Launched in March 2013, The Hawai‘i Healthcare Project is a public-private partnership between the Office of the Governor and Hawai‘i’s healthcare industry, including health plans, hospitals, providers and other stakeholders impacted by the healthcare system.

It aims to engage parties in identifying strategies that will result in a significant, positive change in how we deliver and pay for care; use information for continuous improvement; and shape public policy and programs to support these changes.

Using the resources made possible by a federal planning grant from the Center for Medicare and Medicaid Innovation Center, The Hawai‘i Healthcare Project convened more than a hundred stakeholders over a six-month period to design the healthcare transformation plan contained in these pages.

Beth Giesting (Office of the Governor) and Ginny Pressler, MD (Hawaii Pacific Health), serve as co-chairs of this endeavor, while Andrew Garrett (Hawaii Institute for Public Affairs) serves as project director.

hawaiihealthcareproject.org

Founded in 2001, the Hawaii Institute for Public Affairs (HIPA) is a nonprofit, nonpartisan and independent research and educational organization whose mission is to provide research, analysis and recommendations on public policy issues facing Hawai‘i. By creating an informed atmosphere for policymakers and community leaders, HIPA provides tools and opportunities to strengthen Hawai‘i’s decision-making process.

Past projects undertaken by HIPA in the healthcare arena include the Hawai‘i Uninsured Project, Hawaii Health Policy Task Force, Hawaii Long-Term Care Policy Summit and Blueprint for Rural Healthcare in Hawaii.

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EXECUTIVE SUMMARY

Hawai‘i is unique in many ways, from its geography to its diverse population to its place as a leader in progressive healthcare policies. While Hawai‘i can still boast superior health status compared to the rest of the states, ominous trends – increases in obesity, chronic diseases, and aging – have exacerbated long-standing structural challenges, requiring new ways of approaching health and healthcare. Hawai‘i’s impetus for healthcare transformation also comes from inconsistent quality ratings, rising costs, healthcare workforce shortages, and unrealized opportunities to utilize health information technology.

The overall goal of the healthcare transformation plan in Hawai‘i is to achieve the “Triple Aim” – better health, better healthcare, lower costs – plus the additional aim (“+1”) to address health disparities. Ultimately, this will build on Hawai‘i’s history of healthcare successes in order to improve healthcare delivery, lower costs, and generate even better population health indicators for everyone – including narrowing the gap in these indicators across disparate populations.

The Hawai‘i Healthcare Project (HHP), a public-private partnership between the Office of the Governor and healthcare industry stakeholders, oversaw the creation of this healthcare transformation plan with a planning grant from the federal Center for Medicare and Medicaid Innovation (innovation.cms.gov). Via a robust stakeholder engagement process, HHP has identified six essential catalysts to achieve meaningful, sustainable reform and improve population health, including:

- **Primary Care Practice Redesign**
  Ensuring that at least 80 percent of Hawai‘i’s residents are enrolled in a Patient-Centered Medical Home (PCMH) by 2017 and integrating behavioral healthcare into the primary care setting.

- **Care Coordination**
  Implementing programs for high-risk/high-need populations, including establishing Medicaid Medical Homes and Community Care Networks for high-risk Medicaid and commercial beneficiaries, and super-utilizer pilot programs.

- **Payment Reform**
  Transitioning all payers to value-based purchasing.

- **Health Information Technology**
  Improving connectivity and capability across the healthcare ecosystem and collecting and using data to support delivery and payment transformation.

- **Workforce Development**
  Expanding capacity for team-based care, addressing workforce shortages and improving cultural competency of providers.

- **Policy Strategies and Levers**
  Aligning state resources to drive policy change.

We would like to extend a sincere mahalo to the more than a hundred stakeholders who contributed countless hours to this massive planning effort. This roadmap would not have been possible without their unquestioned commitment to transforming our state’s healthcare system.

We encourage you to view this plan in its entirety at hawaiihealthcareproject.org.
The State of Hawai‘i’s vision for healthcare transformation is to ensure that residents of Hawai‘i have access to high quality care and insurance coverage in a seamless and economically sustainable healthcare system that embraces the following principles:

- A focus on the needs and preferences of patients and their families and encouragement of active participation in better health in a culturally relevant context.
- Ready access to primary care and information as provided by the most appropriate care provider by the most effective means.
- Service integration to ensure that excellent specialty and ancillary services are available.
- Care coordination to enhance the patient experience and increase timely care.
- Effective use of information systems to improve care, reduce errors, support payment reform, and continuously improve the healthcare system.
- Recognition of the many aspects that improve health beyond the scope of clinical services.

This includes:

**Better health**: Improve population health, focusing on the most prevalent and costly conditions (diabetes, end-stage renal disease, obesity, and heart disease).

**Better care**: Improve the patient experience, quality of care, and access to health insurance and healthcare services.

**Lower costs**: Lower costs per capita, focusing on populations with the highest risks and utilization patterns.

**Reduced health disparities**: Address “social determinants of health” and the ethnic and geographic differences in Hawai‘i that contribute to poor health.

Hawai‘i’s transformation plan seeks to incorporate the high-quality services provided by primary care and specialty providers in a system that is oriented to patient-centered care. As a result, the entire healthcare system will become more accessible and sustainable with improved population health measures and a lower cost of care, all while reducing waste, duplication, errors, and frustration for both patients and providers.

But that is not all: we recognize the connection between poor health and poverty, other social stresses, and environmental conditions. The aim to improve the costly healthcare system can succeed only by making common cause with a broad spectrum of policymakers to address the many aspects that improve community health. This ranges from education and economic opportunities, to physical fitness, nutrition, and psychological well-being.
Hawai‘i is comprised of eight islands (organized by five counties) with a total population of approximately 1.4 million. Nearly 70 percent of the population resides in the City and County of Honolulu.

Hawai‘i is the most racially and ethnically diverse state in the nation: 39 percent of the state’s population is Asian, 25 percent is Caucasian, 10 percent is Native Hawaiian or other Pacific Islander, 9 percent is of Hispanic/Latino origin, and 2 percent is African American/Black. Hawai‘i has a unique cultural environment resulting from the layering and blending of the practices, traditions, languages, and heritages of various cultural groups.
Over 10 percent of Hawai‘i’s residents (161,600 individuals) live below the federal poverty level, compared to a national average of 14.3 percent (US Census, 2011). However, in June 2013, the U.S. Commerce Department’s Bureau of Economic Analysis reported that Hawai‘i had the highest cost of living in the nation, causing economic strain for many Hawai‘i families.

Although Hawai‘i’s primary and secondary educational system has made tremendous strides, the state still suffers from a relatively low high school graduation rate. The four-year high school graduation rate is 75.4 percent (NCES 2009-2010).

Hawai‘i’s high housing costs often lead to more than one family living within the same dwelling and also contribute to a homelessness rate that doubles the national average (45/10,000 residents in Hawai‘i vs. 21/10,000 nationally). Hawai‘i is tied with Oregon for the second highest rate of homelessness.

Hawai‘i is experiencing a “silver tsunami” with a rapidly aging population. The population of residents over the age of 60 has increased 300 percent since statehood (1959). The percentage of the population over age 60 increased from 5 percent in 1960 to 15 percent in 2009, compared to 9 percent and 13 percent, respectively, for the nation during that time period.
Hawai‘i has a significant migrant population from Pacific Island nations, resulting from the 1986 Compact of Free Association (COFA). The federally negotiated COFA agreement allows citizens of Freely Associated States – which are the Federated States of Micronesia, the Republic of the Marshall Islands, and the Republic of Palau – to travel and migrate to the United States without visas or time limits. Hawai‘i’s courts have determined that the state must provide Medicaid benefits to COFA migrants if they meet eligibility requirements. In FY 2012, more than 13,000 migrants were provided state-funded Medicaid coverage.

Hawai‘i also boasts a high rate of health insurance coverage for its residents. This stems from the legacy of the plantation era when medical care was routinely provided for workers, followed by the rise of strong labor unions and a legislative mandate for employer-based insurance (The Prepaid Health Care Act, 1974). Before the state of Massachusetts’ transition to universal coverage, Hawai‘i held the lowest rate of uninsured in the country. It currently ranks second (after Massachusetts). However, like most of the rest of the country, health insurance premiums have risen in recent years, with an average increase of 10 percent each year for the past three years.
BACKGROUND: HEALTH STATUS

POSITIVE HEALTH INDICATORS

In part resulting from its high rates of insurance coverage, Hawai‘i enjoys superior health status, ranking as the healthiest state in 2013 according to America’s Health Rankings. Positive health indicators include:

- **Low Mortality Rate**

  \[
  \frac{584.8}{100,000}
  \]

  The lowest adjusted mortality rate of any state (584.8 deaths per 100,000).

- **Low Rate of Preventable Hospitalizations**

  \[
  32.2 \rightarrow 25.0
  \]

  The 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.

- **Low Uninsured Rates**

  \[
  16\% \text{ US.} \quad 8\% \text{ HI}
  \]

  One of the lowest uninsured rates for adults in children in the nation (8% uninsured, half the national average).

ALARMING HEALTH TRENDS

Even with a relatively healthy population on the whole, there remain alarming trends in rates of certain costly conditions and associated risk factors, oral health, disparities based on geographic and racial/ethnic characteristics, and healthcare costs. Some alarming trends include:

- **Increasing Obesity Rates**

  A 115 percent increase in the percentage of obese (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).

- **Increasing Diabetes Rates**

  A 159 percent increase in the prevalence of diabetes over the last two decades (from 3.2 percent in 1992 to 6.2 percent in 2002 to 8.3 percent in 2012).

- **Increasing Costs of Behavioral Health**

  Higher readmission and rehospitalization rates for those with behavioral health conditions.
One of the key aims of Hawai‘i’s healthcare transformation efforts is to improve population health metrics for the most prevalent and costly conditions, which are diabetes, end-stage renal disease, obesity, and heart disease. Improvements in these conditions align with the goals of the State Department of Health and the federal Healthy People 2020 program. To that end, measures are currently being collected from valid, stable data sources.

Native Hawaiians and Pacific Islanders

A closer look at the data reveals significant disparities related to geographic and racial/ethnic characteristics.

Hawai‘i’s better-than-average health status is not shared by Native Hawaiian and Pacific Islander populations, which experience significant health disparities as compared to other races, such as:

- The breast cancer death rate is five times higher.
- The colon cancer death rate is three times higher.
- The obesity rate is twice as high.
- The heart disease death rate is four times higher.
- The stroke death rate is three times higher.
- The suicide death rate is at least three times higher.

Kidney disease is particularly prevalent in Hawai‘i where, in 2013, 162,000 residents (1 in every 7 people) deal with this illness. Hawai‘i’s rate is 30 percent higher than the national average and Asians and Pacific Islanders are two to four times more likely to reach end stage kidney disease. Additionally, preventable readmission rates and ER visits are higher among Native Hawaiians and other Pacific Islanders than among other races/ethnicities. Nearly 1 in every 10 hospitalizations and Emergency Room (ER) visits is potentially preventable, costing Hawai‘i’s healthcare system as much as $350 million annually.

Substantial geographic disparities are also present. When compared to O‘ahu/Honolulu County, Hawai‘i County has a 15 percent greater heart disease death rate, a 5 percent greater stroke death rate, and a 50 percent greater suicide death rate. Additionally, among Hawai‘i’s counties, Kaua‘i County experiences markedly higher rates of preventable readmission rates and ER visits and Maui County, markedly lower.
The mix of payers in Hawai‘i provides a unique opportunity for significant savings to be realized by both the federal and state governments through healthcare transformation efforts.

The federal government accounts for 46 percent of covered lives through Medicare, the federal share of Medicaid coverage, and the large TriCare population in the state. Additionally, over a third (34 percent) of coverage is paid for in part by the state through the state share of Medicaid coverage and the Employer Union Healthcare Trust Fund (EUTF).

The Hawai‘i Medical Service Association (HMSA), an independent licensee of the Blue Cross and Blue Shield Association, is the state’s largest health plan. HMSA has approximately 60 percent of the state’s commercial market share. The state’s second largest health plan, Kaiser Foundation Health Plan, Inc., Kaiser Permanente, has approximately 25 percent of the market. Five other health plans, including two national health plans (UnitedHealthcare and Wellcare), constitute the remaining 15 percent of the market.

All of Hawai‘i’s hospitals are nonprofit entities with corporate headquarters in Hawai‘i. The largest systems include: The Queen’s Health Systems (with two hospitals on O‘ahu, one on the island of Moloka‘i, and two on the island of Hawai‘i), Hawai‘i Pacific Health (with three hospitals on O‘ahu and one on the island of Kaua‘i), and the public hospital system managed by the Hawai‘i Health Systems Corporation (with three acute care hospitals on the islands of Hawai‘i and Maui, and eight critical access hospitals on the islands of Hawai‘i, Maui, Lāna‘i, Kaua‘i, and O‘ahu).

Hawai‘i has a network of 14 community health centers on six islands that serve 10 percent of the population. Two rural health clinics also serve underserved areas. Each island has a Native Hawaiian Healthcare System, all of which provide outreach, transportation, and care coordination, and some of which provide dental and primary medical care.

Physician practices in Hawai‘i are largely small, independent practices. One estimate puts the range of independent physicians at between 40 percent and 50 percent of all physicians in the state. Up to 65 percent of Hawai‘i’s primary care providers are independently practicing primary care physicians. National trends indicate independent physicians are less likely to implement electronic health records and develop the practice work flow changes required to regain productivity after such a transition from paper records.
Hawai‘i faces a variety of healthcare challenges due to its non-contiguous nature, geographic isolation, and cultural diversity. Access limitations are exacerbated by the predominance of small, independent physician practices - a limited number of providers, and a largely inefficient and uncoordinated delivery system across the continuum of care.

Although Hawai‘i has a relatively high rate of electronic health record (EHR) adoption (54% of physicians versus 34% nationally), there are vast disparities in adoption between urban and rural areas, hospitals and office-based providers, and integrated and independent physicians. Further, handoffs from providers to specialists, particularly across health systems, are fragmented and not electronically seamless. Health policy in general, and public health policy in particular, suffers from significant data limitations. Claims data, while important, provides limited insight into “root causes” or socioeconomic determinants of health visible through combined analysis of clinical and public health data.
There are significant physician distribution issues across the state. Due to Hawai‘i’s unique geography as the only island state, there are areas of intense urban concentration (Honolulu and surrounding areas), while adjacent regions and the neighbor islands are federally designated as rural, underserved areas. Hawai‘i also faces a challenging demographic profile of existing doctors.

Workforce assessments indicate as much as 45 percent of practicing physicians will be at or past retirement age in the next 10 years. With the higher demands of an aging population and rising trends in chronic diseases, this means that the demand for healthcare will increasingly exceed the supply of providers.

Several other factors are also expected to contribute to physician shortages: patient-centered care and other delivery system changes demand that practices demonstrate “meaningful use” of electronic health records, adopt a new federally mandated coding system called ICD-10, and focus on quality metrics, outcomes, and care coordination. These pose a tremendous burden on Hawai‘i’s many independent practices of one or two physicians. Moreover, with the older-than-average age of Hawai‘i physicians, many may simply retire rather than take on the financial and time commitment to “reinvent” their practices for new standards.

There is also a shortage of non-physician health providers. There are few physician assistants (PAs) practicing in the state and no formal PA training programs (although exchange programs exist with schools on the mainland). There is also a dearth of advanced practice RNs, who have been extensively leveraged in other models to help fill the primary care physician shortage in group physician practices.
The overall priorities of Hawai’i’s healthcare transformation plan are to:

» Improve the quality of care and outcomes for everyone, especially those at risk of being diagnosed with chronic diseases and those currently diagnosed with chronic diseases and behavioral health conditions.

» Decrease fragmentation, waste, and complexity in how healthcare is delivered.

» Decrease preventable hospitalizations and avoidable emergency department use, in part by working on effective interventions for “super-utilizers” of these services.

» Integrate behavioral health services with primary care.

» Focus on health disparities so that more people enjoy good health.

Hawai’i’s aim to achieve the “Triple Aim + 1” is a function of the state’s unique history, geography, cultural milieu, and racial/ethnic composition. Indeed, we explicitly realize that although reforms to the healthcare delivery system are critical to achieve the “Triple Aim,” there must be an equally robust emphasis on the notion of promoting and cultivating health outside of traditional “clinical” settings.
We have identified six essential catalysts to successfully implement the “Triple Aim + 1” for Hawai’i.

**PRIMARY CARE PRACTICE REDESIGN**
Ensuring that at least 80 percent of Hawai’i’s residents are enrolled in a Patient-Centered Medical Home (PCMH) by 2017 and integrating behavioral healthcare into the primary care setting.

**HEALTH INFORMATION TECHNOLOGY**
Improving connectivity and capability across the healthcare ecosystem and collecting and using data to support delivery and payment transformation.

**CARE COORDINATION**
Implementing programs for high-risk/high-need populations, including establishing Medicaid Medical Homes and Community Care Networks for high-risk Medicaid and commercial beneficiaries and initiating super-utilizer pilot programs.

**WORKFORCE DEVELOPMENT**
Expanding capacity for team-based care, addressing workforce shortages and improving cultural competency of providers.

**PAYMENT REFORM**
Transitioning all payers to value-based purchasing.

**POLICY STRATEGIES AND LEVERS**
Aligning state resources to drive policy change.

This plan is expected to benefit the vast majority of the state’s overall population.

The goal of Primary Care Practice Redesign intends to reach 80 percent of total population, or approximately 1 million individuals. The State Plan Amendment to support Medicaid Health Homes and establishment of Care Coordination networks are projected to serve 30,000 individuals. The super-utilizer pilots are estimated to include approximately 1,000 clients total.
Many primary care providers (PCPs) in Hawai‘i have already been working towards PCMH transformation, embodying the core principles of PCMH and incorporating as many of the critical elements as possible into their practices.

Widespread provider buy-in for PCMH has been challenging for different reasons, including lack of robust payment, few resources to support practice transformation and provider indifference. Despite this, there is agreement that Hawai‘i’s primary care delivery can be improved through care coordination, team care, patient engagement and population management. The medical home will allow care to be better coordinated and will reduce the burden of patients having to navigate the complex healthcare system on their own.

A concerted effort to support smaller independent practices will be necessary to help providers and their practices to transition to this model. Hawai‘i will develop PCMH learning collaboratives and practice transformation facilitation teams to help providers accomplish practice redesign. The drive to transform practices into PCMHs requires significant investments of provider time, workforce and work flow changes, EHR implementation, attestation to “Meaningful Use,” connection to the health information exchange, support for care coordination, and emphasis on quality-based models. The payment environment is shifting over time in Hawai‘i to incentivize this provider change, and these tools will enhance the ability of independent providers in particular to adopt the new paradigm.
Hawaiʻi’s primary care delivery can be improved through care coordination, team care, patient engagement and population management.
Hawai‘i stakeholders recognize that behavioral health (BH) support in primary care is valuable and necessary. Not only will a greater focus on BH help primary care providers to better address mild to moderate behavioral health diagnoses, but it will also foster primary care capacity to address modifiable behaviors necessary to improve and manage many chronic diseases.

A first step to improving prompt, primary care-based BH services is to identify BH conditions at an early onset. The roadmap includes a plan to increase screening for depression, one of the most common primary BH conditions, in primary care practices and Federally Qualified Health Centers. Supports for building capacity for integrated primary care practice will include BH specialist-to-primary care provider consults via telehealth in order to help primary care providers gain skills and confidence in routine care for BH needs. Specialist-to-patient consults and follow-ups supported by telehealth will also be increased. Additional support will come from learning collaboratives and continuing education opportunities.

With provider shortages, long waitlists for specialists, and geographic barriers, the expansion of telehealth services within PCMH practices will significantly improve access to certain kinds of care. The use of telehealth is necessary not only for timely patient access to specialty care, but, more importantly, to support specialty consultation to primary care practices.

Telehealth is an ideal means of addressing patient needs. The state’s specialty care providers are predominantly located in the densely populated Honolulu area on O‘ahu. Access to them by neighbor island residents requires expensive commercial flights. Significant cost savings may be expected by reducing transportation costs and wait times for patients to obtain appropriate care.

Existing Hawai‘i telehealth use is very limited for a number of reasons including inadequate payment incentives and certain malpractice insurance issues. To address the barriers now hampering telehealth use, Hawai‘i will develop and refine liability and credentialing policies, contracts, reimbursement strategies, and service delivery models. This work will be a goal in developing telehealth centers of excellence.

The centers of excellence concept is focused on strengthening and advancing the local, regional and international initiatives and collaboration opportunities for telehealth. The centers of excellence will conduct, facilitate and support basic and applied research into telehealth policy, regulation, and technology systems and will share the knowledge through education, training, workshops and other program activities.
Recognizing that a significant portion of the population needs more support than can be provided through the traditional PCMH model, we are exploring the creation of special programs to meet distinct population needs.

These include the development of Medicaid Health Homes, Community Care Networks, pilot programs for “super-utilizers.”

1. **Develop Health Homes for Medicaid recipients.**

   A Health Home is a model of care for Medicaid recipients with specific chronic conditions. It provides robust, targeted services that complement the traditional care model and addresses the whole person. Medicaid recipients with an existing diagnosis of Severe and Persistent Mental Illness or Serious Mental Illness will qualify for the Health Home. Additionally, Medicaid recipients with at least two of the following conditions will also be eligible: Diabetes, Heart Disease, Obesity, Chronic Obstructive Pulmonary Disease, and Substance Abuse.

   Among other things, Medicaid Health Homes will provide comprehensive case management, care coordination, health promotion, and comprehensive transitional care.

   This model supports a robust Health Home team including a primary care provider, a health home coordinator, a nurse care manager, a behavioral health consultant and other ancillary supports such as community health workers and peer specialists. The model will not only provide chronic medical care and behavioral health needs, but will also address other supports and resources related to social determinants of health.

2. **Create Community Care Networks.**

   Community Care Networks (CCN) will be established to provide extra supports to patients and practices with needs not readily addressed by PCMHs. CCNs will be modeled after the Health Home, with similar population criteria, provider standards, aligned quality metrics, technology tools, and services, but they will target Employer-Union Trust Fund and commercial insurance patients.

   CCNs are a new and necessary model of care for Hawai‘i. Independently practicing primary care physicians (PCP) make up nearly 65 percent of Hawai‘i’s total primary care provider population. These small independent practices need greater support to provide optimal care for certain patients, but struggle to provide team-based care and integrated services. The practices are already occupied with basic business functions like billing and implementing EHRs and practice transformations. CCNs can support PCPs by providing an extended team that resides beyond the walls of the primary care practice.
Specific programs will be developed for patients who have frequent and costly encounters with the healthcare system and other agencies. Generally, services will include care coordination and care management, direct medical and behavioral healthcare, assistance with social needs, and self-management support. Three “super-utilizer” pilots will be developed: a Behavioral Health Pilot, a Community Paramedicine Pilot, and a Department of Public Safety Pilot.

The key to the super-utilizer model is careful post-institutional (hospital or jail) participant selection of “impactable populations” with individualized case management and handoffs to and from PCPs, clinics, or community health centers.

These services as envisioned would operate in a community coordination model to direct patients to appropriate care settings in the existing delivery systems and potentially avoid re-institutionalization.
The Behavioral Health Pilot will focus on patients with a history of high healthcare utilization and those who may also have other psychosocial risk factors, such as homelessness, mental illness, and substance abuse. Patients who are referred by providers, health plans and community agencies may also qualify for this pilot. Stakeholders believe that there is a tremendous opportunity to reduce costs and improve care for these patients, but previously, there have not been sufficient resources to creatively address the situation. This pilot will require intensive outreach, broad collaboration, and creative approaches to address needs that affect health, but are not traditional clinical services. Many stakeholders are motivated to tackle these challenges through the pilot effort.

The Community Paramedicine Pilot will focus on high users of emergency services in rural areas. Community paramedicine aims for the organized delivery of post-acute care services to patients who are heavy utilizers of hospital ER services and emergency services delivered by emergency medical technicians and paramedics. These added paramedicine services are to be based on community needs and integrated into the local healthcare system.

The Department of Public Safety (DPS) Pilot will focus on another specific, vulnerable population that often has difficulty connecting to primary care: individuals who have frequent interaction with the criminal justice system and who also have a mental health diagnosis or have a history of substance abuse as they are released from jail. The DPS pilot will focus on enrollment in public insurance, establishing and maintaining links to clinical care and prescriptions, and referrals to community-based intervention services.
The changing delivery system must be supported and financially incentivized by the state’s health insurers. Hawai‘i’s payers and providers have already begun moving toward a system integrated to produce good outcomes for patients with attention to quality and cost-effectiveness. Specifically, Hawai‘i has started by recognizing a common definition of PCMH, aligning select payment strategies that support its growth, and collecting data for a set of core quality metrics.

Ultimately, Hawai‘i seeks to transition all payers to value-based purchasing.

It is important that payment reform efforts address any unintended incentives to avoid patients with complex medical and social conditions. Specifically, state leaders are bringing payers together to achieve consensus on payment structures – including fee-for-service, pay for quality (P4Q), shared savings, and a per-member per-month (PMPM) structure. PCMH providers are required to manage patient registries, target patients that need preventive exams and services, develop quality improvement programs/plan for their practices, and more. A PMPM structure will provide monthly revenue to allow providers to invest in practice transformation.

All plans and payers have already agreed to adopt a core set of P4Q metrics. The areas identified for the core P4Q metrics include, at a minimum: one behavioral health measure, one child health measure, one chronic condition measure, and one primary prevention measure.

An important principle for payment reform is to reward providers who care for the most complex patients and recognize improvement in health status. State leaders are also looking to reduce wasted provider time related to unnecessary variation among insurers for common administrative procedures by standardizing and simplifying key administrative functions.
Towards these ends, components of payment reform include the following:

**Multi-Payer Payment Reforms**

- Medical homes will be compensated at a higher rate than non-medical homes by the state Medicaid program – including adjusted payments for treating more complex patients.

- Providers will be rewarded for incremental increases, even if they do not achieve benchmarks. This strategy will decrease “cherry picking” – that is, providers choosing to care only for healthier or more compliant patients – and ensure the new model does not negatively affect access for those that need the services the most.

- Providers will be rewarded if they have already achieved excellence.

- Providers will not be penalized for patient choice (e.g. parents who refuse to immunize their children) in order to prevent “cherry picking.”

- Payments will be risk-adjusted – another strategy to prevent “cherry picking” – and address any unintended incentives to avoid patients with complex medical and social conditions.

- The Employer-Union Health Benefits Trust Fund (EUTF) and Medicaid value-based purchasing requirements will be aligned.

**Multi-Payer Administrative Simplification**

- Forms, quality metrics, and other administrative requirements will be standardized across all payers, since these requirements often take valuable provider time away from patients and amount to extra cost to the practice. Payers have so far agreed on a standardized definition and aligned payment strategies for PCMH, and will be working with the state on core quality metrics and priorities for administrative simplification.

- The State will coordinate the identification of ongoing cost drivers and inform policy decisions regarding payment reforms through an all-payer claims database (as described in the next section) and state website with integrated cost, quality, and metrics information.
A key underpinning for healthcare transformation is the effective use of health information technology (HIT) tools. Care coordination, chronic disease management, and reduction in fragmentation and duplication require widespread use of electronic health records (EHRs) and health information exchange (HIE). HIT will play a key role in “connecting” healthcare provider to provider and provider to patient, allowing for quicker sharing of important, time-sensitive information. In addition, the state recognizes that collecting, analyzing, and putting to use data about services, quality, and costs is needed in order to continually improve our system’s performance. HIT will play a similar role in strengthening public health in the state by linking population data sets and public health registries (e.g. registries on tumors, childhood and other immunizations, kidney disease, etc.).

Within the state, there is increasing coordination of efforts between government and the private sector and growing policy alignment across state programs toward healthcare transformation goals. The state and industry are jointly funding the build-out of the Hawai‘i Health Information Exchange (HHIE) in alignment with provider needs and the policy goals of state health-related agencies. Across Hawai‘i, both local government and private industry recognize the need for information exchange in conjunction with the closely linked programmatic goals of PCMH and EHR Meaningful Use.
By 2017, Hawai‘i seeks to increase adoption of EHRs to 80 percent of its primary care providers and 70 percent of its specialists. This increase in adoption may be measured as 7 percent per year for primary care providers and 8 percent per year for specialists, over three years. We will build upon incentives already in place for the adoption of EHRs in clinical management, including federal EHR Meaningful Use payments for Medicaid and Medicare. To assist providers with implementing or upgrading their EHR systems, the plan includes practice facilitation and learning collaboratives.

An increase in EHR utilization is expected to lead to greater utilization of the state’s HIE. Indeed, two of the primary goals of HIT in the state are to increase the number of unique users utilizing HIE services by 8 percent annually and to increase the total volume of discrete information exchange messages sent via HIE services by 10 percent annually. The State-Designated Entity, Hawai‘i Health Information Exchange (HHIE), currently has 177 provider participants in the Phase I Direct Secure Messaging services, with a target of 250 physicians onboard by June 2014, representing 21 percent of the provider community. HHIE and their technology partners are currently working on Phase II services – a robust exchange platform incorporating physician query of patients’ community health records via record locator services, a master physician directory, a master patient index, and ADT feed-based alerts.

HHIE, private industry and the state are also continuing to work on the prerequisites to effective information sharing: data governance, setting standards, rules for collaboration, and strict adherence to privacy and security rules.

In many respects, healthcare transformation cannot take place without accurate and timely data on cost, quality and utilization. The State recently received a federal grant to start building the infrastructure to collect, analyze, and report key healthcare data in order to gain greater insight into outcome trends and variations across Hawai‘i.

Hawai‘i will focus on building the foundation that will accelerate health information sharing and improve interoperability, including:

- Convening stakeholders to ensure effective privacy, security and data governance.
- Increasing the uptake of EHRs through support for practice transformation.
- Defining standards for quality data metrics.
- Expanding and aligning interoperable IT infrastructure and using HIE for connectivity.
- Building the capacity to collect, analyze and use healthcare and cost information to support continuing improvement of the system.

### Develop an All-Payer Claims Database

In many respects, healthcare transformation cannot take place without accurate and timely data on cost, quality and utilization. The State recently received a federal grant to start building the infrastructure to collect, analyze, and report key healthcare data in order to gain greater insight into outcome trends and variations across Hawai‘i.
Hawai‘i faces significant shortages and distribution challenges in its healthcare workforce which impact access to care, the delivery of care, and ultimately health outcomes. Strategies to strengthen the healthcare workforce in Hawai‘i build on efforts already underway in the state. A strong healthcare workforce that is adequate in size, deployed effectively, and equipped with proper skills and training underpins all other transformation elements.

1. Support an inter-professional health sciences school at the University of Hawai‘i (UH).

The revamped health sciences campus will be a cooperative effort between the Schools of Medicine, Nursing, Pharmacy, and Social Work. The creation of the health sciences campus is responding to an important gap in the state’s healthcare workforce planning and training structure: the lack of an administrative body that researches, coordinates, and facilitates discussion of issues related to healthcare workforce development – a necessary element to long-term, coordinated planning for the state’s health workforce needs and policies. Notably, the school will also focus on providing “team training” opportunities for emerging practice models such as PCMH. The inter-professional healthcare workforce development center will also serve as a locus for a shared clinical curriculum and training opportunities across the health sciences.
PCMH Training at the School of Medicine
The UH John A. Burns School of Medicine (JABSOM) faculty practice has agreed to serve as a physician organization that certifies practices as having met the PCMH standards agreed to by major insurers in Hawai‘i. In addition, it is working towards implementing the PCMH model at all primary care teaching sites. Specifically, it will fully implement the NCQA criteria of a PCMH at primary care teaching sites in pediatrics, family medicine, and internal medicine. Each of these sites will be fully prepared to manage populations of patients, use EHRs and exchange information, participate in ACO models, and work within the transformed health system to be a valuable component of the system while training all new primary care residents in the new model.

APRN Primary Care Residency Program
Evidence shows that advanced practice nurse practitioners (APRNs, also referred to as nurse practitioners) can safely and efficiently deliver most primary care. The number of APRNs, and in particular, those with full prescriptive and care management authority, is increasing, bolstered by three schools in Hawai‘i – Hawai‘i Pacific University, UH Mānoa, and UH Hilo – that offer advanced practice nurse training for certification in adult-geriatric and family practice roles. They had a total of 159 students enrolled in fall 2013. The UH schools enroll students from all islands, with the majority being local residents who plan to stay in Hawai‘i for their careers. Taken together, this cadre is the state’s pipeline of primary care providers to provide care statewide. An important enhancement for this workforce is the planned development of a statewide primary care APRN residency. Such a structured graduate residency model will transition the new APRN from novice to skilled practitioner by providing advanced learning in managing chronic illnesses, infectious diseases, diagnostic procedures, school health, and practice administration. The APRN Primary Care Residency will be a 12-month program.

Community Health Worker Training
Community health workers (CHWs) may function in many capacities that support patient needs, notably serving as liaisons between health and social services and the communities they serve. An emerging body of evidence has suggested that CHWs are effective in improving linkages to needed services and the cultural competency of service delivery. There is currently a two-year CHW degree program at the UH Maui College. State leaders plan to expand the CHW curriculum to incorporate cultural awareness and ensure that the entire curriculum is culturally sensitive to better meet the diverse cultural landscape of the state. Legislation will be explored to create certification opportunities for CHWs.

ROADMAP
WORKFORCE DEVELOPMENT

2. Create training programs to support professions for new primary care models.
3. Expand capacity for team-based care

Many of the proposed activities will not only build a sustainable workforce development structure, but will also allow for the entire range of medical professionals to use their skills to extend the capacity of the whole system. PCMHs will utilize team-based care that employs providers who must be prepared to use their full range of skills. The team model provides mutual support and checks and balances supporting new and enhanced roles. In further support, UH JABSOM has committed to providing consultations to encourage primary care physicians to manage mild to moderate risk patients in their practice rather than sending them to specialists. Finally, increasing the number of APRNs and CHW graduates will increase the availability of needed primary care providers and community health advisors to address physician shortages.
Hawai‘i’s workforce challenges include both significant shortages and unequal distribution, which affect access to care and health outcomes.
1. Create a permanent healthcare transformation structure within state government.

The Office of the Governor is introducing legislation in 2014 to establish a permanent senior health policy advisor position in the Office of the Governor for ongoing healthcare transformation. The purpose of this position is to advise the administration on health policy and oversee program staff supporting policy-related activities within a state health planning and policy authority. This advisor would also provide overall leadership for healthcare transformation activities in the state, establishing standards, goals, targets and measures for healthcare improvement, coordinating health policy and purchasing across state agencies, and convening public-private partnerships for healthcare innovation and improvement. All of these activities will be centralized within this office.

2. Align EUTF and Medicaid requirements to support transformation.

Efforts will include working with EUTF to align purchasing policies with Medicaid, increase data analysis and data transmission capacity, and build internal tools for consumer health education. While previous and current contracts have placed EUTF solely as a plan administrator, upcoming RFPs and contracts will focus on value-based purchasing. Plans competing for the contracts will be asked to describe their total health management programs, approach to managing “super-utilizers,” and strategies and timelines for transitioning from fee-for-service to paying for quality and outcomes. Additionally, health plans will be required to submit data to the All-Payer Claims Database that is under development.

The state intends to use policy strategies and levers to ensure statewide, effective implementation and sustainability of reforms. These components effectively make all other elements possible.
Develop and pass additional legislation.

To support the plan, efforts will include working to pass “Health in All Policies” planning criteria in the state legislature by 2015. The “Health in All Policies” planning criteria would set public health criteria for the planning and approval of all housing developments in the state. When enacted, this would put Hawai‘i in an elite class of states with state-level comprehensive public health legislation.

Other legislative initiatives will include:

- Expanding rural family practice residency opportunities.
- Supporting creation of infrastructure for telehealth.
- Convening stakeholders to recommend strategies for risk adjustment related to reimbursement.
- Providing necessary state funds to support the Medicaid Health Home, restore basic dental services for adults enrolled in the Medicaid program, and fund further development of health information exchange.
We recognize that implementing the healthcare transformation plan will be a huge undertaking, one that will require the support and commitment of stakeholders from across the healthcare industry. We envision the following activities occurring over the next four years:

<table>
<thead>
<tr>
<th>SIX ESSENTIAL CATALYSTS</th>
<th>MILESTONES</th>
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<tbody>
<tr>
<td>PRIMARY CARE PRACTICE REDESIGN</td>
<td>Enroll 80% of Hawai‘i residents in PCMH</td>
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<td>Integrate behavioral health services within primary care setting</td>
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<td>Expand telehealth</td>
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<td>CARE COORDINATION FOR HIGH-RISK POPULATIONS</td>
<td>Develop Health Homes for Medicaid</td>
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<td>Create Community Care Networks</td>
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<td>Establish “super-utilizer” pilot programs</td>
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<td>PAYMENT REFORM</td>
<td>Align reimbursement strategies</td>
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<td>Align EUTF and Medicaid value-based purchasing</td>
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<td>Standardize forms and quality metrics across all payers</td>
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<tr>
<td>HEALTH INFORMATION TECHNOLOGY CONNECTIVITY AND CAPABILITY</td>
<td>Accelerate EHR adoption</td>
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<td>Increase HIE utilization</td>
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<td>Develop all-payer claims database</td>
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<tr>
<td>WORKFORCE DEVELOPMENT</td>
<td>Support an inter-professional health science school at UH</td>
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<td>Create training programs to support professions for new primary care models</td>
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<td>Expand capacity for team-based care</td>
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<tr>
<td>POLICY STRATEGIES AND LEVERS</td>
<td>Create a permanent transformation structure within state government</td>
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<td>Coordinate policy and purchasing across state agencies and convene public-private partnerships</td>
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### TIMELINE

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Hawai'i is a unique testing ground for innovative and comprehensive healthcare transformation efforts. Although the state enjoys some of the strongest population health indicators in the nation, room for improvement remains – particularly in areas like the incidence of costly chronic diseases, uneven access to certain kinds of care, preventable hospitalizations and ER visits, the rate of healthcare cost growth, and health disparities.

Hawai'i’s Healthcare Innovation Plan identifies six essential catalysts, which, combined, address our challenges and move us towards the ultimate ends of better health, better healthcare, lower costs, and reduced health disparities. The combination of these efforts will allow the state to improve population health, particularly among the most prevalent and costly conditions (diabetes, end-stage renal disease, obesity, and heart disease); improve patient access, satisfaction, and quality-of-care; generate cost-savings to patients, employers, and the state and federal governments; and improve the understanding of the drivers of the state's health disparities.

The implementation of this Healthcare Innovation Plan, however, will not be possible without legislative action, significant stakeholder engagement, and the use of existing policy levers. The state's efforts will build on the existing assets and opportunities for healthcare transformation to ensure statewide, multi-payer implementation of reforms that are effective and sustainable.

Over the next several years, Hawai'i will sustain the strong community and stakeholder engagement undertaken throughout the model design process and make targeted investments that will support the plan’s six essential catalysts. Implementation efforts will combine multi-payer collaboration with the extra supports needed to help already-strapped providers transition to new models of healthcare delivery, the foundational planning and infrastructure necessary for broad health information technology implementation and data collection and analysis, the expansion of successful programs that target special needs population, and enhanced consumer engagement efforts, among others.

Perhaps even more notable for the long-term, however, is that these efforts will provide the foundation necessary to build a learning health system in Hawai'i with the tools and capacity for continual learning and improvement throughout the state’s healthcare system. Together, this will generate important evidence for a multi-pronged transformation approach that includes the statewide, multi-payer implementation of innovative payment reforms combined with the extra supports providers may need to take the leap to practice transformation – including technical assistance, learning collaboratives, facilitation teams, and data infrastructure, among others.
Our deepest appreciation and thanks go to the members of the Hawai‘i Healthcare Project Steering Committee, whose ideas, efforts and oversight enabled the creation of this healthcare transformation roadmap for our state.

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Hawai‘i Health Information Exchange

Paula Yoshioka  
The Queen’s Health Systems

Marlene Zeug  
Department of Education

We would also like to acknowledge the following organizations for their partnership and invaluable contributions to this effort.

AARP  
Healthcare Association of Hawai‘i

AlohaCare  
Hilo Medical Center

APS Healthcare  
Hina Mauka

CHOW Project  
HMSA

Department of Human Services  
Ho‘ola Lahui Hawai‘i

Department of Commerce & Consumer Affairs  
I Ola Lāhui

Department of Education  
John A. Burns School of Medicine

Department of Health  
Kaiser Permanente

Department of Human Services  
Kalihi-Palama Health Center

Department of Labor and Industrial Relations  
Kapi‘olani Community College

Executive Office on Aging  
Ko‘olaua Health Center

Executive Office on Early Learning  
Maui County Office on Aging

Hawaii Academy of Physicians Assistants  
Maui Memorial Medical Center

Hawaii Dental Association  
Maui Oral Health Center

Hawaii Dental Hygienists’ Association  
Medical Home Works

Hawaii Dental Service  
Mental Health America

Hawaii Health Information Corporation  
National Kidney Foundation of Hawaii

Hawaii Health Information Exchange  
North Hawaii Outcomes Project

Hawaii Health Systems Corporation  
Office of Hawaiian Affairs

Hawaii Independent Physicians Association  
Office of Information Management and Technology

Hawaii Island Beacon Community  ‘Ohana Health Plan

Hawaii Medical Association  Papa Ola Lokahi

Hawaii Pacific Health  The Queen’s Health Systems

Hawaii Primary Care Association  UnitedHealthcare

Hawaii State Center for Nursing  University Health Alliance

Hawaii State Chiropractic Association  University of Hawai‘i at Mānoa School of Social Work

Medical Home Works  Waianae Coast Comprehensive Health Center

National Kidney Foundation of Hawaii  Waimānalo Health Center

North Hawaii Outcomes Project  Wilcox Memorial Hospital