



Rapid Review of Literature on Behavioral Health During Pandemic - Update

Version 1.0

State Epidemiologic Outcomes Workgroup
Pacific Health Analytics Collaborative
University of Hawai'i at Mānoa

Submitted to the
Alcohol and Drug Abuse Division
Hawai'i State Department of Health

7/14/21

Summary: This rapid literature review was conducted to assess how the pandemic has impacted substance use, mental health, and behavioral health in general and specifically in the state of Hawaii, and how this has changed over the last six months. Overall, the evidence from Hawai'i and outside of Hawai'i indicate a worsening in trends for behavioral health such as increases in depression, anxiety, psychological distress, loneliness, and social isolation, which are well known to increase use of substances in certain populations. This updated report finds that these trends did continue as the pandemic caused more long term financial and social distress.

Background

The main focus of public health in 2020-2021 has been the COVID-19 pandemic. While it is important to control the spread of this virus, other health crises have not disappeared, some even worsening during this tumultuous time. The purpose of this rapid review of literature is to assess how the pandemic has impacted substance use, mental health, and behavioral health in general and specifically in the state of Hawai'i. This update will include additional information and studies that have occurred since our first review of this topic.

Methodology and Search Terms

This rapid review was conducted between 6/29/21 to 7/7/21. Google, Google Scholar and PubMed databases were searched with the following terms: "youth" + "substance use" + "drinking" + "hawaii" + "COVID-19" "pandemic" + "quarantine" + "underage drinking" + "alcohol use". All articles including news articles were included for review.

Results

Overall, the evidence from Hawai'i and outside of Hawai'i indicate a worsening in trends for behavioral health such as increases in depression,

anxiety, psychological distress, loneliness, and social isolation, which are well known to increase use of substances in certain populations. This updated report finds that these trends did continue as the pandemic caused more long term financial and social distress.

Evidence from Hawai'i

Hawai'i's Behavioral Health Administration (BHA) has been working to focus their efforts to create a coordinated entry system to provide access to treatment and other services. The BHA used the Hawai'i Cares system to help with the state's response to the COVID-19 pandemic. The program had a particular focus on homeless individuals who have substance use disorders (SUDs), mental disorders, or both. About 40% of the people in quarantine or isolation centers had a SUD or a co-occurring SUD and mental health disorder.

Alcohol is the number one substance abused in Hawai'i, followed by methamphetamine. Many of the state's substance abuse treatment programs required COVID-19 tests prior to treatment, which added a barrier to care. However, they were able to use the COVID-19 quarantine sites as a bridge to SUD treatment. About 75% of resources from the Alcohol and Drug Abuse Division are spent on SUD-specific treatment.

In 2020, the Hawai'i Cares program handled more than 130,000 calls, which is a 50% increase in

call volume from 2019. During a spike in COVID-19 cases in August and September of 2020, Hawai'i Cares answered 29,800 calls for help. Behavioral health, which includes substance use, mental health and homelessness, is a significant public health challenge in the state. The Cares data confirms that access to these services is even more crucial during the pandemic.

According to Cirruzzo 2021, The state has seen increases in anxiety related to COVID-19, finances, and employment. The Hawaii Psychological Association saw a 60% increase in applications for pro bono care during the pandemic due to the loss of insurance. According to the 2021 U.S. News Healthiest Communities rankings, Honolulu County is the country's top performer in mental health. The quality of life for older adults in Hawaii is frequently good, as they are highly respected and live in multigenerational households, more than in most other places in the United States (U.S.) as they often are helping raise the next generation. About 41% of people in Hawaii who took an online depression screening from January to December of 2020 reported frequent thoughts of suicide – the highest percentage of any state. The Hawaii Coordinated Access Resource Entry System, or Hawaii CARES, received nearly 140,000 calls in 2020.

Kiyokawa et. al. 2021 studies the use of methamphetamines in Hawaii during the COVID-19 pandemic. In 2010, Hawai'i had 410% more positive workplace drug tests for methamphetamine compared to the national average. Following alcohol, methamphetamine is the most prevalently misused drug among adults in the state. In 2010-2016, close to half of those admitted to Hawai'i's treatment facilities stated that methamphetamine was their drug of choice, compared to alcohol (20%–30%) and marijuana (approximately 17%).

In the U.S. in 2018, there were 46,802 overdose deaths attributed to opioids out of 67,367 total overdose deaths (approximately 70%), while in

Hawai'i there were 59 overdose deaths due to opioids out of the total 213 overdose deaths (approximately 28%). Methamphetamine is a powerful stimulant with long acting effects (10–20 hours), unlike heroin which is a short-acting opioid that may require frequent administration (sometimes 4 or 5 times per day). The Centers for Disease Control and Prevention (CDC) stated that overdose deaths in the U.S. involving psychostimulants, including methamphetamine, increased by 34.8% during the COVID-19 pandemic.

For Hawai'i, the decrease in visitors due to the pandemic resulted in a \$18 billion loss in the tourism industry, a primary source of the state's economy. Almost 40% of survey participants in the U.S. reported in a Kaiser Family Foundation survey that the pandemic has negatively impacted their mental health.

According to Hawai'i High Intensity Drug Trafficking Area (HIDTA), the average price of heroin in the state has been estimated to be \$120 – \$160 per gram, while methamphetamine costs \$40 per gram. This may be why patients with SUD are using less heroin and more methamphetamine in the midst of the COVID-19 pandemic.

Evidence from Outside Hawai'i

McKight-Eily et. al. 2021 found that among U.S. adults, sources of psychosocial stress included family health (36.3%), feelings of isolation or loneliness (28.6%), worry about getting ill from COVID-19 or infecting others (25.7%), worry about the death of a loved one or persons dying (15.2%), workplace COVID-19 exposure (13.5%), and the stigma or discrimination from being blamed for spreading COVID-19 (4.1%). U.S. adults responding to an opt-in survey in April and May 2020 commonly reported mental health conditions and an initiation of or increase in substance use to cope with stress or emotions during the pandemic. Persistent systemic social inequities and discrimination related to living conditions and work environments,

contributed to disparities in underlying medical conditions and can further compound health problems faced by members of racial and ethnic minority groups during the COVID-19 pandemic and worsen stress and associated mental health concerns. Hispanic/Latino adults reported a higher prevalence of psychosocial stress related to not having enough food or stable housing than adults in other racial and ethnic groups.

Wang et. al. 2020 found that 12,030 of 73,099,850 unique patients had a diagnosis of COVID-19. Patients with a diagnosis of SUD within the past year were at a significantly increased risk for COVID-19. Patients with SUD had significantly higher prevalence of chronic kidney, liver, lung diseases, cardiovascular diseases, type 2 diabetes, obesity and cancer compared to those without SUD. COVID-19 patients with SUD had significantly worse outcomes (death: 9.6%, hospitalization: 41.0%) than general COVID-19 patients (death: 6.6%, hospitalization: 30.1%) and African Americans with COVID-19 and SUD had worse outcomes (death: 13.0%, hospitalization: 50.7%) than Caucasians (death: 8.6%, hospitalization: 35.2%).

Chaffee et. al. 2021 studied a cohort of adolescents in Northern California. The overall prevalence of e-cigarette, cannabis, or alcohol use did not meaningfully change with a statewide stay-at-home order, but physical activity declined considerably. Of 1,423 adolescents enrolled at the

baseline, 1,006 completed the 6-month follow-up (623 [62%] were female, and 492 [49%] were non-Hispanic White). The usage of e-Cigarettes declined from the baseline to the 6-month follow-up completed before the stay-at-home order (17.3% [89 of 515] to 11.3% [58 of 515]) and 6-month follow-up completed after the stay-at-home order (19.9% [96 of 482] to 10.8% [52 of 482]), but the extent of decline did not differ statistically between groups responding before vs after the stay-at-home order. In contrast, being physically active was unchanged from baseline if follow-up was before the order but declined sharply from baseline if follow-up was after the order.

Between April 22 and May 11, 2020, 1,008 participants ages 18–35 were recruited through social media to a one-time, online anonymous survey in the study described in Horigian 2021. About 49% of respondents reported loneliness, 80% reported significant depressive symptoms, 61% reported moderate to severe anxiety, and 30% disclosed harmful levels of drinking. Loneliness was associated with higher levels of mental health symptoms. Participants reported significant increases across mental health and substance use symptoms since COVID-19 began. While direct impacts of COVID-19 could only be calculated with pre-pandemic assessments of these symptoms, estimates indicate elevated psychosocial symptomatology and suggest that symptoms could have worsened since the pandemic.

References

1. Chaffee, B. W., Cheng, J., Couch, E. T., Hoft, K. S., & Halpern-Felsher, B. (2021). Adolescents' Substance Use and Physical Activity Before and During the COVID-19 Pandemic. *JAMA Pediatrics*, 175(7), 715–722.
<https://doi.org/doi:10.1001/jamapediatrics.2021.0541>
2. Cirruzzo, C. (2021, June 29). A Paradise for Mental Health Still Sees COVID Challenges. *U.S. News*.
<https://www.usnews.com/news/health-news/articles/2021-06-29/honolulu-county-excess-in-mental-health-but-sees-pandemic-challenges>
3. HNN Staff. (2021, March 6). DOH launches new mental health hotline focused in tackling challenges due to the pandemic. *Hawaii News Now*.
<https://www.hawaiinewsnow.com/2021/03/06/doh-launches-new-mental-health-hotline-focused-tackling-challenges-due-pandemic/>
4. Horigian, V. E., Schmidt, R. D., & Feaster, D. J. (2020). Loneliness, Mental Health, and Substance Use among US Young Adults during COVID-19. *Journal of Psychoactive Drugs*, 53(1), 1–9.
<https://doi.org/10.1080/02791072.2020.1836435>
5. Kiyokawa, M., Cape, M., & Streltzer, J. (2021). Insights in Public Health: Methamphetamine Use during COVID-19 in Hawai'i. *Hawaii Journal of Health & Social Welfare*, 80(5), 117–118.
6. Knopf, A. (2020). Homelessness, mental illness, COVID-19 and SUD handled by Hawaii BHA. *Alcoholism & Drug Abuse Weekly*, 32(43), 1–4.
<https://doi.org/10.1002/adaw.32886>
7. McKnight-Eily, L. R., Okoro, C. A., Strine, T. W., Verlenden, J., Hollis, N. D., Njai, R., Mitchell, E. W., Board, A., Puddy, R., & Thomas, C. (2021). Racial and Ethnic Disparities in the Prevalence of Stress and Worry, Mental Health Conditions, and Increased Substance Use Among Adults During the COVID-19 Pandemic—United States, April and May 2020. *Morbidity and Mortality Weekly Report*, 70(5), 162–165.
<https://dx.doi.org/10.15585%2Fmmwr.mm7005a3>
8. UH News. (2021, May 10). *New behavioral health dashboard to help improve care, services*. University of Hawaii News.
<https://www.hawaii.edu/news/2021/05/10/behavioral-health-dashboard/>
9. Wang, Q. Q., Kaelber, D. C., Xu, R., & Volkow, N. D. (2020). COVID-19 risk and outcomes in patients with substance use disorders: Analyses from electronic health records in the United States. *Molecular Psychiatry*, 26, 30–39.