Systems of Care Implications in Hawaii: Sexual and Gender Minorities

Thaddeus Pham BS; Cade Akamu BA; Annie Do MPH; Kevin K. Tomita PhD; Sarah Combs MPH

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.

Keywords

LGBTQ, substance use, Hawai'i, drugs, policy

Abbreviations and Acronyms

ADAD = Hawai'i State Department of Health Alcohol and Drug Abuse Division DOH = Hawai'i State Department of Health
LG = lesbian and gay
LGB = lesbian, gay, and bisexual
LGBT = lesbian, gay, bisexual, and transgender
NSDUH = National Survey on Drug Use and Health
SAMHSA = Substance Abuse and Mental Health Services Administration
SGM = sexual and gender minorities
SUD = substance use disorder

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 (eg, asexual, aromantic, queer, and pansexual) and gender identities (eg, agender, gender non-conforming, and gender non-binary). SGM communities are diverse and not monolithic. Although intersectional factors (eg, 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 paper, the authors highlight key points from a chapter of the Hawai'i Department of Health Alcohol and Drug Abuse Division (ADAD) State Plan which examines 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 article of this special supplement.

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, 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 al-

cohol, 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. 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. Land the substance use disorder than cisgender boy or cisgender girl students.

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)	8000	29.0 (18.9,41.6)	10 000	18.0 (16.2,19.9)	170 000
Methamphetamine	4.0 (1.0,13.6)	1000	2.4 (0.8,7.0)	1000	0.7 (0.4,1.3)	7000
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)	2000	21.4 (12.8,33.6)	8000	9.4 (7.8,11.4)	89 000
Cocaine	C.S.	C.S.	2.2 (0.7,7.2)	1000	1.0 (0.7,1.6)	10 000
Opioids	C.S.	C.S.	6.5 (2.9,14.0)	2000	1.0 (0.6,1.6)	9000
Pain Relievers	C.S.	C.S.	6.5 (2.9,14.0)	2000	1.0 (0.6,1.5)	9000
Tranquilizers	C.S.	C.S.	2.5 (0.6,9.5)	1000	0.4 (0.2,0.8)	4000
Stimulants	C.S.	C.S.	2.4 (0.8,7.1)	1000	0.4 (0.2,0.7)	3000

^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 respondents for survey item	% (95%CI)	# of respondents for survey item	% (95%CI)	# of respondents 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)	4441
Alcohol – Current Binge Drinking	11.0 (7.2,16.5)	140	16.2 (10.6,23.8)	404	10.3 (8.7,12.1)	4609
Marijuana – Current Use	14.9 (9.6,22.4)	147	21.4 (14.1,31.2)	416	16.9 (15.0,19.1)	4658
Cigarettes-Combustible – Current Use	8.7 (3.7,19.0)	153	9.9 (4.8,19.4)	424	4.1 (3.0,5.7)	4794
Cigarettes-Electronic – Current Use	23.8 (15.6,34.5)	135	34.2 (27.0,42.3)	402	31.2 (28.2,34.3)	4512
Cigarettes- Combustible Daily Use	2.3 (0.8,6.7)	153	0.8 (0.1,5.0)	424	0.5 (0.3,0.9)	4794
Cigarettes - Electronic Daily Use	13.2 (7.2,23.0)	135	5.8 (2.6,12.5)	402	8.0 (6.8,9.3)	4512

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 CRAFFT²⁵ Screener^a

		lo e 0-3)	Yes (Score 4+)		
Gender ^b	% (95% CI)	Weighted Count	% (95% CI)	Weighted Count	
Cisgender Girl	86.9 (85.8, 88.0)	3116	13.1 (12.0, 14.2)	471	
Cisgender Boy	91.2 (90.4, 92.0)	3902	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	

^a CRAFFT (Car, Relax, Alone, Forget, Friends, Trouble) substance use screening tool^{24,25} ^b Gender was defined using the question asking students their current gender; other than female (Cisgender Girl) or male (Cisgender Boy), all other or transgender (self-reported or if current gender differed from sex assigned at birth) responses were combined into the category of Transgender and Other Gender Minority.

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 trauma³⁵) 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 Additionally, healthcare protections for SGM individuals like changes to gender inclusive language and facilities are both associated with better outcomes for SGM patients and the likelihood for care retention. 46

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. ⁴⁸ 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. 49-51 SGM individuals may experience both non-SGM related (eg, race) and SGM-related stigma, 52,53 which may lead to mental health problems and maladaptive coping strategies including substance use. 32,52-56 Importantly, this model also highlights SGM-specific factors (eg, 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.

Systems of Care

To discuss systems of substance use disorder (SUD) care, Rhode Island's cascade of care provides a helpful theoretical cyclical framework that breaks SUD treatment into 5 different stages.⁵⁷ 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.

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. 58,59 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. 60,61 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, 58 Native Hawaiian, 62,63 living with a disability, 64 military veterans, 65 and others.

In Hawai'i, there are notable insufficiencies in the SUD behavioral health workforce, especially for the SGM population. Among over 3500 mental health practitioners holding a license in mental health counseling, marriage and family therapy, clinical social work, 66 or psychology in the State of Hawai'i in 2020, 67 no data were collected on the number of the specialists that directly provide substance use services for SGM individuals. Separately, certified substance abuse counselors (CSACs) and certified drug prevention specialists are regulated by ADAD, but SGM training is not required for either occupational certification. Information on the number of registered CSACs in the State of Hawaii is not readily available to the public or by request to the Department of Health (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.

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. The Substance Abuse and Mental Health Services Administration (SAMHSA) provides one such framework for developing SGM interventions and supporting SGM individuals in general programs. ⁶⁸ 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 non-family support; and helping SGM individuals access additional support as requested. 68 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 8459 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, 10 were subsequently selected to illustrate interventions for SGM individuals that had published datasets (Table 4). Due to insufficient research data on other SGM subpopulations, interventions in **Table 4** 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 (eg, 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).

Regarding substance use interventions, research shows that having specific programmatic components for SGM communities is more effective than traditional models for the general population. ⁶² 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

Intervention	Description	Impact	Source
Outpatient Counseling Focus: gay, bisexual men	12-month outpatient individual and group counseling program	Inconsistent reduction in methamphet- amine and/or crack/cocaine use	Ezard et al 2015 ⁶⁹
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 ⁷⁰
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 ⁷¹ ; Feinstein et al 2019 ⁷² ; Pachankis et al.2015 ⁷³
CBT + Motivational Interviewing Focus: men who have sex with men and are HIV-positive	Motivational Interviewing and Cognitive Behavioral Therapy sessions with supple- mental 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 ⁷⁴
Recovery Housing Focus: men who have sex with men	Provides housing for, regular coaching, and access to treatment services via linkage to an intensive outpatient program; requires regular urine testing	Reduction in recent substance use, post-completion; significant reduction in dysfunctional coping; 35% completion rate	Mericle et al 2018 ⁷⁵
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 ⁷⁶
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 in- tensive outpatient program (eg, 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 ⁷⁷ ; Allara et al 2019 ⁷⁸ ; Carrico et al 2018 ⁷⁹
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 201980
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 ⁸¹

Peer-reviewed articles published between March 2015 and March 2020 on potentially replicable substance abuse/dependence interventions in the US, which used quantitative evaluation methods and focused on SGM individuals, were included in this table.

bars. 74,76,81,82 See Table 4 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.82 Other effective models focused on behavior changes and multiple therapy models.⁷⁰ 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. 76 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.74

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. 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 5). 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 time; caseload varies as a dimension of 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. 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.

Observations and Recommendations

Table 6 lists observations, recommendations, and opportunities for ADAD and its partners to improve the SUD system of care for SGM communities in Hawai'i 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 Hawai'i to address the specific needs of local SGM com-

munities. 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 Hawai'i, 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 (eg, 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 (eg, 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.

Table 5. 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 Transgender 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 friendlyI 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"			

Informal feedback from local service providers and SGM clients throughout the state were obtained by the Hawai'i 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.

Table 6. 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 (eg, 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 (eg. 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 (eq. 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 (eg, 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/sqmro/measurement/questions)
- · Collect and report qualitative data (eg, 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 (eg, 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 Sexual and Gender Minority Workgroup) that seeks SGM community input to identify
 and implement culturally-based evaluation approaches and practices (eg, 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

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.

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 6** 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.

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 (eg, 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.

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.

Funding

Support for the writing, coordination, and publication of this special supplement and for the State Plan for a System of Care was provided by the Hawai'i State Department of Health Alcohol and Drug Abuse Division (ADAD).

Acknowledgments

Feedback and support was also provided by the Hawai'i State Department of Health's Sexual and Gender Minority Workgroup.

Authors' Affiliation:

- Harm Reduction Services Branch, Communicable Disease and Public Health Nursing, Division, Hawai'i Department of Health, Honolulu, HI (TP)
- Hep Free Hawai'i, Honolulu, HI (TP)
- Department of Psychiatry, John A Burns School of Medicine, University of Hawai'i at Mānoa, Honolulu, HI (CA)
- Office of Public Health Studies, Thompson School of Social Work and Public Health, University of Hawai'i at Mānoa, Honolulu, HI (CA)
- School of Public Health, University of Washington, Seattle, WA (AD)
- No affiliation (KKT, SC)

Corresponding Author:

Thaddeus Pham BS; Email: thaddeus.pham@doh.hawaii.gov

References

- 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
- 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
- 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
- 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
- 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
- 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
- Dai H. Tobacco product use among lesbian, gay, and bisexual adolescents. Pediatrics. 2017;139(4). doi:10.1542/peds.2016-3276
- Day JK, Fish JN, Perez-Brumer A, Hatzenbuehler ML, Russell ST. Transgender youth substance use disparities: Results from a population-based sample. JAdolesc Health. 2017;61(6):729-735. doi:10.1016/j.jadohealth.2017.06.024
- 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
- 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
- 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
- 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
- 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
- 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
- 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

- 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
- 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
- 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
- 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
- Ching LK, Holmes JR, Pham T, et al. Hawai'i Sexual and Gender Minority Health Report: A Focus on Transgender Youth. Honolulu, HI: Hawai'i 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/HawaiiSexualandGenderMinority-HealthReport2018.odf
- Holmes JR, Ching LK, Tomita KK, et al. Hawai'i Sexual and Gender Minority Health Report 2017. Honolulu, HI: Hawai'i 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
- 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 December 21, 2021. https://www.hawaii.edu/aging/hbhd/index.html
- Centers for Disease Control and Prevention. 1991-2019 High School Youth Risk Behavior Survey Data. Accessed June 28, 2021. http://nccd.cdc.gov/youthonline/
- Onoyé J, Miao T, Goebert D, et al. 2019-2020 Hawai'i Student Alcohol, Tobacco, and Other Drug (ATOD) Survey Statewide Comprehensive Report. Honolulu, HI: Sponsored by State of Hawai'i 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
- 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
- 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=5F254E322ED23747D438C E2BAFA20F8A?sequence=1
- 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
- Puckett JÁ, 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
- 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
- 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
- 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
- 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
- Smith NG, Winderman K, King B, Obasi ÉM, 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
- 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
- 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
- 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
- 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
- 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
- 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

- 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
- 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
- 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
- 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
- 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
- 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
- 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
- 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
- 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
- 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
- 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
- Meyer IH. Minority stress and mental health in gay men. J Health Soc Behav. 1995;36(1):38-56. doi:10.2307/2137286
- Han C-s, 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
- 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
- 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
- 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
- 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:10.1080/00918369.2017.1
 310552
- 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
- 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.isat.2009.05.006
- 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
- 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
- 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
- Mokuau N. Culturally based interventions for substance use and child abuse among Native Hawaiians. Public Health Rep. 2002;117(Suppl 1):S82-S87.
- 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
- 64. 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
- 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.
- 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.bi.htm

- 67. Hawai'i State Department of Commerce and Consumer Affairs. Geographic Report (Current Licenses) as of September 24, 2021. Professional and Vocational Licensing Division. Published 2021. Accessed August 1, 2022. https://cca.hawaii.gov/pvl/files/2021/10/WebGEO-RptHoala-092421.pdf
- 68. 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 August 22, 2021. https://www.samhsa.gov/sites/default/files/lobtoil2-s-practice-brief.pdf
- 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.000000000000173
- 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
- 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
- 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
- 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
- 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

- 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
- 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
- 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
- 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
- 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
- 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
- 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
- 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