

White Paper on COVID-19 Temporary Quarantine and Isolation Center: A Proof of Concept for Behavioral Health Crisis Stabilization Centers*

Date: May 28, 2020 | Consultative Draft | Version 1.0

Summary

The first Temporary Quarantine & Isolation Center (TQIC) opened in Honolulu, Hawaii in response to coronavirus disease 2019 (COVID-19) to meet the anticipated needs of unsheltered individuals in our community. The center focused on quarantine and isolation services for unsheltered individuals, including those with symptoms of COVID-19 awaiting test results. There are two referral pathways to TQIC: (1) the Emergency Department (ED) or hospital, or (2) the Coordinated Access to Resources Entry System (CARES) line.

Even as the pandemic became an urgent impetus for establishing the TQIC for unsheltered individuals, the need to provide ancillary support for individuals could not be ignored. Provision of services to homeless populations is complex because of disproportionately high rates of co-occurring behavioral health conditions which include mental health and substance use disorders as well as chronic comorbidities such as diabetes, cardiac conditions, etc. It was necessary to manage these chronic, pre-existing conditions in addition to COVID-19 symptomatology. This required component afforded the opportunity to demonstrate the need and concept of a Behavioral Health Crisis Stabilization Center for individuals experiencing homelessness and co-occurring health conditions.

In the present system of care for behavioral health, many clients do not meet the criteria for inpatient psychiatric admission, but are deemed too severe for community based residential options. This gap in care represents the need for a bridge level of stabilization that could be offered through a Behavioral Health Crisis Stabilization Center – an approach recommended by federal agencies and implemented in many other states. In Hawai'i, in the absence of a Behavioral Health Crisis Stabilization Center, individuals resort to care in the emergency department, resulting in significant costs to the state, mostly to Medicaid.

In the absence of a Behavioral Health Crisis Stabilization Center, the State of Hawai'i will continue to experience:

- (1) Avoidable inpatient and ED utilization with high costs paid by public payers such as Medicaid due to patients interfacing with systems, either ill equipped for behavioral health care or unable to meet mental health needs;

*Authors: Edward Mersereau, LCSW^a, Kathryn E. Boyer, MPA^b, Victoria Y. Fan, ScD^b, Joshua R. Holmes, MPH^a, Craig Yamaguchi, Andrew M. Abe, PharmD^b, Seunghye Hong, PhD^b, Christina Wang, DNP^c, Amy B. Curtis, PhD^a, Yara Sutton, MS^a. Correspondence to: edward.mersereau@doh.hawaii.gov

Affiliations: ^aBehavioral Health Administration, Hawai'i State Department of Health; ^bMyron B. Thompson School of Social Work, University of Hawai'i at Mānoa; ^cHawaii Health and Harm Reduction Center

- (2) A disproportionately high volume of individuals interfacing with both the emergency care system and an overburdened criminal justice system (courts, correctional facilities) that are also unequipped to address underlying behavioral health needs of these individuals; and
- (3) A high volume of persons that return to the streets in the community due to the current system's inability to provide necessary services that address and resolve complex behavioral health and other health needs.

The TQIC outcomes seen during a short period of operations has demonstrated proof of concept of the Behavioral Health Crisis Stabilization Center, with focus on care and safe disposition.

The Challenge and The Opportunity

Coronavirus 2019 (COVID-19) as Impetus

The COVID-19 pandemic created an urgent impetus for establishing the Temporary Quarantine and Isolation Center (TQIC) for homeless individuals. Using a facility offered in partnership by the City & County of Honolulu, the Hawai'i Department of Health Behavioral Health Administration has operated the TQIC with multiple community partners. Provision of services to homeless populations is complex because they experience disproportionately high rates of behavioral health conditions i.e., mental health and substance use disorders, on top of physical health and chronic conditions such as skin infections, diabetes, and heart disease.

As such, a quarantine center for homeless individuals could not limit its domain to mere infection control as would be manageable with the general population such as with hotel-based quarantine options where people just need a place to isolate. Instead, the TQIC needed a holistic approach to well-being to address the prevalent co-occurring behavioral and physical health needs of this population. **Such a multifaceted approach for this population is difficult from the emergency department or the streets.** Thus, the TQIC presented an opportunity to test the concept of a Behavioral Health Crisis Stabilization Center for individuals experiencing homelessness and co-occurring behavioral and physical health conditions.

Homeless populations disproportionately experience behavioral health conditions - mental health and substance use disorders - in addition to physical ailments such as skin infections, diabetes, and heart disease.

The Continuum of Care for Behavioral Health

The Hawai'i State Department of Health (HDOH)'s Behavioral Health Administration (BHA) is statutorily mandated to coordinate and oversee a comprehensive behavioral health system.¹ BHA is the only entity within HDOH that provides direct behavioral health care services and is also a payer of health care services. The BHA provides services across the continuum of care, including:

- (1) **Crisis Services** including crisis line, crisis intervention, and other crisis services in partnership with emergency medical services, EDs, and acute care hospitals;
- (2) **Limited Stabilization Services** such as 3-hour observation, Licensed Crisis Residential Services (LCRS), and detox services, along with EDs and acute care hospitals which serve as the predominant form of stabilization for subacute patients currently but which is inadequate or inappropriate for the acuity levels discussed here²;
- (3) **Treatment Services** including residential treatment, intensive outpatient care, forensic services (Hawai'i State Hospital), treatment for individuals with co-occurring conditions (Palekana), in partnership with acute psychiatric inpatient facilities; and
- (4) **Preventive, Reintegration, Transition, and Care Coordination Services** including discharge planning, jail diversion initiatives, the Hawai'i Opioid Initiative, the CARES Line, and community housing.

The Goldilocks Problem: No Behavioral Health Crisis Stabilization Center in the State

While a broad range of behavioral health care settings exist in Hawaii from low acuity outpatient programs to high intensity inpatient psychiatric care, one critical gap prevents the state from realizing a functional continuum. Seldom do individuals dealing with mental illness, homelessness and other comorbidities move from acute inpatient psychiatric hospitalization to a community placement with lasting success. It is also ineffective and inefficient to maintain individuals in the ED or psychiatric levels of care longer than is clinically necessary.

The Goldilocks Problem:
Some individuals have a **severity level** that is **too low** for inpatient but **too high** for Community Based Residential Services. Without a Behavioral Health Crisis Stabilization Center, they resort to the Emergency Department.

The critical gap is where so many individuals endlessly cycle through the current system of care. Community Based Residential Services (CBRS) are only able to accommodate individuals with much lower acuity or severity levels than the ED or psychiatric inpatient setting. Yet individuals coming out of the ED are not yet stable enough to respond well to currently available levels of community care.²

In other words, these individuals face a 'Goldilocks' problem of needing care for which all existing services in the state are either too low (i.e. CBRS or LCRS) or too high (i.e. psychiatric inpatient). Stabilization that could be offered through a Behavioral Health Crisis Stabilization Center offers the "just right" level of care needed to transition from the high acuity care setting to the more moderate acuity setting. But without such an option, individuals resort to the ED, resulting in significant costs to public payers. If individuals are stabilized in a Behavioral Health Crisis Stabilization Center, they can subsequently transition to a lower level of care with more success.

The High Societal Cost of an ED-Centric Approach

Nationally, psychiatric visits to the ED have been increasing among both adults and youth.^{3,4} Homeless populations with behavioral and physical health needs are particularly vulnerable and costly to treat. EDs and acute care hospitals continue to serve as safety nets for patients with severe mental health conditions in need of crisis stabilization, amounting to significant health care costs paid by the state. Nationally, Medicaid—and ultimately states—pay for the majority of psychiatric emergencies.³

In Hawai'i for 2019, there were 5,714 inpatient hospital discharges with primary psychiatric diagnoses with charges amounting to \$130 million.⁵ The average length of stay of these patients was six days. While there were 15,964 ED primary psychiatric discharges, totaling \$52 million in charges, of which a significant number could have been avoided, representing potentially avoidable ED visits and costs. The average number of inpatient and outpatient stays per unique client was 1.4 and 1.6 days, respectively, indicating that clients presenting for acute psychiatric care are **repeat visitors**.

A significant proportion of psychiatric ED visits are likely avoidable. Nationally, the vast majority of psychiatric ED visits result in discharge rather than hospital admission.⁴ EDs have limited capacity for treating non-severe behavioral health issues. Indeed, the majority of psychiatric ED visits are not even seen by a psychiatrist.³ EDs are rightly focused primarily on 'medical clearance' i.e. determining that there is no imminent psychiatric danger and that there are no emergency physical ailments of psychiatric patients.⁶

Patients that frequent EDs are also often inappropriately served by public safety, law enforcement, and the criminal justice systems. The financial costs per patient in a cell block or under arrest every

**5,714 inpatient discharges
with a primary psychiatric
diagnosis in total charged
\$130 million to Hawaii
payers.**

Average length of stay was 6 days.



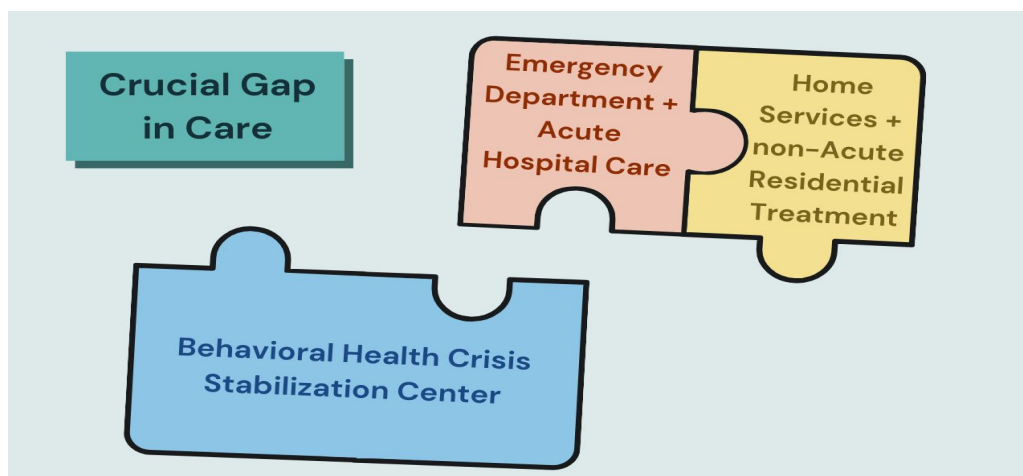
day while awaiting medical or ED clearance before transfer to jail are substantial. For example, in examining costs of patients served by Minnesota Medicaid the total annual multi-sector public spending (across health and human services, criminal justice, and housing sectors) was found to be nearly 4 times higher for high health care users (\$25,337 versus \$6,786), and their non-health care expenses were 2.4 times higher (\$7,476 versus \$3,108) (see Annex 1).⁷ Further, these clients cycling between criminal justice, the streets, and the EDs represent significant economic losses due to unemployment, household and family

impacts, and other socioeconomic impacts not typically measured by medical visits and costs.⁸ **In summary, the current ED-centric approach for psychiatric patients represents low value for current investment by the state and imposes high societal as well as medical costs borne by Medicaid and the hospital system.**

Behavioral Health Crisis Stabilization Center as a Solution

A Nationally Recommended Cost-Saving Approach

Establishing a Behavioral Health Crisis Stabilization Center in Hawaii State is a major strategic priority of BHA. The use of Crisis Stabilization Centers is part of the national toolkit for crisis services outlined by SAMHSA, the leading federal funding agency for substance use and mental health services. These crisis services may provide cost savings through reduced psychiatric hospitalization, while maintaining the same standard of outcomes.^{9,10} **SAMHSA has noted that, in the continuum of services for psychiatric emergencies, crisis stabilization and 23-hour observation beds should be utilized as alternatives to costly inpatient hospitalizations.**⁹



Filling a Crucial Gap in Care

Crisis Stabilization Centers serve as a crucial intermediary for clients who need more than routine outpatient or community based residential care, but do not need inpatient hospitalization services. Such Centers can address needs of patients not currently met by Acute Psychiatric Hospital Care or Emergency Department visits, Non-acute Residential Treatment, or by Home or Mobile services. The duration of stay at a Crisis Stabilization Center ranges from up to 24 hours or for extended durations longer than 24 hours needed to stabilize a patient before they can be transferred to a lower level of care.¹¹ Crisis Stabilization Centers may help to keep those with psychiatric emergencies from unnecessary and costly hospitalizations. Moreover, EDs are often not well-equipped to provide support for psychiatric emergencies, due to a shortage of trained psychiatrists in the emergency department setting, and other reasons.¹²

Other States Have Implemented Crisis Stabilization Centers

The Crisis Stabilization Center concept has been implemented and developed in several other states, seeking to control health care expenditures for this population.

- **Washington State government** will construct a new 32-bed behavioral health facility for Mental Health Crisis Stabilization in Spokane (March 30, 2020).¹³
- **Oregon State government** established a new \$40M center dedicated to diverting patients from psychiatric emergency rooms. The Unity Center for Behavioral Health focuses on improving care for people experiencing a mental health crisis for the purpose of having better outcomes and reducing hospitalization. The center was developed in partnership with Oregon Health State University, Kaiser Permanente, Adventist Health, and Legacy Health (January 6, 2017).¹⁴
- **Alaska State government** implemented the Acute Behavioral Health Care Improvement Project. With the goals of improving patient outcomes and experience of care within the ED and inpatient care settings, for patients presenting with behavioral health conditions, while decreasing avoidable ED visits and repeated ED visits for individuals with behavioral health issues (August 6, 2019).¹⁵
- **San Francisco city government** established a facility with 100 beds for specifically serving individuals suffering from addiction and mental illness that integrates homelessness and behavioral health (February 21, 2019).¹⁶

The Return on Investment

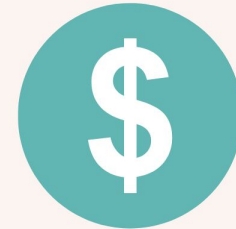
Behavioral Health Crisis Stabilization Services have been shown to decrease total cost of care when compared to strategies focusing predominantly on acute psychiatric hospitalizations (Exhibit 1). The cost-differential between the two strategies is largely attributed to lower direct costs of hospitalizations and emergency department utilization under an integrated framework for behavioral health crisis services compared to a strategy dominated by ED visits and psychiatric hospitalizations.

- One study found an **average savings of \$3,000 per stay** (adjusted 2020 US\$) to stabilize a client using acute behavioral health crisis services compared to hospitalization assuming the same length of stay. However, inpatient hospitalization stays are often longer, implying an even greater cost savings.¹⁷
- In another randomized study, 119 patients with acute psychosis were voluntarily placed into either a psychiatric ward at a hospital or a residential crisis program. The difference in cost per episode was about \$3,600 (adjusted 2020 US\$), and the **residential crisis program cost on**

Average savings of \$3,000 per stay.

To stabilize a client using crisis services rather than hospitalizations.

Inpatient hospitalization stays are often longer, implying an even greater cost savings.



Residential crisis program cost on average 44% less than an hospitalization.

The difference in cost per each episode was about \$3,600.

44%

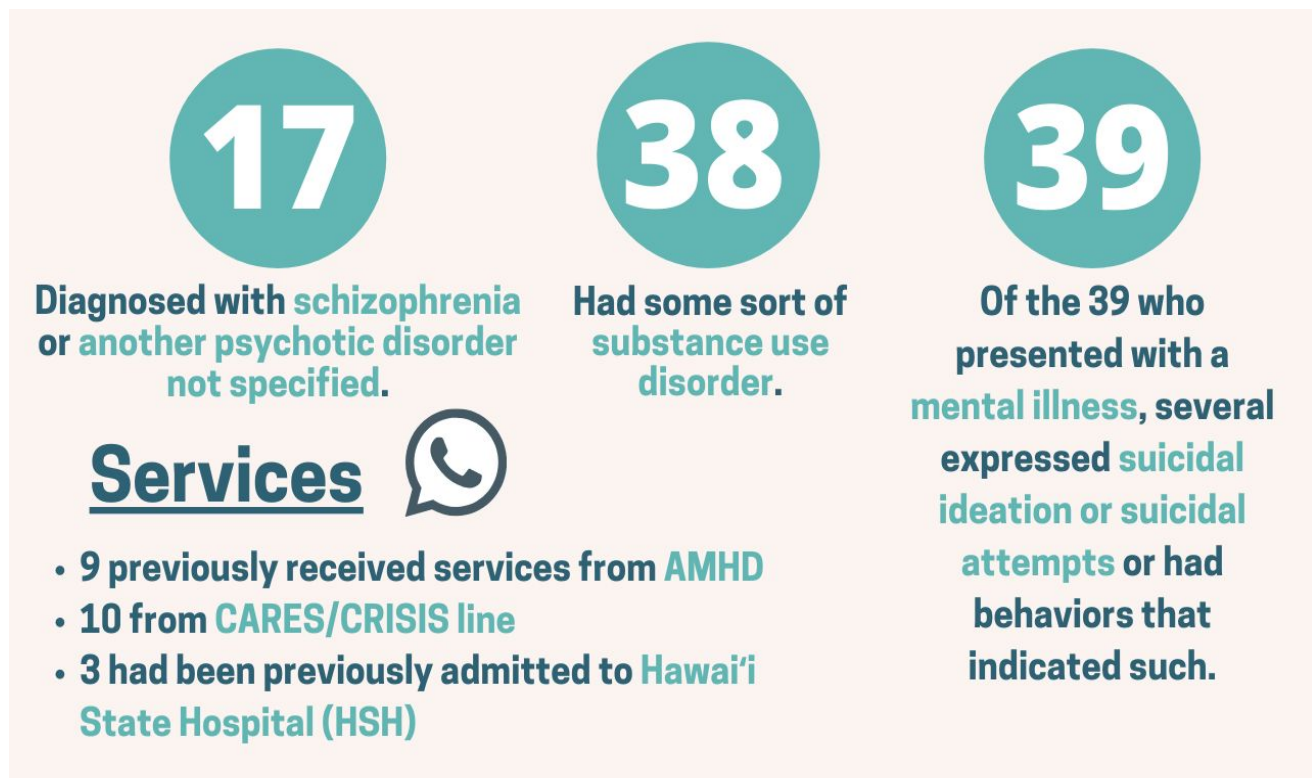
average was **44% less** than a hospitalization. The study did not find any significant difference in symptom improvement, but noted the average length of stay for the residential crisis program was 19 days compared to 12 days for hospitalized patients.¹⁸

- In 2019 in Hawai'i, the average ED visit charges and average inpatient charges for primary psychiatric diagnoses in 2019 were \$3,257 per visit and \$3,726 per day (\$22,703 per stay), respectively, based on hospital discharge data obtained by the HDOH BHA Adult Mental Health Division. Although charges by a hospital are larger than, and distinct from, the amounts paid by an insurance plan to the hospital, these amount to significant costs to the state.⁵

TQIC as a Behavioral Health Crisis Stabilization Center

Overview of TQIC

Recognizing the need for unsheltered people, or those who would become unsheltered if they contracted COVID-19, or were tested and had no safe place to isolate and quarantine, HDOH and the City & County of Honolulu partnered to establish the TQIC for those who were symptomatic and tested to await their results. Using a facility offered in partnership by the City & County of Honolulu, the HDOH BHA has operated the TQIC with multiple partners. The center focused on quarantine and isolation services for unsheltered individuals, including those with symptoms of COVID-19 awaiting test results. There are two referral pathways to TQIC: (1) the Emergency Department (ED) or hospital, or (2) the Coordinated Access to Resources Entry System (CARES) line. The TQIC provides 24-hour medical staffing and case management services for these clients with a multitude of physical and behavioral health needs.



Each client admitted to the TQIC is assigned a case manager through the Institute for Human Services (IHS) onsite case management team, which determines whether a client was already connected with or had been connected with some sort of social services support. A client is then either reconnected, if appropriate, to those services, or, after discussion with the client, referred elsewhere to address their needs. Client choice is considered in every decision made. The Behavioral Health and Homelessness Statewide Unified Response Group (BHHSURG) website (<http://bhhsurg.hawaii.gov>) has detailed information on intake procedures and clinical decision trees.

HDOH operates TQIC with an in-depth awareness of the unsheltered clientele presenting at the center. In addition to lacking a place to quarantine and isolate, these clients have long needed complex care and repeatedly present with a myriad of co-occurring mental health and substance abuse needs, often exacerbating or exacerbated by other physical conditions.

TQIC Client Profile

Co-occurring Behavioral Health Needs

As of 5/30/2020, 51 individuals had been admitted and treated at the TQIC. Of these, at least 17 persons had a diagnosis of schizophrenia or another psychotic disorder not otherwise specified. Client diagnoses were ascertained based on prior history and available record review, self report, and ongoing assessment. Staff of the TQIC are also intensively involved with street outreach programs and interface with these clients frequently through these services as well as in facilities/ medical centers. Of the 39 clients who presented with a mental illness, several expressed suicidal ideation or had previous suicidal attempts. previously received services from AMHD, 10 from CARES/CRISIS line,

14 of the
initial 51
clients
presented

14

with diabetes and many of
those presented with
uncontrolled diabetes.



Many also presented
with heart disease,
kidney disease, liver
disease, and other
chronic issues that
were either untreated
or under-treated.



The overwhelming medical issues consisted of **sepsis due to untreated infection, blisters** and **pressure sores** from sleeping on the streets or walking all day, insect bites and abrasions, and wound care needs.

and 3 had been previously admitted to Hawai'i State Hospital (HSH). Over a quarter (14 patients) had no previous connection or use of behavioral health services in BHA.

Co-occurring Substance Use Treatment Needs

Of the 51 clients that were admitted to the TQIC, 39 (71%) presented with a substance use disorder, requiring detox services and monitoring, and all were offered substance abuse treatment for ongoing management after TQIC discharge. 13 clients of the initial 51 were intoxicated enough upon intake that they required and received on-site medical detox and monitoring by medical staff utilizing well validated assessment tools and protocols for management. Both the TQIC case management team and medical team are closely connected with the Hawaii CARES Line to triage clients into ongoing substance use and behavioral health services as needed beyond the client's stay at TQIC.

Other Chronic and Acute Conditions

All 51 clients who entered the TQIC were provided supportive medical services. Fourteen of the initial 51 clients presented with diabetes and many of these patients were living with uncontrolled diabetes, some having lost extremities as a result of inadequate care. One person also required dialysis for their end-stage renal disease. TQIC medical staff were in close coordination with the client's primary care provider, to consult on these cases and if they did not have primary care, they were connected with follow-up information and connection to ongoing care prior to leaving. Of the initial admits, the overwhelming medical issues consisted of sepsis due to untreated infection, blisters¹ and pressure sores from sleeping on the streets or walking all day, insect bites and abrasions, and many wound care needs. **In addition, many also presented with heart disease, kidney disease, liver disease, renal failure, traumatic brain injury, dementia, cellulitis, hypertension, and other chronic issues that were either untreated or undertreated. Those with diabetes and other chronic conditions were either already receiving medication or restarted on medication while at the TQIC.**

Hospital Charges for TQIC Clients

HDOH is requesting hospital discharge data for TQIC clients to assess longitudinal impacts of the TQIC in reducing burden to the ED. As many of the clients are repeat visitors to the ED, their total charges for ED visits and inpatient stays were likely substantial. Longitudinal study is planned to examine the extent to which the connection with the TQIC reduced avoidable ED visits.

TQIC Outcomes

While TQIC had only been operational for approximately a month and a half at the time of this writing, it has significantly and positively

TQIC clients stayed
on average 4 days.
Based on client condition,
stays ranged
from <1 day to 15 days.
The majority of clients were
referred from the
Emergency Department.

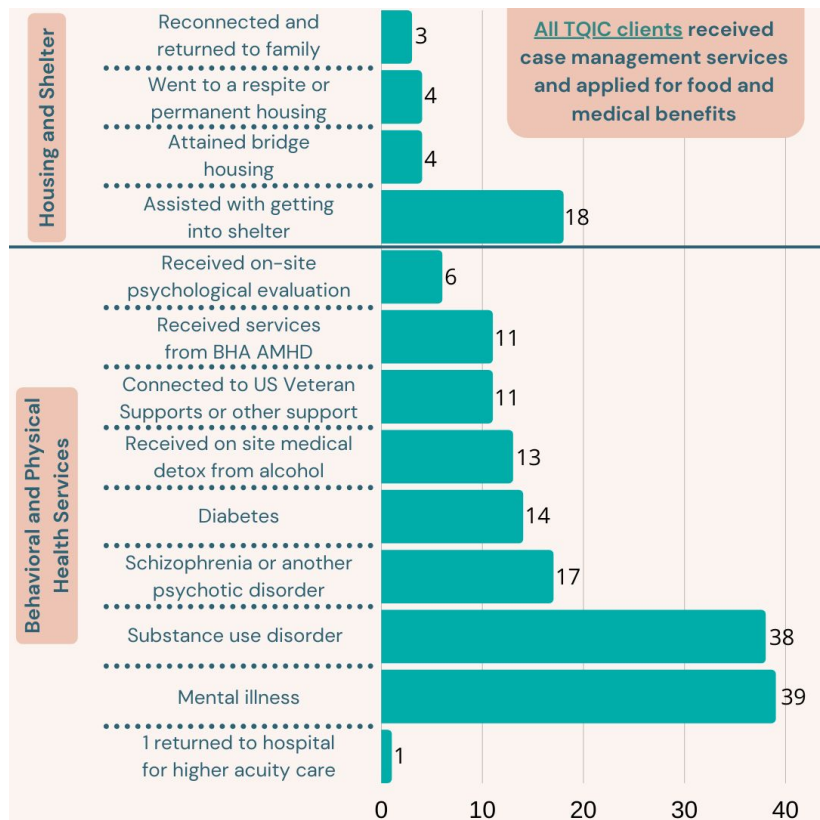
¹ Most chronic wound care provided to this population relates to chronic venous insufficiency and chronic venous stasis ulcers, diabetic foot ulcers, abscesses, and arterial wounds.

impacted the health status of the clients served. TQIC provided medical and social services for clients over their stay while they awaited results for COVID-19 tests, the primary reason for their admission. During their stay however, significant effort went into placing clients into more stable long-term sites and services that likely would not have occurred in the absence of the availability of the TQIC or strict discharge from the ED (see Annex 3 for Four Client Case Studies). Short- and long-term impacts of avoiding repeated ED visits due to safe, adequate discharge planning are expected to be significant. Placement and coordination of care for this clientele is quite challenging when done directly from the streets or from the ED setting.

Forty five percent of clients (25 of 55) were referred from the Emergency Department. With an average length of stay of 4 days, however, stays ranged from less than one day to up to 15 days. As of 5/28/20, all clients in the TQIC had tested negative for COVID-19 through PCR nasopharyngeal swab laboratory testing. .

Improved Immediate Physical and Mental Health

- All 51 clients received a thorough medical evaluation upon intake and admission. Diagnoses were reviewed with clients through records and with the patient. All diagnoses that could be managed in this outpatient setting were addressed through best practices. Several well validated clinical tools were utilized for assessing and treating clients at risk for, or in active withdrawal. The Clinical Institute Withdrawal Assessment (CIWA) was used to guide withdrawal and detox treatment.
- 13 clients received on-site medical detox from alcohol.
- 14 patients diagnosed with diabetes were provided medical services to assist with controlling their chronic condition.
- 1 client was assisted with management of their end-stage renal disease to dialysis.
- 1 client needed and received emergency dental services.
- Only 1 of 51 clients returned to the hospital for an inpatient admission due to a need for higher acuity level of care.
- 3 clients needed re-evaluation at the ED but were then discharged back to the TQIC facility for ongoing management.
- In total, 42 of the 51 clients had an improved physical



and/or mental disposition upon discharge or a substantial engagement regarding follow-up services and post-discharge continuity of care such as case management, food, insurance coverage, shelter and housing services, medical, and behavioral health services.

Connected to Immediate and Long-term Behavioral Health Services

At the TQIC, each client was assigned a case manager on site who assisted with discharge planning, connecting or reconnecting with long-term case management and other services, and advising clients with mental health and substance abuse concerns to seek treatment. Each client who came through the TQIC subsequently had an assessment of strengths and needs which guided their time at the TQIC. This assessment included looking into any case management or other community support that clients were engaged with to ascertain if clients were eligible for other resources. In many cases clients qualified for AMHD services or reconnecting to agencies that had fallen out of contact.

Additionally, 6 clients received psychological evaluations to create treatment plans and services for long-term care. The majority of clients (27 of 51) were administered medication, with all clients receiving at least one medication.

More than one in five clients (11 of 51 clients) after their TQIC stay were connected or re-connected to services in the HDOH BHA Adult Mental Health Division (AMHD). 4 clients were connected to US Veteran Supports and 8 were connected to other case management support.

For clients that were not formerly connected into the broader system each person was linked with a case manager through IHS as well as a case manager to their discharge location. For 11 clients that opted to return to their previous living situation, it was especially important to link social services and case management to these clients for longer term follow up. Often it will take multiple interactions with a chronically unsheltered individual in order to establish rapport and identify how to meet the needs of the individual who has long been unsheltered. Recognizing clients' needs and their priorities is essential in connecting clients with resources and to work on treatment for those with impaired judgement and co-occurring behavioral health conditions.

Connected to Immediate and Long-term Housing

All clients safely quarantined with TQIC shelter. With TQIC case management and support services provided:

- 3 clients were reconnected to family and were returned to family upon discharge.
- 4 clients moved to bridge housing (housing with supports while awaiting permanent housing).
- 2 moved from TQIC directly into permanent supported housing.
- 2 clients went to a respite bed in respite housing while recovering from their wounds, other injuries, and/or health conditions.
- 18 clients were discharged to shelter where shelter case management staff completed a VI-SPDAT for each client to further the client in the housing continuum within the state.

Connected to Social Services

Case management staff applied for food and medical benefits for all TQIC clients.

Additionally, staff assisted multiple clients in completing comprehensive case management to address socio-economic issues such as emergency application to Med-QUEST for clients that had been disenrolled, obtaining EBT card, social security card, driver's license, as well as disability bus passes.

Coordinating care for clients to levels of care such as Community Care Services (CCS), Housing, and Case Management for those with Serious Mental Illness (SMI) after their stay at TQIC has the potential for significant health care costs savings to the state – by supporting individuals to live in the community independently and successfully.

Longitudinal studies examining the long-term impact in terms of burden on behavioral, medical, law enforcement, criminal justice, and social services are planned. The linkage of the TQIC to a system and continuum of care can positively impact the systemic reaction of individual providers.

Conclusion

The TQIC demonstrates proof of concept of the Behavioral Health Crisis Stabilization Center. TQIC provided rapid services for several clients in a short period who were, in turn, connected with and placed into more stable and appropriate long-term services that likely would not have occurred in the absence of the availability of the TQIC. The stabilization services fill an important gap in the care continuum that allows for rapid responsiveness of needs and better flow to ensure people only go to the hospital for highest acuity care.

In the absence of a Behavioral Health Crisis Stabilization Center, the State will continue to burden:

- (1) Avoidable inpatient and ED utilization with high costs and utilization for hospital-based care for emergency department visits and inpatient stays paid by public payers such as Medicaid due to patients interfacing with systems either ill equipped for behavioral health care or unable to meet individuals several mental health needs; untreated individuals with severe mental illness and unequipped for behavioral health care;
- (2) A disproportionately high volume of individuals high-need individuals interfacing with both passed the between the emergency care system and an overburdened criminal justice system (courts, correctional facilities) that are also unequipped to address underlying behavioral health needs of these individuals; and
- (3) A high volume of persons that return to the streets in the community due to the current system's inability to provide necessary services that address and resolve complex behavioral health and other health needs.

References

1. *Hawaii Revised Statutes 334-2 Mental Health System.*
https://www.capitol.hawaii.gov/hrscurrent/Vol06_Ch0321-0344/HRS0334/HRS_0334-0002.htm
2. What are the ASAM Levels of Care? ASAM Continuum | ASAM Criteria Decision Engine.
Published May 13, 2015. Accessed May 17, 2020.
<https://www.asamcontinuum.org/knowledgebase/what-are-the-asam-levels-of-care/>

3. Kalb LG, Stapp EK, Ballard ED, Hologue C, Keefer A, Riley A. Trends in Psychiatric Emergency Department Visits Among Youth and Young Adults in the US. *Pediatrics*. 2019;143(4). doi:10.1542/peds.2018-2192
4. Hazlett SB, McCarthy ML, Londner MS, Onyike CU. Epidemiology of adult psychiatric visits to US emergency departments. *Acad Emerg Med Off J Soc Acad Emerg Med*. 2004;11(2):193-195.
5. Lailima Data Alliance, a subsidiary of the Healthcare Association of Hawaii. Lailima Data. Published 2018. <http://lailimadata.org/>
6. Shah SJ, Fiorito M, McNamara RM. A screening tool to medically clear psychiatric patients in the emergency department. *J Emerg Med*. 2012;43(5):871-875. doi:10.1016/j.jemermed.2010.02.017
7. Vickery KD, Bodurtha P, Winkelman TNA, et al. Cross-Sector Service Use Among High Health Care Utilizers In Minnesota After Medicaid Expansion. *Health Aff Proj Hope*. 2018;37(1):62-69. doi:10.1377/hlthaff.2017.0991
8. Bloom DE, Fan VY, Sevilla JP. The broad socioeconomic benefits of vaccination. *Sci Transl Med*. 2018;10(441). doi:10.1126/scitranslmed.aaj2345
9. Abuse S, Administration MHS. *Crisis Services: Effectiveness, Cost-Effectiveness, and Funding Strategies*. Substance Abuse and Mental Health Services Administration Rockville, MD; 2014.
10. Substance Abuse and Mental Health Services Administration. *National Guidelines for Behavioral Health Crisis Care – A Best Practice Toolkit*. Substance Abuse and Mental Health Services Administration; 2020:80. Accessed May 17, 2020. <https://www.samhsa.gov/sites/default/files/national-guidelines-for-behavioral-health-crisis-care-02242020.pdf>
11. Mukherjee D, Saxon V. “Psychological Boarding” and Community-Based Behavioral Health Crisis Stabilization. *Community Ment Health J*. 2019;55(3):375-384. doi:10.1007/s10597-018-0237-9
12. Dounnik SK, Esposito J, Lavelle J. Beyond Mental Health Crisis Stabilization in Emergency Departments and Acute Care Hospitals. *Pediatrics*. 2018;141(5). doi:10.1542/peds.2017-3059
13. Commerce awards \$1.96 million for Spokane Mental Health Crisis Stabilization. Washington State Department of Commerce. Published March 30, 2020. Accessed May 17, 2020. <https://www.commerce.wa.gov/news-releases/community-grants/commerce-awards-1-96-million-for-spokane-mental-health-crisis-stabilization/>
14. Wentz-Graff K. Oregon’s first dedicated psychiatric emergency facility to open January 2017. OHSU News. Accessed May 17, 2020. <https://news.ohsu.edu/2017/01/06/oregon-s-first-dedicated-psychiatric-emergency-facility-to-open-january-2017>
15. Agnew Bemben T. Alaska’s Behavioral Health Crisis Continuum, Civil and Forensic. Presented at the: August 6, 2019. Accessed May 17, 2020. <https://www.ashnha.com/wp-content/uploads/2020/01/Alaska-Behavioral-Health-Crisis-Continuum-Civil-Forensic-Presentation-8-6-19-1.pdf>
16. Mayor London Breed Announces Completion of Hummingbird Place Expansion of Behavioral Health and Substance Use Stabilization Beds | Office of the Mayor. Accessed May 17, 2020. <https://sfmayor.org/article/mayor-london-breed-announces-completion-hummingbird-place-expansion-behavioral-health-and>
17. Adams CL, El-Mallakh RS. Patient Outcome after Treatment in a Community-Based Crisis Stabilization Unit. *J Behav Health Serv Res*. 2009;36(3):396-399. doi:10.1007/s11414-008-9141-3
18. Fenton WS, Hoch JS, Herrell JM, Mosher L, Dixon L. Cost and cost-effectiveness of hospital vs residential crisis care for patients who have serious mental illness. *Arch Gen Psychiatry*. 2002;59(4):357-364. doi:10.1001/archpsyc.59.4.357
19. Behavioral Health & Homelessness Statewide Unified Response Group. Accessed May 17, 2020. <https://bhhsurg.hawaii.gov/>

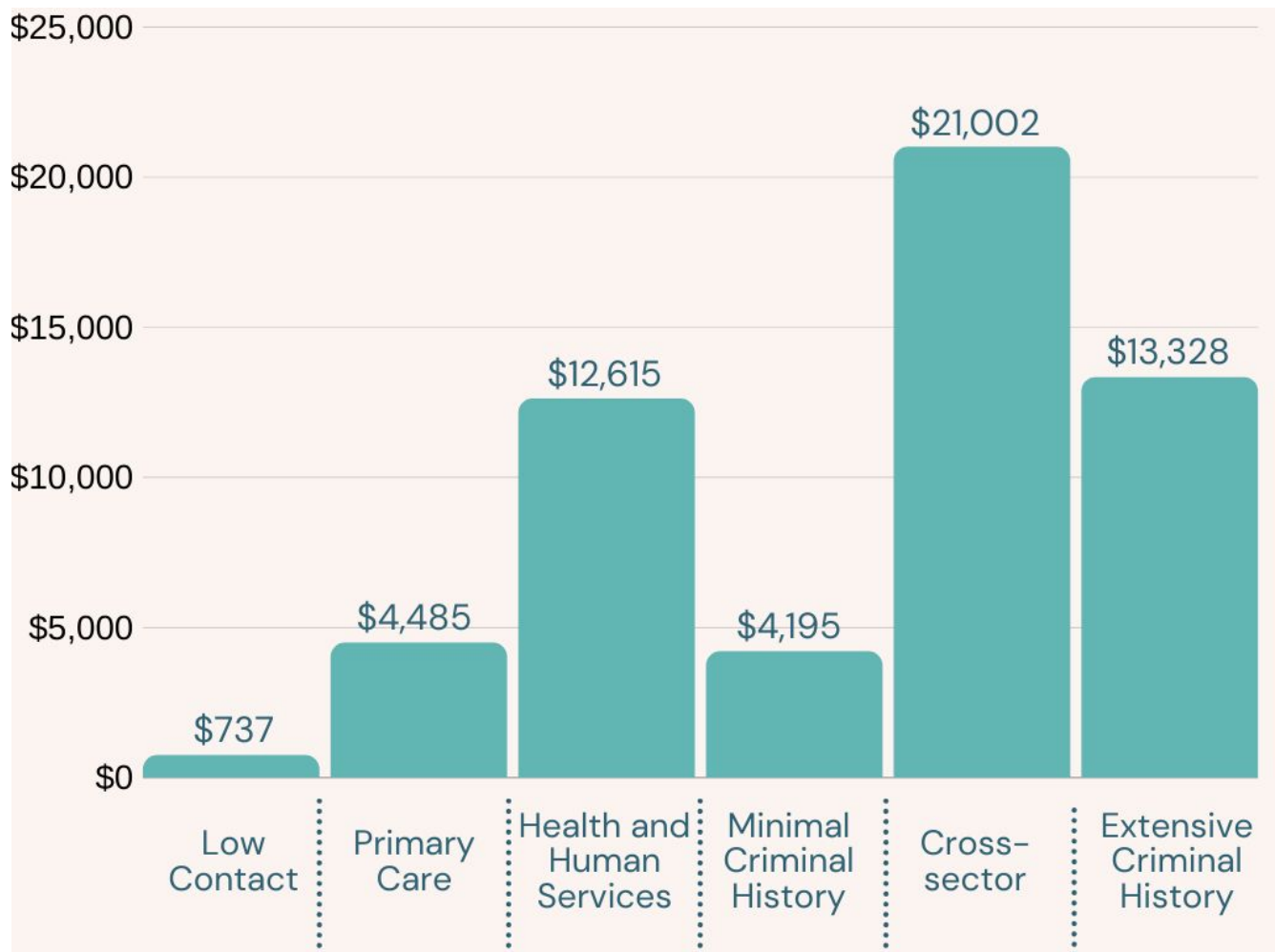
20. Bodurtha PJ, Winkelman T, Vickery KD, et al. Identification of Cross-sector Service Utilization Patterns Among Urban Medicaid Expansion Enrollees. *Med Care*. 2019;57(2):123-130. doi:10.1097/MLR.0000000000001024

How To Cite This Paper:

Mersereau E, Boyer KE, Fan VY, Holmes JR, Yamaguchi C, Abe AM, Hong S, Wang C, Curtis AB, Sutton Y. COVID-19 Temporary Quarantine and Isolation Center: A Proof of Concept for Behavioral Health Crisis Stabilization Centers. Behavioral Health and Homelessness Statewide Unified Response Group White Paper. Hawai'i State Department of Health Behavioral Health Administration, Honolulu, HI: May 28, 2020. Consultative Draft, Version 1.0.

Annex

Annex 1: Patients Served by Health & Human Services, Criminal Justice, and Housing Sectors Have Very High Public Services Costs



Source: Bodurtha PJ, Winkelman T, Vickery KD, Owen R, Van Siclen R, Erickson E, et al. Identification of Cross-sector Service Utilization Patterns Among Urban Medicaid Expansion Enrollees. *Med Care*. 2019;57(2):123-30.²⁰

Annex 2: Search Terms for Literature Review

Database: PubMed

Date of search: 5/8/2020

Search Terms:

- ("Mental Disorders"[Mesh]) AND "Crisis Intervention"[Mesh] AND Bed
- ("Mental Disorders"[Mesh]) AND "Crisis Intervention"[Mesh] AND Stabilization
- Crisis Stabilization Unit
- Psychiatric Emergency

Annex 3: Four Client Case Studies of Stabilization

Case 1: Aging homeless woman with behavioral disorders reconnects to services after jail

Ms. A is an unsheltered homeless woman in her 50s who had been on the streets for many years due to her undertreated mental health concerns. She has a long history of inconsistent medication adherence and when she is off of her medication or takes it inconsistently, she can become very agitated. One consequence of this is that she often has negative interactions with law enforcement and has charges going back twenty years due arguments and physical altercations. Due to her uncontrolled behaviors, she has been vulnerable to assault and has been beaten on the streets many times. She has also scuffled with law enforcement when they have approached her and she becomes agitated, which sometimes leads to her arrest. She has historically been a high utilizer of local ED and has been taken into hospitals for psychiatric evaluation for an involuntary hospitalization (MH-1) multiple times. Some of her co-morbidities include: schizophrenia, post-traumatic stress disorder (PTSD), anxiety, major depressive disorder, substance use disorder, hypertension, and obesity. Last year when she spent 5 months in jail, she lost housing and case management services. Upon discharge from TQIC, she was reconnected to these services with AMHD and transitioned to a 24-hour supervised group home. Without connecting to the TQIC and having an interim place to stay while center case managers coordinated her transition, Ms. A would likely still be wandering the streets, utilizing the ED in addition to being vulnerable to further assaults.

Case 2: Aging homeless veteran with dementia and co-occurring substance use disorder is reconnected to services and housing

A homeless veteran in his late 40s was referred by local ED to the TQIC due to COVID-19 symptoms. He presented with a history of traumatic brain injury (TBI) and unspecified dementia, likely due to a long history of boxing and alcohol use. The client was brought to the center via case management transport to facility safe arrived. At the time of admission, the patient required active alcohol withdrawal assessment and management by providers who specialize in the management of substance use disorders. Additionally, case management completed an intake assessment and determined that the client was listed as "missing" in the Homeless Management Information System by the VA. The case manager notified VA Outreach in order to reconnect. Due to his dementia and TBI the client needed frequent cues to assist with his memory impairment. The client was successfully discharged with support from the Veterans Administration (VA) and U.S. Vets for ongoing housing placement, and memory support services. He was subsequently transported to a hotel used by the U.S. Vets to house veterans during the pandemic. U.S. Vets will continue to assist with finding permanent housing while he ages and his dementia worsens.

Case 3: Young homeless adult with psychiatric disorder, past methamphetamine use is diagnosed with bipolar disorder and stabilized

Mr. K in his early 20s came to the TQIC from the Provisional Outdoor Screening & Triage (POST) center. POST was arranged by the Honolulu Police Department (HPD) in response to assisting the large volume of unsheltered homeless in Honolulu that were asymptomatic for COVID-19 but had no other location to self-isolate/ quarantine. During his brief stay at the POST the medical staff identified that the client needed to move to a higher level of assessment and care as he developed symptoms related to COVID-19. Patient was tested for COVID and brought to the TQIC through arranged

transportation. Unfortunately, the client had significant mental and behavioral health concerns and reported that he swallowed a fork intentionally, as well as threatened to jump out of the second story of the building. The client was correctly connected to the local psychiatric unit for ongoing assessment and care. However, of the patient's connection to TQIC, case management continued to work with Mr. K and once he was cleared medically and appeared mentally stable, IHS case management were notified and placed the client into one of their ADAD-funded beds. Due to the nature of his significant mental health and substance use disorder (methamphetamine use disorder) the patient continued to struggle behaviorally. Thus, through continuous reassessment and connection into the CARES system the patient was finally placed at Hale Mauliola, where he has settled in and feels comfortable with the staff on site. Decreasing barriers and working across systems have helped this young man to get the help he needed to get off the streets.

Case 4: Homeless man with serious mental illness and substance use disorder enrolled in community care services and placed in queue for housing voucher

Mr. W in his 30s fell into homelessness as a result of his mental illness and substance use disorder. He has been staying at the IHS Men's Shelter since last December. He had been at a faith-based shelter, but sustained a shoulder injury and was unable to complete the work hours which were a requirement for remaining in his prior program, causing eviction to the street. Mr. W lives with major depressive disorder and bipolar disorder. He is in remission from his substance abuse and wants to contribute in society. Transportation was again arranged for Mr. W to come from the shelter to the TQIC for the management of his COVID-19 needs as well as other medical concerns. He was seen by the Psychiatrist onsite and an 1157 form was completed for him. An 1157 is a referral for serious mental illness community care services (SMI CCS), a program which can assist those living with a severe and persistent mental illness in case management and systems navigation. He also completed a VI-SPDAT (the application form/assessment tool used to place an individual into the housing continuum) and is now in the Coordinated Entry System in the queue for a permanent housing voucher. Once he was cleared with a negative COVID-19 test, he chose to wait at IHS for an independent living opening and he is already collecting Supplemental Security Income (SSI), and intends to continue with behavioral health support and medication assisted therapy.