health approaches to tackle the problem of youth substance use and justice system involvement follow a nationwide trend. Hawaiʻi has made significant strides towards transforming the justice system and developing effective substance abuse programs. However, these efforts require changes in policies, practices, and paradigms to be fully and permanently realized. Such a philosophical shift requires a major reallocation of resources from downstream, high-cost punitive modalities, such as incarceration, to upstream solutions that allow adolescents to heal past trauma and grow the understanding and tools to lead a healthy and meaningful life. Research and evaluation to support ongoing learning and system improvement will also be required. Most critically, taking an approach to work with youth so they can overcome the root problems they face holds the most promise of ending the cycle of justice involvement and substance use that the state has witnessed for far too long.

BACKGROUND & INTRODUCTION

Significance of the problem

Although the association between substance use (SU) and justice system involvement can be direct (appropriately 9%-10% of youth arrested and detained for drug charges as compared to other offenses),[1] the link can also be much more intertwined. The National Center on Addiction and Substance Abuse reports that 78% of the 2.4 million juvenile arrests in 2000 involved youth who stated they were under the influence of alcohol or drugs, tested positive for drugs, were arrested for committing an alcohol or drug offense, or reported having substance abuse problems.[2] Of the 54% of juvenile arrestees testing positive for drugs at the time of their arrest, 92% tested positive for marijuana.[2] The number of drug-law-violation cases referred to juvenile courts increased at more than 12.5 times the rate of the total number of cases referred to juvenile courts from 1991 to 2000.[2] Finally, the more often youth were arrested, the more likely they were to drink alcohol and use drugs.[2]

In addition, adolescents who used substances and were involved with the justice system were at greater risk for polysubstance use,[3] sexually transmitted infections,[4,5] suicidality,[6,7] and recidivism.[7] Further, formerly detained youth were found to be disproportionately at risk to meet criteria for a substance use disorder in adulthood.[8]

Unfortunately, despite the robust co-occurrence of adolescent SU and justice involvement, there has been limited service utilization, and thus, under-treatment, before, during, and after confinement.[7,9] For example, nationally only 21% of the youth received SU services before or after detention or incarceration.[9] In addition, for moderate SU, ethnic differences were found whereby non-Hispanic European Americans were more likely to receive SU services as compared to Hispanic and African American youth.[10]

Ethnoracial disparities in the U.S. and Hawaiʻi justice systems must be acknowledged in this discussion on improving SU supports for system-involved youth. Beginning with the adoption of a western legal system during the 1800s in Hawaiʻi, Native Hawaiians and less assimilated migrant populations have been disproportionately impacted by "energetic police and judicial activity."[11] The long arc of colonization has undermined traditional cultural practices and exacerbated inequalities and pains of injustice experienced in pronounced ways within these diverse Pacific populations (e.g., substance use, homelessness, suicide, unemployment, lack of health care, incarceration).[12] In the post-plantation era, over-representation in the justice system has continued to impact Native Hawaiians and migrating populations often characterized by economic vulnerability and social pressures to assimilate. Samoan youth were subject to greater scrutiny and a trend of justice system involvement in the 1990s-early 2000s.[13] Currently, as families migrate to Hawaiʻi under the Compact of Free Association (COFA) from the Republic of the Marshall Islands and the Federated States of Micronesia, COFA nations' youth are increasingly becoming involved with the youth justice system and SU.[14] This sociohistorical context is essential to understanding the interconnection of SU and youth justice, with the goal of strengthening Hawaiʻi's system of care for youth. This chapter was developed as part of the Hawaiʻi State Department of Health Alcohol and Drug Abuse Division (ADAD) State Plan. For more background and context around the overall State Plan project, readers are referred to the Introductory Notes of this State Plan System of Care Implications Volume.

PREVALENCE

SU has been consistently found to begin and substantially increase during the early adolescent and adolescent years. According to the national Monitoring the Future Survey, in 2020, the overall lifetime prevalence (among 8th, 10th, and 12th graders combined) was 34.7% for illicit drug use, 30.2% for marijuana, 44.0% for alcohol, 16.2% for cigarettes, and 37.2% for e-vaporizers.[15] Although sparse, research findings in Hawai'i on the intersection between adolescent SU and conduct behaviors, including justice involvement, are consistent with national data. Baker, Hishinuma, Chang, and Nixon[16] found a statistically significant, positive relationship between self-reported ever used drugs and violence perpetration for Filipino American, Native Hawaiian, and Samoan youth in Hawai'i. Consistent with this result, the National Center on Indigenous Hawaiian Behavioral Health found that adolescent self-reported SU, and in particular, smoking cigarettes regularly, was robustly and positively related to "was arrested or got in serious trouble with the law," school suspensions, and school infractions for Native Hawaiian and non-Hawaiian youth.[17,18] Based on the Hawai'i Youth Risk Behavior Survey (**Table 1**), the weighted comorbidity rates between substance use and conduct problems (e.g., fights) were very high. On average, 4.0% (standard deviation *[sd]*=2.0, median=3.5%, range=1.4% to 10.2%, denominator=entire sample) self-reported both substance use and violence involvement. Of the youth who self-reported violence, 35.5% also self-reported substance use. Of the youth who self-reported substance use, 24.2% also self-reported violence. The 35.5% was statistically higher than 24.2% (F[1,92] = 18.2, P < .0001), indicating that while the comorbidity is strong for both associations, there should be a higher need to screen for substance use for youth who self-report violence compared to the need to screen for violence for youth who self-report substance use.

Table 1. Hawaiʻi Youth Risk Behavior Survey (YRBS), 2019 - Weighted Co-Occurring Prevalence Cross Tabulations Between Substance Use & Violence Items (N ≤ 5,879).

		Were in a physical fight			Were electronically bullied			Were bullied on school property			Did not go to school because they felt unsafe at school or on their way to or from school			Were ever physically forced to have sexual intercourse			Experienced sexual violence by anyone			Experienced sexual dating violence			Experienced physical dating violence		
Substance Use Items Category	Item Description	SUB	VIO	ALL	SUB	VIO	ALL	SUB	VIO	ALL	SUB	VIO	ALL	SUB	VIO	ALL	SUB	VIO	ALL	SUB	VIO	ALL	SUB	VIO	ALL
Cigarettes	Ever tried smoking	29.9	35.1	5.3	25.0	35.3	4.4	26.5	28.7	4.6	17.6	28.7	3.1	18.0	44.2	3.2	19.0	33.4	3.3	NA	NA	NA	16.2	49.3	3.7
	First tried smoking before 13 years	42.6	19.6	3.1	28.6	15.1	1.9	27.4	11.4	1.8	29.5	18.3	2.1	NA	NA	NA	28.1	18.9	1.9	NA	NA	NA	NA	NA	NA
	Currently smoked cigarettes	55.8	17.4	2.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vapor Products	Ever used electronic vapor products	21.2	66.8	10.2	17.6	69.3	8.5	20.0	59.6	9.7	14.5	63.3	7.0	10.8	74.9	5.2	13.6	68.7	6.5	7.7	71.4	4.7	9.1	78.4	5.6
	Currently used electronic vapor products	27.0	53.3	8.2	20.5	50.5	6.1	22.6	41.9	6.8	17.4	46.7	5.3	12.9	57.8	3.9	17.7	55.5	5.3	10.1	56.0	4.1	12.1	66.5	4.9
	Currently used electronic vapor products frequently	33.8	22.7	3.5	16.4	14.1	1.7	19.0	12.2	2.0	18.3	16.9	1.9	15.8	24.0	1.6	19.4	20.3	1.9	NA	NA	NA	NA	NA	NA
	Currently used electronic vapor products daily	35.5	18.2	2.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Currently smoked or used vapor products	28.6	57.0	9.1	21.0	52.5	6.5	22.9	44.1	7.2	18.7	50.9	5.9	14.2	62.3	4.5	19.7	59.9	6.1	11.0	60.7	4.6	14.6	73.5	6.2
Alcohol	Had 1st alcohol before 13 years	34.8	31.9	5.2	24.7	27.2	3.5	27.1	23.6	3.9	20.1	25.2	3.0	15.2	29.8	2.2	21.8	31.3	3.2	NA	NA	NA	16.4	37.8	3.1
	Currently drank alcohol	32.1	42.0	6.5	21.5	34.5	4.3	23.9	29.4	4.8	18.5	33.3	3.7	15.0	43.2	4.1	12.6	52.4	3.4	20.7	44.0	4.1	17.4	60.7	4.9
	Currently binge drink	40.0	27.5	4.3	22.1	18.5	2.3	24.2	15.8	2.6	23.5	21.6	2.5	16.4	24.6	1.7	21.8	22.6	2.2	NA	NA	NA	22.6	45.0	3.5

Marijuana	Tried marijuana before 13 years	45.3	19.1	3.1	22.0	11.0	1.4	25.0	10.1	1.7	27.8	15.6	1.8	NA	NA	NA	26.3	16.7	1.7	NA	NA	NA	NA	NA	NA
	Currently use marijuana	32.0	34.5	5.4	21.4	28.5	3.6	21.8	22.3	3.7	20.5	29.7	3.5	14.7	34.5	2.4	20.2	33.4	3.3	NA	NA	NA	16.8	51.2	4.0
Other Drugs	Ever took prescription meds w/o doctor order	33.0	28.3	4.7	26.5	28.3	3.6	29.5	24.6	4.1	22.9	26.8	3.2	19.2	35.1	2.6	24.3	31.3	3.3	NA	NA	NA	21.0	41.4	3.5
	Ever used cocaine	48.5	17.2	2.8	NA	NA	NA	NA	NA	NA	30.3	14.2	1.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Ever used heroin	52.6	11.3	1.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Ever used meth	54.3	14.7	2.4	NA	NA	NA	NA	NA	NA	45.0	15.5	1.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Ever used ecstasy	48.7	12.9	2.1	NA	NA	NA	NA	NA	NA	31.5	11.6	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Drank alcohol or used drugs last before sexual intercourse	42.6	33.7	8.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

SUB = substance use item prevalence = weighted % of (100)(# self-reported yes to both substance use and violence)/(# self-reported yes to substance use)

VIO = violence item prevalence = weighted % of (100)(# self-reported yes to both substance use and violence)/(# self-reported yes to violence)

ALL = comorbid prevalence between substance use item and violence item = weighted % of (100)(# self-reported yes to both substance use and violence)/(total sample size)

NA = not applicable (too few occurrences for a cross-tabulation); Five substance use items are not included in this table because there were no comorbidity prevalence rates with violence for these items: (1) "Currently smoke cigarettes daily," "Currently smoked frequently," "Usually got their own vapor products at store," "Usually got alcohol by someone giving to them," and "Ever injected illegal drugs."

For Hawaiʻi, the proportion of youth charged with drug-related offenses underestimates the actual prevalence of SU among young people involved with the youth justice system. In particular, a study by the State Attorney General reported that only approximately 10.0% of youth arrests were for drug offenses,[19] and only 12.0% of the arrests were for unique individuals with a drug offense.[20] However, a random sample of youth adjudicated in Honolulu County for any law violation indicated that 71.8% of youth had a history of SU recorded in their probation case files.[21] In a review of diagnostic medical records for youth incarcerated in Hawaiʻi in FY2005-2007, approximately three-fourths of the youth files indicated a biological parent history of substance use.[22] In addition, for the data that were available, 96% of youth had a history of SU, with the most commonly used substances as follows: 85% marijuana, 82% alcohol, 73% cigarettes, and 54% methamphetamine.[23] The earliest average start of SU was with cigarettes (11.9 years of age); the latest initiation of substances involved methamphetamine (14.1 years of age).[23] Further, history of hard drug use was one of the most salient risk factors associated with recidivism.[22] In a more recent profile of youth incarcerated in Hawaiʻi and discharged between CY 2014-2019, the proportion of youth who had received at least 1 SU disorder diagnosis was 83.6% and the entire study population reported a history of SU.[24,25]

Risk and Protective Factors

SOCIAL ECOLOGICAL MODEL FRAMEWORK

The social ecological model is a valuable construct commonly used to map the risk and protective factors that may influence physical, mental, and behavioral health across different levels: individual, interpersonal, communal/institutional, and societal.[26-29] Research on interventions to reduce or prevent SU for justice-involved youth often center on decreasing risk and enhancing protective factors at the individual and interpersonal levels, with promising work addressing individual behavioral change in step with environmental change at the community or institutional level.[30,31] Unfortunately, research has focused less at the institutional and societal levels. These broader domains come into sharper focus through the lens of racial and ethnic disparities. Observations from the literature are highlighted in **Table 2**, focusing on the levels beyond the individual.

Table 2. Risk and Protective Factors for Youth Substance Use, by Social Ecological Domain.

Domain & Category	Elaboration
Interpersonal Domain Family and home • Parent-child relationships and family conflict • Structure and stability • Well-being, involvement with substance use and/or justice system	Positive family functioning (e.g., active parental presence, lack of parental hostility) and family well-being have been found to be associated with and impact youth behavior with lower rates of youth engaging in substance use (e.g., polysubstance use) and anti-social behaviors (e.g., recidivism).[32-34] Among youth incarcerated in Hawai'i, 91% had significant disruption to the family structure (i.e., negative impact on relationship with child's primary caregiver),[25] 16% reported substance abuse among family members, 47% indicated parental mental health needs, and 66% reported parental justice system involvement.[25]
Interpersonal Domain Peers • Relationships and attitudes • Behaviors, including friends offering drugs and/or alcohol	A robust finding is the association between youth with peers who are involved with substance use and the youth justice system.[32,35] Research in Hawai'i aligns with national findings on increased adolescent substance use associated with negative peer behavior, such as youth whose friends have offered them marijuana or alcohol or whose close friends have been suspended from school.
Community, Institutional, Societal Domain Social support vs. social stigmatization • Disparities resulting from discrimination and/or victimization on the basis of race, ethnicity, and/or gender identity • Social isolation • Interpersonal support	Youth of color, both nationally and in Hawai'i, are substantially over-represented in arrests, detention, probation revocation, and/or incarceration.[36-42] In Hawai'i, Native Hawaiian, Samoan, and other Pacific Islander youth faced perceptions by decision-makers that manifested a consistent and cumulative pattern of negative outcomes[21,43] when compared to European American or East Asian youth. In addition, perceptions of differential treatment on the basis of ethnicity and race have been expressed by youth interviewed on their experiences in the state system of care for substance use.[44] Nationally, there is over-representation of gender-diverse youth (i.e., gay, lesbian, bisexual, or other sexual orientations) in the youth justice system.[45-47] Within this context, researchers have advocated for a developmental approach to youth justice, whereby youth of color and gender-diverse youth would be viewed and treated with the same understanding of adolescent exploration and boundary-testing that is commonly extended to European American youth.[48-51] Protective factors include positive social support to mitigate the negative effects of discrimination on youth in the justice system, including substance dependency,[52] and addressing adolescents' need for belonging and contributing to pro-social and supportive community life.[53]
Community, Institutional, Societal Domain Trauma and marginalization • Adverse childhood experiences • Multigenerational and historical trauma • Multiple marginality	Studies of trauma have established links between adverse childhood experiences and increased risk of physical, mental, and behavioral health concerns, including problematic substance use.[54,55] The relationship of marginalization and multigenerational transmission of trauma has been well-documented among African American, Indigenous, and other communities of color.[56-59] Vigil and Moore[60] coined the term "multiple marginality" to; explain the intersection of social and economic forces faced by some low-income youth of color, manifested in "inadequate living conditions, stressful personal and family changes, and racism and cultural repression in schools."[60-62] Histories of trauma and runaway were present in case files of over 90% of youth incarcerated in Hawai'i.[25]

Notes: Risk and protective factor data by ecological domain were collected and synthesized via literature review.

CURRENT SYSTEM OF CARE AND YOUTH JUSTICE SYSTEM TRANSFORMATION IN HAWAI'I

For decades, the public education, mental and behavioral health, child welfare, and juvenile justice systems in Hawai'i have sought to institutionalize a state "system of care" (SoC). The goal of the SoC is to provide coordinated evidence-based services using a community-based, culturally, linguistically responsive, and family-centered approach.[63] The SoC concept implies coordination between family, community, non-profit organizations, for-profit entities, and state agencies so that people in need of care can identify, connect with, and receive appropriate and individualized services and supports. By mapping existing resources and relationships, areas for improvement and potential changes to align the actual SoC with these ideals can be more easily identified. **Table 3** provides the basic delineation of the state youth justice process and available SU services and supports at each stage.

Table 3. Youth Justice Process in Hawai'i and Supports and Substance Use Services for Youth

Stage and Services Available	Elaboration
Prevention & Arrest / Diversion (voluntary services) ▪ School-based programs ▪ Community-based activities: cultural, arts, sports and recreation, mentoring ▪ Public health programs/services ▪ Mental health programs/services ▪ Self-referral for community-based substance use assessment ▪ Assessment Center (geographically limited) screening for risks + needs ▪ Family primarily responsible for costs	Prevention activities may include positive youth development and family strengthening programs offered on a wide, but inconsistent basis by a range of school and community stakeholders: grassroots volunteers, nonprofit youth-serving organizations, local government (e.g., Parks & Recreation) programs, state contracted substance use providers, Native Hawaiian trusts, and culture-based organizations for different populations. The state department of health Child & Adolescent Mental Health Division (CAMHD) provides integrated substance use treatment for youth with qualifying mental health diagnoses. At the point of contact with law enforcement, a young person can be counseled and released or arrested. Arrest records are forwarded to the Prosecutor's office (for law violations) or Family Court (for status offenses). In jurisdictions with resources for formal diversion from court involvement, a police officer can refer youth to an assessment center for screening in a therapeutic, family-friendly setting. Voluntary referrals for formal substance use assessment or other resources can occur.
Detention (mandatory services) ▪ Department of Health, CAMHD Family Court Liaison Branch services ▪ Substance use assessment if determined warranted; time-limited services while youth is detained ▪ State responsible for costs	The State Judiciary operates a sole juvenile detention facility on O'ahu with capacity for short-term secured placement prior to a youth being seen by a judge for charges. Police officers may transport a young person who has been arrested on suspicion of a serious law violation directly to the detention facility for immediate court intake. A youth can be detained awaiting a hearing within 48-72 hours. Following the detention hearing, a young person could be released or remain in secure custody for as long as several months awaiting the completion of the hearing process or until another appropriate placement can be made. Youth in detention receive a mandatory clinical screening for substance use and mental health needs, completed upon intake, and corresponding time-limited services while detained are provided, based on the assessment. Aftercare upon release is neither required nor well-coordinated.

Stage and Services Available	Elaboration

Court Referral/Diversion
(voluntary services)
 	
    ▪ Optional referral for mental health services
    ▪ Optional referral for community-based substance use assessment
    ▪ Optional referral to positive youth development programs
    ▪ Family primarily responsible for costs
	A young person referred to court can be "diverted" if a court officer closes the case after a phone call or meeting with the child's guardian, or even after an unsuccessful attempt at contacting the guardian. Voluntary participation in substance use services can be recommended. Completion of selected programs can be offered as an incentive to avoid court processing in certain jurisdictions.

Adjudication: Probation
(mandatory services)
 	
    ▪ Supervision by Probation Officer
    ▪ Conditions of probation may include substance use assessment, monitoring (drug testing), and if diagnosed, treatment
    ▪ Selective specialty court services
    ▪ State or family responsible for costs
	Placement on court supervision (probation for law violation or protective supervision for status offense) is one possible consequence for youth whose case is adjudicated by a juvenile judge. Youth are not referred for substance use assessment unless substance use is determined to contribute to "criminal behavior" at the Probation Officer's discretion. If assessed, corresponding time-limited services while on probation may be provided, based on the assessment. Conditions of probation may include curfew, electronic monitoring, and drug testing. In certain jurisdictions, youth may be admitted to a "boutique court" program (e.g., Juvenile Drug or Girls Court) with added supports. For youth with a qualifying diagnosis for mental health services, integrated substance use treatment is available through CAMHD contracted services such as Multi-Systemic Therapy.

Adjudication: Out-of-Home Placement
(mandatory services)
 	
    ▪ Residential rehabilitation (geographically limited)
    ▪ Cultural wellness (limited funding)
    ▪ Incarceration with substance use and mental services, positive youth development supports and optional family services
    ▪ State responsible for costs
	Out-of-home placement may range from incarceration in the secured HYCF located on Oʻahu to court-ordered participation in a residential program, such as a mental health facility or substance abuse treatment program (decreasing options in the state), group home/safe house, or life skills training program. For youth with a qualifying diagnosis for mental health services, integrated substance use treatment is available through CAMHD contracted residential programs. Youth may be placed in the juvenile detention facility pending an opening in an appropriate out-of-home placement because availability is frequently limited. Substance use services for incarcerated youth in Hawaiʻi include mandatory clinical services based on formal substance use assessments.

Notes: Data on the Hawaiʻi youth justice system process and substance use services and supports for youth were collected and synthesized via informal interviews with justice system stakeholders and substance use service providers, and authors' professional and personal knowledge and observation as a result of working in the field locally for over ten years.

Figure 1 provides a point-in-time illustration of the availability of youth substance use supports and services in the Hawaiʻi SoC. The pie chart shows the geographic distribution by island of youth-serving organizations that reported providing substance use services for youth, including programs not specific to justice system-involved youth. The distribution reflects that the critical mass of services are offered on Oʻahu (40%) and dwindling to very few service options for youth on Lanai (2%). While the SoC service landscape is everchanging, limited availability of substance use supports for youth on the neighbor islands tends to be consistent over time. The uneven distribution of services is also mirrored on the island of Oʻahu, where rural communities tend to be under-served in comparison to rural Honolulu.

ORGANIZATIONS PROVIDING SUBSTANCE USE SERVICES TO YOUTH BY ISLAND (2019)

Maui, 19, 12%
Molokai, 8, 5%
Lanai, 3, 2%
Kauaʻi, 18, 12%
Hawaiʻi Island, 30, 20%
Oahu, 76, 49%
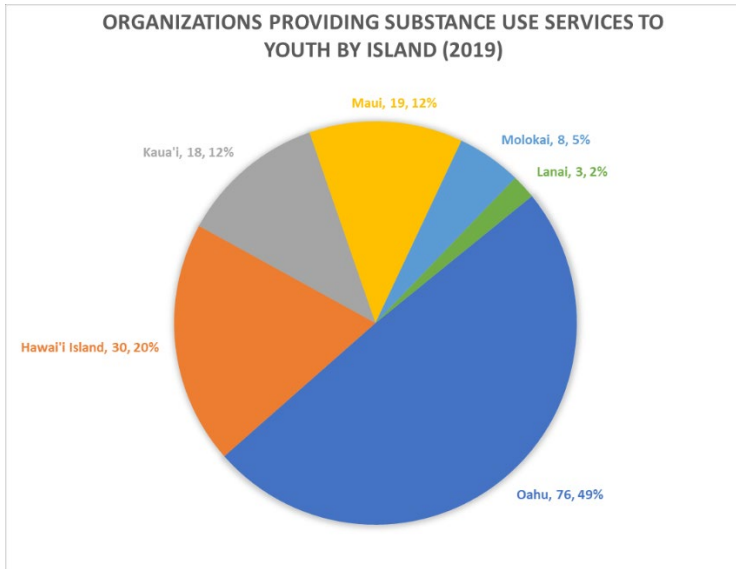
Figure 1. Geographic distribution of youth substance use services (Source: Hawaiʻi Youth Services Directory, 2019[64])

Prevention

VOLUNTARY:
- School-based programs
- Community-based activities: cultural, arts, sports and recreation, mentoring
- Public health outreach/events
- Self-referral for community-based substance use assessment
- Mental health programs / services

Arrest / Diversion

VOLUNTARY:
- Community-based activities (cultural, arts, sports and recreation)
- Assessment Center screens for risks + needs (geographically limited access)
- Optional referral for community-based substance use assessment

Detention

MANDATORY:
- Department of Health Family Court Liaison Branch (DOH-FCLB) supports
- Substance use assessment if determined warranted; time-limited services while youth is detained

Court Referral / Diversion

VOLUNTARY:
- Optional referral for community-based substance use assessment
- Optional referral to positive youth development and/or family support programs (geographically limited access)

Adjudication: Probation

MANDATORY:
- Supervision may include random drug testing
- Conditions of probation may include substance use assessment and services and mental health services
- Selective process for Juvenile Drug Court (counseling, drug testing, family engagement)

Adjudication: Out of Home

MANDATORY:
- Queens Family Treatment Center Acute Hospitalization (if needed)
- Substance use and/or mental health residential rehabilitation (geographically limited access)
- Cultural wellness (limited funding)
- Incarceration with substance use and mental health services, prosocial activities, and family support

Figure 2. Stages of youth justice process in Hawaiʻi and corresponding supports and substance use services

Figure 2 offers a simplified depiction of the youth justice process in Hawai'i and the corresponding supports and substance use services that are available to youth on a voluntary or mandatory basis at each stage. The justice system operates as a filtering process; each block in **Figure 2** represents a decision point where a youth may either exit or become further involved in the system

Prevention

Starting from the left on **Figure 2**, prevention of substance use is the most critical component in the SoC for youth well-being and health; yet, Hawai'i lacks a systematic approach to implementing and sustaining prevention programming. Substance use programs and supports spanning the continuum of care from prevention to treatment are available to youth in schools, through educational health curriculum, counseling with Behavioral Health Specialists, and school-based services contracted by the Hawai'i State Department of Health Alcohol and Drug Abuse Division (DOH-ADAD). However, student access to services at a school-level is highly dependent on individual school administrators' awareness of student needs. Common barriers to accessing services such as clear eligibility guidelines and coordination and communication between school-based providers and school staff can be addressed effectively by administrators who place a priority on caring for student substance use. Prevention activities in communities are offered on a wide, but inconsistent basis, with voluntary community-based activities that integrate substance use education and awareness into public events like health fairs or positive youth development programming, such as sports, cultural arts, and mentoring. At the same time, not all prevention programs are equipped to help youth address problems that may increase their vulnerability to substance use, such as disruptions in family structure and home environment or challenges at school.

An informal network of prevention providers is active through grassroots volunteerism, public sector City and County Department of Parks and Recreation programs, and nonprofit youth-serving organizations like the Boys and Girls Club. Some nonprofit organizations are contracted by DOH-ADAD to facilitate substance use prevention curriculum through community-based outreach or school-based programs (e.g., Hina Mauka Teen Care or the Kalihi YMCA). These state-funded providers use the standardized Adolescent Drug Abuse Diagnosis to assess level of need for adolescent clients. Community-based substance use prevention programs may also be funded by the Hawai'i State Department of Human Services Office of Youth Services (DHS-OYS), which under some administrations has prioritized outreach to justice system-involved youth in the past. Native Hawaiian trusts and entities, such as Kamehameha Schools and Office of Hawaiian Affairs (OHA), have also invested in community-based programming to address substance use prevention through engagement in cultural activities, including family-centered approaches where youth may participate with parents and/or other supportive adults such as Keiki O Ka 'Āina (KOKA) family workshops and Alu Like activities. KOKA's Strengthening Families Affected by Incarceration (SFAI) program focuses on support for children impacted by a caregiver's incarceration. The main challenges of the prevention realm of the SoC are the consistency of funding, the alignment between available programs and community acceptance and trust and the voluntary nature of the activities when so many youth at risk of justice system involvement may not have close adult support or natural pathways to connect with the resources being offered.

Beyond prevention, **Figure 3** presents a generalized flow chart of youth justice system processing in Hawai'i (note that there are variations by county).
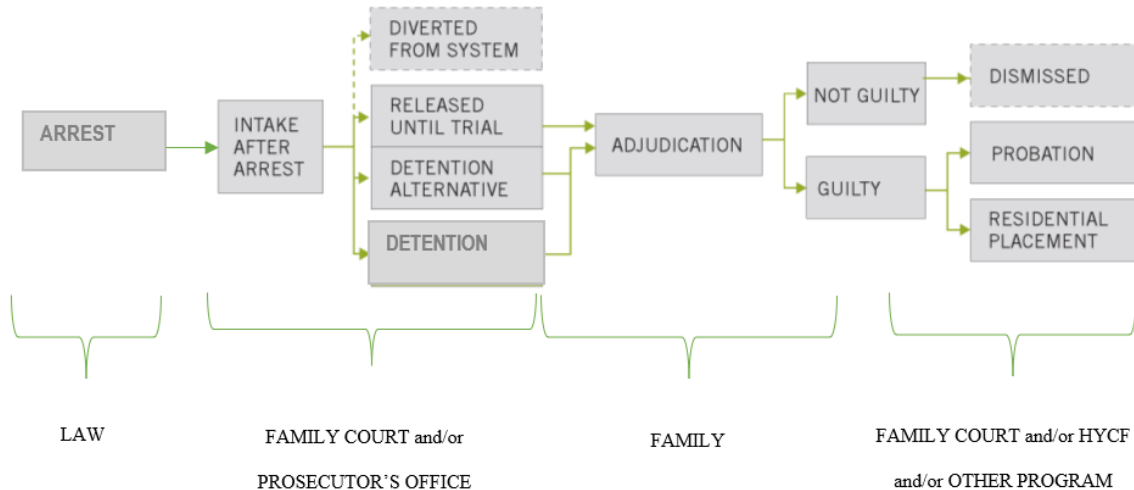
Figure 3: Flowchart of youth justice system process in Hawai'i (Modified from the Annie E. Casey Foundation, 2014)

Arrest / Diversion

At the point of contact with law enforcement, a young person can be arrested or diverted on the basis of either formal criteria for diversion or in some cases, officer discretion. Arrest records are forwarded by law enforcement to the Prosecutor's office (for law violations) or Family Court (for status offenses). In jurisdictions with the resources for more formalized diversion programming (currently limited to East Hawai'i, Kalihi-Moanalua, and Leeward O'ahu), a police officer can refer and, in some cases, transport a youth to an assessment center for screening and services in a therapeutic, family-friendly setting. Voluntary referrals to positive youth development activities and/or substance use education or assessment can occur, as well as connections to other resources appropriate to the assessed needs and strengths of youth. Truancy prevention programs in certain jurisdictions can operate in a similar way, where students who are referred for absenteeism may connect with a case manager who can engage the youth in an assessment of risks and needs. A subsequent referral to voluntary substance use services can occur. Common providers of adolescent substance use services include Care Hawai'i, Child and Family Services (the Institute for Family Enrichment program, known as TIFFE), Hale Kipa, YMCA, and Hina Mauka. The DOH Child & Adolescent Mental Health Division (CAMHD) provides integrated substance use treatment for youth with qualifying mental health diagnoses. Similar to the prevention realm, at the point of arrest or diversion, the connection of youth to needed services relies on voluntary participation, most often requiring some degree of adult support for the child to participate fully and regularly.

Detention

Hawai'i has a single youth detention facility which is located on O'ahu and is operated by the State Judiciary Family Court, with capacity for short-term secured placement prior to being seen by a judge for charges. For a young person who has been arrested in the past or their current arrest was made on suspicion of a serious law violation, police officers may transport the youth directly to the detention facility for immediate court intake. In this case, a youth could be held in detention to await a hearing within 48-72 hours. Following this detention hearing, a young person could be released or remain in secure custody for as long as several months awaiting the completion of the hearing process or until another appropriate placement can be made. The SoC for youth in detention provides a mandatory clinical screening for substance use and mental health needs, completed upon intake and corresponding services are provided based on the assessment. The time-limited access to services and the major life disruption that youth experience in detention, as secured, out-of-home confinement, seriously infringe on the effectiveness of the substance use care that youth in detention receive. Although culturally responsive programming has been identified as a priority by Family Court, detention facility services skew toward traditional forms of clinical compliance, with culturally-aligned

opportunities offered only on an as-available basis. After-care upon release from detention is neither required nor well-coordinated.

Court Referral/Diversion

Diversion from further involvement with the justice system can also be initiated by a court officer who receives a referral for an arrest, forwarded by the prosecutor's office. A young person can be "diverted" by the court officer by simply closing the case after a phone call or meeting with the child's guardian, or even after an unsuccessful attempt at contacting the guardian. Participation in substance use services on a voluntary basis can be recommended at the point of diversion. In a promising development, the Family Court First Circuit (Honolulu County) Juvenile Probation and Intake Section (JIPS) plans to pilot use of the CRAFFT (Car, Relax, Alone, Forget, Friends, Trouble), a validated screening tool for adolescents, in order to identify substance use treatment needs at the point of court intake. Implementing screening, brief intervention, and referral to treatment (SBIRT) for substance use, mental and behavioral health needs in settings such as schools, health centers, and community sites, is a proven intervention that can be effective in connecting youth to services at the early end of prevention-intervention.[65] In another example, the Kokua 'Ohana Aloha (KOA) program is contracted by the First Circuit to facilitate seminars with youth and guardians, using a curriculum that addresses substance use prevention and works to improve family communication. The voluntary nature of participation in care at this point of court diversion relies on the initiative of the youth and a supportive adult; KOA program completion is offered as an incentive to avoid formal court processing. Failure to complete the KOA program or the decision by a court officer not to divert will both result in the youth's case being formally processed by the court.

Adjudication: Probation

Placement on probation upon adjudication is one possible pathway for youth whose cases are not diverted and are found guilty or adjudicated in juvenile court. An adjudication carries the consequences of an immediate set of conditions determined by a judge. One of the more serious conditions is probation placement (also known as court supervision or monitoring) with conditions placed upon the youth. Conditions may include, but are not limited to, regular appointments with a probation officer, curfew, school attendance, electronic monitoring, drug testing, and community service. A significant consequence of probation placement is the increased risk of being court-ordered to secure out-of-home residential placement for a violation of the terms of probation. Even seemingly minor infractions, such as skipping school, a "dirty" urine test, or missing a meeting with a probation officer, can lead to a child being removed from their home and, in the worst-case scenario, incarcerated. The mandatory nature of probation conditions ensures that youth are accessing services that have been court-ordered, although the cultural fit of these services is not necessarily addressed. In certain jurisdictions, "boutique courts" for youth are accessible through a selective process. For example, Juvenile Drug Court and Girls Court both operate in the First Circuit (Honolulu County) and when funding is available on neighbor islands, these agencies provide more intensive family engagement, substance use counseling, and drug testing.

Adjudication: Residential Placement

At the far right of **Figure 2**, the downstream services in the SoC are mandated when a Family Court judge adjudicates a youth and orders the adolescent to out-of-home residential placement. This is the most severe sanction for a youth; that is, removing a child from their home and family setting. Out-of-home placements may range from incarceration in the sole secured Hawai'i Youth Correctional Facility (HYCF) located on O'ahu to court-ordered participation in a residential program, such as a mental health facility, a substance abuse treatment program, a group home, or military-type academy. Youth who do not have a placement option readily available to them may be placed in the short-term youth detention facility pending an opening in the youth prison or a residential program.

Medical and clinical responses are listed in **Figure 2**, beginning with Queens Family Treatment Center Acute Hospitalization for youth suffering from possible overdose or other pressing physical or mental health needs (e.g., imminent harm to self or others). Bobbie Benson is one of very few clinical residential recovery programs for youth substance abuse. Family Court contracts bed space for youth with assessed need for this level of care. Most of the other types of residential placements are not focused on substance use services, but incorporate education and coping skills into their curriculum, ranging from the paramilitary Youth Challenge program (operated using both state contracts and private

funding) to wellness programs grounded in Native Hawaiian culture like the Ke Kama Pono Safe House operated by Partners in Development Foundation or the Wahi Kanaʻaho cultural learning center (not currently in service). Services for incarcerated youth range from the mandatory substance use "groups" that offer weekly lessons using curriculum, such as "seven Challenges," or grounding in cultural values and practices to address coping skills, behavioral change, and health effects of drug use. Clinical services corresponding to any substance use disorder and other mental health diagnoses may also be recommended based on intake and regular assessment. The SoC operates with the most efficiency with compulsory services at the point of out-of-home placement, particularly in the secured facility. Case file notes for youth at HYCF sometimes include histories of referrals to outpatient substance use services that were not completed prior to incarceration. For youth with a qualifying diagnosis for mental health services, integrated substance use treatment is available through CAMHD contracted services, such as Multi-Systemic Therapy (MST). Once youth are confined in the secured facility, participation in services is compulsory. Prisons have become sites for the provision of compulsory services, not because they are efficacious, but due to the lack of state funding and support for more nurturing environments that can meet their needs.

In summary, the Hawaiʻi SoC for SU among justice system-involved youth is a loose constellation of supports that delivers services in a fairly unsystematic manner. At the early stages of justice involvement, the challenges to prevention and diversion include inconsistency of funding, misalignment between available programs and community acceptance and trust, and the requirement for adult permission for youth to participate in most interventions, which disadvantages youth who lack the support of adult caregivers. Exacerbating economic vulnerability, the cost of SU assessment and treatment at the early stages of justice-system involvement are often placed on families, with public support available for only those who can navigate the eligibility process and meet the required criteria. Even youth on probation are not systematically assessed for SU needs, due in part to hesitation by court officers to incur the associated costs. At the downstream end of the system, the availability of out-of-home placements for youth who need SU treatment has dwindled, leaving only one stable provider (Bobbie Benson Center), albeit with limited bed space. Smaller residential SU programs that integrate life skills and local cultural values, such as the now-closed ocean-based Kailana Program operated by the Marimed Foundation, have struggled to maintain sufficient funding. The Hawaiʻi Youth Correctional Facility (HYCF) has been termed a "provider of last resort" where adjudicated youth are able to access intensive mental health and/or SU services that are otherwise in short supply in the community.[12,21] If youth are incarcerated, then they undergo mandated mental health evaluations, SU histories are recorded, and formal diagnosis of a substance use disorder (SUD) may result from a full psychiatric evaluation. For youth who are diagnosed with a SUD, service plans include compulsory treatment provided by the state while confined.

Between the two extremes of prevention and incarceration, a missed opportunity presents itself for screening and early intervention among youth who may be arrested and diverted or are awaiting court processing. Even among youth who are adjudicated and placed on probation, current practices allow most to continue at elevated risk of SU without a formal assessment or referral to services. In a recent statewide youth needs assessment, local youth frequently described "getting in trouble" at school or with the law as their primary entry point to SU treatment.[44]

However, efforts to transform Hawaiʻi's youth justice system have gained traction, most significantly since the state's entry into the Juvenile Detention Alternatives Initiative (JDAI) in 2008. Leaders of key youth-serving agencies (Office of Youth Services, Child & Adolescent Mental Health Division [CAMHD] of the Hawaiʻi Department of Health, Family Court, Prosecutor, and the Public Defender) and community-based organizations (Hale Kipa, Hawaiʻi Families as Allies, and various culturally grounded programs) committed to collaboration through the JDAI Executive Committee have participated in training and national learning exchanges for justice system reform. Family Court made marked improvements in data collection and reporting among youth in detention and probation. Substantial decreases in the number of youth detained and incarcerated have been sustained with youth commitments to HYCF reduced by 84% between Fiscal Years 2009-2021.[66] This consortium of leaders played a key role in collaborating with the Pew Research Institute to introduce comprehensive legislation (Juvenile Justice Transformation Act 204) to improve probation training, practice, and accountability for Family Court and to reduce youth commitments and implement transition planning for HYCF. That groundbreaking legislation opened the door to rename and redevelop the HYCF

campus as the Kawailoa Youth and Family Wellness Center, allowing co-location of community-based programs to serve vulnerable youth.

RECOMMENDATIONS FOR SYSTEM TRANSFORMATION: REFRAMING POLICY AND PRACTICE RESPONSES TO CARE FOR VULNERABLE YOUTH

Through the synthesis of the literature, Hawai'i relevant data, and input from youth-serving stakeholder organizations, the two sets of recommendations offered here reinforce lessons learned over the decades-long journey to improve the Hawai'i SoC for SU and transform the youth justice system. The aim is to address the primary obstacles to sustaining collaborative and community-based alternatives that emphasize promising or evidence-based healing, trauma-informed, culture-based, and family-centered approaches. This entails shifting resources from punitive responses to a comprehensive array of community-based services, focusing on youth substance use as a public health issue rather than a criminal justice issue. Sustaining this shift requires sustained leadership, training to shift the paradigm of the youth justice profession towards a more culturally appropriate and developmental approach, and continual succession planning.

The first set of recommendations is to legislate Justice Reinvestment in order to shift resources from carceral measures to a broad range of community-based interventions to promote prevention and well-being. The number of youths processed by the courts and incarcerated at HYCF has continued to decrease since Act 204 was passed in 2014. By capturing the Family Court and Office of Youth Services cost-savings and investing them in front-end community outreach and services, the state can implement a public health approach to increase early identification of needs and expand access to prevention, intervention, treatment, and other supports for youth. Hawai'i offers a compelling case for decarceration, a concept aligned with Justice Reinvestment legislation that diverts funding from the justice system apparatus in favor of increasing funding for social services.[49,88] As youth probation caseloads and the number of youth admitted to HYCF have declined, savings from the decrease in punitive measures can be recaptured and reinvested in support of prevention and wellness for youth in the context of their families and communities. Commitment to continual evaluation should accompany implementation, to provide monitoring and feedback to inform modifications. Investments can be shifted to fill the following gaps in the continuum of care and aid the shift towards restorative approaches:

1. Restorative Justice - Restorative justice programs (1) take a holistic view towards the interrelationships between multiple domains of individual, family, community, and society; and (2) illuminate the need to address place-based, family-centered, and spiritually appropriate methods of healing. Restorative justice program types include family group conferences, victim-impact panels, victim-offender mediation, circle sentencing, and community reparative boards. Residential alternatives include home confinement, shelter care, group homes, intensive supervision, and specialized foster care.[67] Restorative justice approaches in "after care" can support transition from intensive programs as youth return home to their families and communities

2. Culturally grounded healing programs - Two prototype programs developed on the island of Moloka'i address youth and family with SU utilizing a framework of Native Hawaiian cultural practices for healing and wholeness.[68,69] Puni Ke Ola promotes culture as health, strengthening protective factors through cultural practices and learning. Kahua Ola Hou has served as a diversion site for youth at various stages of the Hawai'i youth justice system and cross-trains youth justice staff and community partners in a cultural curriculum that has gained traction with local youth of diverse backgrounds.[70] Youth learn the practices of self-reflection and *ho'oponopono ho'oponopono* (a traditional Hawaiian practice of reconciliation and forgiveness) to address root causes of health concerns like SU and to heal family relationships. In addition, culturally responsive evaluation is vital to build an evidence base that takes into account the unique social-cultural context of youth in Hawai'i. The Kukulu Kumuhana framework[71] for Native Hawaiian well-being is one example of a collaborative local evaluation design created by Lili'uokalani Trust, Office

of Hawaiian Affairs, Kamehameha Schools, and Consuelo Foundation to build an evidence base for place- and culturally based interventions that are relevant for Hawai'i.

3. Family-based interventions - Family-based interventions have been associated with decreases in SU and increases in protection against risk factors for other delinquent behaviors.[72,73] Among clinically referred youth, Multi-Dimensional Family Therapy and Multi-Systemic Therapy have demonstrated reductions in SU and other risky behaviors for youth.[74] Local research findings identify family protective factors as contributing to reduced likelihood of youth substance use.[75] Increasing access to high-commitment programs that require parent involvement such as Juvenile Drug Court can be addressed through culturally-informed approaches to family engagement. Recognizing that youth vulnerable to justice system involvement and substance use may have parents who are not present or able to play an active role, the Native Hawaiian concept of ʻohana (family) can expand the network of supportive adults involved in a young person's care to include extended and non-blood relationships.

4. School-based interventions - For students at risk for justice-system involvement and SU, effective school-based interventions should address: (1) cultivating meaningful relationships and learning environments for students who feel disconnected from school to help to prevent early SU; (2) providing universal screening to identify students with SU needs for referral[65]; and (3) through screening, identifying and making warm hand-offs to services for students with co-occurring mental health and SU needs and/or students who have experienced trauma.

5. Workforce development - Invest in workforce capacity and professional development of providers to effectively address SU among justice system-involved youth. The Alcohol and Drug Abuse Division of the Hawai'i State Department of Health and higher educational institutions in Hawai'i have the opportunity to formalize an educational and training pipeline for Community-based Prevention Specialists, a federally recognized prevention position that is equivalent to the certified substance abuse counselor position. Community-based trainers with lived experience could facilitate self-reflective and interactive training curricula to address trauma, bias awareness, cross-cultural competency, and adolescent brain development.[21] Providing specialized training on SU screening and scoring to assessment center and other youth-serving program staff could improve early assessment of behavioral health concerns and treatment needs.[76]

6. Housing or residential programs – Restorative justice residential alternatives include home confinement, shelter care, group homes, intensive supervision, and specialized foster care.[67] Social stigma as well as zero tolerance policies for substance use or criminal convictions in public and some subsidized housing communities can create additional obstacles for vulnerable youth and young people on their healing journey.[77] From a harm reduction perspective, access to stable housing and other basic needs can serve as a foundation from which young people can more effectively identify and pursue their strengths while working to address areas of vulnerability such as substance use.[78,79] See Homelessness chapter for the harm reduction and housing first.

The second set of recommendations focuses on developing dedicated and visionary leadership building upon the successes of youth justice system transformation thus far in Hawai'i. Intentional development of and succession planning for collaborative leadership is needed to sustain commitment to the public health approach described in the first recommendation. Recognizing the tension between good will shared by many state stakeholders to "work together to care for our kids" and the heavy bureaucracy that is a core characteristic of the state apparatus, an ethic of change agency is needed in leadership across the state SoC. Specific recommendations include support for the following.

1. Youth leadership in system transformation - Integrating youth's voice into leadership and decision-making is a priority of philanthropic support for system change.[80,81] Examples include: (1) partnership between the Hawai'i State Department of Human Services-Child Welfare Services Branch and EPIC ʻOhana, Inc.'s Hawai'i Helping Our People Envision Success Youth Leadership Board; and (2) the youth committee of the Hawai'i Juvenile Justice State Advisory Council.

2. Collaboration and coordination of services - Several small-scale collaborative initiatives to divert youth from the justice system offer examples of the potential for coordination to identify needs, strengthen protective factors, and connect to supports at early stages for behavioral health problems. The Positive Outreach and Intervention Project operates a values-based mentoring model that aims to divert youth from court involvement at the point of arrest and increase connections to supportive adults and cultural practices. Community-based practitioners bring together police officers, youth, and family members to learn about cultural sites and help with restoration efforts. Ho'opono Mamo, the Big Island Juvenile Intake and Assessment Center, and District 8 Mobile Assessment Center were designed to take a culturally based approach to assessing immediate needs by greeting youth and caregivers in a relational setting and making connections with the child's natural supports and the broader community network through direct, in-person referrals. Similarly, greater collaborative support for school-based services can lighten the burden placed on school staff so that student well-being becomes a shared focus. Reentry and aftercare are other critical decision points for justice system-involved youth. The Hawai'i State Department of Health Alcohol and Drug Abuse Division and Office of Youth Services could institutionalize policies that allow collaboration to improve treatment referrals and connections to care for youth upon community reentry.

REFERENCES

1.   McClelland GM, Teplin LA, Abram KM. *Detection and Prevalence of Substance Use among Juvenile Detainees*. Published 2004. Accessed June 16, 2022. https://www.ojp.gov/pdffiles1/ojjdp/203934.pdf

2.   National Center on Addiction and Substance Abuse. *Criminal Neglect: Substance Abuse, Juvenile Justice and the Children Left Behind.* New York, NY: Columbia University; 2004.

3.   Banks DE, Hershberger AR, Pemberton T, Clifton RL, Aalsma MC, Zapolski TCB. Poly-use of cannabis and other substances among juvenile-justice involved youth: variations in psychological and substance-related problems by typology. *Am J Drug Alcohol Abuse.* 2019;45(3):313-322. doi:10.1080/00952990.2018.1558450

4.   Bryan AD, Magnan RE, Gillman AS, et al. Effect of including alcohol and cannabis content in a sexual risk-reduction intervention on the incidence of sexually transmitted infections in adolescents: A cluster randomized clinical trial. *JAMA Pediatr.* 2018;172(4):e175621. doi:10.1001/jamapediatrics.2017.5621

5.   Schmiege SJ, Bryan AD. Heterogeneity in the relationship of substance use to risky sexual behavior among justice-involved youth: A regression mixture modeling approach. *AIDS Behav.* 2016;20(4):821-832. doi:10.1007/s10461-015-1219-3

6.   Chapman JF, Ford JD. Relationships between suicide risk, traumatic experiences, and substance use among juvenile detainees. *Arch Suicide Res.* 2008;12(1):50-61. doi:10.1080/13811110701800830

7.   Heaton LL. Racial/ethnic differences of justice-involved youth in substance-related problems and services received. *Am J Orthopsychiatry.* 2018;88(3):363-375. doi:10.1037/ort0000312

8.   Vaughn MG, Salas-Wright CP, DeLisi M, Maynard BR, Boutwell B. Prevalence and correlates of psychiatric disorders among former juvenile detainees in the United States. *Compr Psychiatry.* 2015;59:107-116. doi:10.1016/j.comppsych.2015.02.012

9.   White LM, Aalsma MC, Salyers MP, et al. Behavioral health service utilization among detained adolescents: A meta-analysis of prevalence and potential moderators. *J Adolesc Health.* 2019;64(6):700-708. doi:10.1016/j.jadohealth.2019.02.010

10.   Mansion AD, Chassin L. The effect of race/ethnicity on the relation between substance use disorder diagnosis and substance use treatment receipt among male serious adolescent offenders. *Child Youth Serv Rev.* 2016;61:237-244. doi:10.1016/j.childyouth.2015.12.023

11.   Merry SE. Crime and criminality: Historical differences in Hawaiʻi (Dialogue). *Contemp Pac.* 2002;14(2):412-424. doi:10.1353/cp.2002.0062

12.   Irwin K, Umemoto K. Jacked up and unjust: Pacific Islander teens confront violent legacies. Univ of California Press; 2016.

13.   Mayeda DT, Hishinuma ES, Nishimura ST, Garcia-Santiago O, Mark GY. Asian/Pacific Islander youth violence prevention center: interpersonal violence and deviant behaviors among youth in Hawaiʻi. *J Adolesc Health.* 2006;39(2):276.e271-211. doi:10.1016/j.jadohealth.2005.12.006

14.   Palafox N, Riklon S, Esah S, et al. The Micronesians. In. Honolulu: University of Hawaiʻi Press; 2011:295-315.

15.   Johnston LD, O'Malley PM, Miech RA, Bachman JG, Schulenberg JE. *Monitoring the Future National Survey Results on Drug Use, 1975-2016: Overview, Key Findings on Adolescent Drug Use*. Ann Arbor: Institute for Social Research, The University of Michigan. Published 2017. Accessed June 16, 2022. https://files.eric.ed.gov/fulltext/ED578534.pdf

16.   Baker CK, Hishinuma ES, Chang JY, Nixon DC. The relationship among exposure to stressful life events, drug use, and violence perpetration in a sample of Native Hawaiian, Samoan, and Filipino adolescents. *J Interpers Violence.* 2010;25(3):379-399. doi:10.1177/0886260509334397

17.   Hishinuma ES, Else IRN, Chang JY, et al. Substance use as a robust correlate of school outcome measures for ethnically diverse adolescents of Asian/Pacific Islander ancestry. *Sch Psychol Q.* 2006;21(3):286-322. doi:10.1521/scpq.2006.21.3.286

18.   Hishinuma ES, Johnson RC, Kim SP, et al. Prevalence and correlates of misconduct among ethnically diverse adolescents of Native Hawaiian/part-Hawaiian and non-Hawaiian ancestry. *Int J Soc Psychiatry.* 2005;51(3):242-258. doi:10.1177/0020764005057371

19.   Ishihara K PP. *Crime in Hawai'i County, 2019. A Review of Uniform Crime Reports*. Honolulu, HI: Attorney General, State of Hawai'i. Published 2021. Accessed August 17, 2021. https://ag.hawaii.gov/cpja/files/2020/11/Crime-in-Hawaii-County-2019_v2.pdf

20.   Sadaya-Ibus MN. *Juvenile Delinquency Trends in Hawai'i: Data Book for 2003-2012*. Juvenile Justice Information System, Crime Prevention and Justice Assistance Division, State of Hawai'i. Published 2014. Accessed June 16, 2022. https://ag.hawaii.gov/cpja/files/2013/01/Data-Book-for-2003_2012.pdf

21.   Umemoto K, Spencer J, Miao T, Momen S. *Disproportionate Minority Contact in the Hawai'i Juvenile Justice System: 2000-2010*. University of Hawai'i at Mānoa. Published 2012. Accessed August 17, 2021. http://ag.hawaii.gov/cpja/files/2013/01/DMC-FINAL-REPORT-2012.pdf

22.   Mayeda DT. *Hawai'i Youth Correctional Facility Recidivism Study*. Honolulu, HI: Department of the Attorney General, State of Hawai'i. Published 2010. Accessed August 17, 2021. https://ag.hawaii.gov/cpja/files/2013/01/HYCF-Recidivism-Study-2005-2007.pdf

23.   Kim SP, Ando M, Hishinuma ES, et al. *A pilot study on the mental health of adolescents and youth at the Hawai'i Youth Correctional Facility*. Honolulu, HI: Department of Psychiatry, University of Hawai'i at Mānoa. Published 2001.

24.   Uchigakiuchi P, Miao T, Roberts T. The Hawai'i Crossover Youth Study at Hawai'i Correctional Facility. Final Report. Published 2019.

25.   Uchigakiuchi P, Roberts T, Miao T. Profile of Incarcerated Youth at Hawai'i Correctional Facility (Unpublished report).

26.   Lipari RN, Ahrnsbrak RD, Pemberton MR, Porter JD. Risk and protective factors and estimates of substance use initiation: Results from the 2016 National Survey on Drug Use and Health. In: *CBHSQ Data Review*. Rockville (MD): Substance Abuse and Mental Health Services Administration (US); 2017:1-32. https://www.ncbi.nlm.nih.gov/books/NBK481723/

27.   Hawkins DJ, Catalano RF, Miller JY. Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. *Psychol Bull*. 1992;112(1):64-105. doi:10.1037//0033-2909.112.1.64

28.   Vazsonyi A, Chen P, Young M, et al. A test of Jessor's Problem Behavior Theory in a Eurasian and a Western European developmental context. *J Adolesc Health*. 2008;43(6):555-564. doi:10.1016/j.jadohealth.2008.06.013

29.   Zucker RA, Donovan JE, Masten AS, Mattson ME, Moss HB. Early developmental processes and the continuity of risk for underage drinking and problem drinking. *Pediatrics*. 2008;121(Supplement):S252-S272. doi:10.1542/peds.2007-2243B

30.   Goebert D, Chang JY, Chung-Do J, et al. Social ecological determinants of youth violence among ethnically diverse Asian and Pacific Islander students. *Matern Child Health J*. 2012;16(1):188-196. doi:10.1007/s10995-010-0726-0

31.   Miao T-A, Umemoto K, Gonda D, Hishinuma ES. Essential elements for community engagement in evidence-based youth violence prevention. *Am J Community Psychol*. 2011;48(1):120-132. doi:10.1007/s10464-010-9418-6

32.   Davis JP, Dumas TM, Wagner EF, Merrin GJ. Social ecological determinants of substance use treatment entry among serious juvenile offenders from adolescence through emerging adulthood. *J Subst Abuse Treat*. 2016;71:8-15. doi:10.1016/j.jsat.2016.08.004

33.   Folk JB, Brown LK, Marshall BDL, et al. The prospective impact of family functioning and parenting practices on court-involved youth's substance use and delinquent behavior. *J Youth Adolesc*. 2020;49(1):238-251. doi:10.1007/s10964-019-01099-8

34.   Mowen TJ, Boman JHt. A developmental perspective on reentry: Understanding the causes and consequences of family conflict and peer delinquency during adolescence and emerging adulthood. *J Youth Adolesc*. 2018;47(2):275-289. doi:10.1007/s10964-017-0794-1

35.   Papp J, Campbell C, Onifade E, Anderson V, Davidson W, Foster D. Youth drug offenders: An examination of criminogenic risk and juvenile recidivism. *Corrections*. 2016;1(4):229-245. doi:10.1080/23774657.2016.1218804

36.   Hsia H, Bridges GS, McHale R. *Disproportionate Minority Confinement: 2002 Update (Summary)*. Washington, DC: Office of Juvenile Justice and Delinquency Prevention. Published 2004.

37.   Peck JH. The importance of evaluation and monitoring within the disproportionate minority contact (DMC) mandate: Future directions in juvenile justice research. *Race Justice*. 2018;8(4):305-329. doi:10.1177/2153368716675923

38. Bishop DM, Frazier CE. Race effects in juvenile justice decision-making: Findings of a statewide analysis. *J Crim Law Criminol*. 1996;86(2):392-414. doi:10.2307/1144031

39. Leiber MJ, Peck JH. Race, gender, crime severity, and decision making in the juvenile justice system. *Crime Delinq*. 2015;61(6):771-797. doi:10.1177/0011128712446898

40. Leiber MJ, Peck JH, Beaudry-Cyr M. The likelihood of a "youth discount" in juvenile court sanctions: The influence of offender race, gender, and age. *Race Justice*. 2016;6(1):5-34. doi:10.1177/2153368715595088

41. Poe-Yamagata E, Jones MJ. *And Justice for Some*. Davis, CA: National Council on Crime and Delinquency. Published 2000. Accessed August 17, 2021. https://files.eric.ed.gov/fulltext/ED442882.pdf

42. Pope CE, Lovell R, Hsia HM. *Disproportionate Minority Confinement: A Review of the Research Literature from 1989 through 2001*. Washington, D.C.: U.S. Department of Justice,, Officer of Justice Programs, Office of Juvenile Justice and Delinquency Prevention. Published 2001. Accessed August 17, 2021. https://ojjdp.ojp.gov/sites/g/files/xyckuh176/files/media/document/dmc89_01.pdf

43. Kassebaum GG. Identifying Disproportionate Representation of Ethnic Groups in Hawaiʻi's Juvenile Justice System. Phase One: A Report on Disproportionate Minority Confinement to the Juvenile Justice State Advisory Council, the Office of Youth Services, and the Coalition for Ethnic and Cultural Diversity of Youth. Honolulu, HI: Center for Youth Research, University of Hawaiʻi at Mānoa; 1995.

44. Helm S, Miao T, Onoye J, et al. Services to Conduct a Needs Assessment for Substance Use Prevention and Treatment Services Among Special Youth Populations Using Qualitative Methods: Protocol 2, In-Depth Interviews with Youth Regarding the System of Care. Department of Psychiatry, University of Hawaiʻi at Mānoa. Published 2021. Accessed June 16, 2022. https://health.hawaii.gov/substance-abuse/files/2021/10/Youth-Substance-Use-Needs-Assessment_Interviews_September-2021.pdf

45. Beck AJ, Cantor D, Hartge J, Smith T. *Sexual Victimization in Juvenile Facilities Reported by Youth, 2012: National Survey of Youth In Custody, 2012*. U.S. Department of Justice,, Office of Justice Programs, Bureau of Justice Statistics. Published 2013. Accessed August 17, 2021. https://bjs.ojp.gov/content/pub/pdf/svjfry12.pdf

46. Irvine A, Canfield A. The overrepresentation of lesbian, gay, bisexual, questioning, gender nonconforming and transgender youth within the child welfare to juvenile justice crossover population. *Am Univ J Gend Soc Policy Law*. 2015;24(2):243.

47. Wilson BDM, Jordan SP, Meyer IH, Flores AR, Stemple L, Herman JL. Disproportionality and disparities among sexual minority youth in custody. *J Youth Adolesc*. 2017;46(7):1547-1561. doi:10.1007/s10964-017-0632-5

48. Monahan K, Steinberg L, Piquero AR. Juvenile justice policy and practice: A developmental perspective. *Crime Justice*. 2015;44(1):577-619. doi:10.1086/681553

49. Goff PA, Jackson MC, Di Leone BAL, Culotta CM, DiTomasso NA. The essence of innocence: consequences of dehumanizing Black children. *J Pers Soc Psychol*. 2014;106(4):526-545. doi:10.1037/a0035663

50. Bishop DM, Leiber M, Johnson J. Contexts of decision making in the juvenile justice system: An organizational approach to understanding minority overrepresentation. *Youth Violence Juv Justice*. 2010;8(3):213-233. doi:10.1177/1541204009361177

51. Bridges GS, Steen S. Racial disparities in official assessments of juvenile offenders: Attributional stereotypes as mediating mechanisms. *Am Sociol Rev*. 1998;63(4):554-570. doi:10.2307/2657267

52. Hershberger A, Zapolski T, Aalsma MC. Social support as a buffer between discrimination and cigarette use in juvenile offenders. *Addict Behav*. 2016;59:7-11. doi:10.1016/j.addbeh.2016.03.003

53. Johnson BR, Pagano ME, Lee MT, Post SG. Alone on the inside: The impact of social isolation and helping others on AOD use and criminal activity. *Youth Soc*. 2018;50(4):529-550. doi:10.1177/0044118X15617400

54. Felitti VJ, Anda RF, Nordenberg D, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The adverse childhood experiences (ACE) study. *Am J Prev Med*. 1998;14(4):245-258. doi:10.1016/S0749-3797(98)00017-8

55. Baglivio MT, Epps N. The interrelatedness of adverse childhood experiences among high-risk juvenile offenders. *Youth Violence Juv Justice.* 2016;14(3):179-198. doi:10.1177/1541204014566286

56. Kirmayer LJ, Gone JP, Moses J. Rethinking historical trauma. *Transcult Psychiatry.* 2014;51(3):299-319. doi:10.1177/1363461514536358

57. Huyssen A. *Present Pasts: Urban Palimpsests and the Politics of Memory.* Stanford, Calif: Stanford University Press; 2003.

58. Alexander JC, Eyerman R, Giesen B, Smelser NJ, Sztompka P. *Cultural Trauma and Collective Identity.* 1 ed. Berkerley: University of California Press; 2004.

59. Pasko L, Chesney-Lind M. Under lock and key: Trauma, marginalization, and girls' juvenile justice involvement. *Justice Res Policy.* 2010;12(2):25-49. doi:10.3818/JRP.12.2.2010.25

60. Vigil D, Moore J. *A Rainbow of Gangs: Street Cultures in the Mega-City.* Austin: University of Texas Press; 2002.

61. Freng A, Esbensen FA. Race and gang affiliation: An examination of multiple marginality. *Justice Q.* 2007;24(4):600-628. doi:10.1080/07418820701717136

62. Quinn K, Walsh JL, Dickson-Gomez J. Multiple marginality and the variation in delinquency and substance use among adolescent gang members. *Subst Use Misuse.* 2019;54(4):612-627. doi:10.1080/10826084.2018.1528465

63. Suarez E, Jackson DS, Slavin LA, Michels MS, McGeehan KM. Project Kealahou: Improving Hawai'i's system of care for at-risk girls and young women through gender-responsive, trauma-informed care. *Hawaii J Med Public Health.* 2014;73(12):387-392. Published 2015/01/30.

64. Tse D. List of all of published programs as of November 2019 on the Hawaii Youth Services Directory (formerly hosted at http://808youth.com/) (Email Communication with Tai-An Miao). 2021.

65. Mitchell SG, Schwartz RP, Kirk AS, et al. SBIRT implementation for adolescents in urban federally qualified health centers. *J Subst Abuse Treat.* 2016;60:81-90. doi:10.1016/j.jsat.2015.06.011

66. Hawai'i State Judiciary. The Juvenile Justice Transformation: A Historical Perspective. 2021; Kawailoa, HI.

67. Development Services Group Inc. *Alternatives to Detention and Confinement.* Washington, D.C.: Office of Juvenile Justice and Delinquency Prevention. Published 2014. Accessed August 17, 2021. https://www.ojjdp.gov/mpg/litreviews/AlternativesToDetentionandConfinement.pdf

68. Helm S, Lee W, Hanakahi V, et al. Puni Ke Ola – Life flourishes in a drug-free community. *Community Psychol.* 2013;46(3):27-29.

69. Withy KM, Lee W, Renger RF. A practical framework for evaluating a culturally tailored adolescent substance abuse treatment programme in Moloka'i, Hawai'i. *Ethn Health.* 2007;12(5):483-496. doi:10.1080/13557850701616920

70. Tibbetts K. Preliminary findings from Wahi Kana'aho youth interviews. (Presentation slides). 2015.

71. Kukulu Kumuhana Planning Committee. *Creating Radical and New Knowledge to Improve Native Hawaiian Wellbeing.* Published 2017. Accessed August 17, 2021. https://qlt-trust.cdn.prismic.io/qlt-trust/55b217b4-4feb-4fa1-9a79-d339cf9b9b15_LT+Kukulu+Kumuhana+%28final+pdf%29.pdf

72. Dopp AR, Borduin CM, White MH, Kuppens S. Family-based treatments for serious juvenile offenders: A multilevel meta-analysis. *J Consult Clin Psychol.* 2017;85(4):335-354. doi:10.1037/ccp0000183

73. Santisteban DA, Mena MP, Muir J, McCabe BE, Abalo C, Cummings AM. The efficacy of two adolescent substance abuse treatments and the impact of comorbid depression: Results of a small randomized controlled trial. *Psychiatr Rehabil J.* 2015;38(1):55-64. doi:10.1037/prj0000106

74. Liddle HA. Multidimensional Family Therapy: Evidence base for transdiagnostic treatment outcomes, change mechanisms, and implementation in community settings. *Fam Process.* 2016;55(3):558-576. doi:10.1111/famp.12243

75. Onoye J, Miao T, Goebert D, et al. *2019-2020 Hawai'i Student Alcohol, Tobacco, and Other Drug (ATOD) Survey: Statewide Report.* Honolulu, HI: Sponsored by State of Hawai'i Department of Health, Alcohol and Drug Abuse Division ASO Log #19-238;2021. Published

2021. Accessed June 16, 2022. https://health.hawaii.gov/wp-content/uploads/2022/01/2019-2020-Hawaii-ATOD-Survey-Statewide-Comprehensive-Report.pdf

76. Belenko S, Knight D, Wasserman GA, et al. The Juvenile Justice Behavioral Health Services Cascade: A new framework for measuring unmet substance use treatment services needs among adolescent offenders. *J Subst Abuse Treat.* 2017;74:80-91. doi:10.1016/j.jsat.2016.12.012

77. Iguchi MY, London JA, Forge NG, Hickman L, Fain T, Riehman K. Elements of well-being affected by criminalizing the drug user. *Public Health Rep.* 2002;117(Suppl 1):S146-S150.

78. Boyd J, Fast D, Small W. Pathways to criminalization for street-involved youth who use illicit substances. *Critical Public Health.* 2015;26(5):530-541. doi:10.1080/09581596.2015.1110564

79. Mahamoud A, Roche B, Gardner B, Shapcott M. *Housing and Health: Examining the Links.* Toronto, ON, Canada: Wellesley Institute. Published 2012. Accessed August 17, 2021. https://doi.org/10.1080/713832196

80. Poirier JM, Gross L, Lohrbach A, Johnson L, Wilkie S. Ensuring young people flourish: Applying the science of adolescent development through the Jim Casey Youth Opportunities Initiative. *Child Welfare.* 2019;97(6):1-20.

81. Salazar AM, Spiers SS, Pfister FR. Authentically engaging youth with foster care experience: definitions and recommended strategies from youth and staff. *J Youth Stud.* 2021;24(8):1015-1032. doi:10.1080/13676261.2020.1792863

CHAPTER 5: INTERSECTIONS AMONG FAMILY VIOLENCE AND SUBSTANCE USE

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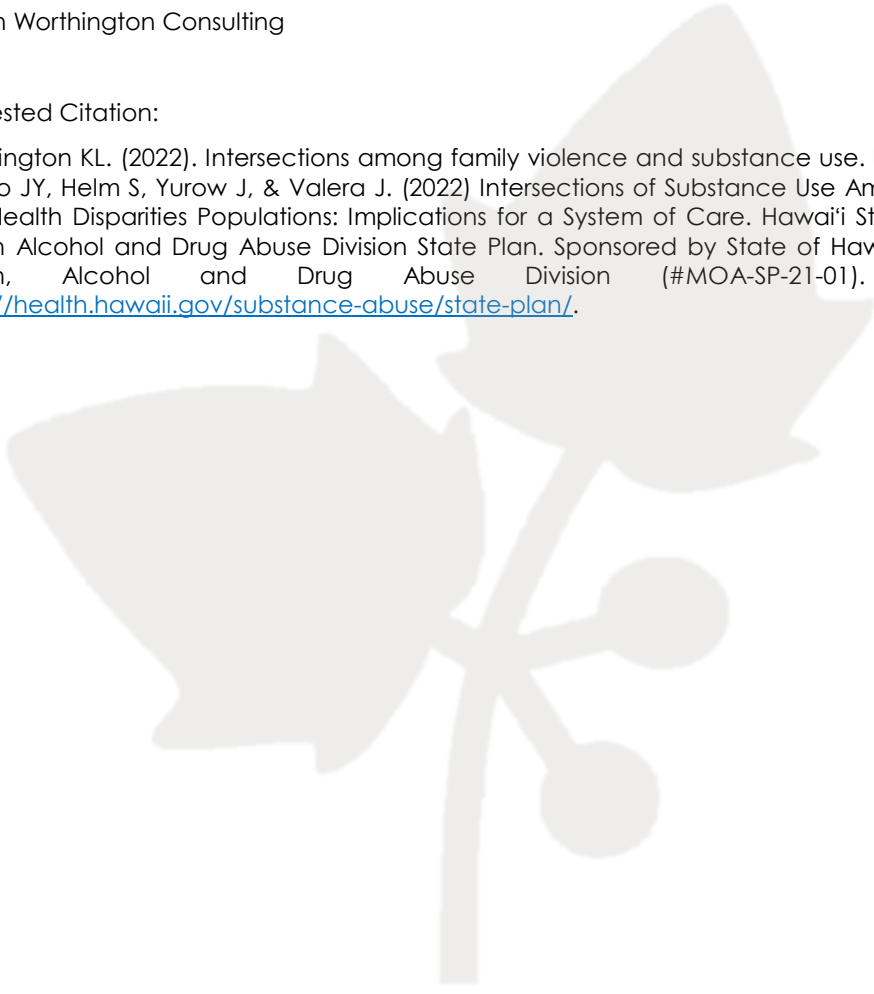
ABSTRACT

Intimate partner violence (IPV), child abuse and neglect (CAN), and substance use disorders (SUD) are three separate and widespread public health issues with devastating personal, health, and economic consequences for individuals and society. Although they are usually viewed as distinct and unrelated problems, they often occur together. Forty to sixty percent of IPV incidents involve the use of alcohol and other drugs (AOD); up to eighty percent of CAN cases are associated with the use of AOD; and up to sixty percent of CAN cases include IPV. Therefore, effective prevention and intervention strategies must treat these problems holistically and simultaneously and must address underlying and ongoing trauma. Unfortunately, existing social services systems are siloed and typically focus on one presenting issue. Funding sources, treatment, services, and outcome data are all tied to that single issue. When families suffer from co-occurring problems, siloed systems usually sequence services rather than collaborate to address problems concurrently. However, decades of research have established that a collaborative model of service delivery is more likely to lead to improved outcomes for children and families affected by IPV, CAN, and SUD than a traditional siloed model. Collaborative approaches respond to the inter-relationships among IPV, CAN, and SUD by ensuring providers deliver trauma-informed services and understand how and why these problems occur together; using data to better understand families' and systems' needs and improve programs and practice; removing barriers to program participation; and coordinating the provision of individualized, client-centered services.

BACKGROUND & INTRODUCTION

Defining Family Violence

This chapter explores the intersections of intimate partner violence (IPV), child abuse and neglect (CAN) (often referred to as "child maltreatment"), and substance use as part of the Hawai'i State Department of Health Alcohol and Drug Abuse Division (ADAD) State Plan. For more background and context around the overall State Plan project, readers are referred to the Introductory Notes of this State Plan System of Care Implications Volume.

Family violence is a broad category encompassing a range of abusive behaviors occurring among people in family-like relationships. This chapter uses the term IPV to refer to violence and abuse between adult partners, and CAN to refer to abuse and neglect of children under age 18 by parents or caregivers. IPV and domestic violence (DV) are often used interchangeably, but DV, which predates the term IPV, was originally used to describe male-perpetrated violence against a female intimate partner. IPV is usually seen as a more expansive term that includes partners in heterosexual and Lesbian, Gay, Bisexual, Transgender, and Queer (LGBTQ) relationships. This chapter uses DV when the literature being referenced uses that term and when DV is the commonly accepted term (such as when talking about DV systems and survivors of DV).

The terms "victim" and "survivor" are both used in this chapter, depending on the context around the term and the source being cited. For example, the legal system, law enforcement system, and often medical systems tend to use the term "victim," so references to information from those fields use that term. "Victim" is also the most common reference used for children who experience CAN. Advocates for DV victims tend to use the more empowering term "survivor," which helps restore a sense of autonomy to the victim and denotes a movement toward overcoming the trauma of the abuse and surviving the infliction of violence. "Survivor" is also often used for adults who were CAN victims as children.

Definitions from the Centers for Disease Control and Prevention (CDC) provide a common foundation for understanding family violence. IPV "includes physical violence, sexual violence, stalking and psychological aggression (including coercive tactics) by a current or former intimate partner."[1] Intimate partners are people who are or were involved in a close personal relationship. Psychological aggression is the "use of verbal and non-verbal communication with the intent to: a) harm another person mentally or emotionally, and/or b) exert control over another person,"[1] and may include coercive control, which can include controlling access to friends, family, money, communications, and activities.[2]

CAN includes physical, sexual, and emotional abuse of a person under the age of 18, and failing to meet the child's basic physical, medical, educational, and emotional needs.[3] Parental use or even abuse of alcohol and other drugs is not by itself a form of CAN. Instead, CAN occurs when substance use negatively impacts parenting, such as when children's needs are not met because of the parent's use of substances.

Each state has specific legal definitions of IPV, DV, CAN, and abuse of family members. Generally, state civil and criminal law definitions align with the CDC definitions above. A handful of states, including Hawai'i, specifically include coercive control in the definition of DV, and more than half the states have laws addressing the commission of acts of DV in the presence of a child.(HRS § 586-1, HRS §709-906)[2,4,5]

State laws define which relationships between adults and children may result in CAN. In Hawai'i, adults who can be considered perpetrators of CAN include parents, guardians, and adults residing with the child. Most incidents of CAN are handled as civil offenses through the child protection system; in Hawai'i, the Family Court has jurisdiction over CAN. If the child's physical injuries are significant, or an adult outside the statutory definition harms a child, those incidents are likely to be criminal offenses. In Hawai'i, HRS § 350-1[6] states that CAN results from "the acts or omissions of any person who, or legal entity which, is in any manner or degree related to the child, is residing with the child, or is otherwise responsible for the child's care [...]."(HRS § 350-1)[6]

Understanding the context in which aggression and violence occurs between intimate partners and acknowledging the diversity of situations and dynamics in which it occurs is crucial because these distinctions have implications for prevention, assessment, and interventions. Historically, advocacy and services for survivors and perpetrators of DV have focused on DV as a means of power and control with an identified perpetrator (usually male) and victim (usually female).[7] This is the predominant type of DV that social systems—such as law enforcement, the courts, DV shelters—are set up to address. Researcher Michael P. Johnson emphasizes the need to acknowledge that not all IPV falls into this type, which he calls "intimate terrorism" (sometimes called coercive controlling violence), and in which the male is almost always the perpetrator.[8] Another type of IPV that Johnson identified is "situational couple violence" (sometimes called common couple violence), in which both partners engage in verbal and physical abuse and aggression, with violence mostly limited to property damage or "minor violence" such as slapping. Either partner may be the aggressor or instigator, the violence may occur once or be part of a pattern of dysfunctional communication, and there is not an ongoing pattern of coercion or control.[9,10] The relationship dynamics between intimate partners may be associated with whether and what type of CAN co-occurs, and how the use of alcohol and drugs contributes to or is implicated in the relationship.

From the perspective of child well-being, verbal or physical aggression or violence between adults in a household, regardless of how it is characterized, negatively impacts children, even when CAN does not directly occur. "A meta-analysis of 188 studies on the psychosocial outcomes of child witnesses to DV" found that the outcomes of children who witnessed DV were not significantly different from those of children who were physically abused.[9] When children see or hear IPV or experience the impact of IPV (such as seeing bruises or adapting their behavior to minimize conflict), this is often referred to as "exposure to DV." Exposure to IPV is an adverse childhood experience[11] that can cause severe emotional, mental, and physical harms to children. Without intervention, exposure to IPV as a child can cause lifelong harm and outcomes similar to those seen in CAN victims.[4]

Scope and impact of IPV and CAN
IPV and CAN are significant public health problems throughout the world, with staggering health and economic costs.

INTIMATE PARTNER VIOLENCE (IPV)

Prevalence
IPV occurs at all socioeconomic levels, among partners of all races and ethnicities, and in heterosexual and LGBTQ relationships.[12,13] In the U.S., more than one in three women (36.4% or 43.6 million) and approximately one in three men (33.6% or 37.3 million) experienced contact sexual violence, physical

violence, and/or stalking by an intimate partner during their lifetime.[12,14] However, only one in ten men (10%) reported some form of IPV-related impact from these incidents while more than one in four women (25%) reported that impact. In addition, "nearly half of all women (47%) and men (47%) have experienced psychological aggression, such as humiliating or controlling behaviors."[14] DV statistics vary by data set and individuals' interpretations of the questions and their experiences. For example, a Hawaiʻi Department of Health (DOH) report on IPV said,

> "The Hawaiʻi Behavioral Risk Factor Surveillance Survey (BRFSS) data indicate that among those ever reporting IPV, 1 in 6 are women and 1 in 10 are men. The 2015 and 2017 Youth Risk Behavior Survey (YRBS) data for high school students indicate that approximately the same proportion of male students report physical dating violence (PDV) as female students. Definitions of IPV and PDV vary from individual to individual, which may account for the disagreement between data in the BRFSS, YRBS, and national research which indicates that victims of IPV are typically females."[15]

IPV is perpetrated by people of all genders, but the most severe violence disproportionately affects women. In 2018, in homicides where the victim to offender relationship was identified, 92% of women killed were killed by someone they knew, and 63% were killed by an intimate partner.[16]

IPV victimization occurs between teens as well as adults. The National Intimate Partner and Sexual Violence Survey (NISVS) found that 26% of women and 15% of men experienced their first incident of IPV before age 18.[14] The 2019 Youth Risk Behavior Survey (YRBS) found that among high school students who were dating, in the most recent 12 months, 8.2% had experienced physical dating violence (9.3% of females, 7.0% of males) and 8.2% had experienced sexual dating violence (12.6% of females, 3.8% of males).[14]

Disproportionate representation among victims

Tables 1 through **3** show how IPV disproportionately affects people of color, Indigenous people, and sexual minorities.[12,17,18] As a reference point for examining rates by race, ethnicity, and sexual orientation, approximately 35% of women and 34% of men in the U.S. experience contact sexual violence, physical violence, and/or stalking by an intimate partner during their lifetime. **Table 1** shows much higher percentages of people who are multi-racial, American Indian or Alaska Native, and Non-Hispanic Black are victims of IPV than people of other races and ethnicities. **Table 2** shows that women who identify as bisexual, lesbian, and gay experience IPV at much higher rates than women who identify as heterosexual.

Table 1. Lifetime prevalence of experiencing contact sexual violence, physical violence, and/or stalking by an intimate partner by race/ethnicity (data from the National Intimate Partner and Sexual Violence Survey (NISVS) 2010-2012; adapted from Smith et al (2017)[12])

	Women	Men
Race/Ethnicity	Weighted % (95% Confidence Interval)	Weighted % (95% Confidence Interval)
Multi-racial	56.6 (50.5, 62.5)	42.3 (36.4, 48.3)
American Indian/Alaska Native	47.5 (38.9, 56.3)	40.5 (31.5, 50.1)
Non-Hispanic Black	45.1 (42.2, 48.1)	40.1 (36.5, 43.8)
Non-Hispanic White	37.3 (36.2, 38.5)	30.3 (29.2, 31.4)
Hispanic	34.4 (31.3, 37.6)	30.0 (26.9, 33.3)
Asian-Pacific Islander	18.3 (13.8, 23.8)	13.7 (9.8, 18.8)

Table 2. Lifetime prevalence of experiencing rape, physical violence, and/or stalking by an intimate partner by sexual orientation (data from the National Intimate Partner and Sexual Violence Survey (NISVS) 2010; adapted from Walters et al (2013)[18])

	Women	Men
Sexual Identity	Weighted %	Weighted %
Bisexual	61.1%	37.3%
Lesbian or Gay	43.8%	26.0%
Heterosexual	35.0%	29.0%

Table 3 shows the estimates of IPV among women in Hawai'i by race and IPV related to pregnancy, which is a time of increased risk of IPV for women. Among Native Hawaiian women, 17.5% experience IPV in their lifetimes, and 8.8% experienced IPV during their most recent pregnancy or within the year before that pregnancy. Information about IPV and pregnancy is obtained from the Pregnancy Risk Assessment Monitoring System (PRAMS) survey, which is a standardized site-specific and population-based survey sent to a random sample of women who have recently given birth. Among adults in Hawai'i overall, 15.8% of women and 10.2% of men experience IPV during their lifetimes.

Table 3. Estimate of IPV by race (adapted from Vergara et al (2018)[15])

	Estimates of IPV overall, BRFSS, 2013	IPV before and during most recent pregnancy, Hawai'i PRAMS, 2012–2015***
Other**	19.0%	4.5%
White	17.5%	3.6%
Native Hawaiian	17.5%	8.8%
Other Pacific Islander*	16.8%	7.6%
Japanese	8.6%	5.9%
Filipino	6.3%	6.1%
Chinese	5.2%	***
Other Asian*	4.6%	***

*This is a U.S. Census-based definition that includes detailed ethnic responses.
**This is a U.S. Census-based definition that includes more than one race and Hispanic or Latino origin.
*** Pregnancy Risk Assessment Monitoring System (PRAMS) data uses different racial categories than BRFSS.

IPV in Hawaiʻi

Data on the prevalence of IPV in Hawaiʻi is incomplete, at best. There is no central reporting or tracking system for IPV. Multiple agencies are charged with responding to IPV, and they do not use uniform definitions or collect consistent data. One piece of information available on an annual basis is the number of people receiving services through Hawaiʻi State Department of Human Services (DHS)-funded DV shelters. In state fiscal year (SFY) 2019, 3,037 adults and 865 youth participated in services including crisis intervention, advocacy, individual or group counseling and support groups, criminal or civil legal advocacy, medical accompaniment, and transportation. These numbers do not represent unique individuals, though, because one person could participate in multiple services and would be counted for each service.[19]

Another source of information to gauge the scope of IPV in Hawaiʻi is community-based agency statistics. Statewide, the majority of domestic violence services are provided by five agencies, with varying degrees of reach across the state: Women Helping Women, YWCA of Kauaʻi, Parents and Children Together (PACT), Child & Family Service (CFS), and Domestic Violence Action Center (DVAC). Data from DVAC provide an example of available information: DVAC created or reviewed 10,048 safety plans in FY2021, and in the first three months of the pandemic (April-June 2020), DVAC staff had 10,347 client contacts, answered 787 Helpline calls, completed 2,428 safety plans and offered legal information to 2,613 survivors.[20] Eleven out of 12 Hawaiʻi DV programs participate in a single day national count of DV services conducted annually by the National Network to End Domestic Violence.[21] The annual census counts the number of victims served on the day of the count, the services provided, the number of hotline calls answered, the number of people attending prevention and education trainings, the number of unmet requests, and the nature of those requests. On September 10, 2020, 281 adult and child DV victims received housing from DV programs, and 558 adult and child victims received non-residential assistance and services. On that day, Hawaiʻi DV hotlines received 93 contacts and 90 requests for services were made but unmet due to a lack of resources to meet victims' needs. Fifty-two percent of the unmet requests were for housing or emergency shelter.[21]

IPV and Substance Use

Several national research studies have found a robust relationship between substance abuse and IPV for both perpetrators and victims.[22,23] Two primary challenges in studying this relationship are separating the substance use from other factors contributing to or resulting from IPV and establishing a causal relationship. Meta-analyses and a meta-ethnography of multiple studies have found that 23–63% of IPV incidents with a male perpetrator involve alcohol as a contributing factor. Furthermore, the consumption of alcohol by the male perpetrator increases the likelihood and severity of physical violence.[24] A literature review summarizing 16 articles about perceived reasons for IPV highlighted a general population study's findings that among perpetrators of IPV, 13% of female respondents and 35% of males "attributed their violence to 'being under the influence of, for instance, alcohol at the time.'" Among victims, 31% of male respondents and 45% of females said that being under the influence was the cause of their partner's violence.[25] The link between alcohol use and violence was also found by the Department of Justice (DOJ) in a study of intra-familial murder: more than half of defendants accused of murdering their spouses had been drinking alcohol at the time of the incident, and almost half of the victims had also been drinking.[26]

The literature on the relationship between IPV victimization and substance use finds a strong connection, and also acknowledges the complexity of the relationship and the lack of evidence regarding cause and effect.[27,28] Women with SUD are more likely to be victims of IPV, and female IPV victims are more likely to abuse alcohol and other drugs.[29] Between 25% and 50% of women in SUD treatment programs disclose IPV.[28] The relationship between substance use and victimization is impacted by the substances used, other risk factors including co-occurring mental health problems and trauma history, and the perpetrator's use of substances. Experts have found that some victims use substances to cope with their situation, some victims are more at risk because of their SUD, and some are forced to use by a partner.[22]

One study found that in a SUD treatment program, 90% of women had been physically assaulted and 95% had been raped.[30] Additionally, several studies have found that women participating in SUD

treatment programs and women in the community with SUD experience significantly higher rates of severe violence from intimate partners during their lifetime.[31]

The relationship between SUD and IPV is significant enough that a Substance Abuse and Mental Health Services Administration (SAMHSA) Treatment Improvement Protocol on SUD and DV states:

> "the Consensus Panel concludes that failure to address domestic violence issues among substance abusers interferes with treatment effectiveness and contributes to relapse. Therefore, the Panel recommends that substance abuse treatment programs screen all clients for current and past domestic violence, including childhood physical and sexual abuse. When possible, domestic violence programs should screen clients for substance abuse."[29]

CHILD ABUSE AND NEGLECT (CAN)

Prevalence

Understanding the prevalence of CAN and circumstances relating to CAN requires the use of federal and state reports, which include both overlapping data and distinct information presented in only the state or the federal reporting source. In addition, the information presented in either set of reports may vary from year to year.

The most prevalent type of child maltreatment in the U.S. is neglect, affecting about 75% of victims. In Hawai'i, the most prevalent type is "threatened harm," "which means any reasonably foreseeable substantial risk of harm to a child."(HRS §587A-4)[32] Younger children have higher rates of victimization and death: the national rate of CAN for children under the age of one is 25.1 per 1,000 children, while the CAN rate for all children aged 0–17 is 8.4. Also, 46% of CAN fatality victims are under age one.[33] Children of color are disproportionately victimized. American Indian or Alaska Native children have the highest rate of victimization (15.5). African American children have the second highest victimization rate (13.2) and the highest fatality rate (5.9).[33] Children of multiple races have the third highest victimization rate (10.3), followed closely by Pacific Islanders (9.0).[33] In Hawai'i, in calendar year 2019, 40% of confirmed CAN victims were Native Hawaiian or part Native Hawaiian.[34] The tables below provide additional information about children alleged or confirmed to be CAN victims.

Table 4. CAN Prevalence, adapted from U.S. Department of Health & Human Services (2021) and State of Hawai'i Department of Human Services Social Services Division (2020)[19,35]

	Total Children Reported as Alleged Victims	Referred for further investigation by CWS	Referred to Differential Response	Confirmed Child Victims	Victimization Rate
National*	7.9 million	3,668,951	586,995^	656,000	8.9 per 1,000 children
Hawai'i**	20,425	2,579	2,127	1,321	4.5 per 1,000 children

*Time period is federal fiscal year (FFY) 2019
**Time period is SFY 2019
^Only 22 states reported the number of children referred to Differential Response (DR), which is an alternative to CWS (Child Welfare Services) investigation for children with a lower risk of maltreatment. DR usually includes voluntary services, and the child is not confirmed as a CAN victim.

Table 5. Types of Maltreatment, FFY 2020, adapted from U.S. Department of Health & Human Services (2022)[33]

	Medical neglect	Neglect	Other	Physical abuse	Psycho-logical maltreat-ment	Sexual abuse	Sex trafficking	Total maltreat-ment type percent
National	2.0%	76.1%	6.0%	16.5%	6.4%	9.4%	0.2%	116.4%
Number of states reporting this factor*	41	52	21	52	47	52	35	
Hawaiʻi	0.8%	16.3%	90.7%**	10.5%	1.0%	5.7%	1.2%	126.3%

Note: one victim can experience multiple types of maltreatment, resulting in totals higher than 100%.
*Percentages are calculated using the number of victims in the states reporting that risk factor.
**"Other" includes Hawaiʻi's category of "threatened harm," "which means any reasonably foreseeable substantial risk of harm to a child" and is codified in HRS §587A-4.

In addition to knowing the types of maltreatment children experience, it is helpful to understand factors in the home that make it more likely for children to be reported for or confirmed as victims of CAN. **Table 6** below shows risk factors that were identified in the adult caregivers of confirmed CAN victims (federal data). **Table 7** is specific to Hawaiʻi and shows the most common factors affecting adult caregivers that were directly related to CWS confirming CAN (state data).

Table 6. Percent of Child Victims with Caregiver Risk Factors (FFY2020),* adapted from U.S. Department of Health & Human Services (2022)[33]

	Number of Victims	Alcohol Abuse	Domestic Violence	Drug Abuse	Financial Problem	Inadequate Housing	Public Assistance	Any Care-giver Disability
National	626,159	15.8%	28.7%	26.4%	13.1%	8.2%	23.5%	10.7%
Number of states reporting this factor**	47	34	37	41	28	36	29	30
Hawaiʻi	1,342	12.6%	23.5%	49.3%	2.0%	10.6%	Data not reported	Data not reported

*The caregiver who has the risk factors may not be the perpetrator of the CAN
**Percentages are calculated using the number of victims in the states reporting that risk factor.

Table 7. Ten most common factors precipitating a Hawai'i incident of confirmed CAN, state fiscal year 2019, adapted from State of Hawai'i Department of Human Services Social Services Division (2020)[19]

Factors	# Children for whom factor was reported	Percent (children with this factor/total number of children [1,321])
Unacceptable child rearing method	807	59.6%
Inability to cope with parenting responsibility	772	57.0%
Drug abuse	533	39.4%
Mental health problem	212	15.7%
Physical abuse of spouse/fighting	203	15.0%
Heavy continuous childcare responsibility	160	11.8%
Chronic family violence	146	10.8%
Inadequate housing	124	9.2%
Loss of control during discipline	113	8.3%
New baby in home/pregnancy	110	8.1%

CAN and Substance Use

Estimates of the number of families where SUD is a factor in the family's involvement with CWS range from 5% to 90%—a range so wide that it does not provide meaningful information.[36] An analysis examining reports, studies, and articles discussing prevalence estimates for parental SUD in child welfare systems concluded that existing data is inconsistent, outdated, and unreliable.[36] Additional recent research indicates that many factors affect whether a parent with SUD will abuse or neglect a child, including the type of substance used, the gender of the parent with SUD, the parent's mental health status, the parent's cognitive abilities, and more.[37] An important factor in understanding prevalence is the type of CWS intervention with a family, because the rates of parental SUD vary widely between families receiving in-home services, families with a child in foster care, or families who are reported and not confirmed.

Parental SUD is tracked more exactly when infants are involved. States are required to report data about Infants with Prenatal Substance Exposure (IPSE). IPSE includes children who are ages birth to one year, are referred to CWS by medical personnel, and are "born with and identified as being affected by substance abuse or withdrawal symptoms."[33] In FFY 2020, among the 49 states that reported, 42,821 infants were referred to CWS for IPSE[33]. As with other CAN data, not all states reported on all risk factors.[33] In Hawai'i in FY 2018, parental substance use was a precipitating factor for 78% of infants who were placed into foster care.[38] In state fiscal year (SFY) 2019, for Hawai'i CAN reports (hotline calls) that received a CWS or differential response, 47% indicated that substance use was a reason for the call.[39] Among children who spent any time in foster care in SFY 2019, 56% had parental substance abuse indicated as either a factor precipitating incident or as a circumstance of removal.[39]

CAN AND IPV

The third National Survey of Children's Exposure to Violence (NatSCEV III),[40] conducted in 2013-14, found that over their lifetimes, 19.5% of children aged 0 to 17 witnessed a family assault and 15.8% witnessed one parent assault another parent or their partner. Among youth aged 14 to 17, the lifetime rate of witnessing any family assault was 32% and for witnessing adult assault of a partner, it was 25%. Family assault includes parental assault of a sibling and violence between teens and adults in the

household. When looking at exposure to IPV in the year preceding the survey, approximately 5.8% of children had been exposed to some form of assault between their parents or a parent and an intimate partner.[40]

For children who are alleged victims of CAN, the exposure to family violence is greater than among other children. In Hawaiʻi, the screening process for calls to the CWS CAN hotline in Hawaiʻi includes questions about problem areas related to CAN and circumstance that prompted the call (recorded as precipitating factors). In SFY 2019, at least 26% of CAN hotline calls referred for a CWS investigation had DV indicated as a problem area.[39] One or more problem areas were listed in 55% of the referred cases; the presence of DV or other problem areas in the other 45% of cases is unknown.[39] Of the hotline calls referred for CWS investigation, at least 13% had DV listed as a factor precipitating the incident prompting the call.[39] One or more precipitating factors were listed for 89% of the referred cases; the role of DV in the other 11% of cases is unknown.[39]

Researchers have consistently estimated that the co-occurrence of IPV and CAN is between 30% and 60%, and approximately 60% of CAN cases also include IPV.[4,41] Researchers have established a clear link between CAN and other forms of intrafamilial violence. When substances are added into the equation, the potential for harm increases because the use of substances by a perpetrator increases the likelihood of and the seriousness of an incident. Furthermore, substance use by the protective parent decreases that parent's ability to protect the children from violence.[29]

While IPV occurs between adults, children in the household are also victimized by exposure to the IPV or its impact. The physical, emotional, and developmental impact of children's exposure to IPV is similar to what is seen in children who are CAN victims.[9] Additionally, CAN often co-occurs with IPV, so children in families where there is IPV are at greater risk for neglect or abuse, and many of them suffer from both exposure to IPV and CAN.

FINANCIAL IMPACT

The societal and individual costs of CAN and IPV are staggering. They include medical expenses, mental health care, pain and suffering, special education services, loss of productivity in education and work, property damage, direct expenses such as moving and changing phone numbers, child welfare and legal system expenses, and criminal justice system costs.

A 2015 analysis by the CDC found that the individual lifetime costs for a victim of nonfatal CAN range from $210,012 to $830,928, and the costs of a CAN fatality range from $1.3 to $16.6 million.[42] For IPV victims, in 2017, the CDC calculated the lifetime cost of nonfatal IPV to be $103,767 for women and $23,414 for men.[43]

The CDC has also calculated the societal economic burden of CAN and IPV. Using the value of the U.S. dollar in 2015, the estimated annual costs to society of substantiated CAN cases is $428 billion, which represents the lifetime costs incurred annually.[42] The equivalent annual economic burden for IPV, as calculated in 2017, is $594 billion.[43]

The studies estimating financial costs have many limitations. For example, the per-person costs are per victim, not incident, so victims who experience multiple incidents of violence are expected to have higher lifetime costs. Despite the limitations, the economic analysis of IPV and CAN shows that these preventable injuries are extremely costly to individuals and society.

LIFETIME HEALTH CONSEQUENCES

Children who are victims of CAN, exposed to IPV, or have a parent with SUD are likely to suffer lifelong health consequences unless they have positive supports or experiences that mitigate the negative impact of these traumatic events. Physical abuse, verbal abuse, sexual abuse, physical neglect, emotional neglect, having a mother who was a victim of IPV, having parents who were separated or divorced, and living with someone with SUD are all individual Adverse Childhood Experiences (ACEs).

The identification of ACEs, and the health implications of experiencing ACEs were revealed in a 1998 study by Kaiser Permanente and the CDC.[11] The study explored the relationship between ten types of adversity experienced in childhood and health outcomes in adulthood. The findings showed that without protective factors to buffer children from the impacts of ACEs, the presence of ACEs significantly increases the risk of disease and a lower life expectancy. For example, a person with four

or more ACEs has a significantly increased risk for seven out of ten leading adult causes of death, including heart disease, stroke, cancer, chronic obstructive pulmonary disease, diabetes, Alzheimer's, and suicide, and a person with six or more ACEs has a life expectancy that is twenty years shorter than a person with no ACEs.[44]

Extensive research has revealed a consistent relationship between CAN and a variety of physical and psychological disorders ranging from depression and suicide to diabetes, gastrointestinal disorders, and heart disease.[45] Similar findings exist for IPV victims.[46] Individuals who experience acts of intrafamilial aggression and violence have a higher risk of experiencing negative outcomes in every domain of their life, including physical and emotional health, education and employment, economic stability, and interpersonal relationships.[47] They are also at a higher risk of engaging in risky and unhealthy behaviors like smoking, using drugs and alcohol, and having multiple sex partners without protecting themselves against sexually transmitted infections.

Two of the most troubling consequences of CAN and IPV are the increased risk of being a victim or perpetrator of future abuse and the increased risk of SUD.[3,17] The next section further discusses the risk factors and why they do not have to be predictive—the presence of protective factors can mitigate the risks.

Risk and Protective Factors

Risk and protective factors are conditions that increase or reduce the likelihood of certain outcomes. For public health problems, risk and protective factors are often explored within the context of a social-ecological model, which provides a framework for understanding the factors on several levels: societal, community, relationship, and individual. Understanding how factors at each of these levels influence physical, mental, and behavioral health provides useful information about the potential impacts of prevention and intervention strategies.[48]

Risk factors increase the likelihood of undesirable or negative actions and outcomes, while protective factors serve as buffers against risk factors. Risk factors are associated with and contribute to the likelihood of a particular outcome, but they might not be direct causes. The presence of protective factors in families and communities increases the health and well-being of children and families.[49] In the context of child well-being and child abuse prevention, protective factors are supports in a community or characteristics of a parent that allow or help parents to maintain social connections, develop resiliency, gain parenting skills and knowledge, seek or receive concrete supports in time of need, and foster the social and emotional competence of their children.[50] Applying the social-ecological model to IPV and CAN, one sees the following risk and protective factors.

Perhaps the most influential societal factor is the pervasive acceptance of verbal, emotional, financial, sexual, and physical abuse of women and children. In the United States, this is furthered by a widespread embrace of negative masculine norms that value violence and aggression.[51] Additionally, U.S. mainstream culture embraces historical (and false) ideals of autonomy, independence, and self-sufficiency, which leads to shame and stigma associated with seeking help and participating in social services.[52] Other societal factors include a lack of adequate resources to support parents and promote safe and nurturing families and healthy relationships. Yet another societal factor is racism. Discrimination against and marginalization of people of color and Indigenous people at all levels of society increases their risk factors and decreases their ability to access supports or strengthen their protective factors.

Societal protective factors include such things as universal CAN and DV prevention programs and services; equitable access to supports for families, including meeting families' basic needs such as food, housing, transportation, and physical and mental health care; and safe communities with adequate and culturally responsive resources including employment, education, and recreation opportunities.

Societal and community factors that can be either risk or protective factors, depending on the presence or lack thereof, include policy and funding decisions, and the availability, accessibility and effectiveness of societal institutions and supportive services. A community's beliefs and attitudes toward neighbors, schools, places of worship, health care, law enforcement, SUD treatment providers, government, and social service agencies play a large role in increasing risk or protective factors. If

these entities are seen positively and as a source of support, protective factors tend to increase; if they are seen as "the enemy," risk factors tend to increase. Even the types of businesses and the condition of buildings and streets serve as protective or risk factors. For example, communities with a higher density of alcohol outlets appear to be associated with higher rates of IPV.[53]

The community and relationship levels of the social-ecological model provide the context in which IPV, CAN, and SUD occur. At these levels, social isolation or connectedness, economic health of the community, median income levels, employment opportunities, and access to transportation, adequate housing, and other basic resources all act as risk or protective factors that can balance each other out or tip the scales toward negative or positive outcomes.

Community and family norms around gender roles, conflict resolution, communication styles, substance use, violence, parenting, and interpersonal relationships are substantial influences on individual's behavior. Community, family, and individual values around such things as self-reliance versus collective support, help-seeking as a strength or weakness, shame or protection around vulnerability or victimization, and cultural and religious or spiritual beliefs and practices all influence behavior and can serve as risk or protective factors.

Within families, the level of adult involvement in a child's life serves as a risk or protective factor. Generally speaking, the more supervision and monitoring provided by adults, the less likely youth are to engage in risky behaviors or to become IPV victims as teens. For adults, intimate partners and other adults in the household are a strong influence. For adolescents, the values and activities of peers can be equal to or greater than the influence of family members.

At the individual level, personality, biology, and personal history influence the likelihood of using substances and being a perpetrator or victim of violence. Other individual factors include socioeconomic status, zip code and census tract, age, race, ethnicity, spiritual beliefs, attitudes, education, and employment. The likelihood of becoming a perpetrator or victim of IPV and CAN is also related to whether a person is involved in an intimate relationship and the quality and status of that relationship, and whether a person is a parent and whether pregnancies were planned. Finally, the level of knowledge and skills a person has to engage in nonviolent communication, healthy relationships, and safe and nurturing parenting have a bearing on the likelihood of being a perpetrator or victim of intrafamilial violence. Relationship, community, and societal factors greatly influence individual factors, and all levels must be considered together. For example, due to relationship, community, and societal factors, many individuals never have an opportunity to experience or learn nonviolent communication skills or nurturing parenting skills.

Other risk factors to consider, particularly for Hawaiʻi, are the impact of generational and historical trauma at all levels of the social-ecological model, and systemic racism. Clinician and researcher Maria Yellow Horse Brave Heart describes historical trauma as the "cumulative emotional and psychological wounding over the lifespan and across generations, emanating from massive group trauma experience."[54] While there is not universal acceptance among researchers and clinicians about the impact of historical trauma and whether and how it might be transmitted through generations, it is irrefutable that Indigenous communities have higher rates of IPV, CAN, and SUD than any other ethnic or cultural group. Many experts attribute this to historical trauma caused by colonization; destruction of cultural, social, and political customs and systems; and the forceful overthrow of Indigenous leadership. The growing field of epigenetics explores how genes are expressed and how epigenetic changes can be caused by historical trauma as well as current trauma such as systemic racism, CAN, IPV, and SUD. Epigenetics is being explored as a way to understand why child maltreatment can have such devastating lifelong and multi-generational impacts on physical and mental health.[45] Finally, persistent and deep-rooted systemic racism and oppression impact all levels of the social-ecological model: societal, community, relationship, and individual. The cumulative effects of these risk factors are particularly visible in the disproportionate levels of victimization from CAN, IPV, and other forms of violence experienced by people of Native Hawaiian, American Indian, and Alaska Native descent.

Unfortunately, risk factors can have a compounding effect for IPV, CAN, and SUD.[55] For example, conflict within the family increases the risks of CAN, IPV, sexual violence, and teen dating violence, and survivors of one form of violence are at greater risk of victimization from other forms of violence.[55]

They are also at greater risk of SUD. Most people who are victims of violence do not become perpetrators of violence; however, exposure to violence or being a victim increases the likelihood that a person will behave violently.[55] The use of drugs and alcohol by either partner in a relationship increases the risk of IPV and CAN.[29] Children whose parents have SUD or are IPV victims have a greater likelihood of becoming victims and/or perpetrators of IPV and CAN. Furthermore, being a victim of CAN or IPV as a child or adolescent increases the risk of using substances at an early age.

As stated earlier, protective factors serve as a buffer against risk factors. And the benefits of protective factors are also cumulative—the existence of multiple protective factors lowers the risk of negative outcomes from existing risk factors.

CURRENT SYSTEM OF CARE IN HAWAI'I

In Hawai'i, as in most places, substance use, IPV, and CAN are typically addressed as three separate and unrelated concerns, each handled through a different system. Each system has its own entryway, focus, priorities, and goals. Funding for each system is tied to the focus and goals, which are usually heavy on intervention and treatment and light on prevention. In reality, SUD, IPV, and CAN are often interrelated problems, and an integrated system of care is more effective than a siloed approach. Experts in each field agree that failing to address the co-occurring problems is likely to render treatment of any of the problems ineffective or incomplete.[29]

For IPV victims trying to access supports and services, what they encounter is not really a "system." Instead, IPV victims seeking help encounter a fragmented approach to service delivery that is difficult to navigate and often re-traumatizes those it is designed to serve. Services are provided by community-based agencies, usually funded through contracts with state agencies. Victims and their advocates interact with other systems such as family court, the criminal justice system, and the child welfare system, none of which is designed with a focus on supporting or meeting the needs of IPV victims.

Child welfare systems, court systems, and other social services systems are set up to address the presenting problem bringing a person into contact with that system, and the system response is largely dictated by that presenting problem. However, appropriately triaging the problems and sequencing the responses can pose a significant challenge for service providers, particularly when the presenting problems are interconnected and nearly inseparable.

A siloed system is unable to appropriately respond to the complex interrelationship of intrafamilial violence and SUD. While there is a clearly established correlation between SUD and family violence, cause and effect are not clear. For example, researchers and clinicians do not know if perpetrators use drugs and alcohol to numb feelings or to reduce inhibitions, if using causes them to become violent, or if there are other correlations between substance use and committing IPV. They also do not know if victims are forced or coerced into using substances; use substances to numb their pain, disconnect from past and current victimization, or self-medicate for untreated mental health conditions; or if using substances increases their risk of victimization because they are less able to protect themselves. All of these circumstances have been found among perpetrators and victims of IPV who also use alcohol or other drugs.[23,24] What is known is that addressing SUD and IPV concurrently increases the chances of positive outcomes in both areas.[29]

What follows is a description of the three overlapping systems most often encountered by family members when SUD and IPV and/or CAN are present. Each description begins with a statement of how families enter the system and a summary overview of the system structure, followed by more details about Hawai'i programs, supports, and services specific to the intersection of IPV, CAN, and SUD.

Substance Use Disorder Services

People seeking help with SUD can access services ("enter the system") by calling the statewide Coordinated Access Resource Entry System (Hawai'i CARES) line, getting a physician referral for a SUD screening, or by contacting a local SUD treatment provider. When family violence is involved, most victims and perpetrators arrive at SUD treatment through a referral from another system such as Family Court or CWS.

OVERVIEW

The Hawaiʻi State DOH Alcohol and Drug Abuse Division (ADAD) has the statutory authority to create, coordinate, regulate, and fund a statewide substance abuse services system, (HRS §321-193)[56] with services delivered by private agencies with ADAD contracts operating under Hawaiʻi CARES. "Hawaiʻi CARES provides universal intake, screening, assessment, care coordination, referral, placement determination, and linkages to appropriate service modalities and resources across the state."[57] SUD treatment services may be provided through private insurance companies or treatment providers who accept direct payment from clients (out-of-pocket or private pay). Entry into the SUD system may be voluntary or ordered by a family court, criminal court, or specialty drug court. Court referrals are more likely when SUD is a factor in IPV and/or CAN because addressing the SUD may be required for the perpetrator or parents to be released from court oversight.

HAWAIʻI INTERVENTIONS

Within the Hawaiʻi SUD system exist some interventions that provide gender-specific treatment, specifically address IPV, and/or work with pregnant women and mothers with young children. Some of these providers have productive working relationships with other systems such as the courts, CWS, and DV. Most SUD treatment providers say they provide holistic and trauma-informed services, and many provide services based in Native Hawaiian cultural practices. The list below provides a sampling of such programs and interventions available in Hawaiʻi in the spring of 2022. Programs, staffing, funding sources, and contracts shift on an ongoing basis, so any program listing represents a point in time.

- Women's Way, a program of the Salvation Army Family Treatment Services on Oʻahu; Malama Family Recovery Center on Maui, a program of Maui Behavioral Health Resources; and the Big Island Substance Abuse Council Moms and Babies Program are the three places in Hawaiʻi where women can participate in residential treatment and have their babies or young children with them. These programs provide a continuum of comprehensive gender-responsive and trauma-informed services to women and their children, include a focus on recovery from and prevention of IPV, and offer services based in Native Hawaiian cultural practices and values. They provide classes and coaching in parenting, life skills, healthy relationships, and dealing with trauma. Many women in these programs are involved with CWS and are working to be reunited with children who are in foster care or to prevent their children from being placed into foster care.
- In February 2022, the PATH Clinic of Waikiki Health, which is located on the campus of Salvation Army Family Treatment Services, began a pilot program in which a Parent Partner is available to work with pregnant women experiencing SUD. The Parent Partner is a parent who is in recovery and has successfully navigated the child welfare system.
- Lokahi Treatment Centers on the Big Island addresses both SUD and IPV, working separately with perpetrators and victims. This provider is not part of the Hawaiʻi CARES Network.
- Family Drug Court, a treatment court that is available on some islands, provides a comprehensive approach to helping parents break the cycle of addiction and CAN through monitored service delivery that includes SUD treatment and parent education.[58]
- While not specifically addressing SUD, Hawaiʻi Girls Court provides services and supports for female adolescents and their families, and the services may include referrals and support for SUD treatment as well as supports for recovery from and/or prevention of IPV and CAN.
- EPIC ʻOhana provides a service called Family Wrap Hawaiʻi, which is a family-led and family-centered interagency team process to support families that are involved with CWS. The teams often include a Parent Partner and a Youth Partner. These are people who have successfully navigated social services systems such as CWS, Family Court, or SUD treatment and who continue to be successful in their recovery and are willing to mentor and support other system-involved people. Wraparound services and peer partners are both considered promising practices in the world of evidence-based practices (EBPs), and both are recommended for people involved with multiple systems and/or who are struggling with addiction, trauma, and violence.

Intimate Partner Violence

IPV victims connect with services in different ways, including through a 911 call, a DV hotline, a health care provider, an employer, Family Court, or a DV shelter. IPV victims may also be referred to services after their children are referred to CWS.

OVERVIEW

Hawai'i does not have a "system of care" for IPV. While victims can access a network of services, there is not a single entry point or a centralized referral system for IPV services. Most direct services are delivered by community-based nonprofit organizations and funded through state and county contracts, many of which use federal funding. Some services are funded by foundation grants and discretionary federal grants (non-formula). A variety of services and supports are available to people affected by IPV, and survivors are usually involved with multiple systems, such as the courts, mental health, and medical. The lack of coordination is aptly captured in this sentence introducing an octopus-like flow chart of the Hawai'i system of care for IPV survivors: "The process we help guide survivors through is daunting and complex."[20] The chart identifies the system entry point as a call to 911, and the chart includes a process flow for multiple pathways: advocacy and civil court (orders for protection), criminal justice, civil family court (divorce, paternity, and custody), housing, and CWS. The chart does not include the mental health or SUD treatment systems, a telling indicator of the separation between systems, despite their interconnectedness.[20]

Hawai'i services for IPV victims and survivors include legal advocacy, emergency shelter, housing, counseling and support, safety planning, meeting the immediate and long-term health and safety needs of victims, and education and outreach. Many IPV providers refer clients to other services to meet needs such as employment assistance, life skills training, parenting support, mental health treatment, or SUD treatment.

Three state agencies provide most of the funding and oversight for DV services: DHS, DOH, and the Department of the Attorney General (AG). The Judiciary also funds some DV programs and services. The paragraphs below include examples of how these funds are used.

Each island has at least one organization contracted by DHS to provide DV services for survivors, perpetrators, and children. Such services include counseling and support, crisis and emergency intervention services, case management, safety planning, support and education groups, batterers intervention programs, limited therapeutic or clinical counseling, and other supports.[59] In addition, each county has at least one DHS-contracted provider of shelter and transitional housing services. Each shelter must operate a 24-hour hotline, provide transportation to the shelter, provide services to residents, and provide transitional housing if available. DHS contracts with the Legal Aid Society of Hawai'i to provide legal and advocacy services to survivors in or eligible to stay in DV shelters, including immigrant survivors of DV. DHS also contracts with DVAC to provide statewide supportive services to teens, including outreach and education about healthy relationships and direct services for victims of dating violence.

Across the state, DVAC provides direct services and long-term advocacy for survivors, including legal services, crisis support, safety planning, support groups, specialized advocacy to meet the needs of specific communities, supportive programming for survivors, and more. DVAC operates a statewide legal hotline with 24/7 text and chat capability. Survivors of IPV who have active cases with prosecuting attorneys' offices may receive support, referrals, or services through the Victim Witness Assistance Programs attached to those offices.

The DOH Family Health Services Division Maternal and Child Health Branch is the state agency tasked with DV prevention, and as such, provides support for the DV Fatality Review, conducts trainings and outreach, and works with community partners to implement system changes. DOH also promotes and supports IPV screenings by family planning and medical professionals. Within DOH, prevention funding and programming for CAN, DV, and sexual violence are collectively known as The Family Strengthening & Violence Prevention Unit. DOH staff and community partners provide programs statewide, including support for parents and education designed for teens to prevent sexual violence. The DV Fatality Review is a multidisciplinary and multi-agency review of domestic violence-related homicides, suicides, and near-deaths to reduce the incidence of preventable intimate partner deaths.[60] The fatality review process analyzes systems' responses to DV with input from community agencies and other related organizations, identifies barriers and gaps, provides a forum to discuss coordination, strengthens collaborations, and promotes and supports coordinated community response efforts.[61]

The AG administers federal grants and state funds for DV and sexual assault prevention and intervention services, including the Hawai'i Sexual Assault Response and Training (HSART) Program, the STOP (Services, Training, Officers, Prosecutors) Violence Against Women grant, and the Victims of Crime Act grant. These federal funds support law enforcement, courts, and nonprofit organizations in providing services and supports for victims of IPV and sexual violence and in prosecuting offenders.

The Judiciary funds programs delivered by community organizations on O'ahu.[62] Programs include Developing Options to Violence, a program providing specialized DV intervention services; advocacy and support for victims involved with Family Court and criminal domestic violence matters; case management; DV hotline services; safe settings for supervised visits between parents and children; and a variety of counseling, advocacy, and intervention services for adult and juvenile perpetrators of IPV and abuse of family members. The Judiciary also operates a Girls Court on O'ahu which includes prevention, education, and advocacy related to DV.

HAWAI'I INTERVENTIONS

Many of the programs and services for survivors of IPV are described in the overview section just above. As with substance abuse treatment programs, programs for families experiencing IPV change regularly because of shifts in staffing, funding, contracts, and community needs. **Table 8**, below, presents a snapshot of some of the primary providers of programs related to IPV.

Table 8. Examples of IPV Services in Hawai'i, 2022

Organization	Program Name	Services for Victims/ Survivors (services for entire family are included here)	Services for Children/ Youth	Services for Offenders	Other	Funding Sources (if known; not comprehensive)	Geographic Area Served
Ala Kuola	Temporary Restraining Order (TRO) Services	Family Court TRO Services				Judiciary	O'ahu
	Coaching Boys INTO MEN		National violence prevention program for athletic coaches to educate young male athletes.			DOH, Department of Education private funders	O'ahu
Child & Family Service	Domestic Violence Services for Families	Assessments, crisis management, safety planning, case management, counseling and support, visitation services, resource linkage, advocacy, TRO support, parenting and life skills education				DHS	Leeward O'ahu, Kaua'i, West Hawai'i Island, East Hawai'i Island, Molokai
	Developing Options to Violence	Counseling for adult survivors	Counseling for children/youth who are victims or witnesses to DV	DV intervention services for adult and youth perpetrators of DV or abuse of a household member		Judiciary	O'ahu
	Emergency Shelter	Shelter, advocacy, supportive services				DHS	O'ahu, Hawai'i Island
DOH	Nā Leo Kāne				Community initiative focused on expanding the conversation of	DOH (CDC funding), DVSA special fund	Statewide

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Organization	Program Name	Services for Victims/ Survivors (services for entire family are included here)	Services for Children/ Youth	Services for Offenders	Other	Funding Sources (if known; not comprehensive)	Geographic Area Served
					what it means to be a man in Hawai'i: meetings, public education, support, healthy relationships, and DV prevention activities		
DVAC	Survivor Advocacy Services; Pulama I ka Ohana; Alaka'i Advocacy Program	Safety planning; legal representation; access to medical care and housing; referrals to other services; crisis intervention; counseling; system navigation; other supports.				Annual Report includes these sources of funding: • Foundations and Grants: 16% • Community Support: 8% • City and County of Honolulu: 15%	O'ahu
	Teen Alert (TAP808)		Outreach, prevention, and education			• State of Hawai'i: 36% (AG, DOH, DHS, Judiciary)	Statewide
	Teen Violence Intervention services		Hotline, assessment, linkage to services, case management, advocacy, counseling for teen victims of DV and their families			• Federal: 24% (Administration for Children and Families; DOJ Office on Violence Against Women)	O'ahu
	Pulama I ka Ohana		Support groups, legal advocacy, mental health services for children and non-offending survivor parent				O'ahu

Organization	Program Name	Services for Victims/ Survivors (services for entire family are included here)	Services for Children/ Youth	Services for Offenders	Other	Funding Sources (if known; not comprehensive)	Geographic Area Served
		Hotline, housing supports					Statewide
	Ho'oikaika 'Ohana	9-month program for Native Hawaiian survivors and their children, using traditional practices for healing.					O'ahu
	Domestic Violence Action Ready: A Program for Hawai'i's Companies				Trainings for supervisors, human resources personnel, and employees		Statewide
Legal Aid Society of Hawaii		Legal advocacy services for survivors of DV who are in or eligible to stay in DHS-administered DV crisis shelters				DHS	Hawai'i Island, Kaua'i, Lanai, Maui, Molokai
		Legal advocate for immigrant survivors of DV					Statewide
Molokai Community Services Council	Hale Ho'omalu	Safe Shelter for victims of DV and their children, TRO assistance				DHS	Molokai
	Alternatives to Violence		Education, anger management, non-violent coping skills-building	Intervention services for perpetrators			Molokai
Parents and Children Together	Family Peace Centers	Victim advocacy, supports, parenting skill-building.	Victim advocacy, supports, skill-building	DV intervention (including specifically for		DHS, Judiciary, discretionary federal, U.S	Central and Windward O'ahu, Maui, Lanai

Organization	Program Name	Services for Victims/Survivors (services for entire family are included here)	Services for Children/Youth	Services for Offenders	Other	Funding Sources (if known; not comprehensive)	Geographic Area Served
			building; anger control and violence intervention education and skill-building.	adults with SUD); anger control and violence intervention education and skill-building.		Department of Housing and Urban Development	
	Ohia DV Shelter	Shelter, hotline, wraparound services for survivors and their children.				DHS	Oʻahu, with priority for Windward coast
	Lehua Transition House	Housing for women without children for 12 months				DHS	Oʻahu
	Hale Ola Transition House	Housing for survivors and their children for 6-25 months and comprehensive support services				DHS	Oʻahu
	Family Visitation Centers		Neutral site for children to visit with non-custodial parent or for transition of children between parents.			Judiciary, Federal funding	Oʻahu, Kauaʻi
	Trafficking Victims Assistance Program		For youth victims and their families or caregivers: case management and other services in partnership with other providers.			DHS	Statewide

Organization	Program Name	Services for Victims/ Survivors (services for entire family are included here)	Services for Children/ Youth	Services for Offenders	Other	Funding Sources (if known; not comprehensive)	Geographic Area Served
University of Hawai'i	PAU (Prevention, Awareness & Understanding) Violence Program	Sexual and dating violence prevention, education, and victims' services.				DOH	O'ahu
Women Helping Women		TRO and court assistance/support, case management, employment and education help, financial assistance, housing and rental assistance, health-related services, linkages to services, transportation	Support groups for children and youth who have experienced DV and teen victims of DV			DHS and other sources	Maui County
		Emergency shelter and hotline				DHS	Maui and Lanai
YWCA Kaua'i		Crisis Intervention, Counseling, TRO assistance and court support, Support groups, emergency assistance, linkages to services	Children's services and support group			DHS	Kaua'i
		Family Violence Shelter, hotline, and supportive services				DHS	

In addition to the services listed in the table above, two organizations provide statewide advocacy, education, and convening of stakeholders: the Hawai'i State Coalition Against Domestic Violence (HSCADV) and DVAC. HSCADV is a membership organization of agencies and individuals working to eliminate all forms of DV in Hawai'i. They help build the capacity of their members, provide public education, host an annual conference, raise awareness about DV, and engage in public policy development with state agencies and the legislature. DVAC provides direct services, public education, training, and engages in system change work.

Child Abuse and Neglect

Families usually enter the CWS system through a call to the statewide centralized CWS intake line. About 70% of callers are mandated reporters—people who are legally required to report CAN, such as police officers, social workers, medical providers, and teachers. The remaining callers are family members, friends, neighbors, and community members.[34] The call to intake starts a process that is guided by state law and CWS policies and procedures. If a family receives services that are tracked by CWS (with or without a confirmed CAN case), that family is considered "CWS-involved."

OVERVIEW

An intake call is either screened out (no indications of CAN) or screened in (referred for further assessment by CWS or a community agency). Screening tools guide the decision-making process. Families that CWS determines have a low or moderate risk and no identified safety issues are referred to voluntary services provided by contracted community providers. This referral can be made by CWS intake or by a CWS caseworker after receiving the referral from intake and completing a further assessment.

If the report is referred to CWS, CWS conducts a more detailed assessment of the circumstances and determines whether CWS should take any further action, which could include referring the family to voluntary services in the community, offering the family voluntary CWS services, or obtaining a court order for mandatory services.

If CWS and/or a judge determine that children cannot safely remain at home, CWS will place them with relatives or in foster homes. If that occurs, parents have about a year to resolve the problems that brought the child into CWS care. By statute, if a child has been in foster care for fifteen of the most recent twenty-two months, CWS is required to file a motion to terminate the parents' rights to the child.(HRS § 587A-27)[63] This timeline is mandated by a federal law created to prevent children from staying in foster care indefinitely, and instead provide an option for children to be placed in a permanent home through legal guardianship or adoption after allowing a reasonable time for reunification efforts to be successful.(Public Law 105-89)[64]

Once a family is involved with CWS, the family is also involved with other systems such as the family court system, the IPV system, the mental health system, and the SUD treatment system. When CWS identifies multiple concerns, such as SUD and CAN, services are provided through systems that are financially and structurally distinct, and families can be overwhelmed with the number of people and agencies with whom they must interact.

Each family has a Family Service Plan that identifies the problems that brought the child into the CWS system and the steps the parents must take to exit the system. "These specific steps shall include treatment and services that will be provided, actions completed, specific measurable and behavioral changes that must be achieved, and responsibilities assumed..."(HRS § 587A-27)[63] The CWS caseworker is ultimately responsible for helping parents stay on track to complete their Family Service Plans. Unfortunately, for several years, CWS has struggled with finding and retaining qualified staff for stressful jobs in a state with low unemployment and high costs of living. Caseloads are higher than national recommendations, in part because for several years, about 20% of caseworker positions have remained unfilled. Therefore, caseworkers have less time to spend with each family on their caseloads. Sometimes this gap is filled by community providers, parents' attorneys, and children's guardians ad litem, all of whom play a significant role in helping families progress through the system. When available, parent partners, advocates for survivors of DV, home visitors, system navigators, and SUD treatment coaches all help parents maneuver through systems and complete services and tasks to regain or retain custody of their children.

HAWAI'I INTERVENTIONS

A variety of interventions are available to CWS-involved families, depending on needs indicated by risk and safety assessments, parents' desire for services, reasons the family was referred to CWS, and availability and accessibility of programs. Hawai'i has a Differential Response System with three pathways for families:

- Reports assessed as low risk and with no identified safety issues are referred to Family Strengthening Services (FSS). CWS contracts with community agencies to provide FSS, which is a voluntary service offered to families. If families choose not to participate, their FSS "case" is closed.
- Reports assessed as moderate risk with no identified safety issues are referred to Voluntary Case Management (VCM). CWS contracts with community agencies to provide VCM, which is a voluntary service offered to families. If families choose not to participate, their VCM "case" is closed, and if the VCM agency believes further interventions are needed to keep children safe, the case may be referred back to CWS for additional assessment and decision-making.
- Reports assessed as severe or high risk and/or with identified safety issues are assigned to a CWS unit for investigation.

Services provided through FSS and VCM might include case management, home visiting, emotional support, parent coaching, and skill-building in parenting, emotional regulation, problem-solving, and life/household management.

Families with high risk or safety issues have a CWS caseworker and a Family Service Plan. Services might be provided to keep children safe in the home, either with or without a court order, or children might be placed with relatives or in foster care, with court involvement.

Families that meet specific criteria may be referred to specialized interventions. For example, The Family Court of the First Circuit offers O'ahu Girls Court, Zero to Three Court, and Family Drug Court, all of which serve families involved with CWS. Girls Court usually works with girls in the juvenile justice system, but many of them also have current or past CWS involvement or are in the juvenile justice system because of SUD and/or violence in the family.

Starting in 2021, CWS began providing Family First Hawai'i (FFH) services to CWS-involved families that meet the FFH criteria. FFH is the Hawai'i implementation of the federal law, Family First Prevention Services Act (FFPSA),[65] which allows Title IV-E funds to be used for evidence-based prevention services to prevent the placement of children in foster care. The prevention services must be in the areas of SUD treatment, parenting programs, and mental health services. FFPSA also allows these funds to be used to support legal representation of parents and children. Finally, FFPSA allows IV-E funds to be spent on "foster care maintenance payments" for children placed with their parents in a licensed residential family-based treatment facility for substance abuse. This means that instead of IV-E funds paying for a child to be placed in foster care while the parent is in a residential treatment facility, in some cases, if the licensed facility meets all requirements and it is in the best interests of the child, those funds could be paid to the facility where the child is placed with the parent during treatment. Hawai'i currently does not use IV-E funds for legal representation or placement of children with parents in residential SUD treatment, and FFH does not include any SUD treatment services. However, Hawai'i can change this in the future, which means there may be unrealized opportunities to creatively address the intersection of SUD and CAN.

OBSERVATIONS & RECOMMENDATIONS

This section provides recommendations for increasing the likelihood of positive outcomes for Hawai'i families affected by intrafamilial violence and substance abuse. Because SUD, IPV, and CAN are interrelated and co-occurring concerns, positive outcomes for children and adults are more likely when a coordinated system exists that views, diagnoses, and treats co-occurring CAN, IPV, and SUD as one "problem" with a constellation of connected symptoms, similar to the way that doctors treat complex illnesses.

Overarching observations

CAN, IPV, and SUD have devastating personal, societal, and economic costs that can affect generations of people. Prevention is the most efficient way to lower these costs—research shows that the human and economic returns on investing in prevention far outweigh the expense. Furthermore, when intervention and treatment are needed, a coordinated, holistic approach yields the best outcomes. However, coordination *across* systems is complicated by the need to improve cohesiveness and coordination *within* each system, particularly for victims of IPV. For them, a statewide coordinated system does not exist, which complicates efforts of the other systems to implement coordinated broad-based improvements.

This section provides some observations about how IPV and CAN are currently addressed when they co-exist with SUD, and changes that are likely to lead to a collaborative model of service delivery and improved outcomes for families and children.

Gaps in Existing Services and Systems

The gaps described in this section pose the biggest barriers to developing a collaborative system. Addressing these gaps does not guarantee that a collaborative model will be created or successful; however, not addressing them increases the likelihood that coordination and collaboration will not improve.

LACK OF ACCURATE DATA

Hawaiʻi professionals in the field do not have enough accurate information to make informed decisions about which changes are most likely to cause the fastest and biggest improvements. This is true within individual systems and across systems. For example, accurate data is not available about the number of IPV victims in Hawaiʻi, the number of victims who have children, victim demographics, or details about the IPV incidents, including whether alcohol or other drugs played a role. Accurate data is also not available about how long it takes people to access and then engage in SUD treatment services and what the outcomes of those treatment services are. Such information is critical because the research literature is clear that appropriate responses to situations involving two or three of IPV, CAN, and SUD need to be tailored to the circumstances.

Table 9 provides an example of information that would inform the selection and implementation of appropriate interventions for CWS-involved parents with SUD. The children of these parents are especially vulnerable to long-term negative outcomes—they spend more time in foster care and have a lower chance of reunification than children in foster care for other reasons.[66] Less than 25% of CWS-involved mothers with SUD successfully complete treatment,[67] primarily because these mothers have more complex needs than other mothers with SUD.[68] Therefore, tailoring interventions to the needs found among these parents should improve outcomes for their children.

Table 9. Information needed to inform selection and implementation of appropriate interventions for CWS-involved parents with SUD

Information Needed	Purpose
Number of mothers, fathers, other caregivers with SUD (each category listed separately)	Understand the demand for SUD treatment services among parents and caregivers
Disaggregated data about children whose parents have SUD including children's ages, which caregiver has SUD, and children's ages at foster care entries and exits	Determine needs related to parents keeping children with them during residential treatment and understanding which ages are most impacted by SUD
Types of SUD treatment CWS-involved parents were referred to and/or participated in (inpatient, outpatient, etc.)	Understand the demand for and utilization of SUD treatment services
Referral pathway from CWS identifying SUD to parents participating in treatment, including timeframes, types of services parents are referred to, frequency of drug screens, other supports provided	Identify what is and is not working in the current process; identify where recovery coaches or peer partners could fit into the process; better understand demand for SUD treatment and time frames for completion; better understand other supports offered to families; identify strengths, needs and gaps
Number of CWS-involved families who participate in Family Drug Court, the referral pathway, and the short- and long-term outcomes for those families	Understand how families currently access Family Drug Court services and where barriers exist; understand the effectiveness of Family Drug Court to improve the process and outcomes; identify gaps such as aftercare supports
Available slots, locations, and eligibility requirements for comprehensive, holistic treatment that addresses SUD and parenting	Understand the supply of specialized SUD treatment services and educate courts and CWS about appropriate services
Number of CWS-involved parents who complete treatment; number of parents who maintain sobriety over time; outcomes of their CWS cases	Understand treatment retention and completion rates; understand the effectiveness of treatment; look for connections between treatment and CWS case outcomes; identify gaps such as housing, financial support and aftercare supports

LACK OF KNOWLEDGE

The people working in these areas in Hawai'i are extremely dedicated and they excel in their areas of expertise. However, while they have at least a working knowledge of interrelated issues, an expert in one of these three areas is unlikely to have deep expertise in other areas such that they would understand the causes and consequences of SUD *and* CAN *and* DV, as well as what it takes to address these difficult situations. Many professionals may not even know the level of interconnectedness among these issues and the implications of those connections. Furthermore, professionals in one system usually do not have experience with the inner workings of other systems, so they lack in-depth knowledge about how the other systems operate, particularly the constraints of other systems. These gaps in understanding perpetuate the existence of parallel rather than coordinated systems.

System Constraints

Successful system improvement efforts account for existing and future constraints on systems by addressing them or working within their confines. Identifying such constraints is important to understanding the scope, viability, and potential timelines of system improvement options.

STAFF VACANCIES AND TURNOVER

Maintaining a stable and capable workforce is essential to the proper delivery of services. When agencies are understaffed, individual workers are overburdened and have less time for each client they serve. Turnover reduces the amount of knowledge within an agency, which can impact referrals to services. For example, a DOH assessment about SUD treatment for pregnant and parenting women with children found that CWS workers were not making referrals to Zero to Three Court or Family Drug Court because regular turnover led to caseworkers not knowing about the specialty courts or their benefits for families.[69]

For CWS, vacancies and turnover have been a persistent problem. From 2017–2020, the vacancy rate across the agency ranged from 17% to 24%.[19] In May 2020, 22% of caseworker positions were vacant, and 14% of line supervisor positions were vacant. Turnover is also a constraint. In May 2020, 18% of the workforce had been with CWS for a year or less, and 21% had been with the agency two to four years. Nationally, for the last 15 years, annual turnover rates in child welfare agencies are estimated to be from 20% to 40%, with a range from 6% to 65%. Turnover rates below 10-12% annually are desirable for a well-functioning agency.[70]

Across all systems, the pandemic further reduced the social services workforce. Many employees who were close to retirement chose early retirement and many women left the workforce and have not returned. The social services sector workforce is predominantly female, so the effects of the pandemic were felt especially hard in this sector.

TIME FRAMES FOR SERVICES

The amount of time "allowed" for an agency to provide services to a family is often decided by statutory time frames, contract requirements, and funding limitations. For example, if a child is placed into foster care, parents generally have about a year to meet all the requirements in a family service plan so the child can be returned home.(HRS § 587A-27)[63] CWS caseworkers and the court must work within these statutory timelines or Hawai'i will lose federal funding for the child welfare system. SUD providers must work within limits imposed by insurance or other funding sources that cap the amount of time a person can spend in residential or outpatient treatment for SUD. Ancillary, supportive services such as temporary housing and emergency funding are also usually time limited. These timelines are often unrealistic for parents struggling to recover from SUD and IPV because recovering from SUD and healing from trauma does not occur according to a pre-defined timeline.

INFORMATION SHARING

Having accurate data to make informed decisions requires collaboration and information-sharing. Each system, though, has its own terminology, process for collecting and interpreting data, and process for connecting clients to services. Information is not routinely shared among providers, across systems, or with funders and the public, and a central automated referral system across systems and providers does not exist. Each system follows federal and state laws and rules regarding the confidentiality of information. These laws dictate what information can or must be shared under what circumstances and in what formats. Confidentiality can always be waived by a client if the waiver is made knowingly and voluntarily. Many states, including Hawai'i, use multi-agency consent forms that allow agencies to share information with a client's permission when a client is served by multiple organizations.

Collaboration across systems and providers occurs in Hawai'i, but it is restricted by gaps in knowledge about other systems and, although it is rarely discussed openly, a lack of trust. Many providers in each system feel like other systems are "against" their clients. Within and across systems exist philosophical differences (such as harm reduction versus abstinence) and power imbalances. Sometimes systems inadvertently revictimize clients being served in other systems, which furthers mistrust. Providers easily see where there are conflicting priorities among their agency and others; with more information about the interconnectedness of IPV, CAN, and SUD, they may more clearly see where their priorities are aligned.

FUNDING MECHANISMS

Funding for services comes with many requirements and restrictions. This can make it difficult for providers, especially SUD treatment programs, to design individualized treatment plans that account

for recovery from trauma, IPV, and CAN. Medical billing systems may not include billing codes for holistic treatment or for ancillary services that are essential to support successful SUD treatment. DOH- and DHS-funded programs often have client eligibility requirements, and their contracted providers may only provide services allowed within the scope of their contracts. Such constraints within the system are likely to hamper collaborative efforts across systems, and more importantly, prevent clients from receiving the comprehensive care they need.[71]

Unaddressed barriers to meeting clients' needs

Because of restrictions in funding and contracts, providers and systems usually cannot provide creative or individualized solutions to meet clients' needs. They are also slow to adapt to changes in community or client circumstances. Even just linking a client with other services can be frustrating and time-consuming because easy mechanisms to accomplish that do not exist. Other barriers related to linking a client to services include failing to identify a client's needs. Oftentimes, if providers are not looking for an issue, they will not find it. Systems and programs may not screen for things they cannot address, such as homelessness, mental illness, SUD, CAN, or IPV. And specialized services for clients with complex needs are not readily available in Hawaiʻi. While it can be frustrating to identify needs that cannot be easily met (and unidentified needs can affect funding and outcome measures), limiting assessments to only those things that a specific program addresses is contrary to a holistic, trauma-informed approach.

Recommendations for Improvements

Improve System Operations and Coordination

Building a cohesive system of care for families affected by intrafamilial violence that co-occurs with substance use is a long-term endeavor, but taking steps toward a collaborative model of service delivery can begin today. Leaders at DHS, DOH, CWS, ADAD, courts, law enforcement, within the community of advocates and service providers for DV survivors, and within the community of housing advocates and providers, can begin to design a continuum of services that will break cycles of violence and addiction.

Each of the steps listed below requires more explanation than is within the scope of this chapter. For brevity, key activities are listed that will move Hawaiʻi forward. Technical assistance guides are available from a variety of federal agencies and national resource centers including the CDC, Substance Abuse and Mental Health Services (SAHMSA), the National Center on Substance Abuse and Child Welfare, and Futures Without Violence. They provide details for implementing each of the steps to create a collaborative model of service delivery.

1) Acknowledge the interrelatedness of IPV, CAN, and SUD, and agree on the need to address them holistically.
   - Establish a high-level public-private leadership team or working group to develop a coordinated continuum of care, address funding concerns, and resolve problems.
   - Provide widespread education about the interrelatedness of IPV, CAN, and SUD.
2) Build relationships and improve communication and coordination among providers, agencies, and systems. Activities might include the following:
   - Develop a shared vocabulary and use consistent terms across data sets.
   - Appoint liaisons in each agency who are subject-matter experts tasked with improving understanding and coordination.
   - Expand cross-training among professionals from all involved agencies and systems.
   - Have people who work in one agency or topic area shadow people in another agency. For example, a DV counselor might spend a few days on the job with a CWS worker, and a CWS worker might spend a few days with a SUD treatment provider.
   - Convene regular multi-agency case staffings for shared clients.
3) Identify and address barriers in values, beliefs, and objectives that prevent trust and collaboration. Identify and focus on areas where there are shared goals such as strengthening the health and safety of parents and children.
4) Identify and address racial and ethnic inequities and disparities embedded in agencies and systems.
5) Agree on and use common terminology and data points.

- Collect and use common data.
- Utilize process and outcome data for continuous quality improvement (CQI).
- Create and utilize a mechanism for reporting non-confidential and de-identified data publicly.

6) Design a collaborative model of service delivery.
- Use the expertise of people with lived experience, epidemiologists, and data scientists in system development and implementation.
- Work toward universal identification of co-existing problems through screening and assessments.
- Design, fund, and evaluate specialized, integrated services.
- Create a process for information-sharing at client, agency, and system levels and ensure that providers understand that federal and state laws and regulations allow for broad information-sharing with proper, voluntary consents.
- Modernize technology and data systems and invest in technology that allows data-sharing, coordination of services, and seamless referrals to other programs and supports.
- Map service delivery systems from the perspective of clients. Identify and reduce barriers to accessing and successfully participating in services.
- Identify ways that health care systems' focus on improving social determinants of health (SDOH) can be used to facilitate the development of a continuum of care for families affected by violence and substance use, particularly for families insured through Medicaid.

7) Develop a coordinated community response that includes public education and works to promote community norms that reject violence and promote help-seeking.

Fund Systems, Services, and Supports

Adequate, dedicated, long-term funding is required to holistically address the intersection of IPV, CAN, and substance use. Listed below are some strategies for the leadership team or committee tasked with designing a coordinated system. These strategies can also be implemented within existing siloed services and systems.

- Understand the rules for funding streams and utilize creativity and flexibility in allocating funds.
- Take advantage of all possible federal funding and allocate adequate state matching funds to maximize federal funding.
- When allowable by law, place children with their parents in family-focused residential SUD treatment programs instead of placing the children in foster care, and offset the costs with federal Social Security Act Title IV Part E (Title IV-E) funds.[72]
- Use Title IV-E funds to support legal representation for parents and children involved in child welfare proceedings. Such legal representation can include a team approach utilizing lawyers, peer partners, social workers, investigators, and paralegals.(45 CFR 1356.60(c), section 474(a)(3))[73]
- Ensure all needed billing codes for services available to victims of DV or CAN and people with SUD exist for all insurers in Hawai'i, especially Med-QUEST. Suggest new Current Procedural Terminology codes as needed to ensure the provision of holistic, specialized services.
- Identify ways that health care systems' focus on improving SDOH can help fund needed services and supports.
- Create braided and blended funding streams for programs and services and study models utilized elsewhere to understand how to do this successfully.
- Revise procurement processes to encourage collaboration and require meaningful data collection and monitoring of outcomes to inform a productive CQI process. Provide appropriate compensation for these activities.

Implement Prevention Strategies

"Prevention is so much better than healing because it saves the labor of being sick."[Thomas Adams] Decades of research confirm the wisdom of this maxim and quantify the benefits of investing in prevention. CAN, IPV, and SUD prevention efforts in Hawai'i are fragmented and poorly funded, much like the systems that intervene when problems are not prevented. To truly address IPV, CAN, and SUD, a robust long-term prevention approach is required. As explained earlier, people experience risk and protective factors at societal, community, relationship, and individual levels. Therefore, prevention should occur at all levels and should be directed at everyone, not just those deemed "most at risk."

Prevention Science is a distinct field of work, and this brief section cannot attempt to provide a comprehensive description of the strategies needed at every level of the social-ecological model. Instead, it provides a list of suggestions that can start Hawai'i along an improved path of prevention.

- Improve the coordination and funding of CAN, IPV, and SUD prevention strategies and activities.
- Create a sustained framework for prevention that aims to increase the presence of protective factors and improve SDOH.
- Set a statewide goal of providing equitable access to high-quality, effective, universal prevention services for CAN, IPV, and SUD, such as family strengthening and home visiting programs, and education and support around creating healthy relationships and engaging in nonviolent communication and conflict resolution.
- Increase ease of access by creating a unified, automated intake and referral process for all family support programs and services.
- Provide incentives and pathways for state and private agencies to implement a whole-family no-wrong-door process for accessing services.
- Ensure universal, equitable access to high-quality mental and physical health services to reduce risk factors for IPV, CAN, and SUD.
- Implement age appropriate and on-going school- and community-based curriculums to teach children and teens skills in non-violent communication, conflict resolution, problem-solving, positive personal relationships, anti-bullying, health, parenting, household management, and personal finance.
- Increase the presence and use of system navigators who help families address needs related to SDOH, particularly navigators that provide peer support for parents and youth.

Improve Client Experience and Success

Individually and collectively, service providers and systems can take action to increase the likelihood that people with SUD and victims of family violence will engage in and successfully complete services.

- Ensure services are trauma-informed, culturally responsive, and easily accessible. "Accessibility" includes multiple factors, including the location of physical offices, availability of public transportation and childcare, hours of operation, languages spoken, the availability of translators, eligibility requirements, attendance requirements, and whether virtual access is an option.
- Implement universal screening and a no-wrong-door approach to serving clients.
- Ensure that workers in private and state organizations are well-supported, fairly compensated, have opportunities and funding for professional development, and have manageable workloads.
- Increase the use of peer supports and parent partners to improve client engagement and successful service completion.
- Provide additional incentives and supports to increase the number of providers who have lived experience and/or are representative (culturally, ethnically, linguistically) of the clients they serve.
- Adequately fund a continuum of services from outreach and client engagement to post-service supports.
- Ensure rapid access to high-quality crisis services such as supports for victims of DV and sexual assault and supports for houseless families.
- Design, fund, and evaluate specialized, integrated services.
  - Expand existing residential treatment models that allow mothers to bring their children to live with them while they participate in family-friendly residential SUD treatment.
  - Create similar residential treatment models for fathers.
  - Expand gender-specific SUD treatment options and ensure that all women have access to same-gender treatment if that is their preference.
  - Integrate treatment and support for IPV victims and their children into SUD treatment programs.
  - Integrate interventions for IPV offenders into SUD treatment programs.
  - Continue or reinstate funding for Family Court Drug Courts if evaluations of the outcomes support the efficacy of Hawai'i Drug Courts.

Invest in Evaluation and Research

For many years, funding of human services has been shifting toward EBP. Each field of work has its own clearinghouse that explains and rates the evidence base for programs and interventions. While this

practice is grounded in good intentions and a need to show a return on investments, it has some drawbacks. First, implementing EBP often requires a significant up-front and continuing financial and staff investment in training, certification, program accreditation, and fidelity monitoring. Because provider contracts are not guaranteed and do not cover the full costs of providing services, it can be hard for providers to justify the expense of starting a new EBP. Second, many effective programs cannot be rated because the level of evidence required to be rated by a clearinghouse is unattainable. For example, the evidence base usually must include publication of multiple studies in peer-reviewed journals. This means that programs that have not been scaled to multiple sites and small programs designed for a particular cultural or ethnic group cannot be included because there are no comparison programs. Small programs are also not included because there is unlikely to be staff or budget for building the evidence to support a rating. State contracts for services do not include funds for research and evaluation. These barriers are particularly relevant for Hawai'i, where providers see positive results from culturally-based and 'āina-based locally developed programs but cannot meet the level of evidence required to access funding designated for EBP. Finally, some EBP just do not translate to Hawaiian culture, and modifying the EBP to make it more accessible to the local population is usually seen as not maintaining fidelity to the model, which results in a loss of funding.

Consequently, the legislature and state agencies should do the following:

- Provide funding and expertise for evaluation of locally developed programs and services.
- Advocate for greater flexibility with programming dollars so that programs that demonstrate positive outcomes but do not meet nationally recognized EBP standards can be adequately funded.
- Provide start-up funding to contractors so they can provide EBP.
- Encourage creative collaborations so that if contracts end, the EBP knowledge, certifications, and accreditations can continue.
- Choose EBP that allow providers to adapt the model to meet the needs of local populations.

CONCLUSION

Given the high level of co-occurrence of SUD, IPV, and CAN in some combination, and the poor outcomes for families and children when these are treated as unrelated concerns, it is time for Hawai'i to try a new, integrated, cohesive approach to helping families struggling with SUD and intrafamilial violence. The research is clear that collaborative models of service delivery yield better results. Frameworks, roadmaps, and funding opportunities exist to implement a collaborative approach. What is needed next is a commitment by a Hawai'i entity to lead the effort.

REFERENCES

1. Breiding MJ, Basile KC, Smith SG, Black MC, Mahendra R. *Intimate Partner Violence Surveillance Uniform efinitions and Recommended Data Elements Version 2.0*. Atlanta, GA: US Department of Health and Human Services Centers for Disease Control and Prevention National Center for Injury Prevention and Control Division of Violence Prevention. Published 2015. Accessed December 23, 2021. https://www.cdc.gov/violenceprevention/pdf/intimatepartnerviolence.pdf
2. Definitions. HRS § 586-1(2012).
3. Centers for Disease Control and Prevention. *Essentials for Childhood: Creating Safe, Stable, Nurturing Relationships and Environments for All Children*. Accessed December 23, 2021. https://www.cdc.gov/violenceprevention/pdf/essentials-for-childhood-framework508.pdf
4. Child Welfare Information Gateway. *Child witnesses to domestic violence*. U.S. Department of Health and Human Services, Administration for Children and Families, Children's Bureau. Published 2021. Accessed December 23, 2021. https://www.childwelfare.gov/pubpdfs/witnessdv.pdf
5. Abuse of family or household members; penalty. HRS § 709-906(2015).
6. Definitions. HRS § 350-1(2009).
7. Selleck K, Newman J, Gilmore D. *Child protection in families experiencing domestic violence (2nd ed.) 2018*. U.S. Department of Health and Human Services Administration for Children and Families Administration on Children, Youth and Families Children's Bureau Office on Child Abuse and Neglect. Published 2018. Accessed December 23, 2021. https://www.childwelfare.gov/pubPDFs/domesticviolence2018.pdf
8. Johnson MP. A Typology of Domestic Violence: Intimate Terrorism, Violent Resistance, and Situational Couple Violence. Boston, MA: Northeastern University Press; 2008.
9. English DJ, Graham JC, Newton RR, et al. At-risk and maltreated children exposed to intimate partner aggression/violence: what the conflict looks like and its relationship to child outcomes. *Child Maltreat*. 2009;14:157-171. doi:10.1177/1077559508326287
10. Taylor CA, Lee SJ, Guterman NB, Rice JC. Use of spanking for 3-year-old children and associated intimate partner aggression or violence. *Pediatrics*. 2010;126(3):415-424. doi:10.1542/peds.2010-0314
11. Felitti VJ, Anda RF, Nordenberg D, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The adverse childhood experiences (ACE) study. *Am J Prev Med*. 1998;14(4):245-258. doi:10.1016/S0749-3797(98)00017-8
12. Smith SG, Chen J, Basile KC, et al. *The National Intimate Partner and Sexual Violence Survey: 2010-2012 State Report*. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. Published 2017. Accessed December 23, 2021. https://www.cdc.gov/violenceprevention/pdf/nisvs-statereportbook.pdf
13. Centers for Disease Control and Prevention. NISVS: An Overview of 2010 Findings on Victimization by Sexual Orientation. https://www.cdc.gov/violenceprevention/pdf/cdc_nisvs_victimization_final-a.pdf
14. Smith SG, Zhang X, Basile KC, et al. *The National Intimate Partner and Sexual Violence Survey (NISVS): 2015 Data Brief – Updated Release*. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. Published 2018. Accessed December 23, 2021. https://www.cdc.gov/violenceprevention/datasources/nisvs/2015NISVSdatabrief.html
15. Vergara R, Hayes D, Higashi J, Liang S, Kaiwi H, Arakaki K. Violence Between Intimate Partners in Hawaiʻi Across the Life Span. Data from BFRSS, PRAMS and YRBS. In: Hawaiʻi State Department of Health, Family Health Services Division, ed. Honolulu, HI2018.
16. Violence Policy Center. *When men murder women*. Published 2020. Accessed December 23, 2021. https://vpc.org/studies/wmmw2020.pdf
17. Niolon PH, Kearns M, Dills J, et al. *Preventing intimate partner violence across the lifespan: A technical package of programs, policies, and practices*. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. Published 2017. Accessed December 23, 2021. https://www.cdc.gov/violenceprevention/pdf/ipv-technicalpackages.pdf

18. Walters ML, J. C, Breiding MJ. *The National Intimate Partner and Sexual Violence Survey (NISVS): 2010 Findings on Victimization by Sexual Orientation*. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. Published 2013. Accessed December 23, 2021. https://www.cdc.gov/violenceprevention/pdf/nisvs_sofindings.pdf

19. State of Hawaiʻi Department of Human Services Social Services Division. *Hawaiʻi Data Booklet Annual Progress and Services Report (APSR) FFY 2021*. Published 2020. Accessed December 23, 2021. https://humanservices.hawaii.gov/wp-content/uploads/2021/01/Attachment-A-2021-APSR-Data-Booklet.pdf

20. Domestic Violence Action Center. *2020 Annual report - New challenges: Steady commitment*. Published 2020. Accessed December 23, 2021. https://domesticviolenceactioncenter.org/wp-content/uploads/2020/12/DVAC_2020_v6.pdf

21. National Network to End Domestic Violence. *15th Annual Domestic Violence Counts Report*. Washington, DC: Published 2021. Accessed January 15, 2022. https://www.hscadv.org/wp-content/uploads/15th-Annual-DV-Counts-Report-Hawaii-Summary.pdf

22. Cafferky BM, Mendez M, Anderson JR, Stith SM. Substance use and intimate partner violence: A meta-analytic review. *Psychol Violence*. 2018;8(1):110-131. doi:10.1037/vio0000074

23. Rivera EA, Phillips H, Warshaw C, Lyon E, Bland PJ, Kaewken O. *An Applied Research Paper on the Relationship Between Intimate Partner Violence and Substance Use*. Chicago, IL: National Center on Domestic Violence, Trauma & Mental Health. Published 2015. Accessed December 23, 2021. http://www.nationalcenterdvtraumamh.org/wp-content/uploads/2014/09/IPV-SAB-Final202.29.1620NO20LOGO-1.pdf

24. Gilchrist G, Dennis F, Radcliffe P, Henderson J, Howard LM, Gadd D. The interplay between substance use and intimate partner violence perpetration: A meta-ethnography. *Int J Drug Policy*. 2019;65:8-23. doi:10.1016/j.drugpo.2018.12.009

25. Flynn A, Graham K. "Why did it happen?" A review and conceptual framework for research on perpetrators' and victims' explanations for intimate partner violence. *Aggress Violent Behav*. 2010;15(3):239-251. doi:10.1016/j.avb.2010.01.002

26. Bureau of Justice Statistics. *Violence between intimates: Domestic violence*. Washington, DC: Bureau of Justice Statistics. Published 1994. Accessed December 23, 2021. https://bjs.ojp.gov/content/pub/pdf/vbi.pdf

27. Smith PH, Homish GG, Leonard KE, Cornelius JR. Intimate partner violence and specific substance use disorders: findings from the National Epidemiologic Survey on Alcohol and Related Conditions. *Psychol Addict Behav*. 2012;26(2):236-245. doi:10.1037/a0024855

28. Mason R, O'Rinn SE. Co-occurring intimate partner violence, mental health, and substance use problems: a scoping review. *Glob Health Action*. 2014;7:24815. doi:10.3402/gha.v7.24815

29. Substance Abuse and Mental Health Services Administration. *Substance abuse treatment and domestic violence*. Rockville, MD: Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Treatment. Published 1997. Accessed December 23, 2021. https://store.samhsa.gov/sites/default/files/SAMHSA_Digital_Download/SMA12-3390_508.pdf

30. Stevens SJ, Arbiter N. A therapeutic community for substance-abusing pregnant women and women with children: process and putcome. *J Psychoact Drugs*. 1995;27(1):49-56. doi:10.1080/02791072.1995.10471672

31. Miller B. Partner violence experiences and women's drug use: Exploring the connections. In: Washington C, Roman A, eds. *Drug Addiction Research and the Health of Women*. Rockville, MD: US Department of Health and Social Services, National Institute on Drug Abuse; 1994.

32. Definitions. HRS § 587A-4(2016).

33. U.S. Department of Health & Human Services AfCaF, Administration on Children, Youth and Families, Children's Bureau,. *Child Maltreatment 2020*. Published 2022. Accessed July 23, 2022. https://www.acf.hhs.gov/sites/default/files/documents/cb/cm2020.pdf

34. Audit Quality Control and Research Office. A Statistical Report on Child Abuse and Neglect in Hawaiʻi. In: State of Hawaiʻi Department of Human Services Audit, Quality Control and Research Office, ed. Honolulu, HI2019.

35. U.S. Department of Health & Human Services AfCaF, Administration on Children, Youth and Families, Children's Bureau,. *Child Maltreatment 2019*. Published 2021. Accessed December 23, 2021. https://www.acf.hhs.gov/sites/default/files/documents/cb/cm2019.pdf

36. Seay K. How many families in child welfare services are affected by parental substance use disorders? A common question that remains unanswered. *Child Welfare.* 2015;94(4):19-51.

37. Goldberg AE, Blaauw E. Parental substance use disorder and child abuse: Risk factors for child maltreatment? *Psychiatr Psychol Law.* 2019;26(6):959-969. doi:10.1080/13218719.2019.1664277

38. National Center on Substance Abuse and Child Welfare. *Percent of Children Removed with Parental Alcohol or Drug Abuse as an Identified Condition of Removal by Age, 2019* Published 2021. Accessed January 15, 2022. https://ncsacw.samhsa.gov/images/statistics/3-aod-removal-by-age.pdf

39. State of Hawai'i Department of Human Services Management Services Office. Child Protective Services System Database.

40. Finkelhor D, Turner HA, Shattuck A, Hamby SL. Prevalence of childhood exposure to violence, crime, and abuse: Results from the National Survey of Children's Exposure to Violence. *JAMA Pediatr.* 2015;169(8):746-754. doi:10.1001/jamapediatrics.2015.0676

41. Hamby S, Finkelhor D, Turner H, Ormrod R. *Children's exposure to intimate partner violence and other family violence*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention. Published 2011. Accessed December 23, 2021. https://www.ojp.gov/pdffiles1/ojjdp/232272.pdf

42. Peterson C, Florence C, Klevens J. The economic burden of child maltreatment in the United States, 2015. *Child Abuse Negl.* 2018;86:178-183. doi:10.1016/j.chiabu.2018.09.018

43. Peterson C, Kearns MC, McIntosh WL, et al. Lifetime economic burden of intimate partner violence among U.S. adults. *Am J Prev Med.* 2018;55(4):433-444. doi:10.1016/j.amepre.2018.04.049

44. Center for Youth Wellness. *Data report - A hidden crisis: Findings on adverse childhood experiences in California*. Center for Youth Wellness (CYW), Public Health Institute. Published 2014. Accessed December 23, 2021. https://centerforyouthwellness.org/wp-content/themes/cyw/build/img/building-a-movement/hidden-crisis.pdf

45. Child Welfare Information Gateway. *Long-Term Consequences of Child Abuse and Neglect*. Washington, DC: Department of Health and Human Services, Administration for Children and Families, Children's Bureau. Published 2019. Accessed December 23, 2021. https://www.childwelfare.gov/pubPDFs/long_term_consequences.pdf

46. Centers for Disease Control and Prevention. *Adverse health conditions and health risk behaviors associated with intimate partner violence --- United States, 2005*. Atlanta, GA: Centers for Disease Control and Prevention, Department of Health and Human Services. Published 2008. Accessed December 23, 2021. https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5705a1.htm

47. Norman RE, Byambaa M, De R, Butchart A, Scott J, Vos T. The long-term health consequences of child physical abuse, emotional abuse, and neglect: a systematic review and meta-analysis. *PLoS Med.* 2012;9(11):e1001349. doi:10.1371/journal.pmed.1001349

48. Centers for Disease Control and Prevention. The social-ecological model: A framework for prevention |Violence prevention|Injury center. Published 2021. Accessed January 31, 2021. https://www.cdc.gov/violenceprevention/about/social-ecologicalmodel.html

49. Child Welfare Information Gateway. *Strengthening families and communities: 2010 resource guide*. Child Welfare Information Gateway, Children's Bureau, FRIENDS National Resource Center, Child Welfare Information Gateway,. Published 2010. Accessed December 23, 2021. https://oklahoma.gov/content/dam/ok/en/health/health2/documents/injury-famandcommresourceguide.pdf

50. Center for the Study of Social Policy. *About Strengthening Families™ and the protective factors framework*. Center for the Study of Social Policy. Published 2018. Accessed December 23, 2021. https://cssp.org/wp-content/uploads/2018/11/About-Strengthening-Families.pdf

51. American Psychological Association. Harmful masculinity and violence: Understanding the connection and approaches to prevention. In the Public Interest. Published 2018. Accessed December 23, 2021. https://www.apa.org/pi/about/newsletter/2018/09/harmful-masculinity

52. Fineman MA. Cracking the foundational myths: Independence, autonomy, and self-sufficiency. *Am Univ J Gend Soc Policy Law.* 2000;8(1):13-29. doi:10.7591/j.ctv3s8sfw.15

53. Kearns MC, Reidy DE, Valle LA. The role of alcohol policies in preventing intimate partner violence: a review of the literature. *J Stud Alcohol Drugs.* 2015;76(1):21-30. doi:10.15288/jsad.2015.76.21
54. Administration for Children & Families. Trauma. Accessed December 23, 2021. https://www.acf.hhs.gov/trauma-toolkit/trauma-concept
55. Wilkins N, Tsao B, Hertz M, Davis R, Klevens J. *Connecting the Dots: An Overview of the Links Among Multiple Forms of Violence*. National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. Published 2014. Accessed December 23, 2021. https://www.cdc.gov/violenceprevention/pdf/connecting_the_dots-a.pdf
56. Duties and responsibilities of department. HRS § 321-193(2019).
57. Alcohol and Drug Abuse Division. Alcohol and Drug Abuse Division | CARES. Accessed December 23, 2021. https://health.hawaii.gov/substance-abuse/cares/
58. Hawai'i State Judiciary. Family court programs. Accessed July 30, 2021. https://www.courts.state.hi.us/courts/family/family_court_programs
59. State of Hawai'i Department of Human Services Social Services Division. Purchase of Services Directory. In: State of Hawai'i Department of Human Services Social Services Division, ed2018.
60. Maternal and Child Health Branch. Report to the Thirty-First Legislature, State of Hawai'i 2021, Pursuant to Section 321-1.3 Hawai'i Revised Statutes Requiring the Department of Health to Submit an Annual Report for the Domestic Violence and Sexual Assault Special Fund. Published 2020. Accessed December 23, 2021. https://health.hawaii.gov/opppd/files/2020/12/DVSA-Special-Fund-Legislative-Report-2021.pdf
61. State of Hawai'i Department of Health. *Maternal and child health services Title V block grant, FY 2021 application / FY 2019 annual report*. Published 2020. Accessed December 23, 2021. https://health.hawaii.gov/fhsd/files/2020/10/2020-Title-V-Narrative-Report.pdf
62. The Judiciary SoH. Annual Report to the Thirty-First Legislature 2022 Regular Session on HRS § 601-3.6 - A Report on Spouse and Child Abuse Special Account. 2021.
63. Service plan. HRS § 587A-27(2016).
64. Adoption and Safe Families Act of 1997. Public Law 105-89(1997).
65. The Family First Prevention Services Act within Division E, Title VII of the Bipartisan Budget Act of 2018. Public Law 115-123(2018).
66. Gregoire KA, Schultz DJ. Substance-abusing child welfare parents: Treatment and child placement outcomes. *Child Welfare.* 2001;80(4):433-452.
67. Choi S, Ryan JP. Completing substance abuse treatment in child welfare: the role of co-occurring problems and primary drug of choice. *Child Maltreat.* 2006;11(4):313-325. doi:10.1177/1077559506292607
68. Osterling KL, Austin MJ. Substance abuse interventions for parents involved in the child welfare system: Evidence and implications. *J Evid Based Soc Work.* 2008;5(1-2):157-189. doi:10.1300/J394v05n01_07
69. Warner E. *Integration of Substance Use Disorder Treatment and Foster Care Services: A Pilot for Hawai'i*. The Association for Infant Mental Health Hawai'i. Published 2020. Accessed December 23, 2021. https://aimhhi.org/wp-content/uploads/2021/12/Integration-of-SUD-and-FCS-Proposal-2020-FINAL-.pdf
70. Casey Family Programs. *How Does Turnover Affect Outcomes and What Can Be Done to Address Retention?* Published 2017. Accessed December 23, 2021. https://caseyfamilypro.wpenginepowered.com/media/HO_Turnover-Costs_and_Retention_Strategies-1.pdf
71. American Public Human Services Association. *Unlocking the "Prevention Services" in the Family First Prevention Services Act*. Published 2021. Accessed January 15, 2022. https://familyfirstact.org/sites/default/files/APHSA_FamilyFirst-Cornerstone_DEC2021_PF6-120921.pdf
72. Social Security Administration. Social Security Act Title IV. Accessed December 23, 2021. https://www.ssa.gov/OP_Home/ssact/title04/0400.htm
73. Administration for Children & Families. Child welfare policy manual. Accessed December 23, 2021. https://www.acf.hhs.gov/cwpm/public_html/programs/cb/laws_policies/laws/cwpm/policy_dsp.jsp?citID=36

CHAPTER 6: CONCEPTUALIZING A NEW SYSTEM OF CARE IN HAWAI'I FOR NATIVE HAWAIIANS AND SUBSTANCE USE

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Suggested Citation:

ABSTRACT

Native Hawaiians of all age groups tend to show a higher prevalence of substance use than other ethnic groups in the state. Research shows that this inequitable health status results from several complex and interconnected social determinants of health, including historical trauma, discrimination, and lifestyle changes.

Before European contact, Native Hawaiians understood that balanced nutrition, physical activity, social relationships, and spirituality were fundamental to maintaining optimal health. Western influences triggered an imbalance in Native Hawaiian society, shifting the paradigm of Native Hawaiian family systems.

Historical and cultural trauma affects multiple generations and are linked to Native Hawaiian health disparities. Cultural trauma is defined as "the loss of identity and meaning that negatively affects group consciousness. It marks and changes them in fundamental and irreversible ways, often resulting in the loss of language, lifestyles, and values."[1] The remedy for cultural trauma is cultural reclamation (identified by Lynette Paglinawan).[2] Historical trauma is defined as psychosocial trauma experienced by Indigenous groups as a result of colonization, war, genocide, or cultural, social, and political subjugation.[3] These historical and cultural aspects have impacted and reached across generations of Native Hawaiians. The outcomes of these traumas are reflected in higher rates of health disparities, including mental health and addiction, which have affected the social determinants of health.

Current access to treatment and recovery is limited for Native Hawaiian residents with substance use problems. This chapter will look at a system of care that would reduce silos and incorporate cultural aspects to improve outcomes for Native Hawaiians receiving services. This chapter will also introduce an 'āina- (land-) based model for creating healthy, thriving Native Hawaiian individuals, 'ohana (family), communities, and care systems.

INTRODUCTION & BACKGROUND

Native Hawaiians historically sought healing within their 'ohana (family) systems. Prior to European contact, Native Hawaiians understood that lōkahi (harmony), which included balanced nutrition, physical activity, social relationships, and spirituality were fundamental to maintaining optimal health.[4-6] Native Hawaiian health has been illustrated in a Lōkahi Triangle[4-6] as an equilateral triangle, with the apex labeled as Nā Akua (Gods/Goddesses/spirituality), and the base on one end labeled as kanaka (person) and the other as 'āina (land).

From the first European arrival in 1778, colonization, systematic oppression, and Western imperialism have led to a loss of traditional healing practices, and our Native peoples were forced into western treatment frameworks for matters that were historically addressed within the 'ohana. Our Native peoples were forced into western treatment frameworks for historically addressed matters within the 'ohana. Because of these factors and introduced diseases, approximately 95% of the population died.[7,8] At the same time, foreigners grew in numbers and power.[7,8] All aspects of the Native Hawaiian people and their culture began to deteriorate, leaving the population vulnerable to displacement, disease, and discrimination.[9]

Today, Native Hawaiians suffer from health disparities in chronic diseases[10] and overrepresentation across all social services, including addiction services,[11] incarceration for drug offenses, and offenses due to addiction diseases.[12] Intergenerational substance use and incarceration impact individual, 'ohana (family), keiki (child), and community health. Disproportionate numbers of our Native population have been consistently overrepresented among those who are seeking or thrust into Western treatment for substance use disorders.[11] Existing systems of care continue to assign treatment within the same western frameworks leading to this consistent overrepresentation. Developed as part of the ADAD State Plan, this chapter will look at a system of care that would reduce silos and incorporate cultural aspects to improve outcomes for Native Hawaiians receiving services. For more background and context around the overall State Plan project, readers are referred to the Introductory Notes of this State Plan System of Care Implications Volume.

Historical Trauma

Historical trauma is defined as psychosocial trauma experienced by Indigenous groups as a result of colonization, war, genocide, or cultural, social, and political subjugation.[3] Four leading examples of trauma that contributed to the health disparities of Native Hawaiians include: 1) loss of land, 2) influx of immigration, 3) the overthrow of the Hawaiian Kingdom, and 4) military destruction and occupation.

Historical trauma affects multiple generations and is linked to Native Hawaiian health disparities. These health disparities often manifest themselves in risky health behaviors and contribute to the increased risk of chronic disease.[13-15] These risky behaviors, such as unhealthy dietary behaviors, physical inactivity, or substance use, can either directly lead to higher morbidity and mortality or indirectly contribute to higher morbidity and mortality through increasing the risk for the future development of disease.[16]

Discrimination

Following the overthrow of their kingdom, Native Hawaiians became a minority in their homeland and marginalized in the new political economy. And by 1898, Native Hawaiian were punished and shamed for speaking their Native language, resulting in the loss of many stories and cultural traditions that perpetuated proper health practices for Native Hawaiians. Racism and discrimination were also contributing factors that caused additional stress and inequitable treatment of Native Hawaiians. Therefore, the stigma and shame of being Native Hawaiian further separated kānaka maoli (Native Hawaiians) from their beliefs and values, forcing them to assimilate to western ideologies and thereby suppressing their cultural identity.

Lifestyle changes

The traditional Hawaiian way of life "was governed by a system based on the notions of kapu (people, places, and things held under strict regulation) and noa (people, places, and things free of restriction). It was essentially resourced management and the public health system that governed how land and ocean resources were accessed and used as well as how people behaved, lived, and treated others.[17]

Foreigners imposed their Christian religion, disrupting the Native Hawaiian traditional ontology and epistemology. They used western practices to appropriate culture and privatize land and natural resources, resulting in the loss of the traditional economy.[18] Native Hawaiians could no longer depend on subsistence farming, fishing, and gathering and were forced to seek western jobs to afford a living. These lifestyle changes had long-lasting effects on the Hawaiian communal society, altering a well-balanced, nutritious diet, and an active lifestyle for holistic wellness and disease prevention. Native Hawaiians joined contract laborers from Japan, China, Korea, Portugal, Puerto Rico, and the Philippines, working long hours on plantations for very little money. The arrival of missionaries in Hawaiʻi further undermined the national natural order of affairs; they actively influenced nā aliʻi (the chiefs) to denounce, deny, and criminalize the practice of Native Hawaiian cultural traditions and spiritual practices.

These historical aspects have impacted and reached across generations of Native Hawaiians. The outcomes of these traumas are reflected in higher rates of health disparities, including mental health and addiction, which have affected the social determinants of health.

OBSERVATIONS & RATIONALE

Cultural trauma is defined as "the loss of identity and meaning that negatively affects group consciousness. It marks and changes them in fundamental and irreversible ways, often resulting in the loss of language, lifestyles, and values."[1] Our Native ʻohana have become disconnected from their cultural heritage throughout generations. Many of these ʻohana carry intergenerational trauma created by oppression and criminalization of the Native identity at the hands of those who colonized our island home. Further layers of complexity are added through the loss of land and abrupt lifestyle changes from subsistence living into a capitalistic environment, the ramifications of which created stark socioeconomic differences between Native Hawaiians and their western counterparts. These differences have led to generations of poverty, houselessness, and mental health issues for Native Hawaiians that continue today.

The Diagnostic and Statistical Manual of Mental Disorders 5th edition (DSM-5) recognizes the unique nature and importance of cultural concepts of distress.[19] However, a Native Hawaiian worldview has not yet been included in those listed. The Cultural Formulation Interview and supplemental modules in the DSM-5 provide a framework for assessment and a first step in approaching these areas through a broader lens. However, when in distress, seeking medical, behavioral/mental health, or substance use services, our Native people are treated by clinicians trained in predominantly western ways. Therefore, clinicians working with Native individuals and families must be educated on our history, historical injustices, traumas, the impacts of colonization, traditional beliefs and practices, and understanding of the Hawaiian worldview.[20]

In Canada, the First Nations Health Authority sees their Indigenous population disproportionately represented by overdose deaths. To make seeking help more culturally responsive, they now provide KUU-US, a "First Nations and Aboriginal specific crisis line available 24/7, regardless of where individuals reside in British Columbia."[20] Their services are for First Nations, by First Nations, and all crisis response personnel are certified and trained in Indigenous cultural safety and therefore bring an understanding of First Nations history and trauma from the residential school to their roles. Last year, KUU-US helped over 10,000 individuals with mental health issues and crises related to residential school, child welfare, addiction, health concerns, divorce/separation, suicide ideation/survivorship, grief/loss, crime, abuse, peer pressure, and financial distress.[20]

Indigenous cultural safety training is a concept that should be mandated for all those working with Indigenous peoples and communities. One such example of this training is called *San'yas*. The goal of the training is to strengthen the skills of those working both directly and indirectly with Indigenous populations of British Columbia. Their website explains the *San'yas* training as follows:

> "Skilled facilitators guide and support each learner through interactive course materials. The course participants examine culture, stereotyping, and the consequences and legacies of colonization. Participants will learn about terminology, diversity, and aspects of colonial history such as Indian residential schools and Indian Hospitals and a timeline of historical events."[20]

Paglinawan and colleagues maintain that the remedy for cultural trauma is cultural reclamation.[2] To develop effective, culturally focused approaches for working with Native Hawaiians, we must look i ka wā kahiko (to ancient times), to our kūpuna (elders), and to respected healers within our community to understand how maʻi (sickness) was approached during ancestral times. Hawaiian maʻi, Hawaiian illnesses, or maʻi kamaʻaina, call for Hawaiian assessment, diagnosis, and treatment which is an ancient concept with deep roots in Hawaiian healing. Maʻi malihini or illnesses that stem from western influence, such as infectious or chronic disease, could be treated through western medicinal pathways. However, they are still best coupled with traditional kanaka health and well-being approaches to heal the spirit. For substance use, the root of this kind of maʻi is much deeper, and it could be understood almost as an amalgamation of maʻi kamaʻaina and maʻi malihini. Understanding these concepts requires deep reflection and study (with practitioners of Hawaiian healing) of maʻi that contributes to an unhealthy kānaka environment, such as historical/intergenerational trauma and the loss of connection. Also, by understanding the root causes of maʻi kamaʻaina (Hawaiian illness), as well as the manifestation of addiction as a symptom of this deeper trauma,[21] practitioners can be better prepared to provide culturally focused interventions.

To the tradition-imbued Hawaiian, questions about family relationships and health histories are more than rude. Answering such questions takes on the quality of kaulaʻi na iwi i ka lā or even holehole iwi. Both were once actual practices. Kaulaʻi na iwi i ka lā was "bleaching the bones of one's ancestors in the sun." Holehole iwi was the grim preparatory step, literally removing or "stripping the bones" off the dead body. Today "drying the bones in the sun" means talking too freely about ancestors to non-family members. "Stripping the bones" is the more serious offense of airing the faults and weaknesses of relatives or ancestors to outsiders.[22]

It is also important to determine the best approach for our Native people during the intake or assessment process. Throughout generations, many of our Native ʻohana have disconnected from their cultural heritage and carry intergenerational trauma created by the oppression and criminalization of the Native identity. This trauma is then compounded upon and passed down through generations.

Some manifestations of this are outlined in the three-volume set of Nānā i ke Kumu. The negative self-concept is outlined in Vol 2,[23] where a client equates nearly every misfortune or failure with being Hawaiian.

> ""The reason all this trouble happens to me is that I'm Hawaiian. There's nothing good about Hawaiians."
>
> "It's this way (on welfare) with us because we're Hawaiian. It's not this way with other people."
>
> "A Chinese-Hawaiian boy in trouble with the law: "It's the bad Hawaiian in me. Why are you trying to help me? I'm a bad Hawaiian kid.""[23]

Some of this extremely low self-image is linked with low socioeconomic status. Clients are embarrassed and ashamed because: "I live in public housing." "We're on welfare." "All the kids at school know I go to the free clinic." "Everybody's always snooping, taking surveys about us."[23]

Further layers of complexity are added with the individual or 'ohana feeling shame or denial of their cultural ways. It can be hard to tell whether a client expresses these feelings out of shame, embarrassment, or protection of sacred kuleana (responsibility).

> "The Hawaiian who says, "I don't know anything about the old ways," or "We don't talk about that" may be only protecting traditional beliefs from scorn or skepticism; he may actually be quietly proud of his cultural heritage.
>
> It is the Hawaiian who talks of "silly superstitions" and "awful heathen beliefs" who is obviously trying to separate himself from an ethnic past that embarrasses him.
>
> It partly stems from handed-down attitudes that began with initial encounters with Westerners, missionaries, and laypeople.
>
> It also stems from an only surface knowledge of old beliefs so that rituals, but not their reasons, are known. And rituals of any time and culture may seem foolish if their purpose is not understood.
>
> It stems from fragmented and distorted knowledge of culture so that the wisest and beneficial beliefs and institutions are thought to have been destructive and shocking.
>
> For example, Kahuna is often associated with sorcery but not healing. That wise and wonderful family therapy, ho'oponopono (Native Hawaiian practice of healing families through forgiveness), is confused with ho'omanamana, false worship, or attributing strange power to something that has no power.
>
> It also stems from a failure to view Hawai'i's ancient beliefs from the perspective of world history.
>
> Example: Hawaiians believed in "heathen gods." Without perspective, many Hawaiians think such belief was "shameful."
>
> In perspective: Hawai'i prayed to Kāne, Kū, Lono, and Kanaloa; Greece to Zeus, Apollo, Aphrodite, and Artemis; Rome to Jupiter, Venus, Diana, and Mars. From all these beliefs came the inspiration for great literature and art."[23]

Loea Ho'oponopono Aunty Lynette Paglinawan, a revered haku ho'oponopono (cultural practitioner in the Native Hawaiian practice of healing families through forgiveness) and social worker who studied under Aunty Mary Puku'i (a revered cultural practitioner), offers us some of the most valuable insight into assessing Native Hawaiian individuals and 'ohana through her and her husband Uncle Richard "Likeke" Paglinawan's work in the community, as well as the 3 - volume set of Nānā I Ke Kumu.

It is also important to determine the best approach for our Native people during the intake or assessment process to determine whether a culturally grounded healing would be most beneficial.

An excerpt from Nānā i Ke Kumu provides an example of Indigenous assessment[2]:

"This is where you create the climate for a committed collaborative, working together effort in a safe healing context. It is the setting up of the work base.

Do an assessment of (the) family's culture-based beliefs and practices in this phase. This helps to determine whether a culture-based intervention has relevance with the family's stated sense of identity. This is a departure from the traditional times in that families were more in touch with the philosophy and values of the ho'oponopono practice, and doing an assessment was unnecessary.

Through the interview, haku seeks data about the Hawaiian beliefs and practices of individuals and families. Since many families do not label their practices as Hawaiian, Japanese, etc., you will need to become familiar with their Hawaiian family practices or any they know of.

For example, during the first interview, the haku learned that besides Hawaiian ancestry, the family clearly identified with the Hawaiian ideas and practices. How is this reflected in their beliefs and activities? Well, if the family believes in the importance of family, find out what they do together that illustrates this value. For example, does the family join in singing and/or playing 'ukulele (musical instrument) together? Do they canoe, camp at the beach, kōkua (help) with, and attend 'ohana gatherings? Do the parents have a belief and keen respect for moe'uhane (dream) and hihi'o (vision seen when just going to sleep or just awakening)?

Some Hawaiian practices could include the use of Hawaiian plant lā'au (medicine), pī kai (cleansing) after funerals, understand kahu luhi (extend a helping hand to a family as temporary caretakers) of nieces and nephews, participate in Ho'oponopono (Hawaiian problem solving) while kupuna was alive but don't do it for themselves, do pule 'ohana (family prayers). Do their children have Hawaiian names which they got from a dream, or turned to Kupuna to name each child? The above facts indicate the family lives these practices and are a good candidate for a culture-based intervention."[2]

Assessment and intake from a western approach can be off-putting and invasive for some Native Hawaiians. Culturally, we must take a more Indigenous approach by "talking story" with the 'ohana or individuals. Caseworkers must voice intentions, explaining why questions may be asked and how they will be applied to the problem at hand.[22] During the intake or assessment process, it is also important to determine the best approach for our Native people to determine whether a culturally grounded healing would be most beneficial.

Similarly, there exists a gap or disconnect between Indigenous assessment and the application of cultural interventions. This disconnect or gap may be largely due to incongruent western standards to which culturally-focused interventions are measured and can be further illustrated in **Table 1** below by Okamoto et al., who points out the limitations experienced throughout the development of varying culturally-focused intervention categories.

Table 1. Strengths and limitations of approaches in developing culturally focused interventions (used with permission from Okamoto et al. (2014)[24]

Culturally grounded prevention		Deep-structure cultural adaptation		Non-adaptation/surface-structure cultural adaptation	
Strengths	Limitations	Strengths	Limitations	Strengths	Limitations
Community is engaged and invested in the development of the program	Time Consuming	Based on empirically supported intervention principles	Assumes the core components of an evidence-based program are applicable across cultural groups	Tests the applicability of generic/ universal prevention principles to unique groups	Often unacceptable to or disconnected from the community
Directly addresses core cultural constructs	Expensive	Balances length of time and costs to develop curriculum with the ability to bring the program to scale	Need to specify and retain the core prevention components for fidelities	Faster to develop, implement, and bring to scale	Can potentially avoid core cultural components
Core prevention components are derived organically (from the "ground up") and can therefore be intertwined with core cultural components	Difficult to evaluate and replicate in similar settings	Engages the community, but within the parameters of a specific evidence-based program	May inadvertently alter core components and decrease their effectiveness	Based on empirically supported interventions, but with questionable "fit."	

Okamoto[24] provides an assessment of the strengths and limitations of developing culturally-focused interventions (**Table 1**). In summary, culturally grounded interventions provide a "ground-up" approach from a foundation of culture. Non-adaptation, surface-structure cultural adaptation interventions provide a "top-down" approach, altering the original model to add cultural components. Finally, deep-structure cultural adaptations use a "sprinkling in" approach of integrating culture into the intervention, providing "changes to images or phrases throughout its content or lessons, to align the program with familiar concepts or references of a specific cultural group." Providers that utilize culturally-based treatment focusing on Native Hawaiians provide interventions in alignment with Okamoto's categories. However, most providers lack the capacity to develop an evidence base that meets western requirements, as illustrated in the limitations set by Okamoto et al.

Indigenous ways of knowing provide evidence that predates any semblance of western evidence, yet the western way is somehow dominant today. An Indigenous evidence base has been established orally by passing down the knowledge of our people through traditional practices, storytelling, song, and much more. The Indigenous-based evidence, coupled with evidence from community-based participatory action research approaches, should be used to develop and measure the efficacy of culturally resonant/attuned interventions. Recovery and healing are lifelong processes. Therefore, we must begin to re-envision the existing continuum of care, embrace culturally grounded approaches, and begin to see the entire continuum as cyclical rather than linear, with each area of focus informing the next.

From a western lens,[25] the four sources of evidence for patient-centered, evidence-based practice include: (1) research; (2) professional knowledge/clinical experience; (3) patient experience &

preferences; and (4) local data & information; the center of these four sources intersect to form a new evidence base.[25] From a western lens, the research has assumed priority over other sources to provide watertight answers to questions posed. However, the research evidence is socially and historically constructed and can be interpreted differently by different stakeholders, varying by individuals within a group, a community, or even within a profession.[25] One form of evidence-based is professional/clinical knowledge, and this is knowledge accrued through professional practice and life experiences.[26] Just as real-life clinician experience informs practice evolution, so should cultural practitioner knowledge and ancestral knowledge broaden our understanding of what is accepted as evidence, not to become siloed in western ways, but instead uplift and prioritize other ways of knowing.

For example, in Aotearoa (New Zealand), *Mahi a Atua*, a culturally grounded intervention, is now a part of their front door mental health services. *Mahi a Atua* (tracing the ancestral footsteps of the Gods) is being offered as a Māori approach to primary mental health care under the Ministry of Health's Mental Health and Addictions Project. *Mahi a Atua* is a *kaupapa Māori* (Māori methodology) way of engaging with, assessing, and treating *whaiora* (distressed people) who present with mental health problems. It is based on *pūrākau* (Māori creation and custom narratives).[27] This is one example of how the western DSM and International Classification of Diseases (ICD) diagnosis can be utilized to fit our own needs in referring to culturally grounded interventions.

Peer recovery specialists and group peer support can also be invaluable resources for our Native people. Unfortunately, often "recovery spaces" do not resonate with Indigenous peoples, Indigenous way of healing, individuals of color, or those who may wish to pursue a more culturally grounded or holistic pathway to healing. Many times, "recovery spaces and recovery language" can often feel exclusive to individuals of color, and those whose cultural backgrounds may be deeply rooted in community, pilina (connections), and ʻohana (family). The existing western frameworks do not always resonate with Indigenous peoples. Western barriers of self-disclosure can often be inhibiting when working with Native Hawaiians. Indigenous peer recovery specialists bring themselves, their ʻohana lineage, and their moʻolelo (story) into their workspaces. Recovery and healing are lifelong processes. Therefore, we must begin to re-envision the existing continuum of care, embrace culturally grounded approaches, and begin to see the entire continuum as cyclical rather than linear, with each area of focus informing the next.

CURRENT SYSTEM OF CARE IN HAWAIʻI

To better understand the current system of care and needs related to substance use, a literature review was conducted, and input and feedback were obtained from more than 40 stakeholder groups. These sources were incorporated into determining the scope of the issues and to describe the needs or gaps in our current systems of care.

According to the Hawaiʻi State Department of Health Alcohol and Drug Abuse Division (ADAD), Native Hawaiians were admitted to treatment 1,358 times in 2017, which is 42.3% of the State total and the most of any ethnic group.[11] This overrepresentation of Native Hawaiians in ADAD treatment services has been reflected for almost two decades comparatively to Native Hawaiians representing 20% of the overall state population depicted in **Figure 1** below.[11]
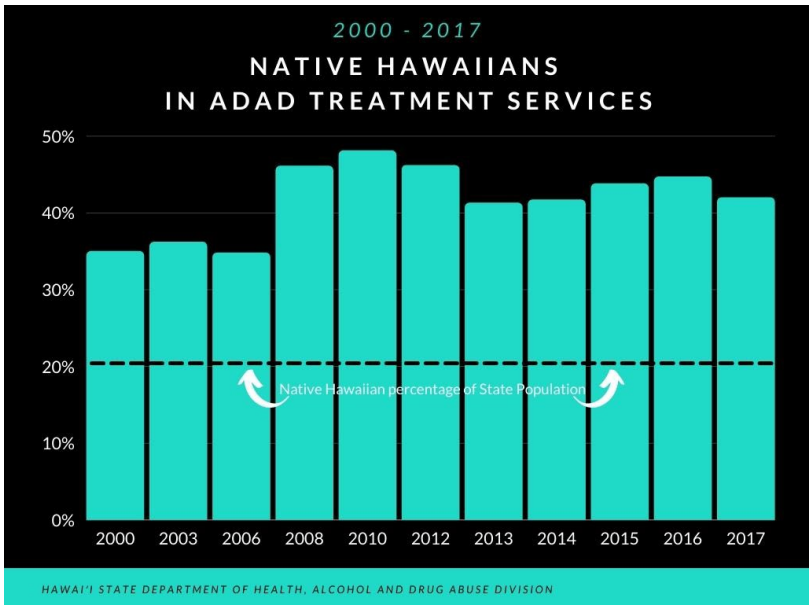
Figure 1. Percent of Native Hawaiians in ADAD Treatment Services from 2000 to 2017, summarized from Office of Hawaiian Affairs' Health Indicator Sheets Regarding Substance Use 2012, 2014, 2016 (https://www.oha.org/mauliola).

According to 2019 Youth Risk Behavior Survey (**Figure 2**), Native Hawaiian youth (grades 9 – 12) have higher rates of ever having used heroin (4.9%), cocaine (7.5%), ecstasy (5.4%), and other injection drugs (4.1%) when compared to the overall US youth (1.8%, 3.9%, 3.6%, 1.6% respectively).[28,29]
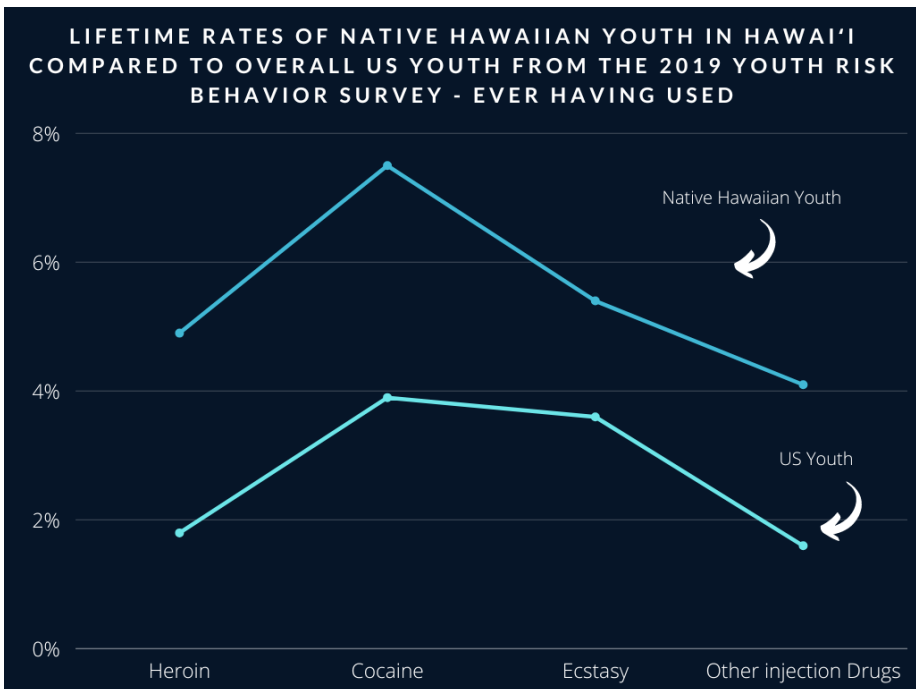
Figure 2. Lifetime Rates of Native Hawaiian Youth Compared to Overall US Youth from the 2019 Youth Risk Behavior Survey[28,29]

However, data shows that Native Hawaiian youth are being arrested primarily for Marijuana, and at higher rates than other ethnicities in Hawaiʻi.[30,31]

In 2020, 38% of adult persons incarcerated in Hawaiʻi for which "serious drug offenses' were listed as their lead charge were identified as Hawaiian or Part Hawaiian, and 39% for those listed with "drug paraphernalia" as their lead charge. In addition to the previously mentioned charges, it is also important to note a high proportion of Native Hawaiians were also listed with property crimes or revocation as their lead charge, 40% and 36%, respectively.[32] Property crimes are often associated with poverty and/or support of substance issues, and revocations are often related to positive drug screening as a condition of parole or probation. We do not currently have the data for this association but would like to note this would be an essential data source to review. We also acknowledge that the Hawaiʻi corrections department and its associated programs are not the purview of the Department of Health and are not associated with ADAD or subject to their oversight. However, once released from incarceration, if drug screening or any other substance-related programming is a condition of release, parole, or probation, the individual is referred to ADAD or other related services.

In 2018, over 30% of all Native Hawaiian admissions to ADAD treatment were referred via the criminal justice system, increasing to over 40% in 2020. Of those Native Hawaiians accessing services, over 40% indicated methamphetamine addiction as their primary substance of issue. Heroin and other opioids were the substance of choice of just over 4% (reported with permission from ADAD).[33] This consistent overrepresentation further illustrates the ineffective nature of the Western treatment of Native peoples.

About $16.1 million in state and federal funds were spent on statewide treatment services in 2017. Of those funds, 45.7% were spent on Native Hawaiians, as seen in **Table 2.**[11]

Table 2. Native Hawaiians and treatment services. Adapted from 2010-2018 Strategic Results: Substance Abuse Indicator Sheet 201.[11]

	2013	**2014**	**2015**	**2016**	**2017**
# of Native Hawaiians (NH) served	1,645	1,636	1,656	1,581	1,358
% of NH served	41.3%	41.7%	43.8%	44.7%	42.3%
$ spent on NH	$7,757,781	$7,853,227	$8,537,998	$7,954,489	$7,371,831
% of total spent on NH	43.7%	45.2%	47.4%	47.4%	45.7%
Total	$17,761,437	$17,375,319	$18,026,379	$16,793,828	$16,113,778

ADAD collects, uses, and develops fund allocations based on ethnicity data. Due to those efforts, ADAD can identify the disproportionate representation of Native Hawaiians receiving services for substance use in the state. ADAD receives around 60% of its funding from general funds, 2% from special funds, and 37% from federal funding.[34] Due to the high risk of substance use among Native Hawaiians, ADAD has a federal Substance Abuse Prevention and Treatment mandate pursuant to 42 USC Sec. 300x-63 through the Substance Abuse and Mental Health Services Administration (SAMHSA) Block Grant to target services to the Native Hawaiian population and track spending on those services. This information is then reported to SAMHSA each year and available upon request. As a result of ADAD's focus on Native Hawaiians, when it issues a request for proposals (RFPs) for contracted services, it lists Native Hawaiians as a priority population. Therefore, service providers who identify themselves as cultural providers and have a proven track record are given priority for contracts targeting the Native Hawaiian population. It is important to note that Native Hawaiians are not the only targeted population and thus are not the sole focus of all RFPs.

Current policies allow for flexibility for treatment providers in set activities tailored to Native Hawaiians in set activities for treatment providers, thus allowing for the offering and inclusion of alternative treatment methods. However, the current gap exists in providers, cultural practitioners, and ADAD discussing and agreeing upon culturally resonant documentation and reporting of cultural services in clinical notes on how their treatment improves protective factors or reduces risk factors. This gap can be addressed by developing a culturally responsive system of care that uplifts and values Indigenous knowledge and cultural healing pathways.

In the current care system, multiple providers are contracted to provide services at different stages of care and treatment related to substance abuse. These providers are contracted through a procurement system throughout the state.[35] The "Continuum of Care" is a concept involving a system that guides and tracks patients over time through a comprehensive array of health services, spanning all levels and intensities of care.[36] The continuum of care covers healthcare delivery over a period of time.[36]

The current system of care in Hawai'i does include some providers who use varying degrees of culturally based or culturally adapted treatment and prevention programs. Treatment providers who contract with the ADAD adhere to the Levels Of Care (LOC) model that was established by the American Society of Addiction Medicine (ASAM),[36] which includes early intervention, outpatient, intensive outpatient, residential, and medically managed services.[37] Most providers utilize western interventions such as cognitive behavioral therapy (CBT), dialectical behavior therapy (DBT), or 12-step programs (a model used for Alcoholics Anonymous/Narcotics Anonymous (AA/NA)).

- Level 0.5: Early intervention services

- Level 1: Outpatient services

- Level 2: Intensive outpatient/ Partial hospitalization services

- Level 3: Residential Inpatient services/Clinically Managed Low-Intensity Residential Services/Clinically Managed Population-Specific High-Intensity Residential Services/Clinically Managed Medium-Intensity Residential Services for adolescents

- Level 4: Medically managed intensive inpatient services

Providers who employ utilization of culturally-based treatment with a specific focus on Native Hawaiian values continue to find difficulty in billing for cultural services to ADAD, as well as including cultural services in treatment plans to accurately capture the successive impact that cultural reclamation can have on the individual, the 'ohana, and the community. For Kānaka Maoli (Native Hawaiians), cultural reclamation can be defined as a spiritual/cultural healing process of a reawakening within the na'au (visceral mind) to deeper learning and understanding of the underlying reasons for their cultural beliefs, cultural practices, and their true identity as Kānaka Maoli.[38] Learning about one's history and cultural heritage, genealogy, and cultural morals and values, making ancestral connections, engaging in cultural practices (e.g., working in the lo'i [taro field], dancing the hula) and learning to speak one's language facilitates healing and cultivates cultural pride, which nurtures the development of a positive cultural identity and overall self-image.[38] Ultimately, cultural reclamation leads to reasserting one's worth and value as an Indigenous individual and gives that individual an additional protective layer of inner strength to overcome life stressors.[38] Most providers are dependant on outside funding to cover the costs of cultural practitioners to provide culturally-based healing, which only further silos culturally-based approaches from western treatment constructs and places a burden on the provider to maintain two separate pathways of healing.

The State also supports school and community-based youth prevention programs.[39] Given the reliance on nationally endorsed evidence-based practices, the majority of youth substance use programs implemented in Hawai'i have not been designed to support Native Hawaiian youth and communities specifically.[40] Two exceptions are the school-based Ho'ouna Pono middle school drug prevention curriculum[41] and the Hawaiian Homestead based Puni Ke Ola[42] adolescent substance use program. The National Institute on Drug Abuse-funded Ho'ouna Pono program has been evaluated in a set of studies,[43] and is currently working with their state partners to develop a sustainability strategy.[44] The Puni Ke Ola program has been supported through a variety of local and national sources in the

intervention development[45] and feasibility phases,[46] aligns with a Culture-as-Health framework,[47] and currently is funded by ADAD and Papa Ola Lōkahi in preparation for multi-community implementation.

There are a several policies in Hawai'i and nationally, that highlight the need and importance of developing and delivering culturally safe and culturally relevant substance use services. Cultural safety is a strengths-based concept and is an "outcome based on respectful engagement that recognizes and strives to address power imbalances inherent in the health care system. It results in an environment free of racism and discrimination, where people feel safe when receiving health care.[48] Below is a description of National Standards for Culturally and Linguistically Appropriate Services (CLAS) in Health and Health Care.

> "For us, culturally and linguistically appropriate services (CLAS) is a way to improve the quality of services provided to all individuals, which will ultimately help reduce health disparities and achieve health equity. CLAS is about respect and responsiveness: Respect the whole individual and Respond to the individual's health needs and preferences.

> Health inequities in our nation are well documented. Providing CLAS is one strategy to help eliminate health inequities. By tailoring services to an individual's culture and language preferences, health professionals can help bring about positive health outcomes for diverse populations."[49]

Current work in Hawai'i surrounding the National CLAS Standards, through The Māpuna Lab, are intended to advance health equity, improve quality, and help eliminate health care disparities by establishing a blueprint for health and health care organizations to:

> Principal Standard: 1. Provide effective, equitable, understandable, and respectful quality care and services that are responsive to diverse cultural health beliefs and practices, preferred languages, health literacy, and other communication needs.[49]

Māpuna Lab has developed the Kanilehua Framework[50] which includes: terminology that uplifts the Native worldview, clear linkages to Native epistemologies that value underrepresented narratives and experiences, as well as visual and conceptual cohesion with Native health belief systems.[51]

> Governance, Leadership, and Workforce: 3. Recruit, promote, and support a culturally and linguistically diverse governance, leadership, and workforce that are responsive to the population in the service area.

Māpuna Lab also advocates for inclusion in hiring practices. Some recommendations are: employ cultural advisors, preferential hiring from the communities served, inclusion of cultural competence and priority language proficiency among minimum qualifications, and the development of an advisory board of cultural experts that incorporates iterative and honest feedback into DOH ADAD services.[51]

In Hawai'i, in 2014, Act 155[52] added to the Hawaii State Planning Act's objectives and policies for health, the identification of social determinants of health and prioritization of programs, services, interventions, and activities that address identified social determinants of health to improve Native Hawaiian health in accordance with federal law and reduce health disparities of disproportionately affected demographics. In 2019, SCR 103[53] urged the inclusion of Native Hawaiian cultural intervention treatment programs, wllness plans, and holistic living systems of care in the State of Hawai'i's response to the rise of misuse and abuse of opioids or illicit substances in Hawai'i.

CONVENING THE VOICE OF HAWAI'I

Papa Ola Lōkahi convened virtual Native Hawaiian Substance Use Stakeholder Meetings across the pae'āina (archipelago) of Hawai'i in late October 2021. These gatherings engaged stakeholders in an inclusive and interactive process to understand what Native Hawaiian culture could and should look like across the continuum of care in substance use services. The comments provided illustrate a set of common themes, priorities, and recommendations identified across all communities to create a Hawaiian culture-based continuum of care substance use system that serves the best interests and needs of Native Hawaiians.

Concerns

- Lack of Neighbor island substance use services
  - The absence of substance use treatment services on the neighbor islands surfaced as the top concern by stakeholders across the various island communities. Lack of treatment options separates 'ohana members and unravels the cohesiveness of the family unit. It also disrupts the health and wellbeing of the communities of 'ohana. This treatment gap has also been reported to lead to unnecessary and inappropriate incarceration for Native Hawaiians affected by substance use disorder. Systemically, inappropriate placement spirals into a cycle and "revolving door" of incarceration where kānaka possess disproportionate representation in the criminal justice system with higher rates of criminal charges and sentencing instead of receiving appropriate treatment and care.
  - Lack of 'ohana support
    - A related concern is the lack of support for the entire family to understand substance use disorder (SUD) and learn strategies to attend to their own support needs and self-care. Participants identified SUD as a family disease that affects all members of the 'ohana. It needs to be addressed with appropriate interventions for the holistic healing of everyone within the family unit. "There is a need to involve the entire 'ohana in treatment to sustain clean and sober living in recovery," a participant stated. "Connecting families to housing and 'āina (land) to allow healing and practice of shared kuleana (responsibility) to do "real life together."

Strengths

- Pilina (connections/relationships)
  - Stakeholders strongly agree that their key strengths are grounded in the pilina, relationships shared with one another as an 'ohana of collaborators committed to creating healing pathways to address Native Hawaiian substance use.
- Existing systems of support
  - Stakeholders commonly identified existing community organizations, substance use programs, services, and churches as healing spaces for the Native Hawaiian community. This emphasis recognized the value of these spaces to provide effective support within their area of expertise across the continuum of care.

Envisioning a Preferred Future: Addressing Needs and Gaps and Supporting Professional Development Pathways to Create a Hawaiian Culture-Based Continuum of Care System

- Needs and Gaps: Lack of Hawaiian Culture-Based Visibility Across the Continuum of Care
  - The compelling and resounding need and gap area across the pae'āina (archipelago) is an absence of the intentional and systemic interweaving of Hawaiian culture-based practices within substance use services from prevention to recovery. This lack of visibility is evident in various contexts. Yet, all seem to be rooted in a lack of awareness, knowledge, and/or understanding of the Native Hawaiian worldview and the negative impacts of historical, cultural, and intergenerational trauma on substance use and its broader effect on ola (wellbeing). Stakeholders describe and unpack a series of components to communicate what the absence of Hawaiian culture-based visibility looks and sounds like in action.
  - Professional Development: Creating a Culture of Hawaiian Cultural Awareness
    - The creation of a multi-pronged, long-term approach to shift mindsets and develop a set of common knowledge, understanding, and skills to acknowledge and amplify Native Hawaiian ways of knowing and being strongly emerged as an overarching solution to create a Hawaiian culture-based continuum of care system. Three main components materialized from stakeholders' mana'o (thought, idea, belief) that identify the essential elements needed to create this future state.

- People: Engaging the entire substance use continuum of care community inclusive of lawmakers, decision-makers, service providers, etc. at all levels and touchpoints within the continuum of care.
- Process: E hoʻi i ka piko E hoʻi i ka piko, meaning to return to the source, is a suite of strategies that will work together to normalize the Hawaiian worldview, practices, and approaches as a pathway towards healing. This process will include the following components:
  - Elevating Homegrown Cultural Practitioners: Providing career pathways and spaces for Native Hawaiian practitioners to secure professions at various levels within the substance use continuum of care. Expanding the workforce of Native Hawaiian researchers and scholars to grow the knowledge base around culturally-grounded substance use services.
  - Cultural Awareness Training: Provide cultural awareness training across the workforce of service providers to educate and inform about the negative impacts of historical, cultural, and intergenerational trauma on substance use and its broader effect on ola (wellbeing). Implement consistent and frequent culture-based training opportunities and support to move providers from knowledge to skill building to action.
  - Connection to ʻĀina and Sense of Place: Normalize and nurture an intimate and spiritual relationship with the land and significant places as an integral part of the healing experience
- Product: Implementing these elements in a continuous improvement process will create a Hawaiian culture-based continuum of care system over time.

INTERVENTIONS (RE-IMAGINED)

Re-envisioning a culturally responsive system of care first requires us to identify parallel strengths and potentially detrimental differences that form the existing colonized/western system's foundation. Re-envisioning a culturally responsive system of care first requires us to identify parallel strengths and potentially detrimental differences that form the existing colonized/Western system's foundation through the examination of three key areas: (1) Cultural perceptions of self; (2) Shifting to a cyclical continuum; and (3) the Ahupuaʻa model.

Table 3. Parallel Strengths of Western and Native Hawaiian Healing Practices.[10,54]

Western Healing Practices	Native Hawaiian Healing Practices
Focus on physical/psychological signs, symptoms, and causes	Focus on spiritual/interpersonal complaints and causes
Organic or psychological causal models	Causal models based on an imbalance in relationships/life roles
Treatment involves medicine, cognitive restructuring, and lifestyle changes	Treatment involves prayers, herbs, and repairing relationships
Evidence-based	Faith-based

Table 3 provides a side-by-side look at where western and Native Hawaiian healing practices can meet and work together to strengthen one another. Let's also look at risk and protective factors from a western and Native lens.

Risks and (Protective) Factors

According to ADAD, some of the characteristics mentioned that could influence risk and/or resiliency to alcohol and drug abuse are: community environment living in (e.g., risks are high unemployment, high prevalence of crime; protective factors are adequate housing, easy access to adequate social services) and family environment (e.g., risks are alcohol and other drug dependencies of a parent, abuse/neglect, lack of family values; protective factors are structured and nurturing family).[55,56]

Risk and protection related to drug use for Native Hawaiian youth have also been described in the context of interrelated familial networks.[57] Qualitative methods,[57] explain how immediate and extended family members provided exposure to or protection from illicit substances in the home, school, and community. Research has suggested that family factors play a significant role in the substance use and resistance to substances of Native Hawaiian youth.[58,59] Compared to their non-Hawaiian counterparts, Hawaiian adolescents interacted significantly more with their family members[59] and received more family support,[60] suggesting that family plays an important and influential role in the lives of Native Hawaiian youth. In particular, respect for elderly family members (kūpuna) as sources of wisdom and carriers of the culture is an important characteristic within Native Hawaiian communities and an integral part of drug abuse rehabilitation.[61,62] These findings indicate the family-oriented value system (i.e.,'ohana system) that is pervasive within the Native Hawaiian culture.[63] Therefore, though multiple factors may influence the drug use of Native Hawaiian youth, family members seem to play a key role in the drug use and resistance for these youth.[64]

A study, *Community Risk and Resiliency Factors Related to Drug Use of Rural Native Hawaiian Youth: An Exploratory Story*, examined the risk and resiliency factors related to the drug use of Native Hawaiian youth residing in rural communities.[57] First, the influences of family, community, risk, and protection for youth in this study are intertwined and interactive processes.[57] Second, this study also emphasizes that familial networks are the foundation of community-based risk and resilience for rural Hawaiian youth.[57] Finally, this study helps to explain why research on culture, risk, and resiliency has demonstrated mixed findings.[65]

When we take these risk and protective factors a step further to integrate the social and cultural determinants of the health model (**Figure 3**) developed by Dr. Keawe Kaholokula, a picture emerges.[66]
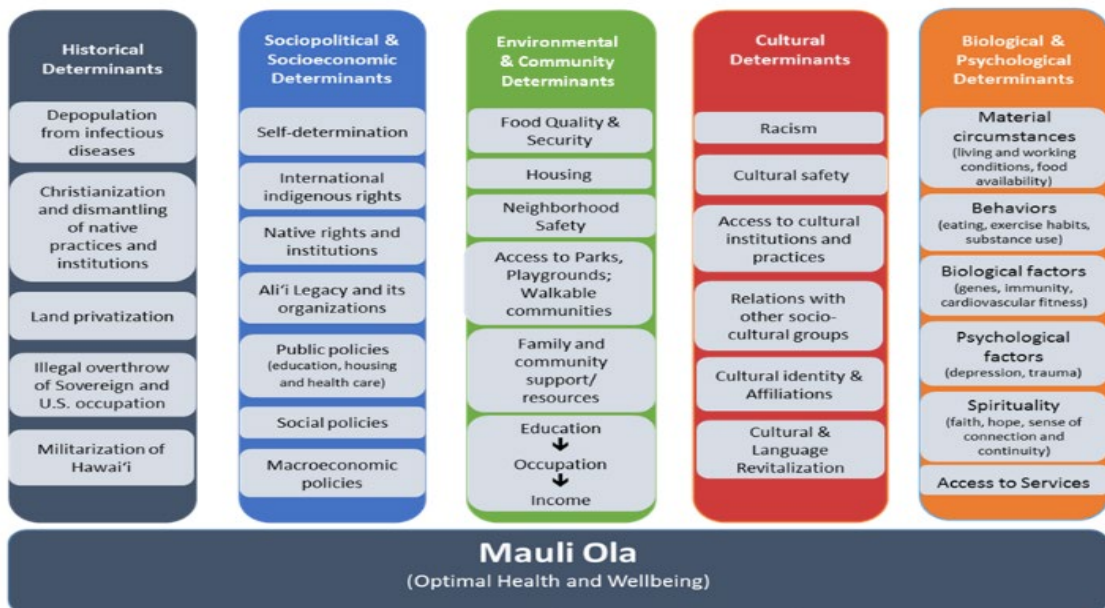
Figure 3. Social Determinants Model (adapted and printed with permission from Dr. Keawe'aimoku Kaholokula[66])

According to Dr. Kaholokula, the historical, sociopolitical, socioeconomic, environments, community, cultural, biological, and psychological determinants, all of which incorporate risk and protective or resiliency factors, contribute to a Native Hawaiian worldview of Mauli Ola (Health and Wellbeing).[66]

Recent research indicates that re-envisioning treatment for the Native population, utilizing cultural reconnection and methodologies that speak to Native perspectives, are more influential in creating positive health outcomes for Native peoples.[67]

> "Native Hawaiians need a sense of place to anchor values and balance life. Beyond Western practices, Native Hawaiians need to care for the 'āina, which they understand to deeply care for them. Native Hawaiians need the resiliency and protection that culture provides through language, traditions, and ceremonies, allowing ways to reconnect to ancestral knowledge and spirituality. Native Hawaiians need not become Western to heal."[10]

According to Papa Ola Lōkahi and a Native Hawaiian Partnership, 'Imi Ke Ola Mau (a community collaboration Co-Occurring State Incentive Grant [COSIG]), for Native Hawaiians to heal, "[They] need a sense of self, retrieved from our past through ancestors, present through purpose, and future through descendants. [They] need our language, traditions, and ceremonies, which provide ways to reconnect to our spirituality and the concept of our source. [They] need the resiliency and protection our culture provides, in order to prevent relapse and redefine ourselves away from pathological diagnoses."[68]

Cultural Perceptions of Self

Current care systems addressing substance use are rooted in historically colonized systems, centered on western approaches to individualistic care.[69] This individualistic and egocentric concept of the person can be contrasted with more sociocentric, ecocentric, or cosmocentric views, which understand the person in relation to the social world, the environment, and the cosmos.[69] The collective vs individual mindset within the Hawaiian worldview is dramatically different from Western approaches that are highly individualistic and often do not account for historical and cultural trauma that affects group consciousness. Individualism focuses on the unique individual.[70] Through this understanding of self, people are valued for how richly developed and articulated their inner sense of self is and how strong and coherent their self-direction is.[70]

However, personal boundaries and understanding of the self are not identical in every culture. The same methods used to treat and heal cultures rooted in individualism can be harmful to those rooted in various other cultural configurations of the self, such as Indigenous cultures. Ignoring the self's internalized concept can leave the client with no way to reconcile their internal self-healing within the larger society's connective tissue, those social interactions that sustain the self within the community, and their collective healing.[70] Each categorical perception of self varies in the ways the self is defind;the values underpin and characterize a healthy perception of the ideal self, the understanding of one's role in specific actions or events, and associated heling systems.[70]

Native Hawaiians embrace the sociocentric, ecocentric, and cosmocentric perceptions of self. Sociocentric cultures typically define the self through family, clan, or community, and thus healing should involve and engage these entities. "The healing intervention thus affirms the person's connectedness and aims to repair or reorder relations with others."[70]

The ecocentric self, found among Indigenous peoples, relates the individual to the environment.[71] People understand themselves to be in constant transaction and exchange with animals and other living creatures as well as with the landscape. The notion of personhood encompasses nonhuman persons, including animals and the elements, which have their own perspectives, motives, and agency.[69,70,72]

The cosmocentric self is defined by one's connection to the spirits and ancestors.

> "Systems of healing associated with such cosmocentric concepts of the person typically involve methods of divination to understand what has gone wrong with the individual's relationship with the gods and determine the appropriate actions to propitiate the gods and restore the cosmic order."[70(p245)]

In response to a question about identity, egocentric persons might begin with a short version of their curriculum vitae, listing their own accomplishments at work or in public life. People-oriented toward a socio-centric view of the self would tend to respond by identifying their parents, family of origin, lineage, or community. An ecocentric notion of the person leads people to talk about their identity first in terms of place, while those with a cosmocentric sense of self and personhood will tend to narrate their identity in relation to ancestors, spirits, or larger cosmic or celestial forces.[70]

Each categorical perception of self varies in the ways the self is defined; the values underpin and characterize a healthy perception of the ideal self, the understanding of one's role in specific actions or events and associated healing systems.[70]

Shifting to a Cyclical Continuum

On a traditional continuum of care, recovery is viewed as the phase after treatment. These individual areas can frequently become siloed, only concentrating on their specific prevention, treatment, or recovery areas. The depth of the recovery field often overlaps within the treatment area, as there are many pathways toward healing and recovery, and not all individuals in recovery have followed a path that involves clinical treatment.

The linkages between recovery and prevention lie in using one to inform the other through the feedback of successful outcomes, promoting mauli ola (well-being), and educating clients about making healthy, informed choices.[68] We can approach this shift toward a cyclical continuum through systems thinking as a way to see the phases along the continuum as interrelationships rather than as siloed components. This shift allows us to look for patterns of change rather than accepting static snapshots or defaulting to how it has always been.[73] From a culturally informed or holistic perspective, systems thinking can help us understand whether the purpose of the existing system is being accomplished and look for ways to create more equitable and resonating systems of care, thereby achieving better results with fewer resources in lasting ways.[73]

Keeping this cyclical nature in mind, we can move toward a resiliency and recovery-oriented care system where each phase informs one another, as seen in **Figure 4** which spans the entire continuum of care.

Figure 4. Kanaka ʻOhana Kaiaulu (Original unpublished figure created by the authors/Lilinoe Kauahikaua of Papa Ola Lōkahi, 2021

At the center, the piko, we can see the depiction of self, of ʻohana, and community: three interrelated, interconnected healing targets. You cannot heal just one; all must be healthy for each to flourish. SAMHSA explains that the resiliency- and recovery-oriented care system "is a coordinated network of community-based services and supports that is person-centered and builds on the strengths and resiliencies of individuals, families, and communities to achieve improved health and wellness outcomes for those at risk or experiencing issues with substance misuse."[74]

A recovery-oriented system of care (ROSC) supports the understanding that there are many pathways to recovery and healing. Native Hawaiian approaches to overcoming substance misuse and embracing Mauli ola are more closely aligned with the values and approaches of resiliency and recovery-oriented systems of care (than existing care systems in Hawaiʻi).

The Recovery Ready Ecosystems Model (RREM) provides a model to increase recovery prevalence and focus on supporting and building recovery-informed infrastructure within communities.[75] Collective healing of our communities is needed to combat intergenerational traumas that lead to stigma and NIMBYism (not in my backyard), which inhibit the healing of our Native people and their communities. The Recovery-informed infrastructure allows for a backward mapping approach to building a culturally resonant system, beginning with

what is working. Recovery through an RREM lens encompasses the many pathways to healing, including harm reduction, behavioral/mental health, reentry, peer recovery services, diversion courts, and many more. It provides an emphasis on healing within the community, building recovery capital (resources connected to the individual human traits with which persons are born, the individual qualities that they have acquired over time, and the environmental and social structural spaces which they occupy in the world), and assessment of the recovery readiness of the community.[75] RREM provides an avenue of alignment with Indigenous, collective healing approaches.

An Indigenous approach to this community readiness assessment and evaluation is being developed and implemented by White Bison, a Native American operated 501(c)(3) non-profit company dedicated to creating and sustaining a grassroots Wellbriety Movement that provides culturally based healing to the next seven generations of Indigenous People,[76] in tribal communities across the North American Continent using a tri-ethnic model. They interview well-informed and respected members of the community to determine the readiness for change based on nine areas. Based on these readiness scores, they meet the community where they are, develop a visioning process, create a vision book, and determine what services and training would be most appropriate and beneficial for the community in their healing process.[77]

Another way to acknowledge, value, and uplift the Indigenous experience is through culturally grounded peer support. Peer support can only be provided by someone with lived experience and provides a layer of support, empathy, and understanding unparalleled by other clinical support. Peer recovery specialists can be invaluable for our Native people, who often struggle with Western recovery spaces and language. There are many ways one may obtain a peer certification, including federal certifications. Currently, the state only offers a peer certification for those with lived experience with both mental illness and substance use disorders. ADAD is currently developing a certification with International Certification & Reciprocity Consortium (IC & RC) for peer recovery specialists and updating its administrative rules by adding credentialing standards for peer specialists for substance use. Culturally grounded peer support services help address that dichotomy of individualism on the western spectrum, with a more collectivist or holistic approach toward healing, ola, and the well-being of the whole environment. Recovery for many may even take the place of clinical treatment. We must support these services with the same vigor and intent as the areas of promotion, prevention, and treatment. As an example, White Bison also provides mentorship and peer certification training through a bridged program both inside and outside of their jails and prisons through the Warrior Down Recovery program. A newly conceptualized healing journey for Native Hawaiians should utilize and uplift stories of resilience to resonate with, inform, educate, and empower those impacted, those who help navigate these systems, and those who choose to walk alongside the healing journey.

The development of culturally grounded recovery community organizations (RCO) across the pae‘āina (Hawaiian Archipelago) would provide safe spaces anchored in the community for collective healing. RCOs are independent, non-profit organizations led and governed by representatives of local communities of recovery, primarily peers. RCOs organize recovery-focused policy advocacy activities, carry out recovery-focused community education and outreach programs, and/or provide peer-based recovery support services,[78] which can all be provided through a cultural lens. An overarching initiative to guide the cultivation of these RCOs, built through a culturally grounded framework, could extend its reach statewide, providing an ‘upena (net) across all services on each island, like an interconnected network. Ka Hale Pōmaika‘i on Molokai is currently Hawai‘i's only RCO.

Ahupua‘a Model
Our Native people thrived in Hawai‘i for centuries before Western contact. Native Hawaiians developed a complex resource management system through the ahupua‘a system, a land division of interconnected systems stretching from the mountain to the sea.

Figure 5. Ahupuaʻa. Credit: Kamehameha School.[80]

The ahupuaʻa model (**Figure 5**) provides a framework to implement cultural interventions at various places within the ahupuaʻa to effectively provide healing that impacts not only the individual, but their ʻohana and community as well. Interventions within the metaphorical framework would aim to effectively decrease the intergenerational transmission of risk factors (intergenerational/historical/ cultural trauma, colonization, poverty, oppression, loss of traditional healing practices, criminalization of Native identity, loss of land, and family/community history of use/incarceration), and increase the intergenerational transmission of protective/ resiliency factors (ʻohana relationships, cultural wisdom, traditional healing, community connection, moʻokūʻauhau (genealogy), ʻāina (land), respect for kupuna, and culture). The model draws from Dr. Keawe Kaholokula's model of the social and cultural determinants of health and their relation to Mauli Ola.[66] Our ahupuaʻa stretched ma uka i kai (mountain to sea), connected through wai (water), which flowed through each system section to bring life. Wai ran through our loʻi (kalo patch), and loko iʻa (fishponds), and down into the ocean, where it evaporates and becomes ua (rain) to once again fall from the lani (sky), run through our nāhele (forests), and down throughout the rest of the ahupuaʻa. No one system functioned independently. Kānaka, our people, tended these systems knowing that resources were finite and the land must flourish for us to survive. He aliʻi ka ʻāina, he kawa ke kānaka, the land is chief, and us its servant.[79]

Looking at the loʻi system, within our ahupuaʻa system, I ka wa kahiko (ancient times), if these systems were not functioning correctly, or not healthy, and if those who mālama (to take care of) these spaces were not maʻa (accustomed, used to, familiar) to this understanding, no one would be fed. Loʻi is the Native Hawaiian's agricultural system using terraces along the hillsides. They developed complex systems, similar to water paddies, to grow their staple food of kalo (taro) along the valleys. We should understand the external impact on this substantive system.

We can understand kalo as a reflection of ourselves, of hāloa, our ancestor, our root, both metaphorically and physically. We conceptualize this new system of care, one where Native people can thrive and pursue healing pathways that embrace, empower, and value an Indigenous worldview. We achieve this by recognizing interconnections within systems and understanding how feedback from each area along the continuum of care impacts and informs other system areas as a whole, much like the ahupuaʻa.

As we visualize the system through this culturally informed and holistic lens, we must also acknowledge that current data often aggregates ethnicities, is disparity focused and has a history of portraying Native/Indigenous populations by showing what is wrong. Therefore, the ahupuaʻa model[80] (**Figure 6**) provides a metaphorical model to understand collective healing through a Native lens and embraces a recovery perspective that recognizes substance use as a symptom of a larger trauma. The ahupuaʻa is a living, breathing example of a thriving, healthy Native system.

Through this model, practitioners can identify the root causes of trauma, and develop effective culturally informed interventions to engage in collective healing from trauma and celebrate resiliency outcomes.

With the help of our Indigenous cousins, we continue to explore the manifestations of deeper trauma within ourselves, 'ohana, and communities through this model of a Healing Ahupua'a, inspired by the Healing Forest model created by White Bison.[81,82]

Pre-contact, our ahupua'a were healthy and existed in a harmonious relationship, tended by kānaka (Native people) who understood that each interconnected system within the ahupua'a must be healthy for all to thrive.
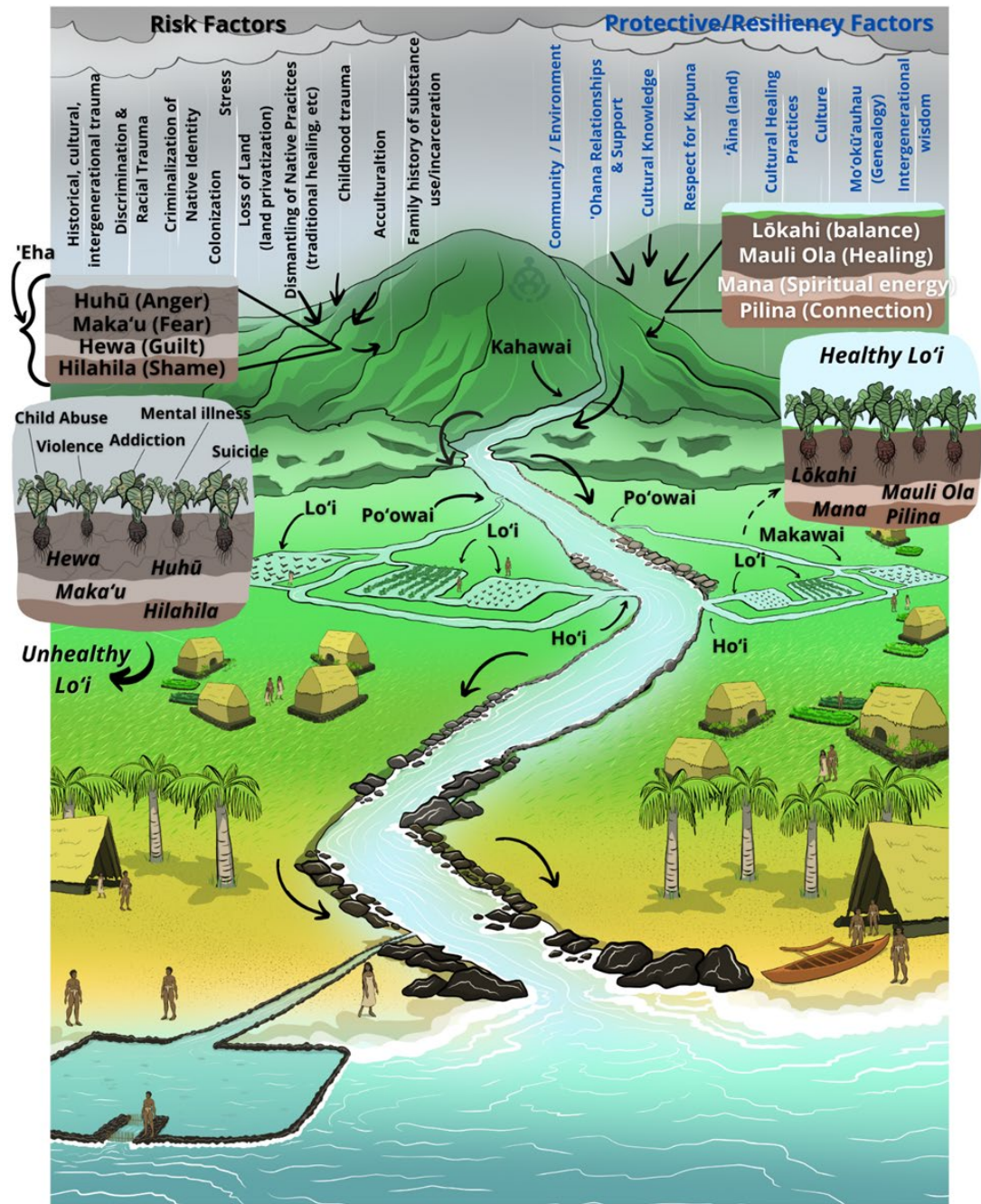
Figure 6. The Impacts of Colonization on Ahupua'a. Conceptualization by Lilinoe Kauahikaua and Papa Ola Lōkahi V3.0. (Original Copyrighted figure created by Kimo Apaka and edited by the authors and duplicated with permission 2022.)[74]

However, **Figure 6**[82] outlines the impacts of colonization, racial/cultural traumas, negative socio-economic impact, the criminalization, and subsequent loss of the Native identity has had on Native Hawaiian individuals, ʻohana, and communities. These impacts are carried through the ahupuaʻa system as risk factors impacting generations.

We visualize these risk factors entering our ahupuaʻa through the ua or rain. This ʻeha, or pain/trauma, is passed down from generation to generation and compounded by unresolved grief. All of this ʻeha creates layers of huhū (anger), hewa (guilt), hilahila (shame), and makaʻu (fear), which enter into our ahupuaʻa just as the metaphorical rain feeds into the soil. We look at the systems and visualize the ʻeha (pain/trauma) impacting the soil to understand the pollution and other toxins that have found their way into our environment and continue to impact our systems through the environmental water cycle cyclically. The potentially unhealthy/impacted soil would then run off into the kahawai (river) and be carried downstream, impacting the rest of our interconnected systems. But, just as trauma is passed down generationally, our ancestors pass down the strengths and resilience (as seen in the ua).

We can understand the interconnected ahupuaʻa systems as our care systems, our ʻohana, and our communities. In understanding care systems and approaches to healing within the larger continuum, let us focus on the loʻi as an ʻāina-based model to visualize the internal and external impacts of trauma and the manifesting symptom of substance use on our lāhui ecosystem. Loʻi is the Native Hawaiian's agricultural system using terraces along the hillsides. They developed complex systems, similar to water paddies, to grow their staple food of kalo (taro) along the valleys. We should understand the external impact on this substantive system.

We can understand kalo as a reflection of ourselves, of hāloa, our ancestor, our root, both metaphorically and physically. As the unhealthy soil enters into our loʻi, it becomes that which feeds the next generation of kalo or hāloa that emerges from it. Today, we may have generations of people born with internal ʻeha buried deep within them. If the ʻeha begins to bubble up to the surface, it can manifest in many different ways in our kalo; anger, violence, substance use, etc., giving way to an unhealthy ahupuaʻa. However, we can remember that our strengths and cultural resilience are also contained in the ua and soil. In that case, we see a path forward in cleaning our water of the risk factors to improve and increase our protective/resilience factors for generations to come.

We can imagine that while working in the loʻi one day, we find a kalo that is sick (manifesting trauma as addiction). First, we must look around to the other kalo to find the source of the sickness. Are the other kalo sick? Is the whole loʻi sick? How could this sickness be getting in? We must look up the interconnected ʻauwai (canal) and the kahawai for the source of this sickness, this pollution, this ʻeha. If we cannot find the source of this maʻi, this sickness, and we instead decide we will just take that one kalo out, heal it, and then put it back into that potentially unhealthy environment, it will only get sick again.

This metaphor illustrates we will face the same result we began with if we decide to solve the problem on the surface that we see. We need to put in the work to address the root of the problem, look far enough up the system, and dig deep enough to find the source that creates the unhealthy environment.

Recognizing how Native Hawaiians experience the self through ecocentric, cosmocentric, and sociocentric definitions provides a lens for understanding and developing more impactful and effective interactions for Native people implemented through the ahupuaʻa framework. Thereby The ahupuaʻa model provides a framework to implement cultural interventions at various places within the ahupuaʻa to effectively provide healing that impacts not only the individual, but their ʻohana and community as well. Interventions within the metaphorical framework would aim to effectively decrease the intergenerational transmission of risk factors (intergenerational/historical/ cultural trauma, colonization, poverty, oppression, loss of traditional healing practices, criminalization of Native identity, loss of land, family/community history of use/ incarceration) and increase the intergenerational transmission of protective/resiliency factors (ʻohana relationships, cultural wisdom, traditional healing, community connection, moʻokūʻauhau (genealogy), ʻāina (land), respect for kupuna, and culture), cleaning our wai as it traverses throughout our interconnected systems and is reborn through the water cycle to fall as ua once again, reducing risk factors and increasing

protective factors. This increase in protective factors will contribute to the healthy loʻi and ahupuaʻa through the soil waiwai (rich) with lōkahi (balance), mauli ola (health), mana (spiritual energy), and pilina (connection/bonds), foundational values for a thriving lāhui kānaka (Native Hawaiian people), as seen on the right side of the image. (**Figure 6**)[82] The ahupuaʻa conceptual framework is intended to develop and grow as the framework is embraced and actualized across systems and care spaces.

Embracing a more culturally grounded approach would effectively provide a paradigm shift in how society and individuals see themselves. Imagine the empowerment of nurturing and uplifting these unique gifts contained within Native Hawaiian protective/resiliency factors and the impact or effect they would have on someone's life, how they grew up, and how they perceive themselves. By understanding the multiple threads impacting their lives, a more robust, comprehensive (holistic) approach that incorporates (blends) the interventions used will have more value for this Native person.

RECOMMENDATIONS

The following recommendations are proposed to guide the initial steps toward implementation of a newly conceptualized system. These recommendations were based on the synthesis of the existing literature and available data, but also Indigenous knowledge and feedback from our stakeholder groups.

1. Infrastructure Development
    a. Reporting Standards
        - Create a network within Native Hawaiian communities across the State to increase engagement capacity (accountability and ongoing feedback loop)
    b. Inter-Agency
        - With other State departments, develop a cross-discipline group to focus on creating inter-agency engagement strategies (protocols) and outcomes (procedures) (i.e., specialty cultural court)
        - Identify areas that language and processes can be updated to shift the narrative and create a more inclusive space for integrating Native Hawaiian values and beliefs
    c. Peer Support
        - Value and uplift lived experience
        - Develop culturally grounded, resonant, inclusive, and supportive peer spaces for Indigenous people on their healing journey from substance use. Create reimbursement pathways for care systems employing peers
        - Involve Native Hawaiian organizations and community as the state structures the credentialing and training process
            1. To allow outside organizations to provide and structure training
            2. To add cultural safety component to existing credentials
    d. Culture Court
        - Recommended by House Concurrent Resolution (HCR) 85 Task Force in 2018
        - Provide cultural healing pathways as Native people interact with the system
        - Diversion will help to reduce re-engagement with the criminal justice system and reduce relapse.
    e. Indigenous Workforce Development
        - Cultural "Safety" Training
        - Engaging the entire substance use continuum of care community inclusive of lawmakers, decision-makers, service providers, etc. at all levels and touchpoints within the continuum of care
        - Elevating Homegrown Cultural Practitioners: Providing career pathways and spaces for Native Hawaiian practitioners to secure professions at various levels within the substance use continuum of care. Expanding the workforce of Native Hawaiian researchers and scholars to grow the knowledge base around
        - Cultural Awareness Training: Provide cultural awareness training across the workforce of service providers to educate and inform about the negative impacts of historical, cultural, and intergenerational trauma on substance use and its broader effect on ola (wellbeing). Implement consistent and frequent culture-based training opportunities and support to move providers from knowledge to skill building to action

- Connection to ʻĀina and Sense of Place: Normalize and nurture an intimate and spiritual relationship with the land and significant places as an integral part of the healing experience
    f. Recovery Community Organizations
        - Integration of RROSC & Recovery Ready Communities models with cultural alignment and awareness
    g. Evaluation
        - Re-explore "approved" western modalities and assessment tools like the ASAM or CBT in including cultural alignment
        - Develop cultural evaluation & assessment tools
2. Data Collection & Disaggregation
    a. Data Disaggregation:
        - Addressing the need for data sovereignty that allows for Native Hawaiians to develop data that is collected for, by, and about us
        - Create mechanisms that identify culturally relevant data collection
        - Develop culturally anchored evaluation tools that state-funded treatment programs use related to the efficacy of programming specific to Native Hawaiians
3. Funding & Monitoring/Oversight
    a. Funding:
        - Federal dollars that are sought after and awarded to the State of Hawaiʻi be tracked when Native Hawaiians (and or other marginalized groups indicated on request for proposal) are targeted along with a clear plan for accountability and meaningfulness of programming
        - Analyze spending on Native Hawaiian programs throughout the department
        - Create a policy oversight position to develop criteria and monitor for cultural adherence
        - Provide additional support for "promising practices" throughout the continuum of care
        - Funding culturally grounded evaluation to gather the necessary foundation for referral approval
    b. Advisory Council:
        - Federal dollars that are sought after and awarded to the State of Hawaiʻi be tracked when Native Hawaiians Establish a council of relevant partners (providers, government, stakeholders) to monitor compliance and review accountability of funds and programming related to Native Hawaiians. Convene a group of Native Hawaiian health and well-being specialists from across the state to provide feedback and guidance on the process of funding.

CONCLUSION

Options such as culture court, a recommendation put forth by The HCR 85 Taskforce in 2018, would provide cultural healing pathways as Native People interact with the system. Pathways of diversion and healing will help eliminate re-engagement with the criminal justice system and reduce relapse through cultural reclamation.

Indigenous cultural "safety" training aimed at providing insight into historical, cultural, and intergenerational experiences of Hawaiʻi's Indigenous population is a concept that should be mandated for all those working with Native Hawaiians and Pacific Islander peoples and communities.

Peer recovery specialists can be an invaluable resource for our Native people. However, as this certification is being developed, we ask for the involvement of Native Hawaiian organizations and community, as the state structures the credentialing and training process to allow for outside organizations to provide and structure training, as well as add a cultural safety component to existing certifications in the field. This is an opportunity for an organization to build a culturally grounded program certification curriculum. This culturally grounded certification would allow for the development and cultivation of peer navigators. The curriculum could be provided on both a community and collegiate level, as well as offered within our correctional facilities. Our paʻahao

(incarcerated persons) could be provided the opportunity to obtain this certification before release, helping them to gain employment upon reintegration into the community.

We can also develop culturally grounded RCO across the paeʻāina. RCOs are "independent, non-profit organizations led and governed by representatives of local communities of recovery, primarily peers. RCOs organize recovery-focused policy advocacy activities, carry out recovery-focused community education and outreach programs, and/or provide peer-based recovery support services,"[78] which can all be provided through a cultural lens. An overarching initiative to guide the cultivation of these RCOs, built through a culturally grounded framework, could extend its reach statewide, providing an ʻupena (net) across all services on each island, like an interconnected network. We could also begin to re-envision recovery-oriented systems of care and bridge prevention and recovery through this cultural lens through these services. Ka Hale Pōmaikaʻi & Mālama Project in Hawaioʻi implements a culturally grounded and recovery-oriented system of care.

Current culturally grounded interventions have struggled for some time to meet the requirements for evidence-based interventions and assessments required by Request for Proposals (RFPs) and Grant applications. These methods often do not align with culturally grounded intervention programs which tend to be more fluid in approach as each intervention is tailored to the individual and family. It is also impractical to assess the successive impact of cultural interventions through standard western assessment.

To support the existing and future development of culturally grounded interventions, ADAD should provide additional support for "promising practices" throughout the continuum of care. This support should include providing and funding culturally grounded evaluation to gather the necessary foundation for referral approval. Additional ideas include requiring the approval of an advisory or Kupuna council for all culturally grounded interventions.

According to the current western definition of evidence-based interventions,[25,26] they are practices or programs with peer-reviewed, documented empirical evidence of effectiveness. But what does this mean for culturally grounded interventions? The current western dominant paradigm of evidence base prioritizes research, peer review, and randomized controlled trials. However, we cannot continue to adhere to this western dominant paradigm, which heavily bases itself on the assumption that research in the social sciences is essentially the same as natural sciences.[26]

Western research looks for themes formulated together to produce "laws" or one size fits all, blanket approaches to social issues.[25] "This way of understanding people and their struggles has become dominant in a very particular economic and cultural milieu, one that, despite the forces of globalization, is alien to many communities around the world. Its materialist and individualist focus means that it is often a specifically inappropriate vehicle to use with Indigenous communities."[27]

A newly conceptualized journey of healing for Native Hawaiians should utilize and uplift stories of resilience to resonate with, inform, educate, and empower those impacted, those who help navigate these systems, and those who choose to walk alongside the healing journey. Therefore, our recommended approach is centered around healing the ahupuaʻa system through culturally grounded programs that allow for tailored interventions that meet the specific needs of individuals and families living within the healthy, thriving ahupuaʻa system.

REFERENCES

1.   Paglinawan L, Paglinawan R, Kaulukukui M, Krief T, Kim JK. Cultural and Historical Trauma, Created for SW 774: Cultural Factors in Work with Hawaiians: Module 2: Cultural Trauma: History and Care. University of Hawaiʻi - Manoa, Myron B. Thompson School of Social Work. 2014.

2.   Paglinawan LL, Paglinawan RL, Kauahi D, Kanuha VK. *Nānā I Ke Kumu Vol. III.* Vol III: Liliʻuokalani Trust; 2020.

3.   Robin RW, Chester B, Goldman D. Cumulative trauma and PTSD in American Indian communities. In: A. J. Marsella MJF, E. T. Gerrity, & R. M. Scurfield (Eds.), ed. *American Psychological Association.*1996:239–253. https://psycnet.apa.org/record/1996-97494-009

4.   Stanford Medicine. Traditional Health Beliefs: Native Hawaiian Values. Published 2019. Accessed July 7, 2022. https://geriatrics.stanford.edu/ethnomed/hawaiian_pacific_islander/fund/health_beliefs.html

5.   Kamehameha Schools—Kealapono ʻOhana Engagement. *Wellness LŌKAHI.* Accessed July 1, 2021. https://www.ksbe.edu/_api/doc_bridge_cer/Wellness_Lokahi.pdf

6.   University of Hawaiʻi at Hilo. E Mālama Pono. Published 2022. Accessed July 7, 2022. https://hilo.hawaii.edu/studentaffairs/counseling/EMalamaPono.php

7.   Kaholokula J. Colonialism, Acculturation, and Depression among Kānaka Maoli of Hawaiʻi. 2007. doi:10.1515/9780824863913-019

8.   Najita SY. Decolonizing Cultures in the Pacific: Reading History and Trauma in Contemporary Fiction. London, Routledge; 2006.

9.   Marshall WE. Remembering Hawaiian, Transforming Shame. *Anthropology and humanism.* 2006.

10.   Papa Ola Lōkahi. E Ola Mau A Mau – The Next Generation of Native Hawaiian Health. Published 2019. Accessed July 7, 2021.

11.   Office of Hawaiian Affairs. *2010-2018 Strategic Results: Substance Abuse Indicator Sheet 2012. Strategic Priority: Mauli Ola (Health)*. Published 2018. Accessed July 10, 2021. http://www.oha.org/wp-content/uploads/2015/01/Health-IndicatorSheets-SubstanceAbuse2012-final.pdf

12.   Kīʻaha L. Thinking outside the bars: Using Hawaiian traditions and culturally-based healing to eliminate racial disparities within Hawaiʻi's criminal justice system. *Asian-Pac Law Policy J.* 2015;17(2):1-33.

13.   Golding J. *Visions of the Modern.* University of California Press; 1994.

14.   Kimerling R, Calhoun KS. Somatic symptoms, social support, and treatment seeking among sexual assault victims. *J Consult Clin Psychol.* 1994;62(2):333-340. doi:10.1037//0022-006x.62.2.333

15.   Waigandt AW, David L ; Phelps, LeAdelle ; Miller, Deborah A. The impact of sexual assault on physical health status. *Journal of traumatic stress.* 1990;3(1):93-102. https://onlinelibrary-wiley-com.eres.library.manoa.hawaii.edu/doi/epdf/10.1002/jts.2490030107

16.   Liu DM, Alameda CK. Social determinants of health for Native Hawaiian children and adolescents. *Hawaii Med J.* 2011;70(11 Suppl 2):9-14. Published 2012/01/12.

17.   The Department of Native Hawaiian Health. *Assessment and Priorities for the Health and Well-Being in Native Hawaiians and Pacific Islanders*. Published 2020. https://www2.jabsom.hawaii.edu/native/docs/community/APNHPP/2020_NHOPI_Assessment_and_Priority_Rpt.pdf

18.   Andrade NN, Hishinuma ES, McDermott JF, Jr., et al. The National Center on Indigenous Hawaiian Behavioral Health study of prevalence of psychiatric disorders in native Hawaiian adolescents. *J Am Acad Child Adolesc Psychiatry.* 2006;45(1):26-36. doi:10.1097/01.chi.0000184933.71917.f4

19.   American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders.* 5th ed. Washington D.C.2013.

20.   Sanʻyas Anti-racism Indigenous Cultural Safety Education. Sanʻyas Indigenous Cultural Safety Online Training. Published 2022. Accessed July 7, 2021. https://www.sanyas.ca/

21.   Chan K. Papa Hōʻīnana i ke ola. 2021.

22. Pukui MK, Haertig EW, Lee CA. *Nānā I Ke Kumu (Look to the Source). Vol. I.* University of Hawaiʻi Press; 1972.
23. Pukui MK, Haertig EW, Lee CA. Nānā I Ke Kumu (Look to the Source). Vol. II. 1979.
24. Okamoto SK, Kulis S, Marsiglia FF, Holleran Steiker LK, Dustman P. A Continuum of Approaches Toward Developing Culturally Focused Prevention Interventions: From Adaptation to Grounding. *J Prim Prev.* 2014;35(2):103-112. doi:10.1007/s10935-013-0334-z
25. Rycroft-Malone J, Seers K, Titchen A, Harvey G, Kitson A, McCormack B. What counts as evidence in evidence-based practice? *J Adv Nurs.* 2004;47(1):81-90. doi:10.1111/j.1365-2648.2004.03068.x
26. Humphries B. What else counts as evidence in evidence-based social work? Social work education. *J Soc Work Educ.* 2003;33(1). doi:10.1080/02615470309130
27. Kopua DM, Kopua MA, Bracken PJ. Mahi a Atua: A Māori approach to mental health. *Transcult Psychiatry.* 2020;57(2):375-383. doi:10.1177/1363461519851606
28. Centers for Disease Control and Prevention. 1991-2019 High School Youth Risk Behavior Survey Data. Accessed September 3, 2022. http://nccd.cdc.gov/youthonline/
29. Hawaiʻi Health Data Warehouse. Hawaiʻi IBIS - High School and Middle School YRBS. Accessed September 3, 2022. https://hhdw.org/report/query/selection/yrbs/_YRBSSelection.html
30. Ishihara K, Perrone P. *Crime in City & County of Honolulu, 2020 - A Review of Uniform Crime Reports.* Research & Statistics Branch,, Crime Prevention & Justice Assistance Division, Attorney General, State of Hawaiʻi. Published 2021.
31. Pacific Health Analytics Collaborative. *Hawaiʻi State Plan on Substance Use: 2022 Statistical Report - March 7, 2022 Version.* University of Hawaiʻi at Manoa. Published 2022.
32. King G. Personal communication with George King (Research and Statistics Officer with the State of Hawaii, Department of Public Safety) CY 2020 Ethnicity by Crime Class. Redulla J, ed2022.
33. Valera J. Personal communication with John Valera. Kauahikaua L, ed2022.
34. Hawaiʻi State Department of Health Alcohol and Drug Abuse Division (ADAD). 2018 Hawaiʻi State Epidemiologic Profile Youth and Adult Drug Indicators 2011_2017. In: Workgroup SEO, ed. 6th ed2018:85.
35. Alcohol and Drug Abuse Division. Alcohol and Drug Abuse Division | treatment-services. Published 2022. Accessed June 13, 2022. https://health.hawaii.gov/substance-abuse/prevention-treatment/treatment/treatment-services/
36. American Society of Addiction Medicine. What are the ASAM Levels of Care? Knowledge Base. Published 2015. Accessed July 7, 2021. https://www.asam.org/asam-criteria/about-the-asam-criteria
37. Alcohol and Drug Abuse Division. Alcohol and Drug Abuse - Prevention. Hawaiʻi State Department of Health. Published 2021. Accessed October 10, 2022. https://health.hawaii.gov/substance-abuse/prevention-treatment/prevention/
38. Martin TKK, Paglinawan LK, Okamoto SK. Moving from darkness to light: Cultural pathways to healing and posttraumatic growth of formerly incarcerated Native Hawaiian women. *Advers Resil Sci.* 2021;2(4):247-268. doi:10.1007/s42844-021-00047-5
39. Alcohol and Drug Abuse Division. Alcohol and Drug Abuse Division | prevention-programs. Published 2022. Accessed June 6, 2022. https://health.hawaii.gov/substance-abuse/prevention-treatment/prevention/prevention-programs/
40. Rehuher D, Hiramatsu T, Helm S. Evidence-based youth drug prevention: A critique with implications for practice-based contextually relevant prevention in Hawaiʻi. *Hawaii J Public Health.* 2008;1(1):52-61.
41. Helm S, Okamoto SK, Maddock J, Hayes D, Lowery T, Rajan R. Developing the Hoʻouna Pono substance use prevention curriculum: Collaborating with Hawaiian youth and communities. *Hawaii J Med Public Health.* 2013;72(2):66.
42. Davis K, Davis M, Valete Y, Wilhelm MB, Ng-Osorio J, Helm S. PhotoVoice with healers and leaders. Concept and exemplars from Puni Ke Ola. *Mauli Art & Literary Journal at JABSOM.* 2021;1(1):44-53.
43. Okamoto SK, Kulis SS, Helm S, et al. An efficacy trial of the Hoʻouna Pono drug prevention curriculum: An evaluation of a culturally grounded substance abuse prevention program in rural Hawaiʻi. *Asian Am J Psychol.* 2019;10(3):239-248. doi:10.1037/aap0000164

44. Helm S, Hishinuma E, Okamoto S, Chin SK, Silva A. The relationship between ethnocultural identity measures and youth substance use among a school-based sample: A focus on Native Hawaiian youth. *Asian Am J Psychol.* 2019;10(3):206-217. doi:10.1037/aap0000157

45. Helm S, Lee W, Hanakahi V, Gleason K, McCarthy K, Haumana. Using photovoice with youth to develop a drug prevention program in a rural Hawaiian community. *Am Indian Alsk Native Ment Health Res.* 2015;22(1):1-26.

46. Helm S, Davis K, Haumana AYP. Challenges and lessons learned in implementing a community-academic partnership for drug prevention in a Native Hawaiian community. *P R Health Sci J.* 2017;36(2):101-106. Published June 18, 2017.

47. Yamane CYEW, Helm S. Indigenous culture-as-health: A systematized literature review. *J Prev.* 2022. doi:10.1007/s10935-022-00666-3

48. First Nations Health Authority. Cultural Safety and Humility. Published 2022. Accessed October 1, 2022. https://www.fnha.ca/wellness/wellness-and-the-first-nations-health-authority/cultural-safety-and-humility

49. U.S. Department of Health & Human Services. What is CLAS? - Think Cultural Health. Accessed October 1, 2022. https://thinkculturalhealth.hhs.gov/clas/what-is-clas

50. Perreira-Keawekane K. He leo aloha: A beloved voice of comfort and rest for the kupa 'āina. *Ka Wai Ola o OHA.* July 1, 2021. Accessed October 1, 2022. https://kawaiola.news/mauliola/he-leo-aloha-a-beloved-voice-of-comfort-and-rest-for-the-kupa-aina/

51. Māpuna Lab at the University of Hawai'i at Mānoa. Native Hawaiian Cultural Intervention Training: The Kanilehua Framework. Webinar series produced for the State Opioid Response 2 Native Hawaiian Cultural Intervention Training for the Hawai'i Opioid Initiative at the Alcohol and Drug Abuse Division Hawai'i State Department of Health. 2022.

52. House of Representatives, Twenty-Seventh Legislature, 2014, State of Hawaii. Act 155 H.B. NO. 1616 H.D. 1 S.D. 1. Published 2014. Accessed November 28, 2022. https://www.capitol.hawaii.gov/sessions/session2014/bills/GM1258_.PDF

53. The Senate, Thirtieth Legislature, 2019, State of Hawaii. S.C.R. NO. 103. Published 2019. Accessed December 1, 2022. https://www.capitol.hawaii.gov/sessions/session2019/bills/SCR103_.HTM

54. Kaholokula K. Inaugural Kekuni Blaisdell: Lectureship and Conference Healing and Wellness: Bridging Western and Traditional Native Hawaiian Practices, Keawe Kaholokula: "Aia i Hea Ka La'au? Western Impact on Native Hawaiian Health",. January 24-26, 2007; Ko Olina, O'ahu, Hawai'i,.

55. Alcohol and Drug Abuse Division. Alcohol and Drug Abuse Division | risk-factors. Published 2022. Accessed December 1, 2022. https://health.hawaii.gov/substance-abuse/prevention-treatment/prevention/risk-factors/

56. Alcohol and Drug Abuse Division. Alcohol and Drug Abuse Division | protective-factors. Published 2022. Accessed December 1, 2022. https://health.hawaii.gov/substance-abuse/prevention-treatment/prevention/protective-factors/

57. Okamoto SK, Helm S, Po'a-Kekuawela K, Chin CI, Nebre LR. Community risk and resiliency factors related to drug use of rural Native Hawaiian youth: An exploratory study. *J Ethn Subst Abuse.* 2009;8(2):163-177. doi:10.1080/15332640902897081

58. Makini GK HE, Kim SP, et al.,. Risk and protective factors related to native Hawaiian adolescent alcohol use. *Alcohol and alcoholism (Oxford).* 2001;36(3).235-242. doi:10.1093/alcalc/36.3.235

59. Goebert D, Nahulu L, Hishinuma E, et al. Cumulative effect of family environment on psychiatric symptomatology among multiethnic adolescents. *J Adolesc Health.* 2000;27(1):34-42. doi:10.1016/s1054-139x(00)00108-7

60. Ramisetty-Mikler S, Caetano R, Goebert D, Nishimura S. Variation in drinking, drug use, and sexual behavior among adolescents in Hawai'i. 2004.

61. Morelli PTT FR. The role of Hawaiian elders in substance abuse treatment among Asian/Pacific Islander women. *Journal of family social work.* 2000;4(4):33-44. doi:10.1300/J039v04n04_04

62. Morelli PT, Fong R, Oliviera J. Culturally competent substance abuse treatment for Asian/Pacific Islander women. *Journal of human behavior in the social environment.* 2001;3(3-4).263-280.

63.	Miike L. Health and related services for Native Hawaiian adolescents. University of Nebraska Press; 1996.
64.	Okamoto SK, Helm S, Giroux D, Kaliades A, Kawano KN, Kulis S. A typology and analysis of drug resistance strategies of rural Native Hawaiian youth. *J Prim Prev*. 2010;31(5-6):311-319. doi:10.1007/s10935-010-0222-8
65.	Oetting ER, Donnermeyer JF, Trimble JE, Beauvais F. Primary socialization theory: culture, ethnicity, and cultural identification. The links between culture and substance use. IV. *Subst Use Misuse*. 1998;33(10):2075-2107. doi:10.3109/10826089809069817
66.	Kaholokula JK. Mauli ola: pathways to optimal Kanaka ʻŌiwi health, Hawaiʻinuiākea Monograph Vol 5. In: Look J, Mesiona-Lee W, eds. *Hoʻi Hou i ka Mauli Ola: Pathways to Native Hawaiian Health*. Honolulu, HI: University of Hawaiʻi Press; 2017:2-22.
67.	Hoʻomau Ke Ola. About Hoʻomau Ke Ola. 2017. http://www.hoomaukeola.org/about/
68.	Papa Ola Lōkahi & ʻImi ke Ola Mau. A strategic plan for improvement of substance abuse and mental health outcomes for Native Hawaiian, their families and communities. Phoenix, Arizona.: Published 2007. https://health.hawaii.gov/amhd/files/2013/06/2007-Policy-Academy-Strategic-Plan.pdf
69.	Hallowell AI. *Culture and Experience*. 2017 ed: University of Pennsylvania Press; 1955.
70.	Kirmayer LJ. Psychotherapy and the cultural concept of the person. *Transcult Psychiatry*. 2007;44(2):232-257. doi:10.1177/1363461506070794
71.	Stairs A, Wenzel G. I am I and the environment: Inuit hunting, community and identity. *The Journal of Indigenous Studies*. 1992;3(1):1-12.
72.	Tanner A. The Cosmology of Nature, Cultural Divergence, and the Metaphysics of Community Healing. In: Sylvie Poirier JC, Eric Schwimmer, ed. *Figured Worlds: Ontological Obstacles in Intercultural Relations*. University of Toronto Press; 2004:290.
73.	Arnold RD, Wade JP. A Definition of Systems Thinking: A Systems Approach. *Procedia Comput Sci*. 2015(44):669-678.
74.	Substance Abuse and Mental Health Services Administration. *Recovery-Oriented Systems of Care (ROSC) Resource Guide*. Published 2010. Accessed July 7, 2021. https://www.samhsa.gov/sites/default/files/rosc_resource_guide_book.pdf
75.	Ashford RD, Brown, Austin M., Ryding, Rachel & Curtis, Brenda,. Building recovery ready communities: the recovery ready ecosystem model and community framework. *Addict Res Theory*. 2020;Volume 28, 2020 (1):10. doi:10.1080/16066359.2019.1571191
76.	White Bison Inc. Warrior Down Recovery program. Published 2021. Accessed July 7, 2021. https://wellbriety.com/about-us/
77.	Coyhis K. Personal communication with Kater Coyhis, Executive Director of White Bison. Kauahikaua L, 2022.
78.	Faces & Voices of Recovery. RCO Best Practices - Faces & Voices of Recovery. Accessed. https://facesandvoicesofrecovery.org/rco-best-practices/
79.	Pukui MK. *ʻŌlelo Noʻeau - Hawaiian proverbs and poetical sayings*. Honolulu, HI: Bishop Museum Press; 1983.
80.	Kahalewai M. Makamalunohonaokalani. In: Kamehameha School.; ʻAhupuaʻa.
81.	Gryczynski J, Johnson J, Coyhis D. The healing forest metaphor revisited: The seen and "unseen world" of drug use. *Substance Use & Misuse*. 2007;42(2-3):475-484. doi:10.1080/10826080601142428
82.	Apaka K. The Impacts of Colonization on ʻAhupuaʻa (Edited by the authors).

CHAPTER 7: RURAL SUBSTANCE USE AND INTERVENTIONS

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ABSTRACT

Hawaiʻi has many distinct and beautiful rural areas with unique strengths and challenges. Despite rates of alcohol and substance use typically greater than statewide and national averages, rural areas of Hawaiʻi have less access to healthcare services and resources. This chapter outlines some of the rural resources available and identifies programs needed, as well as ideas to decrease rural substance use. Common themes include the need for more providers and services of all kinds, the need for culturally appropriate prevention, treatment and recovery programs, and the fact that improved communication and collaboration between agencies and insurers is essential for progress. Some needs were specific to certain rural geographic areas. Hawaiʻi Island, in particular, needs better transportation, while Kauaʻi is focused on reinvigorating youth activities. Recommendations for programs include expanding telecare, including withdrawal management options; support for prevention and resiliency activities for people of all ages; improved resources after release from jail; and increasing recovery care options. Innovative activities include the repurposing of a courthouse in Kona for a recovery center, an in-school substance use treatment program on Molokaʻi, a Medication for Opioid Use Disorder Program at the Kauaʻi Community Correctional Center, and telehealth withdrawal management for Hawaiʻi Island. Only through broad based collaborative partnerships and improved communication will the needs of rural communities be met.

INTRODUCTION

What is Considered Rural?

There are many ways to define 'rural' in Hawaiʻi. For the purposes of this chapter on the intersection of rural populations and substance use, we consider Oʻahu, also referred to as Honolulu County, as the urban core of the state, and all islands that are NOT Oʻahu as rural. We recognize that there are areas on Oʻahu that can also be considered rural and the issues discussed in this chapter often apply there as well. For more background and context around the overall State Plan project, readers are referred to the Introductory Notes of this State Plan System of Care Implications Volume.

Substance Use Rates in Rural Hawaiʻi

Rural Hawaiʻi has higher binge drinking, higher illicit drug use in the past month, and higher youth use of alcohol than Honolulu County (**Table 1**).

Table 1. Adult and Youth Alcohol and Illicit Substance Use by Rural County compared to Honolulu County.

Location	Adult binge drinking*	Illicit drug use in past month >12 years old**	Youth <13 used alcohol***
Hawaiʻi County	18.6%	12.6%	21.7%
Kauaʻi County	20.4%	10.8%	18.1%
Maui County	19.9%	15.0%	18.9%
Honolulu County	18.4%	8.8%	14.5%

* Source: Behavioral Risk Factor Surveillance System (BRFSS), Year: 2017 – 2019. Binge drinking (men having five or more drinks on one occasion and women having four or more drinks on one occasion) in the past 30 days. Retrieved from Hawaiʻi Health Data Warehouse.[1]

** Source: Substance Abuse and Mental Health Services Administration (SAMHSA) Substate Report. The report estimated the percentages based on 2016, 2017, and 2018 NSDUHs (National Survey on Drug Use and Health).[2]

*** Source: Youth Risk Behavior Survey (YRBS) High School. Alcohol - first drink before age 13. Year: 2015, 2017, and 2019. Retrieved from Hawaiʻi Health Data Warehouse.[3]

Also, of great concern is youth utilization of substances, as this can precede adult usage.[4] Monnat (2016) found that rural youth in the US have a 35% higher risk of opioid misuse disorder than urban teens, and this seems to play out in Hawai'i as well, as shown in **Tables 2** and **3**, which bodes poorly for future rural substance use numbers.[4]

Table 2. Middle School Substance Use by County of Hawai'i.

Middle school	Marijuana use- ever	Marijuana at school- past 30 days*	Passenger when Driver High**	Current alcohol/ marijuana in past 30 days	Use prescription drugs without M.D.***	Alcohol- binge drinking	Alcohol- current drinker (drank past 30 days)
Hawai'i County	15.8%	3.7%	14.6%	19.1%	5.3%	6.7%	13.2%
Kaua'i County	13.9%	1.2%	11.9%	16.8%	4.1%	6.9%	12.1%
Maui County	12.3%	1.7%	10.9%	14.9%	5.0%	5.6%	10.7%
Honolulu County	9.3%	1.7%	7.7%	12.4%	4.3%	4.5%	8.4%

Source: YRBS 2015, 2017, 2019 unless otherwise noted. Retrieved from Hawai'i Health Data Warehouse.)[5]
* Data is available for 2011 and 2013 only.
** Data is available for 2013 and 2015 only.
*** Data is available for 2011, 2013 and 2015 only.

Table 3. High School Substance Use by County of Hawai'i.

High school	Marijuana use ever	Marijuana first use before age 13	Use prescription drugs without M.D.*	Drug use- methamphetamines	Drug use- heroin	Passenger when Driver High	Current alcohol/ marijuana past 30 days	Drink alcohol at school past 30 days**
Hawai'i County	41.3%	14.0%	14.9%	5.5%	5.3%	23.8%	39.2%	9.1%
Kaua'i County	35.3%	10.5%	12.1%	5.3%	4.6%	25.7%	34.2%	5.5%
Maui County	39.2%	12.1%	12.9%	5.0%	4.3%	27.2%	37.6%	6.3%
Honolulu County	27.3%	6.5%	12.2%	3.9%	3.4%	18.7%	27.0%	5.3%

Source: YRBS 2015, 2017, 2019 unless otherwise noted. Retrieved from Hawai'i Health Data Warehouse.[6]
* Data is available for 2013 and 2015 only.
** Data is available for 2013 only.

As can be seen in **Table 4**, hospital diagnoses at discharge data aggregated by county of residence for the years 2016 – 2019, identifies Hawai'i County as suffering a larger burden of patients hospitalized for substance use-related causes than other counties of the state.

Table 4. Hospital Diagnoses at Discharge Rate due to Psychoactive Substance Use by County of Residence of Patient, 2016 through 2019.

	2016	2017	2018	2019
Hawai'i County	3.49%	3.30%	3.04%	2.94%
Kaua'i County	2.58%	2.62%	2.54%	2.80%
Maui County	2.38%	2.26%	2.27%	2.38%
Honolulu County	2.62%	2.86%	2.79%	2.83%

Numbers were calculated with annual counts of the diagnoses (source: hospital billing data archive of the Laulima Data Alliance)[7] and county population estimates based on the U.S. census as of July 1, 2019.[8]

Figure 1 displays the aggregated hospital diagnoses at discharge for patients who met criteria for a psychoactive substance use disorder upon discharge from 2016 to 2020, which indicated that alcohol accounted for the largest substance causing hospitalizations statewide, and that rural areas had larger percentages of cannabis and opioid-related hospitalizations than Honolulu County.
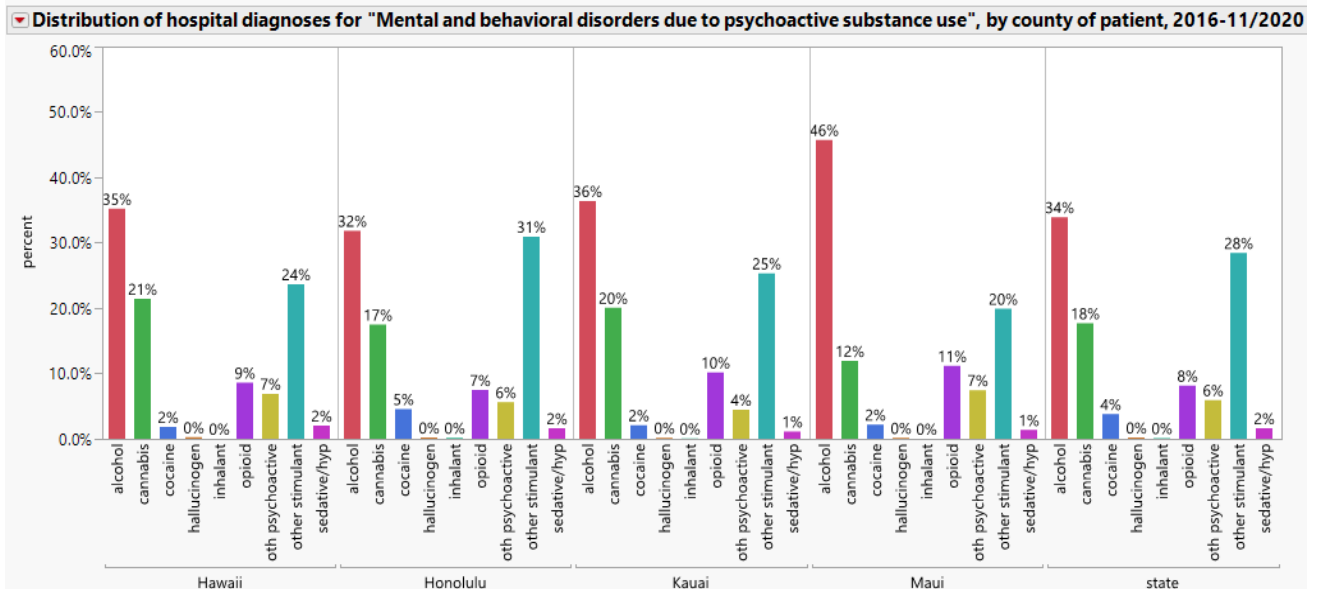
Figure 1. Distribution of Hospital Diagnoses by County 2016 – 2019.
Source: Hospital billing data archive of the Laulima Data Alliance[7]

In addition, as seen in **Table 5**, rural counties have higher rates of non-fatal overdoses than Honolulu County.

Table 5. Non-fatal Drug Overdose Rates of Total Population by County.

	2016	2017	2018	2019
Hawai'i County	0.20%	0.18%	0.15%	0.13%
Kaua'i County	0.19%	0.19%	0.20%	0.19%
Maui County	0.16%	0.15%	0.15%	0.16%
Honolulu County	0.15%	0.15%	0.14%	0.13%

Numbers were calculated with annual number of Hawai'i residents treated for non-fatal drug overdoses in Hawai'i hospitals by county (source: hospital billing data archive of the Laulima Data Alliance)[7] and county population estimates based on the U.S. census as of July 1, 2019.[8]

CURRENT SYSTEM OF CARE IN RURAL HAWAI'I

Rural residents experience a greater impact of substance use than urban residents, due to challenges with accessibility, availability, and acceptability of mental health care.[9,10] Central to the issue of accessibility is being able to find services, the ability to pay for them and being able to get to and from services. Rural areas of Hawai'i have fewer available health services, including physicians,[11] and especially services that target substance use. As shown in **Table 6**, the Substance Abuse and Mental Health Services Administration (SAMHSA)[12] identifies zero inpatient substance abuse treatment centers in the entire State of Hawai'i. In the state, the majority of substance abuse treatment resources are located in Honolulu County. Hawai'i County appears to have about the same number of facilities as Honolulu County for some types of treatment resources (e.g., outpatient SUD treatment and transitional housing). However, Hawai'i County covers almost twice as large an area as Honolulu County, and majority of the facilities are located in relatively urban areas of the county such as Kona and Hilo. Residents of the other isolated areas in Hawai'i County as well as other neighbor islands are at a disadvantage for accessing substance use treatment services due to a limited number of services within their local communities and the distance to the available services.

Table 6: Number of Facilities by Type of Resource and County. Retrieved from SAMHSA Behavioral Health Treatment Services Locator (as of September 2021).[12]

	Hospital Inpatient	Outpatient SUD Treatment	Withdrawal Management Facilities	Residential	Transitional Housing
Hawai'i County*	0	56*	4	8**	4
Kaua'i County	0	10	1	0	0
Maui County	0	9	3	2	2
Honolulu County	0	67	10	11	4

* Outpatient SUD Treatment (n = 56) include the 38 facilities operated by Big Island Substance Abuse Council (BISAC) in different locations. It breaks down to 25 schools and 13 other facilities.

** Residential resources (n = 8) include the 5 facilities operated by BISAC in different locations.

Additionally, there is a severe shortage of treatment options for those with opioid dependence desiring treatment, recovery, withdrawal management, and harm reduction services. In 2021, there were only 156 buprenorphine prescribers statewide; 120 of them are in Honolulu County, and only 36 are located in three rural counties. When these 36 offices were contacted by a Hawai'i State Rural Health Association (HSRHA) intern in 2021, only 17 of the 36 offices (less than half) reported providing Medication for Opioid Use Disorder (MOUD) services; all were located on O'ahu. There were no

substance abuse centers providing MOUD services on neighbor islands, with the exception of one Hawaiʻi's Coordinated Access Resource Entry System (CARES) provider in Hawaiʻi County. Further, a needle exchange program, which is essential in harm reduction, is available at only one location in the state, located on Oʻahu.[13]

While efforts have been made to address the shortage of mental health and substance use providers in rural areas (e.g., federal loan repayment programs), these have not evolved as quickly as rural population increases and many rural locations, including rural areas of Hawaiʻi, remain designated as mental health professional shortage areas.[14,15] All rural areas of Hawaiʻi have access to Federally Qualified Health Centers (FQHCs) that make care available for those without financial resources. But not all FQHCs have mental health and substance use treatment available.

Hawaiʻi State has already taken many steps to curb the risks of substance use, including legalizing widespread naloxone distribution and delivery, creating and requiring the use of a prescription drug monitoring system, creating a drug disposal system, and limiting initial narcotics prescriptions to seven days only. Existing substance use-related initiatives ongoing in Hawaiʻi include the Hawaiʻi Department of Health's State Behavioral Health Assessment and Plan, Substance Abuse Prevention and the Treatment Block Grant that provides limited treatment and recovery services statewide. The Hawaiʻi CARES program began in December 2019 (https://hicares.hawaii.gov/). Hawaiʻi CARES, a partnership between the State Department of Health Behavioral Health Administration, the University of Hawaiʻi, and healthcare organizations, is a free, 24/7 coordination center that offers support with substance use, mental health, and crisis intervention. One specific goal of Hawaiʻi CARES is to identify empty recovery beds and direct patients from any island to these beds.

Ideas for Change

Between 2019 and 2020, HSRHA performed 12 focus groups on Maui, Molokaʻi, Hawaiʻi Island, and Kauaʻi. The focus groups concentrated on needs and resources surrounding prevention, treatment, and recovery from substance use. Over 200 community stakeholders, healthcare workers, politicians, rural health leaders, and members of groups concerned with substance use were included. The needs uncovered through the focus groups showed many similarities across regions, such as a lack of withdrawal management and rehabilitation facilities, however, many identified needs were unique to certain areas. Below, in **Tables 7** and **8**, are a representation of the gaps and needs that are shared between a majority of the sites and some needs that are more unique to particular geographic areas.

Table 7. Prevention Needs Identified at the Focus Group Conducted by HSRHA.

Prevention Needs
- Create a hub for online information sharing.   - Increase in-school training and after school activities that can take place at schools, churches and community centers but need buy-in from parents and need transportation.   - Identify behavioral health/mental health/social workers/support counselors within school systems which will also help decrease suicide.   - Identify support systems for families, provide therapy; Assist families to take ownership/responsibility for their health; Facilitate and strengthen family life skills/coping skills for kids and parents/resiliency training/protective factors.   - Create opportunities for treatment, if needed.   - Implement Senior education (Kupuna education) regarding the dangers of opioids.   - Provider education to decrease stigma and prescribe fewer narcotics.   - Create campaigns to change social norms and attitudes towards the acceptance of drug use.   - Create or partner to have 24-hour health and wellness centers on each island/community.   - Fund alternative options to using opioids and other drugs (skateboard parks/programs).   - Identify safe and supportive housing for houseless families.   - Increase research into causes of substance use in specific populations.   - Identify ongoing/sustainable funding for prevention programs so they do not end prematurely.

Table 8. Treatment/Recovery Needs Identified at the Focus Group Conducted by HSRHA.

Treatment/Recovery Needs
• Make it easy to get help: 24-hour centers for help, triage, treatment, and support/crisis shelter can be at a church or community center. • More withdrawal management beds in various facilities/settings. • More rehab beds including both medical and social. • More intensive outpatient treatment. • More providers, especially MOUD providers across the gender spectrum and sexual orientation. • Increase support groups including non-abstinence and non-religious. • Sober living communities including career opportunities for all i.e., job training/placement. • Make changes to Prescription Drug Monitoring Programs (PDMP): make sure ALL controlled substances (dispensed and prescribed) are recorded in the PDMP/establish inter-state monitoring. • Modify drug court to improve efficacy/better assistance and medical judgment on the ruling/ making Drug Court the first choice rather than the last choice. • Decrease shame, disparagement, and stigma for individuals in recovery. • Outreach such as using community health workers, mobile outreach programs, or mental health emergency workers. • Medicaid policies: increase payment with insurance providers, including travel for medications. • Coordination, connection, and communication with providers, so treatment is smooth and coordinated. • Improve health information exchange across providers and agencies.

Every rural area is different and has its own unique challenges. The needs that were commented on specifically by certain geographic areas are outlined in **Table 9**.

Table 9. Specific Regional Needs Identified at the Focus Group Conducted by HSRHA.

	Prevention	Treatment/Recovery
Maui	Prevention programs such as Project Venture; LGBT programs	Support groups for women; Coordination for pregnant mothers in recovery to keep babies
Molokaʻi	More school counselors; More family support; Vocational training Involve churches more	Cultural acceptance for recovery; Senior education; 24-hour support; family support; suicide prevention.
East Hawaiʻi	Transportation to activities; Un-normalize using drugs	Transportation like Medicaid taxi; more naloxone kits for EMS; Community paramedics; covered by insurance; data/research
West Hawaiʻi	Transportation; Law Enforcement Assisted Diversion; Research; Cultural programs	Transportation
Kauaʻi	Focus on families, parents and young adults need life skills too; Teach protective factors to decrease suicide	Prison services and transition; Emphasis on housing

INTERVENTIONS

There are many excellent prevention and treatment programs in rural communities of Hawaiʻi. As a first step to improving utilization of services, the HSRHA has attempted to document rural resources in a central web location that is updated by local communities monthly. Rural resources in prevention (**Table 10**), treatment and recovery (**Table 11**) are outlined below and the most up to date information found at https://hsrha.org/opioids/.

At the time of this writing, the following services were available:

Table 10. Prevention Resources in Rural Hawaiʻi Compiled by HSRHA.[16]

Island	Audience	Prevention Resources	Website	Phone Number of Contact
Hawaiʻi	Adolescents	The Salvation Army Family Intervention Services	https://hawaii.salvationarmy.org/hawaii/fis	Hilo: (808) 959-5855 Kona: (808) 323-8081
Hawaiʻi	Native Hawaiian Community, Youth	Hoʻāla Hou – Alu Like	https://www.alulike.org/services/hoala-hou/	(808) 323-2804
Hawaiʻi	Youth	Boys & Girls Club of the Big Island	http://www.bgcbi.org/	(808) 961-5536
Hawaiʻi	Youth	Liliʻuokalani Trust	https://onipaa.org	(808) 935-9381 (808) 329-7336
Kauaʻi	Children	Big Brothers Big Sisters	http://www.bbbshawaii.org/kauai-events.html	(808) 292-8173
Kauaʻi	Children, Adults	Keala Foundation	https://www.kealafoundation.com	(808) 755-9991
Kauaʻi	Native Hawaiian Community, Youth	Hoʻāla Hou – Alu Like	https://www.alulike.org/services/hoala-hou	(808) 245-8545
Kauaʻi	Youth	Hale ʻŌpio Kauaʻi Inc	–	(808) 245-2873
Kauaʻi	Youth	Kauaʻi Boys & Girls Club	https://www.bgch.com	Lihue: (808) 245-2210 Kapaʻa: (808) 821-4406
Kauaʻi	Youth	Kauaʻi Lions Club	https://e-clubhouse.org/sites/kauai/index.php	(808) 651-7801
Kauaʻi	Youth	Life's Choices Kauaʻi	https://www.kauai.gov/Government/Departments-Agencies/Prosecuting-Attorney/Lifes-Choices-Kauai/Programs	(808) 241-4925
Kauaʻi	Youth	Na Lei Wili Area Health Education Center	https://www.ahec.hawaii.edu/na-lei-wili-kaua%CA%BBi	(808) 246-8986
Kauaʻi	Youth, Young Adults	Hale Kipa – Advocacy Services	https://www.halekipa.org/as	(808) 246-4898
Lānaʻi	–	Maui Economic Opportunity – Lanaʻi Branch Office	–	(808) 565-6665
Lānaʻi	Youth	Lānaʻi Youth Center	http://www.lanaiyouthcenter.org/ourprogram.html	(808) 565-7675

Maui	Children	Big Brother Big Sister Hawaiʻi	http://www.bbbshawaii.org	(808) 442-7890
Maui	Children and Families	Friends of the Children's Justice Center of Maui	https://mauicjc.org	(808) 986-8634
Maui	Children, Adults	Mental Health America of Hawaiʻi	https://mentalhealthhawaii.org	(808) 242-6461
Maui	Family, Youth	Maui Family Support Services, Inc.	https://mfss.org	(808) 242-0900
Maui	Homeless	Maui Homeless Alliance: Continuum of Care	https://mhacoc.weebly.com	(808) 242-4900
Maui	Low income	Maui Economic Opportunity	http://www.meoinc.org	Harry & Jeanette Weinberg Family Center: (808) 249-2990 Hana Neighborhood Center: (808) 248-8282
Maui	Native Hawaiian Community	Hoʻāla Hou – Alu Like	https://www.alulike.org/services/hoala-hou	(808) 248-7286
Maui	Youth	Boys & Girls Club of Maui	https://bgcmaui.org	(808) 242-4363
Molokaʻi	Native Hawaiian Community	Hoʻāla Hou – Alu Like	https://www.alulike.org/services/hoala-hou	(808) 658-6730
Molokaʻi	Youth	Molokaʻi Youth Center – Molokaʻi Community Service Council	https://www.molokai.org/programs/youth-families/the-molokai-youth-center/index.html	(808) 553-3675
Molokaʻi	Youth	Puni Ke Ola (PIKO)	https://themolokaidispatch.com/youth-photography-and-puni-ke-ola	–
Molokaʻi	Youth, Adult	Maui Economic Opportunity – Molokaʻi Branch Office	http://www.meoinc.org	(808) 553-3216

Table 11. Treatment/Recovery Resources in Rural Hawai'i Compiled by HSRHA.[16]

Island	Audience	Treatment/ Recovery Resource	Website	Phone Number of Contact
Hawai'i	Adolescents, Adults	Big Island Substance Abuse Council	https://bisac.org	(808) 443-8635
Hawai'i	Adolescents, Adults	Access Capabilities Inc.	–	–
Hawai'i	Adolescents, Adults	Hāmākua-Kohala Health	https://www.hamakua-health.org	Kohala Family Health Center: (808) 889-6236 Hamakua Health Center: (808) 775-7204 Waimea: (808) 731-8641 x402 Laupahoehoe: (808) 747-6480
Hawai'i	Adolescents, Young adults	Pacific Quest	https://pacificquest.org	(808) 937-5806
Hawai'i	Adults	Care Hawai'i Inc.	http://www.carehawaii.info	(808) 935-7127
Hawai'i	Adults	Bridge House Hawai'i	http://www.bridgehousehawaii.org	(808) 322-3305
Hawai'i	Adults	Going Home Hawai'i	https://www.goinghomehawaii.org	Hilo: (808) 491-2437 Kailua-Kona: (808) 464-4003
Hawai'i	Adults	Hawai'i Island Recovery	https://hawaiianrecovery.com	(866) 491-8009
Hawai'i	Adults	Hope Inc. – Hilo	N/A	(808) 365-5525
Hawai'i	Adults	Kū Aloha Ola Mau	https://www.kualoha.com	(808) 961-6822
Hawai'i	Adults, Adolescents & Children	Lokahi Treatment Centers	http://www.lokahitreatmentcenters.net	Hilo: (808) 969-9292 Kailua-Kona: (808) 331-1175 Honoka'a: (808) 775-7707 Pahoa: (808) 965-5535 Waikoloa – Corporate Office: (808) 883-0922
Hawai'i	Families	Child & Family Service	https://www.childandfamilyservice.org	West Hawai'i: (808) 323-2664 East Hawai'i: (808) 935-2188
Hawai'i	Teens	Teen Challenge of the Hawaiian Islands	https://teenchallengehawaii.com	(808) 966-7980
Kaua'i	Adolescents	Teen CARE – Hina Mauka	http://www.hinamauka.org/teencare/programs	–
Kaua'i	Adults	Care Hawai'i Inc.	http://www.carehawaii.info	–

Kaua'i	Adults	Ho'ola Lāhui Hawai'i, Kaua'i Community Health Center	http://www.hoolalahui.org/behavioralhealthservices.html	(808) 240-0194
Kaua'i	Adults	Ke Ala Pono – McKenna Recovery Center	https://mckennarecoverycenter.com	(808) 246-0663
Kaua'i	Families	Child & Family Service	https://www.childandfamilyservice.org/kauai	(808) 245-5914
Kaua'i	Teens	Teen Challenge of the Hawaiian Islands	https://teenchallengehawaii.com	(808) 212-1490
Kaua'i	Women	Women In Need	https://www.winhi.org/winkauai	(808) 245-1996
Lāna'i	Adults	Aloha House, Inc.	–	–
Maui	–	Akamai Recovery Maui	https://akamai.healthcare	(808) 214-5931
Maui	–	Behavioral Health Hawai'i	https://behavioralhealthhawaii.com	(808) 243-3200
Maui	–	Maui Recovery	https://mauirecovery.com/how-we-treat	(877) 317-8260
Maui	Adults	Care Hawai'i Inc.	http://www.carehawaii.info	(808) 242-6131
Maui	Adults	Lāna'i Community Health Center	https://lanaihealth.org/services	(808) 565-6919
Maui	Adults	Valley Isle Healthcare	–	(808) 442-3245
Maui	Adults, Family, Youth	Maui Youth and Family Services Inc	https://mbhr.org/about-maui-youth-family-services	(808) 579-8414 x8211
Maui	Adults, Women, Youth, Families	Aloha House, Inc.	https://mbhr.org/about-aloha-house	(808) 579-8414
Maui	Adults, Youth, Family	'Ohana Makamae	https://www.ohanamakamae.org/index.html	(808)248-8538
Maui	Families	Child & Family Service	https://www.childandfamilyservice.org/mauicounty	(808) 877-6888
Maui	Teens	Teen Challenge of the Hawaiian Islands	https://teenchallengehawaii.com	(808) 793-3440
Maui	Youth	Malama Family Recovery Center	https://mbhr.org/about-malama-family-recovery-center	(808) 877-7117
Moloka'i	Adults	Ka Hale Pomaika'i	https://www.kahalepomaikai.org	(808) 558-8480
Moloka'i	Families	Child & Family Service	https://www.childandfamilyservice.org/mauicounty	(808) 553-5529
Moloka'i	Youth	Hale Ho'okupa'a	–	(808) 553-3231
Moloka'i	Youth	Ka Hale Pomaika'i	https://www.kahalepomaikai.org	(808) 558-8480
Moloka'i	Youth, Adults	Moloka'i Community Health Center	https://molokaichc.org	(808) 553-5038
Moloka'i	Youth, Families	Moloka'i Community Service Council	https://www.molokai.org	(808) 553-3244

In order to create additional lasting interventions, HSRHA, in collaboration with Chaminade University Nursing students and the University of Hawai'i, reviewed the literature for best practices in rural

prevention, treatment and recovery. Results relevant to Hawai'i for evidence-based prevention and treatment programs are described below.

Evidence-Based or Best Practices for Rural Substance Use Prevention

Successful rural Hawai'i-specific prevention programs have been implemented, but they are few. The Kaua'i Longitudinal Study examined the biological and psychosocial risk factors, stressful life experiences, and protective factors of a cohort of children born on the island of Kaua'i in 1955.[17] Findings indicated that a strong support system in the form of a significant adult caregiver or informal support, self-efficacy (responsibilities such as care taking, job, etc.), and opportunities (additional education, career training, military enrollment, etc.) were all factors that improve resiliency. Puni Ke Ola is a culturally based drug and alcohol prevention program for 12- to 18-year-old Native Hawaiian students that has a homestead focus. It is held at the community center after school and offers field trips and cultural programs including "Photovoice" as a strategy to engage with students. Challenges include 1) timeline and schedule, 2) participant recruitment and sample size, 3) place-based intervention intensity and transportation, 4) communication, and 5) staff time and funding.[18] Ho'ouna Pono is a middle school drug prevention curriculum tailored to rural Native Hawaiian youth that maintained youths' use of culturally relevant drug resistance skills and decreased girls' aggressive behaviors six months after completion of training on Hawai'i Island.[19] Hui Mālama O Ke Kai successfully increased avoidance of drugs in fifth and sixth graders participating in an after-school program from 2004-2007 on O'ahu,[20] and the Positive Action program decreased substance use by fifth graders on O'ahu.[21]

Across the US, some prevention programs have been tested in rural areas.[22] Hecht (2018) found that the Keepin' it REAL curriculum was effective in decreasing tobacco and marijuana use, but not other substances in rural New York.[22] Hojjat (2016) found assertiveness training increased happiness and assertiveness in rural Appalachian girls with substance using parents.[23] A study with Native American youth in California found brief motivational interviewing and psychoeducation combined with community mobilization and awareness activities, as well as restricting alcohol sales to minors, decreased alcohol use in the teen population.[24] Finally, Scull (2017) found that an online, family-based media literacy education program for substance abuse prevention in rural elementary school children called the Media Detective Family program was effective at decreasing substance use when measured three months after program completion.[25]

Rural Substance Use Treatment and Recovery Programs

Treatment options are not often tested specifically in rural areas, however a study with American Indians who inject drugs in northeastern Montana found that 98% of those responding to a survey expressed interest in a harm reduction approach.[26] Godinet (2020) conducted a literature review and found significant ethnic disparities in substance use treatment programs, with Native Hawaiians and Pacific Islanders being more likely to complete outpatient treatment than inpatient or intensive outpatient treatment services.[27] Edmond (2015) mentioned that rural and urban service differences are complicated, but access to resources improves treatment rates.[28] Cucciare (2019) found that patients with health insurance were more likely to receive treatment.[29] Jones (2018) outlined how FQHCs can assist with substance use treatment, but indicated rural FQHCs have more challenges than urban FQHCs.[30] Finlay (2018) recommends telehealth, outreach and integrated treatment for successful rural programs.[31] Tjaden (2015) recommends increasing the rural physician workforce, improving access to primary and specialty care through telehealth services, and expanding health insurance options to meet rural substance use needs.[32]

Other literature, while not specifically focused on rural areas, have studied the effectiveness of treatments provided in criminal justice system. Kopak (2019) found that jails need to implement behavioral health assessments to support detainees while incarcerated and connect them to services to decrease repeated detention.[33] Shannon (2015) demonstrated the effectiveness of Kentucky's enhanced probation program called Supervision Monitoring, Accountability, Responsibility, and Treatment (SMART) which is modeled after Hawai'i's Opportunity Probation with Enforcement (HOPE) program.[34] The HOPE Program showed a 55% reduction in rearrests, and 72% less positive drug screens.[35] Meyer (2015) found that appreciation for the severity and importance of the opioid-dependence problem in Vermont among health care providers and state legislators was paramount for success in developing a statewide treatment program.[36] Timko (2017) found that engagement in

social-recreational activities was associated with fewer subsequent arrests and less severe alcohol and drug problems in rural substance using women, and described the need to increase the rural physician workforce, improve access to primary and specialty care through telehealth services, and expand health insurance options for rural patients, including those in corrections.[37]

Haskell (2016) found that in general, rural Canadian participants wanted respectful, non-judgmental and supportive services that are accessible, coordinated, holistic, and inclusive of family members.[38] Screening and treatment may be influenced by the availability and advertisement of integrated services, institutional support, strong patient-provider relationships, and provider training and experience.[39] Monnat (2016) identified potential points of intervention to prevent prescription opioid misuse in teens in rural areas include early education about addiction risks, use of family drug courts to link criminal offenders to treatment, and access to non-emergency medical services to reduce rural residents' reliance on emergency departments where opioid prescribing is more likely.[4]

Palombi (2019) found that community forums planned by university faculty and community members were effective in increasing overall awareness and knowledge of the opioid crisis within rural communities.[40] Speakers from varied professional backgrounds and integrated cultural strengths were preferred. Communities that planned forums together have reported increased collaboration to prevent and address substance use and increased community member engagement on local grassroots coalitions. Community forums have functioned as an effective grassroots approach to engaging rural community members in opioid use prevention and intervention efforts.

Poor transportation and limited staff are problems in rural areas that can be ameliorated through collaborative community effort and involvement of corrections and other partners.[41] Factors that can improve rural treatment include offering buprenorphine,[30] employing highly educated counselors, providing wrap-around services, being supported by private funds, and offering diverse treatment options. Williams et al. (2019) reports that in the Hawaiian cultural context, cultural-political trauma is a key factor in developing a beneficial healing framework because current service delivery is not aligned with the objective of specifically improving treatment for Native Hawaiians.[42]

Additional Challenges Faced

The Hawaiʻi CARES program is making strides in connecting individuals with substance use treatment programs, however there are still two major barriers to substance use care in rural areas. The first challenge is that different insurers reimburse differently, many need prior authorization, and some do not cover certain services. These barriers are not unique to rural areas and should be examined statewide so as to maximize benefit for all Hawaiʻi residents.

The second challenge is that if an individual completes withdrawal management, but there is no rehabilitation bed available, they often have no place to wait for the rehabilitation services they need to become available. The individual might engage in Individual Outpatient (IOP) services if they have a secure living situation. However, if they return to the environment they were in when using, there is a high likelihood that the individual will be tempted to indulge in the substance from which they just withdrew. Furthermore, community service providers report that if individuals maintain abstinence after withdrawal management, they may not meet criteria for the treatment/ rehabilitation program to be covered by insurance. Therefore, much more coordination is needed at all stages of treatment and recovery services.

RECOMMENDATIONS

Prevention

In order to let all rural communities develop the resources that will best help their community, it is imperative that they know what has been effective in locales similar to theirs, what services are available, estimated costs, and how to identify funding. Therefore, the Hawaiʻi Opioid Initiative Workgroup 4: Promotion and Outreach is working to create an online menu of evidence-based prevention programs with links to supporting literature, contact information, estimated costs and funding resources. The aforementioned resources will be included, updated, and available at hawaiistateruralhealth.org. In this way, schools and communities that choose to implement prevention programs will be able to access compiled information to help them choose, adapt, and implement prevention programs in their rural areas. Local, statewide, and federal organizations willing to assist will

be included in the information so that schools and communities can identify resources to assist them. We hope that with access to information on best practices, successful organizations, costs, and available funding, more communities and schools will implement prevention programs. School and community groups must be able to reach out to those who have successfully implemented change, and find out more. Then they must have access to the resources needed to do this in their own community or school.

Treatment

Treatment should be available to all rural inhabitants of Hawai'i. The Hawai'i State Department of Health's Behavioral Health Administration offers an array of treatment services, including for substance use concerns. The Adult Mental Health Division's Community Mental Health Centers (https://health.hawaii.gov/amhd/consumer/access/) and the Child and Adolescent Mental Health Division's Family Guidance Centers (https://health.hawaii.gov/camhd/family-guidance-centers/) serve clients in all rural counties. There are also school-based services for students who meet the Alcohol and Drug Abuse Division's criteria for service. In order to expand services to rural areas, community health centers, located in federally-recognized areas where residents commonly have barriers accessing healthcare, are very active in finding services for patients (https://www.hawaiipca.net/). In addition, HawaiiUTelehealth.org is a partnership between University of Hawai'i and the HSRHA that provides free telecounseling to rural inhabitants. Despite all of these resources, there are still many barriers to receiving treatment, including stigma and lack of knowledge of resources preventing those interested in treatment from receiving it.

Depending on the substances used, treatment needs vary. The first step, of course, is getting off of the substance, or withdrawal management. For some substances, this can be done safely without medical treatment, however can be more tolerable with medical care. For some other substances, individuals should be monitored throughout withdrawal management. Therefore, ideal services allow for assessing the needs of each individual and providing the appropriate level of service needed. Telehealth is an option for this if there is an alternative in-person treatment service available. Currently, in rural areas, the alternative in-person service is usually the emergency room which is neither cost-effective nor an appropriate utilization of services. Therefore, some rural communities on Hawai'i Island are exploring the possibility of an urgent care/telehealth service to meet the needs for outpatient or intensive outpatient services. If services are widely available, that eliminates one barrier to withdrawal management.

Treatment does not stop with an individual being free of substances in their bloodstream and one of the greatest challenges is having someone able to enter a treatment program immediately after withdrawal management. Ideally, when an adult completes withdrawal management, they go straight to a treatment facility, followed by a recovery home. If not, the likelihood of treatment success is limited, given that the patient will likely return to the environment where they have used in the past, without the opportunity to learn and practice skills to support their recovery. Therefore, there needs to be effective coordination, temporary housing if needed, and adequate resources at all stages of treatment. The Hawai'i CARES Program is working on this important step from withdrawal management to treatment by identifying empty treatment beds and assigning patients to treatment programs with an opening, even if the program is on a different island. In such a case, transportation is, again, a challenge. To further complicate things, withdrawal management and treatment is often needed repeatedly for an individual and can be very expensive. Thus, there must be support to ensure there are enough treatment beds, adequate financial support for treatment, and transportation to treatment as previously discussed.

Transportation is a major problem in Hawai'i County. Distances are long and the public bus system is very limited. Therefore, additional methods for patients to get to treatment, to get to the pharmacy for medications, and to get to counseling and support services are essential for improving substance use on Hawai'i Island.

Stigma is another barrier to care and lurks in all of us if we are not careful. Stigma can be internal and can make seeking treatment more difficult. Stigma can also be external in family, friends, employers, and healthcare providers. In rural communities, there is little anonymity.[43] Seeking treatment can mean exposing oneself to the perceived or real criticism of others, and it can be challenging to obtain services confidentially within small rural communities. Furthermore, stereotypes can prevent recovered

individuals from finding work or being accepted in a rural area. If someone goes away for treatment, they leave their support system, but they also leave the familiar patterns that facilitate substance use. We must all look at the messages we send about individuals with substance use disorders. Referring to individuals who have challenges with substance use problems as humans first (i.e., person first language[44]) can help us all decrease stigma. In addition, interprofessional education is being implemented at the healthcare provider and training levels to decrease stigma in the healthcare system. Community education, in the form of Mental Health First Aid and other community awareness programs, can be of assistance. In fact, some prevention programs that could be implemented as described above could include stigma prevention in the program. Finally, the Hawai'i Opioid Initiative is supporting a media and social media campaign that involved real stories of challenges and recovery to help the public get to know the people behind the stigma and thereby increase acceptance and support for those in recovery.

Recovery

Recovery resources are the most challenging to develop and fund due to individual patient and community complexities, the long-term nature of the services needed and the cost of housing in Hawai'i. Ideal recovery services would include a safe place to live indefinitely where individuals are not exposed to substances or risks, but can learn to take responsibility for themselves and learn healthy behavior. Sober living homes such as Oxford Houses, need to be more accessible throughout Hawai'i. Furthermore, assistance with employment, long-term mentoring and support, and family support are important pieces of a long-term recovery plan and should be available continuously. Employment assistance programs need to be fully developed in rural areas. Religious and non-religious recovery support programs are available including online programs and can be co-located with housing. For those without computer/smart phone and internet access, HSRHA, the Hawai'i State Public Library System and many community health centers are providing devices and connectivity for participation in telecounseling. Peer counselors can be a valuable asset.[45] Family peer counselors are available in Hawai'i through the 'Ohana Coaches program (https://www.hawaiiopioid.org/resources/parents/ or 808-523-7550). An example of a collaborative recovery process in development is on Hawai'i Island, where there are plans to convert the old courthouse in Kona and the old Hilo Medical Center to recovery centers where living and services will be co-located. If successful as recovery centers, these can be an example for the other islands.

Funding

Funding is the primary challenge faced in creating and maintaining substance use prevention, treatment, and recovery programs. Some organizations have excellent services which are funded by some health insurance plans or by a grant. If a program is grant funded, the funds end at grant completion, and often so does the program. Long-term funding for successful programs must be continued. Furthermore, with increased coordination and collaboration between organizations, the better the services will be for individuals who use addictive substances. Ideally, all individuals needing services would have insurance coverage that pays for these services, however this is often not the case. It is no surprise that there is often limited communication between insurers and providers about what is a covered benefit, medication, etc., when the reimbursement landscape is often changing and individuals change insurance coverage. Therefore, there needs to be general resource information easily available for providers and patients with different types of insurance so that they might initiate and continue treatment as seamlessly as possible. Also, long term state funding for effective programs is essential.

Evaluation

In order to better assess the needs of rural areas and the impact of interventions, data will need to be collected and maintained for discrete rural areas, or islands, not just at the county, state, or federal level. Data should include substance use hospitalizations, substance-related behavioral health visits, overdoses, and suicide rates in both the rural and urban regions of each island. In addition, feedback regarding time to appointments for behavioral health needs, frequency and type of substance-related behavioral health visits, and access to services will be important. Finally, the number of community and school-based prevention programs, participation, and substance use rates by age group and substance type will be essential data for measuring effectiveness of programs implemented.

CONCLUSION

The primary themes identified for rural area needs were collaboration and communication. Collaboration between communities, schools, non-profit organizations, and state agencies is essential to maximize the adoption and implementation of substance-use prevention and intervention programs and their success. This is not unique to rural areas, but more important as the geographic areas served are often larger and with much more limited available services. An excellent example of provider collaboration is the new Hawai'i Addiction Provider Integration Network in Hawai'i County that will work to expand services to individuals in need of MOUD and treatments for substance use disorder. Partnerships like this can build both prevention and treatment/recovery programs.

Furthermore, without communication, some geographic areas may be unknowingly duplicating services. If we are able to put all resources in one directory, such as https://www.hawaiistateruralhealth.org/ then we are more likely to be able to partner on activities and maximize program success. In addition, communication between community service providers and insurers is essential for success in decreasing substance use. If the resources available through insurance are more easily identified, then they are more likely to be utilized and be of benefit to clients across all geographic areas. Only by cutting through red tape will we succeed in getting resources where they are needed when they are needed.

Therefore, we recommend that members of rural communities get in touch with their local community health center (federally qualified health centers are listed at https://www.hawaiipca.net/), the Native Hawaiian Healthcare system (http://www.papaolalokahi.org/), and the rural health organization (https://www.hawaiistateruralhealth.org/) to learn what is happening locally and how to help.

REFERENCES

1. Hawaiʻi Health Data Warehouse. Behavioral Risk Factor Surveillance System - Alcohol - binge drinking crude rate by county, 2017-2019. Hawaiʻi State Department of Health. Accessed September 22, 2021. Hawaii-IBIS http://ibis.hhdw.org/ibisph-view

2. Substance Abuse and Mental Health Services Administration. *2016-2018 National Survey on Drug Use and Health Substate Region Estimates - Tables (Hawaiʻi)*. Published 2020. https://www.samhsa.gov/data/report/2016-2018-nsduh-substate-region-estimates-tables

3. Hawaiʻi Health Data Warehouse. Youth Risk Behavior Survey - High School, Alcohol - first drink before age 13. Year: 2015, 2017, and 2019. Hawaiʻi State Department of Health. Updated September 22, 2021. Accessed September 22, 2021. Hawaiʻi-IBIS http://ibis.hhdw.org/ibisph-view

4. Monnat SM, Rigg KK. Examining rural/urban differences in prescription opioid misuse among US adolescents. *J Rural Health*. 2016;32(2):204-218. doi:10.1111/jrh.12141

5. Hawaiʻi Health Data Warehouse. Youth Risk Behavior Survey - Middle School Substance Use by County of Hawaiʻi, 2011-2019. Hawaiʻi State Department of Health. Accessed September 22, 2021. Hawaiʻi-IBIS http://ibis.hhdw.org/ibisph-view

6. Hawaiʻi State Department of Health HHDW, Youth Risk Behavior Survey. *High School Substance Use by County of Hawaiʻi, 2013 - 2019*. Accessed September 22, 2021. Hawaiʻi-IBIS http://ibis.hhdw.org/ibisph-view

7. Hospital Billing Data Archive of the Laulima Data Alliance. Hospital Discharge Rate Due to Psychoactive Substance Use by County of Residence of Patient 2016 through 2019, analyzed by Hawaiʻi State Department of Health. Published 2019. Accessed March 22, 2021.

8. Hawaiʻi State Department of Business Economic Development & Tourism. 2019 County population estimates released. Published 2020. Accessed September 30, 2021. https://census.hawaii.gov/whats-new-releases/2019-county-population-estimates/

9. Human J WC. Rural Mental Health in America. 1991;46(3).232-239. doi:10.1037/0003-066X.46.3.232

10. U.S. Department of Health and Human Services. *Mental Health and Rural America: 1994–2005*. . Rockville, MD: Office of Rural Health Policy, Health Resources and Services Administration. Published 2005. Rockville, MD: Office of Rural Health Policy, Health Resources and Services Administration.

11. Withy K. University of Hawaiʻi System Annual Report: Report to the 2021 Legislature. Annual Report on Findings from the Hawaiʻi Physician Workforce Assessment Project. John A. Burns School of Medicine, Area Health Education Center. Published 2020. Accessed May 5, 2020. https://www.ahec.hawaii.edu/workforce-page/

12. Substance Abuse and Mental Health Services Administration. Behavioral Health Treatment Services Locator. Published 2021. Accessed August 1, 2021. https://findtreatment.gov/results

13. The Foundation for AIDS Research. Opioid & Health Indicators Database. 2020.

14. Jameson JP, & Blank, M. B., . The Role of Clinical Psychology in Rural Mental Health Services: Defining Problems and Developing Solutions. *Clinical Psychology (New York, NY)*. 2007(14(3).):283–298. https://doi.org/10.1111/j.1468-2850.2007.00089.x

15. Hawaiʻi State Rural Health Association. Hawaiʻi State Rural Health Association – HSRHA. Published 2021. Accessed January 1, 2022. https://www.hawaiistateruralhealth.org/

16. Hawaiʻi State Rural Health Association. Opioid Prevention, Treatment & Recovery Resources. Accessed January 1, 2022. https://www.hawaiistateruralhealth.org/resources/opioid-treatment-prevention/

17. Werner EE, & Smith, R. S. *Journeys from childhood to midlife. Risk, resilience and recovery.*: Ithaca, NY : Cornell University Press. xiii + 237 pp.; 2001.

18. Helm S, Davis K, Haumana. Challenges and lessons learned in implementing a community-academic partnership for drug prevention in a Native Hawaiian community. *P R Health Sci J*. 2017;36(2):101-106.

19. Okamoto SK, Kulis S, Helm S, Lauricella M, Valdez JK. An Evaluation of the Hoʻouna Pono Curriculum: A Pilot Study of Culturally Grounded Substance Abuse Prevention for Rural Hawaiian Youth. *J Health Care Poor Underserved*. 2016;27(2):815-833. doi:10.1353/hpu.2016.0061

20. Hishinuma ES, Chang, J. Y., Sy, A., Greaney, M. F., Morris, K. A., Scronce, A. C., Rehuher, D., & Nishimura, S. T. ,. Hui Mālama O Ke Kai: a positive prevention-based youth development program based on native Hawaiian values and activities. *J Community Psychol*. 2009;37(8).987–1007. doi:10.1002/jcop.20344

21. Snyder FJ, Acock AC, Vuchinich S, Beets MW, Washburn IJ, Flay BR. Preventing negative behaviors among elementary-school students through enhancing students' social-emotional and character development. *Am J Health Promot*. 2013;28(1):50-58. doi:10.4278/ajhp.120419-QUAN-207.2

22. Hecht ML, Shin Y, Pettigrew J, Michelle MD, Krieger JL. Designed Cultural Adaptation and Delivery Quality in Rural Substance Use Prevention: An Effectiveness Trial for the Keepin' it REAL Curriculum. *Prev Sci*. 2018;19(8):1008-1018. doi:10.1007/s11121-018-0937-y

23. Hojjat SK, Golmakani E, Khalili MN, et al. The effectiveness of group assertiveness training on happiness in rural adolescent females with substance abusing parents. *Glob J Health Sci*. 2016;8(2):156-164. doi:10.5539/gjhs.v8n2p156

24. Moore RS, Gilder DA, Grube JW, et al. Prevention of Underage Drinking on California Indian Reservations Using Individual- and Community-Level Approaches. *Am J Public Health*. 2018;108(8):1035-1041. doi:10.2105/ajph.2018.304447

25. Scull TM, Kupersmidt JB, Weatherholt TN. The effectiveness of online, family-based media literacy education for substance abuse prevention in elementary school children: Study of the Media Detective Family program. *J Community Psychol*. 2017;45(6):796-809. doi:10.1002/jcop.21893

26. Anastario M, FourStar K, Ricker A, Dick R, Skewes MC, Rink E. A preliminary needs assessment of American Indians who inject drugs in northeastern Montana. *Harm Reduct J*. 2017;14. doi:10.1186/s12954-017-0146-1

27. Godinet MT, McGlinn L, Nelson D, Vakalahi HO. Factors Contributing to Substance Misuse Treatment Completion among Native Hawaiians, Other Pacific Islanders, and Asian Americans. *Subst Use Misuse*. 2020;55(1):133-146. doi:10.1080/10826084.2019.1657896

28. Edmond MB, Aletraris L, Roman PM. Rural substance use treatment centers in the United States: an assessment of treatment quality by location. *Am J Drug Alcohol Abuse*. 2015;41(5):449-457. doi:10.3109/00952990.2015.1059842

29. Cucciare MA, Ounpraseuth ST, Curran GM, Booth BM. Predictors of mental health and substance use disorder treatment use over 3 years among rural adults using stimulants. *Subst Abus*. 2019;40(3):363-370. doi:10.1080/08897077.2018.1547809

30. Jones EB. Medication-assisted opioid treatment prescribers in federally qualified health centers: Capacity lags in rural areas. *J Rural Health*. 2018;34(1):14-22. doi:10.1111/jrh.12260

31. Finlay AK, Harris AHS, Rosenthal J, et al. Justice involvement and treatment use among rural veterans. *Rural Ment Health*. 2018;42(1):46-59. doi:10.1037/rmh0000092

32. Tjaden K. Health disparities between rural and urban women in Minnesota. *Minn Med*. 2015;98(10):40-43. Published 2015/11/26.

33. Kopak AM, Guston K, Maness L, Hoffmann NG. A prospective study of behavioral health indicators and repeat jail admissions among rural inmates. *Health Justice*. 2019;7. doi:10.1186/s40352-019-0087-8

34. Shannon LM, Hulbig SK, Birdwhistell S, Newell J, Neal C. Implementation of an enhanced probation program: evaluating process and preliminary outcomes. *Eval Program Plann*. 2015;49:50-62. doi:10.1016/j.evalprogplan.2014.11.004

35. Hawken A, & Kleiman, M.,. Managing drug involved probationers with swift and certain sanctions : evaluating Hawaii's HOPE . *[National Institute of Justice]*. 2009. https://crimesolutions.ojp.gov/ratedprograms/49#eb

36. Meyer M, Phillips J. Caring for pregnant opioid abusers in Vermont: A potential model for non-urban areas. *Prev Med*. 2015;80:18-22. doi:10.1016/j.ypmed.2015.07.015

37. Timko C, Booth BM, Han X, et al. Criminogenic Needs, Substance Use, and Offending among Rural Stimulant Users. *Rural Ment Health*. 2017;41(2):110-122. doi:10.1037/rmh0000065

38. Haskell R, Graham K, Bernards S, Flynn A, Wells S. Service user and family member perspectives on services for mental health, substance use/addiction, and violence: a qualitative study of their goals, experiences and recommendations. *Int J Ment Health Syst*. 2016;10. doi:10.1186/s13033-016-0040-3

39.   Hill SK, Cantrell P, Edwards J, Dalton W. Factors Influencing Mental Health Screening and Treatment Among Women in a Rural South Central Appalachian Primary Care Clinic. *J Rural Health*. 2016;32(1):82-91. doi:10.1111/jrh.12134

40.   Palombi L, Olivarez M, Bennett L, Hawthorne AN. Community Forums to Address the Opioid Crisis: An Effective Grassroots Approach to Rural Community Engagement. *Subst Abuse*. 2019;13. doi:10.1177/1178221819827595

41.   Des Jarlais DC, Hammett TM, Kieu B, Chen Y, Feelemyer J. Working With Persons Who Inject Drugs and Live in Rural Areas: Implications From China/Vietnam for the USA. *Curr HIV/AIDS Rep*. 2018;15(4):302-307. doi:10.1007/s11904-018-0405-0

42.   Williams IL, Laenui Hayden Burgess P, Makini GK, Jr., Rezentes WC, 3rd. Native Hawaiian culturally based treatment: Considerations and clarifications. *J Ethn Subst Abuse*. 2019:1-31. doi:10.1080/15332640.2019.1679315

43.   Browne T, Priester MA, Clone S, Iachini A, DeHart D, Hock R. Barriers and Facilitators to Substance Use Treatment in the Rural South: A Qualitative Study. *J Rural Health*. 2016;32(1):92-101. doi:10.1111/jrh.12129

44.   Office of Disability Rights. People First Language. Published 2021. Accessed January 1, 2022. https://odr.dc.gov/page/people-first-language

45.   Substance Abuse and Mental Health Services Administration. Peers. Published 2021. Accessed January 1, 2022. https://www.samhsa.gov/brss-tacs/recovery-support-tools/peers

CHAPTER 8: IMPLICATIONS FOR A SYSTEM OF CARE IN HAWAIʻI FOR PREGNANT AND PARENTING WOMEN AND SUBSTANCE USE

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ABSTRACT

Substance use disorder (SUD) in pregnancy negatively affects children, families, and communities. In Hawai'i, pregnant women and women with dependent children (PWWDC) are a high-needs population that merit prioritization for treatment given the significant, multi-generational impacts of SUD. As the leading state agency, the Hawai'i State Department of Health, Alcohol and Drug Abuse Division (ADAD) has myriad opportunities to enhance services and supports available to PWWDC in Hawai'i in collaboration with a diverse network of partners and stakeholders. Four key, evidence-based recommendations are presented here, along with specific action items to consider under each: (1) Funding for gender-specific/responsive treatment, including children; (2) Improved care coordination and resource/referral infrastructure; (3) Sustainable and reimbursable peer support programs, elevating voices of lived experience; and (4) Workforce capacity and development. Through advocacy, funding, and engagement with ongoing initiatives, ADAD can help provide more Hawai'i families with appropriate and accessible gender-specific/responsive treatment and care during pregnancy, postpartum, and beyond.

BACKGROUND & INTRODUCTION

Substance Use and Pregnancy

Substance use disorder (SUD) is associated with myriad adverse outcomes, such as physical and mental health problems and exposure to violence. For people who become pregnant, both legal (smoking, alcohol) and illicit (methamphetamines, cocaine, opioids) substances negatively impact the fetus/infant as well.[1] Complications associated with SUD during pregnancy vary based on the substance(s) used, and can include placental abruption, preterm birth, low birthweight, birth defects, neurodevelopmental disorders, fetal alcohol spectrum disorder (FASD), neonatal abstinence syndrome (NAS), neonatal opioid withdrawal syndrome (NOWS), and sudden infant death syndrome (SIDS).[1,2] Developmental and psychosocial effects associated with SUD during pregnancy can persist to adolescence and adulthood, with increased risks of cognitive and behavioral challenges, executive functioning and attention deficits, mood and anxiety disorders, psychotic disorders, personality disorders, eating disorders, and SUD.[3-5]

Women are at increased risk of developing SUD during their reproductive years (18-44 years old), and the risk is highest between 18-29 years old.[3] Individuals with SUD during pregnancy may face multiple barriers to accessing care, including transportation, caring for existing children, food and housing insecurities, medical and psychiatric comorbidities, and overall lack of resources.[3] Furthermore, 90% of pregnancies among women with SUD were unintended, compared to 45% in the overall United States (U.S.) population, leading to late pregnancy confirmation, delayed prenatal care, and prolonged prenatal substance exposure and impact on fetal development.[6] Further exacerbating the issue of substance use among pregnant women and women with dependent children (PWWDC), also referred to as pregnant and parenting women (PPW), is the insufficient availability of programs and services employing evidence-based practices tailored towards their unique needs, which tend to be more complex and costly. PWWDC are often stigmatized and ostracized for their substance use, leading to further legal, emotional, and financial consequences.

This chapter explores the intersections of PPWDC and substance use, as part of the Hawai'i State Department of Health Alcohol and Drug Abuse Division (ADAD) State Plan. For more background and context around the overall State Plan project, readers are referred to the Introductory Notes of this State Plan System of Care Implications Volume.

National and Hawai'i Prevalence

The National Survey on Drug Use and Health (NSDUH) estimates that past month substance use rates for pregnant women in the U.S. range from 0.2% for cocaine to 9.6% for tobacco products and 9.5% for alcohol (see **Table 1**).[7,8] Due to small sample sizes, NSDUH estimates for pregnant people in Hawai'i are not very precise (i.e., they have wide confidence intervals), which complicates comparison to the national sample. For example, NSDUH data from 2015-2018 estimate that 15.6% of pregnant people in Hawai'i were currently using alcohol, but the true proportion (with 95% confidence) may be anywhere

between 5.0% and 39.6%.[9] NSDUH 2015-2018 estimates of current tobacco and marijuana use among pregnant people in Hawai'i were 12.8% and 2.1%, respectively, with similarly wide confidence intervals (see **Table 1**).[9]

Table 1. Past Month/Current Substance Use among Pregnant Women from 15 to 44 years old in the United States (2019) and Hawai'i (2015-2018). (Adapted from 2019 National Survey on Drug Use and Health: Women. Substance Abuse and Mental Health Services Administration (SAMHSA).[8])

	United States, 2019*		Hawai'i, 2015-2018*
Type of Substance	Estimated N	%	% (95% CI)
Tobacco Products**	198,000	9.6%	12.8% (5.2-28.2)
Alcohol	197,000	9.5%	15.6% (5.0-39.6)
Illicit Drugs	120,000	5.8%	--
Marijuana	112,000	5.4%	2.1% (0.6-6.7)
Opioids	8,000	0.4%	--
Cocaine	3,000	0.2%	--

*15-44 years old for United States (2019) estimates, 12-44 years old for Hawai'i (2015-2018) estimates
**Tobacco products include cigarettes, smokeless tobacco, cigars, and pipe tobacco.

The Pregnancy Risk Assessment Monitoring System (PRAMS) is another important source of data about substance use during pregnancy at the national and state levels. This population-based survey of women who have recently had a live birth uses a stratified random sampling method, and results are weighted to represent the population. PRAMS has asked different questions about substance use during pregnancy across different survey years; data provided in **Table 2** reflect the most recent three years of data available for each substance use question. Based on the most recent data available, about 6% of postpartum women in Hawai'i report using illicit drugs before pregnancy, and 3% report using illicit drugs during pregnancy. More than half of women report drinking alcohol prior to pregnancy, while 8% report drinking in the last 3 months of pregnancy. For cigarette smoking, these estimates are 13.5% and 5.1%, respectively.

Table 2. Prevalence of Substance Use Prior to and During Pregnancy, from Hawai'i Pregnancy Risk Assessment Monitoring System (PRAMS)[10]

	2009		2010		2011		2009-2011	
	N*	% (95% CI)	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)
Used illicit** drugs while pregnant	500	3.0 (2.1-4.2)	400	2.5 (1.7-3.7)	600	3.4 (2.5-4.6)	1,600	3.0 (2.5-3.6)
	2013		**2014**		**2015**		**2013-2015**	
	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)
Used illicit drugs in month <u>before</u> pregnancy	1,300	7.4 (5.8-9.5)	900	5.3 (4.0-7.0)	900	5.4 (4.0-7.4)	3,100	6.1 (5.2-7.1)
	2015		**2016**		**2019#**		**2015, 2016, 2019#**	
	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)
Drank alcohol in last 3 months of pregnancy	1,500	8.7 (6.8-11.0)	1,400	7.8 (5.8-10.5)		6.8 (4.5-10.2)		8.0 (6.7-9.5)
Drank alcohol in 3 months <u>before</u> pregnancy	9,500	54.5 (50.7-58.3)	9,400	54.3 (50.0-58.5)		50.3 (44.6-56.0)		53.6 (51.0-56.2)
Smoked cigarettes in last 3 months of pregnancy	900	4.9 (3.5-6.7)	900	4.9 (3.3-7.3)		5.8 (3.4-9.7)		5.1 (4.0-6.4)
Smoked cigarettes in 3 months <u>before</u> pregnancy	2,100	12.0 (9.8-14.5)	2,600	14.7 (11.8-18.0)		14.3 (10.5-15.4)		13.5 (11.8-15.4)

* Estimated count (i.e., number of pregnancies affected), rounded to nearest 100
**Amphetamines (uppers, ice, speed, crystal, crank) - Cocaine (rock, coke, crack) or heroin (smack, horse) - Marijuana (pot, bud) or hashish (hash) - Sniffing gasoline, glue, hairspray, or other aerosols - Tranquilizers (downers, ludes) or hallucinogens (LSD/acid, PCP/angel dust, ecstasy)
The 2019 PRAMS dataset is smaller than previous years

Nationwide, there has been a reported five-fold increase in opioid use during pregnancy between 2000 and 2009.[3] The rate of opioid use disorder (OUD) diagnoses among women during labor and delivery from 30 states has more than quadrupled over a 15-year period ending in 2014, increasing from 1.5 to 6.5 per 1,000 deliveries.[11] In 2015, a study done by the Center for Behavioral Health Statistics Quality found that 1.38 million reproductive-age (15–44 years old) women used a stimulant in past month (misuse of stimulant prescriptions 1.0%; cocaine 0.7%; methamphetamine 0.7%; ecstasy 0.3%).[12] In the U.S., the number of pregnant women who have reported using stimulants correlates with this finding. Alcohol use also co-occurs among pregnant women who report using unprescribed opioids prior to and after becoming pregnant.[13] However, most of the PWWDC being treated in Hawai'i report a primary substance of methamphetamines, not opiates.

PWWDC: Risk Factors and Health Disparities

Pregnant women with SUD are a vulnerable group as they not only experience the consequences of substance use, but also other factors that contribute to and exacerbate it. Women with SUD often experience other challenges such as inadequate prenatal care, poor nutrition, chronic medical problems, poverty, domestic violence, dysfunctional maternal-infant relationships, and comorbid psychiatric issues.[14] Understanding the health disparities among PWWDC is necessary to provide services where they are needed. Through an analysis of PRAMS data, Delafield and Wright found that pregnant women in Hawai'i who were more likely to use illicit substances were under the age of 25,

did not have a high school diploma or equivalent, and identified as being of Native Hawaiian or African American ethnicity.[1] Pregnant women with SUD are disproportionately represented among women of lower socioeconomic status and women of color.[15] This disproportionate representation often leads to further financial, legal, and emotional consequences on the women.

COMORBID MENTAL HEALTH CONDITIONS

Pregnant women with SUD are associated with psychiatric morbidity. Pregnancy is also a period of time when a woman may experience increasing symptomology of current mental illness, as well as onset of new mental health symptomology.[16] Among these psychiatric comorbidities, anxiety, depression, and post-traumatic stress disorder (PTSD) have been found to be the most common.[17,18] Research done by Arnaudo et al[17] has found that rates of mood and anxiety-related disorders increase during pregnancy, but for pregnant women with SUD the rate increase is more significant. Also, pregnant women with SUD may suffer from multiple psychiatric and mental health disorders at one time. Further research done by Arnaudo et al[17] has revealed that 44% of pregnant women with SUD also had a mood-related disorder and a co-occurring anxiety disorder, and in cases where pregnant women with SUD had PTSD, they were twice as likely to have a comorbid personality-related disorder. In some instances, comorbid psychiatric disorders and mental illnesses are often left untreated or unrecognized within pregnant women. If left untreated, they can result in adverse health outcomes on the fetus and the worsening of the mental and physical health of the mother, as well as the inability to seek or receive sufficient prenatal care. In addition, if left untreated it further exacerbates substance use/dependency throughout all stages of the pregnancy. Women seeking prenatal care with a physician should receive a screening for alcohol and substance use as well as a mental health screening due to the higher likelihood of a co-occurring disorder. Likewise, pregnant women seeking and receiving substance use assessment and treatment would benefit from further mental health assessment and intervention due to the high likelihood of this comorbidity.

RELATIONSHIP VIOLENCE

Due to the increase in hospital visits because of prenatal care and other pregnancy-related health concerns, it allows an opportunity to screen and assess pregnant women for other adverse factors, such as intimate partner violence (IPV) or domestic violence (DV), which may impact the health and well-being of themselves and their fetus before, during, and after the pregnancy. O'Doherty et al[19] define IPV, also known as DV in some sectors, as any behavior within an intimate relationship that causes physical, sexual, and psychological harm to those involved in the relationship. There have been estimates that about 3-19% of pregnant women experience some form of IPV during their lifetime, with about 3-15% of women experiencing physical abuse and about 17-25% experiencing emotional abuse during pregnancy.[20] Further research done by McDonald et al[21] found that the prevalence level of IPV during pregnancy ranged from 0.9-30% for physical abuse, 1.0-3.9% for sexual abuse, and 1.5-36% for emotional abuse. Numerous factors increase women's risk of IPV and DV, such as young age, poor mental health, urban residency, low income, single status or non-cohabitation with the partner, and lower levels of education. IPV and DV have also been shown to be associated with higher rates of pregnancy at a younger age.[19] Especially during pregnancy, IPV and DV lead to an increase in miscarriage and abortions, premature births, prenatal death, and other adverse birth outcomes, such as low birth weight, as well as an increase in the onset of depression-related symptomology and unlikelihood or postponement of seeking adequate prenatal care.[22] Pregnant women who experience IPV and DV and additional risk factors such as anxiety, post-traumatic stress disorder, low self-esteem, and an increase in weight gain can lead to the onset or increase in risky behaviors, such as substance use. The additional screening of pregnant women in prenatal care can act as a protective factor against IPV and DV and their associated consequences. Continued exposure to IPV and DV can be a risk factor for pregnant women to begin or continue the use of substances as a coping mechanism, before, during, and after their pregnancy, as well as a variety of comorbid conditions, such as psychological and physical health-related problems.

TRAUMA AND ADVERSE CHILDHOOD EXPERIENCES

A history of trauma and trauma-related events, especially incidents of physical and sexual abuse in childhood, has been shown to be a strong predictor for drug and alcohol abuse in women.[23] Further research done by McDonald et al[21] has revealed that childhood trauma is associated with adverse and risky behaviors and life choices in adulthood, such as excessive substance use and suicidal

tendencies, the development of diseases, and being victim to sexual violence as an adult. Childhood trauma has also been linked to IPV in later life.[24] Likewise, there is also a link between childhood trauma and an increase in the likelihood of developing some form of mental and psychiatric disorders in later life. Childhood trauma, IPV, and mental and psychiatric disorders in tandem contribute to the development of substance use disorders and other adverse health outcomes, especially with more susceptible populations, such as pregnant and parenting women. Unresolved childhood trauma can extend into adulthood and impact a parent's ability to provide a healthy attachment experience for her own children which places the children's mental health at risk, furthering the intergenerational cycle of violence and substance use. An increase in screening for women during primary care visits throughout the lifetime or when initiating prenatal care can identify possible childhood trauma and provide appropriate trauma-informed care.

ACCESS TO CARE - RURAL/UNDERSERVED POPULATIONS

When providing care-related services to various populations, individuals and communities that reside in rural settings are met with additional barriers that hinder access and engagement in care services. This inability to access the appropriate care providers is detrimental to rural PPWDC population, as studies have revealed increased rates of illicit substance use during pregnancy and lower likelihood of engaging in substance use treatment services.[25] Research done by Dworkin et al identifies multiple barriers rural PPWDC populations face; the individual level, local-setting level, and broader sociocultural level.[25] Furthermore in rural populations, these barriers become more apparent for PPWDC who are of lower socioeconomic status and women of color.[26] At the individual level, rural PPWDC tend to place a lower prioritization on engaging in care-related treatment and focus instead on the time demanding responsibilities of balancing work and family expectations. At the individual level, transportation and lack of available child care options also impedes the chances of seeking or engaging in care services. Within the local-setting level there is a lack of access to care providers who are well equipped and competent to address the needs of rural PPWDC. Further, when there are available service providers, there is a lack of screening for SUD and other adverse ailments, which allows SUD and other adverse ailments to continue unnoticed and unchecked. At the larger sociocultural level, the culture and beliefs of the rural community can influence PPWDC's decision-making capabilities in relation to access and engagement of appropriate care-related services, increase in punitive responses and biases towards PPWDC for substance use during pregnancy, and lack financial stability to access, engage, and continue care services, such as the inability to work when the child is born and the lack of affordable housing situations. Within rural PPW communities, the inability to access appropriate care services and treatment is a risk factor, as the various barriers that impede access only further exacerbates the onset and continued use of substances throughout all stages of the pregnancy.

Pregnancy as a window of opportunity for intervention and treatment

During pregnancy, women become highly motivated to reduce or cease their substance use, because of the desire to protect and care for their fetus. Pregnant women who seek prenatal care have frequent encounters with health care professionals, which allows for more frequent assessment and screening for substance use and related conditions. This distinct period of time also allows for further access to extended medical care. However, while pregnant women acknowledge that they must stop substance use during pregnancy, many are unwilling or unable to make the change.[27] Further, majority of pregnant women need some form of intervention in order to fully stop substance use. Among these interventions are brief interventions (BI); screening, brief intervention, and referral to treatment (SBIRT); motivational interviewing; incentive-based programs; cognitive behavioral therapy (CBT); health education; social support; intense behavioral treatments; and pharmacotherapies.[27-29] The mother-fetus dyad can then be assessed for SUD and being substance exposed, respectively, which will lead to identifying an appropriate level of care and allow the access to treatment and social service intervention. Other possible factors that impact whether or not a pregnant woman will seek treatment is fear of losing custody of her children, the expectations and structure of treatment, her readiness to stop using, the encouragement from her partner and the seeking of housing.[15] Due to the significant consequences of substance exposure and use for both the mother and fetus, as well as the proven efficacy of early intervention, pregnant women should be prioritized for treatment.

For prevention, a recent study found that serial early prenatal substance use screening resulted in significant decreases in prenatal substance use compared to third trimester screening.[30] Prenatal and

general SBIRT in women's health and primary care settings would help to identify women with/at risk of SUD during pregnancy.

CURRENT SYSTEM OF CARE IN HAWAI'I

As a primary source of SUD treatment/prevention funds for the State, the Hawai'i State Department of Health, Alcohol and Drug Abuse Division (ADAD) manages the Substance Abuse Treatment Block Grant (SABG), which prioritizes the population of <u>pregnant women and women with dependent children (PWWDC)</u> across the continuum of care. Federal regulation 45 CFR § 96.131 requires that SABG-funded programs and services comply with the State to provide any pregnant woman who is seeking or is referred to services be given preference when being admitted into treatment facilities and other related services. It also requires that the State disseminate information and make known that these SABG services are available and that preference will be given to pregnant women seeking services. Furthermore, if treatment providers are unable to accommodate pregnant women, they must then be referred to the State, which is responsible for a continuum of services that ensures an appropriate treatment provider placement.

Data from the Web Infrastructure for Treatment Services (WITS), the data system used by ADAD, suggest that PWWDC constituted approximately 1-3% of admissions and discharges from ADAD-funded treatment providers in 2019-2020.[31] **Table 3** lists the ADAD-contracted treatment providers that offer specialized treatment for PWWDC on five islands, as of 2022-2024. Service types are limited by geographic location (e.g., residential treatment only available on O'ahu), which sometimes precludes clients from engaging in the treatment most appropriate and feasible for them.

Table 3. ADAD-Contracted Treatment Providers of "Specialized Substance Use Treatment for Pregnant Women and Women with Dependent Children (PWWDC)," 2022-2024. (Updated May 12, 2022).[32]

Agency	Island	Services
Big Island Substance Abuse Council (BISAC)	Hawai'i	Day Treatment, Intensive Outpatient, Outpatient, Continuing Care, Clean & Sober Housing (Mom & Child), Therapeutic Living Program (Mom & Child), Child Care (PWWDC)
Child and Family Service	Kaua'i	Outpatient, Continuing Care, Child Care
Ka Hale Pomaika'i	Moloka'i	Intensive Outpatient, Outpatient, Continuing Care, Clean & Sober Housing
Malama Na Makua A Keiki dba Malama Family Recovery Center	Maui	Intensive Outpatient, Outpatient, Continuing Care, Clean & Sober Housing (Mom & Child), Therapeutic Living Program (Mom & Child), Child Care
Salvation Army Family Treatment Services	O'ahu	Residential (PWWDC), Therapeutic Living Program (PWWDC), Day Treatment, Intensive Outpatient, Outpatient, Continuing Care, Clean & Sober Housing (PWWDC)

Data from WITS indicate that the vast majority (95-99%) of PWWDC served across ADAD-funded treatment providers in 2019-2020 were served at Salvation Army Family Treatment Services (SAFTS, on O'ahu), Malama Family Recovery Center (MFRC, on Maui), and Big Island Substance Abuse Council (BISAC).[31] Limited PWWDC demographic and clinical information available from these providers are shown in **Table 4**. This snapshot of clients served may not reflect the entire PWWDC population in Hawai'i, as women who choose to - or are able to - receive SUD treatment at these sites may differ in meaningful ways from women who receive treatment elsewhere or who do not receive treatment at all.

Table 4. Characteristics of PWWDC clients from primary ADAD-funded treatment providers, n (%)

	SAFTS (all admissions FY2021, n=110)	MFRC (all admissions, FY2021, n=60)	BISAC (PWWDC admissions 2017-2022, n=171)
Primary Substance			
Methamphetamine	88 (80%)	38 (63%)	128 (75%)
Alcohol	13 (12%)	4 (7%)	15 (9%)
Heroin/Opiates/Non-Prescription Methadone	6 (5%)	9 (15%)	17 (10%)
Cannabis/Marijuana	0 (0%)	9 (15%)	11 (6%)
Crack/Cocaine	2 (2%)	0 (0%)	0 (0%)
Other	1 (1%)	0 (0%)	0 (0%)
Age (years)			
<18	0 (0%)	0 (0%)	0 (0%)
18-24	13 (12%)	4 (7%)	28 (16%)
25-29	25 (23%)	19 (32%)	57 (33%)
30-39	45 (41%)	29 (48%)	70 (41%)
40-49	22 (20%)	6 (10%)	16 (9%)
50-59	4 (4%)	2 (3%)	0 (0%)
>=60	1 (1%)	0 (0%)	0 (0%)
Ethnicity			
Native Hawaiian	56 (51%)	32 (53%)	
Caucasian	27 (25%)	20 (33%)	
Asian (Filipino, Japanese, Korean, Vietnamese)	12 (11%)	2 (3%)	
American Indian	3 (3%)	2 (3%)	
Pacific Islander	7 (6%)	1 (2%)	
Black	2 (2%)	1 (2%)	
Other	3 (3%)	2 (3%)	
Living Situation			
Independent Living	15 (14%)	24 (40%)	
Transitional/Temporary	7 (6%)	0 (0%)	
Unknown	2 (2%)	4 (7%)	
Homeless	57 (52%)	19 (32%)	
Incarcerated/Furlough	21 (19%)	2 (3%)	
Dependent	8 (7%)	11 (18%)	
Referral Type			
SUD provider	11 (10%)	4 (7%)	
Child Welfare Services (CWS)	9 (8%)	12 (20%)	
Criminal Justice	27 (25%)	5 (8%)	
Individual/Self-referral	48 (44%)	33 (55%)	
Other provider	6 (5%)	3 (5%)	
Health care provider	9 (8%)	2 (3%)	

	SAFTS and MFRC (Oct 2017-Feb 2022, n=212)		BISAC (PWWDC admissions 2017-2022, n=171)
Education			
12th grade completed/high school diploma/equivalent	92 (43%)		124 (73%)
Mental Health			
Co-occurring SUD and mental illness	139 (66%)		136 (80%)
Criminal Justice Involvement (at intake)			
On probation or parole	72 (34%)		62 (36%)
Pretrial	24 (11%)		Not avail.
PPW Status (at intake)			
Pregnant	54 (25%)		29 (17%)
Entered with children	195 (92%)		42 (25%)
Child Welfare Services Involvement			
Involved with CWS (at intake)	105 (50%)		102 (60%)

Pregnancy provides an opportunity for homeless women to engage in care for their complex needs and to more readily trust in providers at this stage.[33] External motivators like probation/parole officers and CWS involvement also help in increasing interest in treatment or at least following through with recommendations from these sources. Thus, issues relevant to many PWWDC seeking treatment for SUD include those discussed in other chapters of this plan, including Chapter 1: Housing First, Chapter 2: Implications for a System of Care in Hawaiʻi for Criminal Justice, Chapter 5: Intersections among Family Violence and Substance Use, and Chapter 6: Conceptualizing a New System of Care in Hawaiʻi for Native Hawaiians .

PWWDC often access treatment in Hawaiʻi through the direct referral sources (e.g., self-referral, criminal justice, CWS). The SUD treatment providers that frequently serve PWWDC are well-known within the community, and thus referrals are made directly to them. It is unknown how many treatment referrals for PWWDC have been made successfully through Hawaiʻi CARES, as these data are not available. PWWDC tend to require more intensive case management support in addition to the referral process available with CARES. The Hawaiʻi CARES Intake Form includes questions on the number and ages of children living with the applicant and if the individual is pregnant. The intake form and assessment process otherwise does not differ for PWWDC compared to other clients. Hawaiʻi CARES and all ADAD-contracted treatment providers must abide by the following policy:

> "If a treatment program does not have the capacity to immediately admit a pregnant woman to treatment, or if placement in the program is not appropriate, the program must refer the woman to Hawaiʻi CARES in order to coordinate BH SUD COC services at an appropriate and available service provider in the BH COC network."

In addition, "While Hawaiʻi CARES is linking the client to other services, the program must: Provide interim services within 48 hours;" including "Counseling on the effects of alcohol and drug use on the fetus" and "Referral for prenatal care."[34]

Both providers and patients trying to access SUD treatment services in Hawaiʻi during the perinatal period face highly fragmented service delivery systems. This fragmentation can delay or derail entry to care. Myriad systems are frequently involved in addressing perinatal substance use (e.g., clinical care, corrections, courts, child welfare), and most of these systems do not have existing overlap to facilitate cross-disciplinary case management. Our current models of care – where each provider sees a woman for a specific need and is only reimbursed for specific services – limits providers' capacity to holistically approach their care delivery unless they seek other funding sources such as grants which are limited in sustainability. More sustainable means for funding PWWDC services through insurance reimbursement of services are limited as insurance companies do not yet recognize that gender-responsive SUD treatment needs to include the children's treatment along with the mother's. Similarly, this fragmentation makes information-sharing between providers more challenging, complicating care coordination and reducing efficiency. Moreover, women and their families face significant obstacles of visiting multiple office locations, dealing with referrals, and coordinating multiple appointments during the already chaotic perinatal period further complicated by substance use. The inequitable distribution of healthcare services exacerbates these challenges for women in underserved areas with limited access to transportation.

Key Barriers for Pregnant Women and Women with Dependent Children (PWWDC)

SUD treatment providers in Hawaiʻi report several key barriers within the current system for PWWDC: (1) insufficient services for women; (2) lack of financial resources; (3) issues with coordination of services; and (4) stigma.

1) INSUFFICIENT SERVICES FOR WOMEN:

Women are continuing to be referred to mixed-gender programs when they would be better served in PWWDC programs. This is due to the lack of understanding of the need for trauma-informed and specialized gender-responsive care for women. Many of the mixed-gender programs do not have specialized/adapted curriculum or staff specifically trained to serve this population. Women who have experienced IPV/DV and who are placed in mixed groups with men often report feeling inhibited and unable to fully engage in the group counseling process. Creating a safe space for women to explore

feelings and practice new ways to assert themselves is a necessary part of gender responsive and trauma informed care. In addition, mixed-gender SUD programs overlook necessary ancillary services for women such as child care, transportation, and attention to extended family and relationships including with their older children and partners.

Decreasing lengths of residential treatment stays and a lack of continuum of services available to women which includes family therapy, children's treatment services and women's therapeutic living programs in combination with outpatient treatment services creates a "revolving door" effect with women re-entering treatment. Unfortunately, no data are available on this.

Immediate admission into residential treatment and therapeutic living programs are not always readily available partially due to the length of time required to appropriately reunite children, partners and family members while also continuing to stabilize mental health and early recovery. In addition to the normal time that is required by PWWDC, those who have co-occurring mental health disorders and trauma histories tend to have slower treatment progress and require more intensive levels of care and intervention for longer periods of time. Per providers (SAFTS), PWWDC residential treatment lasts an average of six months, while insurance companies and state contracts will typically only cover 30-60 days. Prior research among this population in residential SUD treatment found that longer lengths of stay, specifically more than six months of treatment, was associated with better clinical and psychosocial/economic outcomes.[35,36]

Infant mental health is a necessary part of providing gender responsive treatment and recovery supportive services for PWWDC, yet there is a limited understanding of what this entails beyond providing childcare while mother is in treatment. A continuing motivator for women is the ability to retain custody of their children while in treatment and/or supportive housing that can continue to support healthy parenting behaviors. Programs that understand this specialization and provide the full continuum are limited.

SUD treatment providers go through lengthy processes to become credentialed with third party payors and once credentialed, face the challenge of balancing direct service with the increasing administrative expectations (such as their authorization processes) that vary between each payor.

2) LACK OF FINANCIAL RESOURCES, INCLUDING HOUSING AND CHILDCARE
There are insufficient safe, supportive housing and permanent housing options for women seeking and/or leaving treatment. Women consequently tend to return to less than optimal housing situations (i.e., back to a physically and/or emotionally abusive environment) due to limited financial independence and a shortage of available rental units that accept subsidized rental assistance.

The lack of appropriate childcare, for women to be able to gain employment and feel assured that their children are safe while they are working, is a major barrier for women. Women feel pressured to leave their children in less than optimal care in order to maintain employment. Furthermore, limited employment opportunities are available for women in early recovery that have a pay that can sustain not only herself but also her family. This makes resuming previous, unhealthy and illegal activities more attractive (such as the sex trade, gambling, and stealing) in an effort to financially support her family.

Many of the women come to treatment with a backlog of old fines or other debt that make getting transportation, housing, or other necessities very difficult. Pressure to work in order to pay for basic needs competes with motivation to enter treatment. Indeed, lack of access to basic needs such as housing and consistency/stability in life often leads to the question - should housing or treatment come first? This is a false dichotomy, as ideally both should be addressed simultaneously.

Transportation and geographical isolation were identified as barriers especially on neighbor islands and for treatment continuation, also related to the limited number of PWWDC-serving programs across the state. For example, if a client wants to finish outpatient treatment with the same program but moves to a home location that makes attendance difficult, transportation becomes a significant challenge.

3) ISSUES WITH COORDINATION OF SERVICES
Due to the intensive nature of providing PWWDC programming, partnerships and coordination are key. However, frequent changes of community partners directly impact shared services provided in

programs. Due to the intensity of services needed for appropriate PWWDC treatment, providers have often needed to partner with other organizations. This becomes a challenge when there is staff turnover or programmatic changes experienced by community partners, according to SUD treatment providers.

CWS is an integral partner to PPW's treatment experience/success, but several issues specific to CWS impact coordination of services:

a) Frequent turnover of CWS workers and large caseloads: Relationship building is difficult with the frequent turnover and adds to the lack of coordination of services for families. Response time to address families' concerns is slow due to higher caseload. Delays in referrals needed from CWS to obtain other support services stall family reunification and transitions from treatment. Families do not receive timely communication from their caseworkers and find it difficult to build relationships with their workers due to the frequent changes.

b) Conflicts in foster care placements: Familial foster care can bring forward deeper family issues which can impact reunification unless they receive timely and appropriate intervention for the whole family. Foster care providers - both familial and non-familial – face conflicting motivators such as a desire to adopt a child versus supporting a reunification with the biological parent. They may not be supportive of visits, limit transportation, and/or act as barriers to the reunification process for the family. Families of parents with SUD also have a desire to protect the child and have observed the parent not being able to do this while in their disease. As such, now that the parent is in early recovery, this new way of changing family dynamics which the family may not fully understand or embrace.

c) CWS (Case Worker Clinical Support): CWS workers are not always prepared for the emotional weight of their job and do not have the level of clinical support that they need to avoid burnout or countertransference. Unaddressed vicarious trauma can impact objectivity when working with challenging and stressful situations and families.

4) STIGMA

Another aspect relevant to the system of care for PWWDC in Hawaiʻi is stigma towards women with SUD, particularly pregnant women, and their consequential fear to seek treatment. Women tend to experience greater stigma for substance use than men, and that is amplified further during pregnancy. Hawaiʻi PWWDC stakeholders have described their observations and experiences with stigma and fear at different levels within our state, which resonate with the literature, e.g., resource caregiver families stigmatizing the birth mother and her addiction; women not wanting to seek prenatal care due to past negative experiences with medical providers; fear of losing their children if they admit to substance use; fear of going back into "the system" again so they are hesitant to reach out if they are struggling or have a relapse; lack of trust and fear of being transparent about their struggles; and an attitude sometimes expressed within the system that people need to "earn" their treatment, treating people as "addicts" rather than treating their disease. These systemic and individual thought patterns impact the ability and willingness of PWWDC to seek and access treatment.

Medicaid Innovation Collaborative

The Medicaid Innovation Collaborative (MIC), which "aims to catalyze innovation in Medicaid in order to improve patient outcomes and advance health equity," recently conducted a needs assessment and published a discovery brief on this topic. Their six themes of "barriers and challenges related to seeking, accessing, and maintaining care for maternal mental health and substance use treatment" echo what providers shared above (see **Figure 1** below).[37]

①	👤 Navigating care	There's no unified way to find out what is available to me
②	👤 Access to providers	Finding providers who take my insurance and can take me when I'm ready for help is difficult and complicated
③	👪 Holistic family support	I'm the primary caregiver for my family, so getting treatment impacts my ability to provide for them
④	🤝 Cultural competency	We don't trust folks who don't understand our culture, beliefs, and values
⑤	🚩 Care avoidance	We don't go for treatment, because we're afraid of what will happen to our family if we do
⑥	💬 Voice and choice	We don't feel heard, and we don't feel part of discussions about what happens to us

Figure 1. Barriers identified for PWWDC by Medicaid Innovation Collaborative, 2022

INTERVENTIONS

Evidence-based or best practices in the literature

SAMHSA TIP 51

SAMHSA Treatment Improvement Protocol (TIP) 51 ("Substance Abuse Treatment: Addressing the Specific Needs of Women")[38] is an invaluable resource guide that provides best practice guidelines for the prevention and treatment of substance use disorder among women:

> "This TIP endorses a biopsychosociocultural framework based on clinical practice and research centered on women. By placing emphasis on the importance of context, many topics examine the role of factors that influence women's substance use from initiation of use to engagement of continuing care treatment services, i.e., relationships, gender socialization, and culture. The knowledge and models presented here are grounded in women's experiences, built on women's strengths, and based on best, promising, or research-based practices. The primary goal of this TIP is to assist substance abuse treatment providers in offering effective, up-to-date treatment to adult women with substance use disorders."[38](p. xvii)

The TIP framework consists of 12 "Gender Responsive Treatment Principles" from the consensus panel, as listed in **Table 5**. The model used as a basis for TIP 51 is the CSAT's Comprehensive Substance Abuse Treatment Model (**Figure 2**).

Table 5. Gender-Responsive Treatment Principles. (Source: SAMHSA TIP 51[38]).

Principle	Description
Acknowledge the importance and role of socioeconomic issues and differences among women.	Biological, cognitive-behavioral, and psychological dimensions of women's substance use and abuse should be framed in their socioeconomic contexts including, but not limited to, employment, educational status, transportation, housing, literacy levels, and income.
Promote cultural competence specific to women.	Treatment professionals and staff must understand the worldviews and experiences of women from different ethnic and cultural backgrounds, as well as the interaction among gender, culture, and substance use to provide effective substance abuse treatment. In addition, effective treatment will depend equally on attention and sensitivity to the vast diversity among the female population, including overlapping identities of race, class, sexual orientation, age, national origin, marital status, disability, and religion.
Recognize the role and significance of relationships in women's lives.	The relational model recognizes the centrality of relationships or connections in women's lives and the importance of those relationships with respect to alcohol, tobacco, and drug use. While substance use may initially play an integral role in making or maintaining connections in relationships, the relational approach views the development of substance use disorders as a "disconnection" and stresses the development and repair of connections to others, oneself, one's beliefs, and one's culture as critical for recovery. The relational model takes a family-focused perspective, using a broad definition of family as those individuals a woman view as her significant support system. In this model, a woman's children are included in her treatment, and prevention and treatment services must be provided directly to her children and family.
Address women's unique health concerns.	Women possess distinctive risk factors associated with onset of use, have greater propensity for health-related consequences from drug and alcohol consumption, exhibit higher risks for infectious diseases associated with drug use, and display greater frequency of various co-occurring disorders. Moreover, women who abuse substances are more likely to encounter problems associated with reproduction, including fetal effects from substance use during pregnancy, spontaneous abortion, infertility, and early onset of menopause. Substance abuse treatment needs to address women's unique health concerns throughout the course of treatment.
Endorse a developmental perspective.	In general, women experience unique life course issues. Specific to women who abuse substances, these life course issues, along with developmental milestones, impact their patterns of use, engagement in treatment, and recovery. Substance use and abuse affect women differently at different times in their lives. It is important to consider age-specific and other developmental concerns starting with the assessment process and continuing through continuing care and long-term recovery.
Attend to the relevance and influence of various caregiver roles that women often assume	Regardless of substance abuse, women are more likely to assume primary caregiving responsibilities for their children, grandchildren, parents, and other dependents. These roles may heavily influence a woman's willingness to seek help for substance abuse, and also may interfere with her ability to fully engage in the treatment process or to adhere to treatment recommendations.

Principle	Description
throughout the course of their lives.	
Recognize that ascribed roles and gender expectations across cultures affect societal attitudes toward women who abuse substances.	Whether or not a woman neglects her roles as a caregiver, engages in alcohol or drug-induced sexual activity, continues to use despite pregnancy, or uses sex to secure her next supply of drugs or alcohol, women with substance use disorders are significantly stigmatized by societal attitudes and stereotypes of women who drink and use drugs. As a result, women may experience feelings of shame associated with their use and the consequences of their use.
Adopt a trauma-informed perspective.	Current and past violence, victimization, and abuse greatly affect many women who abuse alcohol and drugs. Substance abuse treatment approaches need to help women find safety, develop effective coping strategies, and recover from the effects of trauma and violence.
Utilize a strengths-based model for women's treatment.	A strengths-based approach builds on the woman's strengths and uses available resources to develop and enhance resiliency and recovery skills, deepen a sense of competency, and improve the quality of her life. These strengths may include personality traits, abilities, knowledge, cultural values, spirituality, and other assets; while resources may involve supportive relationships, environments, and professional support.
Incorporate an integrated and multidisciplinary approach to women's treatment.	Treatment needs to integrate current knowledge, research, theory, experience, and treatment models from diverse disciplines critical to understanding women and substance abuse treatment. In addition to incorporating and blending information from the mental health, women's health, and social and behavioral sciences fields, treatment providers must network and collaborate with other agencies to provide comprehensive case management and treatment planning to address the complexity of biopsychosocial and cultural issues that women may exhibit throughout treatment.
Maintain a gender-responsive treatment environment across settings.	Effective treatment for women begins with a collaborative environment that is nurturing, supportive, and empowering. Women with substance use disorders are more likely to remain in a treatment setting that feels familiar and safe, includes their children, utilizes proactive case management, and fosters the development of supportive relationships across the continuum of care.
Support the development of gender-competency specific to women's issues.	Administrative commitment and vigilance are needed to ensure that staff members are provided gender-specific training and supervision to promote the development of gender competency for women.

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Figure 2. Interrelated Elements of Clinical Treatment and Support Services for Women and Their Children, from CSAT's Comprehensive Substance Abuse Treatment Model (Source: SAMHSA TIP 51[38])

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AIM SUD BUNDLE

Like SAMHSA TIPs, patient safety bundles from the Alliance for Innovation on Maternal Health (AIM) are another source of collated evidence-based and best practices that are relevant to PWWDC. Coordinated by the American College of Obstetricians and Gynecologists (ACOG) and funded by the Health Resource Services Administration (HRSA), AIM is a "national data-driven maternal safety and quality improvement initiative ... [that] works to reduce preventable maternal mortality and severe morbidity across the United States."[39] The "Care for Pregnant and Postpartum People with Substance Use Disorder" patient safety bundle ("SUD bundle") is one of eight core patient safety bundles created by AIM.

> "The Institute for Healthcare Improvement describes patient safety bundles as, "...a structured way of improving the processes of care and patient outcomes: a small, straightforward set of evidence-based practices — generally three to five — that, when performed collectively and reliably, have been proven to improve patient outcomes." The bundle structure does not introduce new practice guidelines or concepts, but offers a standardized approach for delivering well-established, evidence-based practices to be implemented with complete consistency, for every patient, every time – resulting in improved patient outcomes."[40]

The AIM SUD bundle, summarized in **Table 6**, includes five sections: Readiness; Recognition & Prevention; Response; Reporting & Systems Learning; and Respectful, Equitable, and Supportive Care. Additional details are available from AIM to assist in implementing these recommended elements.

Table 6. Alliance for Innovation in Maternal Health (AIM) "Care for Pregnant and Postpartum People with Substance Use Disorder" Patient Safety Bundle[41]

Readiness — Every Unit	• Provide education to pregnant and postpartum people related to substance use disorder (SUD), naloxone use, harm reduction strategies, and care of infants with in-utero substance exposure.* • Develop trauma-informed protocols and anti-racist training to address health care team member biases and stigma related to SUDs. • Provide clinical and non-clinical staff education on optimal care for pregnant and postpartum people with SUD, including federal, state, and local notification guidelines for infants with in-utero substance exposure and comprehensive family care plan requirements.* • Engage appropriate partners to assist pregnant and postpartum people and families in the development of family care plans, starting in the prenatal setting.* • Establish a multidisciplinary care team to provide coordinated clinical pathways for people experiencing SUDs.* • Develop and maintain a set of referral resources and communication pathways between obstetric providers, community-based organizations, and state and public health agencies to enhance services and supports for pregnant and postpartum families for social determinants of health needs, behavioral health supports, and SUD treatment.*
Recognition & Prevention — Every Patient	• Screen all pregnant and postpartum people for SUDs using validated self-reported screening tools and methodologies during prenatal care and during the delivery admission.* • Screen each pregnant and postpartum person for medical and behavioral health needs and provide linkage to community services and resources.* • Screen for structural and social drivers of health that might impact clinical recommendations or treatment plans and provide linkage to resources.
Response — Every Event	• Assist pregnant and postpartum people with SUD to receive evidence-based, person-directed SUD treatment that is welcoming and inclusive in an intersectional manner and, discuss readiness to start treatment, as well as referral for treatment with warm hand-off and close follow-up.*

	• Establish specific prenatal, intrapartum, and postpartum care pathways that facilitate coordination among multiple providers during pregnancy and the year that follows.* • Offer comprehensive reproductive life planning discussions and resources.*
Reporting and Systems Learning — Every Unit	• Identify and monitor data related to SUD treatment and care outcomes and process metrics for pregnant and postpartum people with disaggregation by race, ethnicity, and payor as able.* • Convene inpatient and outpatient providers and community stakeholders, including those with lived experience in an ongoing way, to share successful strategies and identify opportunities to improve outcomes and system-level issues.*
Respectful, Equitable, and Supportive Care — Every Unit/Provider/Team Member	• Engage in open, transparent, and empathetic communication with the pregnant and postpartum people and their identified support person(s) to understand diagnosis, options, and treatment plans.* • Integrate pregnant and postpartum persons as part of the multidisciplinary care team to establish trust and ensure informed, shared decision-making that incorporates the pregnant and postpartum person's values and goals.* • Respect the pregnant and postpartum person's right of refusal in accordance with their values and goals.*

*See CPPPSUD Element Implementation Details: https://safehealthcareforeverywoman.org/wp-content/uploads/FINAL_AIM_Bundle_CPPPSUD-EID-1.pdf

Evidence-based theories and approaches for treatment

The above frameworks are relevant to some of the below-listed theories and approaches in **Table 7**.

Peer support and family mentor programs elsewhere, such as Sobriety Treatment and Recovery Teams (START)[42] and Washington State Parents for Parents (P4P)[43] have been proven effective at improving treatment success for parenting women with SUD. The Family Violence chapter of this plan also discusses the use of recovery coaches and peer partners as a suggested strategy.

Table 7. Evidence-based theories and approaches for treatment for PWWDC (non-exhaustive list)

Evidence-based Approach	Description
Motivational Interviewing	Motivational Interviewing is a SAMHSA-recognized, best practice, strengths-based clinical approach that helps people with mental health and substance use disorders make positive behavioral changes to support better health. Motivational interviewing is a directive, client-centered counseling style for eliciting behavior change by helping clients to explore and resolve their ambivalence and achieve lasting changes for a range of problematic behaviors. The approach upholds four principles expressing empathy and avoiding arguing, developing discrepancy, rolling with resistance, and supporting self-efficacy. This intervention is interwoven throughout all levels of care as a counseling technique in both individual and group sessions and supports the change process.
Cognitive Behavioral Therapy (CBT)	CBT is among the most extensively evaluated interventions for alcohol or illicit drug-use disorders.[44] This approach is based on current research and evidenced-based practices and focuses on psychoeducation, skill building, relapse prevention and planning, cognitive restructuring, and developing a sober support structure.
Matrix Model	Evidence-based curricula from The Change Companies® and the Matrix Model. These evidenced-based journals apply Cognitive-behavioral strategies and the Transtheoretical Model of Behavior Change to address the 6 ASAM dimensions. The titles used include: Substance Dependence, Denial, Anger, Coping Skills, The Con Game, Thinking Errors, Values for Responsible Living, Relapse Prevention, Life Management, and Family Relationships. These materials present concepts clearly and simply at a low reading level with engaging graphics.
Seeking Safety Stephanie Covington's Women in Recovery: Understanding Addiction, Helping Women Recover and Healing Trauma	Gender-specific curricula include Seeking Safety, a trauma-based intervention recognized as best practice for substance use treatment for women, and Stephanie Covington's Women in Recovery: Understanding Addiction, Helping Women Recover and Healing Trauma. The six key principles of a trauma-informed approach; safety, trustworthiness, transparency, peer support, collaboration and mutuality, empowerment, voice and choice, and cultural, historical, and gender issues are woven into the program through the use of modeling, a peer council for decision making and problem solving, senior clients who serve as peer mentors, peer support system, open attendance at staff meetings for redress of issues and grievances and the use of non-violence communication. Staff receive extensive training in trauma informed care to ensure that clients have a voice and choice.
Relational Theory	Relational theory, based on the work of Dr. Jean Baker-Miller, is increasingly cited in the women's treatment literature and is a best practice in designing women's treatment. This theory recognizes the centrality of relationship and connectedness in women's lives. The theory also considers historical/cultural issues that may affect self-concept and relational beliefs. Substance abusing women and those who have been victimized are often disconnected from self and others and are relating in ways that may make them vulnerable to continued victimization or to loneliness and isolation.
The Nurturing Parenting Programs	Parenting Education Groups address child development, positive behavior management, basic care, nutrition, safety, reunification issues, and prenatal drug exposure using The Nurturing Parenting Programs curriculum developed by Stephen J. Bavolek, Ph.D. This parenting program helps families break the cycle of child maltreatment by fostering positive and nurturing parenting patterns. It has been found to improve parenting attitudes and knowledge in multiple at-risk populations including criminal justice involved parents, parents where there has been domestic violence, and substance abusing parents.[45]
Recover and Relapse Prevention Therapy (RPT)	Relapse Prevention Class is based on the works of Terence Gorski's Recover and Relapse Prevention Therapy (RPT) which was developed for National Institute on Drug Abuse (NIDA) in 1993. Gorski-CENAPS Model is the basis for SAMHSA's TAP 19: Relapse Prevention with Chemically Dependent Offenders.[46]
Opioid Agonist Therapy (OAT)	According to the American College of Obstetricians and Gynecology (ACOG) and American Society of Addiction Medicine (ASAM), the evidence-based recommendation is for patients who are pregnant with opioid use disorder to be on opioid agonist therapy.[3,47]
Contingency Management (CM)	According to Hand et al,[28] Contingency Management (CM) has been shown to be an effective intervention in reducing substance use. CM utilizes operant conditioning principles and provides reinforcers to an individual when an objective and verifiable behavior occurs. In the case of substance use, the behavior to be reinforced is passing a drug test, attending group therapy or counseling, and other drug abstinent-related behaviors.
Child/Parent Psychotherapy	Based on the work of Alicia Lieberman and Joy Osofsky, Child/Parent Psychotherapy is an intervention designed for children under 5 years old who have experienced trauma and are now experiencing mental health, attachment and/or other emotional-behavioral problems. The primary goal being to support and strengthen the primary caregiving relationship in order to heal the child's social-emotional, behavioral, and cognitive functioning.

Interventions in Hawai'i's system of care

For PWWDC in Hawai'i, several key interventions are currently being implemented, including some of those mentioned in **Table 7**. First, some SUD treatment providers are using gender-specific/responsive treatment. Treatment at SAFTS and MFRC is trauma-informed, addressing interpersonal violence as well as cultural/historical trauma. SAFTS and MFRC utilize SAMHSA-endorsed, trauma-specific interventions such as the Seeking Safety curriculum to address the impact of violence and trauma on the client, interpersonal boundaries, personal safety, and coping with emotions. Person-centered practices are interwoven within the programs. An additional evidenced-based curriculum from Stephanie Covington includes her Women in Recovery and Helping Women Recover curricula, which are an essential part of programming for any gender-responsive SUD provider. Both programs integrate culturally based practices and adapted curriculum to bring a deeper meaning of recovery and inclusion of the whole family in the healing process.

The SAFTS continuum is designed to reduce the severity and disabling effects related to alcohol and other drug use and to provide women with the necessary time needed to learn and practice their recovery skills, heal, build relationships and social networks, find a safe and stable place to live, and find meaningful prosocial activities such as employment or schooling. These recovery skills are taught through the structure of the therapeutic milieu as well as through individual and group counseling and psychoeducational classes. Practice of these skills begins in the therapeutic milieu through the modeling, coaching, and redirection from the milieu support staff, who often have lived experiences similar to the women who are served. Stabilization and development of healthy relationships with their children, family, and larger community are a necessary part of recovery for women with SUD. Through the continuum, additional services for vocational training, family/couple therapy, and infant and early childhood mental health are offered.

Another PWWDC-serving agency, the Big Island Substance Abuse Council (BISAC) is a 501(c)(3) non-profit organization which has been in operation since 1964. Current adult outpatient sites are located in Hilo and Kona on the island of Hawai'i. BISAC operates three Therapeutic Living Programs and one clean and sober living program in Hilo as part of their Moms and Babies program. BISAC Curricula utilized include: Matrix, Living in Balance, New Direction. Interventions utilized include: Motivational Interviewing, CBT, Parent Interactive Therapy, Couple/Family Therapy, etc. According to BISAC, "What works for us [for PWWDC] is a blending of interventions to meet client needs (e.g., cultural integration)."

Second, Waikiki Health PATH Clinic provides non-judgmental obstetric care for women with SUD; this medical clinic is co-located with residential SUD treatment services (SAFTS). "A comprehensive harm reduction model of perinatal care, which aims to ameliorate some of these difficulties for substance-using women without mandating abstinence, provides exceptional birth outcomes and can be implemented with limited resources."[48]

Third, peer support programs provide peer mentorship for some families involved with CWS and experiencing perinatal SUD. For example, Family Wrap Hawai'i at EPIC 'Ohana - while not exclusive to PWWDC - can provide additional support. The goal of Family Wrap Hawai'i is to get to know each family, hear their story, learn about their strengths, and identify what the family and children really need to help them get back on their feet. The EPIC team pulls together the family, service providers, and the family's natural supporters to create a team which then meets every month. This team creates plans to meet the family's needs, assigns tasks to different team members, and works through barriers that may come up. Each team has a Wrap Facilitator, an EPIC staff person who helps orient the team to the process, follows up with participants, and ensures that commitments are met. A Parent Partner and Youth Partner are additional team members who give support to the family and youth throughout the Wrap process. The focus is always on moving things forward and working together to make the family's hopes and dreams become a reality.

Peer support for individuals experiencing SUD, including PWWDC, is a promising practice being pursued in different agencies and contexts. Going Home Hawai'i's "9 Months: Window of Hope" program is another example of a PWWDC-focused program that provides peer support.

The Makua Allies demonstration project represents a collaboration among the HMIHC PSUD WG, AIMH-HI, EPIC 'Ohana, and the Waikiki Health PATH Clinic. This pilot was designed as an adaptation of the Parents for Parents (P4P) program in Washington State and other peer support programs in the U.S.

Designed by parent partners with lived experience of SUD and CWS involvement, the SCRAP model captures the System Expertise, Connection, Resources, Advocacy, and Peer Support aspects of the parent partner (i.e., Makua Ally) role.

Lastly, the Hawai'i Maternal and Infant Health Collaborative (HMIHC)'s Perinatal Substance Use Workgroup (PSUD WG) has convened diverse, multi-sector stakeholders and partners since late 2019, with the aim to improve systems of care and support for perinatal women with SUD. The workgroup has identified issues, strategized how to address them, applied for funding, and engaged relevant stakeholders. They have helped to develop this chapter and are also preparing a white paper to identify issues and gaps in reimbursement for perinatal substance use services currently being used by state programs and agencies. Partners engaged in the workgroup represent relevant sectors, disciplines, and communities across our state, including but not limited to: Department of Health, Department of Human Services (MQD, CWS), SUD treatment providers, medical treatment providers, judiciary/courts, academia, insurance carriers, community agencies and programs. Moving forward, ADAD's continued engagement in the workgroup will facilitate progress on the present plan's implementation. Of note, having members with lived experience with perinatal SUD in the workgroup has been invaluable and should be encouraged and developed.

OBSERVATIONS & RECOMMENDATIONS

The overall goal should be to operationalize and sustain all of the gender-responsive treatment principles in TIP 51[38] (**Table 5**) and all the AIM SUD bundle elements (**Table 6**) within Hawai'i's healthcare systems and communities. Specific recommendations for ADAD are highlighted below.

Recommendation #1: Funding for Gender-Specific/Responsive Treatment, including Children

The primary recommendation for improving PWWDC treatment in Hawai'i is to increase the availability of and funding for gender-specific/responsive treatment options, i.e., address the primary barrier of insufficient services for women. These treatment options can include both Residential and Outpatient treatment levels as well as Therapeutic Living Programs and Transitional Housing that allows children to reside with their mothers. In order to do this, greater awareness and appreciation of the importance of gender-specific treatment is needed at the provider and systems levels. SAMHSA TIP 51, framed by the 12 Gender-Responsive Treatment Principles in **Table 5** above, can be used to operationalize what should be included if a program is considered/funded as a PWWDC program, and efforts should be taken to ensure that these programs can operate in a financially sustainable way. Increasing the capacity of existing PWWDC-focused providers, and increasing the number of such providers in Hawai'i, will increase the likelihood that women will be able to access effective treatment in a timely way.

Simultaneously, it is recognized that gender-specific programs may not be possible or preferable for all PWWDC, and therefore, greater support is needed for other treatment options (i.e., mixed-gender programs) serving women in Hawai'i. Additional training and support services would enable existing providers to better serve PWWDC who are not able to (due to long waiting lists), or prefer not to, receive treatment at gender-specific providers like SAFTS and MFRC. Training for other SUD treatment providers might include: gender-responsive treatment, infant mental health, trauma-informed care, etc. PWWDC-appropriate care coordination and support services available at these other treatment options should relate to: housing, childcare, CWS/resource caregivers, peer support, family therapy, etc. as per TIP 51. Recommendations #2-4 below elaborate on these necessary wraparound supports.

One of the primary challenges for PWWDC-focused SUD treatment providers is financial sustainability. The intensive nature of treatment and supportive services required for PWWDC, as described above, is more expensive than current reimbursement provides, because treatment involves more than just the individual seeking treatment and often requires services for the child(ren), partner, and family members. Funding sources for PWWDC-focused SUD treatment providers need to be sustainable and sufficient to ensure that services are provided with the appropriate length of time necessary to address women's and families' complex needs. Alternative sources of funding should be investigated and pursued, e.g., Child Care and Development Block Grant (CCDBG) funds for child care at treatment

centers, and expanding billable services and rate increases with insurance companies for gender-responsive treatment.

Examples of how ADAD can support the implementation of Recommendation #1 include, but are not limited to:

- Advocate alongside SUD treatment providers with health plans and Med-QUEST for improved understanding of special populations (e.g., PWWDC, dual diagnosis) and appropriate reimbursement rates (and length of stay) for gender-specific/responsive treatment;
- Subsidize costs that are not covered by insurance reimbursement or other payment mechanisms, including costs of childcare, transportation, housing, etc.;
- Streamline the ADAD authorization processes;
- Engage with providers to optimize data collection and reporting, to help providers be better informed regarding quality improvement and performance measures (i.e., how can WITS help providers to collect necessary data that can drive improvement of services and outcomes?); and
- Facilitate (and require) training for all SUD treatment providers on PWWDC-focused topics, including gender-specific treatment and infant mental health.

Recommendation #2: Improved Care Coordination and Resource/Referral Infrastructure

Enhanced care coordination – as well as peer support programs (see Recommendation #3 below) – would assist with both treatment entry (e.g., identifying housing, childcare, etc. to facilitate SUD treatment entry) and transitions between and out of treatments. The myriad systems that PWWDC need to interface are overwhelming and highly fragmented, and care/service coordination is needed to ensure a continuum of care, from SBIRT to treatment(s), to continuing care supports, safe housing, and other social determinants of health needs. Care coordination will help ensure that all of the elements of clinical treatment services, clinical support services, and community support services for women and their children (as seen in **Figure 2**) will be addressed.

To enable effective care coordination, the current network of resources and referral agencies, along with their communication pathways, needs to be established and documented. This is one of the AIM SUD bundle action items: *"Develop and maintain a set of referral resources and communication pathways between obstetric providers, community-based organizations, and state and public health agencies to enhance services and supports for pregnant and postpartum families for social determinants of health needs, behavioral health supports, and SUD treatment."*

Examples of how ADAD can support the implementation of Recommendation #2 include, but are not limited to:

- Advocate and strategize with health plans, Med-QUEST, and other partners to ensure the high quality and financial sustainability of care coordination services available to PWWDC, via insurance reimbursement and/or other payment mechanisms; and
- Collaborate on, and consider funding for, the development and maintenance of a set of referral resources and communication pathways between SUD treatment providers, obstetric providers, community-based organizations, state and public health agencies, etc.

Recommendation #3: Sustainable and Reimbursable Peer Support Programs, and Elevation of Voices of Lived Experience in Collaborative, Decision-Making Spaces

Integrating peer support into Hawai'i's system of SUD treatment (and prevention) has the potential to improve outcomes for PWWDC and their families. Convening partners focused on peer support specialists, as well as key stakeholders (e.g., Med-QUEST Division, ADAD), would allow for collaborative discussions and progress on training, certification, credentialing, and reimbursement/payment strategies for peer support. Given the importance of child welfare to PWWDC's experiences, greater collaboration/stronger connections with CWS and resource caregiver families will help overcome the barriers discussed above. Collaborative discussions on the issues mentioned previously would lead to

training and support ideas for birth families, resource caregiver (foster care) families (familial and non-familial), and CWS case workers.

Furthermore, elevating the voice of individuals with lived experience will improve the relevance and effectiveness of services and programs for this population. As the AIM SUD bundle item, *"Convene inpatient and outpatient providers and community stakeholders, including those with lived experience in an ongoing way, to share successful strategies and identify opportunities to improve outcomes and system-level issues."*

Examples of how ADAD can support the implementation of Recommendation #3 include, but are not limited to:

- Advocate and strategize with health plans, Med-QUEST, CWS, and other partners for the expansion and sustainability of peer support programs for PWWDC, via insurance reimbursement and/or other payment mechanisms;
- Consider subsidizing the costs of innovative peer support programs (e.g., Makua Allies Program) and related training/workforce development efforts that are not covered by insurance reimbursement or other payment mechanisms; and
- Include/integrate voices of lived experience across ADAD decision-making spaces, ensuring that these spaces are welcoming to those with lived experience.

Recommendation #4: Workforce Capacity and Development

There are several key recommendations for workforce capacity and development. Highly related to the previous sections on treatment access and coordination - is the need for Hawai'i CARES staff training and collaborative process improvement related to PWWDC-specific issues. PWWDC-focused providers and partners have reported that the current process for getting into treatment is a barrier and not user-friendly for PWWDC. The HMIHC Perinatal Substance Use Workgroup has engaged with the Hawai'i CARES leadership since its inception, with the goal of developing a perinatal-specific training for CARES staff that is responsive to provide feedback and concerns. Hawai'i CARES leadership team members have been supportive of the idea and attended workgroup meetings to hear feedback; however, leadership turnover has precluded progress on the training development. Some topics for potential discussion and improvement/training include: intake and screening process (e.g., more appropriate screening tool during pregnancy); logistics of assessment when there are related barriers (e.g., call-back system will not work when the client does not have access to a phone, possibility of completing assessment at first contact); insurance concerns; PWWDC-specific/relevant content (e.g., how to work with judiciary, substance-exposed infants); etc. Developing a curriculum on how to better address the needs of the pregnant and parenting women (PPW) population for the Hawai'i CARES is currently in progress at HMIHC PSUD WG.

Given the importance of child welfare to PWWDC's experiences, greater collaboration/stronger connections with CWS and resource caregiver families will help overcome the barriers discussed above. Collaborative discussions on the issues mentioned previously would lead to training and support ideas for birth families, resource caregiver (foster care) families (familial and non-familial), and CWS case workers.

SUD treatment providers have expressed a need for greater support for insurance credentialing and billing. This technical assistance and capacity building would help maximize payments from insurance companies, without decreasing client services to meet administrative demands. Similarly, a universal credentialing process across Med-QUEST-contracted managed care plans could expedite providers' abilities to begin providing much needed services to their clients.

Examples of how ADAD can support the implementation of Recommendation #4 include, but are not limited to:

- Support the development and implementation of Hawai'i CARES staff training and collaborative process improvement related to PWWDC-specific issues;
- Engage with the HMIHC Perinatal Substance Use Workgroup, Hawai'i AIM, and network partners on workforce development, training, and other systems change initiatives to enhance the quality of care for PWWDC in SUD treatment, e.g.,
  - Resource/referral infrastructure (in Recommendation #2 above),

- Infant mental health consultation and training, and
- Fetal Alcohol Spectrum Disorder (FASD) consultation and training.

CONCLUSION

PWWDC are a high-needs population that merit prioritization for treatment given the significant, multi-generational impacts of SUD. As the leading state agency, ADAD has myriad opportunities to improve services available to PWWDC in Hawai'i in collaboration with a diverse network of partners and stakeholders. Although not an exhaustive list, four key recommendations have been presented here, along with specific action items to consider under each: 1) Funding for gender-specific/responsive treatment, including children; 2) Improved care coordination and resource/referral infrastructure; 3) Sustainable and reimbursable peer support programs, and elevation of voices of lived experience; and 4) Workforce capacity and development. Through advocacy, funding, and engagement with ongoing initiatives, ADAD can help provide more Hawai'i families with appropriate and accessible gender-responsive treatment and care during pregnancy, postpartum, and beyond.

REFERENCES

1.   Delafield R, Wright, T. E.,. Insights in Public Health: Substance Use in Pregnant Women in Hawai'i: Extending Our Capacity and Compassion. *Hawaii J Med Public Health*. 2016;75(11):348-352. Published 2016/12/07.
2.   Conradt E, Flannery T, Aschner JL, et al. Prenatal Opioid Exposure: Neurodevelopmental Consequences and Future Research Priorities. *Pediatrics*. 2019;144(3). doi:10.1542/peds.2019-0128
3.   Prince MK, Ayers, D.,. Substance Use In Pregnancy. In: StatPearls Publishing LLC.; 2020.
4.   Chambers CD, Coles C, Kable J, et al. Fetal Alcohol Spectrum Disorders in a Pacific Southwest City: Maternal and Child Characteristics. *Alcoholism, clinical and experimental research*. 2019;43(12):2578-2590. doi:10.1111/acer.14213
5.   Georgieff MK, Tran PV, Carlson ES. Atypical fetal development: Fetal alcohol syndrome, nutritional deprivation, teratogens and risk for neurodevelopmental disorders and psychopathology. *Dev Psychopathol*. 2018;30(3):1063-1086. doi:10.1017/s0954579418000500
6.   Heil SH, Jones HE, Arria A, et al. Unintended pregnancy in opioid-abusing women. *J Subst Abuse Treat*. 2011;40(2):199-202. doi:10.1016/j.jsat.2010.08.011
7.   Qato DM, Zhang C, Gandhi AB, Simoni-Wastila L, Coleman-Cowger VH. Co-use of alcohol, tobacco, and licit and illicit controlled substances among pregnant and non-pregnant women in the United States: Findings from 2006 to 2014 National Survey on Drug Use and Health (NSDUH) data. *Drug Alcohol Depend*. 2020;206:107729. doi:10.1016/j.drugalcdep.2019.107729
8.   Substance Abuse and Mental Health Services Administration. *2019 National Survey on Drug Use and Health: Women*. Published 2020. https://www.samhsa.gov/data/sites/default/files/reports/rpt31102/2019NSDUH-Women/Women%202019%20NSDUH.pdf
9.   Hawai'i Behavioral Health Dashboard: Hawai'i Coordinated Access Resource Entry System Dashboard. University of Hawai'i at Mānoa, Pacific Health Analytics Collaborative. https://www.hawaii.edu/aging/hbhd/#pageDash
10.   Hawai'i Health Data Warehouse. State Department of Health, Pregnancy Risk Assessment Monitoring System, 2009-2019. Published 2021. Accessed June 9, 2022. https://hhdw.org/report/query/selection/prams/_PRAMSSelection.html
11.   Klaman SL, Andringa K, Horton E, Jones HE. Concurrent Opioid and Alcohol Use Among Women Who Become Pregnant: Historical, Current, and Future Perspectives. *Subst Abuse*. 2019;13:1178221819852637. doi:10.1177/1178221819852637
12.   Smid MC, Metz TD, Gordon AJ. Stimulant Use in Pregnancy: An Under-recognized Epidemic Among Pregnant Women. *Clin Obstet Gynecol*. 2019;62(1):168-184. doi:10.1097/grf.0000000000000418
13.   Bakhireva LN, Shrestha S, Garrison L, Leeman L, Rayburn WF, Stephen JM. Prevalence of alcohol use in pregnant women with substance use disorder. *Drug Alcohol Depend*. 2018;187:305-310. doi:10.1016/j.drugalcdep.2018.02.025
14.   Forray A. Substance use during pregnancy. *F1000 research*. 2016;5:887. doi:10.12688/f1000research.7645.1
15.   Frazer Z, McConnell K, Jansson LM. Treatment for substance use disorders in pregnant women: Motivators and barriers. *Drug Alcohol Depend*. 2019;205:107652. doi:10.1016/j.drugalcdep.2019.107652
16.   Moller-Olsen C, Friedman SH, Prakash C, North A. Clinical characteristics of maternal mental health service users treated with mood stabilizing or antipsychotic medication. *Asia Pac Psychiatry*. 2018;10(2):e12304. doi:10.1111/appy.12304
17.   Arnaudo CL, Andraka-Christou B, Allgood K. Psychiatric Co-Morbidities in Pregnant Women with Opioid Use Disorders: Prevalence, Impact, and Implications for Treatment. *Curr Addict Rep*. 2017;4(1):1-13. doi:10.1007/s40429-017-0132-4
18.   McLafferty LP, Becker M, Dresner N, et al. Guidelines for the Management of Pregnant Women With Substance Use Disorders. *Psychosomatics*. 2016;57(2):115-130. doi:10.1016/j.psym.2015.12.001

19. O'Doherty L, Hegarty K, Ramsay J, Davidson LL, Feder G, Taft A. Screening women for intimate partner violence in healthcare settings. *Cochrane Database Syst Rev*. 2015;2015(7):Cd007007. doi:10.1002/14651858.CD007007.pub3

20. Jackson A, Shannon L. Factors Associated With the Chronicity of Intimate Partner Violence Experiences Among Pregnant Women in Detoxification Services. *Women Health*. 2015;55(8):883-899. doi:10.1080/03630242.2015.1061090

21. McDonald LR, Antoine DG, Liao C, Lee A, Wahab M, Coleman JS. Syndemic of Lifetime Mental Illness, Substance Use Disorders, and Trauma and Their Association With Adverse Perinatal Outcomes. *J Interpers Violence*. 2020;35(1-2):476-495. doi:10.1177/0886260516685708

22. Robbins HA, Hurley EA, Liu L, Chao SM. Multilevel correlates of broadly- and narrowly-defined intimate partner violence among pregnant women in Los Angeles. *Matern Child Health J*. 2015;19(7):1643-1651. doi:10.1007/s10995-015-1675-4

23. Goodman DJ, Milliken CU, Theiler RN, Nordstrom BR, Akerman SC. A Multidisciplinary Approach to the Treatment of Co-occurring Opioid Use Disorder and Posttraumatic Stress Disorder in Pregnancy: A Case Report. *J Dual Diagn*. 2015;11(0):248-257. doi:10.1080/15504263.2015.1104484

24. Miller-Graff LE, Howell KH, Grein K, Keough K. Women's Cigarette and Marijuana Use in Pregnancy: Identifying the Role of Past Versus Recent Violence Exposure. *J Interpers Violence*. 2018:886260518779068. doi:10.1177/0886260518779068

25. Dworkin ER, Zambrano-Vazquez L, Cunningham SR, et al. Treating PTSD in Pregnant and Postpartum Rural Women with Substance Use Disorders. *Rural Ment Health*. 2017;41(2):136-151. doi:10.1037/rmh0000057

26. Saia KA, Schiff D, Wachman EM, et al. Caring for Pregnant Women with Opioid Use Disorder in the USA: Expanding and Improving Treatment. *Curr Obstet Gynecol Rep*. 2016;5(3):257-263. doi:10.1007/s13669-016-0168-9

27. Wright TE, Terplan M, Ondersma SJ, et al. The role of screening, brief intervention, and referral to treatment in the perinatal period. *Am J Obstet Gynecol*. 2016;215(5):539-547. doi:10.1016/j.ajog.2016.06.038

28. Hand DJ, Ellis JD, Carr MM, Abatemarco DJ, Ledgerwood DM. Contingency management interventions for tobacco and other substance use disorders in pregnancy. *Psychol Addict Behav*. 2017;31(8):907-921. doi:10.1037/adb0000291

29. Jackson MA, Baker AL, McCarter KL, Brown AL, Gould GS, Dunlop AJ. Interventions for pregnant women who use tobacco and other substances: a systematic review protocol. *BMJ Open*. 2019;9(11). doi:10.1136/bmjopen-2019-032449

30. Boden SL, Jones CW, Cabacungan ET. Improved Maternal and Infant Outcomes with Serial, Self-Reported Early Prenatal Substance Use Screening. *Maternal and Child Health Journal*. 2021;25(7):1118-1125. doi:10.1007/s10995-021-03127-1

31. Valera J. Web Infrastructure for Treatment Services (WITS) Data on Admissions and Discharges from ADAD-Funded Treatment Providers in 2019-2020 (Email Communication with Jennifer Elia). May 27, 2021.

32. Department of Health Alcohol and Drug Abuse Division Treatment and Recovery Branch. ADAD-Contracted Treatment Providers 2022-2024. Published 2022. Accessed June 9, 2022. https://health.hawaii.gov/substance-abuse/files/2022/02/2022-2024-Treatment-Provider-List.pdf

33. Gordon AC, Lehane D, Burr J, Mitchell C. Influence of past trauma and health interactions on homeless women's views of perinatal care: a qualitative study. *Br J Gen Pract*. 2019;69(688):e760-e767. doi:10.3399/bjgp19X705557

34. Treatment and Recovery Branch. Request for Proposals - RFP No. HTH 440-21-1 RFP Title: Behavioral Health Substance Use Disorder Continuum of Care Service Array for Adults and Adolescents. Published 2020.

35. Conners NA, Grant A, Crone CC, Whiteside-Mansell L. Substance abuse treatment for mothers: treatment outcomes and the impact of length of stay. *J Subst Abuse Treat*. 2006;31(4):447-456. doi:10.1016/j.jsat.2006.06.001

36. Greenfield L, Burgdorf K, Chen X, Porowski A, Roberts T, Herrell J. Effectiveness of long-term residential substance abuse treatment for women: findings from three national studies. *Am J Drug Alcohol Abuse*. 2004;30(3):537-550. doi:10.1081/ada-200032290

37.   Medicaid Innovation Collaborative. *Maternal Behavioral Health in Hawaii: Foundational Insights from Medicaid Beneficiaries and the Community*. Published 2022. https://www.medicaidcollaborative.org/_files/ugd/f1973b_fa7218b75db74c4fbe3af7b9113ad38c.pdf

38.   Substance Abuse and Mental Health Services Administration. Substance Abuse Treatment: Addressing the Specific Needs of Women. Treatment Improvement Protocol (TIP) Series, No. 51. HHS Publication No. (SMA) 13-4426. Rockville, MD: Substance Abuse and Mental Health Service Administration. Published 2009. Accessed June 1, 2022. https://store.samhsa.gov/sites/default/files/d7/priv/sma15-4426.pdf

39.   Council on Patient Safety in Women's Health Care. Taking AIM at Maternal Morbidity and Mortaility: What is AIM? Published 2020. Accessed June 1, 2022. https://safehealthcareforeverywoman.org/aim/

40.   Council on Patient Safety in Women's Health Care. Patient Safety Bundles. Published 2020. Accessed June 1, 2022. https://safehealthcareforeverywoman.org/aim/patient-safety-bundles/#core

41.   American College of Obstetricians and Gynecologists. Care for Pregnant and Postpartum People with Substance Use Disorder Patient Safety Bundle. Published 2021. Accessed June 8, 2022. https://safehealthcareforeverywoman.org/wp-content/uploads/FINAL_AIM_Bundle_CPPPSUD-1.pdf

42.   Title IV-E Prevention Services Clearinghouse. Sobriety Treatment and Recovery Teams (START). Published 2022. Accessed July 18, 2022. https://preventionservices.acf.hhs.gov/programs/370/show

43.   Office of Policy and Innovation, Children's Home Society of Washington. *Washington State's Parents for Parents Program*. http://www.opd.wa.gov/documents/00417-2016_ParentsforParents.pdf

44.   Magill M, Ray LA. Cognitive-Behavioral Treatment With Adult Alcohol and Illicit Drug Users: A Meta-Analysis of Randomized Controlled Trials. *Journal of studies on alcohol and drugs.* 2009;70(4):516-527. doi:10.15288/jsad.2009.70.516

45.   Faller KC, Palusci VJ. Children's advocacy centers: do they lead to positive case outcomes? *Child Abuse Negl.* 2007;31(10):1021-1029. doi:10.1016/j.chiabu.2007.09.001

46.   Substance Abuse and Mental Health Services Administration. Counselor's Manual for Relapse Prevention With Chemically Dependent Criminal Offenders Technical Assistance Publication (TAP) Series 19. Published 1996. http://lib.adai.washington.edu/clearinghouse/downloads/TAP-19-Counselors-Manual-for-Relapse-Prevention-with-Chemically-Dependent-Criminal-Offenders-109.pdf

47.   Substance Abuse and Mental Health Services Administration. *Clinical Guidance for Treating Pregnant and Parenting Women With Opioid Use Disorder and Their Infants*. Published 2018. https://store.samhsa.gov/product/Clinical-Guidance-for-Treating-Pregnant-and-Parenting-Women-With-Opioid-Use-Disorder-and-Their-Infants/SMA18-5054

48.   Wright TE, Schuetter R, Fombonne E, Stephenson J, Haning WF, 3rd. Implementation and evaluation of a harm-reduction model for clinical care of substance using pregnant women. *Harm Reduct J.* 2012;9:5. doi:10.1186/1477-7517-9-5

CHAPTER 9: SYSTEMS OF CARE IMPLICATIONS IN HAWAI'I: SEXUAL AND GENDER MINORITIES

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ABSTRACT

Sexual and gender minorities (SGM) are diverse groups of people who do not identify as heterosexual or cisgender. SGM communities include Lesbian, Gay, Bisexual, and Transgender (LGBT) individuals as well as people of other sexual orientations and gender identities. SGM communities are disproportionately affected by substance use disorders, with differential use of specific substances among persons based on sexual or gender identity. As understood through the minority stress model, substance use and misuse among SGM people are tied to risk and resiliency factors at all levels of the social ecological paradigm. Despite the disproportionate burden of substance use disorders on SGM people in Hawai'i, very few resources or programs exist to ameliorate the impact of substance use on this community. Although some models of care could be useful for SGM people, community-specific interventions are scarce, especially in Hawai'i. To successfully meet the needs of SGM people in Hawai'i, multi-level transformation of the substance use prevention and treatment landscape must address: culturally appropriate service delivery; workforce recruitment and development; nimble and adequate financing; consistent data collection and reporting; and systems-level policy updates.

BACKGROUND AND INTRODUCTION

Sexual and gender minorities (SGM) are people that do not identify as heterosexual or cisgender, respectively. SGM can be considered to be more inclusive than Lesbian, Gay, Bisexual, and Transgender (LGBT) because it captures those who identify with additional sexual orientations (e.g., asexual, aromantic, queer, and pansexual) and gender identities (e.g., agender, gender non-conforming, and gender non-binary). SGM communities are diverse and not monolithic. Although intersectional factors (e.g., race, class, geography) and individual lived experience impact SGM people, the scope of this paper discusses broad considerations for this community. Individuals in these underprivileged communities have reported elevated rates of substance use-related issues, both nationally and locally in Hawai'i. In the present chapter, the authors examine substance use disparities between SGM and heterosexual/cisgender individuals, theories related to these disparities, and intervention strategies to address the issues that the SGM communities of Hawai'i face. For more background and context around the overall State Plan project, readers are referred to the Introductory Notes of this State Plan System of Care Implications Volume.

Substance Use Disparities

Substance use and probable substance use disorders disproportionately affect SGM communities across the United States.[1,2] The disproportion compared to the heterosexual/cisgender population has been described in the studies of various substances including but not limited to, tobacco,[3-7] alcohol,[8-10] marijuana,[9] and opiates.[11-13] The prevalence of substance use has also been studied among the SGM subgroups[14-16] and by intersecting groups between sexual orientation and gender identities and demographic characteristics such as age[17,18] and ethnicity.[19]

In Hawai'i, SGM adults and youth are more likely to use substances than their non-SGM counterparts.[20,21] While it may be easier to generalize the SGM community, there are many identities that are encapsulated within the term SGM. Thus, it is important to further delineate between each sexual orientation and gender identity because each group has its own strengths and needs. **Table 1** breaks down use of selected substances among persons 12 and older in Hawai'i by sexual orientation from the National Survey on Drug Use and Health (NSDUH). **Table 2** details Hawai'i data from the Youth Risk Behavior Survey by sexual orientation and alcohol use, marijuana use, and electronic and combustible cigarette use.

Substance use rates among SGM individuals (**Table 1**) are generally higher than their non-SGM counterparts. Lesbian and Gay (LG) individuals are more likely than other groups to have a methamphetamine dependence,[22] while bisexual individuals are more likely than other groups to be marijuana, alcohol, or pain reliever dependent.[22] While **Table 1** shows substance use amongst individuals ages 12 and older, **Table 2** shows substance use rates for high school students in Hawai'i. Overall, Lesbian, Gay, and Bisexual (LGB) students have elevated rates of alcohol, marijuana, or tobacco use, compared to their non-LGB counterparts. LG youth are more likely to use cigarettes and e-cigarettes daily, but less likely to use alcohol and marijuana than bisexual youth.[23]

NSDUH data indicates transgender and gender non-conforming individuals aged 12 and older in Hawai'i are more likely than their cisgender counterparts to have a probable substance use disorder.[22] The 2019-2020 Hawai'i Student Alcohol, Tobacco, and Other Drug Use Survey (**Table 3**) found that transgender and other gender minority students were more likely to have a probable substance use disorder than cisgender boy or cisgender girl students.[24] **Table 4** shows current (past 30 day) substance use for transgender and other gender minority youth when compared to cisgender girls and boys.[24]

Table 1. Proportion of Past-Month Substance Use among Lesbian, Gay, Bisexual and Heterosexual Individual (aged 12 and above) in Hawai'i between 2015-2018 [a]

	Lesbian/Gay		Bisexual		Heterosexual	
	% (95%CI)	Weighted Count	% (95% CI)	Weighted Count	% (95% CI)	Weighted Count
Tobacco	32.3 (20.5,46.9)	8,000	29.0 (18.9,41.6)	10,000	18.0 (16.2,19.9)	170,000
Methamphetamine	4.0 (1.0,13.6)	1,000	2.4 (0.8,7.0)	1,000	0.7 (0.4,1.3)	7,000
Alcohol	44.5 (29.9,60.1)	11,000	62.5 (52.2,71.8)	22,000	48.3 (45.8,50.9)	458,000
Marijuana	8.0 (3.3,18.1)	2,000	21.4 (12.8,33.6)	8,000	9.4 (7.8,11.4)	89,000
Cocaine	C.S.	C.S.	2.2 (0.7,7.2)	1,000	1.0 (0.7,1.6)	10,000
Opioids	C.S.	C.S.	6.5 (2.9,14.0)	2,000	1.0 (0.6,1.6)	9,000
Pain Relievers	C.S.	C.S.	6.5 (2.9,14.0)	2,000	1.0 (0.6,1.5)	9,000
Tranquilizers	C.S.	C.S.	2.5 (0.6,9.5)	1,000	0.4 (0.2,0.8)	4,000
Stimulants	C.S.	C.S.	2.4 (0.8,7.1)	1,000	0.4 (0.2,0.7)	3,000

[a]Source: *Hawai'i Behavioral Health Dashboard: National Survey on Drug Use and Health Substance Use Dashboard*. University of Hawai'i at Mānoa, Pacific Health Analytics Collaborative. Accessed June 28, 2021. https://www.hawaii.edu/aging/hbhd/index.html.[22] This dashboard is now defunct; however, the data can be replicated at Substance Abuse and Mental Health Services Administration (SAMHSA)'s restricted online data analysis system (https://rdas.samhsa.gov/#/survey/NSDUH-2015-2018-RD04YR).

Notes: (C.S. = cell suppressions due to low cell counts)

Table 2. Proportion of Substance Use among Lesbian, Gay, Bisexual, and Heterosexual Public High School Students in Hawai'i in 2019 [a]

	Lesbian/Gay		Bisexual		Heterosexual	
	% (95%CI)	# of respond-ents for survey item	% (95% CI)	# of respond-ents for survey item	% (95%CI)	# of respond-ents for survey item
Alcohol - Current Use	24.2 (14.6,37.5)	131	31.3 (24.4,38.8)	382	19.7 (17.5,22.1)	4,441
Alcohol - Current Binge Drinking	11.0 (7.2,16.5)	140	16.2 (10.6,23.8)	404	10.3 (8.7,12.1)	4,609
Marijuana - Current Use	14.9 (9.6,22.4)	147	21.4 (14.1,31.2)	416	16.9 (15.0,19.1)	4,658
Cigarettes-Combustible – Current Use	8.7 (3.7,19.0)	153	9.9 (4.8,19.4)	424	4.1 (3.0,5.7)	4,794
Cigarettes-Electronic – Current Use	23.8 (15.6,34.5)	135	34.2 (27.0,42.3)	402	31.2 (28.2,34.3)	4,512
Cigarettes- Combustible Daily Use	2.3 (0.8,6.7)	153	0.8 (0.1,5.0)	424	0.5 (0.3,0.9)	4,794
Cigarettes - Electronic Daily Use	13.2 (7.2,23.0)	135	5.8 (2.6,12.5)	402	8.0 (6.8,9.3)	4,512

[a]Source: Centers for Disease Control and Prevention (CDC). 1991-2019 High School Youth Risk Behavior Survey Data. Accessed June 28, 2021. https://nccd.cdc.gov/youthonline/

Table 3. Probable Substance Use Disorder (SUD) by Gender based on Self-Administered CRAFFT[25] Screener[24]

	No (Score 0-3)		Yes (Score 4+)	
	% (95% CI)	Weighted Count	% (95% CI)	Weighted Count
Cisgender Girl	86.9 (85.8, 88.0)	3,116	13.1 (12.0, 14.2)	471
Cisgender Boy	91.2 (90.4, 92.0)	3,902	8.8 (8.0, 9.6)	377
Transgender and Other Gender Minority	75.6 (69.3, 81.9)	133	24.4 (18.1, 30.7)	43

CRAFFT (Car, Relax, Alone, Forget, Friends, Trouble) substance use screening tool[25]

Table 4. Current Substance Use Amongst Transgender and Other Gender Minority Middle and High School Students in Hawai'i[a]

	Past 30 Day Substance Use	
Alcohol	%	95% CI
Overall	27.3	(25.3, 29.3)
Cisgender Girl	31.1	(29.1, 33.1)
Cisgender Boy	23.6	(21.6, 25.6)
Transgender and Other Gender Minority	37.4	(35.4, 39.4)
Cigarettes		
Overall	8.4	(6.4, 10.4)
Cisgender Girl	8.4	(6.4, 10.4)
Cisgender Boy	7.6	(5.6, 9.6)
Transgender and Other Gender Minority	30.2	(28.2, 32.2)
E cigarettes		
Overall	25.9	(23.9, 27.9)
Cisgender Girl	29.7	(27.7, 31.7)
Cisgender Boy	22.3	(20.3, 24.3)
Transgender and Other Gender Minority	35.4	(33.4, 37.4)
Marijuana		
Overall	20.3	(18.3, 22.3)
Cisgender Girl	22.3	(20.3, 24.3)
Cisgender Boy	17.7	(15.7, 19.7)
Transgender and Other Gender Minority	42.0	(40.8, 44.0)

[a]Source: Onoye et al (2021). 2019-2020 Hawai'i Student Alcohol, Tobacco, and Other Drug (ATOD) Survey: Statewide Report. Sponsored by State of Hawai'i Department of Health, Alcohol and Drug Abuse Division ASO Log #19-238. Honolulu, HI.[24]

Risk and Protective Factors

The social-ecological model of health is a tiered framework that approaches health risk from a holistic approach.[26] It theorizes that an individual's health conditions are the result of many factors including individual, interpersonal, communal, and societal levels of impact. This conceptual framework is useful for understanding and mapping the various risk and protective factors that affect a person's health and can then be applied to tailor health interventions at various levels of the social-ecological model.

INDIVIDUAL LEVEL

The individual level of the social-ecological model considers how a person's biological conditions and internalized beliefs affect behavior. SGM individuals have unique stressors that can influence their health behaviors. Internalized cis/hetero normativity and trans/homo negativity are the internalized beliefs that heterosexual and cisgender identities are of the norm and that deviations from the norm are wrong or immoral. These negative internalized beliefs have been found to be associated with a variety of mental health concerns, including substance use related issues.[27-31] In addition to

internalized stigma, identity uncertainty has been associated with elevated substance use in many SGM identity groups.[32,33]

SGM individuals are more likely to have multiple mental health diagnoses including depression and anxiety, both of which increase the likelihood of substance use.[30,34] Furthermore, the role that mental health (specifically trauma[35]) plays in seeking and maintaining care is still under contention. An individual's traumatic experiences and their mental health can affect their likelihood of using and becoming dependent upon substances.[34]

INTERPERSONAL LEVEL

The interpersonal level of the social-ecological model consists of the close relationships that a person has with others and how those relationships impact behavior. SGM individuals are at elevated risk for family rejection after disclosing their sexual or gender identity.[31] SGM people are also more likely to experience peer- and family-related victimization and adverse childhood experiences than non-SGM people.[32,36-39] Rejection, victimization, and concealment of identity have been associated with elevated rates of substance use and dependence in SGM populations.[37,40-43] Beyond risk factors, researchers have found that a perceived connectedness to parents was a protective factor linked to lower rates of substance use.[40,41,44]

COMMUNAL LEVEL

The communal level of the social-ecological model relates to stressors that are present in the community or at institutions and organizations, such as government, school, and work. Institutional policies that prevent harassment and bullying are associated with lower risk for substance use in SGM individuals who benefit from such policies.[12,40,41,44,45] Schools have been extensively studied for their influence on youth substance use. For example, schools that have active Gay-Straight Alliances (GSAs), anti-bullying policies, and student support mechanisms have shown a significant reduction in substance use amongst SGM students.[45,46] Furthermore, supportive schools have shown reductions in heavy episodic drinking (HED) during high school and into adulthood[12,40,41]; and they have demonstrated a significant reduction in cigarette smoking.[47]

Schools that can provide adult mentors (either formally or informally) have students with lower rates of marijuana use amongst their SGM population.[12,40,41] Participation in athletic programs has also been shown to reduce cigarette use among sexual minority (e.g, gay, bisexual) boys but had no significant effect in sexual minority women.[48,49] It should also be noted that bisexual students face unique stressors (including discrimination/microaggression from LG and Straight identifying people) than their lesbian and gay counterparts, which still needs to be addressed in the academic realm.[12,50,51]

Additionally, healthcare protections for SGM individuals such as changes to gender inclusive language and facilities are both associated with better outcomes for SGM patients and the likelihood for care retention.[52] LGBT spaces also offer some protection for SGM people because they are spaces for and by the community. The tobacco industry has been well documented to target gay spaces with advertising campaigns that support social equality campaigns, which yielded favorable perceptions among the LGBT community.[16,30,53,54]

Although LGBT spaces provide an affirming environment for SGM individuals, participation in gay-related activities during adolescents can lead to higher levels of alcohol misuse; however, the authors of this study also note that this decreases as youth ages.[55,56] It should still be noted that identity affirmation and association into LGBT spaces could still serve as a protective factor even if there are some mixed influences due to permissiveness of substance use.[33] Additionally, affinity to the gay community has been linked to being more permissive to substance use in SM youth,[30] but this could also be due to other external factors like years of marginalization.

SOCIETAL LEVEL

The societal level of the social-ecological model explores health, occupational, educational, economic, and social policies; social and political climate; and social and cultural norms. For example, discriminatory SGM policies and feelings of "living in a predominantly hetero world" were found to be related to increased substance use.[47] Conversely, SGM youth were less likely to binge drink in states that adopted progressive SGM-related policies.[57] In school settings, school-based supports were found to be related to fewer experiences of victimization and better academic outcomes.

MINORITY STRESS MODEL: MULTI-LEVEL IMPACT

The minority stress model posits that minority individuals experience discrimination, stigma, and prejudice (on every level of the social-ecological model), and that there are unique stressors that can affect SGM people.[58-60] SGM individuals may experience both non-SGM related (e.g., race) and SGM-related stigma,[61,62] which may lead to mental health problems and maladaptive coping strategies including substance use.[32,61-65] Importantly, this model also highlights SGM-specific factors (e.g., community support, identity pride) that promote resiliency and mitigate the effects of minority stress. The minority stress model is a predominantly used model and provides a starting point to identify resiliency factors to promote, stressors to prevent, and treat resulting distress.

The minority stress theory is a conceptual model that aims to contextualize the unique stressors experienced by marginalized populations. Stressors include both micro and macro-level events from distasteful comments and microaggressions to discriminatory policies and actions. Gender minority stress theory[66] and sexual minority stress theory[60] are theoretical frameworks that encompass the many possible negative life events and stressors that are experienced by gender and sexual minority people, respectively. Stressors include discrimination, stigmatization, internalized homonegativity or cisnormativity, and concealment of sexual or gender identity. Gender dysphoria has been considered an additional minority stress factor for gender minority individuals.[67] These stressors can transcend the social-ecological model's various levels because discriminatory policies have the power to inform opinions and negative social interactions, which can be internalized by SGM individuals. SGM people can experience minority stress from factors including their sexual and gender identity in addition to other marginalized identities such as race/ethnicity, income/wealth, occupation and occupational status, education, amongst others. People who are a part of multiple marginalized groups can experience minority stress due to all of these factors separately or combined.[68]

Discrimination and Stigmatization

Discrimination and stigma have been associated with negative mental health outcomes like suicide ideation and a greater likelihood of substance use among SGM people.[30,65] While anti-LGBT discrimination is more likely to affect any SGM individual, it is more likely to affect sexual minorities that do not identify as a gay-male or lesbian-female.[11,32,63,64] Furthermore, experiencing discrimination has been linked to alcohol, tobacco, and drug use disorders.[11,32,64,69]

Furthermore, stigma refers to "the negative social attitude attached to a characteristic of an individual that may be regarded as a mental, physical, or social deficiency."[70] SGM people are at increased risk for experiencing stigmatization.[71] Transgender men are at high risk for experiencing stigmatization, especially in health care settings compared to cisgender men. Ten percent of transgender men have experienced healthcare refusal related to their transgender status.[72] These experiences can lead to distrust of the healthcare system and are associated with substance use.[71,72]

Interventions at the normative levels have shown mixed results on communities that are constantly at odds with social norms, like sexual and gender minorities. For example, smoking interventions, through laws and regulations against smoking in public, has reduced overall smoking rates. However, this has not changed the rates of smoking amongst gender and sexual minorities. Social norms could reduce self-efficacy and increase self-segregation among SGM smokers, keeping smoking rates high among this community.[73]

SYSTEMS OF CARE

Cycle of Care System Framework

To discuss systems of substance use disorder (SUD) care, Rhode Island's cascade of care (**Figure 1**) provides a helpful theoretical cyclical framework that breaks SUD treatment into five different stages.[74] The first stage of care focuses on people who are at risk for substance use disorders or dependence, also known as "secondary prevention." Preventative care and screening are key intervention strategies at this stage. The second stage is for people who have been diagnosed with SUDs; treatment options should shift to a focus on information and encouragement to seek help. The third stage is initiation of care, in which people are entering treatment for SUD. The focus of this stage is to have people feel comfortable with treatment options and guide them to the next stage of the system of care. The fourth stage of care is retention, aimed at people who have stayed with their treatment

plan and are on track for the fifth stage of care, recovery. At any stage of care, people may fall back to an earlier stage or out of the cycle of care system.
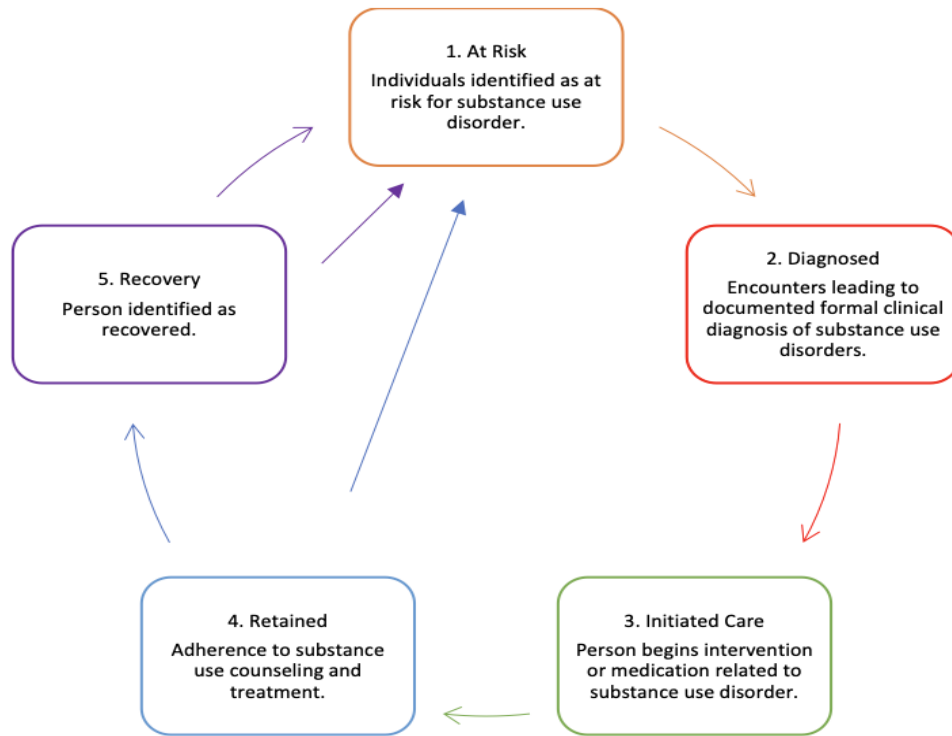
Figure 1. Conceptual Framework for SUD Cycle of Care for SGM People in Hawai'i. (adapted from Yedinak (2019)[75] Cascade of Care for Opioid Use Disorder)

To elucidate challenges and opportunities within the SUD Cycle of Care, a cross-system analysis of substance use treatmentnt providers was conducted by a chapter co-author, Annie Do. A linear, progressive pathway model (**Figure 2**) was developed to highlight contributing systems and leverage points at each progressive stage of SUD care for SGM adults.

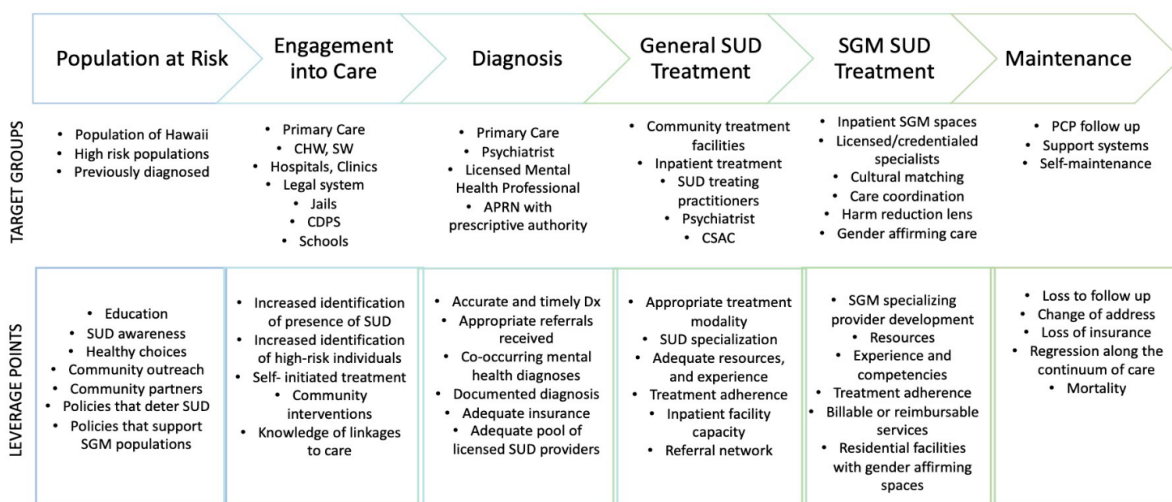|	Population at Risk	Engagement into Care	Diagnosis	General SUD Treatment	SGM SUD Treatment	Maintenance

TARGET GROUPS	• Population of Hawaii
	• High risk populations
	• Previously diagnosed
		• Primary Care
		• CHW, SW
		• Hospitals, Clinics
		• Legal system
		  • Jails
		  • CDPS
		• Schools
			• Primary Care
			• Psychiatrist
			• Licensed Mental Health Professional
			• APRN with prescriptive authority
				• Community treatment facilities
				• Inpatient treatment
				  • SUD treating practitioners
				• Psychiatrist
				• CSAC
					• Inpatient SGM spaces
					• Licensed/credentialed specialists
					• Cultural matching
					• Care coordination
					• Harm reduction lens
					• Gender affirming care
						• PCP follow up
						• Support systems
						• Self-maintenance

LEVERAGE POINTS	• Education
	• SUD awareness
	• Healthy choices
	• Community outreach
	• Community partners
	• Policies that deter SUD
	• Policies that support SGM populations
		• Increased identification of presence of SUD
		• Increased identification of high-risk individuals
		• Self-initiated treatment
		  • Community interventions
		• Knowledge of linkages to care
			• Accurate and timely Dx
			• Appropriate referrals received
			• Co-occurring mental health diagnoses
			• Documented diagnosis
			• Adequate insurance
			• Adequate pool of licensed SUD providers
				• Appropriate treatment modality
				• SUD specialization
				• Adequate resources, and experience
				• Treatment adherence
				  • Inpatient facility capacity
				• Referral network
					• SGM specializing provider development
					  • Resources
					  • Experience and competencies
					• Treatment adherence
					• Billable or reimbursable services
					• Residential facilities with gender affirming spaces
						• Loss to follow up
						• Change of address
						• Loss of insurance
						• Regression along the continuum of care
						  • Mortality

Figure 2. Target Groups and Leverage Points within the SUD System of Care for SGM People in Hawai'i. (Developed by Annie Do with information collected using a cross-system analysis of Hawai'i-based substance use treatment providers.)

Insufficient Literature and Data

While current literature notes the effectiveness of affirming sexually diverse, transgender and gender non-conforming identities, the existing literature does not specifically explore substance use interventions in SGM communities.[76,77] The main findings in academic literature are the need for more grounded SGM-affirming care techniques and preventative measures that can be customized for individual SUD treatment plans.[78,79] Communication, identity affirmation, cultural sensitivity, care coordination and linkage to complementary rehabilitative services are identified as necessary for best outcomes in substance use treatment.[80] The limited literature on SGM populations in Hawai'i describes a SUD care system that operates in a decentralized manner with loose formalized processes and mechanisms.[81]

The SGM community in Hawai'i encompasses a wide breadth of not only genders and sexual orientations, but also ethnicities and races, indigeneity, socioeconomic histories, immigration status, education, employment, and more. SGM-specific SUD treatments should be able to work additively with culturally sensitive interventions for individuals' varying intersecting identities. Interventions for intersecting cultural identities include those for people who are Asian American or Pacific Islander[76]; Native Hawaiian[82,83]; living with a disability[84]; military veterans[85]; and others.

Future data surveillance and evaluation of substance treatment for SGM people in Hawai'i must integrate more inclusive and responsive metrics to reflect these intersectional complexities. This includes evaluation of each stage in the conceptual SUD Cycle of Care to improve patient engagement, retention, and recovery for SGM communities. The findings of such research should inform development of culturally relevant SGM programs, including the expansion of workforce capacity, as well as justify funding allocation and policy change to improve the SUD Cycle of Care.

Workforce Capacity Gaps

In Hawai'i, there are notable insufficiencies in the SUD behavioral health workforce, especially for the SGM population. Among over 3,500 mental health practitioners holding a license in mental health counseling, marriage and family therapy, clinical social work,[86] or psychology in the State of Hawai'i in 2020,[87] no data were collected on the number of the specialists that directly provide substance use services for SGM individuals. This number does not include out-of-state practitioners who currently provide services to residents of Hawai'i. Primary care practitioners are often unprepared and lack

training for SGM competent care.[80] Separately, certified substance abuse counselors (CSACs) and certified drug prevention specialists are regulated by the State of Hawai'i Department of Health (DOH)'s Alcohol and Drug Abuse Division (ADAD), but SGM training is not required for either occupational certification. Information on the number of registered CSACs in the State of Hawai'i is not readily available to the public or by request to DOH. Data sharing between the Professional and Vocational Licensing Office and ADAD's Professional Certification Office is needed to quantify the substance use treatment providing workforce. Training and education improvements—such as integration of SGM population care into health education care curricula or requiring continuing education—are important opportunities for enhancing the SUD Cycle of Care.

Lack of sufficient provider training and availability for SGM-specific care contributes to a fragmented system of referrals. For example, the Hawai'i Health and Harm Reduction Center (www.hhhrc.org), the largest AIDS-service organization in the Pacific region with five licensed medical professionals, nine social workers, and two CSAC trained to work with SGM communities, estimates at least 200 referrals for substance use treatment for SGM identifying patients in 2019. However, it is uncertain whether all referrals led to linkage to care, or if patients linked to care were engaged through the entire SUD Cycle of Care.

DOH's SGM Workgroup has established an SGM Resource Hub that includes a local service directory of healthcare providers who provide culturally competent care (https://health.hawaii.gov/harmreduction/sexual-gender-minority/sexual-and-gender-minorities-sgm-in-hawaii/). Since the service directory relies on provider or community-initiated listings, it does not provide a comprehensive of list of available resources. Efforts to increase awareness of and participation in the expansion of the resource hub can improve referrals and connections in the SUD Cycle of Care. However, the existing number of SGM specialized SUD treatment centers and care providers is not addressed through this resource hub.

Funding and Coverage Needs

Programs that directly and indirectly serve SGM for SUD treatment often experience inconsistent funding, insufficient grant or insurance reimbursement, and inadequate supply of compassionate, trained care providers. In general, providers, clinics, hospitals, or other service organizations in Hawai'i can apply for state, federal, and foundational grants to fund services related to substance use treatment. These grants typically fund programs that may have limited run operations and are subject to renewal depending on the effectiveness or utility of the services provided. There are some programs that allow for discounted rates on treatment, labs, or medical visits for common co-occurring diagnosis with SUD, although not necessarily for SUD treatment itself.

Currently, the Substance Abuse and Mental Health Services Administration (SAMHSA) grant for the Hawai'i Screening, Brief Intervention and Referral to Treatment (HI-SBIRT) project and The Hawai'i Adolescent and Transitional Aged Youth Treatment Implementation (HI-YT-I) project focuses on substance use prevention and treatment for disproportionately affected populations, including SGM communities. In 2020, the federal Coronavirus Aid, Relief, and Economic Security (CARES) Act provided additional funding for emergency mental and substance use disorders due to COVID-19. It is unclear what proportion of grant funds were allocated or used for SUD care of SGM populations, partly due to lack of data collection and resource tracking of specialized resources.

Disparities in healthcare acess among SGM people, especially transgender people, can lead to worsened mental health conditions and increased substance use and SUD as a means of coping.[88] As such, insurance coverage for SGM-related substance issues should include not only direct SUD services but also health services such as gender-affirming surgery. In Hawai'i, insurance coverage varies by plan, provider, and service, among other factors. For example, some preferred Provider Organization (PPO) insurance plans reimburse for gender affirming services, but may require specific surgeries to be covered by out-of-pocket payments. In comparison, Kaiser Permanente Hawai'i has a board for trans-specific care and surgery and supports out-of-state travel and lodging for some procedures. For substance use treatment, insurance plans contracted through Hawai'i MedQuest plans allow for reimbursement of out-of-network services or medical treatment that require referrals or specialized care. Although military personnel and veterans are covered through Tricare, youth and military dependents that seek treatment and care services for mental health-related disorders (including SUD) are not covered through this insurance.

Policy Impacts

Many of the gaps in the SUD Cycle of Care System described above are tied to state and organizational policies. Environmental and political factors—including public attitudes towards intersecting issues of houselessness, racism, gender rights, and SGM health—can influence the availability of resources and capacity for SUD treatment for local SGM communities. To effect sustainable improvements in the SUD Cycle of Care for SGM people in Hawai'i, policy efforts (such as instituting laws or changing Hawai'i Administrative Rules) should be considered. **Table 5** below describes some local policies that currently effect the SUD system for SGM people.

Table 5. Select Policies that Influence Effectiveness of Substance Use Prevention and Treatment in Hawai'i

Policy Number	Short Description	Impact on SUD Care
Hawai'i Revised Statutes §431M-4 Mental illness, Alcohol and Drug Dependence Benefits	(a) Alcohol and drug dependence benefits shall be as follows: 　　(1) Detoxification services as a covered benefit under this chapter shall be provided either in a hospital or in a non-hospital facility that has a written affiliation agreement with a hospital for emergency, medical, and mental health support services. The following services shall be covered under detoxification services: 　　　　(A) Room and board; 　　　　(B) Diagnostic x-rays; 　　　　(C) Laboratory testing; and 　　　　(D) Drugs, equipment use, special therapies, and supplies.	Requires certain services to be covered by insurance in the process of providing substance use treatment. This statute allows for costs to be covered; however, it does not require that room and board or hospital services be gender reaffirming or for inpatient facilities to have designated spaces for SGM individuals.
Hawai'i Revised Statutes §431:10A-118.3 Nondiscrimination on the Basis of Actual Gender Identity or Perceived Gender Identity; Coverage for Services	(a) No individual and group accident and health or sickness policy, contract, plan, or agreement that provides health care coverage shall discriminate with respect to participation and coverage under the policy, contract, plan, or agreement against any person on the basis of actual gender identity or perceived gender identity.	Section §431M-4 and §431:10A-118.3 should work in parallel in order to provide covered services to include non-discriminatory spaces and staff, however, this is sometimes not the case.
HCR 162 HD1 SD1 Urging Departments to Collaborate and Collect Data to Address LGBTQI+ Youth in the Juvenile Justice System	"Urging the Department of Public Safety and the Department of Human Services to work with the Department of Health, Department of Education, and Judiciary to submit a plan to account for gender identity with respect to incarcerated and court-involved youth and work with the sexual and gender minority workgroup within the Department of Health to address the incidence of LGBTQI youth in the juvenile and criminal justice systems"	This piece of legislation demonstrates the political willpower and commitment to improve health disparities exhibited for LGBTQI?+ youth however, as a resolution and not an act, this is not to be construed as a mandate. This resolution is a step in the right direction in that it facilitates data

		collection requirements needed for improved monitoring and insights into SGM populations that would otherwise end up involved with the criminal justice system.
Hawaiʻi Administrative Rules 11-177.1 Certification standards for Substance Abuse Counselors	"Principle 1: Non-Discrimination. The substance abuse counselor shall not discriminate against clients or professionals based on race, religion, age, gender, disability, national ancestry, sexual orientation or economic condition."	The Hawaiʻi Administrative Rules (HAR) outlining the licensure and training hours requirements in order to obtain substance abuse certification calls for a certain number of hours to be worked specifically in substance use disorder treatment to be obtained in the process of gaining licensure. There is no requirement calling for exposure or experience for SGM populations to be obtained while in the process, or educational requirements related to population specific treatments.

(Source: Hawaiʻi Administrative Rules[89])

INTERVENTIONS

SGM General Health Guidance

Guidelines for developing health and well-being interventions with SGM communities recommend multi-level components that reflect the unique and diverse experiences of SGM communities. SAMHSA provides one such framework for developing SGM interventions and supporting SGM individuals in general programs.[90] At the individual level, assessing provider knowledge, attitudes, and beliefs around SGM individuals is a starting point for professional development that supports these communities. At the interpersonal level, providers should use correct pronouns, never assume an identity (gender or sexual orientation), and provide empathetic, supportive care. At the organizational level, it is critical to provide an outwardly welcoming environment for the SGM community, which includes: having options for choosing pronouns on intake forms; including a broad range of options for gender and sexual orientation on documentation (including an option for "other identity not listed"); having inclusive representation in the waiting area and health promotion materials; displaying signs like the rainbow flag or pink triangle that indicate a safe space for SGM individuals; and having organizational policies and procedures that protect and promote SGM communities. Community-level components include: having a way for SGM individuals to share their voices (and subsequently impact programs); ensuring inclusive programming where appropriate, with family and external

support; and helping SGM individuals access additional support as requested.[90] Societal-level components include state and national policies that support access and appropriate healthcare for SGM communities.

SGM SUD Interventions in the Literature

Much of the research on SGM substance use behaviors focuses on risk and protective factors, as well as mental and physical health outcomes related to substance use.[1,2,38] A broad literature review was conducted between March 2020 and June 2020 using APA PsychNet, EBSCO Host, and PubMed finding a total of 8,459 articles related to substance use risk and protective factors. After duplicate articles were removed and limited to those that took place within the United States between March 2015 and March 2020, there were 343 articles that focused on SGM individuals. From the subset of 343 articles, 87 were assessed as relevant including promising peer-reviewed studies of substance use interventions. Of those that used quantitative evaluation methods, ten were subsequently selected to illustrate interventions for SGM individuals that had published datasets (**Table 6**). Due to insufficient research data on other SGM sub-populations, interventions in **Table 6** focus on behavior change among gay and bisexual men. Major gaps in the literature around substance use interventions for SGM populations include: research for some sub-groups of SGM (e.g., lesbian and bisexual women; transgender and gender non-conforming people); and Hawai'i-/culture-based interventions for SGM communities. In the context of the Rhode Island cascade of care reference above, interventions that specifically target SGM individuals are also needed at levels 1, 2, and 5 of the systems of care (prevention, education post-diagnosis, and recovery).

Table 6. Description and Impact of Selected Substance Use Interventions for Gay and Bisexual SGM People

Intervention	Description	Impact	Source
Outpatient Counseling Focus: gay, bisexual men	12-month outpatient individual and group counseling program	Inconsistent reduction in methamphetamine and/or crack/cocaine use	Ezard et al 2015[91]
Psychosocial Interventions Focus: gay, bisexual man	LGBTI-specific alcohol and other drug treatment, including structured intake interview, standard clinical assessment, psychosocial interventions (up to 12 sessions) with a focus on harm reduction principles.	Reduction in methamphetamine use and dependence; Improvement in psychosocial functioning scores	Lea et al 2017[92]
Esteem Program Focus: young gay, bisexual men	Cognitive Behavioral Therapy (CBT) targeting minority stress	Some reduction in alcohol intake and depressive symptoms, anxiety; no improvements in suicidality	Pachankis et al 2020[93]; Feinstein et al 2019[94]; Pachankis et al 2015[95]
CBT + Motivational Interviewing Focus: men who have sex with men and are HIV-positive	Motivational Interviewing and Cognitive Behavioral Therapy sessions with supplemental education sessions	Significant reduction in methamphetamine use at the 3-month follow up, with subsequent reductions not being significant (at 6, 9, and 12 months)	Parsons et al 2018[96]
Recovery Housing Focus: men who have sex with men	Provides housing for, regular coaching, and access to treatment services via linkage to an	Reduction in recent substance use, post-completion; significant reduction in dysfunctional	Mericle et al 2018[97]

	intensive outpatient program; requires regular urine testing	coping; 35% completion rate	
Project Pride Focus: gay, bisexual men	Small group session interventions aimed at reducing negative mental and behavioral health from minority stress	Large increase in self-esteem; small decreases in loneliness and alcohol frequency; moderate decreases in marijuana frequency, cocaine frequency, and amphetamine frequency	Smith et al 2017[98]
Contingency Management Focus: lesbian, gay, bisexual people; men who have sex with men and are HIV-positive	Contingency management (voucher/payments for achieving sobriety or other benchmarks) combined with/without intensive outpatient program (e.g., ARTEMIS positive reinforcement)	No significant reduction in substance use in one study; Some positive effect and reduction in methamphetamine use in others	Zajac et al 2020[99]; Allara et al 2019[100]; Carrico et al 2018[101]
Project Impact Focus: men who have sex with men	Behavioral activation (BA) and sexual risk reduction (SRR) intervention models	No significant reduction in methamphetamine use	Mimiaga et al 2019[102]
PACE Bar Study Focus: patrons of gay bars	Providing free water at gay bars	Significantly more bar patrons in the intervention group remained within the alcohol legal limit when leaving	Charlebois et al 2017[103]

Notes: Peer-reviewed articles published between March 2015 and March 2020 on potentially replicable substance abuse/dependence interventions in the United States, which used quantitative evaluation methods and focused on SGM individuals, were included in this table.

Regarding substance use interventions, research shows that having specific programmatic components for SGM communities is more effective than traditional models for the general population.[82] Promising studies including specific components for the SGM community include recovery housing options, individual and group therapy, and preventive measures in drinking venues such as offering non-alcoholic options at gay bars.[96,98,103,104] See **Table 6** for more details on study populations and outcomes. The common theme among the active interventions was the provision of comprehensive programming focused on recovery, reintegration, and motivational changes, with a focus on the unique experience of those in SGM communities. Recovery housing programs showed significant reductions in substance use-related behaviors among participants who had various SUDs, with a 35% completion rate; this was also the most intensive program because linkage to care and employment opportunities were provided.[104] Other effective models focused on behavior changes and multiple therapy models.[92] For example, the Project Pride program, used group sessions to address causal factors that influence negative coping mechanisms, and showed a moderate decrease in marijuana, cocaine, and amphetamine use.[98] Patients who participated in cognitive behavioral therapy combined with motivational interviewing also demonstrated significant reductions in methamphetamine use at a 3-month follow-up. These were accomplished through a robust program that included one-on-one interventions and educational programs.[96]

SUD Interventions in Hawai'i

One major gap in the literature review is the lack of studies of Hawai'i-specific SGM substance use programs. Interventions that incorporate Native Hawaiian cultural practice into substance use prevention and community empowerment provide successful examples of novel and emerging practice.[105] Another opportunity to improve the SUD Cycle of Care for SGM people is through elimination of heteronormative attitudes among staff.[81] Being aware of systemic barriers and biases inherent in the current broader system of care as well as improving policies and provider comfort (e.g., cultural matching) in treating SGM populations can reduce health outcome disparities.

Informal feedback from local service providers and SGM clients throughout the state were obtained by the DOH SGM Workgroup, through an online, anonymous survey, direct email conversations, and scheduled group meetings with self-selected stakeholders. The authors organized the feedback verbatim into themes (see **Table 7**). According to the respondents, while there are many programs which implement SAMHSA recommendations and serve the SGM community, they are insufficient to address current needs statewide, especially for Neighbor Islands. These include, but are not limited to, health care facilities like the Hawai'i Health and Harm Reduction Center, Waikiki Health, Lavender Clinic, and Transcend Maui as well as substance use-specific organizations, such as Over the Rainbow Alcoholics/Narcotics Anonymous and Big Island Substance Abuse Center. For example, in 2020, the Hawai'i Health and Harm Reduction Center received more than 200 referrals for cases of substance use disorder and had a total 16 providers on staff who were trained to provide services for SGM populations. Although there are providers for SGM care services, their caseload may vary at any given timedepending on factors such as complexity of cases assigned, if a collaborative care model is used, involvement in patient-facing care vs intake and charting, etc. There is no quantified optimal number of caseloads available as it varies by agency demands; however, an adequate SGM serving workforce is required to balance the demands of administrators in service metrics and the medical effectiveness of treatment. Client respondents noted the lack of culturally competent care at existing programs and insufficient SGM-specific residential and outpatient programs. The lack of accessible and appropriate resources compelled at least one person to leave the state for SUD care. Sufficient training, workforce development, spiritual and non-secular options, elder services, and data collection were identified as opportunities for improvement. Although an increase in telehealth capacity may address barriers such as waiting lists or transportation, no data or feedback from stakeholders was available at the time of writing.

Table 7. Stakeholder-Identified Gaps in Substance Use Resources for SGM People in Hawai'i

Gaps in Service	Stakeholder Comments
Gender-Affirming Resources	"Po'ailani is the only treatment facility that I know of that will house TG [transgender] patients with the appropriate gender." "I do not know of any [t]ransgender specific inpatient care options at this point. I would like to see spiritual resources that are competent to support this population also." "Often patients are not accepted for residential SUD treatment as the "gender issue" becomes "insurmountable" and they are denied an opportunity to have this level of intervention." "Transgender specific meetings. Elder services for seniors unable to get around."
SGM-Affirming Resources	"As a lesbian who is in recovery, there's not a ton of resources/providers identified as being LGBTQ friendly...I went out of State for IP [inpatient] treatment for that reason." "LGBT in-patient detox/rehab, more variety in groups (i.e. not only 12 step/ non-secular), [LGBT] culturally sensitive family support, a clear list of [LGBT] mental health counselors and physicians"

	"There are no SGM "clean and sober" or recovery homes, no residential treatment (although Hina Mauka and Salvation Army allow trans folks to identify which side to stay in) and there are no IOP (intensive outpatient) that is specific to SGM." "LGBTQ specific treatments centers and Intensive outpatient programs."
Workforce Development	"I see [doctor's name] and he's going to retire soon. He's been a great ally but supportive addiction specialty psychiatrists are few and far between in the state." "I wish there was more training on how to understand the mindset of substance abuse. As a transgender individual who has not turned to illicit drugs and has had perhaps a mild alcohol addiction at most to which was able to reframe from addictive behavior for 10years."
Data Collection and Utilization	"Data collected on SGM demographics on intake forms, SGM specific services for youth."
Organizational Capacity-Building	"SGM training/certification for substance misuse/prevention organizations treating all youth."
Neighbor-Island Resources	"Specific individual therapists in [K]ona and [H]ilo to refer SGM folks to."

Notes: Informal feedback from local service providers and SGM clients throughout the state were obtained by the Hawaiʻi Department of Health's SGM Workgroup through an online, anonymous survey, direct email conversations, and scheduled group meetings with self-selected stakeholders. The authors organized the feedback verbatim into themes. Written comments from stakeholders are presented verbatim with permission. Changes made for grammar or clarity are indicated by brackets.

OBSERVATIONS & RECOMMENDATIONS

Table 8 lists observations, recommendations, and opportunities for ADAD and its partners to improve the SUD system of care for SGM communities in Hawaiʻi based on data findings, literature scan, and stakeholder feedback above. These recommendations were shared with the DOH SGM Workgroup for feedback through an online presentation to self-selected workgroup members. Below is a brief summary of recommendations for such improvements.

Service delivery: Increase prevention and treatment access and integration

Although SGM-specific interventions can improve substance use treatment outcomes, limited resources and programs exist in Hawaiʻi to address the specific needs of local SGM communities. Therefore, ADAD should spearhead policy changes that expand the current substance use prevention and treatment infrastructure to include SGM-specific services and resiliency-building.

Workforce development: Recruit community and enhance current capacity

To improve service delivery to adequately meet the needs of SGM people in Hawaiʻi, the substance use prevention and treatment workforce must be expanded and appropriately trained. Thus, ADAD should focus on the professional development of existing providers, the recruitment of SGM people into the workforce, and the development of policies to ensure worker accountability to quality SGM care (e.g., correct use of pronouns).

Nimble financing: allocate funding and resources effectively and appropriately

Since service delivery and workforce development can be constrained by funding limitations, ADAD will need to identify and secure sustainable, adequate financing for SGM substance use prevention

and treatment. Although categorical funds are useful, ADAD should also consider flexible financing streams (e.g., unrestricted grants) that can more easily meet community needs.

Data to action: Improve data collection, evaluation, and research

An important finding from the literature review is the lack of sufficient data to measure the effectiveness of interventions for SGM communities in Hawai'i. As such, ADAD should develop a plan for intentional integration of SGM data collection, analyses, and reporting into existing health and social service data systems related to the SUD system of care. Data should include both quantitative and qualitative findings. Research findings should seek to expand study populations beyond cisgender gay and bisexual men.

Policy at all levels: Transform systems and organizational processes

Effective and meaningful implementation of the recommendations in **Table 8** requires policy change at multiple levels, from direct service agencies to the health department to Hawai'i statutes. Ultimately, policy and process transformation will be an important driver for all other recommendations.

Table 8. Observations and Recommendations to Improve the Systems of Care for Substance Prevention and Treatment among SGM People in Hawai'i.

Service Delivery: Increase Prevention and Treatment Access and Integration
- Require policy among state-funded agencies providing residential or inpatient treatment to allow self-attestation of gender identity
- Create residential and inpatient treatment opportunities specific for SGM people (e.g., housing staffed by and dedicated to serving transgender and/or gender non-conforming people)
- Diversify outpatient support programs to include SGM-affirming and SGM-specific options
- Diversify spousal/family support programs to include SGM-affirming and SGM-specific options (e.g., Family Acceptance Project https://familyproject.sfsu.edu/)
- Provide more programs to build resiliency and support for SGM people in Hawai'i to prevent initiation of substance use
- Create social hubs/areas that consolidate resources and also promote safety and support (e.g., gay straight alliances in schools)
- Establish mechanisms to coordinate service delivery between substance use disorder treatment and mental health services
- Streamline intake processes to reduce redundancies and improve timely linkage to services

Workforce Development: Recruit Community and Enhance Current Capacity
- Promote hiring of people from SGM communities at all system of care levels (including ADAD and its contracted entities)
- Provide professional development for new and existing substance use treatment providers, allied health professionals, social workers, case managers, administrative intake staff, and other relevant workers to provide competent care for SGM people in Hawai'i
- Mandate annual SGM cultural trainings for relevant workers (e.g., Center of Excellence on LGBTQ+ Behavioral Health Equity https://lgbtqequity.org/)
- Integrate workforce development activities for schools, Department of Education, and other youth-oriented programs
- Communicate and enforce protections for SGM staff, clients, and others through clear and actionable policies at all levels

Nimble Financing: Allocate Funding and Resources Effectively and Appropriately
- Develop incentive programs to recruit new and experienced providers for SGM-specific care and treatment
- Fund workforce development through ongoing evidence-led trainings and mentorship opportunities
- Fund SGM-specific treatment options in all island counties for both urban and rural settings
- Establish and maintain an SGM Coordinator position within ADAD to solicit community feedback and coordinate systems-level services to improve care and treatment
- Fund SGM-specific innovation grants to reflect cultural and community needs and particularities
- Fund SGM-specific health promotion materials and stigma reduction campaigns to promote increased engagement with substance use prevention and treatment

Data to Action: Improve Data Collection, Evaluation, and Research

- Conduct needs assessment through focus groups to determine specific needs of SGM communities, which will direct and inform proposed recommendations throughout this chapter
- Integrate sexual orientation, gender identity, and sex assigned at birth as separate demographic fields in Web Infrastructure for Treatment Services (WITS), the shared treatment record portal for ADAD Recommended language can be found at https://www.cdc.gov/hiv/clinicians/transforming-health/health-care-providers/collecting-sexual-orientation.html
- Improve data collection to align electronic health records and similar health-related systems with guidelines from the National Institutes of Health (https://dpcpsi.nih.gov/sgmro/measurement/questions)
- Collect and report qualitative data (e.g., photovoice project) on SGM communities to provide better contextual grounding of quantitative data
- Mandate the collection and report of the three metrics above in WITS, or any other reporting system for all contracted ADAD services
- Develop an annual special report on SGM data among ADAD contracted entities to highlight impact of programs, gaps in service, and recommendations for program improvement
- Expand mandated integration, collection, and reporting of the three metrics above into all non-ADAD entities providing substance use treatment services (e.g., hospitals, FQHCs, MedQuest providers/clinics, insurance payers) through ADAD technical assistance
- Develop and implement mechanisms for staff and participant feedback (qualitative and quantitative) on ADAD contracted entities, with intentional inclusivity for SGM people and SGM-specific issues
- Develop and implement an internal ADAD workgroup (in partnership with the DOH SGM Workgroup) that seeks SGM community input to identify and implement culturally-based evaluation approaches and practices (e.g., the Aloha Framework from Culturally Relevant Evaluation and Assessment in Hawai'i: https://www.creahawaii.com/resources).

Policy at All Levels: Transform Systems and Organizational Processes

- Update workflow to include culturally appropriate assessment for SGM people, including preferred name, pronouns, and other identities (see recommendations on SGM metrics in Evaluation and Research section)
- Update or implement a mechanism for actionable, safe, and accessible reporting of SGM discrimination in ADAD-contracted entities
- Develop and implement ADAD protocol for quickly responding to SGM discrimination reports, including funding or program sanctions
- Require inclusive language for SGM people in health practice settings
- Require the collection and reporting of SGM data in health practice and substance use treatment settings
- Support legislation or policy that promotes inclusiveness for SGM people in all settings, such as: Protection of transgender athletes in school teams and coverage of transgender healthcare services by insurance payers
- Establish and fund a State Executive Office to address the needs of sexual and gender minorities (similar to the Hawai'i State Commission on Status of Women)
- Develop legislation or policy changes to ensure that the above recommendations are mandated and implemented in all substance use treatment settings, regardless of ADAD funding

Notes: Based on data findings, literature scan, and stakeholder feedback findings, the authors compiled this list of observations, recommendations, and opportunities for ADAD and its partners to improve the SUD system of care for SGM communities in Hawai'i. These recommendations were shared with the DOH SGM Workgroup for feedback through an online presentation to self-selected workgroup members.

CONCLUSION

SGM populations are disproportionately affected by substance use disorders, with differential use of specific substances among persons based on sexual or gender identity, compared to non-SGM counterparts. Substance use and misuse among SGM people are tied to risk and resiliency factors at all levels of the social ecological paradigm. The minority stress theory suggests that the collective stressors experienced by those in marginalized communities due to their minority status (e.g., discrimination, micro-aggressions) can lead to coping mechanisms that include substance use. An important component of the minority stress model to emphasize is resiliency, which highlights the existing and developed strengths of SGM individuals that can be leveraged to promote quality of life and well-being.

Despite the disproportionate burden of substance use disorders on SGM people in Hawai'i, very few resources or programs exist to ameliorate the impact of substance use on this community. Existing resources rarely focus on enhancing strengths evidenced by many SGM individuals. Although some models of care could be useful for SGM people, community-specific interventions in Hawai'i are scarce, especially for gender non-conforming people as well as cisgender lesbian and bisexual women, among others. Meaningful changes must address culturally appropriate service delivery; workforce recruitment and development; nimble and adequate financing; consistent data collection and reporting; and systems-level policy updates. To successfully meet the needs of SGM people in Hawai'i, multi-level transformation of the substance use prevention and treatment landscape, with a particular focus on resiliency-building, is needed.

REFERENCES

1. Evans-Polce RJ, Veliz PT, Boyd CJ, Hughes TL, McCabe SE. Associations between sexual orientation discrimination and substance use disorders: differences by age in US adults. *Soc Psychiatry Psychiatr Epidemiol*. 2020;55(1):101-110. doi:10.1007/s00127-019-01694-x

2. Hughto JMW, Quinn EK, Dunbar MS, Rose AJ, Shireman TI, Jasuja GK. Prevalence and co-occurrence of alcohol, nicotine, and other substance use disorder diagnoses among US transgender and cisgender adults. *JAMA Netw Open*. 2021;4(2):e2036512-e2036512. doi:10.1001/jamanetworkopen.2020.36512

3. Jamal A, Phillips E, Gentzke AS, et al. Current cigarette smoking among adults — United States, 2016. *Morb Mortal Wkly Rep*. 2018;67(2). doi:10.15585/mmwr.mm6702a1

4. Aleshire ME, Fallin-Bennett A, Bucher A, Hatcher J. LGBT friendly healthcare providers' tobacco treatment practices and recommendations. *Perspect Psychiatr Care*. 2019;55(4):546-553. doi:10.1111/ppc.12395

5. Santos GM, Tan J, Turner C, Raymond HF. Demographic, behavioral, and social characteristics associated with smoking and vaping among men who have sex with men in San Francisco. *Am J Men's Health*. 2019;13(2):1557988319847833. doi:10.1177/1557988319847833

6. Tamí-Maury I, Lin M-T, Lapham HL, et al. A pilot study to assess tobacco use among sexual minorities in Houston, Texas. *Am J Addict*. 2015;24(5):391-395. doi:10.1111/ajad.12244

7. Dai H. Tobacco product use among lesbian, gay, and bisexual adolescents. *Pediatrics*. 2017;139(4). doi:10.1542/peds.2016-3276

8. Day JK, Fish JN, Perez-Brumer A, Hatzenbuehler ML, Russell ST. Transgender youth substance use disparities: Results from a population-based sample. *J Adolesc Health*. 2017;61(6):729-735. doi:10.1016/j.jadohealth.2017.06.024

9. Caputi TL, Smith LR, Strathdee SA, Ayers JW. Substance use among lesbian, gay, bisexual, and questioning adolescents in the United States, 2015. *Am J Public Health*. 2018;108(8):1031-1034. doi:10.2105/AJPH.2018.304446

10. Santa Maria DM, Narendorf SC, Cross MB. Prevalence and correlates of substance use in homeless youth and young adults. *J Addict Nurs*. 2018;29(1):23-31. doi:10.1097/JAN.0000000000000206

11. Duncan DT, Zweig S, Hambrick HR, Palamar JJ. Sexual orientation disparities in prescription opioid misuse among U.S. adults. *Am J Prev Med*. 2019;56(1):17-26. doi:10.1016/j.amepre.2018.07.032

12. Fallin-Bennett A, Goodin A. Substance use and school characteristics in lesbian, gay, bisexual, and heterosexual high school students. *J Sch Health*. 2019;89(3):219-225. doi:10.1111/josh.12731

13. Dermody SS. Risk of polysubstance use among sexual minority and heterosexual youth. *Drug Alcohol Depend*. 2018;192:38-44. doi:10.1016/j.drugalcdep.2018.07.030

14. Schuler MS, Collins RL. Sexual minority substance use disparities: Bisexual women at elevated risk relative to other sexual minority groups. *Drug Alcohol Depend*. 2020;206:107755. doi:10.1016/j.drugalcdep.2019.107755

15. Bauer C, Kaye SL, Brotto LA. Understanding alcohol and tobacco consumption in asexual samples: A mixed-methods approach. *Arch Sex Behav*. 2020;49(2):733-755. doi:10.1007/s10508-019-01570-4

16. Delahanty J, Ganz O, Hoffman L, Guillory J, Crankshaw E, Farrelly M. Tobacco use among lesbian, gay, bisexual and transgender young adults varies by sexual and gender identity. *Drug Alcohol Depend*. 2019;201:161-170. doi:10.1016/j.drugalcdep.2019.04.013

17. Bryan AEB, Hyun-Jun K, Fredriksen-Goldsen KI. Factors associated with high-risk alcohol consumption among LGB older adults: The roles of gender, social support, perceived stress, discrimination, and stigma. *Gerontologist*. 2017;57:S95-S104. doi:10.1093/geront/gnw100

18. Parent MC, Arriaga AS, Gobble T, Wille L. Stress and substance use among sexual and gender minority individuals across the lifespan. *Neurobiol Stress*. 2019;10:100146-100146. doi:10.1016/j.ynstr.2018.100146

19. Blashill AJ, Calzo JP, Griffiths S, Murray SB. Anabolic steroid misuse among US adolescent boys: Disparities by sexual orientation and race/ethnicity. *Am J Public Health*. 2017;107(2):319-321. doi:10.2105/AJPH.2016.303566

20. Ching LK, Holmes JR, Pham T, et al. *Hawaiʻi Sexual and Gender Minority Health Report: A Focus on Transgender Youth*. Honolulu, HI: Hawaiʻi State Department of Health, Chronic Disease Prevention and Health Promotion Division. Published 2018. Accessed December 10, 2021. https://health.hawaii.gov/surveillance/files/2018/09/HawaiiSexualandGenderMinorityHealthReport2018.pdf

21. Holmes JR, Ching LK, Tomita KK, et al. *Hawaiʻi Sexual and Gender Minority Health Report 2017*. Honolulu, HI: Hawaiʻi State Department of Health, Chronic Disease Prevention and Health Promotion Division. Published 2017. Accessed December 10, 2021. https://health.hawaii.gov/surveillance/files/2017/05/HawaiiSexualandGenderMinorityHealthReport.pdf

22. Hawaiʻi Behavioral Health Dashboard: National Survey on Drug Use and Health Substance Use Dashboard. University of Hawaiʻi at Mānoa, Pacific Health Analytics Collaborative. Accessed December 10, 2021. https://www.hawaii.edu/aging/hbhd/index.html

23. Centers for Disease Control and Prevention. 1991-2019 High School Youth Risk Behavior Survey Data. Accessed June 28, 2021. http://nccd.cdc.gov/youthonline/

24. Onoye J, Miao, T., Goebert, D., Thompson, M., Helm, S., Akamu, C., Gomes, I., Terakubo, J., Salvador, M., Alejo, L., Kuniyoshi, E. *2019-2020 Hawaiʻi Student Alcohol, Tobacco, and Other Drug (ATOD) Survey Statewide Comprehensive Report*. Honolulu, HI: Sponsored by State of Hawaiʻi Department of Health, Alcohol and Drug Abuse Division ASO Log #19-238. Published 2021. Accessed September 1, 2022. https://health.hawaii.gov/wp-content/uploads/2022/01/2019-2020-Hawaii-ATOD-Survey-Statewide-Comprehensive-Report.pdf

25. Knight JR, Shrier LA, Bravender TD, Farrell M, Vander Bilt J, Shaffer HJ. A New Brief Screen for Adolescent Substance Abuse. *Archives of pediatrics & adolescent medicine*. 1999;153(6):591-596. doi:10.1001/archpedi.153.6.591

26. Dahlberg LL, Krug EG. *Violence: A Global Public Health Problem*. Geneva, Switzerland: World Health Organization. Published 2002. Accessed September 1, 2022. http://apps.who.int/iris/bitstream/handle/10665/42495/9241545615_eng.pdf;jsessionid=5F254E322ED23747D438CE2BAFA20F8A?sequence=1

27. Halkitis PN, Levy MD, Solomon TM. Temporal relations between methamphetamine use and HIV seroconversion in gay, bisexual, and other men who have sex with men. *J Health Psychol*. 2016;21(1):93-99. doi:10.1177/1359105314522675

28. Puckett JA, Newcomb ME, Garofalo R, Mustanski B. Examining the conditions under which internalized homophobia is associated with substance use and condomless sex in young MSM: The moderating role of impulsivity. *Ann Behav Med*. 2017;51(4):567-577. doi:10.1007/s12160-017-9878-0

29. Puckett JA, Newcomb ME, Ryan DT, Swann G, Garofalo R, Mustanski B. Internalized homophobia and perceived stigma: A validation study of stigma measures in a sample of young men who have sex with men. *Sex Res Social Policy*. 2017;14(1):1-16. doi:10.1007/s13178-016-0258-5

30. D'Avanzo PA, Halkitis PN, Yu K, Kapadia F. Demographic, mental health, behavioral, and psychosocial factors associated with cigarette smoking status among young men who have sex with men: The P18 cohort study. *LGBT Health.* 2016;3(5):379-386. doi:10.1089/lgbt.2015.0128

31. Dorn-Medeiros CM, Doyle C. Alcohol as coping: Internalized homophobia and heterosexism's role in alcohol use among lesbians. *J LGBT Issues Couns.* 2018;12(3):142-157. doi:10.1080/15538605.2018.1488230

32. Schuler MS, Rice CE, Evans-Polce RJ, Collins RL. Disparities in substance use behaviors and disorders among adult sexual minorities by age, gender, and sexual identity. *Drug Alcohol Depend.* 2018;189:139-146. doi:10.1016/j.drugalcdep.2018.05.008

33. Smith NG, Winderman K, King B, Obasi EM, Reitzel LR. The association of lesbian, gay, and bisexual identity facets with smoking dependence motives. *Nicotine Tob Res.* 2018;20(3):388-392. doi:10.1093/ntr/ntx061

34. Goodin A, Elswick A, Fallin-Bennett A. Mental health disparities and high-risk alcohol use among non-heterosexual high school students. *Perspect Psychiatr Care.* 2019;55(4):570-575. doi:10.1111/ppc.12394

35. Dworkin ER, Kaysen D, Bedard-Gilligan M, Rhew IC, Lee CM. Daily-level associations between PTSD and cannabis use among young sexual minority women. *Addict Behav.* 2017;74:118-121. doi:10.1016/j.addbeh.2017.06.007

36. Mustanski B, Swann G, Newcomb ME, Prachand N. Effects of parental monitoring and knowledge on substance use and HIV risk behaviors among young men who have sex with men: Results from three studies. *AIDS Behav.* 2017;21(7):2046-2058. doi:10.1007/s10461-017-1761-2

37. Hirschtritt ME, Dauria EF, Marshall BDL, Tolou-Shams M. Sexual minority, justice-involved youth: A hidden population in need of integrated mental health, substance use, and sexual health services. *J Adolesc Health.* 2018;63(4):421-428. doi:10.1016/j.jadohealth.2018.05.020

38. Austin A, Herrick H, Proescholdbell S. Adverse childhood experiences related to poor adult health among lesbian, gay, and bisexual individuals. *Am J Public Health.* 2016;106(2):314-320. doi:10.2105/AJPH.2015.302904

39. McCabe SE, Hughes TL, West BT, et al. Associations among childhood household dysfunction, sexual orientation, and DSM-5 alcohol, tobacco and other substance use disorders in adulthood: Evidence from a national U.S. survey. *J Addict Med.* 2020;14(5):e211-e219. doi:10.1097/ADM.0000000000000641

40. Kidd JD, Dolezal C, Bockting WO. The relationship between tobacco use and legal document gender-marker change, hormone use, and gender-affirming surgery in a United States sample of trans-feminine and trans-masculine individuals: Implications for cardiovascular health. *LGBT Health.* 2018;5(7):401-411. doi:10.1089/lgbt.2018.0103

41. Kidd JD, Jackman KB, Wolff M, Veldhuis CB, Hughes TL. Risk and protective factors for substance use among sexual and gender minority youth: A scoping review. *Curr Addict Rep.* 2018;5(2):158-173. doi:10.1007/s40429-018-0196-9

42. Marshal MP, Friedman MS, Stall R, et al. Sexual orientation and adolescent substance use: a meta-analysis and methodological review. *Addiction.* 2008;103(4):546-556. doi:10.1111/j.1360-0443.2008.02149.x

43. Mereish EH. Addressing research gaps in sexual and gender minority adolescents' substance use and misuse. *J Adolesc Health.* 2018;62(6):645-646. doi:10.1016/j.jadohealth.2018.03.011

44. Mereish EH, Goldbach JT, Burgess C, DiBello AM. Sexual orientation, minority stress, social norms, and substance use among racially diverse adolescents. *Drug Alcohol Depend.* 2017;178:49-56. doi:10.1016/j.drugalcdep.2017.04.013

45.   De Pedro KT, Esqueda MC, Gilreath TD. School protective factors and substance use among lesbian, gay, and bisexual adolescents in California public schools. *LGBT Health*. 2017;4(3):210-216. doi:10.1089/lgbt.2016.0132

46.   De Pedro KT, Gilreath TD, Jackson C, Esqueda MC. Substance use among transgender students in California public middle and high schools. *J Sch Health*. 2017;87(5):303-309. doi:10.1111/josh.12499

47.   Eisenberg ME, Erickson DJ, Gower AL, et al. Supportive community resources are associated with lower risk of substance use among lesbian, gay, bisexual, and questioning adolescents in Minnesota. *J Youth Adolesc*. 2020;49(4):836-848. doi:10.1007/s10964-019-01100-4

48.   Boyd CJ, Veliz PT, Stephenson R, Hughes TL, McCabe SE. Severity of alcohol, tobacco, and drug use disorders among sexual minority individuals and their "not sure" counterparts. *LGBT Health*. 2019;6(1):15-22. doi:10.1089/lgbt.2018.0122

49.   Veliz P, Boyd CJ, McCabe SE. Substance use among adolescent sexual minority athletes: A secondary analysis of the youth risk behavior survey. *Addict Behav Rep*. 2016;4:18-23. doi:10.1016/j.abrep.2016.06.001

50.   Coulter RWS, Birkett M, Corliss HL, Hatzenbuehler ML, Mustanski B, Stall RD. Associations between LGBTQ-affirmative school climate and adolescent drinking behaviors. *Drug Alcohol Depend*. 2016;161:340-347. doi:10.1016/j.drugalcdep.2016.02.022

51.   Coulter RWS, Herrick AL, Friedman MR, Stall RD. Sexual-orientation differences in positive youth development: The mediational role of bullying victimization. *Am J Public Health*. 2016;106(4):691-697. doi:10.2105/AJPH.2015.303005

52.   Cochran BN, Peavy KM, Cauce AM. Substance abuse treatment providers' explicit and implicit attitudes regarding sexual minorities. *J Homosex*. 2007;53(3):181-207. doi:10.1300/J082v53n03_10

53.   Cruz TB, Rose SW, Lienemann BA, et al. Pro-tobacco marketing and anti-tobacco campaigns aimed at vulnerable populations: A review of the literature. *Tob Induc Dis*. 2019;17:68. doi:10.18332/tid/111397

54.   Hinds JT, Loukas A, Perry CL. Sexual and gender minority college students and tobacco use in Texas. *Nicotine Tob Res*. 2018;20(3):383-387. doi:10.1093/ntr/ntx095

55.   Talley AE, Gilbert PA, Mitchell J, Goldbach J, Marshall BD, Kaysen D. Addressing gaps on risk and resilience factors for alcohol use outcomes in sexual and gender minority populations. *Drug Alcohol Rev*. 2016;35(4):484-493. doi:10.1111/dar.12387

56.   Talley AE, Grimaldo G, Wilsnack SC, Hughes TL, Kristjanson AF. Childhood victimization, internalizing symptoms, and substance use among women who identify as mostly heterosexual. *LGBT Health*. 2016;3(4):266-274. doi:10.1089/lgbt.2015.0073

57.   Felner JK, Wisdom JP, Williams T, et al. Stress, coping, and context: Examining substance use among LGBTQ young adults with probable substance use disorders. *Psychiatr Serv*. 2020;71(2):112-120. doi:10.1176/appi.ps.201900029

58.   Testa RJ, Habarth J, Peta J, Balsam K, Bockting W. Development of the Gender Minority Stress and Resilience measure. *Psychol Sex Orientat Gend Divers*. 2015;2(1):65-77. doi:10.1037/sgd0000081

59.   Meyer IH. Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychol Bull*. 2003;129(5):674-697. doi:10.1037/0033-2909.129.5.674

60.   Meyer IH. Minority stress and mental health in gay men. *J Health Soc Behav*. 1995;36(1):38-56. doi:10.2307/2137286

61.   Han C, Ayala G, Paul JP, Boylan R, Gregorich SE, Choi K-H. Stress and coping with racism and their role in sexual risk for HIV among African American, Asian/Pacific Islander, and Latino

men who have sex with men. *Arch Sex Behav.* 2014;44(2):411-420. doi:10.1007/s10508-014-0331-1

62. Calabrese SK, Earnshaw VA, Magnus M, et al. Sexual stereotypes ascribed to black men who have sex with men: An intersectional analysis. *Arch Sex Behav.* 2017;47(1):143-156. doi:10.1007/s10508-016-0911-3

63. Hoffman L, Delahanty J, Johnson SE, Zhao X. Sexual and gender minority cigarette smoking disparities: An analysis of 2016 Behavioral Risk Factor Surveillance System data. *Prev Med.* 2018;113:109-115. doi:10.1016/j.ypmed.2018.05.014

64. Slater ME, Godette D, Huang B, Ruan WJ, Kerridge BT. Sexual orientation-based discrimination, excessive alcohol use, and substance use disorders among sexual minority adults. *LGBT Health.* 2017;4(5):337-344. doi:10.1089/lgbt.2016.0117

65. Arayasirikul S, Pomart WA, Raymond HF, Wilson EC. Unevenness in health at the intersection of gender and sexuality: Sexual minority disparities in alcohol and drug use among transwomen in the San Francisco Bay Area. *J Homosex.* 2018;65(1):66-79. doi:10.1080/00918369.2017.1310552

66. Testa RJ, Michaels MS, Bliss W, Rogers ML, Balsam KF, Joiner T. Suicidal ideation in transgender people: Gender minority stress and interpersonal theory factors. *J Abnorm Psychol.* 2017;126(1):125-136. doi:10.1037/abn0000234

67. Lindley L, Galupo MP. Gender dysphoria and minority stress: support for inclusion of gender dysphoria as a proximal stressor. *Psychol Sex Orientat Gend Divers.* 2020;7(3):265-275. doi:10.1037/sgd0000439

68. Drazdowski TK, Perrin PB, Trujillo M, Sutter M, Benotsch EG, Snipes DJ. Structural equation modeling of the effects of racism, LGBTQ discrimination, and internalized oppression on illicit drug use in LGBTQ people of color. *Drug Alcohol Depend.* 2016;159:255-262. doi:10.1016/j.drugalcdep.2015.12.029

69. Escobar-Viera CG, Whitfield DL, Wessel CB, et al. For better or for worse? A systematic review of the evidence on social media use and depression among lesbian, gay, and bisexual minorities. *JMIR Ment Health.* 2018;5(3):e10496. doi:10.2196/10496

70. VandenBos GR. *APA dictionary of psychology.* Second edition. ed. Washington, DC: American Psychological Association; 2015.

71. Parent MC, Arriaga AS, Gobble T, Wille L. Stress and substance use among sexual and gender minority individuals across the lifespan. *Neurobiol Stress.* 2018;10:100146. doi:10.1016/j.ynstr.2018.100146

72. Reisner SL, Greytak EA, Parsons JT, Ybarra ML. Gender minority social stress in adolescence: Disparities in adolescent bullying and substance use by gender identity. *J Sex Res.* 2015;52(3):243-256. doi:10.1080/00224499.2014.886321

73. Antin TMJ, Lipperman-Kreda S, Hunt G. Tobacco denormalization as a public health strategy: Implications for sexual and gender minorities. *Am J Public Health.* 2015;105(12):2426-2429. doi:10.2105/AJPH.2015.302806

74. Furness BW, Goldhammer H, Montalvo W, et al. Transforming primary care for lesbian, gay, bisexual, and transgender people: A collaborative quality improvement initiative. *Ann Fam Med.* 2020;18(4):292-302. doi:10.1370/afm.2542

75. Yedinak JL, Goedel WC, Paull K, et al. Defining a recovery-oriented cascade of care for opioid use disorder: A community-driven, statewide cross-sectional assessment. *PLoS Med.* 2019;16(11):e1002963-e1002963. doi:10.1371/journal.pmed.1002963

76. Yu J, Clark LP, Chandra L, Dias A, Lai T-FM. Reducing cultural barriers to substance abuse treatment among Asian Americans: A case study in New York City. *J Subst Abuse Treat.* 2009;37(4):398-406. doi:10.1016/j.jsat.2009.05.006

77. Reisner SL, Bradford J, Hopwood R, et al. Comprehensive transgender healthcare: The gender affirming clinical and public health model of Fenway Health. *J Urban Health*. 2015;92(3):584-592. doi:10.1007/s11524-015-9947-2

78. Austin A, Craig SL. Empirically supported interventions for sexual and gender minority youth. *J Evid-Inf Soc Work*. 2015;12(6):567-578. doi:10.1080/15433714.2014.884958

79. Matthews AK, Breen E, Veluz-Wilkins A, et al. Adaptation of a proactive smoking cessation intervention to increase tobacco quitline use by LGBT smokers. *Prog Community Health Partnersh*. 2019;13(5):71-84. doi:10.1353/cpr.2019.0040

80. Bachman A. The Affect of Specialized Substance Abuse Treatment on the LGBTQ+ Population. In: Gesino JP, Cretella J, Gesino J, eds: ProQuest Dissertations Publishing; 2019.

81. Helm S, Onoye J, Wilczek K, Zeller T, Monick B. Services to conduct a needs assessment for substance use prevention and treatment services among special youth populations using qualitative methods. Interim report – Protocol 1. Published 2020.

82. Mokuau N. Culturally based interventions for substance use and child abuse among Native Hawaiians. *Public Health Rep*. 2002;117(Suppl 1):S82-S87.

83. Okamoto SK, Kulis S, Helm S, Lauricella M, Valdez JK. An evaluation of the Ho'ouna Pono Curriculum: A pilot study of culturally grounded substance abuse prevention for rural Hawaiian youth. *J Health Care Poor Underserved*. 2016;27(2):815-833. doi:10.1353/hpu.2016.0061

84. Center for Substance Abuse Treatment. *Substance Use Disorder Treatment for People with Physical and Cognitive Disabilities*. Rockville, MD: Substance Abuse and Mental Health Services Administration. Published 1998. Accessed September 1, 2022. https://store.samhsa.gov/sites/default/files/d7/priv/sma12-4078.pdf

85. Ainspan ND, Bryan CJ, Penk WE. Handbook of Psychosocial Interventions for Veterans and Service Members: A Guide for the Non-Military Mental Health Clinician. Oxford University Press USA; 2016.

86. United States Bureau of Labor Statistics. May 2020 State Occupational Employment and Wage Estimates. Published 2022. Accessed March 2, 2022. https://www.bls.gov/oes/current/oes_hi.htm

87. Hawaiʻi State Department of Commerce and Consumer Affairs. *Geographic Report (Current Licenses) as of September 24, 2021*. Professional and Vocational Licensing Division. Published 2021. Accessed October 14, 2022. https://cca.hawaii.gov/pvl/files/2021/10/WebGEO-RptHoala-092421.pdf

88. Keuroghlian AS, Reisner SL, White JM, Weiss RD. Substance use and treatment of substance use disorders in a community sample of transgender adults. *Drug Alcohol Depend*. 2015;152:139-146. doi:10.1016/j.drugalcdep.2015.04.008

89. Lt. Governor of the State of Hawaiʻi Josh Green. Josh Green | Administrative Rules. Published 2022. Accessed October 14, 2022. https://ltgov.hawaii.gov/the-office/administrative-rules/

90. Substance Abuse and Mental Health Services Administration. Practice Brief: Providing Services and Supports for Youth who are Lesbian, Gay, Bisexual, Transgender, Questioning, Intersex or Two-Spirit. Substance Abuse and Mental Health Services Administration. Samhsa.gov. Published 2008. Accessed October 14, 2022. https://www.samhsa.gov/sites/default/files/lgbtqi2-s-practice-brief.pdf

91. Ezard N, Hodge S, Dolan K. The development and evaluation of stimulant treatment programmes. *Curr Opin Psychiatry*. 2015;28(4):280-285. doi:10.1097/YCO.0000000000000173

92. Lea T, Kolstee J, Lambert S, Ness R, Hannan S, Holt M. Methamphetamine treatment outcomes among gay men attending a LGBTI-specific treatment service in Sydney, Australia. *PLoS One*. 2017;12(2):e0172560-e0172560. doi:10.1371/journal.pone.0172560

93. Pachankis JE, McConocha EM, Clark KA, et al. A transdiagnostic minority stress intervention for gender diverse sexual minority women's depression, anxiety, and unhealthy alcohol use: A randomized controlled trial. *J Consult Clin Psychol.* 2020;88(7):613-630. doi:10.1037/ccp0000508

94. Feinstein BA, Dyar C, Pachankis JE. A multilevel approach for reducing mental health and substance use disparities affecting bisexual individuals. *Cogn Behav Pract.* 2019;26(2):243-253. doi:10.1016/j.cbpra.2017.10.003

95. Pachankis JE, Hatzenbuehler ML, Rendina HJ, Safren SA, Parsons JT. LGB-affirmative cognitive-behavioral therapy for young adult gay and bisexual men: A randomized controlled trial of a transdiagnostic minority stress approach. *J Consult Clin Psychol.* 2015;83(5):875-889. doi:10.1037/ccp0000037

96. Parsons JT, John SA, Millar BM, Starks TJ. Testing the efficacy of combined motivational interviewing and cognitive behavioral skills training to reduce methamphetamine use and improve HIV medication adherence among HIV-positive gay and bisexual men. *AIDS Behav.* 2018;22(8):2674-2686. doi:10.1007/s10461-018-2086-5

97. Mericle AA, Carrico AW, Hemberg J, Stall R, Polcin DL. Improving recovery outcomes among MSM: The potential role of recovery housing. *J Subst Use.* 2019;24(2):140-146. doi:10.1080/14659891.2018.1523966

98. Smith NG, Hart TA, Kidwai A, Vernon JRG, Blais M, Adam B. Results of a pilot study to ameliorate psychological and behavioral outcomes of minority stress among young gay and bisexual men. *Behav Ther.* 2017;48(5):664-677. doi:10.1016/j.beth.2017.03.005

99. Zajac K, Rash CJ, Ginley MK, Heck NC. Sexual orientation and substance use treatment outcomes across five clinical trials of contingency management. *Psychol Addict Behav.* 2020;34(1):128-135. doi:10.1037/adb0000494

100. Allara E, Ferri M, Bo A, Gasparrini A, Faggiano F. Are mass-media campaigns effective in preventing drug use? A Cochrane systematic review and meta-analysis. *BMJ Open.* 2015;5(9):e007449-e007449. doi:10.1136/bmjopen-2014-007449

101. Carrico AW, Gómez W, Jain J, et al. Randomized controlled trial of a positive affect intervention for methamphetamine users. *Drug Alcohol Depend.* 2018;192:8-15. doi:10.1016/j.drugalcdep.2018.07.029

102. Mimiaga MJ, Pantalone DW, Biello KB, et al. A randomized controlled efficacy trial of behavioral activation for concurrent stimulant use and sexual risk for HIV acquisition among MSM: project IMPACT study protocol. *BMC Public Health.* 2018;18(1):914. doi:10.1186/s12889-018-5856-0

103. Charlebois ED, Plenty AH, Lin J, Ayala A, Carrico AW, Hecht J. "Impact of a structural intervention to address alcohol use among gay bar patrons in San Francisco: The PACE study": Correction. *AIDS Behav.* 2017;21(Suppl 2):S203-S203. doi:10.1007/s10461-017-1934-z

104. Mericle AA, Hemberg J, Stall R, Carrico AW. Pathways to recovery: Recovery housing models for men who have sex with men (MSM). *Addict Res Theory.* 2019;27(5):373-382. doi:10.1080/16066359.2018.1538409

105. Okamoto SK, Helm S, Pel S, McClain LL, Hill AP, Hayashida JKP. Developing empirically based, culturally grounded drug prevention interventions for indigenous youth populations. *J Behav Health Serv Res.* 2014;41(1):8-19. doi:10.1007/s11414-012-9304-0

CHAPTER 10: IMPLICATIONS FOR A SYSTEM OF CARE IN HAWAI'I: PRIMARY CARE INTEGRATION OF SUBSTANCE USE DISORDER TREATMENT

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ABSTRACT

Primary care physicians (PCPs) in Hawai'i face many challenges in treating patients with substance use disorders (SUD) who tend to have higher medical complexity and thus require more resources. PCPs play a vital role in identifying early misuse, integrating and coordinating care for patients with SUD including office-based interventions like medication-assisted treatment, and connecting patients to community treatment programs. In addition to enormous burdens to care for increasingly complex patient panels, other challenges include lack of education on addiction medicine, insufficient resources and SUD treatment programs in the office and community, low reimbursement for the complexity of care provided, and an overall physician shortage which drives higher patient volume and less time for any given physician. This chapter suggests responses to address these challenges such as providing more training and continuing education in SUD for PCPs and trainees, enhancing team-based care to better support PCPs, and funding more SUD treatment programs. More funding should widen accessibility to treatment and reduce the overall burden on the healthcare system by preventing or treating the disease early, which is a core principle of primary care. Additionally, incentives to practice in Hawai'i in primary care, and especially to treat patients with SUD, need to be improved. Such steps must be taken to address the overall physician shortage that limits patients' access to SUD treatment. A collaborative care model between PCPs, care managers, and addiction specialists is an example of an integrated care system that may address many of these challenges in the short term. To truly improve care for all in Hawai'i, however, system-wide interventions are essential to increase the incentive for PCPs to remain and practice in Hawai'i to take care of its unique population, including those dealing with SUD.

BACKGROUND & INTRODUCTION

Substance use is a pervasive public health issue in the United States and in Hawai'i, where substance use disorders (SUD), especially methamphetamine use disorder, have been prevalent for decades.[1] According to the National Survey on Drug Use and Health 2018-2019, 68.2% of individuals ages 12 and older in Hawai'i used illicit drugs, tobacco products, or alcohol in the past year, with 5.2% (estimated 60 000 people) having alcohol abuse/dependence, and 2.4% (estimated 28 000 people) having illicit drug abuse/dependence, in the past year.[2] Due in part to its geographic isolation, Hawai'i faces many challenges including shortages in primary care physicians (PCPs) and addiction treatment resources which make it difficult to provide adequate care for patients with SUD. Since substance use is common and can lead to a multitude of health issues, PCPs, as the first entry point to health care for most people, play a vital role to assist patients with SUD. By identifying and managing problematic substance use early, PCPs can make a significant impact on health care outcomes. As part of the larger Hawai'i Department of Health Alcohol and Drug Abuse Division (ADAD) State Plan Systems of Care Implications project, this chapter will focus on the challenges PCPs face and recommendations to alleviate the situation. For more background and context around the overall State Plan project, readers are referred to the introductory chapter. Although challenges discussed in this chapter are primarily physician focused, many of these also apply to other health care providers who practice in the primary care setting, such as advanced practice providers. Primary care-based interventions such as early screening and medication assisted treatment (MAT) will be emphasized since these are available tools for PCPs. A collaborative care model (CoCM) between PCPs, care managers, and addiction specialists, is also described as an example of an integrated care system that would address many of the current system's challenges.

CHALLENGES IN THE CURRENT SYSTEM OF CARE IN HAWAI'I

In order to better understand the current system of care (SoC) and needs related to substance use, a literature review was conducted, and input and feedback was obtained from stakeholder groups which included community PCPs, representatives from the administrative aspects of the system (i.e., pharmacy, billing and coding), behavioral health providers, resident training programs, and ADAD.

These sources were incorporated into determining the scope of the issues and describing the needs in the SoC.

Overall Primary Care Physician Shortages

According to the 2020 Hawai'i Physician Workforce Report, more than 400 additional PCPs are needed across Hawai'i to meet the demand,[3] resulting in enormous burdens on existing PCPs to care for large and increasingly complex patient panels. The ideal PCP panel size is difficult to estimate, but according to Altschuler et al, in a non-delegated model (i.e., physician completes majority of tasks instead of delegating work to non-physician staff) a manageable volume is 983.[4,5] HMSA (Hawai'i Medical Service Association), the largest medical insurance company with more than half of Hawai'i population as members,[6] currently sets an ideal number of patients for each PCP as 1500.[5] In addition to current shortages, Hawai'i's pool of physicians is aging with 46% being 55 years or older, and many are expected to retire in the next 10-15 years. Hawai'i has its own medical school and several primary care residency programs and on average, 35% of Hawai'i residency/fellowship graduates practice as PCPs in Hawai'i (**Table 1**).[7] While physician shortages persist, PCPs are increasingly tasked to identify early substance misuse, to treat patients with substance use disorders (SUDs), and to integrate and coordinate care for complex patients with SUD.

Table 1. Number of Graduates from Hawai'i Residency Program Practicing as PCPs in Hawai'i (right after graduation).

		Years	Number of Graduates	Practicing PCPs in Hawai'i	Retention % of Graduates
Internal Medicine Residency Program	Kaiser*	2018-2020	12	4	4/12 = 33.3%
	University of Hawai'i at Mānoa (UH)	2011-2020	160	19	19/160 = 11.8%
	Tripler Army Medical Center (TAMC) (civilian slots)	Data not obtained	N/A	N/A	N/A
Family Medicine Residency Programs	Hilo*	2017-2020	14	11 (6 in Big Island)	11/14 = 78.6%
	UH	2011-2020	74	48 (8 in Big Island, 5 in Kaua'i)	48/74 = 64.8%
Obstetrics and Gynecology (OB/GYN) Residency Program	UH	2011-2020	59	24	24/59 =40.7%
Pediatric Residency Program	UH	2011-2020	69	26	26/69 = 37.7%
Geriatric Fellowship Program	UH	2011-2020	62	26	26/62 = 41.9%

				2 (practicing as addiction specialist)	100%
Addiction Medicine Fellowship Program	UH*	2020-2021	2		
<u>Total</u> (Addiction Medicine Fellowship NOT included (not PCP))		2011-2021	450	158	158/450= 35.1%

Data provided by respective programs. These data are at the time of graduation

*10-year data not available for these newly established programs

Disclaimer: Internal medicine graduates have the lowest rate of practicing as PCPs in Hawai'i after graduation. Most of the graduates from internal medicine go on to fellowship for extra training to become specialists. Though some of these specialists may also practice as PCPs, they are not included as PCPs in this data. Some internal medicine and family medicine graduates become hospitalists taking care of acutely ill patients who are admitted in the hospital. They are also not counted as PCPs in this data.

Challenges in Use of SBIRT and Taking Care of SUD Patients in Primary Care

The United States Preventive Services Task Force recommends universal screening for substance use for anyone age 18 and over and the American Academy of Pediatrics recommends a universal screening for adolescents.[8,9] Primary care offices are the ideal setting to provide this screening service for early detection and intervention. Screening alone, however, is insufficient.[10] Several different models exist for acting on positive screening results. Screening, brief intervention, and referral to treatment (SBIRT) has been extensively studied, proven to improve patient outcomes, and has the flexibility and feasibility for implementation in the primary care setting.[11-13] Motivational interviewing (MI) is another evidence-based tool that can help to elicit change in a patient's risky behavior and lead to healthier lifestyles. [14] Practicing SBIRT and MI enables PCPs to detect and intervene on patients with mild to moderate symptoms, which prevent conditions from worsening or developing in the first place.[11-13]

There are many reasons cited for why SBIRT or other interventions are not routinely conducted in the primary care setting including workload, lack of training, and low reimbursement for the time spent.[14,15] According to a survey of PCPs in New Mexico, only 25% of primary care offices from a predominantly minority serving southwest regional practice-based research network conducted universal screening for alcohol and illicit drug use.[12] Yoast et al[16] reported that "reimbursement has been a commonly identified barrier to physicians' ability to address SUD concerns with their patients."

The Hawai'i SBIRT Project progress report identified several common challenges among PCPs in Hawai'i related to lack of infrastructure and support. One challenge included difficulty securing buy-in from small private offices to train staff to provide SBIRT, with time needed for training and capacity to have in-house behavioral services cited as primary barriers. For neighbor island PCPs, the fewer number of outpatient and inpatient treatment services to refer to was a significant limitation. Another systems level challenge was the lack of standardization among electronic health record programs, since modifying electronic health records to enable implementation of SBIRT requires significant financial and IT resources.[11]

To unify care for its more than 720 000 members state-wide,[6] HMSA, launched its "Māhie 2020"[6] initiative in 2015 and, as part of this initiative, launched "Payment Transformation" which pays a fixed amount upfront on a per-member per-month (PMPM) basis. Hawai'i providers participating in HMSA's Payment Transformation receive average $24 PMPM (range $8-$70 PMPM)[6] with higher rates for patients who have complex medical conditions, or who are at higher risk based on disease burden and certain social determinants of health. However, documenting the codes for medical complexity correctly is a highly onerous task for physicians, and the exact increase in PMPM based on the codes

is often not transparent.[17] These direct payments are insufficient to keep smaller, independent, and younger providers' practices open. This high administrative burden combined with taking on more patients to meet growing overhead costs with insufficient compensation has contributed to high rates of burnout among PCPs and is associated with an overall decrease in quality of care.[6] More than 80% of Hawai'i providers surveyed felt that Payment Transformation has worsened the PCP shortage in Hawai'i and said they would not recommend that someone entering the field of medicine come to Hawai'i to practice medicine as a PCP.[6] Incorporating screening and treatment of SUD in addition to routine preventive care and other health needs into a 15-minute office visit is a constant struggle for PCPs.

Continuing Care for SUD

Among those who had illicit drug/alcohol dependence or abuse in the past year in Hawai'i, 30.1% had Medicaid/QUEST plans.[2] Follow-up rates for these patients are lower for a variety of reasons, including factors related to social determinants of health such as transportation barriers and decreased access from clinicians who accept Medicaid. Patients with SUD need frequent follow-ups, especially those who are on MAT, with studies showing increased primary care visits coupled with decreased overall health care costs due to less acute care utilization.[18] An external quality review of QUEST Integration Health Plans showed that follow-up care after emergency department (ED) visits for alcohol or drug abuse/dependency within 7 days for their patients was poor, with scores between 2-3 stars (highest, 5 stars) compared to national standards.[19] Per the National Committee for Quality Assurance, the majority of QUEST Integration Health Plans in Hawai'i are rated 1-2 stars by their members under items "Getting Needed Care" and "Getting Care Quickly".[20]

Gaps in Physician Education and Support to Manage Patients with SUD

Training for physicians to motivate behavioral change and address addictions is historically lacking. Medical schools often do not provide adequate education in SBIRT, MI, and substance use education. According to a report from the Surgeon General, only 8% of medical schools had a separate required course on addiction medicine and 36% had an elective course.[21] More recently, medical schools have started to implement curricula for appropriate opioid management and treatment for opioid use disorder, but lack of faculty expertise continues to be a major obstacle.[22] The average required hours for postgraduate substance use training during a 3-year residency for family medicine, internal medicine, and pediatrics was only 12 hours, 5 hours, and 4 hours respectively.[23] This limitation in training is reflected locally in the number of clinicians licensed to prescribe buprenorphine: there are currently 167 health care providers (primarily physicians, but also nurse, and physician associate practitioners who consented to release their practice information) listed on the Substance Abuse and Mental Health Services Administration Buprenorphine Practitioner Locator for the State of Hawai'i, compared to 3290 physicians actively practicing in the state.[3,24]

Additionally, stigma and discrimination by health care professionals toward patients with SUD is well described in the literature and can result in suboptimal health care. For example, there is an ongoing negative attitude toward evidence-based treatments such as prescribing MAT for SUD among PCPs,[25] especially among those who lack confidence to provide treatment.[26] Moreover, there are no Food and Drug Administration approved MAT options for methamphetamines (one of the most commonly abused substances in Hawai'i) and successful treatment requires a significant investment of time and behavioral health resources not readily available for most PCPs.[27]

INTERVENTIONS

Strengthening SBIRT Implementation

Screening for SUD is the vital first step to initiating treatment. Locally, ADAD has conducted training for SBIRT implementation among primary care offices throughout the state with promising results. A progress report on the Hawai'i SBIRT Project showed that providers trained in SBIRT gained skills and increased their capacity for SBIRT use in the community. This report also found that having organizational champions to support leadership, promote use of SBIRT, and obtain resources were key factors in enhancing sustainability of SBIRT.[11]

Education alone, however, may not be sufficient to implement SBIRT and other screening tools in the PCP office. Palmer et al,[28] discussed various barriers for PCPs such as time constraints to perform SBIRT.

Referral to treatment programs was frequently perceived as a challenge by PCPs, in part due to a local shortage of such programs especially outside of Oʻahu.[29] To alleviate time constraints, an increased reimbursement rate may improve screening rates by increasing the incentive to screen. Adequate financial support for physicians to have dedicated staff and time would support workflow enhancements to implement SBIRT and improve the consistency of its procedures.[28]

Use of Telehealth

Telehealth or telephone visits are useful methods to decrease stigma and increase access to care for all patients, especially those in rural/underserved areas.[30] Patients with SUD often report feeling discrimination in PCP offices,[31] which can discourage them from seeking medical help; telemedicine can help to reduce potentially stigmatizing interactions that would occur in a physical waiting room.[32] Studies show that telemedicine is an effective method to manage SUD patients by improving follow-up rates and treatment completion leading to overall improved outcomes.[33-35] Since the COVID-19 pandemic, reimbursement for telemedicine has improved which the authors strongly advocate should continue indefinitely.[36] PCPs can implement brief interventions and refer patients to behavioral health specialists for ongoing therapy.[37]

MAT

As stated above, SUD treatment program shortage is a serious problem in Hawaiʻi.[29] MAT is currently available for alcohol and opioid use disorder, and MAT for opioid use disorder in particular is shown to decrease substance use, overdose death, criminal activity, and infectious disease transmission.[38]. To increase accessibility for proven SUD treatment such as MAT, the Drug Enforcement Administration (DEA) recently waived the requirement of a separate registration for mobile components of registrants approved to dispense narcotic drugs in schedules II-V (includes methadone) at remote location(s) for the purpose of maintenance or detoxification treatment. These revisions to the regulations are intended to make MAT treatments more widely available,[39] thereby providing additional referral sites for PCPs.[42] Although, receiving MAT treatment in a PCP office may be most ideal, accessible treatment sites for MAT can provide additional referral sites for PCPs who may feel uncomfortable dealing with MAT or are too busy to provide MAT themselves.

Collaborative Care Model

A collaborative care model (CoCM) integrating PCPs, recovery coaches and addiction specialists can help address the issues of education/training, physician shortages and limited MAT/SUD treatment program availability.[40] A 2019 study by Wakeman et al[40] showed that an intervention linking PCPs and patients with recovery coaches and addiction specialists led to significantly more primary care visits during the 9 month follow-up period, along with fewer ED visits and fewer total inpatient bed days. For the intervention group in the study, interdisciplinary teams were organized into groups including PCPs, nurses, administrative staff and recovery coaches. This team met twice a month to discuss care plans of complex SUD patients where an addiction specialist provided input about the patients as well as support and education for the team. Recovery coaches played a major role in supporting patients and facilitating referrals to treatment. The control group did not have recovery coaches or integrated addiction treatment within the practice. The study suggested that the collaborative care for 1000 SUD patients would result in 98 fewer hospital days, 90 fewer ED visits, and an additional 627 primary care visits in a year. The study also showed an increase in MAT when an addiction specialist provided education and support.[40]

The Substance Use Motivation and Medication Integrated Treatment study, a randomized trial conducted by Watkins et al.,[41] clearly showed that collaborative care (CC) for opioid and alcohol use disorder increased treatment use and self-reported abstinence compared to traditional primary care. In the CC group, all treatment progress was tracked and reviewed during the team meetings. The patients in CC groups received a prompt by coordinators reaching out to them when appointments were missed. Participants in traditional care were only given a phone number for making appointments and a list of community/clinic treatment referrals. CC integrated into primary care for substance use treatment resulted in improved patient outcomes.[41]

Hawaiʻi has already implemented similar integration systems between PCPs and mental health providers. Queen's Clinically Integrated Physician Network (QCIPN) CoCM is one such system. Being part of QCIPN allows PCPs to participate in team-based mental health care. The team has 3 full-time

care managers (CMs) and 2 social work assistants. When PCPs refer patients for psychiatric consultation, a CM initially interviews the patient, typically via Webex or phone. The CM then presents the case to the psychiatrist at the weekly meeting. Based on the CM report, the psychiatrist gives their diagnostic impression and treatment recommendations. Communication to PCPs are made via electronic medical record and phone calls are made directly to the PCP as needed. The CM regularly follows up with the patient by phone, which includes providing counseling to keep the patient engaged in treatment and tracking progress using anxiety and depression scales as applicable.

The team-based approach supports PCPs to work more efficiently while also focusing on higher complexity patients, enables CMs to address the social determinants of health that are crucial to recovery, and empowers all team members to work at the highest level of their licensure. Extending this care model to patients with SUD through the involvement of addiction specialists would address many of the challenges listed previously.

A panel for 1 full-time CM is estimated to be up to 50 SUD patients at any given time. Estimating that these patients require an average of 6 months follow-up, 1 full-time CM is capable of serving 100 patients per year.[42] Preliminary data by QCIPN shows encouraging results including a decrease in ED visits, hospital admissions and readmissions among those who are under the care of CoCM, resulting in significant cost savings for the entire health care system.[43]

RECOMMENDATIONS

The following recommendations are proposed as part of a larger group working on SoC Integration for Substance Use in Hawai'i. These recommendations were based on the synthesis of the existing literature, interventions, feedback from members of the Hawai'i Academy of Family Physicians and from the Hawai'i Addictions Conference. In particular, discussions with the QCIPN (behavioral health provider network) were important in arriving at recommendations involving the CoCM. These recommendations were also reviewed and vetted by key stakeholder groups which provided information around the existing challenges.

Improve Clinician Education to Optimally Manage Patients with SUD

Education is essential to treat patients with SUD because it leads to less stigma and more confidence in substance abuse treatments.[44,45] PCPs are more likely to offer addiction treatment after receiving education and support from initiatives that promote increasing access to SUD treatment.[46] Education and additional resources for PCPs to take care of patients with SUD may include: establishing a website where busy PCPs can obtain information to prescribe MAT at the point of care, and offering short webinars with useful tools to treat SUD. Offering continuing medical education credits may further incentivize providers to utilize these educational resources. Collaborating with the current free weekly Hawai'i State Rural Health Care Association Project ECHO (Extension for Community Healthcare Outcomes) may be ideal. Training sessions can also be offered as live in-person workshops at the annual Hawai'i Addictions Conference. Hawai'i primary care residency programs should incorporate mandatory trainings on substance use, MAT, and DEA X-waiver training for buprenorphine, so that all new physicians are optimally prepared to manage SUD at the start of their careers. Medical schools should incorporate more substance use education and training into the standard curriculum for students to get earlier exposure. Further methods to support PCPs could include a non-emergent email/phone line to access advice from an addiction team such as the Hawai'i Society of Addiction Medicine. One of the major obstacles to provide this education/support, however, is financial; keeping the course modules up to date, providing a help desk function, organizing courses, and contacting speakers puts a high burden on all involved.[47]

Incentivize Care for Patients with SUD

The authors recommend a more comprehensive SoC, including better reimbursement rates and more resources for wraparound care provided by CMs or patient navigators to screen and provide brief intervention to patients with SUD or at risk for SUD. As suggested by the current literature, increasing reimbursement would allow PCPs to have additional support staff for administrative tasks and to address social determinants of health. This would free up more PCP time for counseling and treating higher complexity SUD patients. As for HMSA patients, who are part of plans under Payment Transformation, an increase in base PMPM as well as transparency in payment increases may improve

motivation for PCPs to spend more time and schedule frequent follow-up visits with their more vulnerable patients. The authors also propose higher PMPM for all complex patients, including those who are on MAT since they typically require more office visits, counseling, and coordination of care. Payers should provide additional incentives and reward physicians who care for medically and socially complex patients, such as those with SUD, as high-quality primary care for these individuals leads to decreased costs for the system as a whole.[48]

Increase Interest, Incentives, and Funding to Build Primary Care Workforce

A full discussion on increasing physician retention and compensation, especially for PCPs, is outside the scope of this chapter. However, it is impossible to discuss improving primary care integration for substance use treatment without fully understanding the current state of primary care and the health care environment in Hawai'i. Nationally, medical students are less interested in going into primary care for a variety of reasons including low income compared to specialist peers and high administrative burden.[49] Hawai'i has one of the highest costs of living nationally, yet simultaneously is one of the worst states for physicians in terms of pay, ranking 5th lowest in the nation for average annual wage for physicians in 2021.[50,51] New physicians with accumulated debt from medical school and residency training are more likely to move to more affordable, higher paying states to enable faster payment of debt. Increasing incentives, such as loan repayment programs may play a role in physicians' choice of practice location.[52] Rourke[53] suggests some factors for increasing the number of physicians includes increasing numbers of medical students from the area, stable practices with appropriate facilities and health care teams, functional referral networks, and improved financial incentives for practicing in the area. Increasing incentives for PCPs to work in Hawai'i by expanding loan repayment, scholarships, or other incentive programs, and higher reimbursements, would lead more students to pursue primary care fields and more residents to stay local after completing training.

Expand MAT

To expand the availability of treatment programs, funding mobile clinics is proposed so that MAT, especially methadone will be available for all islands. Unlike other forms of MAT, patients must go to the clinic daily to obtain methadone (federal law),[54] therefore having clinics at a reasonable distance is essential. As of writing this chapter, there is no clinic that can dispense methadone for opioid use disorder on Kaua'i, Moloka'i or Lana'i.[55] Moreover, clinics are only available in limited locations on the other islands (in Honolulu, Hilo, and Wailuku). Methadone is a full opioid agonist and studies have shown better retention rate as compared to buprenorphine, a partial opioid agonist which can be filled as a regular prescription at community pharmacies.[56] Increasing accessibility of MAT will provide additional sites and support PCPs can refer their patients to for treatment.

Collaborative Care between Primary Care and Addiction Specialists

Adapting the existing QCIPN CoCM model by substituting psychiatrists for addiction specialists could increase access to addiction care (**Figure 1**). It is uncertain at this time how many full-time primary care practices can be covered by 1 full-time CM. Due to lack of education and training to take care of SUD patients among PCPs, the numbers of referrals may be higher initially. Such collaboration would expand the use of MAT for opioid use and alcohol use disorders among PCPs and improve access for patients.
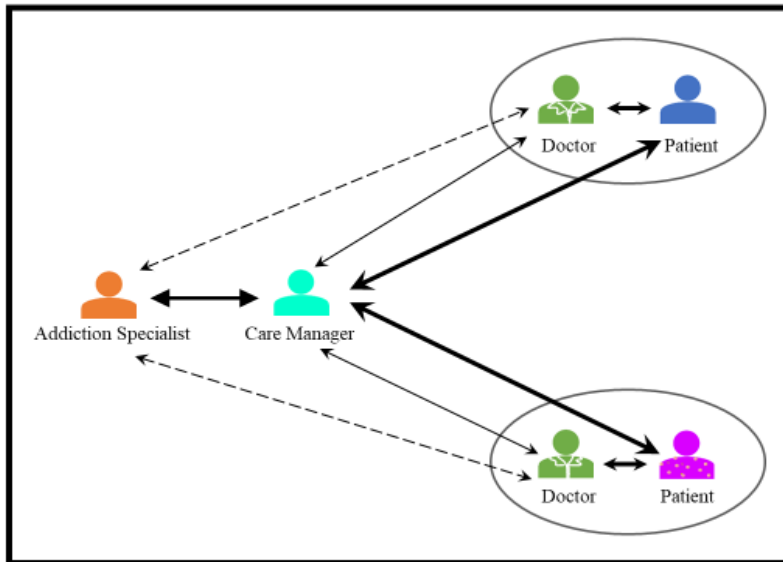
Figure 1. Diagram of Proposed Integrated Addiction Specialist and PCP Clinic: Collaborative care. (Line thickness corresponds to frequency and depth of the encounter.) Original diagram illustration by Micaiah Cape. Used with permission.

This model can be implemented first on Oʻahu within the major health systems and their affiliated PCPs who use the same electronic medical record system. Addiction specialists eventually can also serve the other islands via virtual meeting platforms.

Another recommendation is an integration of PCPs and addiction specialists at methadone clinics that serve opioid use disorder patients. In a recent study, methadone patients who had a designated PCP were associated with a roughly 50% reduced risk of having 2 or more ED visits in a year.[57] Having a co-located PCP within methadone clinics would also likely lead to more consolidated and coordinated care for patients' SUD and primary care needs.

Table 2 outlines for each of the major identified challenges, proposed potential benefits of integrating addiction specialists into primary care, from the perspective of patients, PCPs, addiction specialist, and society.

Table 2. Potential benefits of integrating addiction specialists and PCP.

| Challenges | Potential benefits of integrating addiction specialists and PCP | | | |
	From Patients' Perspective	From PCP perspective	From Addiction Specialist perspective	From Social Perspective
Gaps in Physician Education and Support to Manage Patients with SUD	Receive overall improved quality and more comprehensive care	Receive necessary support and education to take care of addiction patients	Provide training opportunities for PCPs and their staff	Improve addiction treatment outcomes
Low Incentive to Care for Patients with SUD	Increase access to addiction treatment in PCP setting	Provide comprehensive care for patients Reduced burden on PCPs to independently manage SUD	Can manage patients with higher level of complexity to offset PCP burden	Decrease stigma for patients with SUD to receive support
Primary Care Physician Shortage	Increase access to PCPs for general medical care	Increase efficiency in providing care and allow PCPs to manage more conditions	Provide care for larger number of patients	Reduce overall healthcare costs by increasing access for earlier detection and treatment

CONCLUSION

PCPs in Hawai'i face many challenges in managing patients with SUD to prevent adverse health and social outcomes. Issues outlined include: a need for better training in SUD, inadequate resources to support physicians (such as SUD treatment program shortages),[29] disincentives to manage patients with SUD, and a significant physician shortage that is worse among PCPs.[3] These combined challenges place heavy burdens on currently practicing physicians as well as advanced practice providers. Hawai'i's access to follow-up especially for those with SUD is subpar, and funding SUD programs and telemedicine will provide wider access to SUD treatment. PCPs also need a supportive environment and adequate professional education to take care of patients with SUD early before problems multiply. Collaboration between PCPs and addiction specialists is a model that could address many of local challenges in Hawai'i including increased access to care for patients and more support for PCPs. To truly improve care for all in Hawai'i, however, systemic interventions such as adequate reimbursement, loan repayment programs, and rewards to manage complex patients including those with SUD, are essential to increase the incentives for PCPs to remain and practice in Hawai'i.

REFERENCES

1. Hunt D, Kuck S, Truitt L. *Methamphetamine Use: Lessons Learned*. Abt Associates Inc. Published 2006. Accessed August 15, 2022. https://www.ojp.gov/pdffiles1/nij/grants/209730.pdf

2. Substance Abuse and Mental Health Services Administration. National Survey on Drug Use and Health: 2-Year RDAS (Restricted Online Data Analysis System) 2018 to 2019. Accessed May 25, 2021. https://rdas.samhsa.gov/#/

3. Withy K. *Annual Report on Findings from the Hawaiʻi Physician Workforce Assessment Project*. University of Hawaiʻi, John A. Burns School of Medicine, Area Health Education Center (AHEC). Published 2020. Accessed July 15, 2022. https://www.hawaii.edu/govrel/docs/reports/2021/act18-sslh2009_2021_physician-workforce_annual-report_508.pdf

4. Altschuler JMD, Margolius DMD, Bodenheimer TMD, Grumbach KMD. Estimating a reasonable patient panel size for primary care physicians with team-based task delegation. *Ann Fam Med*. 2012;10(5):396-400. doi:10.1370/afm.1400

5. State of Hawaiʻi Office of the Director Department of Commerce and Consumer Affairs. Testimony of the Department of Commerce and Consumer Affairs before the House Committee on Finance on the following measure: H.B. 1464, H.D. 2, Relating to Health. Published 2019. Accessed October 14, 2022. https://www.capitol.hawaii.gov/session2019/testimony/HB1464_HD2_TESTIMONY_FIN_02-26-19_.PDF

6. Aimed Alliance. *Trouble in Paradise - Assessing the Outcomes of Payment Transformation in Hawaiʻi*. Washington, DC: Published 2020. Accessed October 10, 2022. https://aimedalliance.org/wp-content/uploads/2020/05/Trouble-In-Paradise-May-2020.pdf

7. Kiyokawa M, Quattlebaum T. Number of graduates from Hawaiʻi residency program practicing as primary care physicians in Hawaiʻi right after graduation. Unpublished report.

8. U.S. Preventive Services Task Force. Recommendation: Unhealthy Drug Use: Screening | United States Preventive Services Taskforce. Published 2020. Accessed December 1, 2021. https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/drug-use-illicit-screening#fullrecommendationstart

9. Levy SJ, Williams JF. Substance use screening, brief intervention, and referral to treatment. *Pediatrics*. 2016;138(1). doi:10.1542/peds.2016-1211

10. Grant S, Watkins KE, Bogart A, Paddock SM, Hepner KA. Patient-reported offers of alcohol treatment for primary care patients at high-risk for an alcohol use disorder. *J Am Board Fam Med*. 2016;29(6):682-687. doi:10.3122/jabfm.2016.06.160023

11. Tomioka M, Yuan S, Azuma J. SBIRT Provider Survey: Summary of Findings. A Progress Report on Hawaiʻi SBIRT Project, 2017 - 2020, Submitted to the Alcohol and Drug Abuse Division, Department of Health, State of Hawaiʻi. Alcohol and Drug Abuse Division. Published 2020. Accessed July 15, 2022. https://drive.google.com/file/d/1-f1QycHZm-NCNu67UwbBHNOykcd89mvU/view

12. Venner KL, Sánchez V, Garcia J, Williams RL, Sussman AL. Moving away from the tip of the pyramid: Screening and brief intervention for risky alcohol and opioid use in underserved patients. *J Am Board Fam Med*. 2018;31(2):243-251. doi:10.3122/jabfm.2018.02.170134

13. Moberg PD, Paltzer J. Clinical recognition of substance use disorders in medicaid primary care associated with universal Screening, Brief Intervention and Referral to Treatment (SBIRT). *J Stud Alcohol Drugs*. 2021;82(6):700-709. doi:10.15288/jsad.2021.82.700

14. Bobb JF, Lee AK, Lapham GT, et al. Evaluation of a pilot implementation to integrate alcohol-related care within primary care. *Int J Environ Res Public Health*. 2017;14(9):1030. doi:10.3390/ijerph14091030

15. Knox J, Hasin DS, Larson FRR, Kranzler HR. Prevention, screening, and treatment for heavy drinking and alcohol use disorder. *Lancet Psychiatry*. 2019;6(12):1054-1067. doi:10.1016/s2215-0366(19)30213-5

16. Yoast RA, Filstead WJ, Wilford BB, Hayashi S, Reenan J, Epstein J. Teaching about substance abuse. *Virtual Mentor*. 2008;10(1):21-29. doi:10.1001/virtualmentor.2008.10.1.medu1-0801

17. Wong D. Email communication with Derek Wong, Director of University Health Partners of Hawaiʻi Central Billing Office. 2021.

18. Mohlman MKP, Tanzman BMSW, Finison KMA, Pinette MMEM, Jones CMD. Impact of medication-assisted treatment for opioid addiction on Medicaid expenditures and health services utilization rates in Vermont. *J Subst Abuse Treat*. 2016;67:9-14. doi:10.1016/j.jsat.2016.05.002

19. State of Hawai'i Department of Human Services Med-QUEST Division. *2017 External Quality Review Report of Results for the QUEST Integration Health Plans and the Community Care Services Program*. Published 2018. Accessed July 15, 2022. https://clpc.ucsf.edu/sites/clpc.ucsf.edu/files/QUEST%20Quality%20Review%20Report%20April%202018.pdf

20. State of Hawai'i Department of Human Services Med-QUEST Division. *2020 External Quality Review Report of Results for the QUEST Integration Health Plans and the Community Care Services Program*. Published 2021. Accessed December 1, 2021. https://medquest.hawaii.gov/content/dam/formsanddocuments/resources/consumer-guides/HI2019-20_EQR_TechRpt_F1.pdf

21. Office of the Surgeon General. *Health Care Systems and Substance Use Disorders*. Washington, DC: Substance Abuse and Mental Health Services Administration. Published 2016. Accessed December 1, 2021. https://www.ncbi.nlm.nih.gov/books/NBK424848/

22. Tong S, Sabo R, Aycock R, et al. Assessment of addiction medicine training in family medicine residency programs: A CERA study. *Fam Med*. 2017;49(7):537-543.

23. Isaacson JH, Fleming M, Kraus M, Kahn R, Mundt M. A national survey of training in substance use disorders in residency programs. *J Stud Alcohol*. 2000;61(6):912-915. doi:10.15288/jsa.2000.61.912

24. Substance Abuse and Mental Health Services Administration. Buprenorphine Treatment Practitioner Locator | SAMHSA. Accessed July 15, 2022. https://www.samhsa.gov/medication-assisted-treatment/find-treatment/treatment-practitioner-locator

25. Louie DL, Assefa MT, McGovern MP. Attitudes of primary care physicians toward prescribing buprenorphine: a narrative review. *BMC Fam Pract*. 2019;20. doi:10.1186/s12875-019-1047-z

26. Hutchinson E, Catlin, Mary, Andrilla, C. Holly A., Baldwin, Laura-Mae, Rosenblatt, Roger A.,. Barriers to primary care physicians prescribing buprenorphine. *Ann Fam Med*. 2014;12(2):128-133. doi:10.1370/afm.1595

27. Ballester J, Valentine G, Sofuoglu M. Pharmacological treatments for methamphetamine addiction: Current status and future directions. *Expert Rev Clin Pharmacol*. 2017;10(3):305-314. doi:10.1080/17512433.2017.1268916

28. Palmer A, Karakus M, Mark T. Barriers faced by physicians in screening for substance use disorders among adolescents. *Psychiatr Serv*. 2019;70(5):409-412. doi:10.1176/appi.ps.201800427

29. Lyte B. Hawaii's mental health care crisis. *Honolulu Civil Beat*. September 17, 2018. Accessed October 14, 2022. https://www.civilbeat.org/2018/09/hawaiis-mental-health-care-crisis/

30. Substance Abuse and Mental Health Services Administration. *Rural Behavioral Health: Telehealth Challenges and Opportunities*. Published 2016. Accessed August 15, 2022. https://store.samhsa.gov/sites/default/files/d7/priv/sma16-4989.pdf

31. Hurstak EE, Kushel M, Chang J, et al. The risks of opioid treatment: Perspectives of primary care practitioners and patients from safety-net clinics. *Subst Abus*. 2017;38(2):213-221. doi:10.1080/08897077.2017.1296524

32. Huskamp H, Busch A, Souza J, et al. How is telemedicine being used in opioid and other substance use disorder treatment? *Health Aff (Millwood)*. 2018;37(12):1940-1947. doi:10.1377/hlthaff.2018.05134

33. Lin LA, Casteel D, Shigekawa E, Weyrich MS, Roby DH, McMenamin SB. Telemedicine-delivered treatment interventions for substance use disorders: A systematic review. *J Subst Abuse Treat*. 2019;101:38-49. doi:10.1016/j.jsat.2019.03.007

34. Johnson NA, Kypri K, Latter J, et al. Effect of telephone follow-up on retention and balance in an alcohol intervention trial. *Prev Med Rep*. 2015;2:746-749. doi:10.1016/j.pmedr.2015.08.016

35. Moore MA, Coffman M, Jetty A, Klink K, Petterson S, Bazemore A. Family physicians report considerable interest in, but limited use of, telehealth services. *J Am Board Fam Med*. 2017;30(3):320-330. doi:10.3122/jabfm.2017.03.160201

36. Telehealth.HHS.gov. Billing for telehealth during COVID-19 | Telehealth.HHS.gov. Accessed July 15, 2022. https://telehealth.hhs.gov/providers/billing-and-reimbursement/?gclid=EAlaIQobChMlvYSp1-Pt8QIVxTytBh355QjnEAAYASAAEgLL4_D_BwE

37. McHugh RK, Hearon BA, Otto MW. Cognitive behavioral therapy for substance use disorders. *Psychiatr Clin North Am*. 2010;33(3):511-525. doi:10.1016/j.psc.2010.04.012

38. National Institute on Drug Abuse. Effective treatments for opioid addiction. Published 2016. Updated November 2016. Accessed July 15, 2022. https://www.drugabuse.gov/publications/effective-treatments-opioid-addiction

39. Federal Register: The Daily Journal of the United States Government. Registration Requirements for Narcotic Treatment Programs With Mobile Components: A Rule by the Drug Enforcement Administration on 06/28/2021. Published 2021. Accessed July 15, 2022. https://www.federalregister.gov/documents/2021/06/28/2021-13519/registration-requirements-for-narcotic-treatment-programs-with-mobile-components

40. Wakeman SE, Rigotti NA, Chang Y, et al. Effect of integrating substance use disorder treatment into primary care on inpatient and emergency department utilization. *J Gen Intern Med*. 2019;34(6):871-877. doi:10.1007/s11606-018-4807-x

41. Watkins KE, Ober AJ, Lamp K, et al. Collaborative care for opioid and alcohol use disorders in primary care: The SUMMIT randomized clinical trial. *JAMA Intern Med*. 2017;177(10):1480-1488. doi:10.1001/jamainternmed.2017.3947

42. Advancing Integrated Mental Health Solutions Center. *Caseload Size Guidance for Behavioral Health Care Managers*. University of Washington, Psychiatry and Behavioral Sciences. Published 2020. Accessed August 15, 2022. https://aims.uw.edu/sites/default/files/Behavioral%20Health%20Care%20Manager%20Caseload%20Guidelines_072120%20Final.pdf

43. Kiyokawa M. Personal communication with Doctor Stephen Kemble after his presentation "Update on Collaborative Care in Hawaiʻi - 2020 Data". Project ECHO; 2021.

44. Howard V, Holmshaw J. Inpatient staff perceptions in providing care to individuals with co-occurring mental health problems and illicit substance use. *J Psychiatr Ment Health Nurs*. 2010;17(10):862-872. doi:10.1111/j.1365-2850.2010.01620.x

45. van Boekel LC, Brouwers EPM, van Weeghel J, Garretsen HFL. Healthcare professionals' regard towards working with patients with substance use disorders: Comparison of primary care, general psychiatry and specialist addiction services. *Drug Alcohol Depend*. 2014;134:92-98. doi:10.1016/j.drugalcdep.2013.09.012

46. Wakeman SE, Kanter GP, Donelan K. Institutional substance use disorder intervention improves general internist preparedness, attitudes, and clinical practice. *J Addict Med*. 2017;11(4):308-314. doi:10.1097/adm.0000000000000314

47. VanNieuwenborg L, Goossens M, De Lepeleire J, Schoenmakers B. Continuing medical education for general practitioners: A practice format. *Postgrad Med J*. 2016;92(1086):217-222. doi:10.1136/postgradmedj-2015-133662

48. Friedberg MW, Hussey PS, Schneider EC. Primary care: A critical review of the evidence on quality and costs of health care. *Health Aff (Millwood)*. 2010;29(5):766-772. doi:10.1377/hlthaff.2010.0025

49. Knight V. American medical students less likely to choose to become primary care doctors. *Kaiser Health News*. July 3, 2019. Accessed October 14, 2022. https://khn.org/news/american-medical-students-less-likely-to-choose-to-become-primary-care-doctors/

50. Evolution Finance Inc. Best & Worst States for Doctors. Published 2022. Accessed July 15, 2022. https://wallethub.com/edu/best-and-worst-states-for-doctors/11376#main-findings

51. Hawaiʻi is still one of the worst states for doctors, new report says. *Hawaii News Now*. March 28, 2018. Accessed October 14, 2022. https://www.hawaiinewsnow.com/story/37831143/hawaii-is-still-one-of-the-worst-states-for-doctors-new-report-says/

52. Renner DM, Westfall JM, Wilroy LA, Ginde AA. The influence of loan repayment on rural healthcare provider recruitment and retention in Colorado. *Rural Remote Health*. 2010;10(4):1605. doi:10.22605/RRH1605

53. Rourke J. Increasing the number of rural physicians. *Can Med Assoc J*. 2008;178(3):322-325. doi:10.1503/cmaj.070293

54. Substance Abuse and Mental Health Services Administration. What is Methadone? | SAMHSA. Accessed October 14, 2022. https://www.samhsa.gov/medication-assisted-treatment/medications-counseling-related-conditions/methadone

55. Opiate Addiction and Treatment Resource. Methadone Clinics - Hawaii - Opiate Addiction & Treatment Resource. Accessed October 10, 2022. https://www.opiateaddictionresource.com/treatment/methadone_clinic_directory/hi_clinics/

56. Hser YI, Saxon AJ, Huang D, et al. Treatment retention among patients randomized to buprenorphine/naloxone compared to methadone in a multi-site trial. *Addiction*. 2014;109(1):79-87. doi:10.1111/add.12333

57. Kendall CE, Boucher LM, Mark AE, et al. A cohort study examining emergency department visits and hospital admissions among people who use drugs in Ottawa, Canada. *Harm Reduct J.* 2017;14(1):16. doi:10.1186/s12954-017-0143-4