DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services
7500 Security Boulevard, Mail Stop S2-25-26
Baltimore, Maryland 21244-1850

CMS
CENTERS FOR MEDICARE & MEDICAID SERVICES
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State Demonstrations Group

October 14, 2020

Judy Mohr Peterson
Med-QUEST Division Administrator
State of Hawai'i, Department of Human Services
601 Kanokila Blvd, Room 518
PO Box 700190
Kapolei, HI 96709-0190

Dear Dr. Mohr Peterson:

The Centers for Medicare & Medicaid Services (CMS) has approved the evaluation design for Hawai'i's section 1115 demonstration entitled, "Hawai'i QUEST Integration" (Project Number 11-W00001/9), and effective through July 31, 2024. We sincerely appreciate the state's commitment to a rigorous evaluation of your demonstration.

CMS has added the approved evaluation design to the demonstrations Special Terms and Conditions (STC) as Attachment C. A copy of the STCs, which includes the new attachment, is enclosed with this letter. In accordance with 42 CFR 431.424, the approved evaluation design may now be posted to the state's Medicaid website within thirty days. CMS will also post the approved evaluation design as a standalone document, separate from the STCs, on Medicaid.gov.

Please note that an interim evaluation report, consistent with the approved evaluation design, is due to CMS one year prior to the expiration of the demonstration, or at the time of the extension application if the state chooses to extend the demonstration. Likewise, a summative evaluation report, consistent with this approved design, is due to CMS within 18 months of the end of the demonstration period.

We look forward to our continued partnership with you and your staff on the Hawai'i QUEST Integration section 1115 demonstration. If you have any questions, please contact your CMS project officer, Mr. Michael Trieger. Mr. Trieger may be reached by email at Michael.Trieger1@cms.hhs.gov.

Sincerely,

Danielle Daly -S
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Date: 2020.10.14 09:29:35 -04'00'

Danielle Daly
Director
Division of Demonstration
Monitoring and Evaluation

Angela D. Garner -S
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Date: 2020.10.14 13:55:58 -04'00'

Angela D. Garner
Director
Division of System Reform
Demonstrations

cc: Brian Zolynas, State Monitoring Lead, CMS Medicaid and CHIP Operations Group

Hawai‘i QUEST Integration Section 1115 Waiver Demonstration Proposed Evaluation Design

State of Hawai‘i, Department of Human Services, Med-QUEST Division

September 23, 2020

Table of Contents

I. General Background Information

The State of Hawaiʻi, Department of Human Services (DHS), Med-QUEST Division (MQD) is Hawaii's Medicaid agency. MQD first implemented QUEST on August 1, 1994. QUEST was a statewide Section 1115 Demonstration project that initially provided medical, dental, and behavioral health services through a competitive managed care delivery system.

Since its implementation, CMS has renewed the QUEST Demonstration five times. CMS approved Hawaii's most recent request to extend the Section 1115 Demonstration project titled "Hawaiʻi QUEST Integration" ("Demonstration") (Project No. I l-W-00001/9) in July 2019, with an effective date of August 1, 2019 running through July 31, 2024.

The current Demonstration continues to use capitated managed care as a delivery system. QUEST Integration provides Medicaid State Plan benefits and additional benefits (including home and community-based long-term-services and supports) to beneficiaries eligible under the state plan and to the Demonstration populations. In addition to the QI health plans, a separate behavioral health organization (BHO) provides beneficiaries with a diagnosis of Serious Mental Illness (SMI) or Serious and Persistent Mental Illness (SPMI) with specialized and non-specialized behavioral health services.

MQD is using this Demonstration as a vehicle to implement the Hawaiʻi ʻOhana Nui Project Expansion (HOPE) Initiative, an effort to empower Hawaii's residents to improve and sustain wellbeing by developing, promoting and administering innovative and high-quality healthcare programs with aloha. The following principles guide the HOPE Initiative as well as the provision of services under the Demonstration:

- Assuring continued access to health insurance and health care;
- Emphasizing whole person and whole family care over their life course;
- Addressing the social determinants of health;
- Emphasizing health promotion, prevention and primary care;
- Emphasizing investing in system-wide changes; and
- Leveraging and supporting community initiatives.

These principles are implemented through four focused strategies under the HOPE Initiative that are largely the same or related to the objectives under the Demonstration. Those strategies include:

- Investing in primary care, prevention, and health promotion;
- Improving outcomes for high-need, high-cost individuals;
- Supporting payment reform and alignment; and
- Supporting community driven initiatives to improve population health.

The HOPE Initiative serves as both the foundation and a primary organizing principle for the Demonstration and our evaluation of it. For example, our focus on primary care and social determinants of health is inspired by HOPE and will be effectuated through the managed care authorities in the Demonstration. The principles and strategies outlined in HOPE have been chosen by building on the successes of previous reform efforts and leveraging community initiatives and resources, while also keeping a strong focus on maximizing return on investment, and ensuring broad community support beyond Medicaid. More information on the HOPE Initiative can be found in Attachment A.

The evaluation will encompass all populations described in the Special Terms & Conditions.

Demonstration Benefits and Features

The prior Demonstration provided expenditure authority for additional benefits such as Home and Community Based Services (HCBS) for individuals at risk of deteriorating to an institutional level of care that are continued into this new Demonstration term. In addition, the Demonstration expanded one of the benefits initially approved in the previous demonstration, Community Integration Service (CIS), to add a Community Transition Services (CTS) pilot program.

A brief summary of the additional benefits carried over from the prior Demonstration is found below, followed by a more detailed description of key benefits provided by the managed care program, including LTSS, Behavioral Health Services, and CIS/CTS services.

HCBS: HCBS are offered to both individuals who meet an institutional level of care as well as individuals at risk of deteriorating to an institutional level of care. These HCBS benefits include the following:

Service	**Available for individuals who are assessed to be "at risk" of deteriorating to institutional level of care**	**Available for individuals who meet institutional level of care**
Adult day care	X	X
Adult day health	X	X
Assisted living facility		X
Community care foster family homes		X
Counseling and training		X
Environmental accessibility adaptations		X
Home delivered meals	X	X
Home maintenance		X
Moving assistance		X
Non-medical transportation		X
Personal assistance	X	X
Personal emergency response system	X	X
Residential care		X
Respite care		X
Private duty nursing	X	X
Specialized case management		X
Specialized medical equipment and supplies		X

Hawaiʻi also continues to include in the QI benefit package the following benefits, subject to clinical criteria and medical necessity:

- **Specialized Behavioral Health Services:** The services listed below are available for individuals with serious mental illness (SMI), serious and persistent mental illness (SPMI), or requiring support for emotional and behavioral development (SEBD).
    - Supportive Employment.
    - Financial management services.
- **Cognitive Rehabilitation Services:** Services provided to cognitively impaired individuals to assess and treat communication skills, cognitive and behavioral ability and skills related to performing activities of daily living.

- **Habilitation Services:** Services to develop or improve a skill or function not maximally learned or acquired by an individual due to a disabling condition.
- **Community Integration Services (CIS):** Pre-tenancy supports and tenancy sustaining services.
- **Community Transition Services (CTS) Pilot:** Transitional case management services, housing quality and safety improvement services, legal assistance services, and securing house payments for individuals meeting criteria for CIS.

Long-Term Services and Supports

MQD provides long term services and supports (LTSS) in the Demonstration by allowing beneficiaries who meet an institutional level of care to choose between institutional services or HCBS. Access to both institutional and HCBS LTSS is based on a functional level of care (LOC) assessment to be performed by the health plans or those with delegated authority. Each beneficiary who has a disability, or who requests or receives LTSS, receives a functional assessment at least every twelve months, or more frequently when there has been a significant change in the beneficiary's condition or circumstances. In addition, each member who requests a functional assessment receives one.

Behavioral Health Services

The Demonstration offers a full array of standard state plan behavioral health services through managed care. It also offers additional, specialized state plan and Demonstration behavioral health services as described in an earlier section.

MQD provides standard behavioral health services to all beneficiaries, and specialized behavioral health services to beneficiaries with serious mental illness (SMI), serious and persistent mental illness (SPMI), or requiring support for emotional and behavioral development (SEBD). All beneficiaries have access to standard behavioral health services through QI health plans.

Beneficiaries with SMI, SPMI, or SEBD may need specialized behavioral health services. For children (individuals <21), the SEBD services are provided through the Department of Health (DOH) Child and Adolescent Mental Health Division (CAMHD); for adults (individuals >21) the SMI/SPMI services are provided through the MQD's behavioral health program Community Care Services (CCS). The available specialized services include:

- For children: multidimensional treatment foster care, family therapy, functional family therapy, parent skills training, intensive home and community-based intervention, community-based residential programs, and hospital-based residential programs, and
- For adults: intensive case management, partial hospitalization or intensive outpatient hospitalization, psychosocial rehabilitation/clubhouse, therapeutic living supports or specialized residential treatment centers, supportive housing, representative payee, supportive employment, peer specialist and behavioral health outpatient services.

Community Integration Services, including the Community Transition Services Pilot Program

Community Integration Services (CIS) (including the provisions of the Community Transition Services (CTS) pilot program) refers to a set of benefits available to individuals who meet a health needs-based criteria, and additionally are homeless or at risk for homelessness.

CIS benefits include services:

- Pre-Tenancy Supports
- Tenancy Sustaining Services
- Transitional Case Management Services
- Housing Quality and Safety Improvement Service
- Legal Assistance
- Securing House Payments

II. Demonstration Objectives and Evaluation Hypotheses

Demonstration Objectives

MQD consolidated and updated previous demonstration objectives in order to align past efforts with future goals as framed within the HOPE Initiative. Through this process, the following objectives for the current extension of the Demonstration were proposed:

1. Improve health outcomes for Medicaid beneficiaries covered under the Demonstration;
2. Maintain a managed care delivery system that leads to more appropriate utilization of the health care system and a slower rate of expenditure growth; and
3. Support strategies and interventions targeting the social determinants of health.

Demonstration Evaluation Hypotheses

MQD worked extensively with internal and external stakeholders to develop a comprehensive plan for measurement and evaluation of the Demonstration as part of the MQD HOPE Initiative. To assess the effectiveness of the Demonstration in meeting its objectives, the evaluation will document the overall impact of the Demonstration on Hawaii's Medicaid delivery system while simultaneously providing a more in-depth examination of four priority areas: (1) Primary Care, (2) Social Determinants of Health, (3) Home and Community Based Services, and (4) Community Integration Services (including Community Transition Services). The first two priorities evaluate key HOPE strategic areas. The last two priorities evaluate key authorities and services authorized by the current Demonstration. In addition, as requested in the Demonstration Special Terms and Conditions, a fifth in-depth analysis will focus on measuring progress in an area identified as needing improvement during the previous demonstration period, childhood immunization status.

All evaluations of the current Demonstration will be aligned with the evaluation hypotheses noted in the Demonstration application.

Demonstration Objectives	Demonstration Hypotheses
1. Improve health outcomes for Medicaid beneficiaries covered under the Demonstration	H1.1: Increasing utilization for primary care, preventive services, and health promotion will reduce prevalence of risk factors for chronic illnesses and lower the total cost of care for targeted beneficiaries.
	H1.2: Improving care coordination (e.g. by establishing team-based care and greater integration of behavioral and physical health) will improve health outcomes and lower the total cost of care for beneficiaries with complex conditions (i.e. high-needs, high-cost individuals).

2. Maintain a managed care delivery system that leads to more appropriate utilization of the health care system and a slower rate of expenditure growth	H2: Implementing alternative payment methodologies (APM) at the provider level and value-based purchasing (VBP) reimbursement methodologies at the MCO level will increase appropriate utilization of the health care system, which in turn will reduce preventable healthcare costs.
3. Support strategies and interventions targeting the social determinants of health	H3: Providing community integration services and similar initiatives for vulnerable and at-risk adults and families will result in better health outcomes and lower hospital utilization.
4. *(Supplemental Evaluation Objective)* Improve data quality for immunization-related performance measures	

The evaluation of the overall impact of the Demonstration on Hawaii's Medicaid delivery system will be based on an assessment of post-Demonstration changes in statewide performance levels, relative to pre-Demonstration baseline performance levels, across the following measurement domains:

- Access to primary care, prevention, and health promotion
- Outcomes of beneficiaries with complex needs
- Improved health outcomes across the board
- Reduction in use of costly institutional care
- Access to adequate and appropriate care
- Overall Medicaid expenditures on a per beneficiary per month basis

The in-depth evaluation of high priority project areas will center on assessments of the following aspects:

- Mechanisms to improve primary care with the intent of lowering the total cost of care
- Impacts on health and costs of providing integrated community services and housing assistance to homeless Medicaid recipients
- Differential impacts of home and community-based services (HCBS) on the health and cost of care among individuals receiving HCBS who (a) meet nursing facility level of care, or are (b) "at-risk" beneficiaries
- Potential impacts of addressing social determinants of health on self-reported health outcomes such as satisfaction with one's health and with the quality of care
- Improvement in childhood immunization data quality

The table below summarizes key evaluation projects to support each demonstration objective. Project-level details for each hypothesis, including information on specific target populations, research questions, data strategy, sources and collection frequency, measures, statistical framework and subgroup analyses (if any) are described in detail in **Section IV: Project-Level Detail**.

All research questions and hypotheses promote the objectives of Title XIX by assessing whether providing high quality, accessible services to individuals with low incomes improves their health outcomes during the Demonstration. In addition, these hypotheses are collectively serve the Triple Aim of better health, better care and sustainable costs – the primary focus of the Demonstration renewal, as well as a core tenet of the HOPE Initiative.

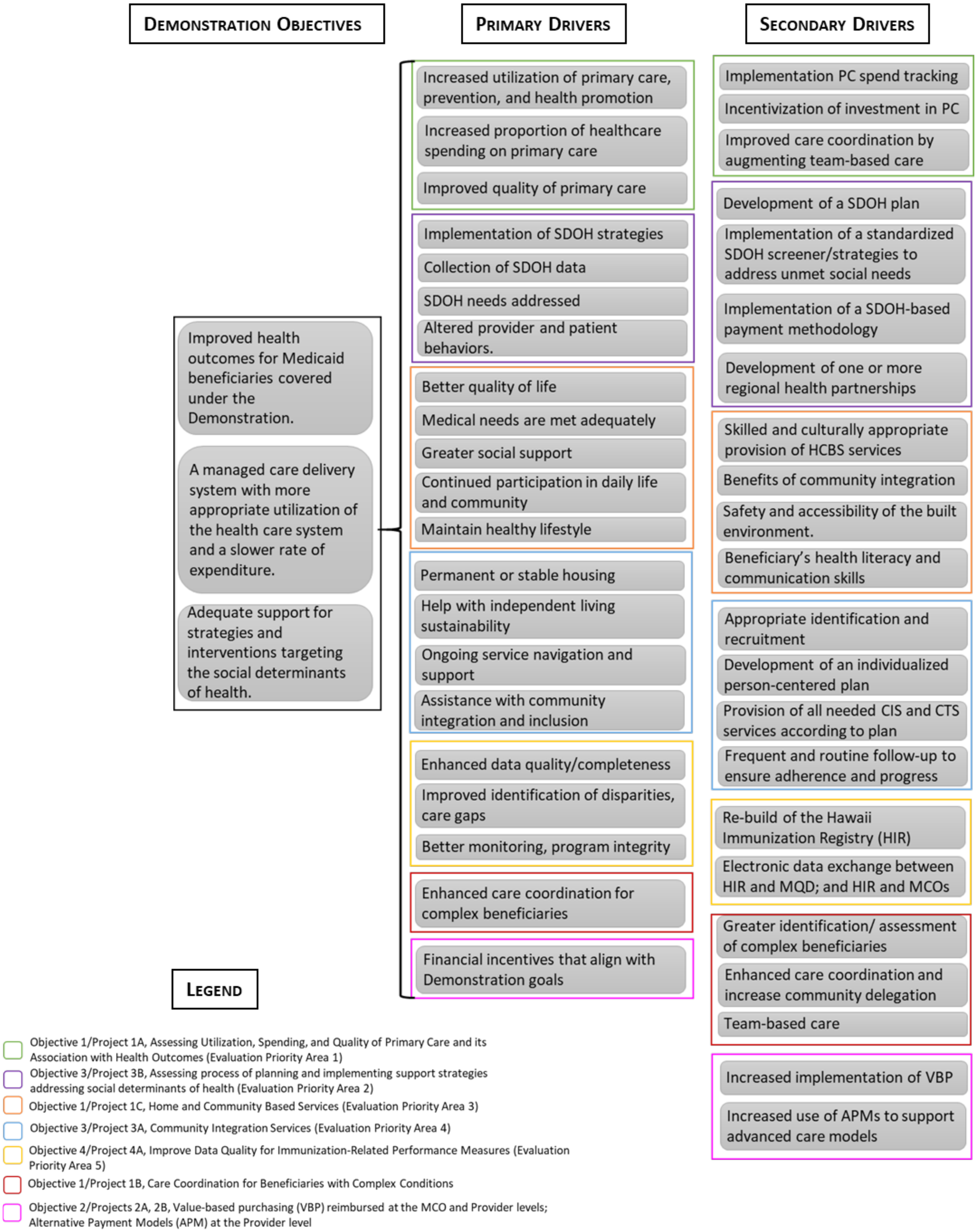
Demonstration Objectives	Demonstration Hypotheses	Key Evaluation Projects
1. Improve health outcomes for Medicaid beneficiaries covered under the Demonstration	H1.1: Increasing utilization for primary care, preventive services, and health promotion will reduce prevalence of risk factors for chronic illnesses and lower the total cost of care for targeted beneficiaries.	Project 1A: Assessing Utilization, Spending, and Quality of Primary Care and its Association with Health Outcomes
	H1.2: Improving care coordination (e.g. by establishing team-based care and greater integration of behavioral and physical health) will improve health outcomes and lower the total cost of care for beneficiaries with complex conditions (i.e. high-needs, high-cost individuals).	Project 1B: Care Coordination for Beneficiaries with Complex Conditions
		Project 1C: Home- and Community-Based Services (HCBS)
2. Maintain a managed care delivery system that leads to more appropriate utilization of the health care system and a slower rate of expenditure growth	H2: Implementing alternative payment methodologies (APM) at the provider level and value-based purchasing (VBP) reimbursement methodologies at the MCO level will increase appropriate utilization of the health care system, which in turn will reduce preventable healthcare costs.	Project 2A: Value-based purchasing (VBP) reimbursed at the MCO and Provider levels
		Project 2B: Alternative Payment Models (APM) at the Provider level
3. Support strategies and interventions targeting the social determinants of health	H3: Providing community integration services and similar initiatives for vulnerable and at-risk adults and families will result in better health outcomes and lower hospital utilization.	Project 3A: Community Integration Services (CIS)
		Project 3B: Assessing process of planning and implementing support strategies addressing social determinants of health
4. *(Supplemental Evaluation Objective)* Improve data quality for immunization-related performance measures		Project 4A: Improve Data Quality for Immunization-Related Performance Measures

A table providing a comprehensive crosswalk of Demonstration Objectives, Demonstration Hypotheses, Projects, and Research Questions is included in **Appendix 1.**

Demonstration Driver Diagram

The Demonstration driver diagram, emphasizing the five priority areas of evaluation, is provided below. Each priority area is described in detail subsequently.

DEMONSTRATION DRIVER DIAGRAM



🟩 Objective 1/Project 1A, Assessing Utilization, Spending, and Quality of Primary Care and its Association with Health Outcomes (Evaluation Priority Area 1)

🟪 Objective 3/Project 3B, Assessing process of planning and implementing support strategies addressing social determinants of health (Evaluation Priority Area 2)

🟧 Objective 1/Project 1C, Home and Community Based Services (Evaluation Priority Area 3)

🟦 Objective 3/Project 3A, Community Integration Services (Evaluation Priority Area 4)

🟨 Objective 4/Project 4A, Improve Data Quality for Immunization-Related Performance Measures (Evaluation Priority Area 5)

🟥 Objective 1/Project 1B, Care Coordination for Beneficiaries with Complex Conditions

☐ Objective 2/Projects 2A, 2B, Value-based purchasing (VBP) reimbursed at the MCO and Provider levels; Alternative Payment Models (APM) at the Provider level

Evaluation Priority Area 1: Primary Care

Evaluation Priority Area 1 is closely tied to the HOPE Initiative, as well as one of MQD's Demonstration objectives – the promotion of appropriate utilization of the health care delivery system. Specifically, the evaluation will focus on the impact of the "Advancing Primary Care Initiative" to support this strategy and achieve the overall goals of the Demonstration. To reach the broad goal of improved health outcomes of Demonstration populations, the Advancing Primary Care Initiative has specific aims of increasing utilization for primary care, preventive services, and health promotion, increasing the proportion of health care spending on primary care, and improving the quality of primary care and outpatient services.

To achieve these aims, MQD proposes to conduct at least three key activities: (1) track primary care spending across three definitions, (2) incentivize investment in primary care, e.g. through performance incentive payments as well as value-based purchasing, and (3) improving care coordination through supporting and augmenting team-based care in patient-centered medical homes, community health centers, clinically integrated health systems, and other entities.

It is hypothesized that these activities will increase utilization of, spending for, and quality of primary care services, preventive services, and health promotion services, which in turn will improve measures of relevant health outcomes. This will be tested by tracking specific measures related to utilization, spending, and quality of primary care for Demonstration populations, using progressively broad definitions of primary care chosen based on consultation with MQD and stakeholder feedback. Selected health outcome indicators will also be collected and assessed for meaningful associations with primary care utilization, spend, and quality.

Evaluation Priority Area 2: Social Determinants of Health

Evaluation Priority Area 2 is closely tied to the HOPE Initiative, as well as our Demonstration objectives. Specifically, the evaluation will focus on the impact of a key initiative to support this strategy, the development and implementation of the state's Social Determinants of Health (SDOH) Transformation Plan. The SDOH Transformation Plan seeks to first develop a strategic plan by DHS, in collaboration with its managed care health plans, on strategies to assess and address SDOH. Then, managed care plans are expected to utilize the statewide transformation plan to, in turn, lead the implementation of strategies that shape, collect, and use SDOH data for analytics, delivery of care, payment methodologies, and providing social supports and needs. These efforts are expected to achieve the broader goals of statewide collaboration, and support the development of Regional Health Partnership (RHP) pilots in interested communities that support innovative strategies to improve care delivery and enhance SDOH efforts within their communities.

The evaluation of the SDOH priority area will focus on assessing effectiveness of (1) MQD's development of a SDOH transformation plan and the operationalization of this plan at the health plan level; (2) MQD's development of a standardized screener to collect SDOH data on beneficiaries and implement strategies to address unmet social needs; (3) MQD's implementation of a payment methodology that incorporates SDOH, its implications on rebalancing/shifting of funding, and its implications for communities/MCOs; and (4) Development of regional health partnerships, and where applicable and feasible, evaluation of impact.

Evaluation Priority Area 3: Home and Community Based Services

With the current Demonstration approval, Hawaii's 1115 HCBS will provide assurances of compliances with CMS standards for HCBS settings as articulated in current section 1915(c) and 1915(i) policy and as modified by subsequent regulatory changes. As noted earlier, MQD provides HCBS services via the Demonstration to two populations: (1) individuals who meet an institutional level of care requirement and (2) individuals who are assessed to be “at risk” of deteriorating to the institutional level of care. MQD’s goal for beneficiaries meeting criteria for LTSS is to promote independence of LTSS beneficiaries, to the extent feasible and in alignment with the beneficiary’s choice, through the utilization of HCBS. Further, the at risk population have access to a subset of HCBS e.g., specialized case management, home maintenance, personal assistance, adult day health, respite care, and adult day care, among others. The at risk population is defined as Medicaid beneficiaries who do not meet criteria for nursing facility level of care (NF LOC), but who are assessed to be at risk of deteriorating to the institutional level of care.

To evaluate the effectiveness of HCBS in meeting its goal of improving health and reducing costs, Evaluation Priority Area 3 will (1) compare the population receiving HCBS services that meet criteria for NF LOC with the population receiving institutional care; (2) investigate subgroup differences in health outcomes and total cost of care among HCBS users who meet the criteria for NF LOC; and (3) investigate subgroup differences in health outcomes and total cost of care among the at risk population. Such knowledge is of significance because it lays the foundation for policy efforts to promote independence, community integration/re-integration of LTSS beneficiaries, and re-balancing of LTSS services towards HCBS to the extent feasible.

Evaluation Priority Area 4: Community Integration Services and Community Transition Services

Hawaiʻi has one of the highest homeless rates in the nation. These individuals are frequent patients in the emergency department and require inpatient stays and continued care upon release. Studies have shown that members of the chronically homeless population’s high use of hospital facilities and emergency rooms account for most of this population’s disproportionately high annual health care costs. The CIS benefit includes supportive services related to housing and to health conditions, e.g., mental health needs, substance use disorder, or complex physical health needs (Kushel et al., 2005). CIS aims to decrease utilization of acute services (emergency and inpatient utilization), increase engagement in outpatient care services, and decrease the total cost of care.

The goals of Community Integration Services (CIS) are to (1) improve the health care status of the beneficiaries; (2) minimize administrative burden by streamlining access to care for enrollees with changing health status; (3) garner a slower rate of expenditure growth in managed care; and (4) promote independence and choice among beneficiaries to ensure appropriate utilization of the health care system.

To assess the obtainment of these goals, our evaluation will monitor both program process and outcomes/impacts associated with participating in the CIS program. For the process evaluation, the evaluation team will monitor program implementation and assess fidelity, providing regular feedback to the program providers, and recommend adaptions when warranted. This will include Root Cause Analysis (when appropriate) with MCOs and community partners. Fidelity monitoring tools will be established as details of the program activities are developed. To support the required rapid cycle assessments, the evaluation team will participate in quarterly meetings held by MQD, expected to include stakeholders such as MCOs, hospitals engaged in homelessness initiatives, and homeless service providers. Routine stakeholder collaboration will be mutually beneficial, allowing the evaluation team to receive consultation and feedback, while also providing stakeholders analytic support to evaluate the progress of implementation and process improvement initiatives. The outcomes evaluation will assess the effectiveness of the program by examining provider-level and participant-level outcomes (e.g., physical/mental health, health care utilization).

Supplemental Evaluation Objective (Evaluation Priority Area 5): Improve Data Quality for Immunization-Related Performance Measures

Improving the overall health of children by boosting immunization rates is a goal of both the Department of Human Services (the department that houses MQD) and the State of Hawaiʻi as a whole. To help achieve this goal, MQD recently entered into a collaborative partnership with the Hawaiʻi State Department of Health's Immunization Branch (housed within the Disease Outbreak Control Division) to design, develop, and implement a new immunization information system (IIS), Hawaiʻi Immunization Registry (HIR).

Although an older IIS was previously in use in the state of Hawaiʻi, that IIS has been non-operational since August 2018. As a result, MQD, MCOs, and Medicaid providers have been unable to obtain information on childhood immunization status that is necessary to support pay-for-performance clinical quality measures used to determine value-based reimbursement. Historically, MQD plans have been incentivized to promote immunization among Medicaid beneficiaries and relied on the HIR for clinical quality measure values.

Although the previous HIR allowed for basic clinical quality measure reporting, MCOs and Medicaid providers had requested modifications and upgrades be built into any future HIR in order to improve the ease of HIR querying and other functions related to required Medicaid reporting. In early 2019, MQD began working in collaboration with the DOH Immunization Branch to replace the pre-2018 system to support the needs of both MQD and DOH.

The HIR project has several important anticipated benefits to MQD, DOH, MCOs, Medicaid providers, and Medicaid beneficiaries. As with any IIS, the primary feature of the HIR is to collect, maintain, and share immunization data. The HIR will provide these services for Hawaiʻi Medicaid providers and beneficiaries, while also providing immunization-related data to MQD and to MCOs. MQD will reciprocate DOH's data sharing by supplying the HIR with immunization history for Medicaid recipients. This bi-directional data sharing between DOH and MQD will enhance the accuracy and completeness of immunization information within both the Medicaid and DOH data systems. Enriched immunization data within the Hawaiʻi Medicaid data system will support MQD, MCO, and Medicaid provider measurement goals, including those used for pay-for-performance and other initiatives.

The establishment and implementation of the new HIR will also benefit MQD as it will create a mechanism for sharing immunization-related reminders and vaccine recall information that will not only be useful for Medicaid providers, but will also potentially be useful for MQD and DOH as they can be leveraged to support initiatives to improve health outcomes among Medicaid beneficiaries. Clinical decision-making tools and built-in rapid response to updated vaccine recommendation information contained within the HIR also are expected to improve timeliness and age-appropriateness of immunizations administered to Medicaid beneficiaries. This is expected to improve health outcomes for Medicaid beneficiaries while also assisting MQD, MCOs, and Medicaid providers with reaching quality-related targets and objectives.

The exciting and innovative activities related to the MQD-DOH HIR project call for robust evaluation to fully elucidate the degree to which immunization data quality can be improved for Hawaiʻi Medicaid beneficiaries as well as to quantify the extent to which data quality problems may have impacted past immunization quality measure values for MQD beneficiaries. The focus of the evaluation will be to determine the extent to which the newly adopted HIR accurately captures true rates of childhood immunization for Hawaiʻi Medicaid beneficiaries and whether the reported childhood immunization rates improve following the implementation of the new HIR and the associated data sharing and data quality improvement efforts. Additionally, the evaluation may examine whether all sectors of the community are being entered into the registry equally and whether the rates of childhood immunizations differ among sociodemographic groups.

III. Evaluation Methodology

The Demonstration addresses a wide range of strategies and interventions to promote healthy outcomes and reduce costs. Accordingly, the evaluation utilizes a variety of research and statistical approaches to assess the impacts and outcomes of the Demonstration interventions and strategies. Overarching elements of the evaluation design that cut across several of the research questions and common features throughout the evaluation are discussed below.

Evaluation Design

Given the nature of the population, random assignment of participants (Medicaid beneficiaries) to programs to establish control and treatment groups is not feasible and generally not ethical. Instead, a variety of quasi-experimental statistical methods, such as pre-post analyses, propensity score matching, and within group comparisons will be used to assess program impacts. These methods are discussed in further detail below and in Section IV.

A mixed methods approach is a common feature of all of the in-depth studies in the evaluation. For several of these studies, a process evaluation will be conducted to track the progress and process of a new initiative and/or to document program fidelity. In some cases, the first phase of the project involves a qualitative analysis, for example, to increase understanding of a process or to monitor project implementation. The second phase then involves a quantitative study using surveys or existing data and applying modeling techniques or multivariate data analysis. In other cases, the quantitative study occurs first, followed by a qualitative study to further clarify the information generated in the quantitative study.

Target and Comparison Populations

Many of the evaluation questions will involve analyzing outcomes for all Medicaid beneficiaries, e.g., assessing alternative payment methodologies or value-based purchasing reimbursement at the MCO or provider level. Most of the in-depth studies, however, target specific subgroups of beneficiaries, e.g., the homeless, nursing home residents, groups with chronic conditions, etc. Therefore, comparison populations chosen for each analysis may vary and are described in greater detail in Section IV.

Evaluation Period

The first year of the evaluation will focus primarily on designing, modifying, and refining the evaluation plan, working closely with MQD to ensure that the final plan is feasible yet sufficiently rigorous, and comprehensively addresses all of the Demonstration objectives. Additionally, a major part of our efforts will involve working with MQD to obtain the data required for the evaluation, when needed and in the required format. Preparing for primary data collection in the form of interviews, surveys, and focus groups will occur in years 2-3. Years 2-3 will also focus on preparing and accessing administrative data and conducting preliminary analyses or statistical modeling with small samples of data to determine whether the proposed models and analytic strategies can be accurately applied and tested. Year 4 will focus on drafting a renewal proposal and specifying and estimating models, testing hypotheses, and addressing all research questions. Year 5 will focus on finalizing the summative report.

Additionally, for the CIS project, rapid cycle assessments will be performed and reported on every 3 months throughout years two, three, and four of the evaluation. These preliminary assessments will be both formative and summative, focusing on early accomplishments as well as identifying areas of concern that should be addressed in the early stages to ensure that the CIS program has maximum impact on the targeted beneficiaries.

MQD intends to hold quarterly meetings of CIS stakeholders to discuss program implementation, quality, and opportunities for VBP; stakeholders included may encompass MCOs, hospitals engaged in efforts to address homelessness, and representation from homeless service providers. These quarterly meetings provide opportunities for gathering process measures, discussing challenges with implementation, sharing best practices and success stories, and presenting on findings of the RCAs. The evaluation team will attend, support, and participate in quarterly meetings, and use these meetings to engage with stakeholders to help contextualize the findings of RCAs, and support performance improvement initiatives.

Evaluation Measures

A variety of quantitative and qualitative measures will be used. Most of the quantitative data will be from existing databases, generated by existing tools and surveys; only a few instances of quantitative data collection by the evaluators is planned. Some of the quantitative measures include the Level of Care (LOC) assessment, measures of patient-reported health outcomes (PRO), utilization of LTSS, reporting tools, and demographic and medical background factors available in the administrative data set. Specifically, we intend to use data on age, health status, gender, and functional limitation measures (when available) from claims, encounter, or assessment sources for matching purposes.

Much of the data will be obtained through existing survey instruments and data sets. The SDOH in-depth study and a portion of the Primary Care study, for example, will involve detailed interviews with health plans, providers, community representatives, health partners, and other stakeholders. For the CIS initiative, several of the survey tools that include measures will be sourced from the Patient Reported Outcomes Measurement Information System (PROMIS; https://commonfund.nih.gov/promis/index) and the Centers for Disease Control and Prevention (Health Days Measure: https://www.cdc.gov/hrqol/hrqol14_measure.htm) to monitor homeless beneficiaries' health and well-being. These measurement sources are well-validated and many are in current use by the Centers for Medicaid and Medicare Services (e.g., the Medicare Health Outcomes Survey (MHOS); https://www.hosonline.org/).

Administrative data from encounters, claims, and beneficiary-level reports will be used to assess the impact of value-based purchasing (VBP) reimbursement methods at the MCO and provider levels, as well as improvements in health outcomes for the evaluation of multiple objectives.

Data Source

The evaluation may include assessment of quantitative or qualitative process and outcome measures using the following potential data sources:

- Administrative data (i.e., claims; encounters, enrollment in the Hawaii Prepaid Medical Management Information System (HPMMIS), health plan reports, etc.).
    - HPMMIS Claims and Encounter Data: MCOs in Hawaii are contractually required to submit complete, accurate, and timely encounter data to HPMMIS. Encounter data may be used to access information on diagnoses, utilization of services, and cost of care over time for a variety of analyses requiring these parameters. Encounter data is received up to twice per month from health plans, and subject to a comprehensive encounter data validation process. Encounters that do not meet validation criteria are either rejected or pended in the system. Health plans are required to review their pended encounters, make corrections and submit replacements as needed. Hawaii's encounter data continues to require quality improvement activities to enhance its completeness and accuracy. Additionally, encounter data may not fully capture

services provided to beneficiaries that are not submitted via claims to managed care plans such as care and service coordination, and housing supports provided by health plan administrative staff; self-directed chore services; quality bonuses and other supplemental payments; and sub-capitation payments made to providers (although the corresponding encounters may be submitted). The Hawaii Medicaid program is actively engaged in a multi-pronged strategy to address these data quality and comprehensiveness issues. As data quality is enhanced, the completeness and accuracy of data is expected to improve; while this improvement is beneficial for evaluation, various analytic considerations may be needed to account for differences that arise from increases in cost and utilization attributed to improved data quality, as opposed to the interventions.

  - HPMMIS Health Plan Enrollment Data: HPMMIS is the Hawaii Medicaid Program's enrollment system. As such, beneficiaries eligible for Medicaid are enrolled in a managed care plan and the managed care plan begins to receive capitation payments as of the date of enrollment. Data sent to health plans from HPMMIS, which includes member demographics extracted from the member's application (age, sex, race, geography, ethnicity, etc.), eligibility category (Aged, Blind, Disabled; Low Income Adult, etc.), enrollment in special programs (LTSS, "at risk", CIS, etc.) and capitation payment amounts, can be extracted and provided for analysis. Most data pertaining to health plan enrollment and capitation payment is heavily reviewed and checked for quality. As such, the data is expected to be clean, although missing data on optional fields (e.g. race/ethnicity) and outdated data (e.g. non-updated address fields) can limit the validity of the data.

- Electronic Health Records (as needed/available): The specific need for EHR data in the evaluation design methodology has not yet been established. As program implementation efforts in new areas such as social determinants of health continue, and needs are identified, efforts will be made to access and assess the quality of such data.
- MCO Reports (as dictated by MCO contract requirements): Clinical information to support the evaluation, such as a beneficiary's housing situation and functional limitations, are best gleaned through MCO reporting requirements, independent of administrative claims or encounter data. It is anticipated that needed information will be gleaned from EHRs, case management systems, etc., and reported by the health plans using MQD's standardized reporting format. MQD is in the process of revising reporting templates to obtain the appropriate data to support evaluation needs. Historical data on these contextual factors affecting beneficiary data are therefore not available. MQD expects to implement revised reporting requirements in alignment with its managed care contract re-procurement; revised requirements are expected to include a beneficiary level data file that collects contextual information at the beneficiary level from MCOs. Therefore, the greatest threat to the data remains MQD's inability to collect the appropriate data in time to support evaluation needs. Additionally, since data collection has not begun, data quality assessments are not feasible at this time.
- Member and provider feedback sources (e.g. EQRO-conducted surveys, grievances, Ombudsman reports): MQD's EQRO administers CAHPS surveys annually to Medicaid beneficiaries, targeting children in odd years and adults in even years. CAHPS surveys are administered according to a standardized protocol for the CAHPS 5.0 survey specified by the National Committee for Quality Assurance (NCQA). Standard CAHPS indicators may therefore be trended across years and compared. Some key considerations are challenges associated with small sample sizes, which limit the ability to evaluate sub-populations using CAHPS; the frequency of survey administration, which limits the number of data points available during the

demonstration period; and the survey's limited ability for customization, which reduces the number of custom questions that may be included. MQD's EQRO also administers a provider survey, which may be used to gather provider-level feedback; this survey has historically been impacted by low response rates. MQD does not currently administer the HCBS CAHPS; should this survey be initiated, the data may be used for evaluation. Other data sources include grievances, and Ombudsman complaints, which may be used as needed for the evaluation.

- Healthcare Effectiveness Data and Information Set (HEDIS®) data: MQD has historically collected data on HEDIS quality measures, and other performance measures, from MCOs in an aggregate format. Beginning in 2021, MQD plans to implement a patient-level data file requirement that allows for more granular data collection. This file will include identifiers that allow for linking quality-based outcomes with other member-level information including demographics, utilization, cost of care, and other metrics. Given that this represents new reporting for MCOs, it is subject to timeline and other uncertainties; data quality issues may be present initially, taking 2-3 years to resolve completely. MQD may begin with a subset of measures for patient-level data reporting to phase implementation, therefore reducing the total amount of data available for evaluation. Also, no historic patient-level data will be available for comparison or analysis.
- External data sources holding information collected by MQD-contracted providers (e.g., HILOC database, HMIS data system)
    - HILOC Database: This database is maintained by the Health Services Advisory Group (HSAG), MQD's EQRO, and collects data on the level of care (LOC) assessments requested by MCOs and community providers for Medicaid members who require nursing facility level of care (NF LOC) or who are "at risk" of deteriorating to the NF LOC. The dataset includes comprehensive assessments of individuals' functional status during the initial request, annual review, or as changes occur. It also includes information about demographic characteristics and the availability of caregivers, which allows the evaluators to conduct matching and subgroup analyses. The data are collected primarily through a secure Web application developed by HSAG. Through this application, submission and review/approval of LOC requests are accessible to registered users from the State, Medicaid health plans, and service providers. Compared to paper-based methods, this automated data collection and processing method is more efficient and can provide faster reporting with more accuracy. HILOC interfaces with the State's prepaid medical management information system and can provide the necessary information to produce monthly, quarterly, annual, and ad hoc reports. Data timeliness and completeness may be impacted by the COVID-19 pandemic; through additional public health emergency related waiver authorities, individuals receiving LTSS services may begin or continue to receive services without an assessment during the public health emergency period.
    - HMIS. The Homeless Management Information System (HMIS) is a local information technology system that is used to collect and report client-level data for individuals who have experienced homelessness or at risk of homelessness and receiving support services. In Hawaii, MCOs work closely with the Continuums of Care responsible for managing the database. The evaluation team aims to leverage this data to account for ancillary services that complement services delivered via the CIS project. The database is limited by the quality and timelessness of the data entered by service organizations who provide direct care to clients experiencing homelessness. It is also relatively rigid regarding the types of data that can be entered. Moreover, it is not designed to be a research tool, instead a mechanism for accessing individual client records and histories. Therefore, extracting data can be labor intensive. Despite these limitations, the quality and

timeliness of data entry is monitored by the Continuums of Care (there are two CoCs for the state of Hawaii) to ensure that data files are appropriate for program evaluation and monitoring purposes.

- External databases allowing MQD data access for joint projects (e.g. HIR): Currently, MQD is not integrated with external datasets available through the health information exchange or the Hawaii Immunization Registry to facilitate evaluation. As these integrations are developed, data exchanges will allow for greater access to information in these external databases, and the resultant enriched data may be used for evaluation purposes. The integration with the immunization registry is key to evaluation priority area 5.
- Surveys and in-depth interviews developed by the evaluators explicitly for our purposes, such as in-depth interviews with providers, MCOs, patients and other stakeholders and conducted by the evaluators or qualified contractors
- Existing survey instruments that are appropriate for specific purposes will be used (e.g., BRFSS; MHOS) as a monitoring tool as well as provide a point of comparison. The BRFSS and MHOS are conducted annually and can provide state and national-level comparative data when within-state comparison groups are not possible.

Analytic Methods

In the absence of adequate control (and in some cases, comparison) groups, the evaluation will rely primarily on quasi-experimental methods, such as within group pre-post analyses and matching. A major initiative of several of the in-depth studies will focus on subgroup analyses to understand in greater depth how beneficiaries from different subgroups (e.g., age, ethnicity, type of disease) respond to the initiatives in the Demonstration.

The evaluation of trends in the utilization of Primary Care, for example, will involve subgroup analyses comparing those who did not use primary care in the prior demonstration period versus those who did, focusing on utilization, spending, and quality outcomes. In addressing time trends in utilization of Primary Care, regression analysis with matching and stratification will be used. The CIS project will conduct latent growth modeling to detect changes over time within the target population. A growth mixture model will also be tested, comparing the fit and appropriateness of a series of models to identify unique classes of beneficiaries over time. This analytical strategy will allow the evaluators to determine if there are subgroups of participants for whom the program is working well and for whom it is not. The HCBS evaluation will rely on latent class growth analysis and survival analysis to examine the subgroup differences in health outcomes and total cost of care among HCBS users who meet the institutional care criteria and the at-risk population. Latent class growth analysis allows the identification of specific numbers of unique classes of beneficiaries over time and subgroups of participants with better, worse, or no change in health outcomes and total cost of care during the period of analysis. The HCBS evaluation will also use a combination of matching and survival analysis to determine whether receipt of HCBS services slows the deterioration of health. The analysis will be based on the use of historic data since 2015 and the data collected during the demonstration period.

Across all programs, when possible, data from program participants will be compared to state and nationally normed data made available by federal agencies. We will explore and compare the performance measures of the demonstration to national benchmarks in the areas of primary care, emergency department visits, inpatient hospital and nursing home admissions through the AHRQ H-CUP data sources (NIS, NED, SEDD, SID), and CAHPS experience of care. Performance on Health Effectiveness Data and Information Set (HEDIS) quality measure data will be compared to national Medicaid HEDIS benchmarks, and the CMS Medicaid Score Card data where applicable to compare Hawaii’s performance to other states. Such comparison may help to disentangle the effects of the demonstration from broader sectoral trends during the period. Possible data sources that enable the comparison include, but not limited to, HEDIS, CMS Score Card, National Hospital Data Surveillance Network, Medical Expenditure Panel Survey, the CDC's BRFSS and MHOS.

Analytic Considerations

Our evaluation approaches will be continually informed by results from the rapid-cycle assessments. Further, interim evaluation report findings will directly contribute to the summative report and our long-term program planning. At each stage of the evaluation process, we will reexamine findings from previous reports to consider the interrelations among the Demonstration projects and the other aspects of the state's Medicaid program. We will also reexamine findings in relation to those from other Medicaid demonstrations and other federal awards affecting service delivery, health outcomes and the cost of care under Medicaid. This approach will allow us to consider system-wide impacts that affect service delivery, health outcomes, and cost of care, to make judgments about the Demonstration using evaluative reasoning, and inform Medicaid policymakers, advocates, and stakeholders at both the state and national levels.

Methodological Limitations

Our proposed evaluation design does not address all factors that contribute to health and cost outcomes. Theory of change has been considered for each of the in-depth studies but we recognize that we will be unable to evaluate all contributing factors. The proposed evaluation, however, will lay the groundwork for future evaluation efforts. For example, building on the findings from the proposed evaluation, we can further explore underlying drivers of the outcomes using qualitative approaches such as focus groups and interviews of beneficiaries and key informants in certain subgroups or quantitative analysis of survey data collected from subgroups.

Any well-designed evaluation requires a theory of change that explains why a given program may lead to changes in certain consequences. In this evaluation, we track both the changes in desired measures of, such as health outcomes as measured by standard mortality or morbidity measures, and what kinds of consequences might be plausibly expected as a result of the Demonstration, such as expanded primary care utilization or improved primary care quality. For instance, while this evaluation may be able to discern changes over time in the improvement in quality of diabetes care (RQ 1A.1), improvements in quality of diabetes care as a result of the Demonstration may not necessarily reduce diabetes prevalence. In fact, the Demonstration may actually increase diabetes prevalence because people with diabetes are able to live longer but with fewer complications. Thus, in the case of diabetes prevalence of beneficiaries, this may not be a suitable measure of health outcomes as a result of the Demonstration, whereas examining the percentage of diabetic patients with complications may be a suitable health measure. Similarly, the evaluation of this Demonstration may detect whether there are changes in the screening for enhanced primary care that were previously undiagnosed conditions. Yet such improved quality of care as measured by greater screening may again lead to ostensible increases in disease prevalence due to greater detection of previously underreported conditions.

For some questions, we propose to use archived administrative data as well as data that will be collected during this Demonstration. We assume the same "program" or "intervention" will be delivered during this Demonstration period is similar to what was delivered in the past since some of these programs were introduced in previous demonstrations. For HCBS, for example, changes in the delivery of services could occur at different levels (e.g., health plan providers and service coordinators) in relation to past demonstrations. These changes are not easily documented or observed and are not accounted for in our evaluation design. These challenges in defining precisely what the intervention was comprised of should be considered in the interpretation of results.

Several of the approaches in the evaluation design focus largely on within-group analysis, which is partly due to difficulties in identifying adequate comparison groups. For example, when we consider this question: does HCBS slow the deterioration of LTSS needs among the at risk population? We face the challenge of identifying a good comparison group (e.g., members of the at-risk population who do not use HCBS) because at-risk status is assessed when individuals seek to use the services. Considering this limitation, it is best to use within-group comparisons, which can also yield informative findings for the evaluation.

Increases in immunization coverage may not lead to any detectable short-term health impacts due to low incidence of vaccine-preventable diseases. We are also limited to evaluating the impact of the immunization data that is entered into HIR. While we can make some direct comparisons between individuals with different demographic profiles within MCOs who consistently utilize the registry, we will need to be careful to not discriminate between data that was simply not entered, from data that suggests individuals are not being immunized.

Analytic Methods

Selection bias is a major threat to the validity of the evaluation. In the case of HCBS, for example, selection bias exists because LTSS-eligible members are provided the choices to use HCBS or institutional care. Beneficiaries with certain characteristics (e.g., having minor functional limitations and a home) are more likely to select HCBS than a nursing home. Service coordinators also encourage the use of HCBS. Therefore, assignment to the two treatment groups is not random. To address this issue, we propose to use propensity score matching methods. Although matching helps reduce the differences between the two groups, it does not eliminate selection bias. Another type of selection bias is survival bias/attrition. Beneficiaries may leave LTSS for reasons such as death or ineligibility. The exit from LTSS may not be random but is influenced by type of LTSS. For example, nursing home residents are likely to have a higher mortality rate due to a higher level of care needs compared to home care users. However, attrition might not be a big concern as data show that only about 6 percent of members left LTSS in 2017-2018 in Hawaiʻi.[1]

For CIS, it is very likely that not all eligible beneficiaries will participate in services, and many of those who do may not follow-up with all elements of the program. Statistical adjustments and considerations will be necessary to account for attrition and selective participation. Advanced missing data techniques (e.g., multiple imputation and full information maximum likelihood) will account for some of these limitations.

Another potential threat is unobserved characteristics that can affect the randomization of the two treatments. For example, characteristics of health plans (e.g., qualification of health professionals) may affect beneficiaries' decisions. To mitigate the potential confounding bias, one possible solution is to include plan-and-year-specific fixed effects in the model. These fixed effects help control for a complete set of time-invariant, plan-specific effects and for factors that vary uniformly over time across plans. Admittedly, this does not eliminate the risk of unobserved characteristics that contribute to the differences, which is another limitation of the evaluation.

Other

One big challenge of the evaluation is to disentangle the effects of different components of the demonstration as they are implemented simultaneously and often targeted on large overlapping populations (e.g., population with social needs, homeless population, and LTSS beneficiaries). To meet the HOPE objectives, these components are designed to be cross cutting and mutually reinforcing. The program planning places challenges to the evaluation, however, the subgroup analyses we propose may help disentangle the effects to some extent.

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[1] If a beneficiary had no breaks of over 45 days, we counted him/her as staying in the LTSS program.

While most of the projects are new initiatives under this demonstration, LTSS, however, has existed for a long time, and HCBS were provided to the “at risk” population in prior demonstrations. It is, therefore, difficult to evaluate the impact of HCBS on the health outcomes of beneficiaries and the costs of the program during the current demonstration.

During the evaluation period, other policies and programs may also affect the outcomes of interest. We will consider these confounding factors wherever we can. However, we recognize that we may not have access to all the information that may impact beneficiaries or programs. For example, we do not have information about services from charitable organizations that beneficiaries may receive, which could have an impact on health outcomes. This is another limitation of the evaluation to keep in mind.

The COVID-19 pandemic and resulting public health emergency is also expected to have a profound impact on the evaluation. First, the pandemic is expected to have a broad-based impact on several outcome measures of interest, affecting several priority evaluation areas (e.g., service utilization and total cost of care). Next, MQD sought additional authorities/waivers of existing authorities related to the public health emergency that may impact eligibility requirements, payment models, and delivery of services in specific areas such as LTSS, therefore affecting specific priority evaluation areas. Finally, the economic impact of the pandemic may ultimately affect the interventions implemented by MQD; this evaluation design proposes to evaluate the impact of a multitude of new initiatives tied to MQD’s managed care re-procurement. Larger budgetary constraints may morph or dictate MQD’s decisions on how and when these interventions are implemented; similarly, the new immunization registry is led by the same Division within DOH that has led pandemic response efforts. Logistical and feasibility constraints may ultimately impact progress on this project. Substantive changes to project implementation scope and timelines will impact the evaluation timeline and design.

IV. Project-Level Detail

Demonstration Objective 1. Improve health outcomes for Medicaid beneficiaries covered under the Demonstration

Project 1A: Assessing Utilization, Spending, and Quality of Primary Care and its Association with Health Outcomes	
Component	**Description**
Demonstration Hypothesis 1.1	Increasing utilization for primary care, preventive services, and health promotion will reduce prevalence of risk factors for chronic illnesses and lower the total cost of care for targeted beneficiaries.
Target populations	• Populations with one or more chronic conditions such as diabetes, hypertension, and chronic kidney disease • Pregnant women • Infants and children eligible for well child visits • All adults
Research questions	Research questions pertain to understanding: (1) RQ 1A.1: What are time trends in utilization, spending (as a percentage of total spending), and quality of primary care for Demonstration populations? (2) RQ 1A.2: Are changes in primary care utilization and spending associated with plausibly relevant health outcomes? Selection of health outcomes will be based on literature review and stakeholder (i.e. provider and beneficiary) consultation to identify and select health measures which are plausibly relevant to improvements in primary care utilization, spending, and quality, respectively (see Methodology and Limitations sections above).
Data strategy, sources and collection frequency	**Administrative data.** Potential administration data for analysis include encounter, claim, and beneficiary-level report data regarding primary care utilization, spending, and quality measures, as well as beneficiary sociodemographic characteristics. The administration data are housed in the data warehouse of State of Hawaiʻi Department of Human Services (DHS). Indicators that would be considered include HEDIS, state-defined health care quality and outcome measures, measures of total costs of care per beneficiary, as well as the measures of patient satisfaction and patient-reported outcomes e.g., Consumer Assessment of Healthcare Providers and Systems (CAHPS). Indicators chosen will depend on data availability and quality. Current indicators under consideration include HEDIS measures pertaining to Adult Access to Preventive/Ambulatory Health Services for distinct age groups, as well as other HEDIS measures and other quality measures as feasible. Examples of specific HEDIS measures that may be chosen for the evaluation include: • Well-Child Visits in the First 15/30 Months of Life (W15/30-CH); • Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life (W34-CH);

	• Prenatal and Postpartum Care (PPC-AD); • Adolescent Well-Care Visits (AWC-CH); • Adults' Access to Preventive/Ambulatory Health Services (AAP); and • Children and Adolescents' Access to Primary Care Practitioners (CAP-CH). Examples of specific CAHPS measures that may be chosen for evaluation include: • Getting Needed Care • Getting Care Quickly
Statistical framework for measuring impacts	For all quantitative analyses, regression analysis using matching will be applied. Patient use of primary care is not random, and characteristics by plans, providers, and patients may systematically differ on observable characteristics. Propensity score matching will be used to assess whether use of primary care (as an endogenous treatment) is associated with changes in plausibly relevant health outcomes, based on a set of observable covariates. Time-series or longitudinal analysis will also be applied to examine time trends and discontinuities over time when data is available. (1) RQ 1A.1 a. Main Quantitative Analysis: Overall time trends in primary care utilization, spending, and quality will be examined, with a focus on geographic disparities and sociodemographic determinants and stratified by specific Medicaid Demonstration populations (pregnant women, infants, children, etc.) b. Subgroup Quantitative Analysis: Medicaid beneficiaries who did not seek primary care prior to the current Demonstration period will be identified. Changes in primary care measures of utilization, spending, and quality (using progressively broader primary care definitions) for these populations will be examined over time, with the expectation that primary care measures will increase over time. c. Qualitative analysis: In-depth interviews (n=25) will be conducted with plans, providers, and patients regarding patients who previously did not seek primary care to explore factors that led to changes in use of primary care and possible consequences or impacts of increased primary care utilization, spending, and quality. (2) RQ 1A.2: a. RQ 1A.2 is contingent upon seeing changes in RQ 1A.1. If there are no improvements in primary care observed, then this question is not relevant. b. Literature Review and Main Qualitative Analysis: This research question explores whether the changes in primary care as a result of this Demonstration also lead to improvements in health outcomes. It cannot be assumed that increased primary care utilization, spending and quality necessarily leads to improvements in health outcomes (see Methodological Limitations). As such, for this study component, we propose to carefully choose a measure of health outcomes through literature review and stakeholder consultation in order to identify and select one health outcome that is plausibly associated with improvements in primary care utilization, spending, and quality.

	c. Quantitative analysis of the chosen health outcome will depend on the literature review and qualitative analysis. This basic form of this analysis would regress the chosen health outcome on a chosen measure of primary care utilization, spending, or quality, respectively, and holding other factors constant; and examined in the four years prior to the start of the program and each quarter thereafter.
Subgroup analyses to assess disparities and differences	Individual subgroup populations will be explored and may include consideration of factors or groupings, such as selection of one's health plan versus automatic assignment, selection of one's own Primary Care Physician (PCP) vs auto-assignment, participation in a Patient-Centered Medical Home (PCMH) vs not, or populations with discontinuous coverage vs those with full coverage.

Project 1B: Care Coordination for Beneficiaries with Complex Conditions

Component	**Description**
Demonstration Hypothesis 1.2	Improving care coordination (e.g. by establishing team-based care and greater integration of behavioral and physical health) will improve health outcomes and lower the total cost of care for beneficiaries with complex conditions (i.e. high-needs, high-cost individuals).
Target populations	Medicaid beneficiaries identified as those having complex health needs
Research questions	Research questions pertain to understanding: (1) RQ 1B.1: Will care coordination for individuals identified as having complex health needs result in improved health outcomes? (2) RQ 1B.2: Will care coordination for individuals identified as having complex health needs result in lowered utilization of the healthcare system, and a slower rate of expenditure growth?
Data strategy, sources and collection frequency	Administrative data will be used for analyses. Potential administration data for analysis include encounter, claim, and beneficiary-level report data regarding utilization, spending, and quality as well as beneficiary sociodemographic characteristics. The administration data are housed in the data warehouse of State of Hawaiʻi Department of Human Services (DHS).
Statistical framework for measuring impacts	For all quantitative analyses, regression analysis will be applied to assess whether individuals identified by MQD as having complex health needs experienced changes in plausibly relevant health outcomes and costs of care. MQD will provide information on the criteria for selection of individuals as having complex health needs. That criteria will be used to identify a plausible comparison group with similar or slightly lower levels of need and cost, which may lend itself to a regression discontinuity design. If a cutoff is not available (to enable regression discontinuity design), propensity score matching, using full optimal matching will be conducted. We will then pair the matching procedure with a time-series analysis to compare health outcomes, health utilization, can changes in expenditure growth in the four years prior to program evaluation and after the program was initiated on a quarterly basis for both the treatment and comparison groups.
Subgroup analyses to assess disparities and differences	Individual subgroup populations will be explored and may include consideration of factors or groupings, such as gender, age, and presence of multiple chronic conditions or behavioral health conditions.

Project 1C: Home- and Community-Based Services (HCBS)	
Component	**Description**
Demonstration Hypothesis 1.2	Improving care coordination (e.g. by establishing team-based care and greater integration of behavioral and physical health) will improve health outcomes and lower the total cost of care for beneficiaries with complex conditions (i.e. high-needs, high-cost individuals).
Target populations	• For research question 1C.1, the target population is Medicaid beneficiaries who use long-term services and support (LTSS) in the home and community based setting or institutional setting among individuals meeting NF LOC criteria. • For research question 1C.2, the target population is individuals meeting NF LOC and receiving HCBS services. • For research question 1C.3, the target population is beneficiaries who do not meet institutional level of care but are at-risk of deteriorating to an institutional level of care (i.e. the at-risk population).
Research questions	Research questions pertain to understanding: (1) RQ 1C.1: Does HCBS slow the deterioration of health as reflected in the level of care among individuals meeting NF LOC criteria? (2) RQ 1C.2: Does length of time to enter a nursing home, patient-reported health outcomes (PROs), and total cost of care vary depending on a variety of client characteristics among individuals meeting NF LOC criteria and receiving HCBS services? (3) RQ 1C.3: Does length of time to enter a nursing home, PROs, and total cost of care vary depending on a variety of client characteristics among the at-risk population?
Data strategy, sources and collection frequency	**Administrative data.** Potential administration data for analysis include encounters, claims, and beneficiary-level report data such as LTSS utilization, Hawaii's health and functional assessment used to assess the health status of LTSS beneficiaries, and sociodemographic characteristics. The administration data are housed in the data warehouse of State of Hawaiʻi Department of Human Services (DHS). Functional assessment (LOC assessment) data are managed by an External Quality Review Organization — Health Services Advisory Group (HSAG). The LOC assessments are collected annually and when changes occur or when requested by beneficiaries in between two annual assessments. **Primary data collection.** Primary data may include the collection of patient-reported health outcomes annually and when changes occur.
Measures	The outcome measures include ● Length of time for the LOC to deteriorate to a certain level ● Length of time for beneficiaries to enter a nursing home ● Patient-reported health outcomes (e.g., beneficiaries' perception of health, quality of life, or satisfaction) ● TCOC We will consult the HCBS staff at the State of Hawaiʻi Med-QUEST Division to determine a certain LOC level as the threshold, and measure the length of time from the baseline (prior to any LTSS use) to the time point when a LTSS qualifying

	beneficiary's LOC reaches the threshold. Potential questions for patient-reported health outcomes may be adapted from nationally recognized sources such as PROMIS, GLOBAL10, and the HCBS survey from Consumer Assessment of Health Care Providers and Systems (CAHPS). Other measures pertaining to LTSS and variables for matching or controlling in the analysis may include, but are not limited to: ● Utilization of LTSS (e.g., whether one uses HCBS/nursing home, types of HCBS used, intensity and duration of HCBS/nursing home used, health plan). ● Factors that affect personal needs for care (e.g., health conditions and functional limitations). ● Factors that may predispose, enable, or impede those who use services (e.g., age and sex).
Statistical framework for measuring impacts	**Quantitative impact analysis.** For research question 1C.1, the evaluation will be based on a pre-post comparison of one period before the treatment (receiving HCBS or institutional care) and one or multiple periods after the treatment. Archived administrative data allow us to identify time points when Medicaid beneficiaries first started receiving LTSS and when they develop severe limitations in their functional status (as measured by the LOC and to be defined). The duration between the two time points is one measure of health outcome (i.e. length of time to duration). We plan to use a combination of matching methods and survival analysis. Matching methods are likely to create two balanced groups before beneficiaries receive the treatment. Matching variables may include, but not limited to, age, sex, health conditions, and the availability of caregivers. Research questions 1C.2 and 1C.3 will focus on identifying within-group comparisons. Specifically, we plan to examine subgroup differences in the patient-reported health outcomes, the deterioration to the institutional care, and the TCOC among individuals meeting NF LOC and receiving HCBS services and among the at-risk population using methods such as latent class growth analysis and survival analysis.
Subgroup analyses to assess disparities and differences	As described above, subgroup analyses are a major component of the HCBS evaluation. Specifically, we plan to examine subgroup differences in the patient-reported health outcomes, the deterioration to the institutional care, and the TCOC among HCBS users and the at-risk population using methods such as latent class growth analysis and survival analysis. Latent class growth analysis allows the evaluators to identify a specific number of unique classes, with each class containing a proportion of the overall sample who exhibit very similar trends over time. The class identification helps determine unique characteristics that are associated with program participants who are members of each class, some of which may have better, worse, or no change in the health outcomes and total cost of care. This analysis would inform further investigations about the reasons for the (lack of) change among subgroups in the future.

Demonstration Objective 2. Maintain a managed care delivery system that leads to more appropriate utilization of the health care system and a slower rate of expenditure growth

Project 2A: Value-based purchasing (VBP) reimbursed at the MCO and Provider levels

Component	Description
Demonstration Hypothesis 2	Implementing alternative payment methodologies (APM) at the provider level and value-based purchasing (VBP) reimbursement methodologies at the MCO level will increase appropriate utilization of the health care system, which in turn will reduce preventable healthcare costs.
Target populations	Medicaid beneficiaries
Research questions	Research questions pertain to understanding: (1) RQ 2A.1: Will implementing VBP reimbursements at the MCO level result in improved health outcomes? (2) RQ 2A.2: Will implementing VBP reimbursements at the MCO level result in lowered utilization of the healthcare system and slower rate of expenditure growth? The analyses will consider one or more VBP measures at the MCO level..
Data strategy, sources and collection frequency	**Administrative data.** Potential administration data for analysis include encounters, claims, MCO-level quality data, and beneficiary-level report data (including beneficiary-level quality information). Health plan level VBP, and health plan data on provider-level VBP adoption and results, beneficiary-provider attribution data, and encounter data will be used in concert to identify beneficiaries served/services provided under different VBP structures.
Measures	The outcome measures may include one or more of the following: selected health outcome(s), total cost of care per beneficiary, and rate of expenditure growth in the managed care delivery system.
Statistical framework for measuring impacts	**Quantitative impact analysis.** To answer the first and second research questions, the evaluation will be based on data provided by MQD on beneficiaries' utilization of the health care system at the MCO and provider levels, and select MCO-level and beneficiary-level quality measure data as available (e.g. as reported to CMS in the Core Set of Health Care Quality Measures). The third question will be answered with administrative data (claims data), electronic records, and financial summaries submitted by health plans. We will use an interrupted time-series latent growth model to compare health outcomes, health utilization, can changes in expenditure growth in the four years prior to program evaluation and after the program was initiated on a quarterly basis.
Subgroup analyses to assess disparities and differences	As needed

Project 2B: Alternative Payment Models (APM) at the Provider level

Component	Description
Demonstration Hypothesis 2	Implementing alternative payment methodologies (APM) at the provider level and value-based purchasing (VBP) reimbursement methodologies at the MCO level will increase appropriate utilization of the health care system, which in turn will reduce preventable healthcare costs.
Target populations	Medicaid beneficiaries
Research questions	Research questions pertain to understanding:

	(1) RQ 2B.1: Will implementing one or more APMs at the provider-level result in improved health outcomes? (2) RQ 2B.2: Will implementing one or more APMs at the provider-level result in lowered utilization of the healthcare system and slower rate of expenditure growth?
Data strategy, sources and collection frequency	**Administrative data.** Potential administration data for analysis include encounters, claims, and beneficiary-level report data. Health plan tracking of providers' adoption of APM models, beneficiary-provider attribution data, and encounter data will be used in concert to identify beneficiaries served/services provided under different APM structures.
Measures	The outcome measures may include one or more of the following: selected health outcome(s), total cost of care per beneficiary, and rate of expenditure growth in the managed care delivery system.
Statistical framework for measuring impacts	**Quantitative impact analysis.** To answer the first and second research questions, the evaluation will be based on data provided by MQD on beneficiaries' utilization of the health care system, and select beneficiary-level quality measure data as available (e.g. as reported to CMS in the Core Set of Health Care Quality Measures) among one or more provider groups who have implemented an APM. The third question will be answered with administrative data (claims data), electronic records, and financial summaries submitted by health plans. We will use an interrupted time-series latent growth model to compare health outcomes, health utilization, can changes in expenditure growth in the four years prior to program evaluation and after the program was initiated on a quarterly basis.
Subgroup analyses to assess disparities and differences	As needed

Demonstration Objective 3. Support strategies and interventions targeting the social determinants of health

Project 3A: Community Integration Services (CIS)	
Component	**Description**
Demonstration Hypothesis 3	Providing community integration services and similar initiatives for vulnerable and at-risk adults and families will result in better health outcomes and lower hospital utilization.
Target populations	Medicaid beneficiaries who are eligible for and consent to participate in CIS.
Research questions	Research questions pertain to answering: (1) RQ 3A.1: Do program participants who are stably housed decrease utilization of acute services (emergency and inpatient utilization)? (2) RQ 3A.2: Do program participants who are stably housed increase utilization of outpatient care services? (3) RQ 3A.3: Is total cost of care lower for participants who are stably housed?

	(4) RQ 3A.4: Does individual health and wellbeing improve as participants' progress through the program? (5) RQ 3A.5: How does program effectiveness vary by client needs and experiences?
Data strategy, sources and collection frequency	Archival administrative data will be used to identify trends in program participants' health care utilization at least one year prior to starting the program (compiled quarterly) and made available to the evaluation team. We aim to have service staff administer a validated electronic survey quarterly with their clients and have results made available to the evaluation team. **Administrative data.** Potential administration data for analysis include encounters, claims, and beneficiary-level report data such as CIS utilization, functional assessment, and sociodemographic characteristics. The administration data are housed in the data warehouse of State of Hawai'i Department of Human Services (DHS). **Primary data collection.** Housing and Case Management Assessment Tool (obtained face to face with client) Potential secondary data sources: • Homeless Management Information System (HMIS) • Contact hours and fidelity checklist The HMIS tracks client-level service utilization data across all homeless services providers. This system can be used to acquire social service use data not captured in health utilization records. Specifically, shelter stays, case management (not managed by a Medicaid provider) substance use treatment, and housing support. These records will help account for whether program participants are receiving concurrent services through other agencies. Service delivery hours will be a measure of dosage. These are the billable units filed by the case managers. This information, in conjunction with a fidelity checklist submitted by the case managers on a quarterly basis will be used to determine the extent that the program is being implemented as intended. **Note:** *DHS/MQD has not finalized the content of the eligibility screener, data collection forms used by health plans to support initial/ongoing assessment of CIS beneficiaries, and reporting requirements for the health plans. Evaluation methods will be adapted to the finalized tools as needed. The proposal submitted here assumes the use of certain tools for data collection. The evaluation team has offered its recommendations to MQD on the need for these instruments.*
Measures	Initial client needs and progress will be assessed using a validated survey tool. This tool was purposely designed to directly inform service providers of clients' needs and conditions while also providing a rich, empirically valid source of data for ongoing analysis. This tool will be administered quarterly to clients by the contracted providers. This tool will be used to track changes in self-reported access to healthcare, health outcomes, substance use, employment, income, service use/needs, and overall quality of life. The included measures were selected because they have shown adequate sensitivity to detect dynamic changes in wellness in a

	short time period and appropriate for the target population. Potential measures are outlined below: Access to Healthcare. A potential measure will include four items from the Behavioral Risk Factor Surveillance System (BRFSS; Centers for Disease Control and Prevention, 2013) that represent access to healthcare (e.g. “Do you have one person you think of as your personal doctor or health care provider?” and “Was there a time in the past month when you needed to see a doctor but could not because of cost?”). Two additional items (“How long do you have to travel to get to your health care provider?” and “If I need to see a specialist, it is easy for me to find one.”) will be included to assess other domains of individual differences in participants’ access to health care and to more fully capture the construct. Health-related Quality of Life Outcomes. Subjective perceptions of mental and physical health and stress will be measured. Overall perceived physical and mental health may be measured by the 9-item CDC Health-Related Quality-of-Life measure (HRQOL; the 4-item Core Module and 5-item Symptoms Module). The HRQOL is an empirically validated scale (Barile et al., 2013; Horner-Johnson et al., 2010) that consists of a 4-item physical health scale and a 4-item mental health scale that measures both anxiety and depression. Previous research using items from the HRQOL measure have demonstrated content, construct, and criterion validity with the Short-Form 36 (CDC 2000; Moriarty et al 2003; Moriarty et al 2005). Perceived stress will be measured by the Perceived Stress Scale-4 (Cohen, Kamarck, & Mermelstein, 1983; Cohen & Williamson, 1988). The Perceived Stress Scale also has been found to valid and reliable. This scale includes items such as, “In the last month, how often have you felt that you were unable to control the important things in your life?” Previous literature has found the measure to have a two-month test-retest reliability of .55 (Cohen, Kamarck, & Mermelstein, 1983) and to have construct and discriminant validity (Cohen & Williamson, 1988; Cohen, Tyrrell, & Smith, 1993). Substance Use. Substance Use may be monitored by including items from the Patient-Reported Outcomes Information System (PROMIS) Alcohol Use – Short Form. This measure assesses individuals’ drinking behavior regarding the amount and impact by asking whether individuals drank heavily, had trouble controlling their drinking, or had difficulty getting the thought of drinking out of their head. This measure will be modified to assess any substance that a program participant has had a history of using. The measures chosen here are based on previous stakeholder feedback. However, the evaluation team may select additional or alternative measures based on literature review and stakeholder consultation to ensure that measures that are plausibly relevant to improvements in beneficiary health outcomes and total cost of care are considered comprehensively.
Statistical framework for measuring impacts	**Quantitative impact analysis.** Our primary evaluation questions will be assessed using multi-level sequential process growth mixture modeling (SPGMM), with adjustment for the nesting of participants within CIS case manager. We will answer secondary questions using latent class analyses and/or multinomial logistic regression. Latent growth modeling, more generally, is a method of estimating

	change over time that allows the researcher to test associations among time invariant (conditions that do not change) and time varying covariates (conditions that likely do change) and growth. Traditional latent growth curve modeling assumes that individuals within the sample likely change at similar rates over time. This level of homogeneity is unlikely, particularly with community-based samples. “Mixture” models allow the researcher to estimate heterogeneity in growth and identify naturally occurring “classes” or subsamples who follow similar trends. Multilevel modeling will be employed to account for the nesting of participants within case managers, as the outcomes for each participant are likely dependent upon how each case manager implements the program. To conduct a growth mixture model, the data analyst will systematically compare the fit and appropriateness of a series of models to the data with one or more “classes” – most commonly between 2 and 8. This approach aims to identify a specific number of unique classes, with each class containing a proportion of the overall sample who exhibit very similar trends over time. For our evaluation, we will employ sequential process growth mixture modeling because it will allow to identify unique classes before and after the start of the intervention, with class membership prior to start of the intervention likely predicting class membership after the start of the intervention. This process will allow us to determine what unique characteristics are associated with program participants who are members of each class, some of which may have excelled in the program while other deteriorated (or exhibited other unique trends over time). The first step in the analyses will be to identify growth trajectories based on longitudinal medical utilization records. The potential for two or more unique subgroups or classes that emerge from this data will then be examined, this is represented by Latent Class 1 in Figure 2. The second stage of the analyses identifies growth trajectories based on longitudinal data since starting the program (Latent Class 2). This will include medical utilization trends since starting the program (compiled quarterly) and predicted by covariates and moderators listed in Figure 2. Finally, associations between being a member of a specific class since starting the program and the patient reported outcomes, specifically the quality of life indices will be observed. This analytical approach will be used to assess the impact of the program on health care expenditures before and after the start of the program. **RQ 3A.1 and 3A.2:** Slopes (changes over time) identified prior to the start of the program using health care utilization records will be used to identify statistically significant changes in slopes identified after the start of the program. These analyses can be conducted after participating in the program one year, with four quarterly aggregated expenditures observed before and after the start of the program. **RQ 3A.3 and 3A.4:** Survey data assessing patient reported outcomes will be integrated into the health care expenditures model, with health care expenditure slopes being used to account for baseline needs when examining program outcomes, such as quality of life. Intermediate findings included in the rapid cycle assessments will focus on the

	program's implementation, fidelity, and adaptions. Dosage data, defined as the amount of face-to-face time that case managers spent with their client, and transitions from pre-tenancy to tenancy will be used to predict short-term outcomes. Depending on the number of case managers, multilevel modeling will be employed to account for the nesting of individuals with service providers (participants are nested within a case manager, and case manager are nested within their health care organization). Have multiple case managers will also allow us to examine the impact program implementation at the provider level. These intermediate, process-focused indicators will help inform providers of how implementation might be adapted to obtain the best results for their clients. The impact of dosage and other measures of fidelity will be used to predict classes or clusters of program participants demonstrated a range of success in the program as measured by the quality of life indicators and health expenditures in the previous six-months. These assessments will help identify necessary program adaptions and provide periodic updates on the health and well-being of participants. **RQ 3A.5:** Will be addressed by examining the unique classes and trajectories of program participants. It is very likely that the program with not be equally successfully for all participants. Because of this, examining the subgroups defined by the classes will inform who might be the best candidate for the program. Potential predictors may include individuals' history of substance use, mental illness, trauma, or years experiencing homelessness.

Project 3B: Assessing process of planning and implementing support strategies addressing social determinants of health

Component	Description
Demonstration Hypothesis 3	Providing community integration services and similar initiatives for vulnerable and at-risk adults and families will result in better health outcomes and lower hospital utilization.
Target populations	Medicaid Demonstration populations
Research questions	This evaluation takes a realist evaluation approach to understanding how MQD has influenced the ecosystem of strategies and interventions that address the SDOH to ask the following contextual questions: (1) RQ 3B.1: What kinds of support strategies and interventions addressing the social determinants are chosen by health plans and how do these strategies translate to provider and patient behaviors? (2) RQ 3B.2: In what ways did Health Plans develop and adopt a SDOH Work Plan within its Quality Assessment and Performance Improvement (QAPI) plan? (3) RQ 3B.3: In what ways did the State develop the SDOH statewide Transformation Plan?
Data Strategy, sources and collection frequency	**Qualitative interviews** In-depth interviews with purposively chosen stakeholders from Health Plans, Regional Health Partnerships (if any), providers in regards to their SDOH strategies and interventions (n=25) with subsequent thematic analysis using grounded theory,

	and review of MQD-provided documentation including meeting minutes, SDOH methodology, and capitation methodology.
Statistical framework for measuring impacts	Not applicable
Subgroup analyses to assess disparities and differences	Not applicable

Supplemental Evaluation Objective (Objective 4): Improve data quality for immunization-related performance measures

Project 4A: Improve Data Quality for Immunization-Related Performance Measures	
Component	**Description**
Goals and objectives	To measure progress in any area, including quality of care, that has been identified as needing improvement during the previous demonstration period. The selected area(s) for the in-depth analysis are immunization-related quality measures.
Target populations	Medicaid beneficiaries
Evaluation questions and testable hypotheses	The joint MQD-Department of Health (DOH) Hawaiʻi Immunization Registry (HIR) project will increase the accuracy and completeness of childhood immunization data for Hawaiʻi Medicaid beneficiaries and increase childhood immunization coverage for Hawaiʻi Medicaid beneficiaries. (a) RQ 4A.1: Will the MQD-DOH HIR project increase the accuracy and completeness of childhood immunization data for Hawaiʻi Medicaid beneficiaries, as determined by comparison of coverage estimates from three sources: MQD beneficiary data system, DOH immunization data system, and linked MQD-DOH HIR data system? (b) RQ 4A.2: Will the MQD-DOH HIR project increase childhood immunization coverage for Hawaiʻi Medicaid beneficiaries, as determined by comparison of coverage estimates from prior years and quantification of increase in coverage estimates?
Data strategy, sources and collection frequency	**Various clinical and administrative data sources.** Linked HIR and Administrative data, in combination with Health Plan data. Immunization data from a variety of sources (health plan records, HIR, and administrative data including claims, encounters, and beneficiary-level reports) will be used to track improvements in immunization rates for various childhood immunizations.
Measures	Immunization rates for various vaccines, and combination immunization rates as reported in quality measures reported in CMS's Core Set of Health Care Quality Measures for Children in Medicaid and CHIP.
Statistical framework for measuring impacts	**Quantitative impact analysis.** A single subject analysis design, time series analyses models will be used to evaluate changes in immunization rates across multiple immunizations included within the Childhood Immunization Status measure, comparing a time period prior to the re-build of the HIR to the period after the HIR has been built, and appropriate linkages and data exchange built to the health plans and MQD to assess the extent to which the investment in the HIR, and support for automated electronic data exchange, has improved the quality of immunization data for MQD beneficiaries.

Subgroup analyses to assess disparities and differences	As needed

V. Attachments

Independent Evaluator

In July 2019, MQD established the Health Analytics Office (HAO). Prior to HAO's establishment, encounter data quality validation, analytics, reporting, quality measurement, evaluation were dispersed throughout the division. The office now centralizes these functions, and maintains oversight of the required evaluation of the Demonstration. The independent evaluation of the project will be managed via a contract with the University of Hawaiʻi at Manoa.

The State of Hawaiʻi has developed a Memorandum of Agreement (MOA) with the University of Hawaiʻi at Manoa, College of Social Sciences. The MOA, approved in June 2019, provides a framework for the State to procure services and consultation from the University of Hawaiʻi College of Social Sciences via a "Work Task Letter" arrangement. The MOA names the Office for Evaluation and Needs Assessment Services (OENAS) in the Social Science Research Institute, College of Social Sciences, as the evaluator for the Demonstration.

The Director of OENAS, Dr. John Barile, is the lead evaluator on the Demonstration, and will serve as the Independent Evaluator. Dr. Barile has over 15 years of experience evaluating health-related programs and well published in the areas of social service delivery, quality of life, and program impact. Members of the evaluation team are also in tenured faculty positions at the University of Hawaiʻi and external to the State Department of Human Services. Their backgrounds are in health policy, health economics, quantitative research methods, and statistical modeling.

Evaluation Budget

The five-year evaluation budget totals $2,452,500, which includes direct costs of $1,962,000 and indirect costs of $490,500 (25% indirect cost rate). A 4% increase is built in each year for salary and other cost-of-living increases. The year one budget (including indirect costs) is $145,525, year two is $556,435, year three is $569,620, year four is $583,330, and year five is $597,590. After year one, which will be primarily devoted to planning and designing the evaluation, subsequent years include funds for two research associates and six graduate assistants. Summer overload (1 month) is included for four faculty evaluators over the five-year period. Funds to support travel to professional Medicaid-related conferences and to purchase software, hardware, and supplies are also included. These expenses are necessary to support all aspects of the evaluation, such as project administration, development of instruments to support primary data collection efforts, such as surveys and interviews, accessing administration data, data cleaning and analyses, and report generation.

Timeline and Major Milestones

The proposed timeline below is shown separately for administrative deliverables and project or research deadlines.

Administrative activities (evaluation)	**Date**
Draft evaluation design to CMS	November 8, 2019
Feedback and comments from DHS	November 15, 2019
Second Draft to DHS	December 17, 2019
Feedback and comments from DHS	January 10, 2020
Third draft to DHS	January 31, 2020
Leadership feedback from DHS	February 28, 2020
Final draft to DHS	March 15, 2020
Submission of Evaluation Design Draft to CMS	April 8, 2020
Feedback from CMS	June 10, 2020
Revised draft to DHS	July 10, 2020
Feedback and comments from DHS	July 17, 2020
Revised draft to DHS (2)	July 24, 2020
Any Final revisions	July 25-July 31, 2020
Final Evaluation Design to CMS	July 31, 2020
Evaluation activities	**Date**
Initial access to data/data preparation/cleaning	Year 2 (Aug. 2020-Aug. 2021)
Preparation of instruments for primary data collection (e.g., survey construction)	Year 2, 2nd quarter
Pilot testing of instruments	Year 2, 3rd quarter
Preliminary testing of statistical models and analytic approaches	Year 2, 4th quarter
Administration of instruments for primary data collection	Final quarters of Years 2 and 3
Rapid cycle assessments (for CIS/CTS)	Every 3 months, from Y2 to Y4
Data analyses, modeling	Year 3-4
Report writing (including revisions to drafts)	Year 4
Renewal Submitted	July 31, 2023
Summative Report	January 31, 2025

VI. References

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Appendix 1: Overview of Objectives, Hypotheses, Projects and Research Questions

Demonstration Objectives	Demonstration Hypotheses	Key Evaluation Projects	Project Specific Research Questions
1. Improve health outcomes for Medicaid beneficiaries covered under the Demonstration	H1.1: Increasing utilization for primary care, preventive services, and health promotion will reduce prevalence of risk factors for chronic illnesses and lower the total cost of care for targeted beneficiaries.	Project 1A: Assessing Utilization, Spending, and Quality of Primary Care and its Association with Health Outcomes	RQ 1A.1: What are time trends in utilization, spending (as a percentage of total spending), and quality of primary care for Demonstration populations? RQ 1A.2: Are changes in primary care utilization and spending associated with plausibly relevant health outcomes?
	H1.2: Improving care coordination (e.g. by establishing team-based care and greater integration of behavioral and physical health) will improve health outcomes and lower the total cost of care for beneficiaries with complex conditions (i.e. high-needs, high-cost individuals).	Project 1B: Care Coordination for Beneficiaries with Complex Conditions	RQ 1B.1: Will care coordination for individuals identified as having complex health needs result in improved health outcomes? RQ 1B.2: Will care coordination for individuals identified as having complex health needs result in lowered utilization of the healthcare system, and a slower rate of expenditure growth?
		Project 1C: Home- and Community-Based Services (HCBS)	RQ 1C.1: Does HCBS slow the deterioration of health as reflected in the level of care among individuals meeting NF LOC criteria? RQ 1C.2: Does length of time to enter a nursing home, patient-reported health outcomes (PROs), and total cost of care vary depending on a variety of client characteristics among individuals meeting NF LOC criteria and receiving HCBS services? RQ 1C.3: Does length of time to enter a nursing home, PROs, and total cost of care vary depending on a variety of client characteristics among the at-risk population?

2. Maintain a managed care delivery system that leads to more appropriate utilization of the health care system and a slower rate of expenditure growth	H2: Implementing alternative payment methodologies (APM) at the provider level and value-based purchasing (VBP) reimbursement methodologies at the MCO level will increase appropriate utilization of the health care system, which in turn will reduce preventable healthcare costs.	Project 2A: Value-based purchasing (VBP) reimbursed at the MCO and Provider levels	RQ 2A.1: Will implementing VBP reimbursements at the MCO level result in improved health outcomes? RQ 2A.2: Will implementing VBP reimbursements at the MCO level result in lowered utilization of the healthcare system and a slower rate of expenditure growth?
		Project 2B: Alternative Payment Models (APM) at the Provider level	RQ 2B.1: Will implementing one or more APMs at the provider-level result in improved health outcomes? RQ 2B.2: Will implementing one or more APMs at the provider-level result in lowered utilization of the healthcare system and a slower rate of expenditure growth?
3. Support strategies and interventions targeting the social determinants of health	H3: Providing community integration services and similar initiatives for vulnerable and at-risk adults and families will result in better health outcomes and lower hospital utilization.	Project 3A: Community Integration Services (CIS)	RQ 3A.1: Do program participants who are stably housed decrease utilization of acute services (emergency and inpatient utilization)? RQ 3A.2: Do program participants who are stably housed increase utilization of outpatient care services? RQ 3A.3: Is total cost of care will be lower for participants who are stably housed? RQ 3A.4: Does individual health and wellbeing will improve as participants' progress through the program? RQ 3A.5: How does program effectiveness vary by client needs and experiences?
		Project 3B: Assessing process of planning and implementing support strategies addressing social determinants of health	RQ 3B.1: What kinds of support strategies and interventions addressing the social determinants are chosen by health plans and how do these strategies translate to provider and patient behaviors?

			RQ 3B.2: In what ways did Health Plans develop and adopt a SDOH Work Plan within its Quality Assessment and Performance Improvement (QAPI) plan? RQ 3B.3: In what ways did the State develop the SDOH statewide Transformation Plan?
4. (Supplemental Evaluation Objective) Improve data quality for immunization-related performance measures		Project 4A: Improve Data Quality for Immunization-Related Performance Measures	RQ 4A.1: Will the MQD-DOH HIR project increase the accuracy and completeness of childhood immunization data for Hawaiʻi Medicaid beneficiaries, as determined by comparison of coverage estimates from three sources: MQD beneficiary data system, DOH immunization data system, and linked MQD-DOH HIR data system? RQ 4A.2: Will the MQD-DOH HIR project increase childhood immunization coverage for Hawaiʻi Medicaid beneficiaries, as determined by comparison of coverage estimates from prior years and quantification of increase in coverage estimates?

Attachment A

2017

HAWAII MEDICAID OHANA NUI PROJECT EXPANSION (HOPE) PROJECT

MED-QUEST DIVISION

JUDY MOHR PETERSON, PHD

MED-QUEST ADMINISTRATOR

QUEST HAWAIʻI

More Choices For Your Healthcare

EXECUTIVE SUMMARY

Hawaii's Vision for Health Care Transformation:
Hawaiʻi ʻOhana Nui Project Expansion (HOPE) Program

The Med-QUEST Division (MQD) is committed to laying the foundation for innovative programs that support and create healthy families and healthy communities. To accomplish this goal, MQD is building the Hawaiʻi ʻOhana Nui Project Expansion (HOPE) program, a five-year initiative to develop and implement a roadmap to achieve this vision of healthy families and healthy communities.

MQD's vision is that the people of Hawaiʻi embrace health and wellness. MQD's mission is to empower Hawaii's residents to improve and sustain wellbeing by developing, promoting and administering innovative and high-quality healthcare programs with aloha. The vision and mission will serve as the "North Star" and guide the work developed through HOPE.

The following guiding principles describe the overarching framework that will be used to develop a transformative healthcare system that focuses on healthy families and healthy communities.

- Assuring continued access to health insurance and health care.
- Emphasis on whole person and whole family care over their life course.
- Address the social determinants of health.
- Emphasis on health promotion, prevention and primary care.
- Emphasis on investing in system-wide changes.
- Leverage and support community initiatives.

In order to accomplish the vision and goals, HOPE activities are focused on four strategic areas.

- Invest in primary care, prevention, and health promotion.
- Improve outcomes for high-need, high-cost individuals.
- Payment reform and alignment.
- Support community driven initiatives to improve population health.

In addition, HOPE activities are supported by initiatives that enhance three foundational building blocks.

- Health information technology that drives transformation.
- Increase workforce capacity and flexibility.
- Performance measurement and evaluation.

MQD developed a driver diagram that depicts the relationships between the guiding principles, strategies and building blocks that enable MQD to achieve the vision of healthy families and healthy communities (see Figure 1).

Figure 1. Hope Driver Diagram

Goals/Aims	Strategies/Primary Drivers	Priority Initiatives/Secondary Drivers	Interventions
By 12/31/2022: Healthy Communities and Healthy Families Achieve the Triple Aim of Better Health, Better Care and Sustainable Costs	Invest in primary care, prevention, and health promotion	• Build capacity and improve access to primary care • Integrate behavioral health with physical health across the continuum of care • Support children's behavioral health • Promote oral health	• Increase the proportion of health care spending on primary care • Cover additional evidence-based services that promote behavioral health integration • Promote and pilot home-visiting for vulnerable children and families • Restore the Medicaid adult dental benefit
	Improve outcomes of High-Need/ High-Cost (HNHC) individuals	• Promote the implementation of evidence-based practices that specifically target HNHC individuals	• Implement value-based purchasing strategies that incentivize whole-person care including intensive case management that addresses social determinants of health • Identify specific populations with disparities and develop plan to achieve health equity
	Payment Reform and Alignment	• Improve health by providing access to integrated health care with value-based payment structures	• Evolve current value-based purchasing contracts with managed care plans • Incorporate health-related social needs into provider and insurance payments
	Support community initiatives to improve population health	• Work with strategic partners to evolve the delivery system from the local level to the top	• Foster needed strategic focus on community health transformation and collaboration
	Enhance foundational building blocks: health information technology, workforce capacity and flexibility, and performance management and evaluation	• Use data and analytics to drive transformation • Develop payment models that drive use of care teams • Create a core set of metrics to measure HOPE progress	• Develop capacity to collect and analyze data • Promote multidisciplinary team based care • Complete evaluation on HOPE activities

HAWAIʻI MEDICAID ʻOHANA NUI PROJECT EXPANSION (HOPE) PROJECT

The State of Hawaii's Vision for Healthy Families, Healthy Communities

The Hawaiʻi Department of Human Services (DHS) is committed to laying the foundation for innovative programs and models that support and create healthy families and healthy communities. To accomplish this overall goal it is necessary to align state programs and funding around a common framework: a multigenerational, culturally appropriate approach that **invests in children and families over the life-cycle to nurture well-being and improve individual and population health outcomes.** This is why the Med-QUEST Division (MQD) of DHS is building the Hawaiʻi ʻOhana Nui Project Expansion (HOPE) program, a five-year initiative to develop and implement a roadmap to achieve this vision of healthy families and healthy communities.

SECTION 1: VISION AND BACKGROUND

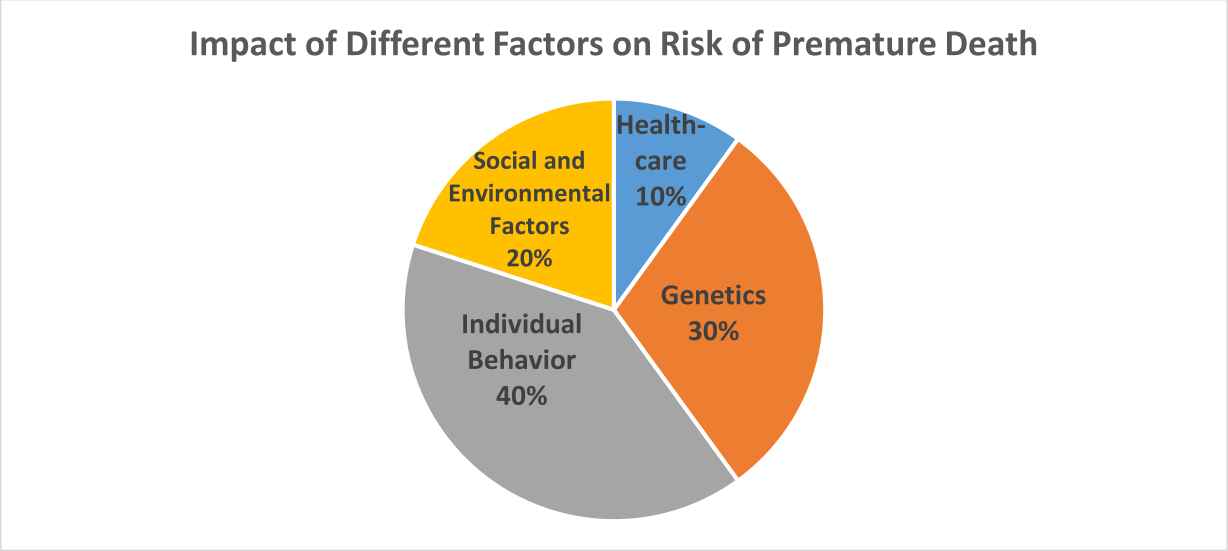
The Vision and Mission of Med-QUEST

MQD's vision is that the people of Hawaiʻi embrace health and wellness. MQD's mission is to empower Hawaii's residents to improve and sustain wellbeing by developing, promoting and administering innovative and high-quality healthcare programs with aloha. The vision and mission will serve as the "North Star" and guide the work developed through HOPE.

Drivers of Health and Well-Being

Efforts to improve health in the United States have almost exclusively focused on the health care system as the key driver of health and health outcomes. While reforms to the health care system are necessary and important, research has demonstrated that improving population health and achieving health equity also require broader approaches that address social, economic, and environmental factors that influence health.[i] Researchers have found that social factors, including education, social supports, and poverty accounted for over a third of total deaths in the United States.[ii] In addition, individual behaviors (i.e. smoking, diet and drinking) and genetics play a role in health and health outcomes. **It is estimated that health care only accounts for 10% of risk of premature death** (see Figure 1). For this reason, the focus of the HOPE efforts will include health care system redesign as well as strategies to address the health-related social needs and individual behaviors that influence health and well-being.

Figure 2[iii]



The Goals of the HOPE Initiative

The goal of the plan is to achieve the Triple Aim of **better health, better care, and sustainable costs for our community**. Within five years, MQD anticipates that the investments in healthy families and healthy communities will translate to improved health and well-being, measurably lower prevalence of illness, and a more sustainable growth rate in healthcare spending. The goal is to bring the growth of health care spending more closely in line with the growth of our economy, so that we can invest a greater share of our productivity gains in education, housing and other priorities that have an even greater impact on health and well-being than the Medicaid delivery system.

More specifically, the goals include:

Improved Health	**Better Health Care and Consumer Experience**	**Lower Costs**
Achieve or maintain top-quartile performance among states for adoption of best practices for outcomes in: • Health • Wellness • Health promotion • Disease prevention • Health improvement • Health-related social needs.	Achieve high standards for quality and patient experience, including at least: • A X% (percent TBD) reduction in the risk factors associated with chronic conditions • An increase in appropriate utilization of behavioral health services • Decrease in preventable utilization for individuals with chronic conditions.	Generate $X (number TBD) in cumulative savings by: • Reducing unnecessary care • Shifting care to appropriate settings • Curbing increases in unit prices for health care products and services that are not tied to quality.

The Need for Innovation and Change

Although Hawaiʻi is considered one of the healthiest states in the country in many areas, there is room for continued development.[iv,v] Hawaiʻi, like all other states, is experiencing unsustainable increases in health costs, increasing morbidity from costly chronic diseases and behavioral health conditions, uneven access to care, and limited availability of health data and analytics. It is for this reason that MQD is pursuing this initiative to advance statewide innovation to strengthen population health, transform the health delivery system, and achieve the Triple Aim of better health, better care, and sustainable costs. MQD is a critical part of the health care system, and MQD will play a leadership role in health care transformation. **However, it is important to note that system transformation is only possible when patients, the community, health care providers, health plans, payers and other stakeholders work together to achieve transformation.**

Why We Need to Act Now

Despite being the healthiest state in the nation[vi,vii] , the following information reflects the severity of the issues that individuals and families are experiencing and further demonstrating the need for action to bring about change and transform the health system now.

Table 1: Rationale for Transforming Health Care in Hawaiʻi

Prevalence of Chronic Diseases	• There has been a 128% increase in the prevalence of diabetes in Hawaiʻi over the last 20 years (from 4.6% in 1997, to 7.6% in 2005, to 10.5% in 2017).[viii] • There has been a 84% increase in the percentage of obese (Body Mass Index of 30 or higher) adults in the state over the past two decades (from 12.97% in 1997, to 20.6% in 2007, to 23.8% in 2017).[ix]
Prevalence of Behavioral Health Conditions and Associated Costs	• In 2013, results from the Hawaiʻi Behavioral Risk Factor Surveillance System (BRFSS) survey showed that prevalence for depression among adults increased by 12.7% from 2011 to 2013, with 11.4% (or 125,000 residents in the State) reporting a depressive disorder in 2013.[x] • 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.[xi] • More than one in ten (13%) of Native Hawaiʻi and Pacific Islander high school students attempted suicide one or more times in the previous year, the highest proportion among all racial groups.[xii]

	• The average annual number of drug overdoses nearly doubled from the 1999-2003 period to the 2009-2017 period, and opioid pain relievers such as oxycodone or hydrocodone contributed to more than one third of drug overdose deaths.[xiii] • Drug overdoses surpassed motor vehicle traffic crashes as the leading cause of fatal injuries.[xiv] • A 2013 actuarial analysis in Hawaiʻi found that the average total health care costs for individuals with a behavioral health diagnosis was three times the average total health care cost for those without a behavioral health diagnosis. • Our 2017 actuarial analyses found that individuals facing homelessness had significantly higher costs due to co-morbidities of behavioral health, complex health conditions with intensive social needs. • An analysis by the Hawaiʻi Health Information Corporation (HHIC) of 2012 statewide data showed that 34% of hospitalizations and 36% of total costs were attributable to individuals with a comorbid behavioral health and physical diagnosis.
Pregnancy	• Substance use among pregnant women in Hawaiʻi is higher than national targets, which reflect there is essentially no acceptable rate of use of these substances. Hawaiʻi data shows that 5.9% of women reported drinking alcohol in the last trimester of their pregnancy, 8.6% reported cigarette smoking in the last trimester, and 3% reported using illicit drugs during their latest pregnancy.[xv] • Although teen pregnancy rates have declined in recent decades, the United States rate is still one of the highest in the developed world. Hawaiʻi ranks 30th in teen pregnancy rates (rank of 1 is the lowest and 50th is the highest).[xvi]
High Costs	*Hawaiʻi-Specific Data on High Costs* • Health care expenditures in Hawaiʻi increased by almost 40% between 2004 ($6,391 million) and 2014 ($10,338 million).[xvii] • Health premiums in Hawaiʻi increased from $1.2 billion in 1995 to $6.3 billion in 2015, an average increase of 20% each year.[xviii] Hawaiʻi health premiums are an increasing percentage of wages, growing from 2.8% in 1974 to 14.7% in 2015.[xix] • From 2010 to 2015, the small group health premiums in Hawaiʻi increased each year on average of 6%, and increased 7.5% on average from 2013 through 2015.[xx]

National Data on High Costs

- United States health care spending increased 4.3% to reach $3.3 trillion, or $10,348 per person in 2016.[xxi] National health spending is projected to grow at an average rate of 5.6% per year for 2016-2025, and 4.7% per year on a per capita basis.[xxii]
- Between 2002 and 2012, U.S. health insurance premiums increased 97 percent, three times as fast as wages (33 percent) and inflation (28 percent).[xxiii]
- U.S. covered workers' average dollar contribution to family coverage has increased 74% since 2007 and 32% since 2012.[xxiv]

Medicaid Cost Data – Hawai'i and National

- Medicaid makes up 16% of Hawaii's total state expenditures, and 11% of the state's general funds.
- Hawai'i general fund expenditures for the state increased by 7.3% and 8.8% from fiscal years 2015-2016 and 2016-2017. Medicaid state fund expenditures increased by 6.3% and 12.3% during the same time period. While this is largely due to increase enrollment, increasing healthcare costs are also part of the increasing trends.
- On a national level, Medicaid has grown from about 20% of total state spending to 29% of total state spending for 2017.[xxv] Excluding federal funds, Medicaid was nearly 17% of state fund expenditures, or a 7.1% increase in state fund spending.[xxvi] Combined federal and state expenditures for Medicaid accounted for about 16% of U.S. health care spending in calendar year 2014.[xxvii]

SECTION II: FRAMEWORK FOR INNOVATION

MQD's Guiding Principles to Innovation

The following guiding principles describe the overarching framework that will be used to develop an innovative, transformative, healthcare system that focuses on healthy families and healthy communities. The framework's foundation is building multi-generational, culturally appropriate approaches that invest in children and families over their life course to nurture well-being and improve individual and population health outcomes.

1. *Assuring Continued Access to Health Insurance and Health Care.*

Hawaiʻi has a long history of prioritizing health coverage and quality healthcare for our residents. We expanded to low-income adults over twenty years ago, and welcomed the Affordable Care Act's further expansion. MQD will continue to support Hawaii's commitment to health care coverage for all our population through outreach efforts in the communities, partnering with communities and other agencies so that individuals and families continue to have health coverage when transitioning from one life circumstance to another, specifically targeting individuals with serious mental illness, economic vulnerabilities and behavioral health challenges.

2. *Emphasize Whole Person and Whole Family Care over their Life Course. 'Ohana Nui –Focus on Young Children and their Families.*

Whole person care is person-centered and person-engaged throughout the life cycle. Aligning with the social model, home and community-based services that emphasize choice, autonomy and living as independently as possible, it has been demonstrated that a person-centered approach that promotes person's engagement through mutual respect and responsibility leads to improved health outcomes and well-being. Patient engagement is the flip side of "compliance/adherence". Hawaii's Self-Advocacy Advisory Council's slogan succinctly captures this concept: "don't 'should' on me, ask me". HOPE will promote evidence-based practices that activate and engage individuals, families and communities in their own health and health care.

Whole person care also focuses on the person's over-all well-being, and does not silo one into a specific disease or body part. Thus, both the head and the body are one when considering one's health. The mental and oral health viewed in an integrated way with the rest of the body. Physical health and behavioral health need to be integrated in a whole-person perspective. Additionally, a person's larger context is also taken into consideration for one's well-being. Thus, the social determinants of health are essential.

Whole family care views individuals in the context of their family and/or social networks, which is a major driver of health. In Hawaiʻi, using *'Ohana Nui*, or investing in young children and their families, is imperative to community health and well-being. Investing in children helps children to develop to their full potential, and taking care of the health needs of children yields positive benefits to economies and societies. It is especially important to invest in young children during their most critical period of development and growth (ages 0 to 5). Using a multi-generational life-cycle approach to service delivery is more effective than one that separately addresses individuals' needs. This includes the five pillars that create an intergenerational cycle of opportunity (social capital, early childhood education, postsecondary and employment pathways, health and well-being, and economic assets). As with a whole-person perspective, these pillars are also integral social determinants of health.

3. *Address the Social Determinants of Health (SDOH).*

There is a growing body of research that shows a broad range of social, economic, and environmental factors shape individuals' opportunities and barriers to engage in health behaviors. Social determinants of health, also known as health-related services, are the structural determinants and conditions in which people are born, grow, live, work and age (see Figure 3).[xxviii] **MQD's approach to addressing these broader determinants of health is to develop integrated solutions within the context of the health care delivery system.** More specifically, MQD will develop initiatives that link health care to broader social needs, and promote and incentivize health systems and providers to coordinate and integrate the delivery system with community services, education, social services, and public health so individuals and families can receive the services that improve their health and well-being.

4. Emphasis on Health Promotion, Prevention and Primary Care

According to the World Health Organization, 80% of chronic diseases are preventable.[xxix] The major contributors to chronic disease are an unhealthy diet, lack of physical activity, and tobacco use. Lifestyle choices have more impact on health and longevity than any other factor. Prevention and health promotion should be woven into all aspects of our lives, including where and how we live, learn, work, play and pray. Everyone, including government, health care institutions, and individuals have a role in creating healthier families and communities. **In other words, health is everyone's "kuleana", or responsibility.** Initiatives included in HOPE emphasizes the importance of health promotion, prevention, and early detection of disease by encouraging and incentivizing providers to screen and educate individuals and families on the impact of lifestyle choices on health. MQD will promote best practice models of care that emphasize care coordination across providers and have robust primary care capabilities at their center. Additionally, focus on more convenient access to routine primary and preventive services.

5. Emphasis on Investing in System-Wide Changes.

There is great potential for improving outcomes and saving money in healthcare reform, but efforts will not fully achieve the Triple Aim if they are not well targeted or if they are included as incremental or "add-on" steps in the context of a fragmented health care system with perverse financial incentives. The system-wide initiatives that are chosen to be a part of HOPE will integrate the system and focus on adaptive solutions rather than technical fixes. From a systemic, transformative lens, we will address quality of care, improve collaboration and coordination, and reform how services are paid for, resulting in achieving the Triple Aim goals of improved health outcomes, improved care and sustainable costs. This will require strong partnerships across agencies, the delivery system, payers and social/human service providers. Additionally, HOPE initiatives will help lay the foundation for potential future comprehensive multi-payer initiatives (e.g. Medicare/Medicaid). In order for comprehensive healthcare delivery system transformations to occur, it is imperative that multiple payers and delivery systems work together to accomplish the goals.

6. *Leverage and Support Community Initiatives.*

While taking a systemic, transformative approach is necessary for innovation, those changes are rooted in local, community efforts. Community care includes viewing the community in context of the environment, local initiatives and engagement with the community, and a recognition that where we live, work, play and pray has an impact on health and well-being. The island geography of our state has given rise to great diversity at the local community level of social capital and health assets as well as unique needs. It is essential that HOPE build on and support culturally appropriate and effective initiatives, improve health equity, and reduce health and geographic disparities.

Hawai‘i has a long tradition of developing innovative health programs and policies at the local level. Many health plans, providers and community organizations are developing innovative programs and initiatives, and MQD will leverage these initiatives in HOPE in order to advance innovation and avoid duplication of effort. Examples of some of the community initiatives that support HOPE goals includes the Blue Zones project,[xxx] MAHIE 2020,[xxxi] Community First,[xxxii] and the United Health Care Services' Accountable Health Communities Model.[xxxiii] Additionally, many community health centers in Hawai‘i have invested in serving their communities in new and innovative ways such as supporting local job skills development and facilitating access to culturally relevant fresh food and meals.

Figure 3. Social Determinants of Health/Health-Related Services[xxxiv]

Economic Stability	**Neighborhood and Physical Environment**	**Education**	**Food**	**Community and Social Content**	**Health Care System**
Employment	Housing	Literacy	Hunger	Social Integration	Health Coverage
Income	Transportation	Language	Access to Healthy Options	Support Systems	Provider Availability
Expenses	Safety	Early Childhood Education		Community Engagement	Provider Linguistic and Cultural Competency
Debt	Parks	Vocational Training		Discrimination	Quality of Care
Medical Bills	Playgrounds	Higher Education			
Support	Walkability				

Health Outcomes

Mortality, Morbidity, Life Expectancy, Health Care Expenditures, Health Status, Functional Limitations

SECTION III: STRATEGIES AND FOUNDATIONAL BUILDING BLOCKS

Strategies and Foundational Building Blocks

In order to accomplish the vision and goals, HOPE activities are organized along two major axes: (1) four strategic focus areas, which include multiple targeted initiatives to promote integrated health systems and payment reforms, and (2) three foundational building blocks, which directly support the four strategies and also enhance overall system performance.

The first two strategies reflect the short and long term investments needed to accomplish the Triple Aim. The first strategy is focused on investing in primary care, health promotion, and prevention early in one's life and over one's life. The second strategy is focused on people with the highest, most complex health and social needs because they use a majority of health care resources, and there is potential for a strong return on investment. The health and well-being of individuals with complex needs must be addressed in order to begin to bend the cost curve, and the savings accrued will be used to support the sustainability of HOPE initiatives including investments in primary care, children, and health-related services.

The third strategy reflects the need to pay for care differently. The focus is to move away from rewarding volume toward accountability for overall cost and quality that is essential for supporting the integrated delivery system reforms identified in the first two strategies. The fourth strategy reflects MQD's commitment to invest in community care, support community initiatives, and develop initiatives that link integrated health systems with community resources in order to improve population health.

The foundational building blocks of health information technology, workforce development and performance management and evaluation are critical to the success of the four strategies. Each strategy requires development to enhance system performance in each of the foundational building blocks on the provider level, MCO level, and at the Med-QUEST administrative level.

Figure 4: HOPE Project Summary

HOPE PROJECT SUMMARY				
Goals	**Healthy Families and Healthy Communities and Achieving the Triple Aim – Better Health, Better Care, Sustainable Costs**			
Strategies	**1. Invest in primary care, prevention, and health promotion**	**2. Improve outcomes for High-Need, High-Cost Individuals**	**3. Payment Reform and Alignment**	**4. Support locally driven initiatives to improve population health**
Foundational Building Blocks	1. Use **health information technology** to drive transformation			
	2. Increase **workforce capacity**			
	3. **Performance measurement** and evaluation			

STRATEGY #1: INVEST IN PRIMARY CARE, PREVENTION AND HEALTH PROMOTION

In order to achieve HOPE goals, Hawai‘i needs to close the gaps between prevention, primary care, and physical and behavioral health care. The goal is to improve health overall by building healthy communities and individuals through prevention, health promotion, and early mitigation of disease throughout the life course. MQD plans to achieve this with four priority initiatives: (1) Invest in Primary Care, (2) Promote Behavioral Health Integration, (3) Support Children’s Behavioral Health, and (4) Promote Oral Health and Dental Care.

PRIORITY INITIATIVE: INVEST IN PRIMARY CARE

Primary care is in a critically important position in the health care delivery system because of its focus on prevention and early mitigation of diseases throughout the life course. Primary care teams are often patients’ first point of contact with the health delivery system, and make decisions that have a major impact on quality of care and total health care spending. Greater use of primary care has been associated with lower costs, higher patient satisfaction, fewer hospitalizations and emergency departments visit, and lower mortality.[xxxv] Further, underinvestment in primary care is one of four fundamental reasons that the U.S. health system ranks last among high-income countries.[xxxvi]

Despite the strong evidence that primary care is critical to achieving the Triple Aim, primary care faces many challenges. Fragmented systems and policies make it difficult to coordinate care with specialists and social service organizations, burdensome administrative requirements result in primary care providers not spending enough time with patients, and reimbursement encourages primary care practices to adopt volume-based (as opposed to outcome-based) business and care models. These and other factors contribute to low job satisfaction and burnout, patients not getting the care they need, unsustainable increases in health expenditures, and consequently, is stifling the development of innovative approaches to primary care delivery.

MQD is committed to investing in primary care and is exploring the following innovations:

- Increase the proportion of health care spending on primary care in order to promote the health system’s orientation toward high-value care. The spending rate includes clinician incomes, performance payments, case-management activities, and health information technologies.
- Promote primary care and pay for value. Hawai‘i will request to advance the use of value-based payments to MCOs. MQD will request to provide new performance incentive payments to primary care providers.
- Continue to maintain an increase in reimbursement to primary care providers and obstetricians (aka the “PCP bump”), even though the enhanced match rate that initially supported the increase are no longer available.
- Cover additional evidence-based practices that further integrate physical and behavioral health services such as the Collaborative Care Model.

- Promote best practices that address the needs of High-Need, High-Cost individuals (i.e. care coordination, palliative care, Dr. Ornish's Program for Reversing Heart Disease).
- Promote education opportunities for primary care teams such as Project Extension for Community Healthcare Outcomes (ECHO) and care collaboratives.
- Work with stakeholders to identify and facilitate shared workforce resources, including but not limited to, community health workers, care managers, and care coordinators, especially for neighbor islands.
- Promote increased investments in health related and flexible services.
- MCOs will be encouraged to invest in health-related social needs and services that improve quality and outcomes, and MCOs that reduce costs through the use of these services can receive financial incentives to offset those cost reductions.

PRIORITY INITIATIVE: PROMOTE BEHAVIORAL HEALTH INTEGRATION ACROSS THE CONTINUUM

Behavioral health integration has been a priority for MQD for the past few years and will continue to be a top priority. The rationale for this includes:

- Medicaid pays for 26% of all spending on behavioral health in the country.[xxxvii]

- Individuals with a behavioral health conditions cost nearly four times more than individuals without behavioral health conditions.[xxxviii]

- One in five Medicaid enrollees have a behavioral health condition, but account for almost half of total Medicaid expenditures.[xxxix]

- <u>Disparities</u>: Those with serious mental illness die on average 25 years earlier than those without, largely because of preventable chronic physical illness.[xl]

- There is a large body of evidence showing that patients fare best when their physical and behavioral health needs are addressed in tandem.[xli]

- Integrated care better aligns system incentives and increases health plan or provider accountability for managing a more complete range of services, which is important for a population with high comorbidity rates.[xlii]

The overarching goals are to integrate behavioral health (mental health and substance use) with physical health at the primary care level, through the continuum to the most intensive level for individuals with complex conditions and health-related social needs (the later will be addressed in strategy #2). Other goals include integrating care with value-based payment structures, and screening, diagnosing, and treating conditions as early as possible. To achieve these goals, MQD is exploring the following options:

- Identification of activities and processes necessary to achieve a foundational level of behavioral health integration emphasizing best practices that are scalable.
- Payment to primary care providers and members of the multidisciplinary team for providing integrated services using the Collaborative Care Model and other evidence-based integration models.
- Address gaps in provider education and curriculum by promoting psychiatric hotline services (aka "curbside consults"), and continuing education opportunities such as Project ECHO.
- Development of health homes that integrate behavioral health with primary care for children and families, adults, and aged individuals.
- Developing payment models that reward health plans and providers for integrating care at the most intensive level for individuals with complex conditions and health-related social needs.
- Identify specific populations (i.e. racial/ethnic, geographic, etc.) that have experienced disproportionately poor health outcomes and develop a plan to improve outcomes and achieve health equity.
- Continue to promote Screening, Brief Intervention, and Referral to Treatment (SBIRT) at the primary care level to address substance misuse and abuse, motivational interviewing, Housing First for the chronic homeless, and transitions of care models.
- Expand behavioral health services integration through partnerships with primary care providers, corrections, and other community-based organizations.

PRIORITY INITIATIVE: SUPPORT CHILDREN'S BEHAVIORAL HEALTH

Children's Behavioral Health will include all of the activities listed in the behavioral health integration project, and will include additional activities:

- Promotion of the importance of screening young children for developmental and behavioral health conditions, including social-emotional development.
- Promoting and piloting home-visiting for vulnerable families and children who experienced multiple adverse childhood experiences (ACE).
- Continue to work with the Department of Education and the DOH including the Early Intervention Section, Children with Special Health Care Needs Branch, the Communicable Disease and Public Health Nursing Division, and the Child and Adolescent Mental Health Division to coordinate services with the health care delivery system.

PRIORITY INITIATIVE: PROMOTE ORAL HEALTH AND DENTAL CARE

Improving oral health is an important step in achieving whole-person health, with research increasingly identifying links between poor oral health 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 people with type 2 diabetes, coronary heart disease, and cerebral vascular disease.[xliii] Unfortunately, Hawai'i has received a failing grade in three recent oral health report cards for children, and some of the factors that contribute to Hawaii'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 Medicaid program (other than emergency care) since 2009.[xliv] The goals are to improve oral health for pregnant women, children, and individuals with chronic conditions, and in order to achieve this, MQD is exploring the following:

- Restore the Medicaid adult dental benefit;
- Promoting good oral health to pregnant women and individuals with chronic conditions;
- Continue to promote access to children's early dental care; and
- Continue to explore and maximize oral health options using available community resources such as dental hygiene schools.

STRATEGY #2: IMPROVE OUTCOMES FOR INDIVIDUALS WITH HIGH-NEEDS AND HIGH-COSTS

The top one percent of patients account for more than 20 percent of health care expenditures, and the top five percent account for nearly half of the nation's spending on health care.[xlv] These trends are also evident in Hawai'i. Improving care management for this population while balancing quality and associated costs will require engagement from payers, providers, patients, community leaders, and other stakeholders. This is a priority because this is a vulnerable population with complex medical, behavioral, and social needs, and there is a potential for a return on investment that may help offset upfront costs of new interventions that improve outcomes.

Recent research on High-Need, High-Cost (HNHC) individuals has identified key characteristics and care recommendations that may improve outcomes. They include[xlvi]:

- **HNHC individuals have higher medical, social and behavioral health needs, and addressing their medical needs alone will not improve outcomes.** Therefore, it is critical that care models address the medical, social, and behavioral factors in play for a given patient.
- The HNHC population is diverse and segmenting patients based on factors that drive health care need is essential for targeting care, improving outcomes, and lowering costs.
- Policy action and care models should focus on accelerating three program attributes:
    - <u>Managing transitions of care</u> (i.e. from hospital to home) that are commonly risky for patients with complex conditions.
    - <u>Extend primary care teams by integrating social services</u> with primary care.
    - Attributes of successful interdisciplinary, person-centered primary care include <u>careful segmentation and targeting of interventions to persons most likely to benefit</u>, close communication and coordination among members of the interdisciplinary care team,

  strong information technology support, and promotion of patient and caregiver engagement in the process.

- Policy action should also focus on addressing the existing constraints and complexities preventing the integration of medical, behavioral, and social services and the way the MQD finances this model.

The goals are to improve outcomes and decrease costs, and in order to achieve this, MQD is exploring the following:

- Work with the MCOs to develop a taxonomy that aligns HNHC individuals with care models that target their specific needs.
- Modify MCO contracts to better enable MCOs to assess behavioral health factors, social risk factors, and the functional limitations of HNHC individuals using evidence-based surveys and tools. This builds on the supportive housing for chronically homeless population 1115 waiver amendment that is currently under consideration with CMS.
- Promote and accelerate the implementation of evidence-based practices *at the point of care* that specifically targets HNHC individuals, including but not limited to, the Chronic Care Model, Collaborative Care Model, Dr. Ornish's Program for Reversing Heart Disease, coordinated care models, and other evidence-based practices that improve outcomes and decrease costs.
- Identify specific populations (i.e. racial/ethnic, geographic, etc.) that have experienced disproportionately poor health outcomes and develop a plan to improve health outcomes and achieve health equity.
- Implement value-based purchasing strategies that incentivize quality, whole-person care, including intensive care management that addresses health-related social needs.
- Implement health homes and value-based purchasing strategies for health homes that aligns with federal initiatives such as the Comprehensive Primary Care Initiative.
- Establish a small set of proven quality measures appropriate for assessing outcomes, including return on investment, and continuously improving programs for HNHC individuals at the provider level and health plan level.
- Further develop the Managed Long Term Services and Supports (MLTSS) program including identifying specific metrics and outcomes in managed care contracts.
- Explore “default enrollment” of dually eligible Medicare/Medicaid members and align Dual Eligible Special Needs Plans (D-SNP) to support continuity and alignment of care.
- Explore paramedicine programs that target HNHC individuals.
- Implementing programs that support palliative care and quality of life at the end of life. In addition, promote the utilization of Physician Orders for Life-Sustaining Treatment Paradigm Forms (POLST), which is an approach to end-of-life planning that elicits, documents and honors patient treatment wishes.

STRATEGY #3: PAYMENT REFORM AND ALIGNMENT

The Way Health Care is Delivered and Paid for Today is Unsustainable

The United States has the most expensive health system in the world. Health spending constitutes more than 18% of the economy, compared with 10% in the average industrialized nation. One of the reason the United States spends so much on health care is because of higher prices compared to other countries. The high cost would be justified if Americans received the highest-quality care and achieved the best health care outcomes. However, evidence suggests that the health care system doesn't produce higher quality care, and even lags in basic population health metrics such as infant mortality, care coordination, patient safety, and access.[xlvii]

Key Definitions

Value-based purchasing (VBP) is generally considered any activity MQD undertakes to hold a provider or a managed care organization accountable for both the costs and quality of care they provide or pay for.

Alternative payment models (APM) or methodologies often define a strategy that changes the way MQD providers are paid, moving away from fee-for-service payment which rewards volume, to methods of payment that incentivize value.

Population-based payment models target expenditures that are established for a population (Total Cost of Care) and a provider or groups of providers are held responsible for quality and cost based on that targeted expenditure.

The Problem with the Way Health Care is Financed

There is emerging consensus among providers, payers, patients, purchasers, and other stakeholders that efforts to deliver affordable quality health care in the United States have been stymied to a large extent by a payment system that rewards providers for volume as opposed to quality.[xlviii] Health care reform efforts that attempt to reconfigure payments to incentivize value, and ensure that valuable activities such as preventive health services and care coordination are compensated appropriately, will better enable providers to invest in care delivery systems that are more focused on patient needs and goals. **Although changes in the payment system are necessary, they are insufficient on their own unless they are aligned with delivery system transformations** which ensure the delivery of high quality care, and that health care costs reflect appropriate and necessary spending for individuals, government, employers, and other stakeholders.

Financial and Quality Alignment across Payers is Critical

New payment models require providers to make fundamental changes in the way care is provided, and the transition to new way of providing care may be costly and administratively difficult even though new payment models are more efficient over time. In order to accelerate this transition, a critical mass of public and private payers must adopt aligned approaches and send a clear and consistent message that payers are committed to a person-centered health system that delivers the best health care possible. **Aligned payment approaches and performance metrics from a critical mass of payers would enable providers to establish an infrastructure that would increase the likelihood of success for innovative delivery systems over the long run.**

MQD’s Road Map to Payment Reform

MQD’s Value-Based Purchasing (VBP) Road Map lays out the way MQD will fundamentally change how health care is provided by implementing new models of care that drive toward population-based care. The goal is to improve the health of Medicaid beneficiaries by providing access to integrated physical and behavioral health care services in coordinated systems, with value-based payment structures. To achieve this, MQD needs to pay for care differently and is exploring the initiatives listed below.

PRIORITY INITIATIVE: VALUE-BASED PURCHASING

The collaborative effort to reshape the health delivery system in Hawaiʻi over the last four years has led to important gains and laid the groundwork for the next level of reform, and MQD is taking this effort to the next level by exploring these activities:

- Evolve current MCO value-based purchasing requirements to reflect the Health Care Payment Learning and Action Network APM Framework (see Table 2), and require the MCOs to move toward more sophisticated VBP purchasing over the life of the contract with primary care providers, hospitals, specialist, LTSS providers, and other provider types.
- Evolve pay-for-performance model to reward MCOs for providing high quality care and access to services and move it towards more outcome-based performance and population metrics. Use funds that are not awarded to support innovations identified in HOPE.
- Research other managed care VBP models such as accountable care organizations, global payments, and other health models.
- Partner and engage with stakeholders to design and develop multi-payer models for services such as acute and outpatient care.
- Incorporate health-related social needs into provider and insurance payments.
- Develop APMs for Federally Qualified Health Centers and promising practices in primary care.
- Development payment models that decrease cost variation by including total cost of care.
- Enhance rate setting methodology and new contracting strategies by allowing MCOs and providers the use of health-related services, including flexible services[xlix] and community benefit initiatives aimed at addressing the social determinants of health.
- Develop a plan to decrease unnecessary care, meaning patient care was received with no benefit in specific clinical scenarios. In 2014, more than $500 million was spent in 2014 on 44 “low-value” health services.[l]

Table 2: HCP LAN Updated APM Framework[li]

Category 1	Category 2 Fee-for-Service – Link to Quality and Value	Category 3 APMs Built on Fee-for-Service Architecture	Category 4 Population-Based Payment
Fee-for-Service – No link to Quality and Value	**A**	**A**	**A**
	Foundational Payments for Infrastructure & Operations (e.g. care coordination fees and payments for HIT investments)	**APMs with Shared Savings** (e.g. shared savings with upside risk only)	**Condition-Specific Population-Based Payment** (e.g. per member per month payments, payments for specialty services, such as oncology or mental health)
	B	**B**	**B**
	Pay for Reporting (e.g. bonuses for reporting data or penalties for not reporting data)	**APMs with Shared Savings and Downside Risk** (e.g. episode-based payments for procedures and comprehensive payments with upside and downside risk)	**Comprehensive Population-Based Payment** (e.g. global budgets or full/percent of premium payments)
	C		**C**
	Pay-for-Performance (e.g. bonuses for quality performance)		**Integrated Finance & Delivery System** (e.g. global budgets or full/percent of premium payments integrated systems)
		3N Risk Based Payments NOT Linked to Quality	**4N** Capitated Payments NOT Linked to Quality

STRATEGY #4: SUPPORT COMMUNITY DRIVEN INITIATIVES TO IMPROVE POPULATION HEALTH

The fourth strategy reflects MQD's commitment to invest in communities by supporting community initiatives, and develop initiatives that link integrated health systems with community resources in order to improve population health. MQD embraces the paradigm shift that emphasizes the role and influence of local initiatives and community partners in shaping a health system responsive to local population health and health care delivery needs while addressing health-related social needs. As noted in our framework principles, while taking on systemic change, the actual innovations are implemented at the local level, meeting local community needs. Taken together population health outcomes improve.

As a part of HOPE, MQD will work with various strategic partners across the spectrum to evolve the health care delivery system from the local level to the top. Improvements in population health at the local and regional levels require aligned state policies, alignment at the health plan level and a collaborative and supportive approach to local initiatives, actionable data, transformation support and investment funding. The goal is to support and/or develop partnerships that will design new models to increase integration, collaboration and alignment among MCOs, local hospitals, community-based organizations, housing authorities, county government and public health agencies, affordable housing providers, corrections, behavioral health and substance use disorder providers.

Hawaiʻi has a long tradition of developing innovative health programs and policies at the local level, and MQD will leverage these initiatives in HOPE in order to advance innovation and avoid duplication. More specifically, MQD is exploring the following activities:

- Work with the relevant entities that currently have responsibility for regional/community health assessments to develop a regional health assessment that identifies and aligns community health improvement priorities and key strategies. The assessment will likely satisfy non-profit community benefit needs assessment requirements.
- Convene and participate in forums that foster needed strategic focus on community health transformation and collaborations across sectors including health care delivery, public health, behavioral health, education, human services, and community-based organizations.
- Support community and local initiatives by streamlining administrative functions and reducing waste and duplicative services. Some of the current administrative complexities are due to misalignment of health plans and local community efforts/providers.
- Develop strategies to evolve health plan and community relationships.
- Seek opportunities and venues that will allow communities to:
    - Act as a forum for harmonizing payment models, performance measures and investments.
    - Act as a forum to identify and develop cross sector investments that may yield created saving or efficiencies for other sectors.
    - Accelerate implementation of new integrated delivery and payment models.

Foundational Building Blocks

The building blocks listed below address fundamental capabilities and supports that must be in place to realize the Triple Aim, and for reform to succeed on a system-wide basis.

FOUNDATIONAL BUILDING BLOCK #1: HEALTH INFORMATION TECHNOLOGY

USE DATA AND ANALYTICS TO DRIVE TRANSFORMATION AND IMPROVE CARE

Access to data and analytics is critical to providing and measuring quality care, and implementing payment reform. MQD is exploring the following:

- Continue to support health information exchange so providers have secured access to appropriate clinical patient information to improve the speed, quality, safety and cost of care;
- Work to increase access to a person's own health record, as well as their health data to encourage personal responsibility and engagement in their own care.
- Increase the number of LTSS and behavioral health providers utilizing electronic records and information exchange.
- Develop capacity to collect, analyze and use clinical and cost data to support patient-centered system development and to track trends;
- Develop capacity to collect, analyze, and integrate claims data, clinical data, and data on social determinants, and provide timely, actionable information to health plans, providers, and consumers. Increase interconnectivity between electronic health records, disease registries, public health registries, actionable reports for providers, and data repositories for analytics;
- Address the governance, legal, policy and technical issues that impede the adoption of exchanging health information among providers;
- Promote common performance measurement reporting among health plans and providers;
- Support data integration across homeless systems as well as health surveillance, personal health records, social determinants and vital records; and
- Support DHS' Enterprise and Integrated eligibility system and DHS programs.
- Reduce administrative burden.
- Develop payment models for total cost of care based on data and analytics listed above.

FOUNDATIONAL BUILDING BLOCK #2: INCREASE WORKFORCE CAPACITY AND FLEXIBILITY

Hawaiʻi faces significant shortages and distribution challenges in its health care workforce which impact access to care, delivery of care, and ultimately health outcomes. Additionally, the healthcare industry is transitioning from acute care to ambulatory care and including community health workers and behavioral health peers as a part of multidisciplinary teams. The goal is to develop delivery and payment models that drive the ability to use clinical and other personnel in the most efficient and effective manner to ensure broad access to high-quality services. MQD is exploring the following activities:

- Promoting the inclusion of community health workers and peer-support specialists in multidisciplinary team based care.

- Encourage and incentivize behavioral health integration into primary care.
- Promote and support residency programs that train new generations of health professionals in whole person, whole family care, team based models, and behavioral health.
- Help promote and build primary care capacity for behavioral health by supporting the Collaborative Care Model, Project ECHO, and other care/capacity building models.
- Promote evidence-based, best practices for recruiting and retaining workforce.

FOUNDATIONAL BUILDING BLOCK #3: PERFORMANCE MEASUREMENT AND EVALUATION

MQD will work with stakeholders to develop a standardized, statewide approach to measure and evaluate the quality and efficiency of care delivered through HOPE. The goal is to create a core set of industry-standard metrics that will serve as a common basis for measuring progress and impact of HOPE and facilitate continuous improvement throughout the initiative. MQD is exploring the following possibilities:

- MQD will develop a proposed dashboard that will include a set of metrics that measure the impact of HOPE.
- MQD will have an evaluation completed on all activities included in HOPE.
- MQD will work with stakeholders to develop a standardized, statewide approach to measure and evaluate the quality and efficiency of care delivered through HOPE.

SECTION IV: THE WAY FORWARD - A VISION FOR SUSTAINABILITY

As health care reform initiatives are taking place in Hawaiʻi as well as the nation, there are increasing concerns about the price tag and the sustainability of the innovations. That is why the initiatives outlined in HOPE have been carefully chosen and meet the following criteria:

- Build on successes of previous reform efforts;
- Leverage community initiatives and resources;
- Have a strong return on investment;
- Have the potential for federal matching dollars; and
- Have broad community support beyond Medicaid.

MQD is working with federal and local stakeholders to identify sustainable financing mechanisms. MQD will request approval from CMS for the 1115 demonstration waiver renewal which if approved will cover some of the initiatives outlined in HOPE (see below). However, not all HOPE initiatives are covered by the 1115 waiver demonstration, so MQD will work with CMS to identify other potential federal authorities and financing mechanisms such as state plan amendments and multi-payer waivers. In addition, MQD may also look into other potential funding opportunities and collaborate with community leaders and providers to seek other funding sources.

WORKING WITH CMS: 1115 DEMONSTRATION WAIVER RENEWAL

In 2018, MQD will request a renewal of the QUEST 1115 Demonstration under the Section 1115(a) of the Social Security Act for a five-year period effective January 1, 2019 through December 31, 2023. The 1115 Demonstration renewal is a vehicle that states use to test new delivery and payment models. The waiver is a contract with the federal government and allows Hawaiʻi to receive a federal match for covered services and populations included in the waiver. It is important to note that waivers have to be budget neutral. This means that MQD cannot spend more than what would be spent without the waiver.

Building on the Success of QUEST and Previous Waiver Requests

MQD is committed to building on the gains it has made in partnership with CMS, and to renewing this demonstration so Hawaiʻi can take health system transformation to the next level through targeted modifications made when renewing the current Section 1115 demonstration waiver.

The waiver renewal will **preserve QUEST's core tenets**:

- Maintain the current populations covered by QUEST;
- Maintain the current comprehensive benefit package;
- Continue to deliver services through a managed care delivery system;
- Continue to integrate physical, behavioral and LTSS into one program;
- Maintain the Community Care Service (CCS) program, a specialized mental health plan; although seek to modify and broaden scope.
- Continue to not require premiums or other cost-sharing; and
- Continue to hold down costs to a sustainable rate of growth.

The waiver renewal goals and strategies will be the same as the goals and strategies identified in this document. Hawaiʻi will request additional flexibility to make the following **targeted changes** in the waiver renewal**:**

- Increase the proportion of health care spending on primary care in order to promote the health system's orientation toward high-value care.
- Continue to promote further developments in value-based purchasing and alternative payment methodologies.
- Promote best practices that address the needs of HNHC individuals (i.e. care coordination, palliative care, Dr. Ornish's Program for Reversing Health Disease).
- Promote primary care and pay for value. Hawaiʻi will request to advance the use of value-based payments to MCOs. MQD will request to provide new performance incentive payments to primary care providers. ·

- Cover additional evidence-based services that further integrate physical and behavioral health services such as the Collaborative Care Model.
- Promote increased investments in health related and flexible services.
- MCOs will be encouraged to invest in services that improve quality and outcomes, and MCOs that reduce costs through the use of these services can receive financial incentives to offset those cost reductions.
- Support workforce development efforts such as Project ECHO, a teaching program for providers
- Restore the adult dental benefit.

Waiver Renewal Hypotheses

The waiver is a vehicle to test new delivery and payment innovations, and MQD will continue to test two overarching hypotheses about its demonstration. (Note that these hypotheses are preliminary and may change during the waiver renewal process.)

- Capitated managed care delivers high quality care, while also slowing the rate of health care expenditure growth; and
- Capitated managed care provides access to HCBS and facilitates rebalancing of provided LTSS.

In addition, MQD will test the following overarching hypotheses about the proposed changes:

- Further integration of physical, behavioral, and oral health care will result in reduced growth of encounter-based spending and improved quality of care, access to care, and health outcomes for QUEST members.
- Increased focus on social determinants of health will result in improved population health outcomes as evidenced by a variety of health indicators.
- A focus on health equity improvements for specific populations that have experienced disproportionately poor health outcomes will result in improved health outcomes, increased access to care, and a reduction in the gap between outcomes for populations of focus and those that historically experienced favorable health outcomes.
- Screening for health-related social needs and making referrals/connections to resources such as housing supports.
- Expansion and increased use of health-related social services will result in improved care delivery and member health and community-level health care quality improvements.
- Adoption and use of value-based payment arrangements will align MCO and their providers with health system transformation objectives and lead to improvements in quality, outcomes, and lowered expenditures.
- A move towards more outcomes-based measures that are tied to incentive programs will improve quality of care, advance state and MCO priorities (e.g. behavioral health and oral health integration, health equity), increased regional collaboration, and improve coordination with other systems (e.g. hospitals, early learning hubs).
- Emphasis on homeless prevention, care coordination and supportive housing services for vulnerable and at-risk adults and families will result in reduction in avoidable hospitalizations

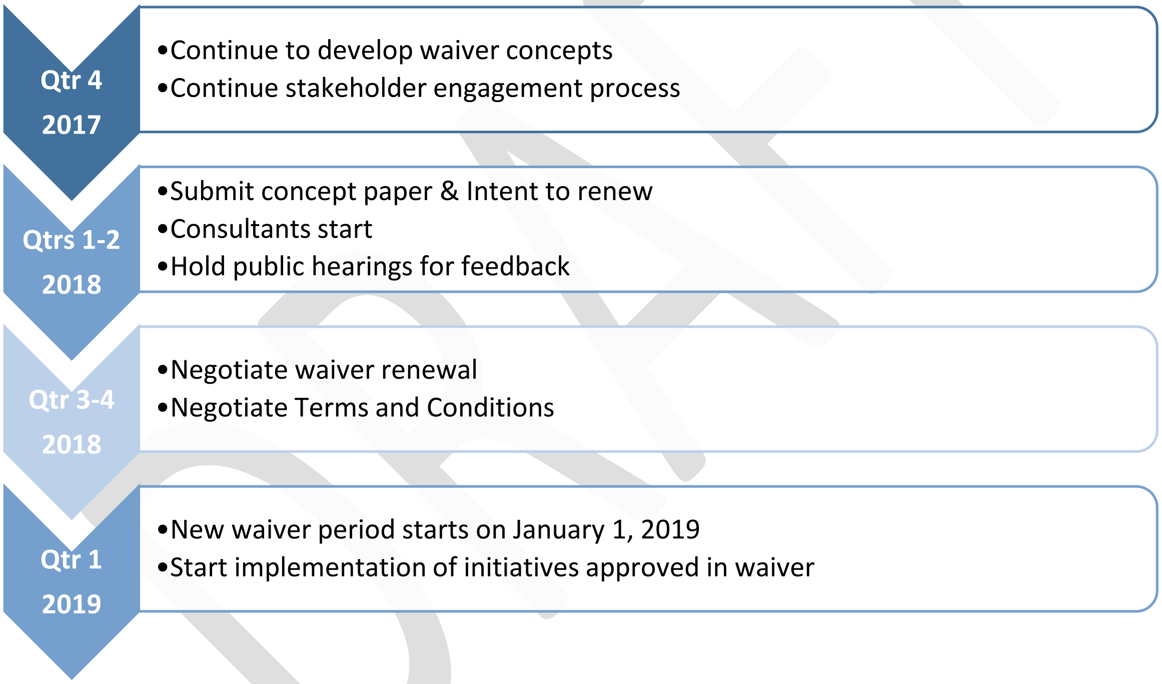
and unnecessary medical utilization (e.g. lower emergency department utilization), transitions to more appropriate community-based settings, increased access to social services, reduction in overall Medicaid costs, and improved regional infrastructure and multi-sector collaboration.

These hypothesis collectively are focused on improving the Triple Aim of better health, better care and sustainable costs – the primary focus of the demonstration renewal.

Next Steps for the Waiver Process

Med-QUEST plans to hire consultants to help with the waiver renewal process. The process will begin in the fourth quarter of 2017 and is expected to be completed by January 2019. The implementation phase is expected to begin in July 2019 and should be completed by 2022.

Figure 5. Waiver Renewal Timeline



- Continue to develop waiver concepts
- Continue stakeholder engagement process

- Submit concept paper & Intent to renew
- Consultants start
- Hold public hearings for feedback

- Negotiate waiver renewal
- Negotiate Terms and Conditions

- New waiver period starts on January 1, 2019
- Start implementation of initiatives approved in waiver

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