

HAWAI'I STATE HEALTH INNOVATION PLAN

DRAFT – Dated February 19, 2016



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I. Executive Summary:

Hawai'i's Vision for Health System Transformation

Hawai'i's State Health Innovation Plan (SHIP) lays the foundation for innovative delivery and payment models that yield the Triple Aim of better health, better care and reduced costs, as well as the "plus one" of reducing health care disparities across the state. Furthermore, the plan supports the State's focus on "healthy families, healthy communities" and the overall goal of aligning programs and funding around a common framework: a multigenerational, culturally-appropriate approach that invests in children and families to nurture well-being and improve individual and population health outcomes. Hawai'i has received two State Innovation Model (SIM) awards from the Center for Medicare and Medicaid Innovation (CMMI) – a Round One Model Design award in 2013 and a Round Two Model Design award in February 2015. The SHIP presented here is the result of Round Two funding and the commitment and dedication of the Office of Governor, the Department of Human Services (DHS), the Department of Health (DOH) and numerous health care stakeholders throughout the state.

During the course of the SIM process, Hawai'i engaged more than 300 stakeholders in committee meetings, key informant interviews and targeted discussions, focus groups, public hearings, and legislative briefings to provide information and get input on SIM planning efforts. Stakeholder engagement was established through five committees (Steering, Delivery and Payment, Workforce, Population Health, and Oral Health) which convened over the course of the planning period to help shape the strategic approaches and implementation plan. Committees included leaders from the following: DOH and DHS; all five Medicaid managed care health plans; the University of Hawai'i; federally-qualified health centers; behavioral health, primary care, and hospital-based providers; the Hawai'i Health Information Exchange (HHIE); the Hawai'i Area Health Education Center; and organizations representing Native Hawaiians. The wealth of experience and meaningful input contributed by stakeholders was invaluable in developing an innovation plan that realistically addresses the expressed needs and challenges of the community that will benefit from its use.

Consistent with the goals for healthy families and healthy communities, Hawai'i's SHIP addresses two significant gaps in the Hawai'i health care system: effective awareness, diagnosis, and treatment of **behavioral health** conditions at all levels, and poor **oral health**. The SHIP focuses on strategies to improve the integration of behavioral health within primary and women's health care and increase access to oral health for Medicaid and Children's Health Insurance Program (CHIP) beneficiaries in the State.

Hawai'i is striving to support healthy families and communities while bending the cost curve for State-supported health programs (notably Medicaid and CHIP) and fostering a sustainable culture of health innovation in the State. There are several reasons for focusing on behavioral health, including the growing prevalence of behavioral health conditions, disparities related to these conditions particularly among adolescents and Native Hawaiians and Pacific Islanders (NHPs); the adverse health outcomes of adults with comorbid behavioral and physical health conditions; the risk of poor birth outcomes for substance using pregnant women; and the high

costs to the health care system for behavioral health conditions. Hawai'i's behavioral health providers, who do extraordinary work in an array of public and private agencies, have been among SIM's most valuable and generous contributors. Their wealth of experience enables them to identify needs and gaps and share their visions for a system that comprehensively supports healthy behaviors.

Improving oral health is another important step in addressing population health, with research increasingly substantiating links between poor oral and physical health. Unfortunately, Hawai'i has no public water fluoridation and dental benefits have not been provided for adults in the State's Medicaid program (other than emergency care) since 2009. Hawai'i hopes to restore oral health benefits for adults enrolled in Medicaid and implement additional steps to improve oral health on all the islands.

Drivers of Health System Transformation in Hawai'i

Hawai'i's aims are to reduce preventable hospitalizations, readmissions and emergency room (ER) visits by 2021.¹ Behavioral health integration is a primary driver in achieving these aims. In particular, through SIM efforts, Hawai'i intends to:

- 1 • Increase access to and utilization of behavioral health services and resources for individuals with mild to moderate behavioral health conditions
- 2 • Increase the use of evidence-based behavioral health practices in primary care and women's health settings, and
- 3 • Strengthen the health care delivery system to support behavioral health integration

By focusing on behavioral health integration, Hawai'i expects to reduce overall health care expenditures by reducing unnecessary use of ERs for behavioral health-related reasons, reducing costly hospitalizations that may have been prevented by improved management of behavioral health conditions, and improving the overall health of people with comorbid physical and behavioral health conditions.

¹ The State will determine the 2021 targets for reductions in preventable hospitalizations, readmissions or ER visits by December 2016.

Behavioral Health Integration Strategies in Hawai'i

Having identified the primary drivers of health care innovation during the SIM planning process, Hawai'i chose to focus its work on behavioral health integration strategies that will support the capacity of primary care and women's health (PC/WH) providers to treat and manage both physical and behavioral health care for individuals with mild to moderate behavioral health needs.² In particular, a critical element in Hawai'i's plans for behavioral health integration is to increase PC/WH providers' use of three evidence-based practices:

- 1) Screening for depression and anxiety;
- 2) Screening, Brief Intervention, and Referral for Treatment (SBIRT) for substance misuse; and
- 3) Motivational Interviewing

Recognizing that PC/WH providers are very busy and have limited time to spend with each patient and, further, that behavioral health referral resources are limited, Hawai'i intends to make multiple supports available to providers to assist them with achieving the goals of behavioral health integration, including:

- Developing training, ongoing learning collaboratives, and practice support for PC/WH providers to improve their comfort and competencies for treating behavioral health conditions
- Developing a provider-to-provider consultation program for PC/WH providers to remotely consult with psychiatrists about treatment options for patients with behavioral health conditions
- Developing Community Care Teams (CCTs) to support care for patients with behavioral health conditions. The CCTs will facilitate the triage and referral of patients to specialists and to managed care organization (MCO) care coordinators, will follow-up with patients and MCOs as needed, and will provide additional health education and assistance with accessing community resources. The work of the CCTs is envisioned to support PC/WH providers with patients with mild to moderate behavioral health needs but, in order to reduce gaps in eligibility and services, will also help with those with more serious conditions. CCTs will be staffed by licensed social workers and community health workers (CHWs) trained in behavioral health, with clinical oversight provided by psychiatrists or psychiatric nurse practitioners.

² Note that the term "primary care provider" includes family practice providers, general medicine providers, pediatricians, internists, physician assistants, nurse practitioners, and advance practice registered nurses (APRNs). "Women's health" providers include OB/GYN providers.

- Increasing the use of tele-mental health to expand access to treatment by psychiatrists, psychologists, and other behavioral health specialists in rural and underserved areas
- Expanding health information technology (HIT) infrastructure and the use of tools that support coordination among primary care, women's health, and behavioral health providers
- Enhancing the use of Medicaid value-based payments to promote behavioral health integration (BHI)

Addressing behavioral health integration is a priority that will serve as a laboratory for broader system changes in the future. All health care delivery and financing entities must be involved, including the Hawai'i Medicaid agency (Med-QUEST), PC/WH and behavioral health providers, and payers (i.e., health plans), to achieve the desired payment incentives, workforce changes, health information technology (HIT) expansions, and population health improvements. While Hawai'i's innovation plan is adaptable to multi-payer use, the State's plan is purposely limited to the Medicaid population with a focus on individuals with mild or moderate behavioral health conditions. The choice to narrow the SIM's focus was based on notification from CMMI that there would be no SIM Round 3 test awards in the future; thus, all innovations will require significant State and private financial investment. In light of this fact, the State chose to prioritize initiatives that can be realized within Medicaid's authority with limited resources over the course of the next five-years.

In addition, while some states have used their SIM Design awards to build upon years of planning and experimentation with health system transformation efforts, Hawai'i's first SIM grant in 2013 was its initial effort to engage in statewide health system change. As such, many critical implementation details and funding decisions have yet to be discussed and finalized.

Next Steps

Following the conclusion of this SIM Design Award, the Hawai'i DHS will continue to build from the foundation that has been laid by the Governor's Health Care Innovation Program. DHS will continue meeting with stakeholders to plan the details of BHI using this SHIP as a guide for necessary next steps. The planning phase will continue throughout 2016 and implementation is expected to begin in 2017. In addition, pending the outcome of the 2016 legislature and its budget-making process, MQD will be working on updating its systems to support the restoration of dental benefits for adults covered by Medicaid.

II. Introduction

The state of Hawai'i is unique in many ways, from its geography and diverse population, to its place as a leader in progressive health care policies. Although Hawai'i boasts a status as the healthiest state in the country on many health indicators, room for improvement remains.³ Not unlike trends seen nationwide, Hawai'i has seen mounting health care expenses, increasing morbidity from costly chronic diseases and behavioral health conditions, uneven access, and limited availability of health care and cost data. It is these trends that provide the impetus for health care transformation in Hawai'i.

Hawai'i has received two SIM awards from the Center for Medicare and Medicaid Innovation (CMMI) – a Round One Model Design award in 2013 and a Round Two Model Design award in February 2015. Both SIM initiatives are staffed and coordinated by the Office of the Governor. SIM is Hawai'i's initial step in an ongoing innovation agenda. The technical assistance, stakeholder engagement, research, planning, and other activities supported by SIM created a foundational process that will support future system improvement.

The objective of the SIM Initiative is to provide support to State-led health care transformation efforts that focus on innovative delivery and payment models that yield the Triple Aim of better health, better care and reduced costs, as well as the “plus one” of reducing health care disparities. A central element of SIM planning is the engagement of a broad group of stakeholders, including State health agencies, health care providers, commercial payers, health professions training institutions, and consumer advocacy organizations. As a SIM Model Design state, Hawai'i is developing a SHIP that is informed by stakeholder input and lays out the roadmap for implementing Hawai'i's chosen delivery system and payment reform strategies.

The first Model Design and SHIP planning process revealed two troubling gaps in Hawai'i's health care system: effective awareness, diagnosis, and treatment of **behavioral health** conditions at all levels for both mental health and substance use, and poor **oral health**. As a result, Hawai'i's Round Two SIM Design award has focused on strategies to improve the integration of behavioral health within primary and women's health care and increase access to oral health for Medicaid and Children's Health Insurance Program (CHIP) beneficiaries in the State.

A. Focus on Healthy Families, Healthy Communities

Two statewide agencies, the Department of Health (DOH) and the Department of Human Services (DHS), are partners in SIM efforts, which are supported by a grant to the Governor's Office. DOH and DHS collectively comprise public health programs, chronic and

³ America's Health Rankings. (2014). State Data: Hawai'i. <http://www.americashealthrankings.org/HI>



communicable disease prevention, emergency medical services and injury prevention, family health, environmental health, adult and children’s behavioral health, alcohol and drug abuse treatment, Medicaid, food, nutrition, financial and utilities assistance, child welfare services, childcare, job training and placement, public housing and homelessness, adult protective services, and juvenile justice programs. To better serve Hawai’i residents and more efficiently use existing resources, both agencies are aligning programs and funding around a common framework: a multigenerational, culturally-appropriate approach that invests early and concurrently in children and families to nurture well-being and improve health outcomes.

As described by *Ascend* at the Aspen Institute: “Two-generation approaches focus on creating opportunities for and addressing needs of both vulnerable children and their parents together.”⁴ In Hawai’i, we recognize that our families—*‘ohana*—are made up of vertical (parents, grandparents, great-grandparents) and horizontal (aunties, uncles, cousins, *hānai* [adoptive] relatives) generations, which has resulted in an approach for Hawai’i that is multigenerational.⁵

This multigenerational framework focuses on the whole family—however it is defined—rather than on only children or only adults. With the science showing the negative effects of toxic stress on people of all ages and the adverse childhood experience factors on children and their brain development, it makes sense to invest in healthy behaviors for all members of the family.

B. Hawai’i’s Health Care Innovation Goals

Consistent with the State’s goals for healthy families and healthy communities and, as a result of convening hundreds of stakeholders and analyzing Hawai’i health data, Hawai’i’s focus is on improving behavioral health (encompassing both mental health and substance misuse and abuse). With the resources provided by the Round Two SIM Model Design award, the State is focusing on behavioral health integration and increasing access to oral health services for all ages, from children through adults. Through behavioral health integration efforts, Hawai’i is striving to support healthy families while bending the cost curve for state-supported health programs (Medicaid, CHIP, and the Employer Union Health Benefits Trust Fund) and creating a sustainable culture of health innovation in the State.

For Hawai’i, our overall approach can be described as follows:

- Thinking beyond clinic walls to address the social determinants of health that include

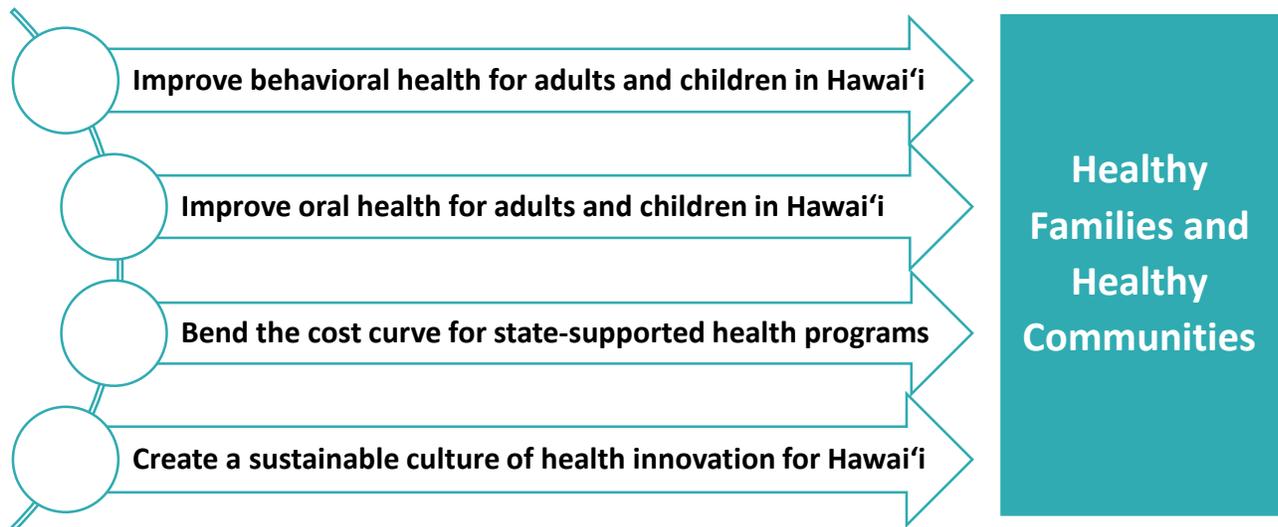
⁴ The Aspen Institute (2015). The Two-Generation Approach. <http://ascend.aspeninstitute.org/pages/the-two-generation-approach#sthash.7REoLYr.dpuf>

⁵ While this is called 2Gen in other states, young adults who have transitioned from our child welfare system are selecting the name for the multigenerational approach used here.

- Where we live and work
- Our families and social supports
- Our zip code to our genetic code
- Focusing on the Triple Aim + 1
 - Better health
 - Better care
 - Lower costs
 - Plus addressing health equity and health disparities with consideration for racial/ethnic backgrounds, geographic locations, and socioeconomic circumstances.

This framework sets the context for health care innovation. More than that, it becomes the foundation for healthy children, families, and communities in Hawai'i: *Multiple generations. One future.*

Put simply, Hawai'i's health care innovation goals that strive to achieve the Triple Aim +1 over the next five years are:



Behavioral Health Integration (BHI)

Since behavioral health has been identified as Hawai'i's most pressing health care priority, SIM strategies are to support the capacity of primary care and women's health providers to integrate and manage both physical and behavioral health care for individuals with mild to moderate



behavioral health needs.⁶ Working with stakeholders, Hawai'i has identified the following steps to achieve behavioral health integration:

- Improve capacity of primary care and women's health providers to address behavioral health in their practices
- Increase access to behavioral health services and reduce barriers for populations with health disparities
- Strengthen the health care delivery system to support behavioral health integration

Addressing behavioral health integration is a priority that will be a laboratory for broader system changes. All aspects of the system must be involved, including primary care and women's health providers, behavioral health providers⁷, payment reform, coordination and linkages to community services, workforce changes, health data and information technology, and collaborative use of public policy and resources.

We have produced two graphics to illustrate the concepts guiding the Hawai'i transformation process. The SIM Model Overview (Figure 1) illustrates the key components of the delivery system transformation. The Driver Diagram (Figure 2) shows the relationship between our SIM aims for BHI and its three primary drivers—improving the capacity of PCP/WHPs to address behavioral health, increasing access to behavioral health services and reducing barriers for populations with health disparities, and strengthening the health care delivery system to support BHI—and the secondary drivers and the specific interventions that will be undertaken within the next five years.

⁶ The term “primary care provider” includes family practice providers, general medicine providers, pediatricians, internists, physician assistants, nurse practitioners, and advance practice registered nurses (APRNs). “Women’s health” providers include Ob/Gyn providers.

⁷ The term “behavioral health specialist” includes professionals who are able to bill for their mental health and substance abuse treatment services, such as psychologists, social workers, marriage and family therapists, CSACs, Physician Assistants and APRNs. Community-based case managers and community health workers provide wrap-around support to patients and work with behavioral health specialists to provide services and assist with linkages to services.

Figure 1: SIM Model Overview

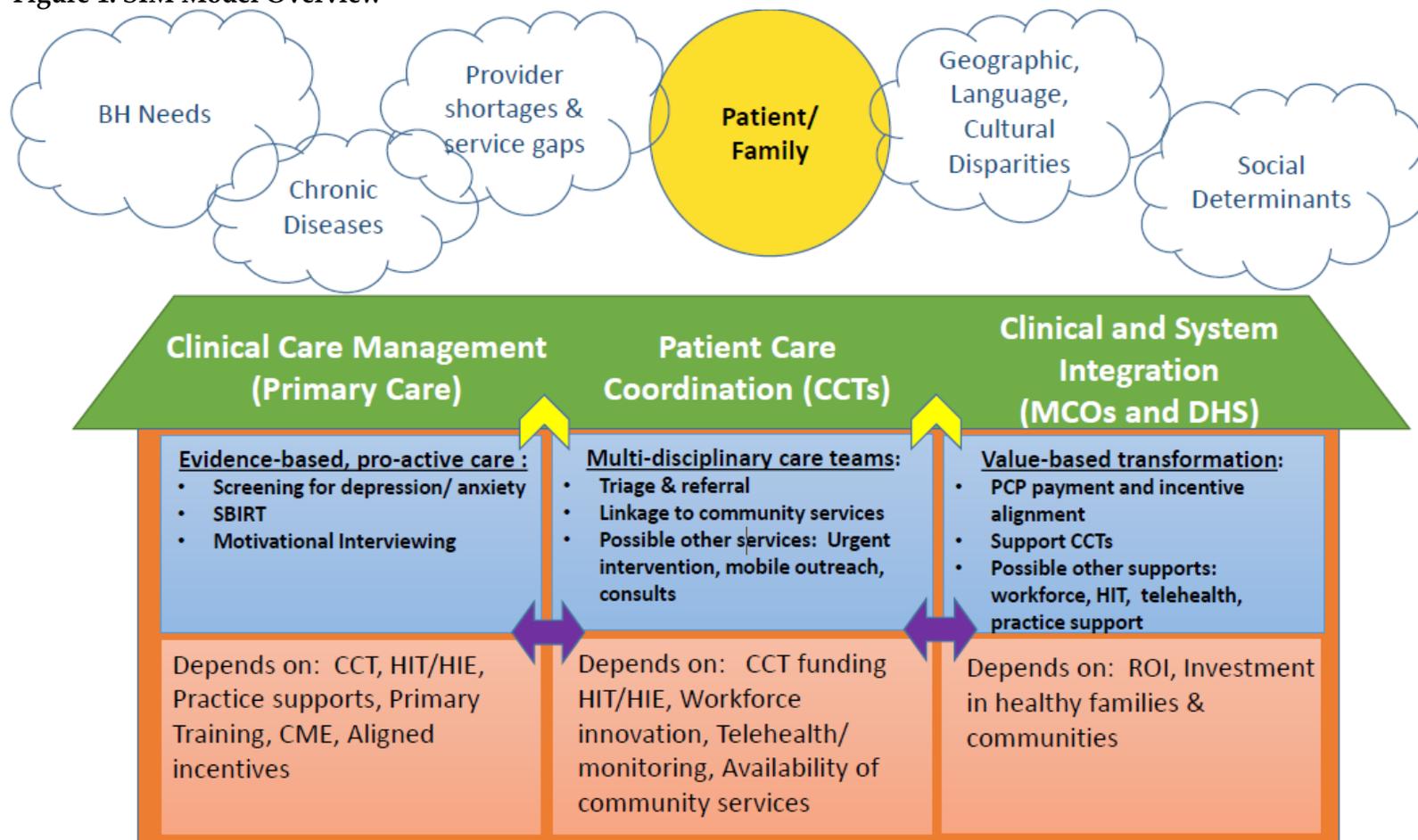
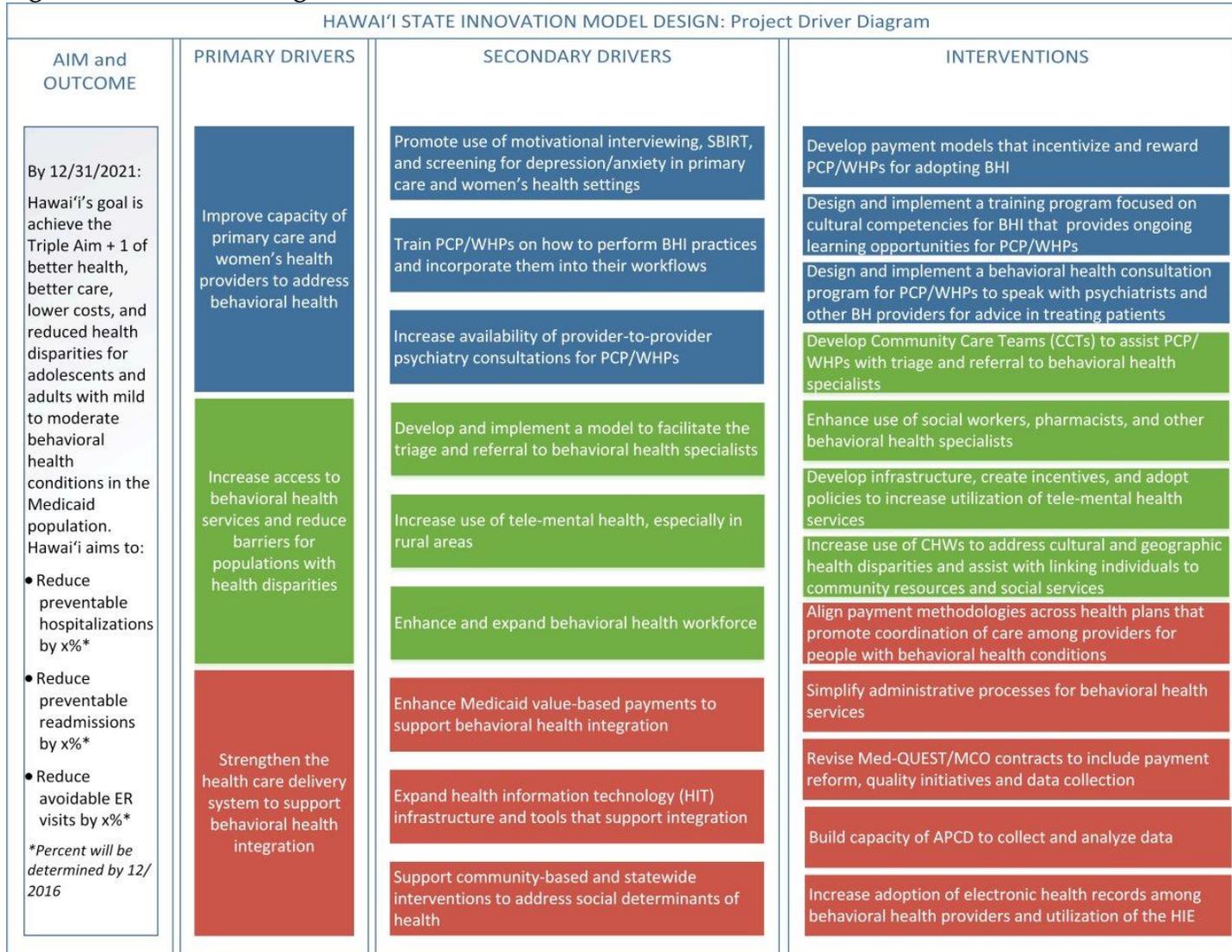


Figure 2: SIM Driver Diagram



The reasons for focusing on behavioral health are several, included among them are the **high prevalence** of behavioral health conditions, particularly among adolescents and Native Hawaiians and Pacific Islanders (NHPIs), the **adverse health outcomes** of adults with comorbid behavioral and physical health conditions, the risks for poor birth outcomes for substance using pregnant women, and the **high costs** to the health care system for behavioral health conditions. Table 1 below provides additional information related to each of these factors:

Table 1: Rationale for Focusing on Behavioral Health Needs of ‘Ohana in Hawai‘i

Prevalence	<p>In 2013, more than one in four (27.5 percent) adults in Hawai‘i reported having at least one poor mental health day in the previous month.⁸</p> <ul style="list-style-type: none"> • Results from the Hawai‘i Behavioral Risk Factor Surveillance System (BRFSS) survey show that prevalence for depression among adults increased by 12.7 percent from 2011 to 2013, with 11.4 percent (or 125,000 residents in the State) reporting a depressive disorder in 2013.⁹ • In 2013, 30 percent of high schoolers and 22 percent of middle schoolers reported having depression in the past 12 months¹⁰ • 15 percent of high schoolers and 20 percent of middle schoolers reported having a suicide plan in 2013¹¹ • The number of suicides for youth ages 15 through 24 years more than doubled from 2007 to 2011¹² • More than one in ten (13 percent) of NHPI high school students attempted suicide one or more times in the previous year, the highest proportion among all racial groups¹³
Adverse Health Outcomes	<p>There is a clear correlation between behavioral health and physical conditions, especially in chronic diseases:</p> <ul style="list-style-type: none"> • National data show that those with diabetes are twice as likely to experience depression compared to those without diabetes and studies

⁸ Hawai‘i Health Data Warehouse. (2015). Behavioral risk factor surveillance survey (BRFSS).

http://hhdw.org/wp-content/uploads/BRFSS_Mental-Health_IND_00001_20111.pdf

⁹ Hawai‘i Health Data Warehouse. (2015). Depressive disorder for the state of Hawai‘i BRFSS.

http://hhdw.org/wp-content/uploads/BRFSS_Depression_IND_00002_20111.pdf

¹⁰ Hawai‘i Health Data Warehouse. (2014). Depression & suicidal thoughts in Hawai‘i (YRBS).

http://hhdw.org/wp-content/uploads/YRBS_Mental-Health_IND_00001.pdf

¹¹ Hawai‘i Health Data Warehouse. (2014). Depression & suicidal thoughts in Hawai‘i (YRBS).

http://hhdw.org/wp-content/uploads/YRBS_Mental-Health_IND_00001.pdf

¹² Mental Health America of Hawai‘i. (2015). Pono Youth Program.

<http://www.mentalhealthamericanofhawaii.wildapricot.org/ponoyouth>

¹³ Asian & Pacific Islander American Health Forum. (2010). Health disparities.

http://www.apiahf.org/sites/default/files/NHPI_Report08a_2010.pdf

	<p>have shown that people with diabetes and depression have more severe diabetes symptoms than those with diabetes alone¹⁴</p> <ul style="list-style-type: none"> • Approximately 43 percent of adults with depression were obese, adults with depression were more likely to be obese than adults without depression, and the proportion of adults with obesity rose as the severity of depressive symptoms increased¹⁵ • Depression and higher risk for cardiovascular disease are so significantly correlated that the American Heart Association recommends that all cardiac patients be screened for depression¹⁶ • Patients who are depressed and have pre-existing cardiovascular disease have a three and a half times greater risk of death than patients who are not depressed and have cardiovascular disease¹⁷ • Individuals with an anxiety or mood disorder are at least twice as likely to also have an alcohol or other substance abuse disorder than the general population^{18,19} • About 20 percent of Americans with an anxiety or mood disorder such as depression have an alcohol or other substance abuse disorder, and about 20 percent of those with an alcohol or substance abuse disorder also have an anxiety or mood disorder²⁰
<p>High Costs</p>	<ul style="list-style-type: none"> • Behavioral health-related costs are a significant burden to Hawai'i, as it spends an estimated \$480 million on hospitalizations for those with co-occurring mental health diagnoses²¹ • A 2013 actuarial analysis in Hawai'i found that the average total health care cost for individuals with a behavioral health diagnosis was three

¹⁴ National Institute of Mental Health. (2011) Depression and Diabetes. <http://www.nimh.nih.gov/health/publications/depression-and-diabetes/index.shtml>

¹⁵ Centers for Disease Control and Prevention. (2014) National Center for Health Statistics (NCHS) data brief. <http://www.cdc.gov/nchs/data/databriefs/db167.htm>

¹⁶ Pozuelo, L. (2015). Depression & Heart Disease. <http://my.clevelandclinic.org/services/heart/prevention/emotional-health/stress-relaxation/depression-heart-disease>

¹⁷ Guck, T et al. (2001). Assessment and Treatment of Depression Following Myocardial Infarction. American Family Physician.

¹⁸ National Institute on Drug Abuse. (2011). Drug facts: Comorbidity: Addiction and Other Mental Disorders. <http://www.drugabuse.gov/publications/drugfacts/comorbidity-addiction-other-mental-disorders>

¹⁹ Anxiety and Depression Association of America. (2015). Substance Use Disorders. <http://www.adaa.org/understanding-anxiety/related-illnesses/substance-abuse>

²⁰ Anxiety and Depression Association of America. (2015). Substance Use Disorders. <http://www.adaa.org/understanding-anxiety/related-illnesses/substance-abuse>

²¹ Hawai'i Health Information Corporation. (2013).

times the average total health care cost for those without a behavioral health diagnosis

- Behavioral health conditions were identified as the number one preventable cause of hospitalization in the statewide 2013 Community Health Needs Assessment conducted by the Healthcare Association of Hawai'i²²
- Hawai'i's Medicaid population is disproportionately affected. Emergency room charges for behavioral health conditions for those on Medicaid is more than double that of other payers²³
- An analysis by the Hawai'i Health Information Corporation (HHIC) of 2012 statewide data showed that 34 percent of hospitalizations and 36 percent of total costs were attributable to individuals with a comorbid behavioral health and physical diagnosis.²⁴

Oral Health

Improving oral health is an important step in addressing population health, with research increasingly identifying links between poor oral and physical health. These include premature birth and multiple chronic health conditions where recent studies found that treating gum disease can lead to lower health care costs and fewer hospitalizations for pregnant women and for people with type 2 diabetes, coronary artery disease, and cerebral vascular disease.²⁵ Unfortunately, Hawai'i has received a failing grade in three recent oral health report cards published by The Pew Center on the States, a division of The Pew Charitable Trusts. Factors that contribute to Hawai'i's oral health challenges include that the State has no public water fluoridation and that dental benefits have not been covered for adults in the State's Medicaid program (other than emergency care) since 2009, nor are they covered by Medicare or required by Hawai'i's Prepaid Health Care Act or the federal Affordable Care Act.

Access to dentists who treat Medicaid patients is challenging, particularly on the neighbor islands, and, as a result, Hawai'i spends significant sums (more than \$800,000 in 2014) to fly Medicaid-covered children from neighbor islands to Honolulu to get otherwise unobtainable dental care.²⁶ Hawai'i's policy of covering emergency-only dental care for adults has led to an increase in hospital emergency department (ED) visits for extractions and oral pain relief. Between 2006 and 2012, ED visits in Hawai'i for oral health needs increased by 104 percent for people covered by Medicaid at a cost of \$8.5 million (compared to an overall increase in ED

²² Healthcare Association of Hawai'i. (2013). State of Hawai'i Community Health Needs Assessment.

²³ Hawai'i Health Information Corporation. (2013).

²⁴ Hawai'i Health Information Corporation. (2013). Acute Care Opportunities for Cost Saving in Hawai'i.

²⁵ Jeffcoat M. et al. Impact of Periodontal Therapy on General Health: Evidence from Insurance Data for Five Systemic Conditions. (2014). American Journal of Preventive Medicine. 47(2).

²⁶ Hawai'i Department of Health. (2015). Hawai'i Oral Health: Key Findings.

visits for oral health concerns among all payers of 67 percent). Reliable, current data on Hawai'i's oral health status has been lacking, with no statewide oral health data collected since 1999. However, DOH has recently completed a survey of the oral health of third grade students across the state, which is available at _____. [UPDATE WHEN POSTED]. This report shows that Hawai'i's third-graders have

- A high rate of tooth decay (71% were affected compared to the national average of 52%)
- An inadequate rate of protective dental sealants (< 40% have sealants)
- Significant oral health disparities with low-income, children who live on neighbor islands (i.e., not on O'ahu), and Pacific Islander ethnicities having both more tooth decay and untreated needs

The study noted above, works in tandem with DOH's August 2015 report, "Hawai'i Oral Health: Key Findings," in which the State has identified eight strategies to improve oral health:

1. Develop and implement an oral health surveillance plan to improve data collection, analysis and the use of data for program planning, evaluation, and policies.
2. Develop effective, evidence-based community and school-based dental disease prevention programs for all age groups, particularly those who are experiencing oral health disparities.
3. Continue to support and expand affordable and accessible preventive dental care services to Hawai'i's low-income population.
4. Expand Medicaid dental services for adults beyond the current coverage for "emergencies only" to include preventive and treatment services.
5. Consider increasing reimbursements to dental providers for key preventive or restorative procedures to increase participation in Medicaid.
6. Develop strategies to reduce barriers to finding and receiving preventive dental care services for children enrolled in the Medicaid program.
7. Use or adapt existing educational programs for pregnant women and for health and dental professionals regarding the safety and importance of dental care and preventive counseling during pregnancy and in the neonatal period.
8. Explore innovative, evidenced-based strategies to expand access to underserved, high-risk populations, including tele-dentistry.

III. Stakeholder Engagement

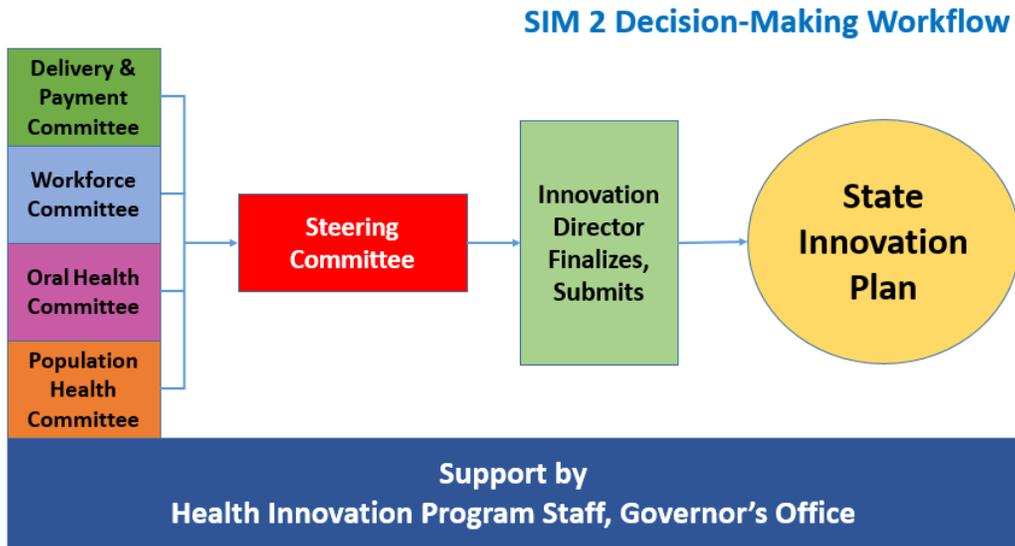
Throughout the SIM process, Hawai'i has actively engaged a multitude of stakeholders through ongoing committee meetings as well as through targeted interviews and discussions with key informants, focus groups, and public hearings. Meeting minutes and drafts of plans are posted on the website for the Governor's Office for public comment and transparency. In SIM Round One, more than 250 individuals from across the health care spectrum participated in the process. Similarly, in Round Two, more than 300 individuals convened, including representatives from DOH, DHS, the Department of Education; all five Med-QUEST managed care health plans; UH (O'ahu and Hilo campuses as well as community colleges that are part of the public university system); federally-qualified health centers; behavioral health, primary care, and hospital-based providers; statewide health information exchange; Area Health Education Center; and organizations representing Native Hawaiians. The wealth of experience and meaningful input contributed by all these groups has been invaluable in developing an approach and implementation plan that is fact-based and addresses the expressed needs and challenges of the community that will use and benefit from it.

A. Committees

As noted above, a number of committees, each with a specific focus, were convened to provide input to the Governor's Office in developing the strategic approach and implementation plan. Five committees have met regularly throughout the process: Steering, Delivery and Payment, Workforce, Population Health, and Oral Health. Committee members were chosen based on their subject matter expertise and leadership abilities. On each committee, there is at least one member who represents the following: (1) The Governor's Office; (2) The Department of Health; (3) The Department of Human Services/Medicaid Division (Med-QUEST); (4) providers/clinicians; (5) health plans; (6) neighbor island residents; (7) community organizations; and (8) advocacy groups. Committees have ongoing in-person meetings with teleconferencing provided as an option for neighbor island residents and those who cannot be present.

Decisions are reached by consensus within each sub-committee, the results of which are communicated to the Steering Committee. All content included in the SHIP has been reviewed and approved by the committees, and has been subject to public comment through meetings and postings to the Health Care Innovation page on the Governor's Office's website. The diagram below illustrates this process:

Figure 3: SIM 2 Decision-Making Workflow



Committee Purpose and Goals

- **Steering Committee:** The Steering Committee was responsible for ensuring the completion of a comprehensive innovation plan. Specific committee responsibilities included recommendations on structure, maximization of federal funding for ongoing health innovation work, innovation metrics, and an evaluation plan. The Committee also coordinated efforts between the other SIM committees, ensuring that the process was on track and all milestones were met. This Committee made the final recommendations for the State Health Innovation Plan and public dashboard to track progress in achieving outlined goals. The Committee met nine times.
- **Delivery and Payment Committee:** The Delivery and Payment Committee's purpose was to build on the work completed in SIM Round 1 and develop delivery and payment innovations to be incorporated into the implementation plan. The Committee addressed the following issues: a) identification of behavioral health integration delivery and payment models and related strategies to improve early detection, diagnosis, and treatment of behavioral health conditions in primary care and women's health care settings; b) development of a plan to improve the capacity of PCP/WHPs to address behavioral health issues and integrate behavioral health specialty services and community support services into their practices; and c) identification of methods to improve care coordination for patients with behavioral health conditions and link them with treatment and community support services. Additionally, the committee reviewed and recommended metrics and an evaluation strategy to share with the Steering Committee. The Delivery and Payment Committee met nine times.

- **Workforce Development Committee:** The Workforce Development Committee was responsible for developing a workforce plan supportive of health care innovation models. The Committee identified and encouraged the growth of the professions needed to support the delivery of patient-centered primary care and behavioral health integration, such as community health workers, psychologists and other behavioral health providers, and clinical pharmacists. This committee also identified potential practice supports for behavioral health, including Project ECHO and provider-to-provider consults. This group met four times.
- **Population Health Committee:** The Population Health Committee’s goal was to oversee the development of a plan for improving population health that would be incorporated into the state health innovation plan. The Committee focused on identifying community-wide approaches to achieving population health improvement and focused on the underlying social determinants of health. The main focus areas of the Committee were tobacco use, obesity and diabetes, and the health disparities within each of these topic areas. The Committee endorsed the alignment of SIM’s healthy family, healthy community orientation and behavioral health strategies with population health priorities. This committee met three times.
- **Oral Health Committee:** The Oral Health Committee was charged with developing strategies for the prevention of dental caries for children and improved access to and utilization of primary dental care. The committee reviewed current practice restrictions on applying sealants and varnishes for underserved children and the settings in which the practice could be permitted, as well as strategies to provide dental coverage to low-income adults who currently receive only emergency benefits. The committee met five times and has agreed to continue meeting quarterly to ensure improvement in oral health for the residents of Hawai‘i.

Appendix B contains a membership list for each SIM Committee.

B. Other Stakeholder Outreach

Key Informant Interviews

During the SIM Round Two process, Hawai‘i involved more than 30 individuals regarded as experts in their field who are currently engaged in initiatives that seek to improve behavioral health. A key theme that emerged from these interviews is that inadequate access to behavioral health services is a critical issue that needs to be addressed by the State. The interviews also identified areas that contribute to the barriers encountered when addressing behavioral health which include workforce shortages, lack of access to treatment, reimbursement and payment challenges, and underutilization of health information technology. A full report of the Key Informant Interviews can be found in Appendix C.

Focus Groups

Ten focus groups were conducted on six islands. A total of 86 health care providers participated in the focus groups, and an additional 12 providers were interviewed. The providers who participated were mainly from the primary care and behavioral health sectors, as the objective of the focus groups was to understand the challenges and successes of behavioral health services as they relate to primary care, and to gain new ideas from experts in the field. There was strong agreement by the focus group participants that there is a shortage of behavioral health services statewide. Insurance factors and access issues were the challenges most frequently cited. From the focus groups, it appears that behavioral health screenings are commonly performed at community health centers but not as frequently at private practices. The lack of screening among private practices largely results from provider apprehension about the uncertain availability of resources or specialists to whom they can refer those identified with acute behavioral health conditions. The full focus group report can be found in Appendix D.

Public Hearings

In order to increase transparency and maximize opportunities for public feedback, especially on neighbor islands, the Governor's Office held seven public hearings on six islands. A total of 163 individuals attended the public hearings, the smallest meetings having 9 in attendance (Kona and Moloka'i) and the largest having 55 attendees (Honolulu).

The following summarizes the most frequently heard comments on the SIM proposal that were received from the community at each meeting:

- Agreement that improvements in access and sufficiency of behavioral health services are needed
- Agreement with the interventions outlined in the SIM plan
- Assertion that the provider shortages are made worse by lack of information about the network of care givers who are available
- Frustration with the administrative challenges of being a provider to clients covered by some Med-QUEST plans

A full report on the Public Hearings can be found in Appendix E.

C. Plan for Continuing Stakeholder Engagement after SHIP

After the SIM process concludes, implementation of the innovation plan will be carried out by the DHS Med-QUEST Division (MQD). MQD will continue to convene stakeholders and solicit input to ensure that the changes implemented across the health care system are thoughtful, meaningful, and welcomed by consumers and those in the field. The composition and focus of future committees will vary according to Med-QUEST's needs, but stakeholder input and group



deliberation will continue to be valued by the Med-QUEST Administrator, who will be leading the implementation efforts.

IV. Description of the Health Care Environment

The State of Hawai'i is comprised of eight islands whose total landmass is slightly larger than Connecticut. It is organized by five counties, and nearly 70 percent of its 1.4 million population resides in the City and County of Honolulu.²⁷ Stretching more than 330 miles from Kaua'i to the island of Hawai'i (about the same distance as Boston to Washington, DC), the only means of transportation between islands is by air. Hawai'i's capitol, Honolulu, and Washington, DC are separated by 4,800 miles and six time zones.

A. Demographics of the People of Hawai'i

Approximately 11 percent of Hawai'i's residents live below the federal poverty level, as compared to a national average of 15.4 percent.²⁸ According to the U.S Census American Community Survey Demographic and Housing Estimates, Hawai'i is the most racially and ethnically diverse state in the nation: 56.7 percent of the population identifies as Asian, either alone or in combination with another ethnicity; 25.8 percent as Native Hawaiian and Pacific Islander, alone or in combination; and 42.6 percent as White, alone or in combination.²⁹ The table below displays Hawai'i's racial and ethnic demographics.

²⁷ US Census Bureau. (2014). <http://quickfacts.census.gov/qfd/states/15000.html>

²⁸ U.S. Census Bureau. (2014). 2010-2014 American Community Survey 5-Year Estimates, ACS Demographic and Housing Estimates. http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_14_5YR_DP05&prodType=table

²⁹ U.S. Census Bureau. (2014). 2010-2014 American Community Survey 5-Year Estimates, ACS Demographic and Housing Estimates. http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_14_5YR_DP05&prodType=table

Table 2: Hawai'i's Racial and Ethnic Composition³⁰

Race/ Ethnicity	Percentage	Total Individuals
Total population		1,392,704
Single Ethnicity		
Asian	38.0	529,907
• Filipino	14.4	201,183
• Japanese	13.3	185,634
• Chinese	4.1	56,590
• Other Asian	3.7	52,155
• Korean	1.6	22,125
• Vietnamese	0.7	9,883
• Asian Indian	0.2	2,337
White (Non-Hispanic)	25.2	350,634
Native Hawaiian & other Pacific Islander	10.0	138,735
• Native Hawaiian	6.0	84,584
• Other Pacific Islander	2.5	35,165
• Samoan	1.2	16,393
• Guamanian or Chamorro	0.2	2,593
Hispanic or Latino Origin	9.6	133,485
African-American	1.9	26,913
American Indian & Alaskan Native	0.2	2,725
Race Alone or in Combination with One or More Other Races		
Asian	56.4	785,880
White	42.6	593,798
Native Hawaiian & Other Pacific Islander	25.7	358,423
Black or African American	3.4	46,671
Other	2.6	36,167
American Indian & Alaska Native	2.4	32,825

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

Hawai'i has a significant population of residents from Micronesian nations who have migrated to the state under the terms of the 1986 Compacts of Free Association (COFA, or the Compacts). The federally-negotiated COFA agreements between the Federated States of Micronesia, the Republic of Palau, the Republic of the Marshall Islands and the United States provides for US economic assistance (including eligibility for certain US federal programs), defense, and other benefits such as travel without visas or time limits in exchange for US defense and other operating rights in the region.³¹ While the 1996 Personal Responsibility and Work Opportunity

³⁰ Note: The categories in this table do not sum to 100 percent due to the inclusion of demographic groups that include the reporting of more than one race.

³¹ United States Department of the Interior. About the Compact of Free Association.

<http://uscompact.org/about/cofa.php>



Act forbids the use of federal funds for means-tested benefits such as Medicaid for five years for these migrants, Children’s Health Insurance Reauthorization Act allowed federal funds to be used for COFA children and pregnant women. The Hawai’i delegation is continuing to fight to restore Medicaid access for Hawai’i residents from Micronesian nations under the Compacts with new legislation.³²

Previously, Hawai’i’s courts had determined that the State must provide Medicaid benefits to Hawai’i residents from Micronesian nations under the Compacts if they otherwise met eligibility requirements. In FY 2012, more than 13,000 migrants were provided state-funded Medicaid coverage at a cost of nearly \$43 million. In March, 2014, the US Court of Appeals reversed the state court’s position, allowing Hawai’i to end Medicaid assistance to most non-disabled, non-pregnant adults residing in Hawai’i under the Compacts. Hawai’i provides a state-supported Premium Assistance Program to encourage eligible COFA residents to enroll in insurance through the Affordable Care Act (ACA) Individual Marketplace.³³ This population has significant health disparities and specialized care needs compared to other populations and often arrive in Hawai’i with unmet medical needs due, in part, to the lack of resources in their country of origin.

Cost of Living

In June 2013, the U.S. Commerce Department of Bureau of Economic Analysis reported that Hawai’i had the highest cost of living in the nation.³⁴ The poverty threshold for Hawai’i, per federal guidelines, is 15 percent higher than the rest of the nation’s but that adjustment pales in comparison with the following examples of factors that contribute to the state’s higher costs for basic needs:

- The U.S. Department of Agriculture reports that food prices in Hawai’i are 70 percent higher than the national average.
- The average income needed to own a house in Hawai’i is \$115,949, according to the Center for Housing Policy. That source cited Honolulu as the fifth most expensive city for home buyers in 2013, while homes.com showed Honolulu with the highest one-year percentage increase (23.7 percent) in housing prices in the country in mid-

³² US Congressman Mark Takai. (2015). Press release. <https://takai.house.gov/media-center/press-releases/hawaii-delegation-fights-restore-medicaid-access-cofa-migrants-new>

³³ Hawai’i Department of Human Services. (2014). COFA residents and health care assistance in Hawaii. <http://humanservices.hawaii.gov/wp-content/uploads/2014/11/COFA-Background-Memo.pdf>

³⁴ Bureau of Economic Analysis (2013). www.bea.gov

2013.³⁵ In October 2015, the Honolulu Board of Realtors reported that the median price for a single-family house in Honolulu was \$720,000.³⁶

- Hawai'i has been listed as having the least affordable rental units in the nation for at least the last ten years.³⁷ This is important since nearly half (44 percent) of residents rent their homes (compared to 21 percent nationally). The median cost to rent a two-bedroom apartment in Hawai'i is \$1,671 per month, 71 percent higher than the national average of \$977 per month. By U.S. Department of Housing and Urban Development (HUD) standards, a Hawai'i resident would have to earn \$32.14 per hour to afford that apartment.

Homelessness

Due in part to the high cost of living in Hawai'i, the state has the highest rate of homelessness per capita of any state (465 per 100,000) with the total number of homeless individuals statewide estimated at 7,620.^{38, 39} There has been an alarming increase in the number of unsheltered individuals and families over the past two years; of the 3,843 unsheltered homeless individuals, the statewide count estimates that there are 185 unsheltered families, which consist of a total of 439 unsheltered children throughout the state,⁴⁰ particularly on O'ahu. This has prompted Governor Ige to declare an emergency proclamation to expedite spending \$1.3 million to fund the facilitation of: "(1) rapid construction of a temporary shelter for homeless families; (2) the immediate extension of existing contracts for homeless services; and (3) an immediate increase in funding for programs that promote immediate housing."⁴¹

Education

Hawai'i's school systems have been improving. From 2006-2014, the statewide proficiency in reading increased from 60 percent to 69 percent, and mathematical proficiency increased from

³⁵ Business Wire. (2013). Homes.com's Local Market Index Expands to Include Midsized Markets for Broader Housing Recovery Analysis.

<http://www.businesswire.com/news/home/20130826005219/en/%3Ca%20href=>

³⁶ Honolulu Board of Realtors (2013). <http://www.hicentral.com/>

³⁷ National Low Income Housing Coalition. (2015). Out of Reach 2015. <http://nlihc.org/or>

³⁸ Governor of the State of Hawai'i. (2015). Governor's office news release: Governor Ige signs emergency proclamation to address homelessness statewide. <http://governor.hawaii.gov/newsroom/governors-office-news-release-governor-ige-signs-emergency-proclamation-to-address-homelessness-statewide/>

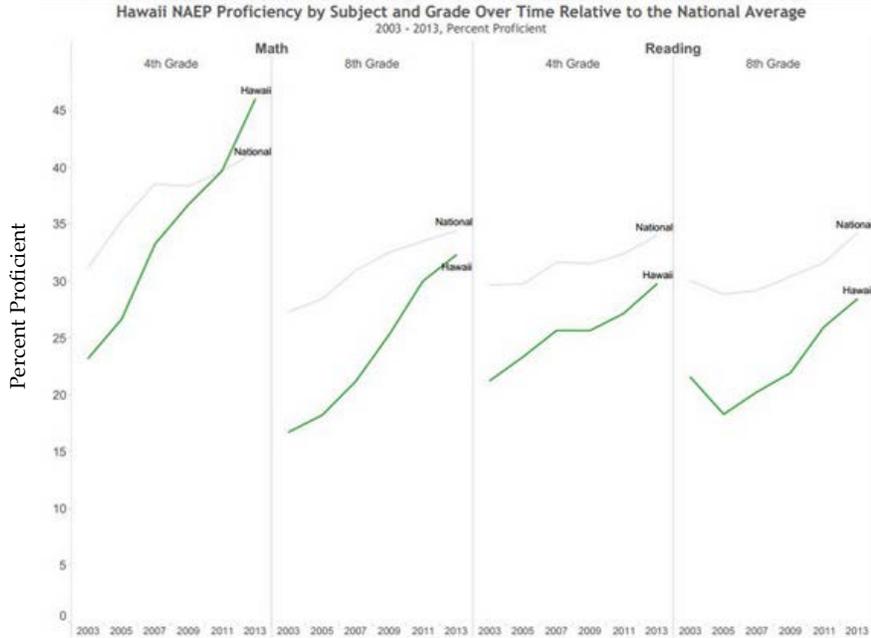
³⁹ Office of the Governor. State Of Hawai'i Proclamation. <http://governor.hawaii.gov/wp-content/uploads/2015/10/10.16-EMERGENCY-PROC-HOMELESSNESS-.pdf>

⁴⁰ Office of the Governor. State Of Hawai'i Proclamation. <http://governor.hawaii.gov/wp-content/uploads/2015/10/10.16-EMERGENCY-PROC-HOMELESSNESS-.pdf>

⁴¹ Governor of the State of Hawai'i. (2015). Governor's office news release: Governor Ige signs emergency proclamation to address homelessness statewide. <http://governor.hawaii.gov/newsroom/governors-office-news-release-governor-ige-signs-emergency-proclamation-to-address-homelessness-statewide/>

39 percent to 58 percent.⁴² The National Assessment of Educational Progress (NAEP) also reports improvement in Hawai'i during the period 2003-2013.⁴³ Their findings show Hawai'i had the second highest gains in the nation for grades four and eight in mathematics and was ranked eleventh and fifth in the nation for grades four and eight in reading, respectively, as illustrated in the figure below.⁴⁴

Figure 4: Hawai'i NAEP Proficiency Relative to National Average



Source: Hawai'i State Department of Education, 2013

As seen in the following table, four-year graduation and dropout rates have remained relatively stable with no significant changes.

⁴² Hawai'i State Department of Education. (2014). Superintendent's annual report.

<http://www.hawaiipublicschools.org/DOE%20Forms/State%20Reports/SuptReport2014.pdf>

⁴³ The National Assessment of Educational Progress. (2013). 2013 State Snapshot Report.

<https://nces.ed.gov/nationsreportcard/subject/publications/stt2013/pdf/2014464HI8.pdf>

⁴⁴ Hawai'i State Department of Education. (2013). Hawai'i fourth-graders outperform nation in mathematics.

<http://www.hawaiipublicschools.org/ConnectWithUs/MediaRoom/PressReleases/Pages/2013-NAEP.aspx>

Table 3: Percentage of Four-Year Graduation and Dropout Rates in Hawai'i

	2011-2012	2012-2013	2013-2014
Graduation	82.2	82.4	81.7
Dropout	15.8	14.6	14.8

Source: Hawai'i State Department of Education: Office of Strategy, Innovation and Performance: Assessment and Accountability Branch: Accountability Section

Aging Population

Hawai'i is experiencing a dramatic growth in its aging population (ages 60 years and older), which has increased by 140 percent between 1980 and 2010.⁴⁵ The population ages 85 years and older has faced an even more substantial increase of approximately 432 percent over the same time period.⁴⁶ By 2035, it is expected that the older population will account for approximately 30 percent of the population, a 310 percent increase over a 55 year time period, whereas the total population is projected to increase only 65 percent during the same time period.⁴⁷ This is significant not only for the expected increase in health care expenditures, but also for the effect it will have on the aging and retiring workforce.

Insurance Coverage

95 percent of Hawai'i residents have health insurance (compared to 90 percent nationally). Over half (53 percent) of residents are covered by private insurance and 39 percent are covered by public insurance (Medicaid, Medicare, and Other).

Hawai'i boasts a high rate of health insurance coverage for its residents, ranking second after Massachusetts, due in large part to the Hawai'i Prepaid Health Care Act, which requires employers to provide health care coverage to all employees working more than 20 hours a week. Hawai'i's SIM work includes development of a Section 1332 waiver to certain provisions of the Affordable Care Act in order to align conflicting employer requirements and the federal law with Hawai'i's Prepaid Act.

As of April 2015, there are 336,680 individuals enrolled in Medicaid and 222,000 in Medicare in Hawai'i.⁴⁸ According to the Census

Source: KFF.org reporting from CPS and ASEC data for 2014.

⁴⁵ Hawai'i Executive Office on Aging. (2013). Hawai'i state plan on aging. <http://health.hawaii.gov/eoa/files/2013/07/Hawaii-State-Plan-On-Aging.pdf>

⁴⁶ Hawai'i Executive Office on Aging. (2013). Hawai'i state plan on aging. <http://health.hawaii.gov/eoa/files/2013/07/Hawaii-State-Plan-On-Aging.pdf>

⁴⁷ Hawai'i Executive Office on Aging. (2013). Hawai'i state plan on aging. <http://health.hawaii.gov/eoa/files/2013/07/Hawaii-State-Plan-On-Aging.pdf>

⁴⁸ Med-QUEST Division. (2015). <http://www.med-quest.us/PDFs/queststatistics/EnrollmentReports2015.pdf>

Bureau's March 2015 Current Population Survey (CPS: Annual Social and Economic Supplements), Hawai'i's uninsured rate is 5 percent.

B. Health Status of the People of Hawai'i

In part resulting from its high rates of insurance coverage, Hawai'i continues to rank as the healthiest state according to America's Health Rankings.⁴⁹ Positive health indicators include:

- Lowest adjusted mortality rate of any state (584.8 deaths per 100,000)
- Lowest rate of preventable hospitalizations, with preventable hospitalizations decreasing from 32.2 to 25.0 discharges per 1,000 Medicare enrollees over the past five years
- One of the lowest obesity rates for adults and children

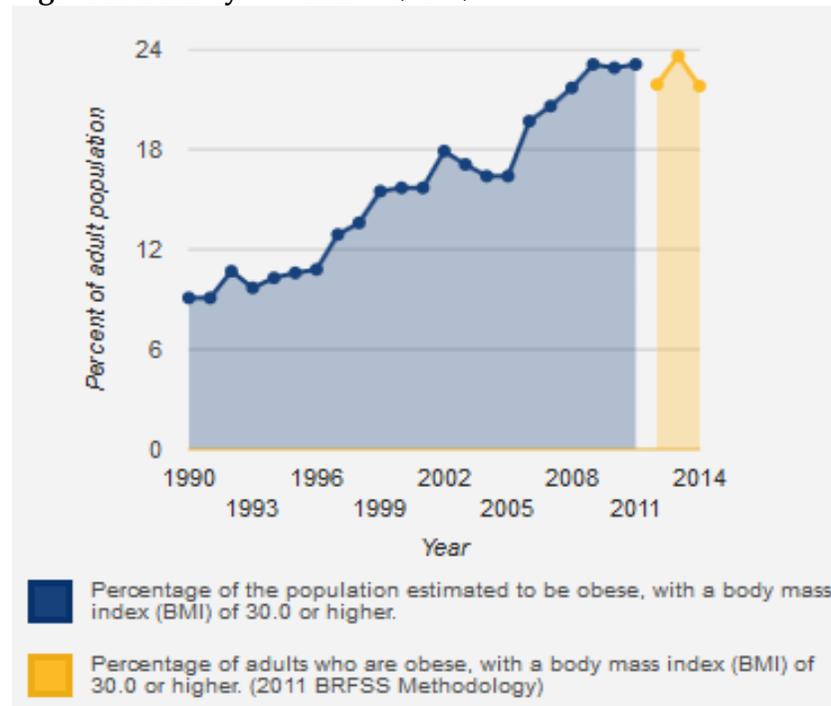
However, despite a relatively healthy population overall, Hawai'i continues to experience alarming trends and disparities in the rates of behavioral health conditions and poor oral health, as well as disparities based on geographic and ethnic identity. These trends include:⁵⁰

- A 115 percent increase in the percentage of obese (Body Mass Index (BMI) of 30 or higher) adults in the state over the last two decades (from 10.7 percent in 1992, to 17.9 percent in 2002, to 23.1 percent in 2012)
- A 159 percent increase in the prevalence of diabetes over the last 20 years (from 3.2 percent in 1992, to 6.2 percent in 2002, to 8.3 percent in 2012)
- High prevalence of binge drinking
- High suicide risk and mental health problems, especially among Asian Americans, Native Hawaiians, and Pacific Islanders

⁴⁹United Health Foundation. (2015). Hawai'i. <http://www.americashealthrankings.org/HI>

⁵⁰United Health Foundation. (2015). Hawai'i. <http://www.americashealthrankings.org/HI>

Figure 5: Obesity in Hawai'i (2014)



Source: United Health Foundation, *America's Health Rankings* (2014)

The Centers for Disease Control and Prevention (CDC) emphasizes that the relationship between mental health, chronic disease, and injury is significant. Those with chronic conditions are more likely to also suffer from Major Depressive Disorder, while those with mental health conditions may be less able to treat or control their chronic condition. Further, those with mental illness are twice as likely to use tobacco as compared to the general population.⁵¹ Depression is a leading cause of disability worldwide. It is unknown whether having a chronic disease increases the likelihood of developing depression or if depression increases the risk of having a chronic disease, but the high level of comorbidity between chronic conditions and poor mental health is well documented and cause for further attention to be paid to behavioral health.

Hawai'i's DOH, DHS, and Governor's Office seek to improve population health, especially for diabetes, obesity, and smoking co-occurring with behavioral health conditions. These conditions have a high prevalence, are costly, and are a significant source of disparity across populations. Attention to these conditions aligns with the goals of DOH and Healthy People

⁵¹ CDC. (2012). Mental health and chronic diseases. <http://www.cdc.gov/nationalhealthysite/docs/Issue-Brief-No-2-Mental-Health-and-Chronic-Disease.pdf>

2020 indicators. The table below illustrates the current prevalence of these conditions in Hawai'i.

Table 4. Key Population Health Indicator Baselines in Hawai'i (2013)

Chronic Conditions	Prevalence Percentage Rate
Diabetes	8.4
Obesity (Adult)	21.8
Obesity (Children)	13.4
Smoking	14.1 adults, 10.4 youth

Sources: CDC and Hawai'i DOH

Behavioral Health and Behavioral Health Disparities in Hawai'i

Hawai'i, like many states, faces challenges related to behavioral health. In 2013, 27.5 percent of adults reported having at least one poor mental health day in the previous 30 days. Nearly 15 percent reported having 1 to 6 poor mental health days and 8 percent experienced 14 or more poor mental health days in the previous 30 days.⁵² Native Hawaiians were the most likely to report poor mental health.⁵³

The rate of depression among adults in Hawai'i continues to rise, with a 13 percent increase from 2011 to 2013.⁵⁴ In 2014, 10.7 percent of residents in Hawai'i reported being told by a doctor or health professional that they had a depressive disorder (including depression, major depression, dysthymia, or minor depression).⁵⁵ In 2014, Native Hawaiians had the highest rate of depressive disorders (15.8 percent), followed by Whites (15.6 percent).⁵⁶

⁵² Hawai'i Health Data Warehouse. (2015). Behavioral risk factor surveillance survey (BRFSS). http://hhdw.org/wp-content/uploads/BRFSS_Mental-Health_IND_00001_20111.pdf

⁵³ Hawai'i Health Data Warehouse. (2015). Behavioral risk factor surveillance survey (BRFSS). http://hhdw.org/wp-content/uploads/BRFSS_Mental-Health_IND_00001_20111.pdf

⁵⁴ Hawai'i Health Data Warehouse; State of Hawai'i, Department of Health, Behavioral Risk Factor Surveillance System (BRFSS)

⁵⁵ Hawai'i Health Data Warehouse. (2015). Depressive disorder for the state of Hawai'i BRFSS. http://hhdw.org/wp-content/uploads/BRFSS_Depression_IND_00002_20111.pdf

⁵⁶ Department of Health. (2015). The Hawai'i BRFSS: 2014 results. http://health.hawaii.gov/brfss/files/2015/08/HBRFSS_2014_results.pdf

In Hawai'i, suicide is the leading cause of death in young people ages 15 through 24, with the rate of suicide more than doubling between 2007 and 2011.⁵⁷ Among youth in high school in 2013, 29.8 percent reported having depression in the previous 12 months, and 15.2 percent reported having a suicide plan in the previous 12 months.⁵⁸ Among middle schoolers, 22.3 percent reported having depression in the previous 12 months, while 20.1 percent reported having a suicide plan and 9 percent having attempted suicide, further highlighting the need for school-based mental health services in Hawai'i.⁵⁹ Those who reported being Native Hawaiian, Pacific Islander, or other had the highest rates for all categories. It is also pertinent to note that those with lower income or who live below the poverty level are more likely to experience depressive disorder or have suicidal thoughts.⁶⁰

According to the Hawai'i Child and Adolescent Mental Health Division, an estimated 5 percent to 9 percent of children ages 9 through 17 years have a serious emotional disturbance.⁶¹ The CDC reported that nationwide 4.7 percent of adolescents ages 12 through 17 years had an illicit drug use disorder in the past year, 4.2 percent had an alcohol use disorder in the past year, and 2.8 percent had cigarette dependence in the past month.⁶²

Asian Americans, Native Hawaiians, and Pacific Islanders (AA/NHPIs), who represent 82.5 percent of the population in Hawai'i in combination, have unique and diverse cultural and linguistic needs, as well as traumatic histories that affect the way they seek or adhere to behavioral health care and treatment. Nationally, AA/NHPIs have the lowest utilization rates for mental health services among all populations, regardless of gender, age, and geographic location.⁶³ AA and NHPI females have among the highest suicidal ideation rates of any ethnic group between the ages of 15 and 24 years,⁶⁴ and the highest rates of depressive symptoms.⁶⁵

⁵⁷ Mental Health America of Hawai'i. (2015). Pono youth program.

<http://www.mentalhealthamericanofhawaii.wildapricot.org/ponoyouth>

⁵⁸ Hawai'i Health Data Warehouse. (2014). Depression & suicidal thoughts in Hawaii (YRBS).

http://hhdw.org/wp-content/uploads/YRBS_Mental-Health_IND_00001.pdf

⁵⁹ Hawai'i Health Data Warehouse. (2014). Depression & suicidal thoughts in Hawaii (YRBS).

http://hhdw.org/wp-content/uploads/BRFSS_Depression_IND_00002_20111.pdf

⁶⁰ Hawai'i Health Data Warehouse. (2015). Behavioral risk factor surveillance survey (BRFSS).

http://hhdw.org/wp-content/uploads/BRFSS_Depression_IND_00002_20111.pdf

⁶¹ Child and Adolescent Mental Health Division. (2013). Child and adolescent mental health division strategic plan 2015-2018. <http://health.hawaii.gov/camhd/files/2013/04/CAMHD-Strategic-Plan-2015-2018.pdf>

⁶² Centers for Disease Control and Prevention. (2015). Children's mental health.

<http://www.cdc.gov/Features/ChildrensMentalHealth/>

⁶³ Lu, Francis G. (2002). The poor mental health care of Asian Americans. *Western Journal of Medicine*. Vol. 176.

⁶⁴ Centers for Disease Control and Prevention National Center for Health Statistics. (2002). US Dept. of Health and Human Services.

⁶⁵ Lester D. Difference in the epidemiology of suicide in Asian Americans by nation of origin. (2004). Omega.

According to a report published by the U.S. Office of Minority Health, “AA/NHPI health and behavioral health needs have historically been overlooked due to the myth of the ‘model minority’ of being passive, compliant, and without problems or needs. Some of the effects of this myth have been the failure to take seriously the very real concerns of these heterogeneous populations.”⁶⁶ Contrary to this myth, many AA and NHPIs experience high rates of depression, post-traumatic stress disorder and thoughts of suicide.⁶⁷ The stigma associated with mental health, the lack of health-seeking behavior, and increasing health care costs continue to drive poor behavioral health outcomes among these populations in Hawai‘i.

For individuals who are already at risk, a “triggering” event causing shame or despair may make them more likely to attempt suicide. Among the risk factors associated with suicide in AA and NHPI populations are cultural conflict, and the stress of being culturally Hawaiian in a Western environment.⁶⁸ According to the Suicide Prevention Resource Center, Asian Americans are less likely to seek professional help for psychological distress and are less likely to have a diagnosis of mental health problems because they tend to experience their problems through physical rather than emotional symptoms.⁶⁹ When they do obtain professional help, Asians generally drop out of treatment sooner than Whites.⁷⁰ Asians are more likely to use informal support systems, such as looking to family or friends, than formal services for help with mental health problems.⁷¹

Alcohol abuse continues to be a problem in Hawai‘i, particularly among the male population. Hawai‘i-specific data from the CDC’s Behavioral Risk Factor Surveillance System (BRFSS) show that, in 2013, more than a quarter of males (27 percent) and 13 percent of females reported heavy or binge drinking (heavy drinking is defined as men having more than two drinks per day, and women having more than one drink per day while binge drinking is five drinks for

⁶⁶ Ida, DJ, SooHoo, J., & Chapa, T. Integrated Care for Asian American, Native Hawaiian and Pacific Islander Communities: A Blueprint for Action: Consensus Statement and Recommendations. (2012). U.S. Department of Health and Human Services, Office of Minority Health. <http://minorityhealth.hhs.gov/Assets/pdf/Checked/1/IntegratedCareforAANHPICommunitiesBlueprintforAction.pdf>

⁶⁷ U.S. Department of Health and Human Services (2001). Mental health: Culture, race, and ethnicity – a supplement to mental health: A report of the Surgeon General.

⁶⁸ Suicide Prevention Resource Center. (2012). Suicide among Racial/Ethnic Populations in the U.S. Asians, Pacific Islanders, and Native Hawaiians. <http://www.sprc.org/sites/sprc.org/files/library/API%20Sheet%20August%2028%202013%20Final.pdf>

⁶⁹ Suicide Prevention Resource Center. (2012). Suicide among Racial/Ethnic Populations in the U.S. Asians, Pacific Islanders, and Native Hawaiians. <http://www.sprc.org/sites/sprc.org/files/library/API%20Sheet%20August%2028%202013%20Final.pdf>

⁷⁰ Leong, F. T., & Lau, A. S. (2001). Barriers to providing effective mental health services to Asian Americans. Mental Health Services Research.

⁷¹ Spencer, M. S., Chen, J., Gee, G. G., Fabian C. G., & Takeuchi, D. T. (2010). Discrimination and mental health-related service use in a national study of Asian Americans. American Journal of Public Health.

men and four for women in a two hour period).⁷² Native Hawaiians, Pacific Islanders, and those who identify as “other” rank highest among all ethnic groups in both categories. Hawai‘i ranked 43rd in the nation in 2015 for excessive drinking. Approximately 21 percent of residents engaged in excessive drinking, and the prevalence has been increasing, compared to the national average of 17.6 percent, which has been decreasing.⁷³ Also of concern is that the percent of women in Hawai‘i who drink alcohol during the last three months of pregnancy steadily increased from 2000-2015 from 4.3 percent to 7.9 percent.⁷⁴

According to the 2013 National Survey on Drug Use and Health, among persons ages 12 years and older, 11.3 percent of Native Hawaiians or Pacific Islanders were abusing or dependent upon substances, a much higher rate than Asians (4.6 percent), blacks (7.4 percent), whites (8.4 percent) and Hispanics (8.6 percent).⁷⁵ Also troubling was that the rate of illicit drug use among those 12 years and older was 14.0 percent among Native Hawaiians and Pacific Islanders, second only to those reporting two or more races (17.4 percent).

The Substance Abuse and Mental Health Services Administration (SAMHSA) reports that of the one in five adults in the United States with a diagnosable mental illness in 2012, only 41 percent received any mental health services in the past year. As noted in the graphic below, the top three reasons given for not receiving help were that: (1) they could not afford the cost, (2) they thought they could handle the problem without treatment, or (3) they did not know where to go for services.⁷⁶

⁷² Hawai‘i Data Warehouse. (2015). Behavioral risk factor surveillance system: alcohol consumption.

http://hhdw.org/wp-content/uploads/BRFSS_Alcohol_Consumption_IND_00004_2011.pdf

⁷³ America’s Health Rankings. (2015). Excessive drinking Hawai‘i rank: 43. Retrieved from

<http://www.americashealthrankings.org/HI/ExcessDrink>

⁷⁴ Hawai‘i Data Warehouse. (2015). Behavioral risk factor surveillance system PRAMS.

http://hhdw.org/wp-content/uploads/PRAMS_Alcohol_AGG3_00003.pdf

⁷⁵ US Dept. of Human Services. (2013). Results from the 2013 National Survey on Drug Use and Health:

Summary of National Findings.

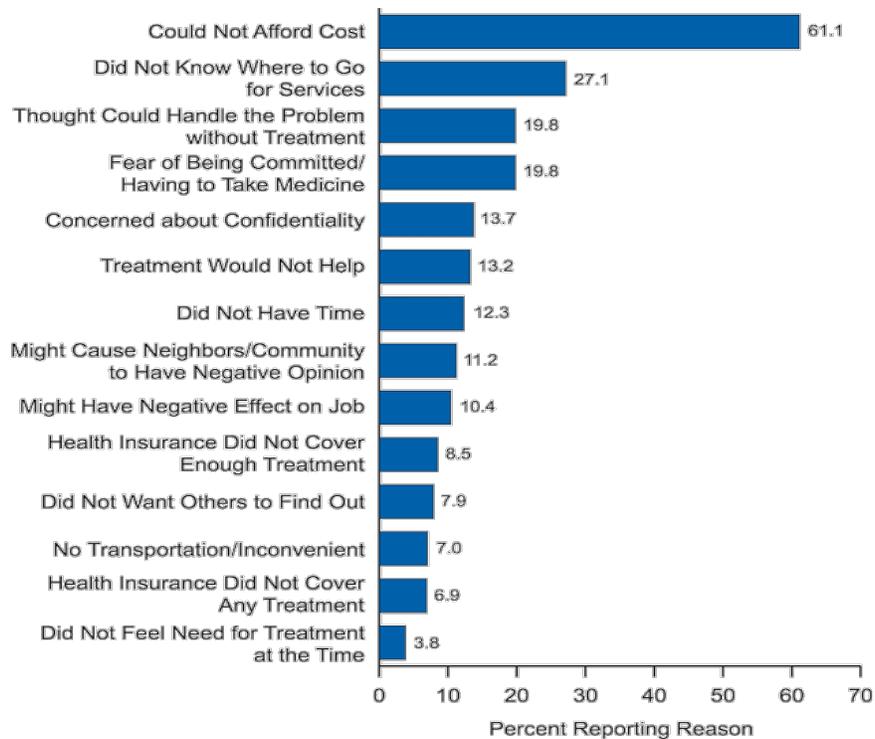
<http://www.samhsa.gov/data/sites/default/files/NSDUHresultsPDFWHTML2013/Web/NSDUHresults2013.pdf>

⁷⁶ US Dept. of Human Services. (2013). Results from the 2013 National Survey on Drug Use and Health:

Summary of National Findings.

<http://www.samhsa.gov/data/sites/default/files/NSDUHresultsPDFWHTML2013/Web/NSDUHresults2013.pdf>

Figure 6: Reasons for Not Receiving Mental Health Services in the Past Year among Adults Ages 18 or Older with Serious Mental Illness and a Perceived Unmet Need for Mental Health Care, 2013



Source: Results from the 2013 National Survey on Drug Use and Health: Mental Health Findings

Studies show that Medicaid beneficiaries have higher levels of behavioral health needs but may have lower levels of access to treatment. A recent study also found that those on Medicaid were 38 percent less likely to be prescribed antidepressants than those who are privately insured.⁷⁷ A Gallup poll from 2013 indicates that Medicaid participants are likely the ones most in need of behavioral health services, in addition to other chronic health problems. The lack of access to behavioral health services and proper treatment further compounds this issue, which can affect both an individual’s mental and physical health.

Physical Health Disparities

Figure 7 below, from the 2015 Hawai‘i Hospitals Community Health Needs Assessment, displays some of the areas of health disparity for Hawai‘i’s various racial and ethnic

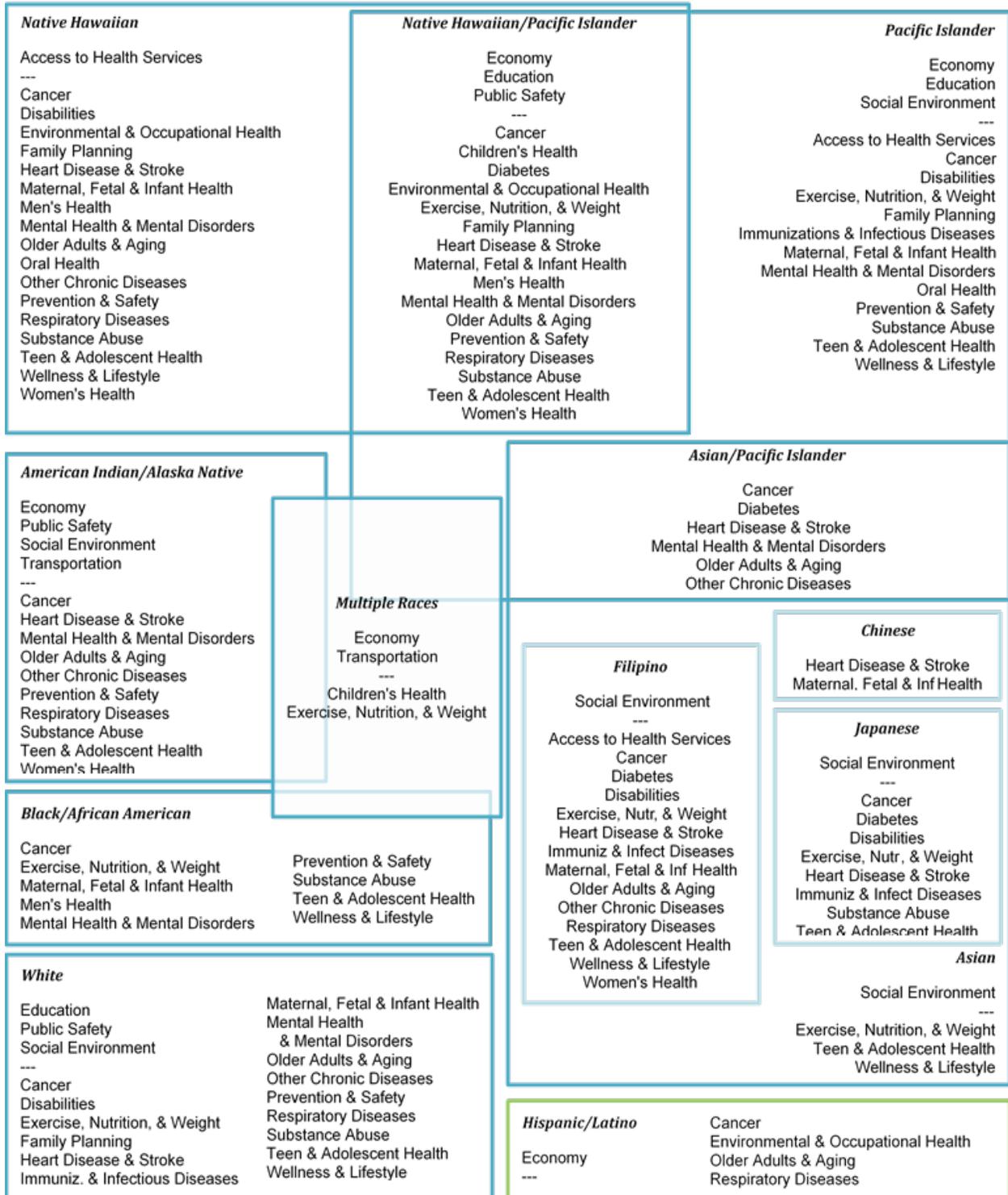
⁷⁷Drugs.com. (2012). Minorities, Medicare Recipients Less Likely to get Antidepressants. <http://www.drugs.com/news/minorities-medicare-recipients-less-likely-antidepressants-37474.html>



populations. As previously noted, although Hawai'i is ranked one of the healthiest states, it is clear that these positive health outcomes are not reaching populations equally, specifically Native Hawaiians.

The figure below identifies all health topics for which a racial/ethnic group is associated with the poorest value for at least one quantitative indicator, according to the 2015 Healthcare Association of Hawai'i Community Health Needs Assessment State Report. Within each list, Quality of Life measures are presented before the Health Topic Areas.

Figure 7: Areas of Disparity for Hawai'i Racial / Ethnic Groups (2015)



- **Obesity and Diabetes:** Approximately one in four Native Hawaiians is overweight or obese, a much higher rate than among other ethnic groups.⁷⁸ They are also more than five times as likely to experience diabetes between the ages of 19-35 years (11 percent) as compared to non-Native Hawaiians (2 percent). Although Native Hawaiians make up approximately 21 percent of the population in Hawai'i, they disproportionately represent the percent of childhood diabetes cases at roughly 40 percent.⁷⁹ Additionally, preventable readmission rates and ER visits are higher among Native Hawaiians and Other Pacific Islanders than for other races/ethnicities.
- **Smoking:** From 2012-2014, smoking decreased by 2.1 percent in Hawai'i, from 16.8 percent to 13.3 percent of adults.⁸⁰ Nationally, it is estimated that eight percent of women continue to smoke during pregnancy, and four to six percent use other drugs during pregnancy.⁸¹ In a study conducted with women delivering at Kapi'olani Medical Center for Women and Children, it was found that Native Hawaiian women were three times as likely to continue to smoke during pregnancy, and had four times the prevalence of other drug use.⁸² While the percentage of smokers statewide is declining, there is still cause for concern regarding smoking during pregnancy and negative outcomes for the child, such as low birth weight.
- **Low Birth Weight:** Hawai'i ranked 27th in the US in 2014 for low birthweight babies, which has unfortunately been steadily increasing since 1993.⁸³ In 2014, Hawai'i tied for 11th in terms of infant mortality, with 5.1 infant deaths per 1,000 live births.⁸⁴ While the infant mortality rate has been trending downward since 1990, infant mortality is disproportionately affecting Native Hawaiians, at an average rate of 7.9 deaths per 1,000 live births based on a study conducted with data from 2002-2010. This rate is more than twice the rate for Whites (3.5 per 1,000).⁸⁵ Smoking is thought

⁷⁸ Papa Ola Lokahi. (2014). Hawaiian health master plan. <http://www.papaolalokahi.org/wp-content/uploads/2015/01/NH-Health-Overview-FINAL-Master-Planning.pdf>

⁷⁹ Papa Ola Lokahi. (2014). Hawaiian health master plan. <http://www.papaolalokahi.org/wp-content/uploads/2015/01/NH-Health-Overview-FINAL-Master-Planning.pdf>

⁸⁰ United Health Foundation. (2014). America's health rankings: Hawai'i. <http://www.americashealthrankings.org/HI>

⁸¹ Wright, T. E., & Tam, E. (2010). Disparate rates of persistent smoking and drug use during pregnancy of women of Hawaiian ancestry. *Ethnicity & disease*, 20(1).

⁸² Papa Ola Lokahi. (2014). Hawaiian Health Master Plan. <http://www.papaolalokahi.org/wp-content/uploads/2015/01/NH-Health-Overview-FINAL-Master-Planning.pdf>

⁸³ United Health Foundation. (2014). America's health rankings: low birthweight Hawai'i. <http://www.americashealthrankings.org/HI/birthweight>

⁸⁴ United Health Foundation. (2014). America's health rankings: infant mortality Hawai'i. <http://www.americashealthrankings.org/HI/birthweight>

⁸⁵ United Health Foundation. (2014). America's health rankings: infant mortality Hawai'i. <http://www.americashealthrankings.org/HI/birthweight>

to cause 9.5 percent of the higher infant mortality among Native Hawaiians.⁸⁶ Other factors believed to be contributing to the disparate infant mortality rates among Native Hawaiians are maternal educational inequality and younger maternal age.⁸⁷

Although there are substantial disparities contributing to poor health outcomes in the Native Hawaiian population, Native Hawaiians also exhibit positive health behaviors and health indicators. Papa Ola Lokahi, a non-profit consortium comprised of Native Hawaiian organizations and public institutions working to improve the health and well-being of Native Hawaiians and other Native peoples, reports the following:⁸⁸

- 61.4 percent of Native Hawaiians report having one person who they consider to be their personal doctor or health care provider. Among Native Hawaiian kupuna (an elder, age 65 and older in the report cited), 97.8 percent have a primary source of health care.
- 52.9 percent of Native Hawaiians have received formal diabetes education, an increase of 10 percent from 2000 to 2010.
- Native Hawaiians eat fruits and vegetables regularly (54.4 percent), the highest rate across all ethnic groups.
- The proportion of Native Hawaiians meeting recommended physical activity levels increased from 2001-2005 by almost 8 percent, with 78.7 percent engaging in some form of physical activity in the last month.
- Native Hawaiians have the lowest incidence of prostate cancer among all ethnic groups.

Geographic Disparities

There are substantial geographic disparities present in Hawai'i. For example, Hawai'i County has a disproportionate number of children who need behavioral health services through the Child and Adolescent Mental Health Division (CAMHD).⁸⁹ Most behavioral health services are centralized in the City and County of Honolulu on O'ahu, making access to services for those on the Neighbor Island difficult, if not impossible.

⁸⁶ Hirai, A., Hayes, D., Taulii, M., Singh, G., & Fuddy, L. (2013). Excess infant mortality among Native Hawaiians: identifying determinants for preventative action. *American Journal of Public Health*: 103(11).

⁸⁷ United Health Foundation. (2014). America's health rankings: infant mortality Hawai'i. <http://www.americashealthrankings.org/HI/birthweight>

⁸⁸ Papa Ola Lokahi. (2014). Hawaiian health master plan. <http://www.papaolalokahi.org/wp-content/uploads/2015/01/NH-Health-Overview-FINAL-Master-Planning.pdf>

⁸⁹ Hawai'i State Department of Health (2014). CAMHD. <http://health.hawaii.gov>

The lack of behavioral health services outside of Honolulu County may also contribute to the higher suicide death rate on other islands, especially Hawai'i County, which has a suicide death rate that is beyond the national average of 13 per 100,000.⁹⁰

Figure 8: Hawai'i Suicide Death Rate:

Location	Status	Deaths/100,000 population	Source	Measurement Period
Comparison: HI State Value Period: 2006-2008				
County: Hawaii		19.6	Hawaii State Department of Health, Vital Statistics	2011-2013
County: Honolulu		10.0	Hawaii State Department of Health, Vital Statistics	2011-2013
County: Kauai		10.8	Hawaii State Department of Health, Vital Statistics	2011-2013
County: Maui		13.9	Hawaii State Department of Health, Vital Statistics	2011-2013

Source: *Hawai'i Health Matters*, 2015

While Hawai'i County has a higher suicide death rate, Maui County has the highest teen suicide attempt rate at 4.3 percent as compared to other counties (2.8-3.9 percent).⁹¹ Hawai'i County also has the highest percentage of individuals who have been told they ever had depressive disorder (16.6 percent), followed by Maui County (14.4 percent).⁹²

There are also significant disparities related to mothers who received late or no prenatal care in Hawai'i County versus other counties. In 2013, almost a third (30 percent) of women in Hawai'i County received late or no prenatal care, as shown in Figure 9, below.⁹³ This statistic is of particular concern since Hawai'i county also has the highest percentage of women who smoke during pregnancy (7.2 percent compared to 3.4-6.3 percent) and second highest prevalence of illicit drug use during pregnancy (6.5 percent) relative to Maui (7.2 percent).⁹⁴ It should be noted, however, that since women in Hawai'i County receive less prenatal care, the true prevalence number may be even higher as women who are using substances during pregnancy

⁹⁰ Centers for Disease Control and Prevention. (2015). Suicide and Self-Inflicted Injury.

<http://www.cdc.gov/nchs/fastats/suicide.htm>

⁹¹ Hawai'i Health Matters. (2015). Teens who attempt suicide.

<http://www.hawaiihealthmatters.org/modules.php?op=modload&name=NS-Indicator&file=overview&indid=7412000407®ionzoom=County>

⁹² Hawai'i Health Data Warehouse. (2015). Depressive disorder for the state of Hawai'i (BRFSS).

http://hhdw.org/wp-content/uploads/BRFSS_Depression_IND_00002_20111.pdf

⁹³ Hawai'i Health Data Warehouse. (2015). Live births for the state of Hawai'i. http://hhdw.org/wp-content/uploads/Vital-Statistics_Live-Births-in-Hawaii_IND_PNC2.pdf

⁹⁴ Hawai'i Department of Health. (2015). PRAMS Health Indicator Report. http://hhdw.org/wp-content/uploads/PRAMS_Illegal%20Drugs_IND_00002.pdf

http://hhdw.org/wp-content/uploads/PRAMS_Illegal%20Drugs_IND_00002.pdf

may opt to give birth at home to avoid being reported to Child Protective Services. Data on home births is currently not recorded in Hawai'i.

Figure 9: Mothers who Received Late or No Prenatal Care

Location	Status	Percent	Source	Measurement Period
Comparison: U.S. Value Period: 2013				
County: Hawaii		30.0	Hawaii State Department of Health, Vital Statistics	2013
County: Honolulu		12.1	Hawaii State Department of Health, Vital Statistics	2013
County: Kauai		13.2	Hawaii State Department of Health, Vital Statistics	2013
County: Maui		9.1	Hawaii State Department of Health, Vital Statistics	2013

Source: *Hawai'i Health Matters, 2015*

Kaua'i County has the highest percentage of heavy drinkers (10.6 percent compared to 7.2-8.7 percent), while Hawai'i County has the highest percentage of cigarette smokers (17.6 percent compared to 12.1-15.3 percent).⁹⁵ The differences in risk as well as access to and utilization of care between islands further highlights the need to tailor initiatives based on population, capacity and resources.

C. Health Care Delivery Landscape in Hawai'i

The state of Hawai'i features a health care delivery ecosystem that reflects the diversity and history of the State's 1.4 million residents located on seven different islands. Because the majority of residents live on the island of O'ahu, the State's acute care hospitals have a concentrated presence there. The State also has a robust network of community health centers that provide a range of services and the bulk of the primary medical and dental services provided in underserved areas. Finally, a majority of the State's providers are independent practitioners working in small practices. Overall, the State's hospitals, providers, and payers are moving towards a health care delivery system that pays for quality outcomes rather than volume. Although the process will be challenging, this dedication is reflected in the community's agreement to move towards a Patient Centered Medical Home (PCMH)-based model that focuses on paying for quality across the ecosystem.

⁹⁵ Hawai'i Health Matters. (2015). Adults who smoke Cigarettes.
<http://www.hawaiihealthmatters.org/modules.php?op=modload&name=NS-Indicator&file=overview&indid=10391000390®ionzoom=County>

Providers

Descriptions of each provider type are provided as follows:

- **Hospitals:** There are 28 hospitals in Hawai'i, including 14 publicly-funded hospitals, Tripler Army Medical Center (military), and one rehabilitation facility.
 - The three largest health care employers in Hawai'i are Hawai'i Pacific Health with four hospitals plus clinics, Kaiser Permanente with one hospital plus clinics, and the Queen's Health System with four hospitals plus clinics.
- **Clinically Integrated Networks:** The Queen's Clinically Integrated Physician Network (QCIPN) is a clinically-integrated, physician-led company founded in 2014 by The Queen's Health Systems, and it includes private practice and employed physicians throughout the State of Hawai'i. In August 2014, QCIPN established a business relationship with one of the largest commercial insurers in Hawai'i for the purposes of improving the overall quality of health care, improving our patient engagement and experience, and improving the efficiency and cost of care to our communities.
- **Independent Physicians:** Physician practices in Hawai'i are primarily small, independent practices. The Hawai'i Healthcare Project estimates that up to 65 percent of primary care physicians are in independent practices⁹⁶. National trends indicate that independent physicians are less likely to implement Electronic Health Records (EHRs) and develop the practice workflow changes required to regain productivity after a transition from paper records. These dynamics indicate special challenges for health care innovations, including incorporating non-physician providers and paraprofessionals and effective health information exchange.
- **Federally-Qualified Health Centers (FQHCs):** Hawai'i has 14 Federally-Qualified Health Centers on six islands that provided care for more than 125,000 patients in the past year. The FQHCs serve the rural and low-income residents on all six islands who would otherwise lack access to primary care services.⁹⁷ This makes FQHCs the largest provider network for Medicaid and second-largest provider source of direct primary medical services in the state.⁹⁸ The FQHCs in Hawai'i provide behavioral health care, dental services, language assistance, health education and nutrition

⁹⁶ The Hawai'i Healthcare Project. Healthcare Innovation Plan.

<http://hawaiihealthcareproject.org/index.php/resources/healthcare-innovation-plan.html>

⁹⁷ Workforce Development Council. (2011). Hawai'i's healthcare workforce 2020 plan & report.

<http://www.hawaiipca.net/media/assets/HawaiiHealthcareWorkforce2020PlanandReport-DRAFT.pdf>

⁹⁸ Hawai'i Primary Care Association. (2015). Community Health Centers.

<http://www.hawaiipca.net/6/community-health-centers>

counseling, and assistance with program applications such as housing and cash assistance.

- **Community Mental Health Centers (CMHCs):** The Hawai'i DOH operates eight state-staffed CMHCs, several with smaller satellite sites, which served nearly 4,000 adults with severe and persistent mental illness on all seven main islands in FY 2013. Many of these individuals are covered by Medicaid, uninsured, or conditionally released to the community for ongoing mental health treatment following a court determination of not guilty by reason of insanity for either felony or misdemeanor charges.
- **Family Guidance Centers:** The DOH CAMHD operates nine Family Guidance Centers (FGCs) with at least one on each island. FGCs provide services to youth identified as in need of intensive mental health services. Youth are assigned an FGC Mental Health Care Coordinator and may continue to receive School-Based Behavioral Health (SBBH) services and supports from the Department of Education in addition to the intensive mental health services provided through an FGC.⁹⁹
 - Through its Family Court Liaison Branch, CAMHD also operates and serves the Hawai'i Youth Correctional Facility and a detention home for incarcerated clients. Sixty percent of youth in detention have mental health problems. In total, 2,119 children were provided care coordination services by CAMHD in 2013. CAMHD's population is comprised of 80 percent Medicaid and 20 percent educationally-supported (i.e. receiving Individualized Education Program services).
- **Hawai'i Keiki:** The Hawai'i Keiki (the Hawaiian word for "child") program is a partnership between UH at Manoa and the Department of Education. The program is building and enhancing school based health services that screen for treatable health conditions, provide referral to primary health care and PCMH services, prevent and control communicable diseases and other health problems, and provide emergency care for illness or injury.¹⁰⁰

Payers and Payment Models

Most of the residents of Hawai'i are covered by private or public insurance, as illustrated in the diagram below. Insurance coverage is further broken down by race/ethnicity, and by product line in the subsequent illustrations. Additional information about each of the payers represented in the first diagram is also discussed in detail in this section.

⁹⁹Department of Health. (2015). Family Guidance Centers. <http://health.hawaii.gov/camhd/home/family-guidance-centers/>

¹⁰⁰UH. (2015). Hawai'i Keiki: Healthy and Ready to Learn. <http://www.nursing.hawaii.edu/hawaiiikeiki>

Figure 10: Insurance Coverage in Hawai'i by Payer

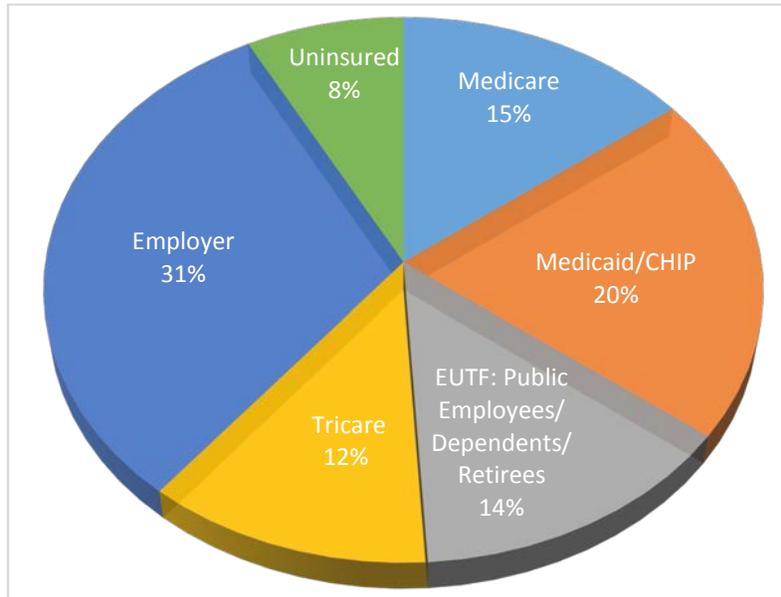


Table 5: Insurance Coverage in Hawai'i by Race and Ethnicity

Hawaii: Health Insurance Coverage by Race and Ethnicity, All						
Race/Ethnicity	Population	Employer/Military	Individual	Medicare	Medicaid	Uninsured
Hispanic	136,450	68.0%	2.1%	6.0%	18.2%	5.7%
White	320,519	61.3%	6.9%	18.7%	5.6%	7.6%
African American/Black	27,523	87.1%	2.5%	2.5%	3.9%	4.0%
Asian	515,567	59.5%	4.7%	23.4%	6.3%	6.1%
Native Hawaiian	74,579	55.3%	2.9%	13.8%	20.9%	7.1%
Pacific Islander	46,781	39.3%	1.2%	7.3%	41.1%	11.1%
Other/Multiple	271,146	61.3%	3.6%	9.4%	18.1%	7.6%
Total	1,392,565	60.7%	4.5%	16.4%	11.5%	6.9%

Source: SHADAC analysis of 2013 American Community Survey (ACS), non-institutionalized population.

Notes: Asian includes Asian Indian, Cambodian, Chinese, Filipino, Indonesian, Japanese, Korean, Laotian, Malaysian, Thai, Vietnamese, and other specified Asian groups.

Pacific Islander includes Samoan, Tongan, Other Polynesian, Guamanian, Other Micronesian, and Melanesian.

N/A indicates that data were suppressed because the sample size was less than 50.

Table 6: Health Insurance Payers, Covered Lives, and Product Lines¹⁰¹

Insurer	Total Lives*	Commercial	Medicaid/CHIP	Medicare Advantage & Part D	EUTF	Indiv. Market	Tricare
Hawai'i Medical Service Association (HMSA)	713,366	X	X	X	X	X	
Kaiser Permanente	231,836	X	X	X	X	X	
AlohaCare	64,297		X	X			
University Health Alliance	51,876	X					
United Healthcare	43,094		X	X	Retirees Only		X
'Ohana Health Plan (WellCare)	38,069		X	X			
Hawai'i Management Alliance Association (HMAA)	44,603	X					
Family Health Hawai'i	4,940	X					

*There is some duplication in counts as individuals may be enrolled in more than one plan.

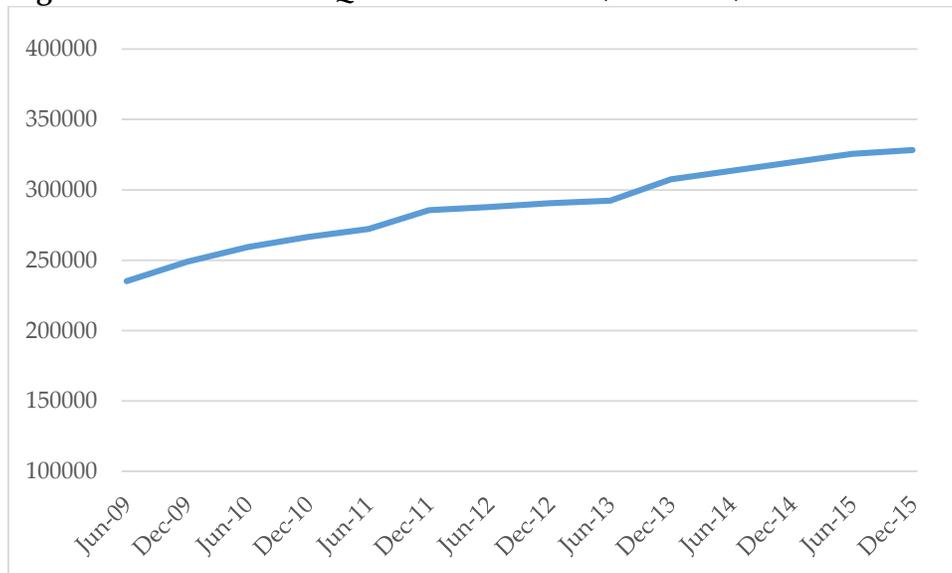
Hawai'i uses managed care throughout its Medicaid program, contracting with five health plans. These plans are Hawai'i Medical Service Association (HMSA Blue Cross/Blue Shield), Kaiser Permanente, AlohaCare, 'Ohana, and United Healthcare. HMSA serves the largest

¹⁰¹ Enrollment data as of December 2014. United and 'Ohana covered lives count are only for Med-QUEST and Medicare. Covered lives for other plans came from "2015 Report of the Insurance Commissioner," http://cca.hawaii.gov/ins/files/2015/12/2015_INS_Commissioner_Report.pdf.

portion of the Medicaid population and all serve other populations in Hawai'i's health care market. About half of all children in the state are on Medicaid.

1. **Medicaid:** There has been significant growth in Medicaid enrollment over the past several years. Medicaid enrollment was approximately 333,000 (December 2015), which is about 24 percent of the total state population. Medicaid is counter-cyclical in that increased demand for coverage typically accompanies a weakened economy, a time when available funding is decreased. Between June 2008 and June 2013, enrollment increased 38 percent in Hawai'i, with an additional 14 percent increase from June 2013 to December 2015, during which time the ACA Medicaid expansion was being implemented.

Figure 11: Hawai'i Med-QUEST Enrollment (2009-2015)



Hawai'i Med-QUEST (Medicaid) Division has operated under an 1115 Waiver Managed Care Demonstration since 1994. Five managed care organizations (MCOs) currently contract with Med-QUEST to provide Medicaid benefits to eligible beneficiaries: HMSA, Kaiser Permanente, AlohaCare, United Healthcare, and 'Ohana Health Plan (WellCare). The major components are QUEST, which covers eligible Medicaid and CHIP individuals, and the QExA-QUEST Expanded programs for seniors and individuals with disabilities. DHS recently integrated the QUEST and QExA components, which became operational on January 1, 2015. This new program is called QUEST Integration (QI). The goals of QI are to "minimize administrative burden, streamline access to care for enrollees with changing health status, improve health outcomes by integrating programs and benefits, align with the ACA, improve care coordination, and promote independence and choice among



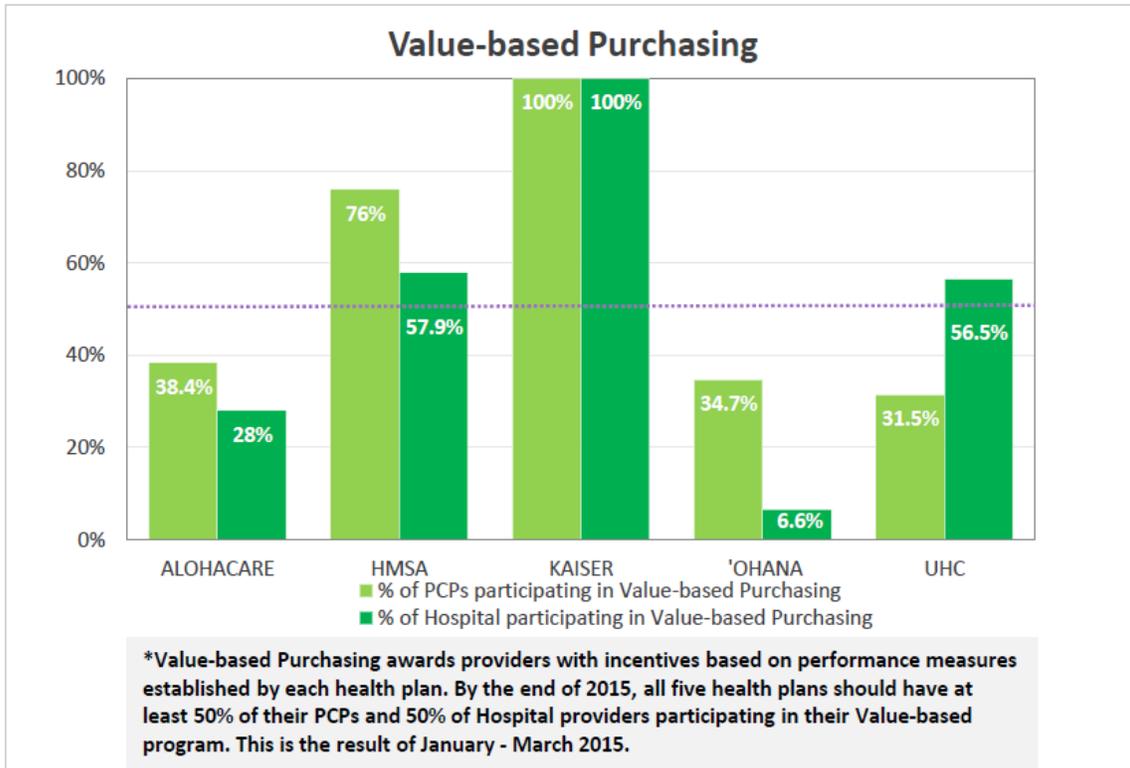
members that leads to more appropriate utilization of the health care system.”¹⁰² The most significant change for health plans is that they now all served the aged, blind, and disabled (ABD) population.

Overall, the transition to QI will increase focus on a patient-centered approach, particularly allowing patients to obtain services in the most convenient and cost-effective environment. One of the key changes will be to provide both at-risk beneficiaries and beneficiaries that meet an institutional level of care a choice of either home- or institutional-based services. Indeed, under the integration beneficiaries that are risk of institutionalization will now have access to the following services: Adult day care, adult day health, home delivered meals, and the personal emergency response system.

Under the current contract with Med-QUEST, the five MCOs are required to incorporate Value-Based Purchasing (VBP) requirements in their contracts with providers to render health care treatment and services. These requirements also represent the criteria based on which the MCOs will also receive additional funding if met. VBP links a provider’s reimbursement to improved performance, aligning payment with quality and efficiency. This form of payment holds health care providers accountable for both the cost and quality of care that they provide. For each year of the Med-QUEST contract, the MCOs have a target rate of participation for primary care providers and hospitals: Year 1 – 50 percent, Year 2 – 65 percent, Year 3 – 80 percent. The figures below represent MCO results through June of 2015.

¹⁰² Med-QUEST. (2015). General Information. <http://med-quest.us/Quest/QuestIntegration.html>

Figure 12: Value-Based Purchasing Results as of March 2015



Source: Public Summary Quarterly Report – April-June 2015

Med-QUEST bases health plan Pay for Performance payments on achievement of certain Healthcare Effectiveness Data and Information Set (HEDIS) targets. The incentives may vary from year to year and include quality measures such as the following:

- Childhood Immunization Status
- Chlamydia Screening in Women
- Controlling High Blood Pressure
- Comprehensive Diabetes Care – HbA1c Control (<8%)
- Comprehensive Diabetes Care – Systolic and Diastolic BP Levels < 140 / 90

2. Employer-Union Health Benefits Trust Fund (EUTF): EUTF is the main health care payer for state and county employees. EUTF has traditionally acted as an insurance purchaser, providing limited management of health care expenses. In recent years, however, EUTF has shown increased interest in more active involvement in coverage and population health through implementation of disease management and wellness programs for beneficiaries. In addition, EUTF has expressed interest in aligning value-for-purchasing metrics with the State Medicaid program and aligning request for proposal and contract language with that found in Medicaid contracts.

3. Commercial Insurance Payers:

- *HMSA*, the state’s largest commercial insurer, launched its PCMH in 2009 to provide higher quality care for its members. At the end of 2012, HMSA had enrolled 57 percent of its PCPs in a PCMH program that focuses on preventive care and chronic disease management. HMSA expanded the program in 2012 to include its Medicare Advantage and QUEST members. HMSA uses a web-based communication system to help PCPs manage their patients. The platform can be used to identify any care gaps for the pay-for-quality program, view health care services rendered and key lab values for their patients. These capabilities help avoid duplication and enable better management, and allow the PCP and patients to communicate securely – all of which are aimed at managing health care more efficiently.
 - *Kaiser Permanente Hawai’i*, the state’s largest health maintenance organization, represents the second largest insurer in the state. Kaiser Permanente is the largest vertically integrated health care delivery system in the United States. Kaiser contracts with providers for care (mostly through Permanente Medical Groups), owns its hospitals and medical facilities, and reimburses the hospitals and medical facilities for their expenses. The Permanente Medical Groups accept risk through capitation, and all physicians are salaried. By definition, Kaiser does not operate under a fee-for-service model of reimbursement based solely on volume. As of 2012, all of Kaiser’s primary care sites had achieved Level 3 PCMH status.
4. **Multi-Payer Opportunities:** While Hawai’i’s SIM is tailored to the Medicaid population, the state’s health care coverage environment lends itself to multi-payer opportunities. As noted above, EUTF, as a publically supported program, could align its metrics and incentive strategies with Medicaid’s, which, combined, would influence care for nearly 40% of the state’s population. It is also apparent that the BHI strategies, including investment in provider training and team-based practice transformation and support for care coordination team, would get best results and greatest provider buy-in if supported by all payers. Policy levers that could advance common metrics and value-based payment strategies for Hawai’i’s public payers will involve discussion with the board of the EUTF, with the State legislature, and with the counties.

D. Delivery System Models

On the whole, the delivery system in Hawai’i remains fragmented, largely due to continued reliance on fee-for-service payment models and the lack of outcomes-based incentives for providing coordinated care. However, momentum is building for the adoption of new payment and delivery system models. In January 1, 2014, HMSA and Hawai’i Pacific Health created Hawai’i’s first accountable care organization, and in 2015 HMSA and the Queen’s Health



System embarked on an ACO model with the development of a Clinically Integrated Physician Network.

Elderly and Disabled Populations

Hawai'i has a number of programs aimed at improving health care and support services for the elderly and individuals with disabilities along with balancing the use of institutional care with home and community-based services. Hawai'i's health care networks for these populations have been fragmented with discrete entities providing different forms of care, often not knowing that other agencies provide the same or related services. The Executive Office on Aging (EOA), the central locus of state organized program development for elder care services, has historically been hampered by multiple operational constraints including limited oversight for county agencies due to staffing inadequacies within agencies that receive funding from EOA and no centralization of elder services.

Each island has a county-operated Aging and Disability Resource Center (ADRC) serving both the elderly and individuals with disabilities by connecting them to resources. The ADRCs help to determine if a participant is eligible for public programs, provide referrals to providers, and assist in the development of plans for meeting needs. ADRCs also help individuals and their caregivers plan for future long-term care needs. This assistance is paid for by state and county funds. Recently, the EOA and the DOH's Developmental Disabilities Division (DDD) have established a referral route to and from the ADRCs through implementation of the "No Wrong Door" program. The focus is to support all individuals in need of Long-Term Services and Supports (LTSS) and connect them with appropriate services to lead meaningful lives, regardless of point of entry to the system.

Buoyed by these efforts, the share of individuals receiving LTSS in an institution versus in the community has been reduced from 60 to 34 percent since 2008.¹⁰³

Oral Health

Hawai'i faces significant challenges related to oral health. Hawai'i's public water systems do not have fluoride (except on military bases) and the state has the lowest proportion of residents with access to the benefits of fluoridated drinking water in the U.S. (11 percent vs. 75 percent nationally in 2012).¹⁰⁴ Another challenge is that dental benefits for Medicaid-enrolled adults were eliminated in 2010, and as a result adults in Medicaid appear to be seeking services in the emergency room more frequently. Poverty, cultural practices, and prevention norms are factors for poorer oral health since caries and baby bottle tooth decay rates are significantly higher for Filipino, Southeast Asian, Korean, and Native Hawaiian and Pacific Islander children. Because of Hawai'i's access barriers and disparities, the State included a focus on oral health

¹⁰³ Department of Human Services. (2013).

¹⁰⁴ Hawai'i State Department of Health. (2015). Hawai'i oral health: Key findings. http://health.hawaii.gov/about/files/2013/06/Key_Findings_wC.pdf

improvement as part of its SIM. Additional information about Hawai'i's oral health status, challenges, and strategies, is provided in the Oral Health section of this report.

Behavioral Health Delivery System

The behavioral health delivery system in Hawai'i, as in many states, is fragmented across multiple state agencies and insurance programs. All five Med-QUEST health plans are required to cover standard behavioral health services for Medicaid beneficiaries, including outpatient counseling and therapy, medication management and psychological evaluations. However, to receive coverage for more serious behavioral health conditions, Medicaid beneficiaries with a serious mental illness must also enroll in the Community Care Services (CCS) program.¹⁰⁵ In order to be found eligible for the CCS program, a Medicaid beneficiary must demonstrate the following: (1) the presence of a qualifying diagnosis for the past 12 months, or one that is expected to persist for the next 12 months; and (2) instability and/or functional impairment. CCS covers the following types of behavioral health services, among others:¹⁰⁶

- Inpatient Psychiatric Services
- Outpatient Behavioral Health Services
- Medications and Medication Management
- Intensive Case Management
- Crisis Management
- Therapeutic Living Supports
- Transitional Housing
- Supported Employment

Within DOH, three divisions provide behavioral health services: the Adult Mental Health Division (AMHD), the Child and Adolescent Mental Health Division (CAMHD) and the Alcohol and Drug Abuse Division (ADAD). Generally, individuals must be diagnosed with a serious and persistent mental illness, emotional disturbance or alcohol or drug abuse problem, or be in a state of crisis in order to receive AMHD, CAMHD or ADAD services. The services offered by these divisions may supplement those that are covered by Med-QUEST, although individuals do not need to be covered by Medicaid to qualify for services. The table below describes the services covered by AMHD, CAMHD and ADAD.

¹⁰⁵ The CCS behavioral health program is currently administered by 'Ohana Health Plan, which also operates one of the five Med-QUEST health plans.

¹⁰⁶ 'Ohana Community Care Services Provider Manual. (2013).

Table 7: Summary of DOH Behavioral Health Services

DOH DIVISION	FACILITIES	SERVICES
AMHD	<ul style="list-style-type: none"> • Operates 8 CMHCs • Operates the Hawai'i State Hospital for persons with serious mental illness who are involved with the criminal justice system and the Crisis Line of Hawai'i 	<ul style="list-style-type: none"> • Community-based case management • Inpatient psychiatric services • Peer coaching • Community housing • Crisis services • Outpatient treatment
CAMHD	<ul style="list-style-type: none"> • Operates nine (9) Child and Family Guidance Centers 	<ul style="list-style-type: none"> • Crisis intervention stabilization • Counseling for youth and family • Care coordination to community resources for youth • Pre-hospitalization screening and assessment
ADAD	<ul style="list-style-type: none"> • Accredits and contracts with 23 substance abuse centers 	<ul style="list-style-type: none"> • Residential treatment (up to 60 days) • Case management • Clinical consultation • Training and certification of substance abuse providers • Outpatient treatment, including school-based (ADAD does not provide these services to CCS enrollees) • Prevention activities and services

AMHD, CAMHD and ADAD treat many individuals covered by the CCS program and often provide services beyond what is covered by CCS. However, there is a gap group of individuals whose behavioral health conditions are not serious enough to meet eligibility criteria for CCS, AMHD, CAMHD or ADAD services and who are unable to receive treatment for services that may benefit them. For example, only adults who have been found eligible for AMHD services may be treated at one of the state's eight CMHCs, and only children who have met CAMHD eligibility criteria may be treated at one of the nine Child and Family Guidance Centers.

School based mental health services: The Department of Education’s (DOE) Comprehensive Student Support System (CSSS) offers School-Based Behavioral Health (SBBH) services to Hawai’i’s public school students. The SBBH program supports students having mild or emerging social, emotional, and behavioral concerns by working to help the student resolve issues and preventing escalation into more intense concerns. As a result of the Felix Consent Decree, a class action suit brought in 1993 over the inadequacies of the State education system’s mental health services for disabled children, the populations served by DOE and DOH were defined.¹⁰⁷ The DOE provides mental health and other supports to students to assist them in taking full advantage of their public education. The youth who require more intensive behavioral health services are referred to CAMHD to receive intensive case management with access to CAMHD’s comprehensive array of services. According to the Hawai’i Department of Education’s Annual Performance Report for 2014, there were 16,819 students, ages 6 years through 21, with an Individualized Education Program.¹⁰⁸

Health Care Cost Drivers

In Hawai’i, Medicaid consumed 8.2 percent of the State’s general revenue, approximately \$848 million in state fiscal year 2014. Combined with federal matching funds, this resulted in almost \$2.05 billion spent by the Hawai’i Med-QUEST program.¹⁰⁹ The State has been successful in keeping overall Medicaid costs from rising more than an average of 2 percent in recent years. Although State Medicaid costs still represent a significant portion of the State’s annual budget, the Med-QUEST Audit for 2014 reported, “Despite growth in the percentage of Hawai’i’s population enrolled in Medicaid, the division has been relatively successful in controlling spending per enrollee and stabilizing program costs.”¹¹⁰ Nevertheless, the Governor’s Office is committed to addressing the serious health disparities identified and will need to effectively confront the related cost drivers associated with those disparities.

A number of factors have been identified as drivers of health care costs across the country. Several of the biggest factors include:

- **Chronic Disease:** Cost indicators for chronic diseases have steadily increased since 1997; the current costs in Hawai’i closely mirror national costs. As illustrated in the table below, the top chronic disease cost drivers per Medicaid beneficiary include stroke (\$7,420), congestive heart failure (CHF) (\$3,690), and diabetes (\$3,190).

¹⁰⁷ The federal courts found that Hawai’i was substantially in compliance, ending the decree in May 2005.

¹⁰⁸ Hawai’i Department of Education. (2013). Education Environments.

<http://www.hawaiipublicschools.org/DOE%20Forms/Special%20Education/PartB2015/SPEDAPR5.pdf>

¹⁰⁹ MACPAC. (2014)/ Report to the Congress on Medicaid and CHIP.

¹¹⁰ Audit of the Department of Human Services’ Med-QUEST Division and Its Medicaid Program. (2014). Report Number 14-02.

Table 8: Chronic Disease Cost per Medicaid Beneficiary in Hawai'i (2010)

	Stroke	CHF	Diabetes	Cancer	Heart Disease
Hawai'i	\$14,270	\$7,290	\$4,830	\$4,700	\$2,270
National	\$13,420	\$6,530	\$4,470	\$4,630	\$2,130

Source: National Center for Chronic Disease Prevention and Health Promotion, 2010

In Hawai'i, Emergency Room (ER) visits related to diabetes increased from approximately 10,000 in 2003 to 25,000 in 2009 (a 150 percent increase), with costs increasing from \$14 million to \$57 million respectively. Data from HHIC suggests that as much as \$40.0 million and \$13.6 million annually is associated with preventable heart failure and diabetes-related hospitalizations, respectively. Furthermore, even though hospitalizations for cardiovascular diseases have remained constant at approximately \$20,000 per Medicaid beneficiary, costs have still increased by 29 percent from 2003 to 2009 (Source: HHIC).

- Behavioral Health Conditions:** Research by HHIC indicates that behavioral health conditions represent a significant cost driver across all payer types; by some estimates, BH accounts for up to 30 percent of ER visits and generated inpatient admissions and related charges. The Hawai'i Medicaid population is disproportionately affected by BH conditions, particularly in populations with noted health disparities; behavioral health expenditures outstrip commercial private insurance payers when adjusting for covered lives. Within behavioral health conditions, the top All Patient Refined-Diagnosis Related Groups identified were Acute Anxiety and Delirium States (756), Alcohol Abuse and Dependence (775), and Depression except Major Depressive Disorder (754).

Table 9: Behavioral Health Utilization and Expenditures (2012)

Payer	ER Visits	Inpatient Admit	ER Charges	Inpatient Charges	ER Admitted Inpatient Percentage
Medicaid/QUEST	5,988	1,869	\$14,020,479	\$28,407,668	23.8
Medicare	2,668	895	\$6,319,085	\$17,879,326	25.1
Private Insurance	3,108	903	\$6,736,711	\$14,899,587	22.5
Self-Pay	1,357	236	\$3,314,382	\$3,002,238	14.8

Source: HHIC, 2012

- Preventable Hospitalizations, Readmissions, and ER Visits:** According to HHIC, approximately one in every ten hospitalization and ER visits is potentially preventable, which costs Hawai'i's health care system as much as \$350 million

annually. Table 10 illustrates the costs associated with these preventable episodes of care.

Table 10: Cost of Preventable Hospitalizations, Readmissions, and ER visits (2012)

Service Type	Preventable Visits	Percent of Total Hospitalizations	Total Cost
Preventable Hospitalizations	10,427	11.8	\$159,324,560
Preventable Readmissions	7,015	7.9	\$103,020,699
ER Visits	46,792	10.5	\$93,888,325

Source: HHIC, 2012

In addition, HHIC data shows that the costs of these episodes accrue to all payers but predominantly to Medicare – representing 58 percent of preventable readmissions and 32 percent of preventable ER visits. Moreover, the disparities that exist in relevant population health metrics are also present for preventable hospitalizations and ER visits, with the highest rates of preventable hospitalization, readmissions, and ER visits among Native Hawaiians and other Pacific Islanders.

Data show that the presence of a behavioral health condition contributes to increased health care utilization. Recent data compiled by HHIC found that behavioral health is a co-existing condition for 34 percent of hospitalizations and nearly 10 percent of readmissions, and the presence of a mental health conditions increases the risk of a hospital readmission.

According to HHIC, just a 20 percent reduction in the number of preventable hospitalizations, readmissions, and ER visits attributable to the top 5 reasons in each category would generate as much as \$48 million in cost savings each year – the majority of which would accrue to the federal government through Medicare and Medicaid.

In addition to the cost drivers discussed above, there are other factors related to the aging population and individuals with disabilities that contribute to cost, primarily the lack of coordinated care. When individuals with complex and diverse needs receive fragmented care, some or all of their needs may go unmet, which can drive demand for the more intense, costly care needed to address resulting complications and poor outcomes. Another factor associated with aging is a growing demand for long-term care services which is helping to drive cost increases for services to the

elderly. Long-term care services are expensive everywhere, but are particularly costly in Hawai'i. For example, the private-pay price for the average private room in a nursing home is almost 50 percent higher in Hawai'i than in the country as a whole.¹¹¹ As noted above, the long-term care system in Hawai'i has been fragmented with no single point of entry. Participants were often referred to multiple agencies (e.g., DHS, DOH, EOA, ADRC) for eligibility screening for different programs and required to leave voicemails with no definitive response time provided.

E. Strengths of Hawai'i's Health Care System

According to The Commonwealth Fund Scorecard on State Health System Performance for Low-Income Populations, 2013, a national scorecard that analyzed 30 indicators within four dimensions – Hawai'i ranks best in the nation.¹¹² Hawai'i ranks in the top quartile for three of four system dimensions – Access and Affordability, Potentially Avoidable Hospital Use, and Healthy Lives. Hawai'i ranks in the second quartile for the fourth indicator, Prevention and Treatment. For low-income populations whose standard of living is below 200 percent of the federal poverty level, Hawai'i reported the second lowest percentage of uninsured adults, the second lowest percentage of uninsured children, and the lowest percentage of adults who went without health care in the past year due to cost. Hawai'i also is ranked first for the lowest rate of potentially avoidable hospital use and second for the lowest rate of potentially avoidable emergency department visits for low-income Medicare beneficiaries, and first for the lowest rate of poor health-related quality of life for low-income adults 19 through 64 years old.¹¹³ These achievements are indicative of Hawai'i's commitment to a cost effective and comprehensive health care system delivering high quality care to its residents.

Alignment with the ACA and proposed waiver

Hawai'i shares the goals of the ACA to:

- Expand access to affordable, high quality health care via meaningful insurance
- Protect consumers from predatory insurance practices
- Reduce health care and insurance costs

¹¹¹ Hawai'i Long-Term Care Commission (2012). Long-Term Care Reform in Hawai'i. http://lrbhawaii.info/reports/legrpts/ltrcc/act224_4_slh08_final.pdf

¹¹² The Commonwealth Fund. (2013). Low-Income Population Scorecard. <http://datacenter.commonwealthfund.org/scorecard/low-income/13/hawaii/>

¹¹³ The Commonwealth Fund. (2013). Low-Income Population Scorecard. <http://datacenter.commonwealthfund.org/scorecard/low-income/13/hawaii/>



The State embraced the opportunities provided by the ACA to expand Medicaid eligibility, improve an already well-performing insurance environment, and create a pathway for affordable individual coverage. Hawai'i has long boasted low uninsured rates due to rigorous employer coverage requirements and progressive Medicaid eligibility policy. Most of Hawai'i's private sector workforce has enjoyed comprehensive health coverage since 1974 when the Hawai'i Prepaid Health Care Act ("Prepaid") went into effect. Prepaid, both simpler and more sweeping than the ACA, has shaped Hawai'i's health insurance landscape in numerous positive ways.

With Hawai'i's progressive agenda for full insurance coverage and its long-standing success with Prepaid, the State was among the first to declare its intent to create an ACA state-based marketplace. Despite substantial federal investment in technology and assistance, the efforts of the non-profit corporation formed to establish the marketplace, years of significant work contributed by public sector employees from at least five departments, and a supportive legislature, the Hawai'i Health Connector ("Connector") was not sustainable. As a result of lessons learned:

- With the November 2015 open enrollment period, Hawai'i became a Supported State-Based Marketplace
- Hawai'i's Small Business Health Options Program (SHOP) infrastructure was shut down, and small employers enrolled directly with health plans as of June 2015
- Hawai'i is seeking to waive SHOP in 2017

Hawai'i's waiver seeks to maintain all aspects of the innovative Hawai'i Prepaid Health Care Act and proposes to waive provisions of the Affordable Care Act that diminish it. Hawai'i will, instead, maintain the "*Prepaid Employee Coverage Marketplace*" and continue to support the Supported State-Based Marketplace.

Expansion of Medicaid Services

Another strength in Hawai'i's health care system is that behavioral health services provided by Medicaid have been expanded in recent years. As of January 1, 2014 the following services are covered:

- Specialized Behavioral Health Services are available for individuals with serious mental illness (SMI), serious and persistent mental illness (SPMI), or serious emotional and behavioral disturbance. These include supportive housing, supportive employment, and financial management services.
- Cognitive Rehabilitation Services are provided to cognitively impaired individuals to assess and treat communication skills, cognitive and behavioral ability and skills related to performing activities of daily living. A licensed physician, psychologist, or a physical, occupational or speech therapist may provide these services. Services must be medically necessary and prior approved.

- Habilitation Services are provided to develop or improve a skill or function not maximally learned or acquired by an individual due to a disabling condition. A licensed physician or physical, occupational, or speech therapist may provide these services. Services must be medically necessary and prior approved.

PCP Enhanced Payment

The DHS Med-QUEST Division extended its enhanced reimbursement rate through December 31, 2015 for certain primary care services provided by eligible primary care physicians.¹¹⁴ The same reimbursement methodology described in Section 1202 of the ACA will be used, which increases Medicaid reimbursement rates for certain services provided by eligible PCPs, defined as follows:

“For purposes of the *increased* reimbursement, eligible primary care physicians are considered those who:

1. Self-attest to practicing in family medicine, internal medicine, or pediatric medicine, and to subspecialists of those specialties as recognized by the American Board of Medical Specialties (ABMS), American Osteopathic Association (AOA), or American Board of Physician Specialties (ABPS); and
2. Have either an active board certified (*sic*) in that specialty or had 60 percent of their last calendar year’s Medicaid claims for Evaluation and Management and vaccine administration codes specified (online).”¹¹⁵

Strong Stakeholder Engagement

One of the greatest strengths of the Hawai‘i innovation process is the high level of stakeholder engagement. Throughout the SIM process, the Governor’s Office staff has worked closely with DHS and DOH to align and unify the vision for the State. Further, the innovation plan has been shaped with input from five different committees as well as through a number of key informant interviews. The committees and key informant interviews have been included a diverse group of people from various state and local partners. This strong stakeholder engagement has helped to assure not only that the plan being developed meets the needs of a large group of entities, but that there will be sufficient buy-in once the plan is implemented in 2016.

¹¹⁴ Med-QUEST. (2015). Primary Care Physician. <http://www.med-quest.us/providers/PrimaryCarePhysician.html>

¹¹⁵ Med-QUEST. (2015). Primary Care Physician. <http://www.med-quest.us/providers/PrimaryCarePhysician.html>

F. Challenges in Health Care Transformation Efforts in Hawai'i

Access to Care

Due to the state's mountainous topography and island geography, access to care is particularly challenging for many residents of Hawai'i. Transportation to needed services is complicated by the rugged terrain within each island as well as the need to fly to other islands if necessary to obtain needed services. For example, many individuals requiring inpatient psychiatric treatment on neighbor islands must be flown to O'ahu, at significant cost to the State and disruption to the individual and their families. The neighbor islands have smaller populations, and frequently the infrastructure on a specific island is insufficient to specialized needs. The transportation issue limits or prohibits islands from easily sharing resources, as might be an alternative in other states.

Workforce Shortages

Challenges related to access to care are exacerbated by provider shortages and distribution issues at all levels – including within primary, specialty, behavioral, and oral health care. Hawai'i has nine geographic areas that are designated by the Health Resources and Services Administration (HRSA) as Health Professions Shortage Areas (HPSAs) for mental health services. Four areas are designated primary care HPSAs, and one is a dental HPSA. These challenges affect all levels and types of staffing across the care continuum.

- **Physicians:** There are approximately 9,000 licensed physicians in the state, of which 3,596 are practicing in non-military settings.¹¹⁶ Just over 700 of those practicing in civilian settings are age 65 years or older, and are likely planning to reduce active service delivery or retire. By 2020, the projected physician shortage will be 1,600.¹¹⁷ Statewide there is a 34.6 percent shortage of General and Family Practice physicians.¹¹⁸

While Hawai'i maintains a high physician to population average, this statistic does not reflect that rural areas suffer from a lack of access since physicians are disproportionately located in the Honolulu area. The maps below illustrate the

¹¹⁶ Withy, K. (2015). Hawai'i Physician Workforce Assessment 2015. www.ahec.hawaii.edu

¹¹⁷ Association of American Medical Colleges Center for Workforce Studies. (2012). Recent studies and reports on physician shortages in the US. <https://www.aamc.org/download/100598/data/>

¹¹⁸ Withy, K. (2015). Hawaii Physician Workforce Assessment 2015. www.ahec.hawaii.edu

uneven distribution of physician availability and critical areas where the shortages are most severe.

Figure 13: Map of 2015 Hawai'i Physician Shortage by Region

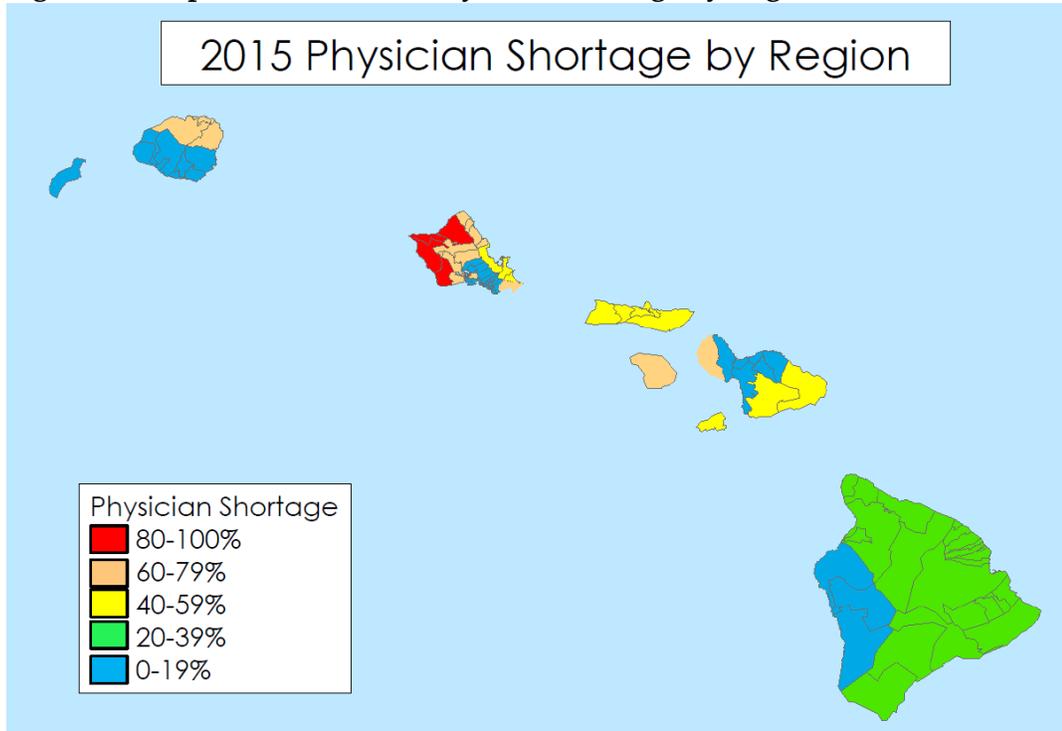
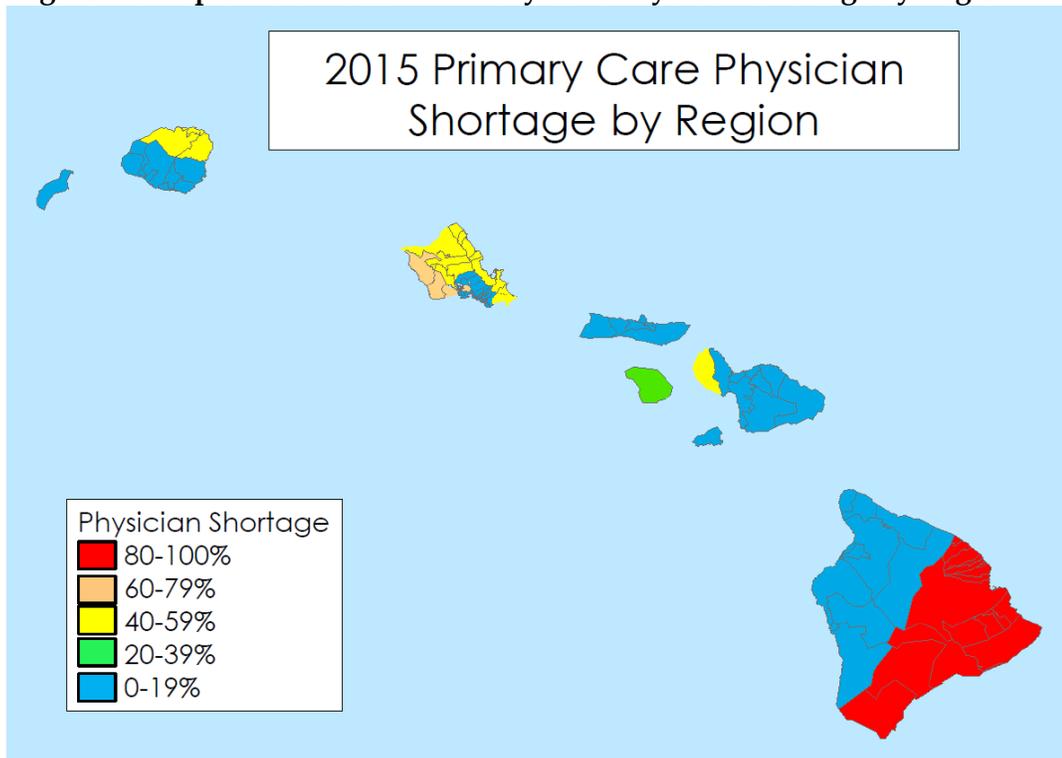


Figure 14: Map of 2015 Hawai'i Primary Care Physician Shortage by Region



Approximately 60 percent of practices are small with five or fewer providers. Only two percent of physicians reported using telehealth for service delivery or support in a 2015 survey.¹¹⁹ More extensive use of telehealth would be beneficial to improve patient access in areas where there is a physician shortage, particularly on neighbor islands.

One of the strengths of the Hawai'i system, however, is that most (86 percent) medical students and residents at UH's School of Medicine remain in the State following completion of their programs, the highest retention rate nationwide.¹²⁰

- **Behavioral Health Providers:** These providers include both physicians (psychiatrists) and non-physician behavioral health treatment and support staff including psychologists, therapists, licensed clinical social workers (LCSWs), certified substance abuse counselors (CSACs), counselors, psychiatric mental health advance practice registered nurses (APRNs), etc. According to HRSA, Hawai'i had 27 Mental Health HPSAs in 2014 and met only 64 percent of the need for services.¹²¹

¹¹⁹ Withy, K. (2015). Hawai'i Physician Workforce Assessment 2015. www.ahec.hawaii.edu

¹²⁰ American Medical Association Physician Masterfile, 2012.

¹²¹ Kaiser Family Foundation. (2015). Mental Health Care Health Professional Shortage Areas. <http://kff.org/other/state-indicator/mental-health-care-health-professional-shortage-areas-hpsas/>

Native Hawaiians have the highest rate of untreated psychological concerns, many of whom live in rural areas where access to behavioral health services is seriously limited.¹²² In Hawai'i County, for example, behavioral health specialists fly in to see patients once a week, but this remains insufficient to meet the demand. Further complicating the shortage is that many behavioral health specialists do not accept, or accept very few, Medicaid patients, who are more likely to have a behavioral health condition than non-Medicaid patients.

There appears to be an even greater shortage of behavioral health providers who treat drug and alcohol addiction. While the national average is 32 providers per 1,000 non-elderly adults with a drug or alcohol addiction, Hawai'i has only about 20 providers per 1,000.¹²³ Nationally, only 55 percent of addiction practitioners accept Medicaid.¹²⁴ In Hawai'i, there are disparities in both access to and availability of substance abuse providers among islands, with those in Honolulu County having greater access than those in rural areas or on neighbor islands.

At this point, psychiatry and behavioral health demand has not been studied in depth in Hawai'i, but both of these specialties have anecdotal reports of high unmet need. In 2015, a request was made to the legislature to convene a work group dedicated to behavioral health access that would complete a behavioral health workforce assessment. Although there is a lack of data regarding the behavioral health workforce shortage, especially in data that is not only statewide, but island-specific, it is clear that there is a shortage. The State is exploring the possibility of using Community Health Workers (CHWs) to bridge some of the gaps in behavioral health services, but the program is still in its infancy.

Slow Adoption of Health Information Technology (HIT)

Adoption of EHRs by medical providers in Hawai'i is currently higher than the national average (62.3 percent as compared to 48.1 percent).¹²⁵ However, provider implementation across the state is uneven and, according to 2013 data from the Office of the National Coordinator (ONC) for Health Information Technology Dashboard, only 52 percent of office-based providers have adopted basic EHRs.¹²⁶ Most providers affiliated with large health systems (particularly on the island of O'ahu) use EHRs, however, in independent practices, in

¹²² Keawe'aimoku, J. et al. National Register of Health Service Psychologists. Ola Lahui: rural behavioral health program. http://www.e-psychologist.org/index.ihtml?mdl=exam/show_article.mdl&Material_ID=78

¹²³ The Pew Charitable Trusts. (2015). How severe is the shortage of substance abuse specialists? <http://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2015/4/01/how-severe-is-the-shortage-of-substance-abuse-specialists>

¹²⁴ The Pew Charitable Trusts. (2015). How severe is the shortage of substance abuse specialists? <http://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2015/4/01/how-severe-is-the-shortage-of-substance-abuse-specialists>

¹²⁵ SHADAC "Hawai'i State Profile"; NCHS analysis.

¹²⁶ ONC Dashboard. (2013). 2013 data. <https://dashboard.healthit.gov/HITAdoption/>



rural areas and the hospitals that serve them, and on neighbor islands, generally, EHR adoption is significantly lower.

Increased use of health information exchange and technology among medical and behavioral health providers is a necessary step to integrating behavioral health and PC/WH, particularly given the geographic challenges to conventional information sharing. That being the case, it is unfortunate that EHR adoption among behavioral health providers has thus far been minimal. In a 2012 national study, just over 20 percent of behavioral health organizations surveyed indicated that they had fully adopted an EHR system, citing barriers related to upfront costs and sustainability.¹²⁷ Additionally, many behavioral health providers, such as psychologists, clinical social workers, community mental health centers, and residential treatment centers, are not eligible to receive incentive payments made available by the Health Information Technology for Economic Clinical Health (HITECH) Act, which was instrumental in facilitating implementation for general health care providers.

Exchange of health information between PCP/WHPs and behavioral health providers also needs to be supported by development of an agreed-upon template specifying the basic information to be shared between providers. In addition, providers need accurate information to demystify the privacy and security rules associated with exchanging mental health and substance abuse diagnoses and treatment records.

Budget Limitations for DHS

As in many states, especially those that opted to expand Medicaid under the ACA, enrollment and, hence costs, have escalated, eclipsing all other budget categories. The Hawai'i Medicaid program's tight budget has resulted in minimal funds for program development, administration, and oversight in order to maximize funds for care. Limiting administrative capacity, necessary in the short run, now needs to be reversed in order to take advantage of opportunities for innovation and federal funding enhancements needed to assure that the program invests effectively in better health and lower costs.

¹²⁷ Office of the National Coordinator for Health Information Technology. (2012). Behavioral Health Roundtable. https://www.healthit.gov/sites/default/files/bh-roundtable-findings-report_0.pdf

V. Plan for Improving Population Health

Hawai'i's Roadmap for Population Health positions behavioral health care as the central clinical component for improving the overall health and well-being of the State's population. Although Hawai'i has ranked as the healthiest state in the nation, poor behavioral health and chronic diseases significantly affect the population. Mild to moderate depression and anxiety and substance misuse are not routinely identified and addressed in a timely and appropriate manner, but these issues are strongly correlated with chronic diseases and diminished capacity for families and communities to enjoy good health. Access to care for adults with mental illnesses, anywhere on the continuum from mild to severe, is jeopardized by the lack of outreach and available providers.

Needs are elevated and access limited for certain populations, contributing to health disparities along ethnic, income, and geographic lines. Results from the Hawai'i Behavioral Risk Factor Surveillance System show that prevalence for depression among adults increased by 12.7 percent from 2011 to 2013. In 2014, 10.7 percent of residents in Hawai'i reported they had been told by a doctor or health professional that they have a depressive disorder (including depression, major depression, dysthymia, or minor depression).¹²⁸ Native Hawaiians experience one of the highest depression and anxiety rates as compared with other races, at 8.5 percent and 7.7 percent, respectively. Depression and suicidal ideation are also high among youth, with 29.8 percent of high-school age youth reporting they felt sad or hopeless almost every day for two weeks or more, and 16.9 percent of high-school age youth reporting seriously considering suicide in the past 12 months.

In addition, there is a clear correlation between behavioral health and physical conditions, particularly chronic diseases. National data show that those with diabetes are twice as likely to experience depression as compared to those without diabetes.¹²⁹ Fatigue and feelings of worthlessness, which are common symptoms of depression, may interfere with an individual's adherence to a diet and exercise plan or to taking medication as directed to control diabetes. Forty-three (43) percent of adults with depression were obese, adults with depression were more likely to be obese than adults without depression and the proportion of adults with obesity rose as the severity of depressive symptoms increased.¹³⁰ Further, analysis by the HHIC of 2012 statewide data shows that 34 percent of hospitalizations and 36 percent of total costs occurred in cases where there was a mental health condition and a co-existing diagnosis. Details are in Table 11, below.

¹²⁸ Department of Health. (2015). Behavioral risk factor surveillance survey: results from 2014. http://health.hawaii.gov/brfss/files/2015/08/HBRFSS_2014_results.pdf

¹²⁹ NIH. Depression and diabetes. <http://www.nimh.nih.gov/health/publications/depression-and-diabetes/index.shtml>

¹³⁰ CDC. (2014) NCHS data brief. <http://www.cdc.gov/nchs/data/databriefs/db167.htm>

Table 11: The Significance of Mental Health in Hawai'i 2012

Diagnosis	Number of Hospitalizations	Percentage of Total Annual Hospitalizations	Estimated Cost	Percentage of Total Annual Estimated Cost
Primary Mental Health Diagnosis	4,855	6	\$56,057,385	4
Co-Existing Mental Health Diagnosis	29,992	34	482,676,678	36
Any Mental Health Diagnosis	31,110	35	493,945,205	37
All Hospitalizations	88,263	--	1,348,620,254	--

Source: Hawai'i Health Information Corporation report to the Office of the Governor. *Acute Care Opportunities for Cost Saving in Hawai'i, December 2013.*

Hawai'i's population health implementation plan includes:

- Continued collaborative work led by the Departments of Human Services and Health on the goal of healthy families and healthy communities. All elements described in this section are part of this shared investment
- On-going networking, partnering, and support for community population health initiatives identified here
- Further development of SIM's implementation plans related to behavioral health integration and supporting a continuum of services for people with behavioral health needs

- Population Health Framework and Leadership

Hawai'i's data indicates that some of the greatest gaps in care and disparities in health status are related to behavioral health and that less is done to identify and address health needs for those with mild-to-moderate behavioral health needs than for those with more serious conditions. Accordingly, Hawai'i's SIM is making a significant contribution to the State's plans for population health by focusing on improving behavioral health, one of the most crucial links between clinical and socio-economic well-being. SIM's interventions include identifying and providing behavioral health care in primary care settings and are aimed at children and adults covered by Medicaid who have mild to moderate behavioral health needs. While SIM's stated focus is on behavioral health integration and comorbid chronic diseases, the strategies being developed will be the foundation for system transformation including:

- Using patient and family-specific motivational interviewing techniques in primary care to support positive behavior
- Improving care management, coordination, and referral
- Promoting a team approach in primary care including new roles for community health workers
- Identifying tools, such as telehealth, that help make care more accessible, convenient, and efficient
- Developing more robust and widely-used HIT and data infrastructure
- Introducing new measures and payment incentives to encourage practice change
- Supporting primary care practice transformation with technical assistance and training

Hawai'i embraces the Triple Aim of better health, high quality of care, and cost-efficiency, plus a fourth element – health equity – for our ethnically, culturally, and geographically diverse state. Hawai'i's framework for population health includes action in three different categories: clinical interventions; patient-centered linkage to resources; and aligning environment, policy, and resources for better health. Our goals to achieve these aims are described in Table 12, below.

Table 12: Examples of Strategies and Approaches for Each Category

Category 1	Category 2	Category 3
Clinical Interventions	Patient-Centered Linkage to Resources	Align Environment/Policy/Resources for Better Health
Screening Prevention Early Intervention	Food Housing Health education/counseling	Social determinants of health Poverty Built environment

Category 1	Category 2	Category 3
<p>Curative</p> <p>Palliative</p>	<p>Support for therapeutic needs</p> <p>Language/cultural support</p> <p>HIT, Exchange, Portals, Telehealth</p>	<p>Education</p> <p>Jobs and economic opportunity</p> <p>Safety</p> <p>Family and social supports</p>
<p>Supported by Hawai'i's focus on behavioral health screening in primary care and women's health settings. Improves identification and management of both BH and chronic diseases.</p>	<p>Supported by proposed Community Care Teams to link individuals to both clinical referrals and community resources. CCTs to include CHWs, clinical pharmacists, BH providers, and others as needed.</p> <p>Telehealth is a priority resource for underserved populations and geographic areas.</p>	<p>Improving behavioral health affects individuals' ability to succeed in school, function with families and communities, and maintain jobs and housing. This category is especially dependent on collaborative planning and action taken by state agencies with involvement of federal and county agencies and resources.</p>

Improving population health is not possible without a shared understanding and vision, and determination to leverage public policy, programs, and resources for agreed-upon priorities. Fortunately, Hawai'i's Governor and his key departments have a vision to transform services and programs across public and private agencies into a system that nurtures and supports healthy families and communities. This population health approach includes the elements of social capital, early childhood education, post-secondary and employment pathways, building economic security, safe and affordable housing, and ensuring health and well-being.

The Governor selected directors of the crucial Department of Health and Department of Human services specifically for their determination to collaborate to better serve the mission of their departments and the state. Soon after these appointments, a new Medicaid director joined the team to develop and advance plans for innovation. These leading agencies share priorities, strategies, and resources directed toward achieving system transformation to support healthy families and communities. Hawai'i's Department of Health brings the infrastructure for public, behavioral, family, and environmental health for the state. The Department of Human Services' portfolio includes Medicaid; public housing; food, financial, housing, utilities, and childcare assistance; job training and placement; juvenile justice; child welfare and adult protective services; and vocational rehabilitation. Unlike most states, Hawai'i's government is highly centralized and counties play little role in providing services; for instance, all DOH and DHS programs noted above are statewide. This fact means that high-level collaboration can have meaningful results throughout the State.

One key population health initiative for Hawai'i is the development of a sustainable, long-term solution to housing and homelessness. The largest gap in the U.S. between what a renter needs to afford decent housing and what he or she earns is in Hawai'i. Unsurprisingly, our state also

has more homeless residents *per capita* than any other state, and Honolulu has the largest number of chronically homeless individuals among small American cities. Changing this is one of this administration’s highest priorities and the Governor has already appointed a cabinet-level team to take action.

Other population health initiatives in which State agencies are collaborating include:

- Prenatal and early childhood initiatives that improve birth outcomes and ensure young children are healthy, safe, and ready to learn (Departments of Education, Health, and Human Services)
- State-county efforts on transit-oriented development and building or retrofitting communities to include places to walk, bike, play, garden, and socialize (Departments of Transportation, Housing, and Human Services)
- Creation of pathways to help people successfully transition from the state forensic hospital or prison to the community (Departments of Human Services, Public Safety, and Health)
- Coordination of waivers to support independent living for individuals with developmental disabilities, developing person-centered planning for Home and Community-Based services to implement new federal rules, and planning a Medicaid buy-in program (Departments of Human Services and Health)

Medicaid, with SIM’s planning support and the collaboration of other departments, is taking the lead in the following population health initiatives:

Table 13: Population Health Needs and Related Actions

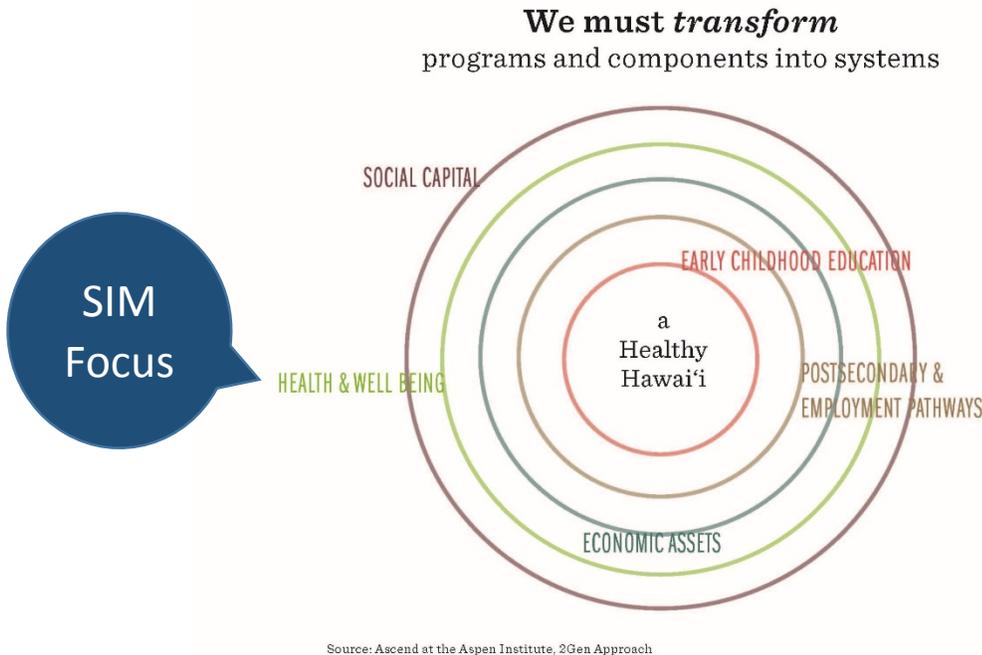
Population or Population Health Need Addressed	Action
Housing and homelessness (Hawai’i’s Medicaid agency has applied to participate in related accelerator program with CMS)	<ul style="list-style-type: none"> • Identifying best practices for Medicaid coverage • Identifying housing and behavioral health supports
Pregnant women, women of child-bearing age	<ul style="list-style-type: none"> • SBIRT • Screening for depression, anxiety • Long-acting reversible contraceptives
Early childhood	<ul style="list-style-type: none"> • Screening, early identification, and early intervention (birth to 3 and 3 to 5)
Behavioral health (Hawai’i’s Medicaid agency has applied to participate in related accelerator program with CMS)	<ul style="list-style-type: none"> • Coordinating with Departments of Health to ensure continuum of services and eligibility • Supporting SIM plan for behavioral health integration with primary care that includes:



Population or Population Health Need Addressed	Action
	<ul style="list-style-type: none"> ○ Screening and treatment ○ Successful referral for depression, anxiety, and substance use ○ Successful referral and care coordination with Community Care Teams ○ Provider-to-provider consults ○ Training and practice support
Public insurance enrollment and access to care especially for underserved populations and geographic areas	<ul style="list-style-type: none"> ● Coordinating with healthcare.gov for individual exchange enrollment ● Special supplemental programs for Pacific Islander adults who reside in Hawai'i under the Compacts of Free Association and are not eligible for Medicaid ● Restoration of dental benefits for Medicaid-covered adults ● Continuity of coverage for young adults aging out of foster care ● Continuity of coverage for individuals released from prison ● Expanding use of telehealth
Workforce to expand culturally-appropriate access	<ul style="list-style-type: none"> ● Promotion of team care delivery ● Identification of payment/sustainability strategies to encourage use of community health workers (CHW) ● Increasing access to behavioral health providers ● Exploring options for supporting primary care residency training
Transformation of Medicaid to support population health	<ul style="list-style-type: none"> ● Performance and payment reform ● Use measures and payment incentives to drive change ● Pay for vertically-integrated delivery of care and quality and cost-effective outcomes
Data system improvement	<ul style="list-style-type: none"> ● Developing capacity to share state program beneficiaries in order to coordinate and tailor services ● Developing capacity to analyze and use Medicaid enrollment and utilization data to improve and target services

The following diagram shows the State’s approach to population health and the role of SIM:

Figure 15: Hawai’i’s SIM Focus and Population Health Approach



A big part of Hawai’i’s approach to population health is enabling partners to collaborate and engage in efforts that address the social determinants of health. Several state and community initiatives have been underway and are making substantial changes to increase healthier outcomes and address health disparities in the State. As part of SIM, Hawai’i created a Population Health Committee co-chaired by the Director of the DOH and composed of representatives of state and federal agencies, academic institutions, community-based organizations, and health centers, health plans, and health care systems (See Appendix A for a complete list of Population Health Committee members). The committee served in an advisory capacity with the goal of enhancing existing initiatives with SIM strategies to build a more complete plan to improve population health.

Department of Health – Chronic Disease Prevention and Health Promotion Division

The State DOH is Hawai’i’s lead partner for health promotion and disease prevention.

The Chronic Disease Prevention and Health Promotion Division (CDPHPD) in the Department is responsible for the Healthy Hawai’i Initiative (HHI). The CDPHPD’s scope of work includes both primary prevention (physical activity, nutrition, and tobacco prevention) and chronic disease management programs (asthma, cancer, diabetes, and heart disease and stroke). More



than 60 percent of adults in Hawai'i are living with one or more chronic conditions.¹³¹ CDPHPD's structure allows for addressing chronic disease by utilizing a two-pronged approach: preventing new cases and managing existing conditions. The division's website, www.HealthyHawaii.com, provides easily understandable information about the three core prevention behaviors—healthy eating, being physically active, living tobacco-free—and presents tips and easy-to-follow ideas for making small daily steps towards better health.

Exhibit 1 below includes program measures of effectiveness and other pertinent indicators used by CDPHPD to assess the health of the population. The Youth Risk Behavior Survey (YRBS) and Behavioral Risk Factor Surveillance System (BRFSS) are used as long term evaluation measures found in the table below.

¹³¹ Hawai'i Health Data Warehouse. State of Hawai'i, Department of Health, Behavioral Risk Factor Surveillance System (BRFSS), 2013

Table 14: Primary Prevention Behavioral Objectives and Chronic Disease Management Data

Condition	Hawai'i Data	Comments
Diabetes	108,900 adults have been diagnosed with diabetes (2014).	In 2014, the prevalence of diabetes was at 9.8 percent for adults and was highest among those with lower incomes (12.0 percent) and lower educational attainment (14.2 percent).
	30,600 more are estimated to have diabetes that is undiagnosed (2013).	Between 1994 and 2013, the prevalence of self-reported adult diabetes has steadily increased from 4.2 percent to 8.4 percent. The pattern of increasing prevalence of diabetes in Hawai'i coincides with the epidemic of increasing overweight and obesity seen throughout the United States and globally. The Hawai'i age-adjusted incidence of new cases of diagnosed diabetes per 1000 adults (18-76 years) increased from 5.1/1000 in 2000 to 7.0/1000 in 2012.
Overweight and Obesity	36.0 percent of adults are overweight (2014).	Fourth lowest rate in the nation. The percent of adults that is overweight has remained relatively stable over the past 15 years.
	22.1 percent of adults are obese (2014).	Second lowest in the nation. However, the proportion of the population that is obese has increased steadily from 1996 to 2013 from 12.9 percent to 22.1 percent, respectively.
	14.9 percent of youth are overweight (2013).	The rate of overweight among youth is lower than the national average (16.6 percent). The percent of overweight youth has remained relatively stable over the past 10 years.
	13.4 percent of youth are obese (2013).	Hawai'i's youth obesity rates have returned to 2005 levels after peaking at 15.2 percent in 2007. Hawai'i's rates are comparable to the national average (13.7 percent).
Smoking	14.1 percent of adults reported current smoking (2014).	In 2013, Hawai'i had the 3 rd lowest adult smoking rate in the nation. Adult smoking has steadily declined from 21.0 percent in 2002; 2014 saw the first increase in smoking rates among adults from 13.3 percent in 2013 to 14.1 percent in 2014.
	10.4 percent of youth currently smoke cigarettes (2013).	Hawai'i has the 5 th lowest youth smoking rate in the nation and has dropped from 27.9 percent in 1999. Hawai'i surpasses the national <i>Healthy People 2020</i> objective of 16.0 percent.

Diabetes Prevention and Control

The Diabetes Prevention and Control Program (DPCP) is primarily funded through a 5-year cooperative agreement (2013-2018) with the Centers for Disease Control and Prevention (CDC). The DPCP's focus is on primary and secondary prevention of diabetes, evidence-based programs for Diabetes Self-Management Education and the CDC National Diabetes Primary Prevention Program for prediabetes.

- **Diabetes Prevention.** DPCP is building the infrastructure to support implementation of the CDC National Primary Prevention Program (NDPP) in Hawai'i. NDPP is an evidence-based, lifestyle change program for diabetes prevention for persons with prediabetes. Utilizing federal funding, DPCP is working with the Hawai'i Primary Care Association (HPCA) to develop NDPP programs to serve low income patients of the FQHCs. To increase screening and referrals to NDPP programs, a marketing campaign is being developed to encourage FQHC patients to take a diabetes risk assessment and talk to their doctor. The target population for the campaign is FQHC patients who are between 35 and 64 years of age (men and women), have a low socioeconomic status (below 200 percent of the federal poverty level), have a BMI \geq 25 (22 if Asian), and who do not meet physical activity recommendations. This campaign is currently in the planning stage.
- **Diabetes Self-Management Education (DSME).** DSME is offered to people with diabetes to teach them how to better manage their conditions. The goals of DSME are to help individuals with diabetes learn to control their metabolism, implement routines that prevent short and long term complications, and improve their quality of life.
- **Healthy Aging Partnership to Embed Evidence-Based Programs (HAPEE).** HAPEE is tasked with maintaining the program infrastructure for Stanford's Chronic Disease and Diabetes Self-Management Programs (CD/DSMP), locally called Better Choices Better Health, and together with DPCP coordinates an ongoing statewide system with County Area Agencies on Aging. There were 308 people enrolled in the CD/DSMP workshops throughout all the counties (2013-2014). Many of these participants are older, belong to a minority ethnic group, and are burdened with high blood pressure, arthritis, and diabetes.
- **DSMP Clinical Outcomes Project.** DPCP manages the Clinical Outcomes Program through a partnership with Kokua Kalihi Valley. Through this project, self-reported behaviors and clinical outcome measurements are assessed at baseline, at six (6) months follow-up, and at one-year follow-up. Results show that the majority of one-year follow-up participants were able to sustain decreases in HbA1c, LDL cholesterol, and systolic and diastolic blood pressure in addition to increases in aerobic physical activity. These findings suggest that DSMP can be successfully adapted to low-income Asian and Pacific Islander populations and can improve

clinical measures and health behaviors up to one year after completion of the program.

Obesity Prevention

The Communications, Policy and Planning Office develops statewide public education campaigns to educate and influence Hawai'i residents to make healthy choices in their daily lives. Public education efforts are designed to prevent obesity and chronic disease when coupled with policy and environmental change initiatives.

- **Childhood Obesity Prevention Task Force.** In 2012, legislation was passed to establish a Childhood Obesity Prevention Task Force to develop recommendations around obesity prevention specific to Hawai'i. The task force, created by Act 156, developed a report with 12 policy recommendations representing a multi-sectorial approach with the summative goal of mounting social change where healthy living becomes the norm.¹³² Although no longer mandated, the task force continues to meet regularly and prioritizes policies for each legislative session. Most recently, task force members collaborated with 140 stakeholders at the May 2015 Physical Activity and Nutrition Forum to develop a mural that depicts recommended policies for addressing obesity and chronic disease for Hawai'i. Called "Healthy Policies for a Healthy Hawai'i," the mural depicts the implementation of 19 state-level policies across four sectors of society: Communities, Worksites, Schools, and Health Care Systems. It is a vision for Hawai'i where physical activity and access to healthy food, are integrated into our daily lifestyle choices, where residents live, learn, work, shop, and care for each other. Health is integrated into the social, economic, and physical landscape. The mural was unveiled at the November 2015 symposium, "The Weight of the State: Solving the Chronic Disease Crisis through Innovative Policy Change". The Physical Activity & Nutrition – Community Based Initiatives (PAN-CBI) program continues to administratively support the task force.¹³³
- **"Rethink Your Drink" Campaign.** This campaign encourages teenagers 12-18 years old to drink water and other healthy options instead of soda and other sugary drinks. The campaign initially ran from February to April 2013. Evaluation results revealed that 54 percent of middle and high school students in Hawai'i recalled seeing the ads, and of these, 60 percent reported that they drank fewer sugary drinks as a result. Due to these positive results, CDPHPD re-launched the campaign from November 2013 through February 2014. The re-launch included public service announcements, ads in malls and movie theaters statewide, and social media and web-based elements. Student "advisors" to the campaign attended the re-launch

¹³² Childhood obesity task force report: <http://health.hawaii.gov/physical-activity-nutrition/home/policy-work/>

¹³³ Childhood obesity task force report: <http://health.hawaii.gov/physical-activity-nutrition/home/policy-work/>

and talked about the changes happening in their schools since the initial campaign—for example, healthier beverages available in the snack shop, fewer purchases of unhealthy beverages, and the procurement of water-bottle filling stations. In 2014 and 2015, youth engagement in the message has continued through Instagram and Facebook social media sites, radio station promotions at concerts and other teen events, and video contests in which winners and finalists were televised. “Rethink Your Drink” was recognized nationally, winning three awards in 2013 in Public Health Communications from the National Public Health Information Coalition.¹³⁴

Tobacco Prevention and Education (TPEP)

The impact of tobacco use, especially cigarette smoking, has declined dramatically in Hawai‘i. However, there has been an alarming increase in experimentation with and current use of new tobacco products including electronic smoking devices (ESDs, also known as e-cigarettes). There has been a 4-fold increase in lifetime use of ESDs in middle school students and a 3-fold increase in high school students.¹³⁵ These products are unregulated and advertised broadly. The Tobacco Prevention and Education Program (TPEP) is the established comprehensive tobacco control program with a 20-year history of contributing to the social norm change towards decreased tobacco use in Hawai‘i. TPEP aims to prevent initiation of tobacco and related products, particularly among youth, through its policy and education efforts. It has focused on preventing initiation of tobacco use, promoting tobacco cessation, eliminating involuntary exposure to secondhand smoke, and identifying and eliminating tobacco-related disparities among population groups.

In support of these efforts, Governor David Ige signed historic tobacco legislation, Act 122, into law in June 2015. Act 122 makes Hawai‘i the first state in the nation to prohibit the sale, purchase, possession, or consumption of cigarettes other tobacco products, and electronic smoking devices (or e-cigarettes) to anyone under the age of 21. Governor Ige also signed House Bill 525, which will make Hawai‘i state parks and beaches smoke-free. Currently, all city/county parks in Hawai‘i are smoke-free with the exception of Kaua‘i County. The State law will apply to all facilities within the Hawai‘i State Park System administered by the Department of Land and Natural Resources. Using tobacco products and electronic smoking devices, or e-cigarettes, at these facilities will be against the law as of July 1, 2015.

- **The Hawai‘i Tobacco Quitline.** In an effort to increase tobacco cessation in the State, TPEP collaborates with the Hawai‘i Tobacco Quitline (HTQL) to promote the evidence-based interventions recommended in the US Department of Health and

¹³⁴ “Rethink Your Drink” won a Gold Award for Out-Sourced TV Marketing: “Rethink Your Drink” Television PSA; Gold Award for In-House Radio PSA: Start Living Healthy Radio PSAs; and Silver Award for In-House Media Kit: Teen-Focused Obesity Prevention Campaign Launch.

¹³⁵ Coalition for a Tobacco-Free Hawai‘i. (2015). Electronic smoking devices/E-cigarettes fact sheet. http://dev.tobaccofreehawaii.org/wp-content/uploads/2015/06/CTFH-ESD-Fact-Sheet-2015_4_2.pdf

Human Services Clinical Practice Guideline, Treating Tobacco Use and Dependence. The focus of the relationship reflects the broad goals for comprehensive state tobacco programs of promoting health systems change, expanding insurance coverage and utilization of proven cessation treatments, and supporting state Quitline capacity. Entirely funded by the Hawai'i Prevention and Control Trust Fund with funds from the Master Settlement, the HTQL was launched in 2005. The HTQL contract is funded through the Tobacco Prevention and Control Trust Fund (Trust Fund) that is managed by the Chronic Disease Prevention and Health Promotion Division. The telephone counseling service is staffed 24/7 by professional cessation coaches who provide assistance to all adult tobacco users, free of charge, regardless of insurance. While the HTQL has exceeded the average of U.S. Quitlines for both treatment and promotional reach rates, there remain certain disparate populations that will be the focus of different strategies and activities during the project period.

- **Reducing Tobacco Use among the Mental Health Population.** TPEP recognized the serious health consequences of tobacco use in the mental health population and partnered with the DOH Adult Mental Health Division (AMHD) to increase collaboration and policy development regarding tobacco control among behavioral health care systems providers. This collaboration focused on institutionalizing a system for proactive counseling capacity within the adult and child/adolescent mental health programs. Peer and professional adult and child mental health providers were trained to be tobacco cessation treatment and referral resource specialists. By expanding outreach to this disparate population, the intent was that every mental health client who used tobacco could be afforded cessation treatment.
- **Reducing Tobacco Use among Pregnant Women.** An innovative partnership was established between TPEP and the Kapi'olani Women's and Children's Center HEALTHY Tobacco Cessation Program to address the consistently high prevalence rates of smoking among women during, before, and after pregnancy. By collecting qualitative data from pregnant smokers and from health care providers, this initiative examined motivations and barriers in smoking cessation for the perinatal population in Hawai'i and is informing the planning and creation of an educational project aimed at reducing smoking among pregnant mothers. TPEP has also joined forces with the DOH Maternal and Child Health Branch and the Hawai'i Maternal and Infant Health Collaborative a public/private partnership committed to improving birth outcomes and reducing infant mortality. The Collaborative is focusing on smoking cessation to improve birth outcomes and will utilize the Kapi'olani Medical Center's Perinatal Smoking Initiative study findings to advise their efforts to more effectively reach out to women at risk of smoking during pregnancy.

- Population Health Initiatives Addressing Disparities

The following briefly describes some of the population health initiatives of significance to statewide programs and policy:

- **Community Health Needs Assessment (CHNA):** The Patient Protection and Affordable Care Act (ACA) requires nonprofit hospitals to conduct a Community Health Needs Assessment (CHNA) at least once every three years to maintain their tax-exempt status under section 501(c)(3) of the Internal Revenue Code. As part of the CHNA, each hospital conducts a needs assessment to identify health disparities, the needs of vulnerable populations, and gaps in services. Since 2012, the Healthcare Association of Hawai'i (HAH) has convened the community hospitals and hospital systems in the State (all of which are nonprofit) in a joint assessment effort to fulfill this ACA requirement. Hawai'i is one of only two states that conducts a statewide CHNA with all of the hospitals. Founded in 1939, HAH represents 28 of the State's hospitals,¹³⁶ nursing facilities, home health agencies, hospices, durable medical equipment suppliers, and other health care providers which employ about 20,000 people in Hawai'i. The CHNA, which includes both a statewide assessment and sub-reports for each of Hawai'i's four counties, offers a meaningful understanding of the health needs in the community, as well as helping to guide the hospitals to develop a community benefit implementation strategy.

HAH's second CHNA, released in November 2015 combined quantitative input from community health leaders and qualitative data from more than 400 secondary data indicators and arrived at a short list of six most pressing health issues:

1. Lack of access to services
2. Mental health and mental disorders
3. Substance abuse
4. Diabetes
5. Oral Health
6. Immunizations

It also identified geographic areas with the highest socio-economic need, which were: Ka'u district (Hawai'i County), Puna district (Hawai'i County), Moloka'i Island (Maui County), and Leeward O'ahu (Honolulu County). Vulnerable populations with highest needs included:

¹³⁶ Twenty-six of 28 Hawai'i hospitals participated in the CHNA project in 2013. Tripler Army Medical Center and the Hawai'i State Hospital are not subject to the IRS CHNA requirement.

- Native Hawaiians
- Pacific Islanders, particularly people from Micronesia and the Marshall Islands
- Filipinos
- Rural communities
- People with disabilities
- People who are homeless
- Low-income individuals
- Children, teens, and older adults

Each hospital will develop a plan specific to its community's needs and gaps.

- **Governor's Office Early Childhood Action Strategy:** Noted briefly above, Hawai'i's Early Childhood Action Strategy was initiated by the Governor's Office and led by approximately 100 professionals representing state agencies and early childhood organizations focused on supporting children's health, safety, development and learning. The Action Strategy provides Hawai'i with a roadmap for an integrated and comprehensive early childhood system, spanning preconception to the transition to Kindergarten. The Action Strategy is a five-year plan (2013-2018) and focuses on six key areas that are necessary for early childhood development and achieving school readiness. The plan is rooted in Lisbeth Shorr's *Pathways to Children Ready for School and Succeeding at Third Grade* framework, sponsored by Harvard University (2007). Key areas and examples of metrics include:
 - Healthy and Welcomed Births
 - 8 percent decrease in preterm births (from 10 percent to 9.2 percent)
 - 4 percent decrease in infant mortality and morbidity (from 4.8 percent to 4.6/1,000 births)
 - Safe and Nurturing Families
 - 20 percent increase in the number of licensed Early Childhood Education (EDE) centers and licensed home-based childcare providers that screen for behavioral health delays and refer families to services
 - 20 percent increase in utilization of parenting support programs
 - On-track Health and Development
 - 10 percent increase in number of young children screened for developmental and behavioral delays at American Academy of Pediatrics (AAP) recommended ages

- 10 percent increase in number of children, birth to three years, referred to Early Intervention
- Equitable Access to Programs and Services
 - 10 percent increase in the number of eligible families that access the following public assistance programs: SNAP, WIC, TANF, Med-Quest, Section 8 Housing and Childcare Subsidies
 - 10 percent increase in children accessing home visitation, licensed childcare, family-child interaction learning programs and preschool
- High Quality Early Childhood Programs
 - 10 percent increase in the number of early childhood professionals participating in at least 10 hours of professional development annually
 - Increase to 75 the number of Professional Development and Educational Research Institute (PDERI) courses offered statewide in P-3 topics
- Successful Transitions Between Early Childhood Programs
 - 10 percent increase in the number of transition conferences between Part C Early Intervention Services (EIS), Part B Special Education and community-based programs
 - 20 percent decrease in the number of families that report delay of services when transitioning from one program to another
- **Governor’s Leadership Team on Homelessness:** Also noted above, homelessness has reached a near-crisis level in the state of Hawai‘i. The Governor’s Leadership Team on Homelessness was formed by Governor David Ige in July 2015 and is composed of state, city, and federal government officials. The team is tasked with working together to find short- and long-term solutions to address homelessness in Hawai‘i. The Leadership Team has been identifying and assigning parcels of land to be used for the creation of temporary shelters in one or two communities, implementing measures to transfer residents of homeless encampments to shelters and working with service providers to establish protocols to assess shelter residents for financial, physical, mental health and other needs. The Leadership Team has been consulting with law enforcement leaders, non-profit organizations, and other interested parties to assist with implementing short-term objectives.

On October 16, 2015, Gov. David Ige signed an emergency proclamation that enables the state to quickly expend \$1.3 million to facilitate: (1) rapid construction of a temporary shelter for homeless families; (2) the immediate extension of existing contracts for homeless services; and (3) increased funding for programs that promote immediate housing. The monies will serve an additional 1000 homeless individuals between now and July 31, 2016, providing increased funding for homeless services and programs that

promote permanent housing for families and the chronically homeless. The state, city, federal governments, and various service providers have worked together to place more than 80 percent of families into shelters since the effort began in early August.

- **Papa Ola Lokahi – Native Hawaiian Master Plan:** Ke Ala Malamalama I Maui Ola, the Native Hawaiian Health Master Plan, is a statewide effort to develop initiatives that result in systems change and greater alignment among participating organizations. In 1988, Congress passed the Native Hawaiian Health Care Improvement Act, authorizing a comprehensive effort to improve the health and wellness of Native Hawaiians, and named Papa Ola Lokahi, administrator of the act. The POL Board is comprised of representatives from the Native Hawaiian Health Care Systems, State Department of Health, UH Native Hawaiian Health, ALU LIKE, Inc., and E Ola Maui. Papa Ola Lokahi serves as the supporting organization for the work of these groups. The Native Hawaiian Health Master Plan is a collective effort to recognize and address social determinants of health—such as access to education, safe environments, employment, culturally relevant practices and more—as areas where reinforced activities can improve Hawaiian health and well-being. Its overall outcome goal is “Improved health status and well-being for Native Hawaiians and their ‘Ohana (families), through: Improved Health and Disease Prevention, Improved Health Equity, and Improved Quality of Life.”
- **Office of Hawaiian Affairs:** The Office of Hawaiian Affairs (OHA) is a semi-autonomous state agency governed by a nine-member elected Board of Trustees. OHA is responsible for improving the well-being of Native Hawaiians and the agency’s broad range of activities include scholarships, business and home ownership loans, research and policy development, environmental stewardship, Native Hawaiian rights advocacy, and health and social service initiatives. OHA’s health priorities for the Native Hawaiian population are aimed at decreasing obesity rates, improving lifestyle choices, decreasing substance abuse rates and increasing the number of Native Hawaiian mothers receiving prenatal care in the first trimester by 2018.

Most recently, OHA awarded \$7.4 million in grants to 27 community-based projects to improve conditions for Native Hawaiians over a two-year period beginning July 1, 2015, to June 30, 2017. These grants directly address the social determinants of health and include providing services on housing, financial literacy, employment readiness, and education. Six grants focus on obesity prevention, chronic disease management, and substance abuse.¹³⁷

- **No Wrong Door Grant Project:** The No Wrong Door Grant Project is a federally-funded initiative to support states to streamline access to long term services and supports

¹³⁷ A full description of grantees can be found at <http://www.oha.org/news/oha-awards-7-4-million-to-27-projects-focused-on-its-key-priorities/>.

options for all populations and payers. In a No Wrong Door system, multiple agencies retain responsibility for their respective services while coordinating with each other to integrate access to those services through a single, standardized entry process that is administered and overseen by a coordinating entity.

Hawai'i's State Department of Health, Executive Office of Aging is designated by the Governor to lead the No Wrong Door (NWD) effort with the Area Agencies on Aging (AAAs) operating Aging and Disability Resource Centers (ADRCs), the Med-QUEST Division (MQD) (Medicaid agency), the University of Hawai'i (UH), Hilopa'a (the Family to Family Health Information Center), the Developmental Disabilities Division (DDD), the Adult Mental Health Division (AMHD), Division of Vocational Rehabilitation (DVR), and the Office of Veteran's Services (OVS).

The 3-year goal of this project is to support all individuals with Long-Term Services and Supports (LTSS) needs to make informed choices about what they need in order to lead meaningful lives. The objectives are to: (1) weave existing publicly-funded LTSS access points into an integrated network; (2) expand capacity to support all populations with person-centered counseling; (3) ensure that ADRC Network counseling is person-centered; and (4) create multiple funding sources to sustain the ADRC Network.

Other Community-Based Population Health Initiatives

The table below summarizes other community-based population health initiatives in Hawai'i that address disparities and support SIM priorities.

Table 15: Additional Community-Based Population Health Initiatives in Hawai'i

Program Name	Description	Target Issue	Year Began	Achievements / Outcomes
Hawai'i Tobacco Quitline	Smokers can call the Hawai'i Tobacco Quitline for access to a professionally trained Quit Coach and nicotine patches or gum. The telephone counseling service is staffed 24/7 and assistance is provided to all adult tobacco users, free of charge, regardless of insurance.	Smoking	2005	Quit Coaches have helped 33,000 smokers in Hawai'i quit smoking.



Program Name	Description	Target Issue	Year Began	Achievements / Outcomes
Hawai'i Patient Reward And Incentive to Support Empowerment (HI-PRAISE)	Project to examine the impact of incentives and support services for adult Medicaid recipients diagnosed with diabetes funded by a total of \$9.9 million from the MIPCD-Medicaid Incentives for the Prevention of Chronic Diseases grant to the Department of Human Services (DHS) from CMS. The program is facilitated by the University of Hawai'i – Center on Disability Studies	Diabetes	2011-2015	2002 participants enrolled through nine FQHCs. As of 10/31/15, a total of \$115,636 in incentives has been distributed in 2015. \$160,531 was distributed in 2014 and \$38,825 was distributed in 2013. Incentive categories with most incentives distributed since enrollment: HbA1c test (\$20 incentive); Cholesterol test (\$20 incentive); HbA1c Goal (\$50 incentive)
UHSM Health Promotion Program	Close collaboration between the University Health Services Manoa and the Counseling and Student Development Center to meet the clinical medical and mental health needs of UH Mānoa students as well as students from various other UH System campuses. Services and activities include peer education outreach, substance abuse counseling, smoking cessation, nutrition, and health insurance consultation.	Mental Health	2009	Enhanced communications, sharing of clinical staff, and streamlined referral patterns between UHSM and CSDC



Program Name	Description	Target Issue	Year Began	Achievements / Outcomes
Project HI-AWARE	<p>This project involves two federal grants:</p> <ol style="list-style-type: none">1. "Now is the Time" Project Aware: State Education Agency (NITT-AWARE-SEA) Grant, which aims to build and/or expand capacity at state and local levels to make schools safer, improve school climate, increase awareness of mental health issues and connect children and youth with behavioral health issues to needed supports, interventions and services.2. School Climate Transformation Grant - aims to develop, enhance, or expand statewide systems of support for, and technical assistance to, complex areas and schools implementing multi-tiered behavioral intervention framework for improving behavioral outcomes and learning conditions for all students.	School-Based Health	2014 - 2019	Results not yet available.



Program Name	Description	Target Issue	Year Began	Achievements / Outcomes
Autism Spectrum Disorder (ASD) Services	<p>The DOH works with entities such as DOE, community providers, and nonprofit agencies to offer services and supports for children and adults with ASD who do not have private insurance. ASD services are provided or coordinated by three divisions of DOH: the Family Health Services Division, CAMHD, and the DDD. DOH offers early intervention services for children with developmental delays from birth to 3 years, services for school-aged children, and services for adults who are enrolled in the Medicaid and meet eligibility criteria for the Hawai'i Home and Community-Based Services for People with Developmental Disabilities waiver.</p> <p>Under Hawai'i S.B. 791 addressing autism insurance reform, state-regulated insurance plans are required to cover medically necessary treatment for autism including: behavioral health treatment, psychiatric, psychological, pharmaceutical, and therapeutic care. Plans are also required to cover applied behavioral analysis (ABA) with a maximum of \$25,000 per year through age 13. (Autism Speaks. (2015). Hawai'i is the 42nd state to pass autism insurance reform.¹³⁸</p>	Mental Health	N/A	N/A

¹³⁸ Autism Speaks. (2015). <https://www.autismspeaks.org/advocacy/advocacy-news/hawaii-42nd-state-pass-autism-insurance-reform>



Program Name	Description	Target Issue	Year Began	Achievements / Outcomes
Windward Community College Pathway Program	<p>The program supports health, education, and employment promotion through culturally sound education, and training and advancement as a Certified Nurse Aide (CNA), through Licensed Practical Nurse (LPN) to Registered Nurse (RN). Students enroll in an entry-level health care worker training that is an 8-week CNA course that leads to one of the most stable jobs in Hawai'i. Students who choose to advance to higher education and training beyond CNA can earn stipends and tuition assistance by participating in the following activities: Community service, 2-hrs per week in the aloha `aina Food as Medicine garden program on campus at WCC, leadership in Pathway governance, or Teachers in Training program that pairs advanced students with new students as mentors.</p>	Health Workforce Development	2007	Outcomes from 2007 to 2010 include a 91 percent CNA program completion rate, with 78 percent successfully transitioning to the Pathway Program, and 50 percent advancing to RN training.



Program Name	Description	Target Issue	Year Began	Achievements / Outcomes
Wai`anae Coast Comprehensive Health Center's Health Academy	For over two decades, the Wai`anae Health Academy (WHA) has been focusing on economically empowering individuals with a career in a health field. Health career certificate programs are available for Wai`anae coast residents: Nurse Aide, Medical Assisting, Practical Nursing, Community Health Worker, Phlebotomy, Dental Assisting, Medical Reception, Medical Coding, Pharmacy Technician, Occupational Therapy Assistant, Plant Landscaping, Agricultural Technology, and Pre-Health/Bridge courses. The WHA also offers comprehensive Haumana Kokua (student support services) to assist those entering WHA as participants and to support success in their enrolled programs. This effort continues today, with schools and non-profits creating articulated family wellness opportunities through place-based learning, improving the built environment, and a public awareness campaign on water consumption and nutrition.	Health Workforce Development	1992	3,500 participants have completed training in the Wai`anae Health Academy.



Program Name	Description	Target Issue	Year Began	Achievements / Outcomes
Health Plan Initiatives	Hawai'i's health plans are also developing initiatives responsive to population health needs. Two such initiatives are described in Appendix F.			

VI. Oral Health Issues and Directions in Hawai'i

“Oral health is critical to our general health and well-being. Good oral health enables us to eat properly, work productively, go to school ready to focus on learning, feel good about our appearance and enjoy life.”

A. The Value of Oral Health

There is no question that oral health is as important as any other part of physical health. It is notable that oral health may contribute to or be affected by various diseases and conditions. According to the Surgeon General’s 2000 report “Oral Health in America,” “[M]any systemic diseases and conditions have oral manifestations. These manifestations may be the initial sign of clinical disease and as such serve to inform clinicians and individuals of the need for further assessment.”¹³⁹ Diseases that have a linkage to oral health include **pneumonia, kidney cancer, pancreatic cancer, and blood cancers.**¹⁴⁰ Other conditions related to oral health include the following, as reported by the Mayo Clinic in 2013:¹⁴¹

- **Endocarditis.** Endocarditis is an infection of the inner lining of the heart (endocardium) that typically occurs when bacteria or other germs from another part of the body, such as the mouth, spread through the bloodstream and attach to damaged areas in the heart.
- **Cardiovascular disease.** Some research suggests that heart disease, clogged arteries and stroke could be linked to the inflammation and infections that oral bacteria can cause.
- **Pregnancy and birth.** Periodontitis has been linked to premature birth and low birth weight.
- **Diabetes.** Diabetes reduces the body's resistance to infection, putting the gums at risk. Gum disease appears to be more frequent and severe among people who have diabetes and research shows that people who have gum disease have a harder time controlling their blood sugar levels.

¹³⁹ As quoted in “Hawai'i oral health: Key findings,” 2015, Hawai'i State Department of Health. http://health.hawaii.gov/about/files/2013/06/Key_Findings_wC.pdf.

¹⁴⁰ American Academy of Periodontology, www.Perio.org/consumer/other-diseases.

¹⁴¹ Mayo Clinic. (2013). <http://www.mayoclinic.org/healthy-lifestyle/adult-health/in-depth/dental/art-20047475?pg=2>.

- **HIV/AIDS.** Oral problems, such as painful mucosal lesions, are common in people who have HIV/AIDS.
- **Osteoporosis.** Osteoporosis, which causes bones to become weak and brittle, might be linked to periodontal bone loss and tooth loss.
- **Alzheimer's disease.** Tooth loss before age 35 might be a risk factor for Alzheimer's disease.

B. Oral Health Challenges

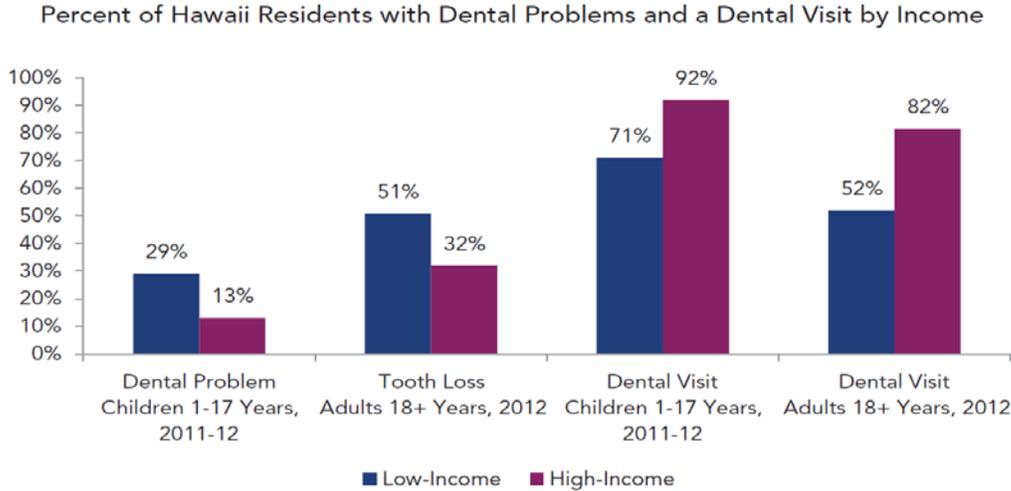
There is increasing evidence of the importance of oral health in relation to overall physical health. In Hawai'i, the policy, funding, and structure to assure that it is addressed have yet to catch up. Among the challenges to oral health equity in Hawai'i are socio-economic and ethnic disparities in oral health status, access to and utilization of treatment services, lack of fluoridated water, insufficient funding and reimbursement for public insurance coverage, and professional organizational issues that erode access to primary and preventive care.

Oral Health Disparities

As with most other health conditions, oral health disparities are linked to socio-economic status: the poor and disadvantaged suffer from a higher incidence while at the same time having less access to appropriate care. The same behavioral factors that disproportionately affect disadvantaged populations and contribute to other chronic diseases – tobacco use, stress, high sugar intake and poor nutrition, and lack of physical activity – add to the burden of poor oral health. Although low income children covered by the Medicaid program have a good array of benefits, access to care is limited by a reduced number of dentists available to Medicaid-covered children. Adult Medicaid enrollees have no coverage for preventive or routine dental care. In 2012, 51 percent of low-income adults in Hawai'i lost teeth from dental disease compared to only 32 percent of higher income adults.¹⁴² **[This footnote should now be 141 and the subsequent notes updated.]**

¹⁴² Hawai'i State Department of Health. (2015). Hawai'i oral health: Key findings. http://health.hawaii.gov/about/files/2013/06/Key_Findings_wC.pdf

Figure 16: Percent of Hawai'i Residents with Dental Problems and a Dental Visit by Income



Data Sources: National Survey of Children's Health, 2011-12; Hawaii Behavioral Risk Factor Surveillance System, 2012.

Fluoridated Water: According to the Centers for Disease Control and Prevention, 11 percent of Hawai'i's community water supply is fluoridated compared to the US average of 75 percent.¹⁴³ While water fluoridation is a highly recommended public health practice that has proven to be safe, inexpensive, and effective in preventing tooth decay, it is unlikely that Hawai'i will adopt this practice in the near future. Hawai'i has never had counties, legislatures, and governors aligned to pass and implement fluoride water supplementation. Recent efforts have met with a high level of public opposition. According to Hawai'i's on-line news site, *Civil Beat*, "[t]he Honolulu City Council in 2004 formally banned fluoride from all publicly supplied water. The first sentences of the ordinance point to the spiritual significance of water in Hawaiian culture, declaring that 'Drinking water should not be used as a means for delivery of chemicals for medical or dental purposes when other alternatives are available.'" ¹⁴⁴

Medicaid Coverage and Access: Notwithstanding a better than average dentist-to-population ratio in Hawai'i, the state experiences a number of access barriers. These include a smaller number of dentists on neighbor islands and a lack of economic incentives to serve uninsured adults and children covered by Medicaid. As noted above, adults covered by Medicaid are eligible for emergency dental services only. Children with Medicaid coverage have benefits, but access to care is challenging in part because of the low reimbursement rates for services.

The Med-QUEST program pays neighbor island dentists slightly more than O'ahu dentists but the enhancement isn't enough to significantly increase access. As a result, the State also pays to

¹⁴³ Hawai'i State Department of Health. (2015). Hawai'i oral health: Key findings.

http://health.hawaii.gov/about/files/2013/06/Key_Findings_wC.pdf

¹⁴⁴ A. Wong, "Hawaii Fluoride Debate Idle Despite Major Policy Shifts On Mainland," *Honolulu Civil Beat*, September 22, 2012

transport neighbor island children and some adults by air to get dental care in Honolulu. In fiscal year 2013, 2,244 children and 22 adults required air transportation for oral health issues, at a cost of \$848,000.¹⁴⁵ Increasing access to oral health services on neighbor islands will not only improve oral health but also reduce transportation costs.

Currently in Hawai'i, Medicaid reimbursement fees for fluoride varnish are only 11.5 percent of the commercial fee paid on O'ahu and 15 percent on the neighbor islands, according to the Hawai'i Dental Service. Since Hawai'i is almost entirely without fluoridated water, making the small investment to increase the rate for fluoride varnishes could be a very effective preventive strategy. A key consideration is that, unlike most dental services, fluoride varnishes can be provided in a pediatrician's office as well as in a dentist's. Currently, Hawai'i's Medicaid reimbursement rate for this service is \$4 compared to the national average of \$20. Reimbursement for cleanings and sealants, which are crucial preventive procedures, range from 54 percent to 57 percent of commercial fees on O'ahu, and 74 percent to 87 percent of commercial fees on the neighbor islands.¹⁴⁶

While increasing Medicaid reimbursement rates for dental services may help narrow the gap, reimbursement alone is likely to be insufficient. One of the main drawbacks to treating Medicaid patients cited by dentists is the inability to charge if the patient misses the appointment. The high no-show rate among the Medicaid population and resultant lost revenue contributes to dentists' reluctance to care for individuals with Medicaid.

Dental Practice Issues: Dental care has largely been decoupled from the rest of the health care system such that there is limited appreciation for the importance of oral health to overall health. This is evident in the following areas:

- **The practice model.** A few states have expanded the array of dental providers to include "dental therapists" and most allow more independent practice by dental hygienists. Hawai'i continues to depend on dentists to provide care and has been criticized for its regulatory restrictions that prevent hygienists from providing routine preventive care without direct dental supervision. In contrast, general medical care is moving toward a team-based model that encourages all practitioners to work at the top of their licenses. Medical and mental health professionals who can practice independently or with limited oversight include physicians, nurse practitioners, physician assistants, psychologists, and a variety of other therapists.
- **Adequacy of coverage.** The availability and adequacy of both public and commercial insurance coverage is far less for dental care than for medical. In Hawai'i, mandated employer medical insurance and publicly-supported Medicaid and Medicare programs

¹⁴⁵ Hawai'i State Department of Health. (2015). Hawai'i oral health: Key findings.

http://health.hawaii.gov/about/files/2013/06/Key_Findings_wC.pdf

¹⁴⁶ Hawai'i Dental Service.

offer robust medical coverage with limited out-of-pocket payment. In contrast, commercial dental coverage often comes with significant co-pays, is not mandated by Hawai'i's Prepaid Health Care Act, and is not a covered benefit for adults under the Affordable Care Act, Medicare, or Medicaid.

- **Outcome-oriented care and value-based payment.** The medical system is evolving to emphasize integration and coordination of services, patient-centered care, and payment for quality and outcomes. Such trends are not yet apparent in dentistry.

As a result of these challenges, consumers have less access to affordable and available preventive and primary dental care.

Overview of Oral Health in Hawai'i:

According to a report published in 2015 by the Hawai'i DOH:¹⁴⁷

- In 2012 in Hawai'i, there were more than 3,000 emergency room visits due to preventable dental problems. This is a 67 percent increase from 2006, much higher than the 22 percent increase seen in the rest of the United States from 2006 through 2009.
- In 2013, there were 1,283 persons per dentist in Hawai'i with much higher ratios among neighbor island counties
- There has been a substantial decline in the number of clients transported from neighbor islands to Honolulu for dental services from 3,633 clients in Fiscal Year 2009 to 2,266 clients in Fiscal Year 2013.
- Only 11 percent of Hawai'i's residents who get their water from public water systems have fluoridated drinking water, compared to 75 percent nationwide in 2012.

Oral Health for Children: According to the Hawai'i DOH, 29 percent of low-income children (ages 1-17 years) experienced dental problems compared to 13 percent of higher income children, and 72 percent of the low-income children visited a dentist as compared to 92 percent of high income children.¹⁴⁸ About half of Hawai'i's children are covered by Med-QUEST, and are therefore more likely to face access barriers and disproportionate needs based on their socio-economic status. According to Medicaid dental utilization reports for children (Medicaid and CHIP), in 2014:

¹⁴⁷ Hawai'i State Department of Health. (2015). Hawai'i oral health: Key findings.

http://health.hawaii.gov/about/files/2013/06/Key_Findings_wC.pdf

¹⁴⁸ National Survey of Children's Health, 2011-12 as reported by DOH in "Hawai'i Oral Health: Key Findings," July 2015. http://health.hawaii.gov/about/files/2013/06/Key_Findings_wC.pdf

- 53 percent of enrollees under the age of 20 received some dental service
- 40 percent received a preventive service and 31 percent received a treatment service
- 11 percent of 6-9 year olds and 8 percent of 10-14 year olds got sealants

The data above indicate that children enrolled in Hawai'i's Medicaid program see dentists more often than the national average. However, according to the 2012 National Survey of Children's Health, children in Hawai'i receive more dental *treatment* services as opposed to *preventive* care.¹⁴⁹ Indications are that children with commercial coverage did somewhat better.¹⁵⁰ A report on commercially-insured children from Hawai'i Dental Service (HDS) revealed that 29 percent of *higher risk* 6-7 year-olds and 14 percent of *higher risk* 11-15 year-olds got dental sealants and 26 percent of *higher risk* 6-18 year-olds got fluoride treatments (with "*higher risk*" defined as having one or more restorations done over the previous two year period). It should be noted that Hawai'i has a higher proportion of *higher risk* children than the rest of the country, according to data from HDS, as shown in the table below.

Table 16: Higher Risk Commercially Insured Children in Hawai'i and Nationally

Age Group	Hawai'i Percentage	Delta Dental National Percentage Range
6-7 YEAR OLDS	50.58	22.15 - 50.58
11-15 YEAR OLDS	44.69	16.17 - 47.00

Source: Hawai'i Dental Service, 2012

Hawai'i received a failing grade on dental services from the Pew Charitable Trusts for 2010, 2012 and 2014.¹⁵¹ The factors on which Hawai'i was graded were:

- Lack of school-based sealant programs and failure to meet standards for rate of effective, timely sealants
- Regulatory restrictions on dental hygienists that inhibit placing sealants without a dental exam
- Regularly collecting and reporting on the dental health of school children

¹⁴⁹ Ibid.

¹⁵⁰ Hawai'i Dental Service, 2012.

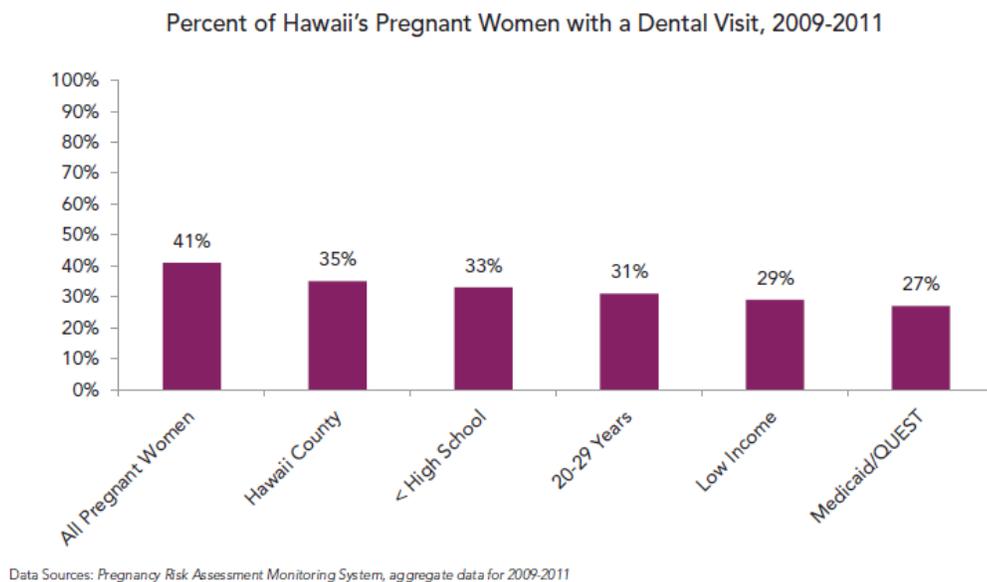
¹⁵¹ See

http://www.pewtrusts.org/~media/assets/2015/04/pewdentalsealantsreportcards2015/pew_dental_sealants_hawaii.pdf?la=en and

<http://www.pewtrusts.org/en/research-and-analysis/reports/2013/01/08/falling-short-most-states-lag-on-dental-sealants> and <http://www.pewtrusts.org/en/research-and-analysis/fact-sheets/2011/05/11/childrens-dental-health-hawaii>

Oral Health for Adults: Among low-income adults (ages 18 and over), 51 percent had experienced tooth loss compared to 32 percent of higher income adults, and only 52 percent of the lower income group had an annual dental visit compared to 82 percent of those with higher incomes.¹⁵² In addition, Hawai‘i fails to meet national recommendations for dental care for women during pregnancy – only 41 percent of pregnant women obtain an annual dental visit. The rate for those covered by Medicaid is even lower at 27 percent, most likely the result of a lack of dental benefits.¹⁵³

Figure 17: Percent of Hawai‘i’s Pregnant Women with a Dental Visit, 2009-2011



Commercially-insured adults in Hawai‘i covered by HDS were at higher risk for periodontal disease and dental caries and received more services compared to Delta Dental national data as shown in the table below.

Table 17: Oral Health Risks Among Commercially Insured Adults in Hawai‘i and Nationally

Group of Adults	Hawai‘i Percentage	Delta Dental National Percentage Range
Adults with periodontal disease	9.02	2.18 - 13.76

¹⁵² Hawai‘i Behavioral Risk Factor Surveillance System, 2012 as reported by DOH in “Hawaii Oral Health: Key Findings,” July 2015. http://health.hawaii.gov/about/files/2013/06/Key_Findings_wC.pdf

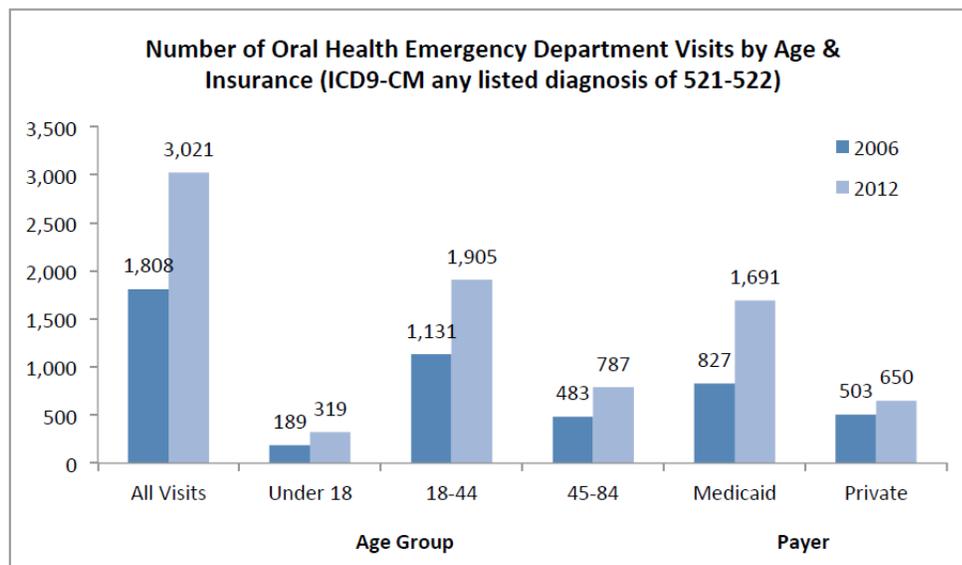
¹⁵³ Pregnancy Risk Assessment Monitoring System aggregate data for 2009-11 as reported by DOH in “Hawai‘i Oral Health: Key Findings,” July 2015. http://health.hawaii.gov/about/files/2013/06/Key_Findings_wC.pdf

Adults with periodontal disease receiving 2 or more cleanings	57.46	33.15 - 67.72
Adults with higher risk for caries	27.13	8.68 - 28.90
Adults with higher risk for caries receiving at least 1 annual exam	74.40	56.33 - 77.77

Source: *Hawai'i Dental Service, 2012*

Since 2010, Medicaid benefits for adult enrollees have included emergency-only dental benefits (extractions and treatment for pain and infection), which may have contributed to an increase in adults seeking services in the emergency room. In 2012, there were over 3,000 emergency department visits for preventable dental problems, a 67 percent increase from 2006, representing more than \$8.5 million in hospital charges in 2012 alone.¹⁵⁴ More than half of these visits were for adults ages 18 through 44 covered by Medicaid/QUEST who have coverage only for dental emergencies.

Figure 18: Number of Oral Health Emergency Department Visits by Age & Insurance



Source: *Hawai'i Health Information Corporation, 2013*

Hawai'i's Agenda for Oral Health Improvement

The Hawai'i DOH has embarked on a plan to rebuild its dental public health infrastructure with the support of a five-year grant from the CDC. DOH Family Health Services Division

¹⁵⁴ Hawai'i Health Information Corporation. (2013). Key finding #5.

assembled data and policy directions in a document entitled “Hawai’i Oral Health: Key Findings,” which was released in August 2015.¹⁵⁵ The strategies to improve oral health outlined by the DOH, are the following:

- Develop and implement an oral health surveillance plan to improve data collection, analysis and the use of data for program planning, evaluation, and policies.
- Develop effective, evidence-based community and school-based dental disease prevention programs for all age groups, particularly those who are experiencing oral health disparities.
- Continue to support and expand affordable and accessible preventive dental care services to Hawai’i’s low-income population.
- Expand Medicaid dental services for adults beyond the current coverage for “emergencies only” to include preventive and treatment services.
- Consider increasing reimbursements to dental providers for key preventive or restorative procedures to increase participation in Medicaid.
- Develop strategies to reduce barriers to finding and receiving preventive dental care services for children enrolled in the Medicaid program.
- Use or adapt existing educational programs for pregnant women and for health and dental professionals regarding the safety and importance of dental care and preventive counseling during pregnancy and in the neonatal period.
- Explore innovative, evidenced-based strategies to expand access to underserved, high-risk populations, including tele-dentistry.

SIM Oral Health Committee and Considerations

During the SIM process, an Oral Health Committee was convened, which was comprised of stakeholders from organizations such as Department of Health, UH, Hawai’i Dental Service, Hawai’i Dental Association, Hawai’i Primary Care Association, Med-QUEST, and other entities. The committee met five times to discuss barriers to oral health care and strategies to overcome these barriers. The committee also received technical assistance from Centers for Medicare and Medicaid Innovation (CMMI) and the CDC regarding tele-dentistry, increasing access to oral health, and the role of dental hygienists.

The committee strongly supported the work of DOH in rebuilding its capacity for public oral health leadership. The committee also endorsed the development of public-private initiatives to

¹⁵⁵ Hawai’i State Department of Health. (2015). Hawai’i oral health: Key findings. http://health.hawaii.gov/about/files/2013/06/Key_Findings_wC.pdf



expand school-based preventive dental programs, combining traditional dental care, tele-dentistry, and dental hygiene services. In addition, it reviewed approaches to re-establish adult dental benefits in Medicaid, considering the pros and cons of targeting special populations or health conditions such as adults with developmental disabilities, pregnant women, and adults with chronic diseases.

The Governor proposes restoring adult dental benefits in the fiscal year 2017 Medicaid budget presented to the state Legislature. While we strongly endorse expanding coverage, we recognize that that alone will not guarantee access. If the number of dentists who serve Medicaid patients does not increase due to low reimbursement rates or other factors, many of those who have coverage will continue to have difficulty getting access to care.

There is clearly a disparity in reimbursement rates between commercial and Medicaid coverage but, in an effort to stimulate greater participation where access is more challenging, Medicaid reimbursement rates are higher on neighbor islands than on O'ahu. In light of Hawai'i's widespread lack of water fluoridation, an increase in the rate for fluoride varnishes might be especially helpful.

VII. System Design and Performance Objectives

Untreated behavioral health conditions have been identified as a significant barrier to the health and wellbeing of many residents of Hawai'i. There is increasing evidence and acknowledgement that behavioral health disorders can be as disabling as cancer or heart disease in terms of lost productivity and premature death, a leading cause of disability in our workforce, and a contributor to poor birth outcomes. Studies show that untreated (or undertreated) behavioral health conditions adversely affect health outcomes for chronic conditions such as diabetes, cardiovascular disease, COPD, and cancer.¹⁵⁶

A. System Design Objectives

Behavioral health integration in primary care and women's health care requires changes at the system level for successful implementation. As summarized in the Driver Diagram, Hawai'i's system design objectives include the following:

- **Improve capacity of primary care and women's health providers to address behavioral health in their practices:** In order for PCP/WHPs to be successful in addressing behavioral health conditions, training and psychiatric consultation must be made available. The training will focus on the appropriate implementation of screening tools and techniques for common behavioral health conditions and recommended treatment protocols. To be effective, processes must be implemented to facilitate providers' access to psychiatric consultation for discussion and recommendations for their patients identified as having more challenging symptoms.
- **Increase access to behavioral health services and reduce barriers for populations with health disparities:** PCP/WHPs require better access to behavioral health providers for referrals and coordination of care. System changes must be implemented that facilitate seamless referrals between PCP/WHPs and behavioral health specialists for patients with serious behavioral health conditions. In addition, system changes must be designed with sensitivity to cultural and geographic issues that contribute to health disparities. For example, referral networks must include rural areas where provider shortages are more pronounced, tele-mental health should be used to increase access to such remote areas, and BHI trainings for providers and care coordinators should include an emphasis on cultural competency. Community health workers, who are members of local communities,

¹⁵⁶ Lichtman, J. et al. Depression and Coronary Heart Disease; Recommendations for Screening, Referral and Treatment. (2008). *Circulation*; Voinov, B. et al. Depression and Chronic Diseases: It Is Time for a Synergistic Mental Health and Primary Care Approach (2013). *The Primary Care Companion for CNS Disorders*. 15(2); Bankhead, C. Depression in Cancer Common But Untreated. (2014). *Med Page Today*.

can plan an important role in reducing stigma associated with mental illness and supporting individuals who are receiving treatment.

- **Strengthen the health care delivery system to support behavioral health integration:** Many practices have limited resources for implementing the additional processes needed for successful integration. Financial incentives will be implemented to support the efforts of PCP/WHPs in adopting behavioral health integration. Reimbursement for behavioral health screening and alternative payment models, such as performance-based incentives related to successful outcomes or per-member-per-month (PMPM) add-on payments for managing the population, will help to offset the additional cost for implementation and ongoing delivery. Expanding access to HIT for PCP/WHPs and behavioral health providers will be a priority to ensure timely sharing of patient information and care coordination.

B. Performance Objectives

Failure to identify needs and the lack of providers and coordinated care are barriers that prevent timely diagnosis and treatment of behavioral health conditions. Due to the prevalence of these unmet needs in the community, Hawai'i is focused on the integration of behavioral health within primary care and women's health and has established the following performance objectives:

- **Improve early detection, diagnosis, and treatment of behavioral health:** Early detection of behavioral health conditions and symptoms allows for better overall outcomes, both physically and mentally. When symptoms are identified, diagnosed, and treated in the PC/WH setting, patients are more likely to adhere to treatment recommendations.
- **Reduce substance misuse during pregnancy and perinatal depression:** Substance misuse during pregnancy can result in poor birth outcomes and have long lasting effects on children, such as Fetal Alcohol Syndrome. For women of child-bearing age, Screening, Brief Intervention, and Referral to Treatment (SBIRT) is particularly important and both SBIRT and depression screening should be routinely included in perinatal and women's health care.
- **Reduce the number of people who develop SMI through early diagnosis and treatment:** Early detection and treatment may circumvent more serious behavioral health conditions that can develop without intervention. Improved access to behavioral health services in primary care and women's health care will prevent moderate behavioral health conditions from developing into more serious conditions.
- **Improve outcomes for chronic health conditions:** Improvements in early detection, transitions of care, collaboration between providers, and coordination of care

contribute to better health outcomes for patients with chronic health conditions such as diabetes, obesity, and heart disease. Transitioning from intermittent intensive treatment modalities to a system focused on continuity of care and prevention results in more effective care.

- **Reduce the utilization of high cost medical interventions:** Behavioral health integration provides the opportunity to decrease the need for high cost medical interventions such as emergency department, acute hospitalization, avoidable readmissions, and neonatal intensive care, which can be attributable to unmet behavioral health needs. Engagement at the primary and women’s health care level has proven to be more cost-effective and lead to better patient experience and health outcomes.

C. Challenges

There are numerous challenges to consider when implementing behavioral health integration. Primary care settings are often extremely busy, and providers may have only 15 minutes or less to address presenting problems, conduct recommended screenings, and discuss health behaviors. PCP/WHPs have limited capacity and resources to integrate additional elements into the visit. In addition, behavioral health referrals are challenging both because there may be an inadequate number of providers but also because the most appropriate providers (e.g., Certified Substance Abuse Counselors, Certified Peer Support Specialists) may be unfamiliar to medical providers. Making matters worse, the shortage of behavioral health specialists who accept Medicaid in Hawai‘i can require PCP/WHP staff to spend a great deal of time locating a referral source for patients with more complex needs, creating a drain on already limited time and resources. Some islands have particularly acute shortages of behavioral health providers, making referrals even more difficult.

D. Hawai‘i’s BHI Pioneer Efforts

Hawai‘i can learn from and build on successful behavioral health integration pilots and initiatives in multiple community-based settings throughout the state. Three such initiatives described below are supported by federal grants from HRSA, the Substance Abuse and Mental Health Services Administration (SAMHSA), or agency collaborations:

1. **FQHC Behavioral Health Expansion Grant:** In 2014, HRSA awarded funding to four FQHCs in the State: West Hawai‘i CHC, Waimanalo Health Center, Lana‘i Community Health Center and Kokua Kalihi Valley Comprehensive Family Services. The grant allowed the FQHCs to hire psychiatrists and psychologists to expand behavioral health services in primary care. All four FQHCs screen for depression and anxiety using the Patient Health Questionnaire-2 (PHQ-2) and PHQ-9 depression screening tools and the Generalized Anxiety Disorder-7 (GAD-7) for

anxiety screening. The centers also use SBIRT to identify current and past drug, alcohol, and tobacco use.

If a patient screens positive for one of the targeted behavioral health conditions, he or she is provided a brief intervention and gets a warm hand-off to the FQHC in-house behavioral health team comprised of psychiatrists, psychologists and licensed clinical social workers. If appropriate, the patient is referred to a community provider for additional support, or served in-house with additional behavioral health services (e.g., subsequent 30, 45, or 60 minute sessions and treatment planning). The behavioral health team works closely with the patient's care provider to provide psychotropic medication if needed.

Examples of how the FQHC have used the HRSA grant funding include:

- West Hawai'i FQHC created a patient registry to track all the patients seen by their psychiatrist and was able to hire a behavioral health case manager as a result of the HRSA funding.
- Waimanalo Health Center hired two psychologists that enabled them to double the number of patients seen for behavioral health services (945 patients in eleven months).
- Kokua Kalihi Valley (KKV) Comprehensive Family Services used the grant to hire a primary care psychologist and to create a common electronic health record system for both primary care and behavioral health. This system enables coordinated scheduling of patients for PCPs and integrated behavioral health providers during the same visit. KKV is also in the process of developing a patient registry.
- The Lana'i Community Health Center is using its grant to hire additional behavioral health clinicians and initiate telepsychiatry in collaboration with the UH Department of Psychiatry.

2. **Tele-psychiatry at Family Guidance Centers:** CAMHD partners with the UH Department of Psychiatry's faculty, psychiatric residents, and fellows to provide the majority of their telehealth services. The Department of Psychiatry residents acquire clinical skills and achieve training goals by participating in clinical services that are part of the Hawai'i community-based system of care administered by CAMHD. The tele-mental health (TMH) training objectives include: understanding mental health disparities in rural Hawai'i communities, creatively leveraging community resources in ongoing treatment, providing culturally effective care, achieving proficiency with the technology to resolve issues of distance and time in serving rural areas, and improving health care access and delivery through TMH service research and evaluation.

Because of the critical need for child and adolescent psychiatric services in rural communities, the TMH clinics were initially developed at the CAMHD Family Guidance Centers in the Hawai'i County communities of Waimea, Kona and Hilo,

and in Maui County, which includes the islands of Maui, Moloka'i and Lana'i. As the clinical needs continue to grow, the TMH program will expand to the communities of Leeward O'ahu and Kaua'i County.

Youth are often referred for services with CAMHD from a number of community sources, including hospitals, DOE and DHS, Hawai'i State Judiciary (Family and Drug Courts), Juvenile Justice, primary care, and directly by the family. The youth and his or her family participate in a series of mental health evaluations. From these evaluations, the Family Guidance Center determines the range of comprehensive services available to the family and whether the TMH program would be helpful in achieving the treatment goals. Once the services begin, the Family Guidance Center and CAMHD staff coordinate all mental health and educational services provided by multiple community-based contracting agencies and the DOE.

- 3. SBIRT Training:** UH at Hilo received a three-year, \$705,530 grant from SAMHSA to create a formal SBIRT training curriculum at the Hilo-based Hawai'i Family Health Center. With the grant funds, HIFHC has implemented a new curriculum for teaching health professionals and students about substance use disorders (SUD) and how to perform SBIRT for a full continuum of SUD. During this three-year period, 12 medical residents will be trained along with 3 to 6 APRN students, 3 to 6 medical students, 36 to 72 pharmacy students, and 6 to 12 psychology trainees. Training will be spearheaded by a psychologist and include an online SBIRT training module, role-play evaluations, direct observation, and monthly behavioral health didactic sessions. Additional trainings for intervention skill building, referral network development, buprenorphine training, and pharmacologic treatment will also be provided to those participating in an extended training model.

The trainees and patients will be monitored and evaluated based on a plan developed by the Hawai'i Island Family Medicine Residency Council of Directors. After completion of the three-year grant, the goal is to retain the SBIRT curriculum as a core part of the residents' training provided that clinical psychology revenue generated from the screenings is able to support the salary of a full time psychologist to lead the training.

- 4. Prenatal SBIRT:** To further implementation of prenatal SBIRT DOH and its partners in the Hawai'i Maternal and Infant Health Collaborative have received a two-year grant (2016-2018) from Aloha United Way and the Omidyar Fund that focuses on the development of key system components, such as: women's health provider incentives, provider training, development and documentation of an effective prenatal substance abuse treatment referral network and development of metrics and data tracking.

Lessons learned from these initiatives will help shape and improve this innovation plan and future refinements.

VIII. Service Delivery Model

To address the unmet behavioral health needs of the residents of Hawai‘i, the State proposes to integrate behavioral health services into existing primary care and women’s health settings and make appropriate supports available to these providers. While this strategy supports practices across the State, it is especially important for rural communities where access to timely behavioral health services can be most challenging due to the prevalence of small medical practices and the scarcity of behavioral health professionals. Screening for and treating behavioral health conditions in these settings provides the opportunity for timely identification and treatment of these conditions and can yield positive health outcomes—both mentally and physically—for patients and cost savings to the State.

A. Overview of Evidence-Based BHI Practices

The three evidence-based BHI models that Hawai‘i proposes are: (1) Depression and Anxiety Screening; (2) Screening, Brief Intervention, and Referral for Treatment (SBIRT); and (3) Motivational Interviewing, which are described in the table below.

Table 18: Evidence-Based BHI Practices

BHI Practice	Approach
Depression and Anxiety Screening	Based on the IMPACT model to identify and treat mild-to-moderate depression (MMD) and anxiety in a primary care practice setting, this model provides implementation recommendations, algorithms for initial assessment, a treatment approach, screening tools, critical decision points, medication management, and other useful guides. ¹⁵⁷ The majority of people have a full remission of symptoms when their depressive disorders are adequately treated.
SBIRT for Screening of Substance Misuse	Screening, Brief Intervention, and Referral to Treatment (SBIRT) is a comprehensive public health approach to systematically identify, provide brief intervention, and, if needed, refer individuals who are at risk for alcohol or other drug use problems. Research has shown these patients may be identified through screening in PC/WH settings. SBIRT involves evidence-based screening, score feedback, expressing non-judgmental clinical concern, offering advice, and providing helpful resources. SBIRT interventions have been found to have long-term positive effects on patients with substance use disorders or those who are at-risk of developing these disorders. This community-based approach can help decrease the frequency and severity of drug and alcohol use, reduce the risk for trauma, and increase the percentage of patients who enter specialized substance abuse treatment when necessary. Cost-benefit analyses and cost-effectiveness analyses have demonstrated the value of these interventions.

¹⁵⁷ See IMPACT – Improving Mood Promoting Access to Collaborative Treatment. www.aims.uw.edu

BHI Practice	Approach
<p>Motivational Interviewing (MI)</p>	<p>A collaborative, person-centered form of talking to patients to elicit and strengthen their motivation for change. MI educates, engages and empowers consumers to be more participatory in their own health and care. MI is an effective, goal oriented, evidence-based approach that uses a collaborative communication style to improve understanding of the patient’s concerns, strengths, and preferences. MI enhances efforts by the caregiver to engage, educate, and empower self-care management behaviors. The MI model offers professionals tools to generate change and to support patients in informed decision-making. Motivation is the key to successful engagement; engagement is the key to education; and education is the key to empowerment.</p>

Each participating primary care and women’s health practice can choose which specific patients to target for implementation of these models based on what best fits their needs and gives the best chance for implementation success. Some practices may choose to focus on patients with specific chronic conditions such as diabetes, cardiovascular disease, or chronic obstructive pulmonary disease, chronic pain patients, or frequent medical utilizers, while other practices may take a population health approach and screen all of their patients. In general, the State recommends that practices focus on the following populations:

- Adolescents ages 12 – 21
- Adults ages 21 and older
- Pregnant women
- Women of child bearing age

When choosing to participate in BHI, it is important for each practice to identify a “practice champion” who is responsible for guiding the implementation process and organizing an implementation team that would include physicians, nurses, practice administrators, and, if available, care coordinators, community health workers, and community pharmacists.¹⁵⁸ The practice champion would determine who, within the practice, is responsible for making follow-up phone calls to patients with behavioral health conditions and monitoring patients’ responses to treatment, as well as ensuring that staff receive needed behavioral health training.

Depression and Anxiety Screening

Depression is one of the most common mental health disorders. It is estimated that 5 to 20 percent of adult patients seen in primary care, including adolescents and older adults, have

¹⁵⁸ Pharmacists are an underutilized group of licensed professionals can be an asset to the health care team, providing the opportunity for addressing poly-pharmacy and poly-provider issues through medication reconciliations.

clinically significant depressive symptoms.¹⁵⁹ Furthermore, the prevalence of major depression is two to three times higher among primary care patients than in the general population because these patients tend to use health care resources more frequently.¹⁶⁰ In January 2016, the U.S. Preventive Services Task Force issued a recommendation for clinicians to screen all adults (ages 18 years and older) for depression, including pregnant and post-partum women.¹⁶¹ The American Congress of Obstetricians and Gynecologists (ACOG) states that one in seven women experiences major and minor depressive episodes during pregnancy or in the first twelve months after delivery, making perinatal depression one of the most common medical complications during pregnancy and in the postpartum period.¹⁶² Depression screening is an important tool in the identification of individuals who may benefit from medication (e.g., SSRI/SNRI) and/or counseling. In addition to the target populations that each practice has chosen to focus on, the State recommends screening patients with the following “red flags” for depression:

- History of depression / post-partum depression
- Multiple, unexplained somatic symptoms
- Recent major stressor or loss
- Frequent health care utilizer
- Chief complaint of sleep disturbance, fatigue, appetite or weight change

Anxiety is often a normal part of life, but an anxiety disorder involves more than temporary worry or fear that does not go away and can get worse over time. These feelings may interfere with daily living activities and the ability to function normally. Anxiety is considered pathological if it interferes with daily life functions, lasts more than six months, or evolves to include obsessive/compulsive behaviors. Anxiety is often seen as a comorbid condition in the primary care practice; the medical and behavioral health condition must be identified and treated along with the anxiety. Anxiety also affects pregnant women, especially during the first trimester, with about 9.5 percent meeting the criteria for generalized anxiety disorder (GAD) at

¹⁵⁹ Unützer, J, and Mijung, P. Strategies to Improve the Management of Depression in Primary Care. (2012). Primary Care. 39(2)

¹⁶⁰ Halfrin, A. Depression: The Benefits of Early and Appropriate Treatment. (2007). American Journal of Managed Care.

¹⁶¹ See <http://www.uspreventiveservicestaskforce.org/Announcements/News/Item/final-recommendation-statement-screening-for-depression-in-adults>

¹⁶² The American Congress of Obstetrics and Gynecologists. (2015). Committee Opinion: Screening for Perinatal Depression.

<http://www.acog.org/Resources-And-Publications/Committee-Opinions/Committee-on-Obstetric-Practice/Screening-for-Perinatal-Depression>

some point during pregnancy.¹⁶³ Providers may use a screening tool, such as the GAD-7, to screen for and to help diagnose anxiety.¹⁶⁴ Anxieties can commonly occur with physical illnesses, and a careful physical exam should be performed to rule out a physical cause for the anxiety that may need to be treated before addressing the anxiety.

SBIRT

SBIRT is a comprehensive, public health approach to systematically identify, treat and refer individuals who are at-risk for alcohol or other drug use problems through primary care screening. SBIRT is broadly recommended by SAMHSA, the U.S. Preventive Services Task Force, and all of the primary care physician groups (e.g., the American Academy of Family Physicians, the American Academy of Pediatrics). SBIRT involves evidence-based screening, scoring feedback, expressing non-judgmental clinical concern, offering advice, and providing helpful resources. This community-based approach can help decrease the frequency and severity of drug and alcohol use, reduce the risk of trauma, and increase the percentage of patients who enter specialized substance abuse treatment. Approximately 10 percent of those screened with SBIRT will need a referral for alcohol/substance abuse treatment by a specialist; therefore, it is important to break down the silos between alcohol/substance abuse treatment providers and primary care.

Motivational Interviewing

Motivational interviewing (MI) has been proven to be a highly effective technique to stimulate healthy behavior changes by helping individuals explore and resolve their ambivalence about change in a positive, non-paternalistic manner.¹⁶⁵ According to the developers of MI, Drs. William Miller and Stephen Rollnick, "MI is a collaborative, person-centered form of guiding to elicit and strengthen motivation for change."¹⁶⁶ MI techniques can be incorporated into routine patient care, including both physical and behavioral health care. If a primary care or women's health care practice determines that it would like to employ MI throughout its practice, the decision should be made with a full understanding of the commitment to training this EBP requires and the rewards it will bring. MI practitioners consistently report marked improvement in patient engagement, practice cohesiveness, and attitudes toward co-workers and patients.

¹⁶³ Massachusetts General Hospital Center for Women's Mental Health. (2015). Anxiety During Pregnancy: Options for Treatment.

<https://womensmentalhealth.org/posts/anxiety-during-pregnancy-options-for-treatment/>

¹⁶⁴ Spitzer L., Kroenke K., Williams JB., & Löwe B. A Brief Measure for Assessing Generalized Anxiety Disorder: the GAD-7. (2006). Archives of Internal Medicine. 166(10).

¹⁶⁵ SAMHSA's National Registry of Evidence-Based Programs and Practices (NREPP). Motivational Interviewing. <http://nrepp.samhsa.gov/MotivationalInterviewing.aspx>

¹⁶⁶ Motivational Interviewing Network of Trainers. (2009).

B. Supports for Participating Primary Care and Women's Health Care Practices

Many PCPs have expressed hesitation about routinely screening patients for behavioral health conditions because of the added time required to treat and coordinate care for patients with moderate to serious behavioral health conditions. With limited referral options, the practice staff often spends hours attempting to locate resources for these patients, which can place undue strain on practices with limited staffing resources. In appreciation for the scarcity of time and resources at most PC/WH practices, the State is currently exploring potential opportunities for providing additional supports to practices to aid in the adoption of BHI:

- Training and ongoing learning opportunities
- Referral and triage assistance
- Behavioral health provider consultations and telehealth services

Training and ongoing learning opportunities. Before participating in BHI, PCP/WHPs should receive training on how to incorporate the behavioral health screenings and brief interventions into their clinical workflows and administrative processes and how to perform motivational interviewing during conversations with patients about behavioral health problems that may be present. The State proposes to make training opportunities available as part of the SIM BHI implementation process. DHS or DOH will consider procuring contracts with an entity or entities to provide training and ongoing learning collaboratives for PCP/WHPs. Hawai'i hopes to make training sessions available that would qualify for continuing medical education (CME) for physicians and other continuing education requirements for other health professionals.

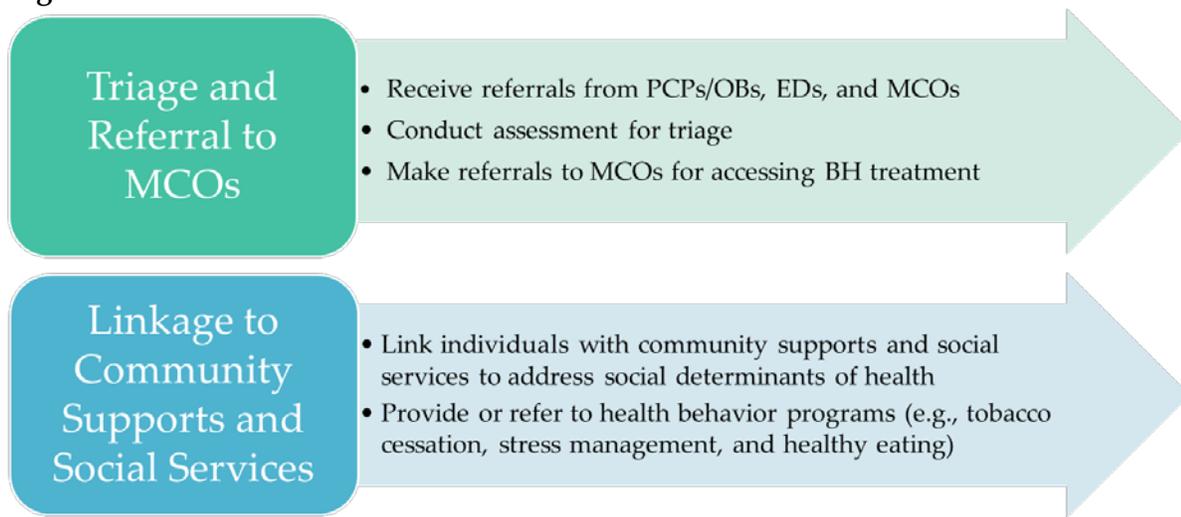
In addition to initial in-person training sessions, the selected vendor(s) would conduct ongoing learning collaboratives that would include web-based educational curricula, didactic instruction, and Q&A sessions for providers to seek guidance on best practices for incorporate behavioral health into their practices. The State will also explore opportunities to leverage existing publicly funded resources and other resources.

Referral and triage assistance. Many PCP/WHPs have not developed the same relationships with behavioral health providers as they have with other medical specialists, such as cardiologists and endocrinologists. Availability of behavioral health specialists to whom patients with more serious conditions can be referred is a critical component of behavioral health integration. As a result of SIM Round Two, the State is developing a plan for a resource called *Community Care Teams* (CCTs) that would provide valuable support for PCP/WHPs in treating patients with complex behavioral health conditions. One of the goals of the CCT would be to assist providers with connecting patients with complex needs to appropriate resources in the community, thus allowing them to focus on treating patients with mild or moderate conditions within their practices. Under the proposed approach, PCP/WHPs will contact their local CCT when they identify a patient whom they would like to refer to a behavioral health specialist. A social worker or behavioral health professional from the CCT would further assess

the patient to fully understand their treatment needs and would then notify the patient’s MCO of the need to connect the patient with a behavioral health specialist. Having only one number to call to refer patients with complex needs would greatly reduce the time required by PCP/WHPs and their team to complete the referral. Furthermore, CCT staff can follow-up with the MCO to ensure that the referral has been completed and the appointment kept.

During initial intake with patients, CCTs can inquire about a patient’s social determinants of health to identify additional community resources or social services that may benefit them, such as assistance with food, transportation, or employment or local weight loss programs and support groups. CCTs would maintain a robust list of community resources to assist patients with accessing these community-based services or programs.

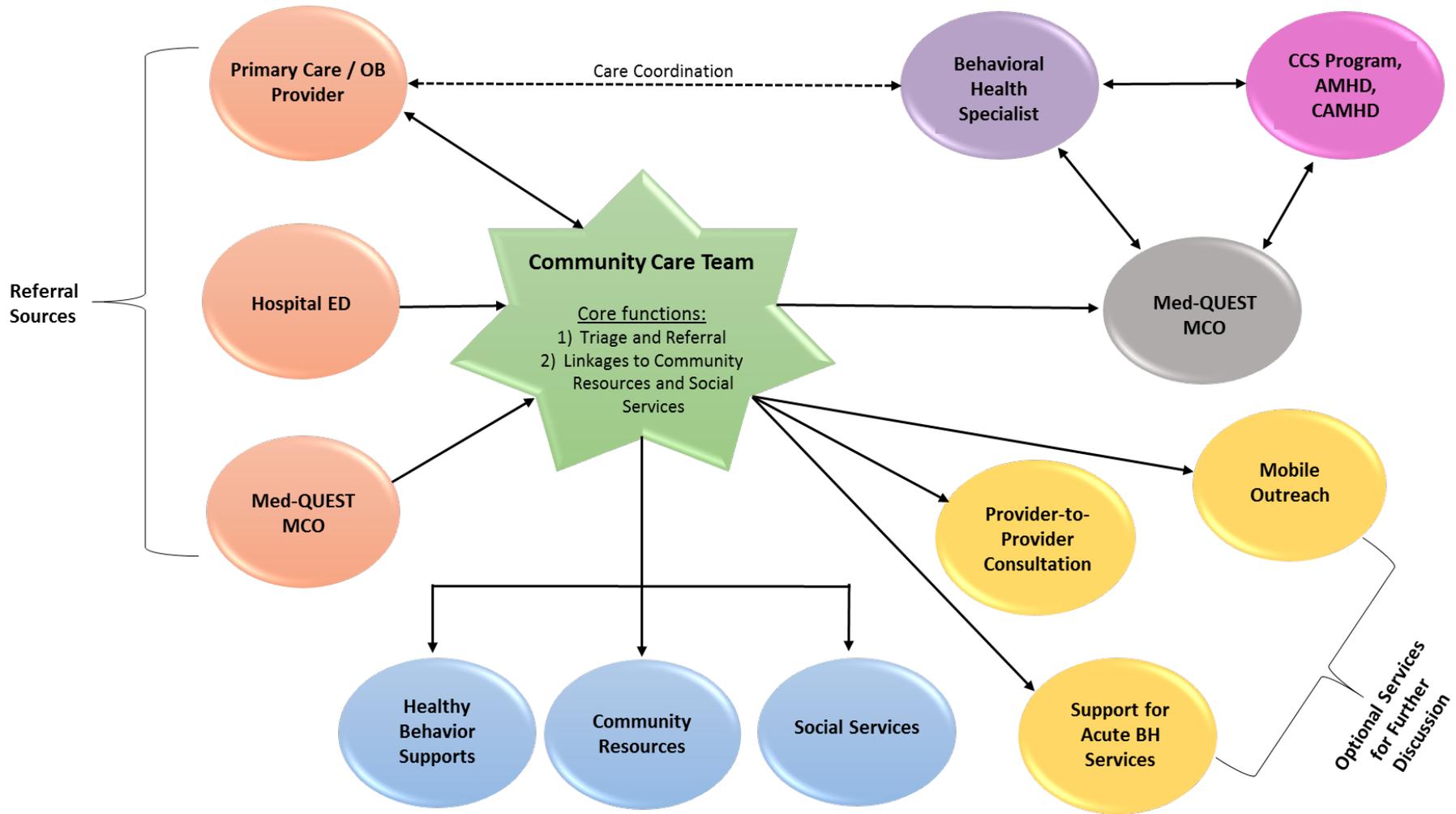
Figure 19: Core Functions of CCTs



In addition to serving as a valuable resource for PCP/WHPs, the CCTs could play an important role in providing outreach to individuals who need behavioral health services, but who have not yet presented in a primary care setting. For example, through mobile outreach units, CCTs could visit homeless shelters to screen individuals for needed primary care or behavioral health treatment and refer them to providers as needed. In addition, CCT staff could potentially provide urgent intervention services to individuals who are in emotional or mental distress. Lastly, CCTs could provide a variety of health promotion activities, such as health coaching and education.

The diagram below displays the core and potential functions of CCTs and the process for receiving and making referrals and linking individuals with community supports and social services.

Figure 20: Community Care Team Diagram (Reflects Committee Discussions as of December 8, 2015)



Behavioral health provider consultations. Optimal adherence to evidence-based behavioral health integration models includes the availability of a community-based psychiatrist or other behavioral health provider who would serve as a resource to the practice to discuss complex patients, obtain consultation and guidance, and recommend medication adjustments as appropriate. Such provider-to-provider consultations could include phone consultation or video communication and could be scheduled regularly or on an as-needed basis. Hawai'i is considering developing a behavioral health consultation program similar to those in Massachusetts, Oregon and Washington, which offer PCPs in those states telephonic access to a child psychiatrist for consultation.¹⁶⁷ It will be critical for PCP/WHPs to form working relationships with behavioral health providers whom they can call when treatment questions arise.

The three practice supports described above—training and ongoing learning opportunities, triage and referral assistance, and behavioral health provider consultations—are expected to help PC/WH practices fully participate in BHI by providing training and consultative support to effectively manage patients with mild or moderate behavioral health conditions and assistance with referring and managing patients in need of specialty BH services. We expect that different provider types will benefit from practice supports in different ways, as described in the table below.

Table 19: Impact of BHI Practice Supports on Community Care

Provider Type	Impact of BHI Practice Supports
Independent Medical Practices	The three practice supports described above are expected to help these practices the most by providing training and supports to integrate BH services as well as assistance to refer and manage patients in need of specialty BH services.
Federally Qualified Health Centers	FQHCs may already integrate behavioral health services and have on-staff behavioral health providers and care coordinators. However, a statewide approach to BHI and supports for capacity-building can also assist FQHCs with provider training, a pathway for CCTs and CHWs, and access to consults and telehealth.
Large Practices and Accountable Care Organizations (ACOs)	These medical practices, like FQHCs, will benefit from a statewide approach to BHI with training, having a care team model to use or adapt, and using or developing consult and telehealth capacity.

¹⁶⁷ The Massachusetts Child Psychiatry Access Project (MCPAP), the Oregon Opal-K program, and the Washington Partnership Access Line (PAL) are funded through various sources, including state budgetary appropriations and private grants. The programs are administered by academic medical centers and medical schools and attributed with improved behavioral health diagnosis and treatment by PCPs, including reductions in inappropriate psychotropic drug prescribing practices.

Provider Type	Impact of BHI Practice Supports
Behavioral Health Providers	Behavioral health providers will benefit by being incorporated into the provider system in a more integral way. CCTs, provider-to-provider consultations, and telehealth will also support their practices.

C. Information Sharing Across Providers and HIT

Behavioral health integration relies on the timely sharing of patient information when referrals are made between PCP/WHPs and behavioral health providers. Unfortunately, common misconceptions about privacy and security issues related to the sharing of patient records have been a barrier to provider collaboration. To protect themselves from liability, many providers default to the most restrictive state or federal privacy laws and apply those criteria to all patients, which can make the sharing of clinical information across providers very difficult. Ongoing effort is needed to educate primary care, women’s health, and behavioral health care providers on patient privacy laws (i.e., the Health Insurance Portability and Accountability Act (HIPAA) Privacy Rule and 42 CFR Part 2) in order to clarify the rules and facilitate the information sharing needed to ensure optimal outcomes for patients.

Developing formal agreements between PCP/WHPs and behavioral health providers and patient consent forms allows for seamless referrals for care and exchanges of patient information. Examples include Memoranda of Understanding (MOU), Affiliation Agreements, or Partnership Agreements, which allow for the exchange of information for making referrals and coordination of care for shared patients. Formal agreements also allow for establishing referral protocols that address expectations for both providers in regard to timeframes for follow-up, the exchange of patient health information, etc. Such agreements also allow for development of shared patient consent forms that expedite the referral process and the exchange of health information for continuity of care.

Role of HIT in Behavioral Health Integration

The use of HIT in the PC/WH setting supports communication and care coordination among health care providers, health plans, and patients, and serves as a means for efficiently managing the patient population. Many health care providers have adopted the use of EHRs to manage patient records, and EHRs can be a critical element in population health management.

- **EHRs for care coordination and referrals:** The coordination of care in PC/WH practices is aided through the use of EHRs. Electronic transfers allow for the exchange of information with other providers involved in patient care and enables better informed care plans for shared patients. In addition, with patient approval, providers are able to make referrals to other needed behavioral health or social service organizations more efficiently

- **Patient registries:** Many electronic health records have capacity for creating patient registries. These registries are databases that contain patient information in a format that supports data analysis. Practices are able to sort for organizing data on targeted, disease-specific subgroups for managing patient care. The use of registries creates a proactive approach to patient management that is not dependent on the patient keeping appointments. For EHRs that do not have the capacity for creating patient registries or practices that have not yet implemented EHRs, simple Excel spreadsheets or Access databases may be used to create patient registries. Patient registries may be used for managing populations for:
 - **Identification of gaps in care:** Practices are able to track routine screenings, scheduled appointments, and lab results.
 - **Risk stratification:** Practices are able to prioritize patients based on needs and care gaps or other criteria identified.
 - **Tracking outcomes:** Registries allow for analyzing the data in aggregate or by patient for tracking improvement over time.
- **Admission, Discharge, and Transfer (ADT) Feeds:** Frequent emergency room users are more likely to have poor physical and mental health, no usual source of care, and higher-than-average utilization of other health services.¹⁶⁸ Through the use of ADT feeds, providers are able to receive notification of a patient's inpatient or emergency room treatment. These feeds provide information that may be used in a variety of ways by practices. For example, practices can use ADT feeds to identify patients with behavioral health diagnoses who have not recently had an office visit and track follow-up appointments to ensure continuity of care. For patients who fail to keep follow-up appointments, practices are able to reach out and engage patients in ongoing care.

CCTs would benefit from utilizing HIT, such as a health information exchange, direct messaging, and electronic registries to efficiently perform their core activities and to collect and report quality data. For example, CCTs could leverage the HHIE and the Community Health Record (CHR) to share patient health information for facilitating referrals between PCPs, MCOs and behavioral health specialists, conducting assessments, and conducting patient follow-up and care coordination as needed.

If the HHIE or CHR is not available, communication and activities can also be facilitated through Direct Messaging or by using a secure web-based system to access interfaces or modules to review or provide patient information. The system may also be enhanced with

¹⁶⁸ CMCS Informational Bulletin. (2014). Reducing Non-urgent Use of Emergency Departments and Improving Appropriate Care in Appropriate Settings.
<http://www.medicaid.gov/Federal-Policy-Guidance/Downloads/CIB-01-16-14.pdf>

additional data, such as claims data from Med-QUEST or the health plans, to help with other activities, such as measuring service utilization and identifying patients with certain conditions to target for outreach.

In addition to a web-based system, a registry can also be used to facilitate CCT activities. For example, registries can be created to store, provide and track patient assessment data, diagnoses, health outcomes and care guidelines. Providers and CCTs can access a shared registry to help with health maintenance, connecting patients to community resources, disease prevention and management, and many other interventions.

D. BHI Payment Models

The integration of behavioral health into PC/WH practices will require upfront investment and ongoing financial support by the State and other stakeholders to cover administrative and other costs. Many of the proposed BHI strategies can be financed through Medicaid, which requires funding from both the State and the federal government. Specific financing and reimbursement arrangements remain to be determined:

- The SIM stakeholder groups are considering multiple PCP/WHP payment options—for example, PMPM payment for providers who participate in BHI to cover the time spent attending training, consulting with psychiatrists and conducting motivational interviewing with patients. Additionally, pay for performance (P4P) measures that would reward the achievement of chosen behavioral health process measures or patient outcomes are being considered to incentivize providers to participate.
- Cost estimates and funding sources for the proposed CCTs and other practice supports, such as a provider consultation services, have yet to be made.
- Any adjustments to Med-QUEST MCO capitation payments to cover estimated changes in service utilization and any additional care coordination responsibilities needed to facilitate the integration of behavioral health services have not yet been discussed.

Table 20: Payment Options to Support Behavioral Health

Provider Type	Payment Options
<p>Independent Medical Practices</p>	<p>Moving toward value-based payment, practices will be paid with a combination of PMPM, payment for services, and achieving outcome or quality expectations, which will include measures related to providing one or more of the proposed evidence-based practices for BHI. Since chronic disease management should be improved with BHI practices, P4P for chronic diseases will be enhanced.</p>



Provider Type	Payment Options
Federally Qualified Health Centers	FQHCs continue to be paid in accordance to the Prospective Payment System methodology. To the extent that the FQHCs add new services for BHI, the cost of such services will be considered in the calculation of their updated PPS rates.
ACOs and Large Practices	ACOs and large practices are moving toward global payments and shared risk. BHI practices will assist them in managing higher risk patients and reducing total costs of care.

IX. Workforce Development Strategy

The shortage of behavioral health providers in many parts of the State has created a significant access issue for individuals, especially in rural areas. Hawai'i's BHI strategies are designed to address some of the challenges posed by these provider shortages. The overarching goal of increasing the capacity of PCP/WHPs to identify and treat patients with mild or moderate behavioral health conditions reflects the need for behavioral health specialists to focus most of their time on patients with more serious conditions. Through early detection and treatment in PC/WH settings, providers will be able to reduce or prevent undue distress for their patients as well as reduce the impact of behavioral health symptoms on chronic and other health conditions.

BHI Practice Supports

As described earlier in this report, practice supports will be available for PCP/WHPs to alleviate challenges they may face as they expand their role in providing behavioral health screening and treatment:

- Trainings will be available in order to enhance their behavioral health skills and comfort level. For example, training on strategies to incorporate depression and substance misuse screenings and motivational interviewing into clinical workflows will allow for providers to maximize efficiency and avoid over-burdening staff.
- Ongoing learning collaboratives will be available as a part of the training to provide ongoing opportunities to further enhance skills and gain feedback from other providers about how to address challenges that may arise.
- Provider-to-provider consultations will be available for PCP/WHPs to gain input and advice from psychiatrists and other behavioral health professionals, allowing the PCP/WHPs to continue to provide treatment in the primary care setting.
- The implementation of CCTs will help to expedite the triage and referral of such patients and avoid unnecessary delays for individuals who need treatment from a behavioral health specialist. Through care coordination and linkage, the CCTs provide invaluable support to PCP/WHPs for referring those patients who require more intensive behavioral health services.
- PCP/WHPs can use a team-based approach when implementing BHI. For example, medical assistants and other office staff may administer initial screening tools and identify patients who require additional assessment or brief intervention by a physician or a nurse.

Community Health Workers

The behavioral health workforce will be further expanded through the use of community health workers (CHWs) as members of CCTs. Most CHWs live and work in the communities they serve, and they understand the culture and the needs of the communities. CHWs go by many



titles and can provide a variety of services. The American Public Health Association has defined a community health worker as, “a frontline public health worker who is a trusted member of and/or has an unusually close understanding of the community served. This trusting relationship enables the worker to serve as a liaison/link/intermediary between health/social services and the community to facilitate access to services and improve the quality and cultural competence of service delivery.”¹⁶⁹ CHWs typically work under the direction of licensed health care professionals, such as nurses, doctors, psychologists, or social workers.

Given Hawai‘i’s unique geography and diverse ethnic and cultural populations, there is an opportunity to use CHWs to reach underserved communities with cultural, language and geographic barriers, as CHWs are culturally and linguistically adept and trusted members of their communities. Hawai‘i aims to increase the use of CHWs, particularly as part of the state’s SIM focus on behavioral health integration and reducing health disparities. As team members on CCTs, CHWs could provide the following types of services:

- Conduct health promotion and education activities (e.g., stress management or healthy eating classes, smoking cessation programs and other wellness activities)
- Assist with linkages to community resources (e.g., support groups or financial assistance programs, or social services, including applying for public assistance programs)
- Conduct patient outreach (e.g., reminding patients about upcoming appointments and following up with patients after missed appointments or psychotropic prescription refills)

Many states have created formalized training programs where CHWs attend and complete a training and receive a certification of completion or some other credential. For example, Washington has a blended learning model for certifying CHWs by utilizing self-guided, online training videos that are paired with in-person regional trainings.¹⁷⁰ Other states, such as Texas and Ohio, require continuous education or job training for renewal of a state issued certification.¹⁷¹

Several agencies, including Wai‘anae Coast Comprehensive Health Center and community colleges, have provided training for CHWs over the years. Hawai‘i does not currently require

¹⁶⁹ American Public Health Association. (2009). Support for Community Health Workers to Increase Health Access and to Reduce Health Inequities.

<https://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2014/07/09/14/19/support-for-community-health-workers-to-increase-health-access-and-to-reduce-health-inequities>

¹⁷⁰ Washington State Department of Health. Community Health Worker Training.

<http://www.doh.wa.gov/ForPublicHealthandHealthcareProviders/PublicHealthSystemResourcesandServices/LocalHealthResourcesandTools/CommunityHealthWorkerTrainingSystem>

¹⁷¹ State Reform. (2015). State Community Health Worker Models. <https://www.staterforum.org/state-community-health-worker-models>



certification to be employed as a CHW, but the UH Maui College began offering a CHW certification program in fall 2015. The program was developed following receipt of a Trade Adjustment Assistance Community College and Career Training (TAACCCT) grant from the U.S. Department of Labor, which includes funding for four community colleges to promote two-year degrees and entry-level certificates for CHWs.¹⁷² The TAACCCT grant will allow the CHW certification program to reach a larger pool of potential students and to expand to the neighbor islands, which will position Hawai'i well to increase the use and role of CHWs as part of its SIM BHI initiatives. Hawai'i appreciates the expertise and contributions of CHWs trained and practicing before certification and seeks to incorporate them into on-going CHW roles.

The TAACCCT CHW curriculum includes CHW fundamentals, counseling and interviewing, health promotion and disease prevention, case management/care coordination, and an internship experience. Employers of CHWs and currently practicing CHWs are involved in the development of the curriculum content. The long-term goals of the CHW program are to establish a statewide certificate program and create a seamless educational process for certified CHWs or school health aides to continue into an Associate Degree program or Bachelors in public health or other health professions if they so desire.

Pharmacists

Pharmacists are often under-utilized as health professionals. Pharmacists are invaluable members of the extended health care team who could lend their expertise to PCP/WHPs for managing patients more effectively – particularly patients with comorbid chronic conditions and behavioral health disorders. Pharmacists are able to contribute to patient care of in a variety of ways such as by addressing polypharmacy with medication reconciliation and patient consultations and education.

Telehealth

Another key BHI strategy is to expand the use of telehealth technologies for behavioral health. Using telehealth to deliver behavioral health care remotely is an effective way of overcoming access barriers, particularly for patients located in rural or remote areas. Evidence from research supports the claim that tele-behavioral health and in-person services yield comparable and cost-effective results.^{173,174} In Hawai'i, *Senate Bill 2469*, which was signed into law on June

¹⁷² UH Maui College began piloting a first draft curriculum in fall 2015. Kapiolani, Kauai, and Windward Community Colleges are also in curriculum approval stages to launch a CHW certificate program.

¹⁷³ A randomized controlled study assigned 119 veterans with depression to receive either in-person psychiatry or telepsychiatry services and found no difference in patient outcomes. Ruskin PE et al. Treatment Outcomes in Depression: Comparison of Remote Treatment Through Telepsychiatry to In-Person Treatment. *American Journal of Psychiatry*. 161:1471–1476 (2004).

¹⁷⁴ In a remote area of Canada with limited access to services, a randomized controlled study of adults requiring psychiatric services found that the psychiatric consultation and short-term follow-ups provided by telepsychiatry produced clinical outcomes equivalent to the outcomes achieved by the patients treated



30, 2014, requires that interactive audio-video sessions with health care providers are reimbursed at the same rate as face-to-face services. S.B. 2469 also outlines the types of providers that may provide telehealth services, and includes primary care providers, mental health providers, oral health providers, physicians and osteopathic physicians, advanced practice registered nurses, psychologists and dentists.¹⁷⁵ However, certain policy changes may assist with the adoption of tele-behavioral health in Hawai'i, particularly for Medicaid beneficiaries. Hawai'i intends to compare current telehealth policies to best practices from other states to determine if actions are needed to increase appropriate utilization of telehealth services for behavioral health.

in-person. O'Reilly R et al: Is Telepsychiatry Equivalent to Face-to-Face Psychiatry? Results from a Randomized Controlled Equivalence Trial. PSYCHIATRIC SERVICES Volume 58 Number 6 (June 2007).
¹⁷⁵ State of Hawai'i, the Senate 27th Legislature, "S.B. NO. 2469." 2014. Page 2.



X. Health Information Technology (HIT) Plan - PLACEHOLDER

A. Hawai'i's HIT Goals

- Hawai'i Health Information Exchange
- Electronic Health Records
- Expand Med-QUEST HIT resources
- Pursue Potential Policy Initiatives
- Develop the Hawai'i All-Payers Claims Database
- Expand the Use of Telehealth

XI. Monitoring and Evaluation Plan

Monitoring the implementation of the BHI initiative is necessary to evaluate whether it is achieving the Triple Aim +1 goals of better population health, better health care quality, lower health care costs, and reduced health disparities, as well as the State's goals for Healthy Families/Healthy Communities. Hawai'i expects to see several positive outcomes from the implementation of BHI, including:

- Improved capacity of PCP/WHPs to address behavioral health in their practices
- Improved access to behavioral health services
- Improved health outcomes for people with comorbid chronic physical and behavioral health conditions
- Cost savings realized through reduced utilization of high cost medical services, such as ER visits, avoidable hospitalizations, and neonatal intensive care related to behavioral health conditions.

A. Selection of Evaluation Measures

The BHI Evaluation Team will seek ongoing feedback from stakeholders, including providers, advocates, and payers, to select evaluation measures and establish data reporting requirements. Measures chosen will be those that allow the team to track performance in four domains:

- PCP/WHP Participation
- PCP/WHP and patient experience
- Population health outcomes
- Medicaid/health system cost savings

The four measure domains cover a wide array of behavioral and physical health areas to assess the impact of BHI on providers, their patients, and the overall Medicaid system. Examples of potential measures related to each domain are shown in the table below.

Table 21: Measure Domains, Examples, and Data Considerations

Domain	Measure Examples
1. PCP/WHP Participation	<ul style="list-style-type: none"> • Screening for Clinical Depression and Follow-Up Plan • SBIRT Utilization • PCP/WHP Behavioral Health Integration Training Rates • Psychiatric Consultations
2. PCP/WHP and Patient Experience	<ul style="list-style-type: none"> • PCP/WHP Confidence to Provide Behavioral Health Treatment • Behavioral Health Care Experience • Patient Experience with Community Care Teams
3. Population Health Outcomes	<ul style="list-style-type: none"> • Mental/Emotional Health Rating • Hospital Admission Rates with Comorbid Behavioral Health Condition • Comprehensive Diabetes Care: HbA1c Control
4. Medicaid Cost Savings	<ul style="list-style-type: none"> • Mental Health Utilization • Plan All-Cause Readmissions • Total Cost of Care

When selecting measures, the Evaluation Team will prioritize existing measures that have been tested and validated by national organizations whenever possible. For example, measures may be selected from the following sources:





The Team may modify some of the existing measures from these sources and may also include home-grown measures to better match Hawai'i's BHI initiative and the State's demographics and environment.

In addition to considering the source of the measure, the BHI Evaluation Team will consider multiple factors to ensure that appropriate, informative and achievable measures are selected:

- **Applicability to mild/moderate vs. serious behavioral health conditions:** Because Hawai'i's BHI initiative will focus on individuals with mild to moderate behavioral health conditions, the Team will want to include more than measures that focus on more severe behavioral health conditions (e.g., measures of inpatient psychiatric hospitalizations and antipsychotic medication use).
- **Voluntary nature of BHI participation:** Because BHI participation is voluntary for PCP/WHPs and providers can select target populations, the Team will need to determine which measures will be collected for all providers and Med-QUEST members and which will be collected only for participating providers and their targeted patients. The Team may consider creating a registry to determine which providers have elected to participate. The registry could be based on physician participation agreements, similar to those used in Hawai'i's existing PCMH program.
- **Direct and indirect effects of BHI:** Hawai'i is interested in measures that focus on the direct and indirect effects of BHI in primary settings. Direct measures are those that would specifically assess outcomes associated with behavioral health conditions (e.g., depression remission), while indirect measures would assess physical health conditions (e.g., blood pressure control) and social outcomes (e.g., employment rates) that can be affected by behavioral health symptoms.
- **Pay-for-Performance incentives:** The State will collaborate with stakeholders to determine which measures, if any, will be used for P4P arrangements. For example, Med-QUEST plans could elect to base quality payments on measures addressing depression or SBIRT screening rates to incentivize providers to adopt those screening practices.
- **Administrative burden to collect and report:** Lastly, the Evaluation Team will consider the administrative burden that data collection will place on providers and MCOs. For example, measures that are based on administrative claims data are typically less burdensome to collect than measures that require review of clinical records or administration of surveys. In addition, it will be beneficial for the State to leverage measures that are already in use so that the data is more readily available. For example, Med-QUEST currently requires MCOs to report six HEDIS measures that may support BHI evaluation, as shown in the table below.

Table 22: 2015 BHI-Related Measures Required By Med-QUEST

Measure Name	Currently Used for P4P by Med-QUEST
Follow-Up Care for Children Prescribed Attention-Deficit/Hyperactivity Disorder (ADHD) Medication	No
Antidepressant Medication Management	No
Mental Health Utilization	No
Plan All-Cause Readmissions	No
Comprehensive Diabetes Care: HbA1c Control	Yes
Controlling High Blood Pressure	Yes

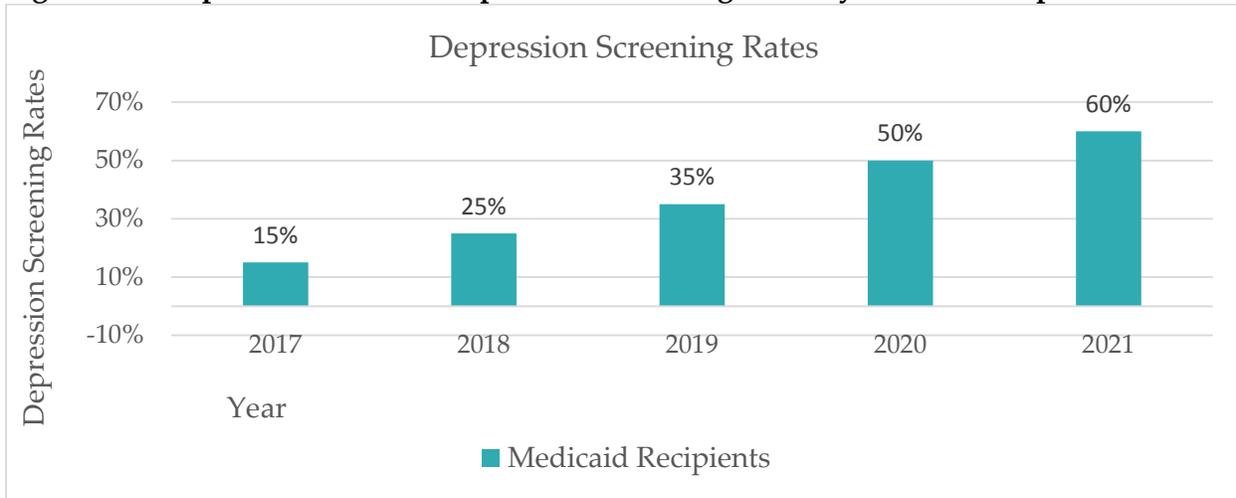
B. Data Collection and Reporting

Once measures have been selected, the BHI Evaluation Team will collaborate with the MCOs and other entities to collect data and design patient and provider surveys, if desired. The Team will first establish baselines and set targets for the selected measures prior to the start of the BHI initiative. As mentioned previously, existing data will be used whenever possible. The BHI Evaluation Team may consider collaborating with UH to assist with program evaluation efforts, for example if the State chooses to administer surveys of providers or patients.

The BHI team will be responsible for annually reporting results through the use of performance dashboards. Results will be reported on a statewide basis at a minimum, and some measures may also be reported regionally, by MCO, or by patient ethnic group to identify disparities based on geography or population. It is important to note that for some measures, particularly ones assessing outcomes or cost savings, it can take three to five years to see changes from BHI efforts. The Evaluation Team will work closely with DHS to effectively disseminate the results to stakeholders and the residents of Hawai'i.

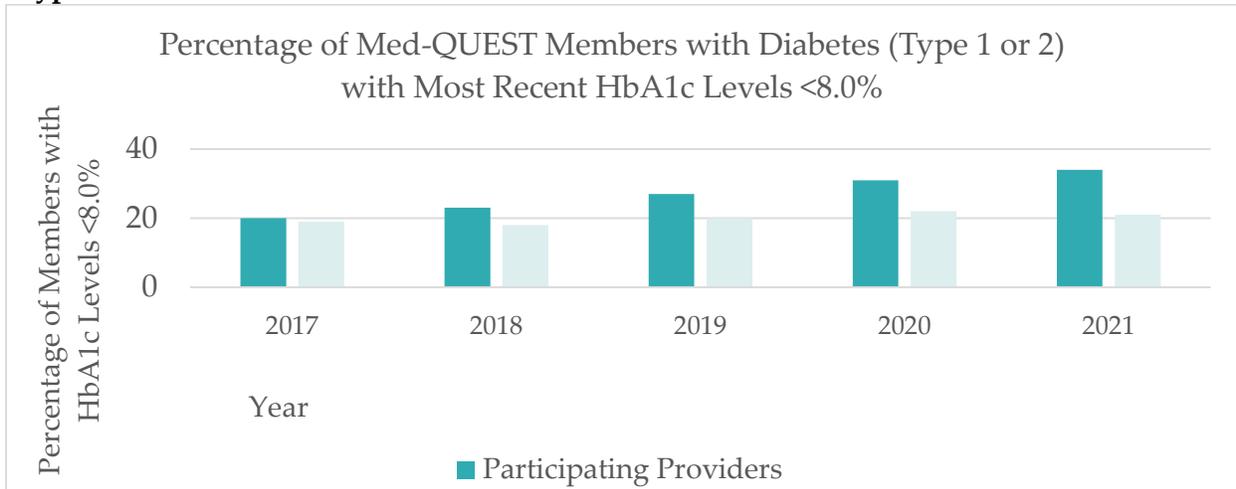
A preliminary sample of statewide dashboards for the proposed BHI implementation are shown below. The final measures will inform the types of dashboards that will be made available to stakeholders in order to assess the overall impact of the BHI initiative.

Figure 21: Sample Dashboard of Depression Screening Rates by Year after Implementation



Note: values in table are hypothetical

Figure 22: Sample Dashboard of the Percentage of Med-QUEST Members with Diabetes (Type 1 or 2) with Most Recent HbA1c Levels <8.0%



Note: values in table are hypothetical

Figure 23: Sample Dashboard of Five-Year Behavioral Health Integration Metrics

Domain	Measure	Performance Metric					Trend from Previous Year	5-Year Target
		Year 1	Year 2	Year 3	Year 4	Year 5		
PCP Participation	SBIRT Utilization	10.0%	15.0%	--	--	--		70.0%
	Screening for Clinical Depression and Follow-Up Plan	11.7%	15.8%	--	--	--		70.0%
	PCP participation in BHI Training	10.2%	18.7%	--	--	--		67.0%
PCP and Patient Experience	Behavioral Health Care Experience (Patient Satisfaction)	1.4	1.7	--	--	--		2.8
	PCP Confidence to Treat BH Conditions	12.6%	21.1%	--	--	--		60.0%
Population Health Outcomes	Mental/Emotional Health Rating	1.9	2.2	--	--	--		3.0
	Controlling High Blood Pressure	24.0%	26.1%	--	--	--		65.0%
Cost Savings	Plan All-Cause Readmissions	16.2%	18.3%	--	--	--		12.0%
	Comorbidity Total Cost of Care (average PMPM)	\$ 1,024	\$1,136	--	--	--		\$ 950
							Improving	
							Maintaining	
							Deteriorating	

Note: values in table are hypothetical

XII. Financial Analysis

Hawai'i's prevalence of mild and moderate behavioral health conditions and the lack of detection, assessment, and intervention to address both the mental and physical health of individuals and families is becoming an increasing public health and financial concern. Integrating behavioral and physical health care can result in a whole person, mind and body approach to health care.

The goal of Hawai'i's BHI initiative is to help PCP/WHPs identify and better treat patients with mild to moderate behavioral health conditions and facilitate the timely referral of patients with more serious conditions to a behavioral health specialist. By integrating behavioral health practices into primary care and women's health settings, Hawai'i aims to increase the utilization of community-based behavioral health services, reduce the utilization of avoidable hospitalizations, readmissions, and emergency room visits, improve outcomes for persons with comorbid behavioral health and chronic conditions, and improve overall health status in Hawai'i. Financial analysis of the effects of BHI should identify increased costs related to access to early appropriate care and medical compliance, decreased costs related to reduction in avoidable and preventable emergency department and inpatient use, and the net effects on Medicaid and health system costs.

A. Estimated Impacts of Behavioral Health Integration

Estimated Uptake of BHI models: The initial uptake of the evidence-based practices by PCP/WHPs in the first phase of the behavioral health integration plan will likely be slow because participation among providers is voluntary. The State anticipates that, initially, a small percentage of providers will choose to participate in the BHI models and serve as "champions" among providers to promote the BHI model among their peers. A provider who decides to participate is not required to incorporate all the models into her or his practice and can decide which interventions to use on a subset or on all patients. For example, a provider may decide to conduct only depression/anxiety screening for patients with chronic conditions, or may decide to screen all patients annually, while not incorporating the SBIRT model for substance misuse into his or her practice at all.

In order to help mitigate the slow uptake and other barriers to integrated care, the State is working with Med-QUEST to consider offering pay-for-performance incentives as part of the QUEST Integration contract that are based on BHI participation or behavioral health outcomes. Provider support and training will be crucial to achieving care integration statewide as well as developing a sustainable behavioral health integration model.

Estimated Increases in Medicaid Expenditures: Incorporating each of the behavioral health integration models into PC/WH practices will affect service utilization patterns. The three behavioral health integration practices and their assumed impact on service utilization are as follows:

- *Depression/anxiety screening* will lead to an increase in utilization in screening procedure codes as well as a corresponding increase in pharmacy costs and utilization of outpatient therapy and counseling for patients who are referred to a behavioral health specialist.
- *SBIRT* will lead to an increase in utilization of screening and brief intervention procedure codes, and a corresponding increase in inpatient and outpatient substance abuse treatment utilization
- *Motivational Interviewing* is considered a practice change that is patient-centered and promotes positive behavioral changes to support better health. This technique could increase the average visit length as providers spend more time engaging with patients, but could decrease the frequency of future visits as patients better manage their health behaviors and improve outcomes.

In addition to affecting service utilization, the integration of behavioral health into PC/WH practices will require upfront investment by the State to cover administrative and other costs. Currently, funding sources and reimbursement arrangements are still to be determined:

- The SIM stakeholder groups are considering multiple PCP/WHP payment options—for example, a per member per month (PMPM) add-on payment for providers who participate in BHI to pay for the time spent attending training, consulting with psychiatrists and conducting motivational interviewing with patients. Additionally, P4P measures that would reward behavioral health process measures or certain outcomes are being considered to incentivize providers to participate in BHI.
- Cost estimates for the proposed CCTs and other practice supports, such as a provider consultation services, have yet to be made.
- Adjustments to Med-QUEST capitation payments made to MCOs to account for estimated changes in service utilization (increases for behavioral health services and decreases for other types of services), and any additional care coordination responsibilities to facilitate the integration of behavioral health services have not yet been discussed.

Estimated Decreases in Overall Medicaid Expenditures: The increase in behavioral health expenditures described above are expected to result in a decrease in physical health medical expenditures over time. Improving management of behavioral health conditions can lead to improvements in comorbid physical health outcomes and potentially a decrease in medical costs related to ER visits, avoidable hospitalizations, and treatment for chronic conditions. Just as the increase in behavioral health expenditures would be offset by reductions in other costs, we expect that the increase in psychotropic drug costs will be outweighed by the decrease in avoidable, higher cost services.

Evidence from literature supports the notion that behavioral health integration can lead to reduced overall health care expenditures. For example, the Intermountain Healthcare Mental Health Integration Program (MHI) in Utah found that MHI patients who received an initial

diagnosis of depression were 54 percent less likely to have an ED visit and had fewer claims for total primary care and psychiatry in the 12 months after their diagnosis.^{176,177} It is expected that similar outcomes, though perhaps less impactful due to the voluntary nature of the programs and potentially slow uptake of behavioral health integration, will occur in Hawai'i. Evaluation studies of the IMPACT model found that IMPACT patients had lower average net costs in every cost category – outpatient and inpatient mental health, surgical, and pharmacy – than patients receiving usual care.^{178,179} One site in southern California experienced a 14 percent decrease in total health care costs during the IMPACT study period.

Decreases in expenditures resulting from BHI will vary depending on several factors, including: the BHI participation rate by PCP/WHPs and the health status of the populations on which providers choose to focus. For example, the impact on expenditures is likely to be greater if providers choose to target patients with comorbid chronic conditions than if they choose to focus on children or otherwise healthy adults. While the initial prevalence of behavioral health conditions among the diverse populations of Hawai'i is an important factor in estimating potential savings, the key driving factor to the potential savings under integrated care will be the success of the BHI initiatives.

B. Return on Investment (ROI) Analysis Methodology [To be updated when ROI is completed]

The ROI analysis is ultimately an estimation of savings on future expenditures divided by costs associated with behavioral health integration. In order to project future expenditures and the potential savings associated with behavioral health integration one needs to focus on the following determinants of risk:

- **Program Design (How?):** Incorporation of BHI models into the PC/WH setting
- **Target Population (Who?):** Medicaid patients with mild to moderate behavioral health conditions
- **Benefits (What?):** BHI models

¹⁷⁶ Lindsay, M & Brown, P. Institute for Healthcare Improvement. (2008). 90-Day Project Final Summary Report: Integrating Primary Care and Behavioral Health Care.

¹⁷⁷ Reiss-Brennan, B., et al. Journal of Healthcare Management. (2010). Cost and quality impact of Intermountain's mental health integration program.

¹⁷⁸ The IMPACT model is a primary-care based collaborative care model for late-life depression. Research trials were held in 18 primary care clinics in five states over a four year period.

¹⁷⁹ Unützer, J., et al. American Journal of Managed Care. (2008). Long-term Cost Effects of Collaborative Care for Late-life Depression.

- **Service Delivery Network (Where?):** PC/WH settings and behavioral health specialist settings

In order to perform the cost/trend analysis portion of the ROI, Hawai'i's SIM actuary, Optumas will focus on projecting the future risk of the proposed BHI program described above. The Medicaid base data will be normalized and adjusted to account for incurred but not yet reported claims/encounters, any program changes or population changes the state of Hawai'i has experienced within the base data period or expects to implement before the start of the BHI program.

To estimate potential reductions in Med-QUEST expenditures resulting from the Hawai'i SIM BHI initiative, Optumas plans to separately analyze the non-dual Medicaid population into three groups to identify differences in utilization:

1. Med-QUEST members who are receiving treatment for depression, anxiety, or substance abuse conditions;
2. Members with these diagnoses but who are not receiving treatment; and
3. Members who have never been diagnosed with a behavioral health condition.

After establishing these groups, Optumas will further stratify the populations into standard cohorts based on eligibility type (e.g., TANF, ABD, etc.) and will use the claims/encounter data for each of these populations to quantify differences in utilization for members of each population. Optumas will analyze differences in utilization among major service categories, such as inpatient, ED, outpatient, pharmacy, PCP/WHP office visits, and behavioral health for each population. These utilization differences should provide key insight into determining the cost distribution. Optumas will use statewide depression and substance use statistics in addition to the claims data to determine the prevalence of behavioral health conditions in the State and estimate the potential savings and ROI associated with the BHI initiative.

Optumas will also examine the utilization data by race and geography (i.e., island) to identify any additional cost disparities that may be based on ethnicity or island. In an effort to comply with the Actuarial Standards of Practice (ASOPs), Optumas will review the volatility of the data and summarize the data into various cohorts when identifying costs associated with behavioral health conditions. Optumas will need to take into account the credibility of the cohort sizes that will be used in the modeling, if cohorts are too small then the utilization data will not be credible. If this occurs, Optumas will summarize the data in a different format to mitigate the credibility concerns. This approach will also help us to avoid making any individual or group identifiable from the analysis, for example, based on race or geography.

Additionally, Optumas will isolate historical and concurrent trends and project prospective trend after adjusting for changes in mix, reimbursement, and program design to achieve what is called secular trend. The analytic model will include varying assumptions to produce potential trend ranges that vary with a low, moderate, or aggressive impact of BHI within the PC/WH setting. Finally, non-medical loading or administrative costs will be included after developing the medical portion of the ranges.



The ROI analysis will compare the projected future program expenditures against the future intervention costs anticipated over a period of five years. The base data will be projected forward under two scenarios: the absence of BHI interventions and the presence of interventions.

C. ROI Results

Projected Costs

PLACEHOLDER UNTIL DATA ANALYSIS IS COMPLETE

Project Cost-Savings

PLACEHOLDER UNTIL DATA ANALYSIS IS COMPLETE

XIII. Operational Plan

Hawai'i's State Health System Innovation Plan (SHIP) will be implemented over the course of five years, and will build on what the State and SIM stakeholders have identified as goals and strategies during the course of this SIM Model Design process. Successful implementation will require the continued collaboration of stakeholders, the Governor's Office, DHS, and DOH, as well as commitment by the Hawai'i Legislature to finance some of the important innovations described in this report.

While Hawai'i's SIM plan focuses first on the Medicaid population, the State's long-term health care innovation plans stretch beyond Medicaid and the services that DOH and DHS administer to include innovations that can be universally adopted by providers and payers for all of patients, regardless of their insurance type. The State's goal is for all commercial health insurance payers in Hawai'i to one day support the SIM initiatives to optimize the innovations and benefit all Hawai'i residents.

Successful implementation of the SIM health innovations strategies will require many steps, including policy changes, investments in HIT and workforce infrastructure, procurement, and updates to existing state contracts, to name just a few. In order for the State to operationalize Hawai'i's SIM plans within five years, the following two major areas must be further detailed:

1. Behavioral Health Integration (BHI)

- Supports to implement BHI within Primary and Women's Health Care Practices
- Establishment of Community Care Teams (CCTs)
- Evaluation of the BHI

2. Implementation of the HIT Plan

The five-year plan for each area is described on the following pages. Results will depend on the continued commitment by the State, providers, payers, and other stakeholders to provide the supports that PCP/WHPs need in order to better identify and treat individuals with mild and moderate behavioral health conditions, improve access to behavioral health, and continue investments in HIT.

A. Implementation of Behavioral Health Integration within Primary Care and Women's Health

At the heart of the SHIP is the blueprint for integrating behavioral health within primary and women's health care settings. Through lengthy discussions with experts in Hawai'i, stakeholders, and consultants, we have finalized a flexible approach to using PCPs as a first line

to identify individuals with behavioral health needs that previously may have been unidentified because of a lack of knowledge on the part of PCPs about resources for referral or appropriate treatment. PCPs will use the Blueprint as a guide to the methods for identifying and treating behavioral health needs. The next challenge, prior to implementation, will be determining how to reimburse PCPs for this effort, securing PCP participation in this voluntary initiative, and developing training for participating providers.

Table 23: Primary Care and Women’s Health BHI Tasks

Tasks
1. Conduct assessment and gap analysis of behavioral health services provided in Hawai’i
2. Work with MCOs to explore PCPs reimbursement and incentives: <ul style="list-style-type: none"> a. If a PMPM payment is pursued, stakeholders will need to determine how the payments will be structured and conditions that must be met to receive the PMPM. For example, PMPM payments could be tiered based upon which evidence-based models providers adopt, which target populations they choose, and whether they achieve fidelity to evidence-based models. b. Determine which, if any, services will be reimbursed on a fee-for-service basis. c. Determine which measures will be used for Pay for Performance payments d. Determine if there are other reimbursement methodologies that should be considered.
3. Update MCO contracts <ul style="list-style-type: none"> a. Update plan performance metrics for BHI and include BHI data collection and reporting requirements b. Incorporate BHI requirements c. Include guidelines for monitoring participating PCPs to ensure BHI fidelity
4. Work with health plans and provider organizations to determine PCP champions/early adopters to begin implementation
5. Develop model for implementing a provider-to-provider consultation program and BHI training (conduct procurement if necessary)
6. Develop strategy and standards for training and ongoing support for participating PCPs and office staff (may require training vendor procurement) <ul style="list-style-type: none"> a. Develop a BHI toolbox of screening forms, practice guidelines, etc. b. Develop training materials c. Establish on-going forums for sharing information and ongoing learning collaboratives
7. Compare telehealth policies to best practices and determine if actions are needed to increase appropriate utilization of telehealth services

B. Establishment of Community Care Teams

The majority of the work to establish the CCTs will be upfront and occur during the first year. Many decisions will need to be made that define CCT:

- Core functions
- Geographic regions
- Staffing requirements
- Financing and reimbursement arrangements
- Oversight and data reporting requirements

The State will continue to convene stakeholders to solicit additional input on key CCT design decisions. Below are steps that need to occur prior to full implementation of the CCTs.

Table 24: CCT Establishment Tasks

Tasks
1. Determine set of CCT services <ol style="list-style-type: none">Determine roles and relationships among CCTs and Med-QUEST MCOs, AMHD, CAMHD, and the CCS programDevelop staffing requirements and qualifications
2. Conduct a needs assessment to determine optimal number of CCTs and locations, and the size of teams
3. Determine funding sources and CCT payment model <ol style="list-style-type: none">Develop cost estimate for start-up and ongoing implementation costsExamine current Med-QUEST MCO capitation rates to determine potential adjustments needed to pass funds through to CCTsExplore possibility of CCT funding from other local sources or providersIdentify available grant funding opportunities
4. Procure services and develop contracts with CCT organizations
5. Amend Med-QUEST MCO contracts to include requirements for coordinating or contracting with CCTs
6. Develop CCT services manual and protocols <ol style="list-style-type: none">Define services, caseload size, documentation requirements, and communication protocolsDevelop training requirements

Tasks
7. Coordinate with health information exchange to support CCT workflows and facilitate information sharing across providers and payers
8. Update Hawai'i administrative code, regulations, and Medicaid State Plan
9. Determine CCT data collection and reporting requirements

C. BHI Evaluation Plan

Measuring the success of BHI and evaluating its impact on the overall health of the population and health system costs will require a thoughtful approach to data gathering. As described in the Monitoring and Evaluation Plan earlier in this report, the next phase will require further discussion to determine which measures can and should be tracked and the process for reporting on the selected performance measures.

Table 25: BHI Evaluation Tasks

Tasks
1. Determine final set of evaluation measures <ul style="list-style-type: none"> a. Determine measures that MCOs will be required to submit to Med-QUEST b. Determine measures that will be collected outside of MCOs (e.g., via surveys or from CCTs)
2. Collect data to establish baseline metrics; determine five-year targets for selected measures
3. Update MCO and CCT contracts to reflect evaluation processes
4. Produce annual BHI dashboards

D. HIT Plan

PLACEHOLDER

E. Federal Funding Opportunities and Policy Levers

Hawai'i will continue to explore federal funding and technical assistance opportunities that support its Triple Aim +1 and BHI goals. One recent program managed by the Centers for Medicare and Medicaid Services (CMS) is the Medicaid Innovation Accelerator Program (IAP), whose goal is to improve health and health care for Medicaid beneficiaries through supporting states in their payment and service delivery restructuring.¹⁸⁰ Hawai'i hopes to participate in the following two IAP initiatives in order to learn best practices from other states and receive technical assistance and recommendations from CMS, for example, in the areas of data analytics, payment modeling, and quality measurement:

- **Physical and Mental Health Integration:** Provides support to states that are focused on integrating services for improving health outcomes for individuals with mental health conditions, with a focus on payment for improved outcomes, population health, and expansion of current integration efforts.¹⁸¹
- **Community Integration – Long-Term Services and Supports:** Supports states in Housing-Related Services and Partnerships, providing web-based learning to support housing tenancy for community-based LTSS Medicaid beneficiaries and an intensive and hand-on track designed to building collaborations with federal agencies to promote partnerships between state Medicaid agencies, state housing finance agencies, public housing agencies, and others.¹⁸²

Participation in IAP workshops and receipt of technical assistance would assist the State in developing a well-designed BHI program that will be well received by primary care providers.

Through participation in the IAP, Hawai'i will work with CMS to identify options to leverage Medicaid matching funds in support of BHI initiatives. For example, Hawai'i will explore options to use Medicaid matching funds to support certain aspects of the BHI initiative, such as developing provider trainings, bolstering graduate medical education, or financing provider-to-provider consultations. Hawai'i will also work with CMS to identify opportunities to leverage federal funds in support of housing for individuals with SMI. With affordable housing and other supports, many individuals with SMI are able to function successfully in the community. Hawai'i will work with CMS to explore additional ways in which Medicaid funds may be used to address the issue of unmet housing needs for this population.

¹⁸⁰ <http://www.medicaid.gov/state-resource-center/innovation-accelerator-program/innovation-accelerator-program.html>

¹⁸¹ <http://www.medicaid.gov/state-resource-center/innovation-accelerator-program/physical-and-mental-health-integration/physical-and-mental-health-integration.html>

¹⁸² <http://www.medicaid.gov/state-resource-center/innovation-accelerator-program/community-integration-ltss/ci-ltss.html>

Federal Grant Opportunities

Hawai'i is considering grant opportunities to supplement funding streams for the continued efforts of the BHI initiative. Recipients of these grants could include the DOH and community mental health centers, federally-qualified health centers, other nonprofit service providers, public and private universities and/or medical residency and other health professions-related programs. Hawai'i can use such grant opportunities to enhance integration efforts, build the health care workforce and effectively train providers to use evidence-based tools for BHI. Currently available federal grants through SAMHSA and HRSA include:

- **SBIRT State Cooperative Agreement:** SAMHSA grant to implement SBIRT statewide for adults in primary care and community health settings. This program is designed to expand and enhance the state's continuum of care for alcohol and substance use treatment services, reduce alcohol and other drug abuse rates, and promote the integration of behavioral health and primary care services through the use of HIT.¹⁸³
- **Grants to Expand Care Coordination Targeted Capacity Expansion (TCE) through the Use of Technology Assisted Care (TAC) in Targeted Areas of Need:** SAMHSA grant that funds the use of technology to enhance or expand the capacity of SUD treatment providers to serve youth and adults with SUDs who are underserved and/or have special needs.¹⁸⁴
- **Substance Abuse Prevention and Treatment Block Grant (SABG):** SAMHSA grant that targets SUD prevention and treatment for populations that include pregnant women and women with dependent children, IV drug users, tuberculosis services, early intervention for HIV/AIDS, and primary prevention services.¹⁸⁵
- **SBIRT Health Professions Student Training:** SAMHSA grant that supports the development and implementation of training programs to teach students in health professions the skills necessary to use SBIRT for patients who are at risk for SUDs. Health profession student eligibility includes physician assistants, dentists, psychologists, nurses, social workers, counselors, and medical students and residents.¹⁸⁶
- **Pilots to Improve Access and Continuity of Care for Patients in Opioid Treatment Programs (OPTs):** SAMHSA grant that will support implementation of HIT to provide improved continuity of care in the event of an emergency or other service disruption

¹⁸³ <http://www.samhsa.gov/sbirt/grantees>

¹⁸⁴ <http://www.samhsa.gov/grants/grant-announcements/ti-16-001>

¹⁸⁵ <http://www.samhsa.gov/grants/block-grants/sabg>

¹⁸⁶ <http://www.samhsa.gov/grants/grant-announcements/ti-16-002>

at an OPT. Eligible grantees include health information exchanges, opioid treatment providers, or state opioid treatment authorities.¹⁸⁷

- **Primary Care Training and Enhancement Program:** HRSA grant that strengthens the primary care workforce by supporting enhanced training for future primary clinicians, teachers, and researchers. The training must focus on transforming health care systems and enhancing the clinical training experience of trainees through emphasis on areas such as integrated delivery models, care coordination, patient engagement and experience, the use of HIT to improve quality, functioning at the top of license, population health, using data to drive health system processes, and addressing social determinants of health.¹⁸⁸
- **Oral Health Service Expansion:** HRSA grant that provides supplemental funding for existing Health Center Program award recipients to increase access to oral health care and improve oral health outcomes for patients.¹⁸⁹

HIT Policy Levers

To advance the effective use of HIT in support of BHI, Hawai'i can use 90/10 Medicaid matching funds for health information exchange, planning, data systems and analysis, and helping providers adopt EHRs. Policy levers that might be employed include leadership for coordination of HIT interoperability, payment, privacy/security and use policy, and alignment with federal interoperability and other policies. Additional levers could include requirements or incentives to use electronic claims and reporting by MCOs for Medicaid, development and use of standardized templates for behavioral health information exchange, and required use of EHRs and exchange by significant Medicaid providers such as FQHCs, rural health centers, and disproportionate share hospitals.

¹⁸⁷ <http://blog.samhsa.gov/2015/05/14/pilot-launched-for-opioid-treatment-program-service-continuity/#.VmixWk3fPs0>

¹⁸⁸ <http://www.grants.gov/web/grants/view-opportunity.html?oppId=279632>

¹⁸⁹ http://www.grants.gov/view-opportunity.html?oppId=280107&utm_medium=email&utm_source=govdelivery