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 and increasingly complex patient panels, the 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 article 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 health care 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.

Keywords

primary care, primary care physicians, substance use disorder, medication assisted treatment, Hawai‘i

Abbreviations and Acronyms

CC = Collaborative Care
CoCM = Collaborative Care Model
CM = Care Manager
DEA = Drug Enforcement Agency
ED = emergency department
HMO = health maintenance organization
HMSA = Hawai‘i Medical Service Association
MAT = medication assisted treatment
MI = motivational interviewing
PCP = primary care physician
PMPM = per member per month
QCIPN = Queen's Clinically Integrated Physician Network
SBIRT = screening, brief intervention, and referral to treatment
SoC = system of care
SUD = substance use disorder

Background & Introduction

Substance use is a pervasive public health issue in the United States and in Hawai‘i, where substance use disorders (SUD), especially for methamphetamine, 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 an 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 article 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 article. Although challenges discussed in this manuscript 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 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 (ie, 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 (eg, 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. 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. However, from 2010-2020 the retention rate has varied greatly from 11.8% to 64.8%, depending on the program and specialty.[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.

Challenges in Use of SBIRT 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.[11-14] 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. Practicing SBIRT and MI enables PCPs to detect and intervene with patients with mild to moderate SUD symptoms, preventing conditions from developing or worsening.[15-17]

There are many reasons cited 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.[18,19] 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.[16] Yoast et al[20] report 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.[15]

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.[21] 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.[22] 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.[23] 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”.[24]

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.[25] 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. 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.[26] This limitation in training is reflected locally in the number of clinicians licensed to prescribed 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.[3,26,27]

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,[28] especially among those who lack confidence to provide treatment.[29] 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 resources not readily available for most PCPs.[30]

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.[15]

Education alone however may not be sufficient to implement SBIRT and other screening tools in the PCP office. Palmer et al,[31] 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 O‘ahu.[32] 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.[31]

Use of Telehealth to Reduce Stigma

Telehealth or telephone visits are useful methods to decrease stigma and increase access to care for all patients, especially those in rural/underserved areas.[33] Patients with SUD often report feeling discrimination in PCP offices,[34] which can discourage them from seeking medical help; telemedicine can help to reduce potentially stigmatizing interactions that would occur in a physical waiting room.[35] 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.[36-38] Since the COVID-19 pandemic, reimbursement for telemedicine has improved. The authors strongly advocate this should continue indefinitely.[39] PCPs can implement brief interventions and refer patients to behavioral health specialists for ongoing therapy.[40]

MAT

As stated above, SUD treatment program shortage is a serious problem in Hawai‘i.[32] To increase accessibility for proven SUD treatment such as MAT, the Drug Enforcement Agency (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,[41] thereby providing additional referral sites for PCPs. MAT is shown to decrease substance use, overdose death, criminal activity, and infectious disease transmission.[42] Although, receiving MAT treatment in PCP office may be most ideal, mobile MAT providers can provide additional referral sites for PCPs who may feel uncomfortable dealing with MAT or too busy to provide MAT themselves.

Collaborative Care Model

A collaborative care model integrating PCPs, recovery coaches and addiction specialists can help address the issues of education/training, physician shortages and limited MAT/SUD treatment program availability.[43] A 2019 study by Wakeman et al[43] 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.[43] 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.[43]

The Substance Use Motivation and Medication Integrated Treatment study, a randomized trial conducted by Watkins et al,[44] 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.[44]

Hawai‘i has already implemented similar integration systems between PCPs and mental health providers. Queen's Clinically Integrated Physician Network (QCIPN) Collaborative Care Model (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. 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.[45] 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.[46]

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 collaborative care model. 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.[47,48] PCPs are more likely to offer addiction treatment after receiving education and support from initiatives that promote increasing access to SUD treatment.[49] 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.[50]

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),[51] therefore having clinics at a reasonable distance is essential. As of writing this article, there is no clinic that can dispense methadone for opioid use disorder on Kaua'i, Moloka'i or Lana'i.[52] 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.[53] Increasing accessibility of MAT will provide additional sites and support PCPs can refer their patients to for treatment.

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 HMO patients, 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 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.[54]

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.

This model can be implemented first on O'ahu 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.[55] 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.

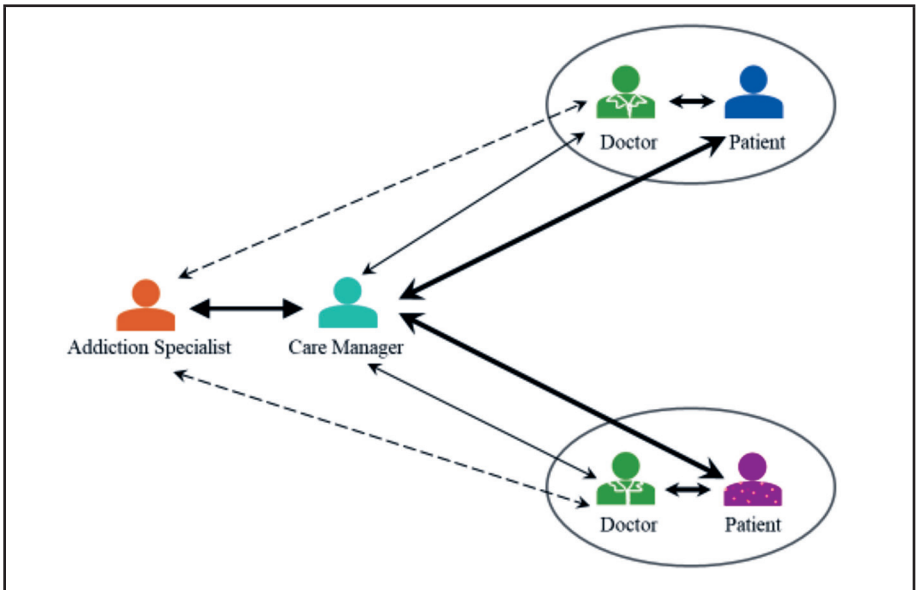

Figure 1. Diagram of Proposed Integrated Addiction Specialist and PCP Clinic: Collaborative care. (Line thickness corresponds to frequency and depth of the encounter.) Original diagram illustration by Micaiah Cape. Used with permission.

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 article. 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.[56] 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 worst in the nation for lowest average annual wage for physicians in 2021.[57,58] 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.[59] Rourke[60] 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.[61,62]

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),[32] 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 re-payment programs, and rewards to manage complex patients including those with SUD, are essential to increase incentives for PCPs to remain and practice in Hawai'i.

Conflict of Interest

None of the authors identify a conflict of interest.

Notice of Duplicate Publication

This article is based on the draft version of a chapter from the Hawai'i State Department of Health Alcohol and Drug Abuse Division (ADAD) State Plan, and all or a majority of the contents within will be subsequently also reproduced in the corresponding chapter of the final version of the ADAD State Plan (https://health.hawaii.gov/substance-abuse/state-plan/). While the ADAD State Plan may later be modified as a living document following its release, the material and content found in this article represents a snapshot of the highlights of the ADAD State Plan at the time of the article's publication.

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