MILLIMAN REPORT

Home and Community-Based Services Rate Study – Phase 2 Report

Commissioned by the State of Hawai`i Med-QUEST Division

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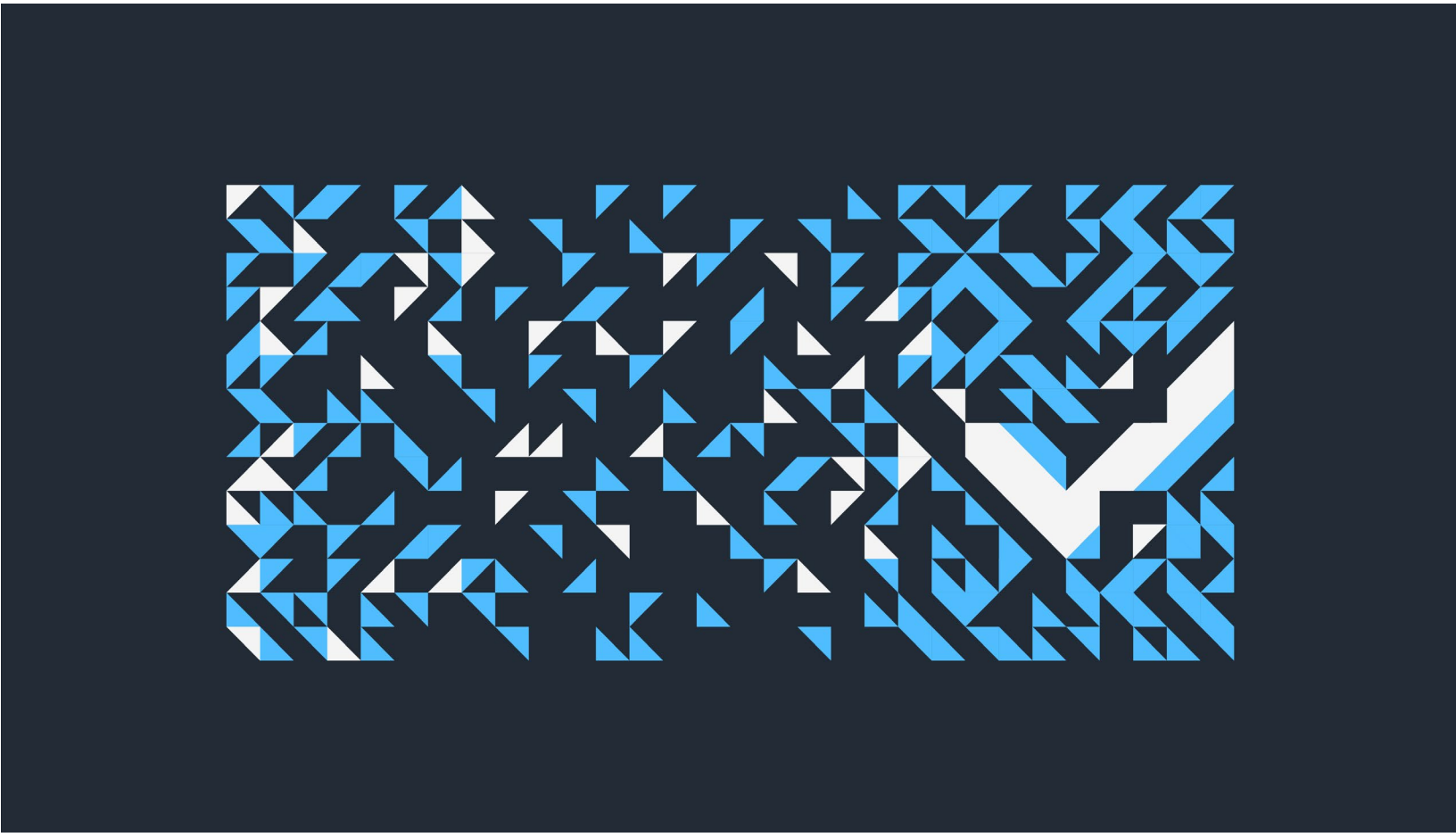

Milliman

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Executive Summary

OVERVIEW

The Hawai`i Department of Human Services (DHS) – Med-QUEST Division (MQD) engaged Milliman Inc. (Milliman) to develop a Medicaid Home and Community-Based Services (HCBS) rate study for its Medicaid QUEST Integration (QI) program. This rate study focused on the development of benchmark "comparison rates" for HCBS services that the State and other stakeholders can use when evaluating changes to overall funding. For this rate study we developed payment methodologies using the Independent Rate Model (IRM) and other rate development approaches as described in **Methodology and Data Relied Upon** section of this report. *It is important to note that before implementing the comparison rates developed in this rate study, there are a number of implementation steps that must be considered and are described in this report, including new funding that would need to be appropriated by the State Legislature*. If approved, new HCBS rates could be published by MQD in a "QI memo" for reference by consideration by HCBS providers and QI Medicaid Managed Care Organizations (MCOs) when negotiating contracts.

MQD commissioned this HCBS rate study in response to the following initiatives:

- In 2022, the State of Hawai`i Legislature passed Senate Resolution #4, which requests "the Department of Human Services to study the feasibility of increases the Medicaid reimbursement rates for Community Care foster family homes, expanded adult residential care homes, and other home and community care provider services."[1]
- MQD's HCBS spending plan under the American Rescue Plan Act of 2021 (ARPA), which specifies the "initiative will include a rate study to identify baseline rates and establish competitive rate methodologies."[2]

This HCBS rate study consists of multiple phases. **Phase 1** of the HCBS rate study is documented in the Milliman report "Home and Community Based Services (HCBS) Rate Study Report" dated December 30, 2022, which focused residential services, in-home services, and case management services. **Phase 2** of the HCBS rate study described in this report focused on developing comparison rates for the following HCBS services:

- Adult Day Services (ADS)
  - Adult Day Care (ADC)
  - Adult Day Health (ADH)
- Assisted Living Facility (ALF) Services
- Home Delivered Meals (HDM)

In addition to these first two phases, MQD has pursued the following as part of the on-going HCBS rate study:

- Self-directed personal assistance rates for Calendar Year (CY) 2024.
- MQD is working with providers and MCOs to develop a covered service definition for Level 3 residential services. We understand that once this definition is determined, MQD will pursue the development of comparison rates in a future phase of the HCBS rate study (subsequent to this report).

For more background on MQD's HCBS rate study, see the "HCBS Rate Study" page on the MQD website.[3]

As a key part of the HCBS rate study efforts, we have conducted stakeholder outreach and engagement with HCBS providers and their associations, collected provider cost and wage survey data, and presented draft rate calculations for provider feedback. Summarized below are key activities conducted in this phase of the HCBS rate study that contributed to the development of comparison rates:

[1] Requesting the Department of Human Services to Study the Feasibility of Increasing the Medicaid Reimbursement Rates for Community Care Foster Family Homes, Expanded Adult Residential Care Homes, And Other Types of Home and Community Based Service Care Providers and Services. State of Hawaii. The Senate Thirty First Legislature. 2022. Retrieved from: https://www.capitol.hawaii.gov/sessions/session2022/bills/SR4_SD1_.PDF

[2] Spending Plan for Implementation of American Rescue Plan Act of 2021, Section 9817. Additional Support for Medicaid Home and Community-Based Services during the COVID-19 Emergency. July 2021. Retrieved from: https://www.medicaid.gov/sites/default/files/2021-10/hi-spending-plan-for-implementation.pdf

[3] Fee Schedules: HCBS Rate Study. State of Hawai`i Department of Human Services. Med-QUEST Division. Retrieved from: https://medquest.hawaii.gov/en/plans-providers/fee-for-service/fee-schedules.html.

- Milliman participated in scheduled weekly meetings with MQD representatives to discuss provider feedback received, planned adjustments to the IRM and modeled comparison rates in response to the feedback, and selected future topics for discussion with stakeholders.
- MQD and Milliman representatives held stakeholder meetings with Adult Day Service providers, Home-Delivered Meals providers, and Assisted Living Facilities (ALFs meetings were facilitated by Healthcare Association of Hawaii, or HAH).
- MQD and Milliman released a provider survey to collect service and staffing related information for Home-Delivered Meals and Adult Day Services.

Milliman leveraged the IRM framework, the rate composite model, and cost projection calculations to incorporate provider feedback and to support the rate development process for services included in this phase of the HCBS rate study. The assumptions developed within each comparison rate model were informed by stakeholder feedback, independent research, provider survey responses, discussion with the Executive Office on Aging, and policy decisions by MQD. The modeled comparison rates under each model approach are summarized below.

Independent Rate Model

For Adult Day Care and Adult Day Health Services we used the IRM framework for payment rate development. Under this approach, we calculated the average costs that a reasonably efficient provider would be expected to incur while delivering these services. As denoted by its description, ***independent*** rate model, this approach builds rates from the ground up, by determining the costs related to individual components and summing the component amounts to derive a payment rate for each service (illustrated in Figure 1). The model's rate components are applicable across services and able to reflect service-specific cost drivers and related assumptions. The resulting payment rates are expressed on the per unit basis appropriate for each service (e.g., per day and per 15-minute increment).

FIGURE 1: INDEPENDENT RATE MODEL COMPONENTS

IRM COMPONENT	DESCRIPTION
Direct Care Staff and Supervisor Salaries and Wages	Includes labor-related costs for direct care staff and supervisors, for both employee wages and salaries and contractor rates
Employee Related Expenses (ERE)	Includes payroll-related taxes and fees and employee benefits
Administration, Program Support, Overhead	Includes program operating expenses, including management, accounting, legal, information technology, etc., excluding room and board (per CMS requirements and consistent with MQD's approved 1115 demonstration)[4]

The IRM components listed above provide a consistent framework across services, while still allowing for customization for each service to determine the appropriate reimbursement level and service delivery incentives. The labor cost assumptions in the IRM provide clear and transparent expectations for the assumed direct care professional wages and benefits levels for providers to follow. The IRM also provides MQD with a mechanism for future rate updates and for developing rates for new services and/or service definitions (e.g., in the event MQD establishes a new level 3 care definition).

Rate Composite Model

The rate composite approach was used for Assisted Living Facility services only and is based on a composite of service components and corresponding rates that reflect the value for the package of services. It includes a range of bundled rates for Assisted Living Facility services, where the range reflects the service rate levels proposed in Phase 1 and Phase 2 of this HCBS rate study (e.g., low, medium, and high rate options). The rate composite for each level includes the following components:

- Personal Assistance Levels I and II
- Adult Day Health

[4] Hawai`i QUEST Integration. Department of Health & Human Services. Centers for Medicare & Medicaid Services. July 3rd, 2019. Retrieved from: https://medquest.hawaii.gov/content/dam/formsanddocuments/med-quest/hawaii-state-plan/Hawaii_QUEST_Integration_1115_Demonstration_Extension_Approval_Package.pdf

- Non-Medical Transportation

The ALF service components were informed by the *Assisted Living Facility Rate Component Mix* file that Milliman received on September 6, 2023 from HAH. The service mix for each level is the same, but the amount of time for each service varies by level. As mentioned, Level 3 rates for individuals with higher needs will be reviewed after the completion of this rate study once a covered service definition has been developed.

Market-Based Rate Development

As part of MQD's goal to understand the actual cost of delivering HDM, the development of the HDM comparison rate approach considered current market-based associated cost factors and pricing of HDM. The rate development used Calendar Year (CY) 2022 HDM claims data provided by health plans and CY 2023 meal rates provided by the Hawai`i Executive Office on Aging (EOA). This approach supports rate alignment across EOA and MQD agencies and intends to limit large discrepancies across public payors for the same service. The assumed meal costs were trended to CY 2024 using the national Consumer Price Index (CPI) All Food forecasted mid-point precent change.

MODELED COMPARISON RATES AND ESTIMATED IMPACT

To support budget estimates and potential new state general fund requirements for the State's consideration, MQD requested a range of modeled comparison rate scenarios. Per MQD's direction we have modeled three rate scenarios for ADS and ALF services ("Low" 1, "Medium" 2, and "High" 3) under different staffing assumptions. The scenarios range differentials are based on staffing wages and the staffing to client served ratio assumptions.

Estimated CY 2024 payments are based on a fixed level of services from CY 2022, without trending or adjustments for potential increases in utilization that may occur in response to higher reimbursement. Estimated CY 2024 payments also do not reflect adjustments for inflation or changes in MCO negotiated rates that may occur from CY 2022. ***Actual QI HCBS payments made by MCOs to providers will differ from the simulated payments in this modeling. Reasons for differences include but are not limited to future changes in enrollment, utilization, service mix, negotiated rates between MCOs and providers, state funding, and other factors.***

Modeled comparison rates under all rate scenarios exceed average CY 2022 service rates paid by MCOs to providers, and therefore are anticipated to result in expenditure increases if utilized by MCOs. HDM service modeled rate range assumptions are based on current market rates, derived from two sources used to develop a low and a high rate-option detailed in the **Methodology and Data Relied Upon** section of this report. Figure 2 below provides a summary of the estimated Managed Care (MC) CY 2024 payment impact from modeled Adult Day Service rates. See the **Results** section of this report for modeled rate changes, and see **Appendix A** for detailed rate calculations.

FIGURE 2: ESTIMATED ADULT DAY SERVICES PAYMENT IMPACT FROM MODELED RATES

		TOTAL AND ESIMATED PAYMENTS CHANGE FROM MC CY2022 FOR MODELED SCENARIOS								
		SCENARIO 1 "LOW"			SCENARIO 2 "MEDIUM"			SCENARIO 3 "HIGH"		
SERVICE	CY 2022 MC PAYMENTS	TOTAL	EST. CHANGE $	EST. CHANGE %	TOTAL	EST. CHANGE $	EST. CHANGE %	TOTAL	EST. CHANGE $	EST. CHANGE %
Adult Day Care	$2.0M	$2.1M	$0.1M	6.4%	$2.4M	$0.4M	22.5%	$2.6M	$0.6M	35.0%
Adult Day Health	$1.3M	$1.5M	$0.2M	22.2%	$1.6M	$0.3M	30.0%	$1.8M	$0.5M	43.9%
Total	**$3.2M**	**$3.6M**	**$0.4M**	**12.6%**	**$4.0M**	**$0.8M**	**25.4%**	**$4.4M**	**$1.2M**	**38.5%**

Figure 3 below provides a summary of the estimated CY 2024 payment impact from modeled ALF rates, assuming 30 new ALF Medicaid beds as a result of these new rates (currently there is limited-to-no Medicaid ALF services being provided). Modeled Level 2 rates (for residents requiring "institutional" level of care) include more service units than modeled Level 1 rates (for residents who would be "at-risk" of requiring institutional" level of care under MQD's proposed new benefit). See **Appendix A** of this report for detailed rate calculations and see the **Methodology** section for more background on the ALF covered service definition.

FIGURE 3: ESTIMATED ASSISTED LIVING FACILITY PAYMENT IMPACT FROM MODELED RATES

ALF SERVICE LEVELS	SCENARIO 1 "LOW"	SCENARIO 2 "MEDIUM"	SCENARIO 3 "HIGH"
ALF – Level 1 ("At-Risk" Level of Care)	$1.5M	$1.7M	$1.8M
ALF – Level 2 ("Institutional" Level of Care)	$2.4M	$2.8M	$3.0M
ALF Total	**$3.9M**	**$4.5M**	**$4.8M**

Figure 4 below provides a summary of modeled comparison rates scenarios for HDM. See the *Results* section of this report for modeled rate changes, and see **Appendix A** for detailed rate calculations.

FIGURE 4: ESTIMATED HOME-DELIVERED MEALS PAYMENT IMPACT FROM MODELED RATES

		TOTAL AND ESIMATED PAYMENTS CHANGE FROM MC CY2022 FOR MODELED SCENARIOS					
		SCENARIO 1 "LOW"			SCENARIO 2 "HIGH"		
SERVICE	CY 2022 MC PAYMENTS	TOTAL	EST. CHANGE $	EST. CHANGE %	TOTAL	EST. CHANGE $	EST. CHANGE %
Home Delivered Meals	$3.8M	$4.1M	$0.3M	8.7%	$5.7M	$1.9M	50.1%

Based on the above modeled rates and CY 2022 service utilization, we estimate total modeled payments for ADS, ALF, and HDM services combined would be approximately **$4.6 million to $7.9 million** above CY 2022 expenditure levels, depending on the selected rate scenario.

For Adult Day Services, estimated payment increases under the modeled rate scenarios reflect reimbursement levels that enable competitive wages for direct care staff, health benefits for employees, and reimbursement for all service-related time (including both direct and indirect time). To replicate current reimbursement levels under the IRM, we would need to adjust the rate assumptions to reflect lower wages, limited health employee benefits, and potentially uncompensated direct service time, which is consistent with provider feedback and survey data on current HCBS provider business practices.

IMPLEMENTATION CONSIDERATIONS

If the State decides to move forward with the comparison rates developed in this rate study, it will need to consider the following key implementation steps:

- Obtain additional state general funds for rate increases
- Discuss new rate methodologies and modeled rates with Medicaid MCOs
- Consider additional updates to wage assumptions for CY 2025 and beyond (depending on comparison rate publishing date)
- Update managed care capitation rates and include in a new rate certification for CMS approval
- Assess potential changes in utilization due to increased payment rates
- Distribute QI memos with MQD's selected comparison rates for each service
- Discuss with HCBS providers the assumptions on direct care staff wages, employee benefits, and staffing ratios/caseloads built into the modeled comparison rates
- Discuss with ALFs the "Form 1147" process for determining the resident level of care and educating ALFs on the process for collecting room and board from residents (separate from the Medicaid service rates modeled in this rate study)
- Develop Level 3 ALF service definition

Introduction and Background

MQD engaged Milliman Inc. (Milliman) to develop a Medicaid HCBS rate study for its Medicaid QI program. This rate study focused on the development of benchmark "comparison rates" for HCBS services that the State and other stakeholders can use when evaluating changes to overall funding. This rate study also establishes payment methodologies using the IRM and other rate development approaches described in **Methodology and Data Relied Upon** section of this report. *It is important to note that before implementing the comparison rates developed in this rate study, there are a number of implementation steps that must be considered and are described in this report, including new funding that would need to be appropriated by the State Legislature*. If approved, new HCBS rates could be published by MQD in a "QI memo" for reference by consideration by HCBS providers and QI Medicaid MCOs when negotiating contracts.

MQD commissioned this HCBS rate study in response to the following initiatives:

- In 2022, the State of Hawai`i Legislature passed Senate Resolution #4, which requests "the Department of Human Services to study the feasibility of increases the Medicaid reimbursement rates for Community Care foster family homes, expanded adult residential care homes, and other home and community care provider services."[5]
- MQD's HCBS spending plan under the American Rescue Plan Act of 2021 (ARPA), which specifies the "initiative will include a rate study to identify baseline rates and establish competitive rate methodologies."[6]

This rate study consists of multiple phases. **Phase 1** of the HCBS rate study is documented in the Milliman report "Home and Community Based Services (HCBS) Rate Study Report" dated December 30, 2022, which focused residential services, in-home services, and case management services. **Phase 2** of the HCBS rate study described in this report focused on developing comparison rates for the following HCBS services:

- Adult Day Services (ADS)
  - Adult Day Care (ADC)
  - Adult Day Health (ADH)
- Assisted Living Facility (ALF) Services
- Home Delivered Meals (HDM)

In addition to these first two phases, MQD has pursued the following as part of the on-going HCBS rate study:

- Self-directed personal assistance rates for CY 2024.
- MQD is working with providers and MCOs to develop a covered service definition for Level 3 residential services. We understand that once this definition is determined, MQD will pursue the development of comparison rates in a future phase of the HCBS rate study (subsequent to this report).

For more background on MQD's HCBS rate study, see the "HCBS Rate Study" page on the MQD website.[7]

STAKEHOLDER FEEDBACK

As a key part of this phase of the HCBS rate study, we have conducted stakeholder outreach and engagement with HCBS providers and their associations, collected provider cost and wage survey data, and presented draft rate calculations for provider feedback. In addition to provider meetings, MQD created an HCBS project website[8] to post project related materials and both MQD and Millman had a specific email inbox to collect stakeholder feedback. The

[5] Requesting the Department of Human Services to Study the Feasibility of Increasing the Medicaid Reimbursement Rates for Community Care Foster Family Homes, Expanded Adult Residential Care Homes, And Other Types of Home and Community Based Service Care Providers and Services. State of Hawaii. The Senate Thirty First Legislature. 2022. Retrieved from: https://www.capitol.hawaii.gov/sessions/session2022/bills/SR4_SD1_.PDF

[6] Spending Plan for Implementation of American Rescue Plan Act of 2021, Section 9817. Additional Support for Medicaid Home and Community-Based Services during the COVID-19 Emergency. July 2021. Retrieved from: https://www.medicaid.gov/sites/default/files/2021-10/hi-spending-plan-for-implementation.pdf

[7] Fee Schedules: HCBS Rate Study. State of Hawai`i Department of Human Services. Med-QUEST Division. Retrieved from: https://medquest.hawaii.gov/en/plans-providers/fee-for-service/fee-schedules.html.

[8] Fee Schedules: HCBS Rate Study. State of Hawai`i Department of Human Services. Med-QUEST Division. Retrieved from: https://medquest.hawaii.gov/en/plans-providers/fee-for-service/fee-schedules.html.

goal of the stakeholder engagement process was to establish an appropriate balance between building consensus among key stakeholders and achieving MQD financing and policy goals. Summarized below are key activities conducted in this phase of the HCBS rate study that contributed to the development of comparison rates:

- Milliman participated in scheduled weekly meetings with MQD representatives to discuss provider feedback received, planned adjustments to the IRM and modeled comparison rates in response to the feedback, and selected future topics for discussion with stakeholders.
- MQD and Milliman representatives held stakeholder meetings with Adult Day Service providers, Home-Delivered Meals providers, and Assisted Living Facilities (ALF meetings were facilitated by HAH).
- MQD and Milliman released a provider survey to collect service and staffing related information for Home-Delivered Meals and Adult Day Services.

The stakeholder engagement conducted for this rate study and key themes of provider feedback summarized in Figure 5 and Figure 6 below.

FIGURE 5: RATE STUDY STAKEHOLDER ENGAGEMENT

STAKEHOLDER ENGAGEMENT/MEETINGS	DESCRIPTION
Regular MQD Status Meetings	Milliman participated in scheduled meetings with MQD representatives. MQD and Milliman met bi-weekly at the onset of the project and met weekly over the last several months of the project. During these meetings, we discussed: ▪ Stakeholder engagement preparation ▪ Research findings ▪ Preliminary analyses, including draft comparison rates, wage changes, and self-directed rates ▪ Provider feedback from the provider workgroup sessions ▪ Final rate assumptions
Public Kick-off Meeting	MQD invited HCBS providers and MCOs as part of the Phase 2 activities to attend a project kickoff meeting with MQD and Milliman representatives regarding the comparison rate development process and its scope. Stakeholders were encouraged to provide feedback during the meeting and at any time in the future via e-mail. Stakeholders interested in joining service specific provider workgroups were invited to contact MQD.
Stakeholder Meetings	MQD and Milliman representatives held stakeholder meetings with the following provider workgroups: ▪ Adult Day Services Providers ▪ Assisted Living Facilities ▪ Home Delivered Meals Providers The primary goals of the provider workgroup meetings were to discuss the costs related to service delivery, the service requirements, and to review preliminary comparison rate assumptions and rates specific to each service type and gather feedback.
Provider Surveys	MQD and Milliman representatives released several provider surveys to inform the rate study, listed below: ▪ HDM provider survey: released on June 23, 2023. Two provider surveys were submitted. ▪ ADS provider survey: released on May 9, 2023. Nine provider surveys were submitted, with seven reported providing ADC services and three reported providing ADH services. Both provider surveys included a dedicated inbox for technical support, a virtual training, and supporting instructions.

FIGURE 6: RATE STUDY STAKEHOLDER FEEDBACK SUMMARY

STAKEHOLDER MEETING TYPE	KEY FEEDBACK SHARED DURING THE MEETINGS
Assisted Living Facility (ALF) Stakeholder Meetings	Major themes from the Assisted Living Facilities meetings, included: ▪ Support for a rate composite approach instead of the IRM ▪ Suggested set of core ALF services to include the rate composite buildup, including PAII service rates and non-emergency transportation fee schedule rates, per the HAH file "ALF Rate Component Mix - FINAL.xlsx" received September 6, 2023 and the HAH letter "Phase II HCBS Rate Study, Feedback on Draft ALF Rates for Hawaii" dated December 5, 2023 ▪ Questions about room and board rates and how payments would be received ▪ Discussion of at-risk vs. institutional levels of care and the 1147 for level of care determination process ▪ Consideration of overall reimbursement levels needed to incentivize ALFs providing Medicaid services
Adult Day Health (ADH) Stakeholder Meetings	Major themes from the Adult Day Health meetings, included: ▪ Caregivers are primarily Certified Nursing Assistants (CNAs) ▪ Providers face challenges with retaining and hiring CNAs ▪ COVID impacted the number of participants and staff available to deliver services ▪ Concerns on missed visits and the negative financial impact ▪ Caseload sizes vary as it relates to the levels of need Staffing and service delivery: ▪ An average of 30 participants per day ▪ Staffing mix consists of: o CNAs – direct care o RNs – supervisor and direct care o Other staff – e.g., recreational therapist, social worker, etc. ▪ Staffing ratio is 1:3 – 1:5 CNA to client ▪ Service includes two snacks and 1 meal per day During the final stakeholder meeting IRM components and assumptions and draft comparison rates were shared with the stakeholders for feedback.
Adult Day Care (ADC) Stakeholder Meetings	Major themes from the Adult Day Care meetings, included: ▪ Most facilities do not have nursing assistants on staff; caregivers are primarily "Activity Assistants" with a high school degree ▪ Providers are competing with the food/service industry labor markets ▪ Difficulties recruiting staff during and after the public health emergency ▪ Activities outside a facility have not returned since COVID ▪ Some issues with Medicaid transportation; families are liable for late pick-up fees Staffing and service delivery: ▪ An average of 30-35 participants per day ▪ Staffing mix consists of: o Activity Assistants – direct care o One Supervisor per facility ▪ Staffing ratio is 1:5 – 1:6 Activity Assistant to client ▪ Service includes two snacks and 1 meal per day During the final stakeholder meeting IRM components and assumptions and draft comparison rates were shared with the stakeholders for feedback.
Additional combined ADS Providers Feedback Received	Unplanned absence costs: Providers expressed concern about a relatively high level of "no-shows" from Medicaid participants, where providers have to staff up for higher participant levels than for which they are actually paid. They also commented on how the opportunity cost of an unplanned absence is the value of a private pay day. Excise tax costs: One provider asked for the rate models to incorporate an adjustment for the State's 4.5% excise tax cost.
Home Delivered Meals (HDM) Stakeholders Meetings	Major themes from the Home Delivered Meals meetings, included: ▪ Number of meals delivered and clients served varies by type of meal (fresh vs. frozen)

STAKEHOLDER MEETING TYPE	KEY FEEDBACK SHARED DURING THE MEETINGS
	▪ No cost difference in fresh vs. frozen meals, but some clients are unable to microwave meals ▪ Delivery takes about 1.5-2 hours and volunteers use personal vehicles, while paid drivers use refrigerated vehicles ▪ Use of dietician consultation in development of menus; dietary restrictions are included with orders as they come in ▪ Number of people receiving meals and volunteers both increased during the pandemic Staffing and service delivery: ▪ Paid drivers get a full benefit package (Medical, PTO, Dental, Vision, Life, etc..) ▪ Some drivers are paid per plate ▪ An average of 5 cooks, 3 kitchen staff, and 1 dishwasher on-site; however, this is variable
Executive Office on Aging (EOA) Meeting – in support of collecting HDM stakeholder feedback	Major themes from the Executive Office on Aging meetings, included: ▪ HDM receives funding from both Older Americans Act (OAA) and the Kupuna Care program (KC) ▪ General agreement with avoiding rate differentials between public payors ▪ EOA uses federal guidelines to provide HDM service ▪ No fixed rate across the board; unit rates typically vary by contract with Area Agencies on Aging (AAAs) ▪ Service delivery mode varies by person

Results

To support budget estimates and potential new state general fund requirements for the State's consideration, MQD requested a range of modeled comparison rate scenarios. Per MQD's direction we have modeled three rate scenarios for ADS and ALF services ("Low", "Medium", and "High") under different staffing assumptions. The scenarios range differentials are based on staffing wages and staffing to client served ratio assumptions.

Modeled comparison rates under all rate scenarios exceed CY 2022 service rates paid by MCOs to providers in aggregate, and therefore are anticipated to result in expenditure increases if utilized by MCOs. HDM service modeled rates range assumptions are based on current market rates that provide low and high rate-options. See the **Methodology and Data Relied Upon** section of this report for more details on the comparison rates development and payment impact modeling process.

The modeled comparison rates from this rate study do not constitute a requirement or commitment that MCOs or other payors adjust current payment arrangements to match these benchmarks, but rather they are informational for potential adoption by providers, MCOs, and other stakeholders during the rate negotiation process. Of particular note:

- MQD is not currently considering the adoption of comparison rates developed in this rate study as an MQD fee-for-service fee schedule.
- Expected funding increases resulting from the modeled comparison rates in this rate study would not be implemented until additional state general funds could be identified.
- At this time, MQD does not plan to reprice individual claims using the comparison rates when determining capitation rates to be paid to the MCOs.

Estimated CY 2024 payments are based on a fixed level of services from CY 2022, without trending or adjustments for potential increases in utilization that may occur in response to higher reimbursement. Estimated CY 2024 payments also do not reflect adjustments for inflation or changes in MCO negotiated rates that may occur from CY 2022. ***Actual QI HCBS payments made by MCOs to providers will differ from the simulated payments in this modeling. Reasons for differences include but are not limited to future changes in enrollment, utilization, service mix, negotiated rates between MCOs and providers, state funding, and other factors.***

Figure 7A below provides a summary of the modeled ADS rates and Figure 7B shows the estimated CY 2024 payment based on CY 2022 utilization.

FIGURE 7A: ADULT DAY SERVICES MODELED RATE SCENARIOS

ADULT DAY SERVICE	AVERAGE MC PAYMENT RATE (CY 2022)	SCENARIO 1 "LOW" MODELED RATE	SCENARIO 1 "LOW" EST. % CHANGE	SCENARIO 2 "MEDIUM" MODELED RATE	SCENARIO 2 "MEDIUM" EST. % CHANGE	SCENARIO 3 "HIGH" MODELED RATE	SCENARIO 3 "HIGH" EST. % CHANGE
Adult day care (per diem)	$59.28	$63.06	6.4%	$72.61	22.5%	$80.03	35.0%
Adult day health (per diem) *	$71.39	$87.21	22.2%	$92.84	30.0%	$102.71	43.9%

**Adult Day Health (half day) rate is based on 50% of the Adult Day Health (per diem) rate.*

FIGURE 7B: ESTIMATED ADULT DAY SERVICES PAYMENT IMPACT FROM MODELED RATES

		TOTAL AND ESIMATED PAYMENTS CHANGE FROM MC CY2022 FOR MODELED SCENARIOS								
		SCENARIO 1 "LOW"			SCENARIO 2 "MEDIUM"			SCENARIO 3 "HIGH"		
SERVICE	CY 2022 MC PAYMENTS	TOTAL	EST. CHANGE $	EST. CHANGE %	TOTAL	EST. CHANGE $	EST. CHANGE %	TOTAL	EST. CHANGE $	EST. CHANGE %
Adult Day Care	$2.0M	$2.1M	$0.1M	6.4%	$2.4M	$0.4M	22.5%	$2.6M	$0.6M	35.0%
Adult Day Health	$1.3M	$1.5M	$0.2M	22.2%	$1.6M	$0.3M	30.0%	$1.8M	$0.5M	43.9%
Total	**$3.2M**	**$3.6M**	**$0.4M**	**12.6%**	**$4.0M**	**$0.8M**	**25.4%**	**$4.4M**	**$1.2M**	**38.5%**

For Adult Day Services, estimated payment increases under the modeled rate scenarios reflect reimbursement levels that enable competitive wages for direct care staff, health benefits for employees, and reimbursement for all service-related time (including both direct and indirect time). To replicate current reimbursement levels under the IRM, we would need to adjust the rate assumptions to reflect lower wages, limited health employee benefits, and potentially uncompensated direct service time, which is consistent with provider feedback and survey data on current HCBS provider business practices.

Figure 8A below provides a summary of modeled ALF rates, and Figure 8B shows the estimated CY 2024 payment impact assuming 30 new ALF Medicaid beds as a result of these new rates (currently there is limited-to-no Medicaid ALF services being provided). Modeled Level 2 rates (for residents requiring "institutional" level of care) assume more services are provided each day than modeled Level 1 rates (for residents who would be "at-risk" of requiring institutional" level of care under MQD's proposed new benefit). See **Appendix A** of this report for detailed rate calculations and see the **Methodology** section for more background on the ALF covered service definition.

FIGURE 8A: ASSISTED LIVING FACILITY MODELED RATE SCENARIOS

ALF SERVICE LEVELS	SCENARIO 1 "LOW"	SCENARIO 2 "MEDIUM"	SCENARIO 3 "HIGH"
ALF – Level 1 ("At-Risk" Level of Care) per diem	$134.79	$154.41	$164.88
ALF – Level 2 ("Institutional" Level of Care) per diem	$219.88	$251.24	$269.34

FIGURE 8B: ESTIMATED ASSISTED LIVING FACILITY PAYMENT IMPACT FROM MODELED RATES

ALF SERVICE LEVELS	SCENARIO 1 "LOW"	SCENARIO 2 "MEDIUM"	SCENARIO 3 "HIGH"
ALF – Level 1 ("At-Risk" Level of Care)	$1.5M	$1.7M	$1.8M
ALF – Level 2 ("Institutional" Level of Care)	$2.4M	$2.8M	$3.0M
ALF Total	**$3.9M**	**$4.5M**	**$4.8M**

Figure 9A below provides a summary of the modeled CY 2024 HDM rates and Figure 9B shows the estimated CY 2024 payment impact based on CY 2022 utilization. Modeled scenario 1 rates are based on trended MC CY 2022

average payments and modeled scenario 2 is based on trended EOA CY 2023 average unit cost; see **Appendix A** of this report for detailed rate calculations.

FIGURE 9A: HOME-DELIVERED MEALS MODELED RATE SCENARIOS

	SCENARIO 1 "LOW"			SCENARIO 2 "HIGH"		
SERVICE	AVERAGE MC PAYMENT RATE (CY 2022)	TRENDED MC CY 2022 AVERAGE RATE	ESTIMATED PAYMENT CHANGE %	AVERAGE 2023 HDM UNIT COST (PER EOA)	TRENDED CY 2023 HDM UNIT COST	ESTIMATED PAYMENT CHANGE %
Home Delivered Meals	$10.18	$11.07	8.7%	$14.85	$15.28	50.1%

FIGURE 9B: ESTIMATED HDM PAYMENT IMPACT FROM MODELED RATES

		TOTAL AND ESIMATED PAYMENTS CHANGE FROM MC CY2022 FOR MODELED SCENARIOS					
		SCENARIO 1 "LOW"			SCENARIO 2 "HIGH"		
SERVICE	CY 2022 MC PAYMENTS	TOTAL	EST. CHANGE $	EST. CHANGE %	TOTAL	EST. CHANGE $	EST. CHANGE %
Home Delivered Meals	$3.8M	$4.1M	$0.3M	8.7%	$5.7M	$1.9M	50.1%

Based on the above modeled rates and CY 2022 service utilization, we estimate total modeled payments for ADS, ALF, and HDM services combined would be approximately **$4.6 million to $7.9 million** above CY 2022 expenditure levels, depending on the selected rate scenario.

See **Appendix A** of this report for detailed rate calculations.

IMPLEMENTATION CONSIDERATIONS

If the State decides to move forward with the comparison rates developed in this rate study, it will need to consider the following key implementation steps:

- Obtain additional state general funds for rate increases
- Consider additional updates to wage assumptions for CY 2025 and beyond (depending on comparison rate publishing date)
- Discuss new rate methodologies and modeled rates with Medicaid MCOs
- Update managed care capitation rates and include in a new rate certification for CMS approval
- Distribute QI memos with MQD's selected comparison rates for each service
- Discuss with HCBS providers the assumptions on direct care staff wages, employee benefits, and staffing ratios/caseloads built into the modeled comparison rates
- Discuss with ALFs the "Form 1147" process for determining the resident level of care and educating ALFs on the process for collecting room and board from residents (separate from the Medicaid service rates modeled in this rate study)
- Develop Level 3 ALF service definition

Methodology and Data Relied Upon

For purposes of developing HCBS comparison rates that are consistent with service requirement and market needs, this rate study relied on three methodologies to develop the comparison rates listed below:

- Independent rate model framework for Adult Day Services: Adult Day Care and Adult Day Health
- Rate composite approach for Assisted Living Facility services
- Market-based cost calculation and development of trended rates for Home Delivered Meals

The following subsections describe the methodology including relevant data sources.

ADULT DAY SERVICES INDEPENDENT RATE MODEL APPROACH

The comparison rate modeling approach relied upon for adult day services was the IRM, which approximates the average costs that a reasonably efficient HCBS provider would be expected to incur while delivering these services. As denoted by its description – ***independent*** rate model – this approach builds rates from the ground up, by determining the costs related to the individual components shown below and summing the component amounts to derive a comparison rate for each service.

The IRM approach can be distinguished from other provider payment methodologies in that it estimates what the costs for each service could be given the resources (salaries and other expenses) reasonably expected to be required, on average, while delivering the services. This approach relies on multiple independent data sources to develop rate model assumptions to construct the comparison rates. By contrast, many cost-based methods rely primarily on the actual reported historical costs incurred while delivering services, which can be affected by operating or service delivery decisions made by providers, and can be limited by current reimbursement level. These operating or service delivery decisions may be inconsistent with program service delivery standards or be caused by program funding limitations that do not necessarily consider the average resource requirements associated with providing these services or include incentives for direct care staff retention. Figure 1 provides an overview of the key components and elements of the IRM approach. The IRM approach constructs a rate for each service as the sum of the costs associated with each of the components shown in Figure 10.

FIGURE 10: INDEPENDENT RATE MODEL COMPONENTS

COMPONENT	ELEMENTS	SUB-ELEMENTS	CLARIFYING NOTES
Clinical Staff and Supervisor Salaries and Wages	Service-related Time	Direct Time	Corresponding time unit, or staffing requirement assumptions where not defined Adjusted for staffing ratios for some services (i.e., more than one person served concurrently, e.g., in group counseling sessions or for residential services).
		Indirect Time	Service-necessary planning, note taking and preparation time
		Transportation Time	Travel time related to providing service
		PTO/Training/ Conference Time	Paid vacation, holiday, sick, training, non-productive, and conference time; also considers additional training time attributable to employee turnover
		Supervisor Time	Accounted for using a span of control variable
	Wage Rates	Can Vary for Overtime	Wage rates vary depending on types of direct service employees, which have been assigned to provider groups
Employee Related Expenses (ERE)	Payroll-related Taxes and Fees	Federal Insurance Contributions Act (FICA), Federal Unemployment Tax Act (FUTA), State Unemployment Insurance (SUI), Workers Compensation	Applicable to all employees, and varies by wage level assumption

COMPONENT	ELEMENTS	SUB-ELEMENTS	CLARIFYING NOTES
	Employee Benefits	Health, Dental, Vision, Life and Disability Insurance, and Retirement Benefits	Amounts may vary by provider group
Administration, Program Support, Overhead	All other business-related costs	Includes program operating expenses, including management, accounting, legal, information technology, etc.	Excludes room and board expenses.

RATE MODEL COMPONENTS

This subsection provides a description of the key rate components listed in Figure 10, which are:

- Direct care staff and supervisor salary and wages
- Employee related expenses
- Administration, program support, overhead

We provide a summary of the potential fiscal impact using CY 2022 utilization data. The calculated rates are listed in Appendix A.

Direct Care Staff and Supervisor Salary and Wages

The direct care staff salary and wage components are typically the largest component of rates, comprising the labor-related cost, or the product of the time and expected wage rates for the direct care staff who deliver each of the services. This component includes costs associated with the direct care staff expected to deliver the services and their immediate supervisors.

Direct Care Staff and Supervisor Time Assumptions

In the IRM approach, direct care staff time is categorized as direct time, indirect time, floating staff time, and supervisor time. Adjustments for paid time off (PTO), holidays, and training time are also incorporated. There are also other time assumptions that are services specific. All assumptions were reviewed with stakeholders for feedback. Figure 11 provides a description of each of these sub-elements and related adjustments.

FIGURE 11: SUMMARY OF SUB-ELEMENTS RELATED TO DIRECT CARE STAFF AND SUPERVISOR TIME

TIME SUB-ELEMENT	DEFINITION	ASSUMPTIONS
Direct Care Staff Direct Time	Amount of time incurred by direct staff that can be billed for services provided to individuals. For example, a service billed as a 15-minute unit assumes that the direct care staff direct time is approximately 15 minutes, an assumption that is consistent with service billing guidelines. Examples of the most common unit types, which vary by service, are a set number of minutes per service unit (e.g., 15-minute, 30-minute), per encounter, per day, or per month.	For service units that are not defined by a time unit (e.g., per diem) direct time assumptions were developed for each procedure code. Assumptions included in the IRM were reviewed with stakeholders.
On-Call Staff Time	Time that is allocated for "on-call" services that are outside of normal working hours.	Adult Day Care assumptions include 0.2 FTEs of a Registered Nurse as an on-call staff. Assumptions included in the IRM were reviewed with stakeholders.
PTO Adjustment Factor	Accounts for additional time that must be covered over the course of a year by other staff, thereby representing additional direct care staff time per unit. Annual time related paid vacation, holiday, and sick time. Annual training and/or conference time expected to be incurred by direct care staff and supervisors. Increased for an estimate that considers the amount of one-time training/onboarding and the frequency of this	PTO adjustment factor varies by provider type. Adult Day services assumes160 hours of PTO per year and 60 hours of training time per year (60 hours of training time includes 40 hours ongoing and 20 hours for new-hire training time) Appendix B provides further detail on PTO and training assumptions by provider type.

TIME SUB-ELEMENT	DEFINITION	ASSUMPTIONS
	type of training time that can be attributable to employee turnover.	Assumptions included in the IRM were reviewed with stakeholders.
Supervisor Time	For the services included in this analysis, staff providing services to individuals require supervision. Supervisors, commonly referred to as front line supervisors, are typically more experienced or higher credentialed provider types responsible for the direct oversight and supervision of those employees that are directly providing the services to individuals. Supervision of direct care staff does not result in a separate billable unit of service. Some providers may not have second-line supervisors while other organizations may operate a two-tiered supervision approach to support direct care staff directly providing services. Supervisor responsibilities may vary, but primarily are providing direct supervising, hiring, training and discipline of the direct care staff, whose primary responsibilities are providing services. Supervisor responsibilities may also include program planning and evaluation, advocacy, working with families, and working with community members.	For Adult Day services, 1.0 FTE is assumed for the supervisory staff across all three rate scenarios. The supervisory staff for Adult Day services is in addition to the two direct care workers: (registered nurse and activity assistant). Assumptions included in the IRM were reviewed with stakeholders.
ADS Group Size	Used when the expected costs of services are more reasonably determined on a daily basis, with resulting accumulated daily expenses across a group converted to a service unit value based on assumptions related to the average number of individuals served and/or units provided during the day.	Adult day services assume an average group size of 30, which was supported by stakeholder feedback received through provider surveys and stakeholder meetings. Assumptions included in the IRM were reviewed with stakeholders.

Wage Rate Assumptions for Direct Care Staff and Supervisors

The direct care staff hourly wage for each provider type was developed using May 2022 wage data from the Bureau of Labor Statistics (BLS) for Hawai`i, published in April 2023 (the most recent BLS wage data currently available). BLS wage data was relied upon because they are publicly available, updated on an annual basis, collected in a consistent and statistically credible manner, and provide the most detailed wage information which allows for wage assumptions to vary by region, by wage percentile, and by provider type. The BLS Standard Occupational Classification (SOC) system does not always include specific occupation codes that directly corresponds to HCBS staff skill level and job requirements. For the purpose of developing HCBS staff wage assumptions, we grouped together relevant BLS occupational codes and blended the wage data based on wage weight assumptions for each selected occupation. Each combination of BLS occupational codes is referred to as a "provider grouping".

The selection of the BLS wage percentile and annual trend factor was informed by the emerging workforce-specific wage trend, stakeholder feedback, and MQD's intent to maintain a strong workforce in Medicaid to carry out HCBS services in today's inflationary and workforce shortage

Figure 12: High Level Themes Regarding Wage Levels from Stakeholder Feedback:

- Overall comments emphasized Phase I stakeholder feedback on wages pressure
  - Significant pressure on wages due to:
    - Competition from other programs and private sector
    - Employee expectations
    - Workforce shortages that predated COVID
  - Difficulty in retaining employees at all levels due to:
    - Impact of COVID on workforce participation
    - Intensity of community-based care
    - Limited staffing pipeline between HCBS providers and schools
    - Ability to obtain higher wages with other competing employers (e.g., nursing homes and hospitals).
  - Staff are increasingly less experienced due to difficulty in retaining more experienced staff.
- Wages have increased in response to increases to minimum wages
  - Providers are competing with the food/service industry labor markets
  - Providers face challenges with retaining and hiring CNAs

environment. Figure 12 highlights themes related to wage levels from stakeholder feedback.

CY 2024 wage levels for purposes of rate calculation were developed using the following steps:

- Obtain the most recent BLS wage data (May 2022)[9] by occupational code for the State of Hawai`i.
- For each provider type, identify similar BLS occupational categories and their related hourly wages.
- Apply an annual trend factor of 3.12% to the base wage rates, which resulted in an overall 6.9% increase in wages from May 2022 to July 2024.[10]
- Calculate the proposed CY 2024 statewide hourly wage rate for each provider type using the trended wages.

Figure 13 below summarizes the trended wage assumptions underlying the rate model. The proposed model wages were informed by the BLS wage data, the provider survey results, stakeholder feedback, and input from MQD. A summary of the wage assumptions included in each rate scenario is provided in Appendix C.

FIGURE 13: DIRECT CARE WORKER AND SUPERVISOR STAFF WAGE ASSUMPTIONS

DIRECT CARE WORKER GROUPINGS BLS OCCUPATION CODES	WAGE WEIGHTING	JULY 2024 – TRENDED BLS WAGES (3.12% ANNUAL TREND RATE) 25TH PERCENTILE	50TH PERCENTILE	75TH PERCENTILE
Activity Assistant (Adult Day Aide)		**$16.15**	**$18.44**	**$21.02**
Home Health and Personal Care Aides	75%	$14.50	$16.48	$18.50
Maids and Housekeeping Cleaners	25%	$21.11	$24.30	$28.57
Supervisor		**$16.15**	**$18.44**	**$21.02**
Home Health and Personal Care Aides	75%	$14.50	$16.48	$18.50
Maids and Housekeeping Cleaners	25%	$21.11	$24.30	$28.57
Case Manager		**$44.87**	**$56.10**	**$63.17**
Healthcare Social Workers	25%	$29.33	$39.25	$42.88
Registered Nurses	75%	$50.05	$61.72	$69.93
Nurse Aide		**$17.45**	**$19.15**	**$23.70**
Nursing Assistants	100%	$17.45	$19.15	$23.70
Registered Nurse		**$50.05**	**$61.72**	**$69.93**
Registered Nurses	100%	$50.05	$61.72	$69.93

Employee Related Expenses (ERE)

This component captures the ERE expected to be incurred for direct care staff and supervisors for each service. ERE percentages were calculated based on the expected level of ERE as a percentage of direct care staff and supervisor salaries and wages for a given wage region. ERE expenses are calculated as the product of the calculated direct care staff and supervisor salary and wage (described above) and an ERE percentage, which varies by provider group.

Employee related expenses include:

- Employer entity's portion of payroll taxes, employee medical and other insurance benefits
- Employer portion of retirement expenses incurred on behalf of direct care staff and supervisors

[9] Federal Reserve Economic Data. (June 2023). Average Hourly Earnings of All Employees, Education and Health Services. Retrieved from: https://fred.stlouisfed.org/series/CES6500000003

[10] Bureau of Labor Statistics. (April 2023). May 2022 State Occupational Employment and Wage Estimates: Hawai'i. Retrieved from: https://www.bls.gov/oes/current/oes_hi.htm

A significant portion of the ERE is driven by the cost of health insurance and retirement benefits the employer provides to its employees. MQD recommended a robust ERE to incentivize providers to offer benefits and to support the retention of a skilled workforce. Figure 14 provides a summary of the employee-related assumptions and their related sources. Insurance and retirement costs were sourced from BLS data for the health care and social assistance[11] civilian worker classification.

FIGURE 14: EMPLOYEE RELATED EXPENSE ASSUMPTIONS

COMPONENTS	ASSUMPTIONS FOR CY 2024	SOURCE
Employee Social Security Withholding	6.2% Wage Base Limit: $160,200 (as projected by SSA under intermediate scenario)	Internal Revenue Service. Topic No. 751 Social Security and Medicare Withholding Rates. Retrieved from https://www.irs.gov/taxtopics/tc751 Social Security Administration. 2023 Old-Age, Survivors, and Disability Insurance (OASDI) Trustee Report. Retrieved from https://www.ssa.gov/oact/TR/2023/V_C_prog.html#147902
Employer Medicare Withholding	1.45%	Journal of Accountancy. Social Security wage base, COLA set for 2023. Retrieved from https://www.journalofaccountancy.com/news/2022/oct/social-security-wage-base-cola-set-2023.html
FUTA Tax	$420 (6% of first $7,000)	Internal Revenue Service. Topic No. 759 Form 940 – Employer's Annual Federal Unemployment (FUTA) Tax Return – Filing and Deposit Requirements. Retrieved from https://www.irs.gov/taxtopics/tc759
SUI Tax	6.20% Wage Base Limit: $56,700	State of Hawai`i Department of Labor and Industrial Relations – Tax Rate Schedule and Weekly Benefit Amount https://labor.hawaii.gov/ui/tax-rate-schedule-and-weekly-benefit-amount/
Workers Compensation	1.4% calculated as percentage of Wage and Salaries and Paid Leave components per December 2022 national data.	U.S. Bureau of Labor Statistics. Economic News Release, December 2022, Employer Costs for Employee Compensation. Table 1.Private Industry Workers. Retrieved from https://www.bls.gov/news.release/ecec.htm
Insurance Benefits	$7,651 per year ($3.42 base hourly cost for the health care and social assistance industry group multiplied by 2,080 hours, trended from June 2023 to July 2024)	U.S. Bureau of Labor Statistics. (March 2023). Economic News Release, Table 2. Employer Costs for Employee Compensation for civilian workers by occupational and industry group. Retrieved from https://www.bls.gov/news.release/archives/ecec_06162023.pdf
Retirement Percent	3.7%	U.S. Bureau of Labor Statistics. (March 2023). Economic News Release, Table 2. Employer Costs for Employee Compensation for civilian workers by occupational and industry group. Retrieved from https://www.bls.gov/news.release/archives/ecec_06162023.pdf
Milliman Medical Index	5.6% trended from 3/1/2023 to 7/1/2024 using a trend factor of 1.08	Annual Analysis 2023 Milliman Medical Index. (May 25, 2023). Retrieved from: https://www.milliman.com/en/insight/2023-Milliman-Medical-Index/

The detailed calculations related to the ERE percentage are shown by provider group in Appendix D.

Administration / Program Support / Overhead

An adjustment to account for the cost of administration, program support, and overhead of the provider is built into each of the rate models.[12] The assumption of 20.0% of the total expenses was used for ADC and ADH. This component is intended to account for the following types of costs:

Administrative-related expenses – Generally, administrative-related expenses would include all expenses incurred by the provider entity necessary to support the provision of services but not directly related to providing services to

[11] Bureau of Labor Statistics. (September 2023). Employer Costs for Employee Compensation – June 2023. Retrieved from: https://www.bls.gov/news.release/pdf/ecec.pdf

[12] Overhead percentages reported within the provider survey had wide variation (ranging from 27.5% to 100%) and were determined not to be statistically valid.

individuals. These expenses exclude transportation, wages, and employee-related expenses for direct care, and may include, but are not limited to:

- Salaries and wages, and related employee benefits for employees or contractors that are not direct service workers or first- and second-line supervisors of direct service workers
- Liability and other insurance
- Licenses and taxes
- Legal and audit fees
- Accounting and payroll services
- Billing and collection services
- Bank service charges and fees
- Information technology
- Telephone and other communication expenses
- Office and other supplies including postage
- Accreditation expenses, dues, memberships, and subscriptions
- Meeting and administrative travel related expenses
- Training and employee development expenses, including related travel
- Human resources, including background checks and other recruiting expenses
- Community education
- Marketing/advertising
- Interest expense and financing fees
- Facility and equipment expense and related utilities
- Vehicle and other transportation expenses not related to transporting individuals receiving services or transporting employees to provide services to individuals
- Board of director-related expenses
- Translation services

Program support costs – include supplies, materials, and equipment necessary to support service delivery

The IRM administration, program support, and overhead adjustment considers each of these expenses and is applied as the percent of the final rate that is allocated for these administrative activities.

ASSISTED LIVING RATE COMPOSITE MODEL APPROACH

The rate composite approach was used for Assisted Living only and is based on a composite of rates for service components that reflect the value for the package of services. It includes a range of bundled rates for Assisted Living, where the range reflects the bundled service rate levels proposed in Phase 1 and Phase 2 of this HCBS rate study initiative. The rate composite for each level includes the following components:

- Personal Assistance Level I and II
- Adult Day Health
- Non-Medical Transportation

The developed comparison rates assume a per diem rate for select analogous Medicaid HCBS to assumed ALF core services. The selection of the ALF core services components informed by the *Assisted Living Facility Rate Component Mix file* that Milliman received on September 6, 2023 from HAH and HAH's letter "RE: Phase II HCBS Rate Study, Feedback on Draft ALF Rates for Hawaii" received December 5, 2023.

Three modeled rate composite scenarios (Low, Medium, and High) were developed assuming two varying levels in the complexity of care provided, based on MQD's current and proposed covered services. Level 3 rates for individuals with higher needs to be reviewed after the completion of this rate study.

Hawai`i Medicaid ALF covered service:

Hawai`i Medicaid HCBS are defined in the QUEST Integration Medicaid Section 1115 Waiver Demonstration in effect through July 31, 2024[13] and under the current 1115 demonstration, Medicaid ALF services are currently covered for

[13] QUEST Integration Medicaid Section 1115 Demonstration. State of Hawai'i, Department of Human Services. October 14, 2020. Retrieved from: https://www.medicaid.gov/sites/default/files/2020-10/hi-quest-expanded-ca.pdf

individuals who meet institutional level of care ("1147 certified") and are able to choose to receive care in the community.

The current Hawai`i Medicaid ALF covered service definition:[14]

> *"Assisted living services include personal care and supportive care services (homemaker, chore, attendant services, and meal preparation) that are furnished to members who reside in an assisted living facility. Assisted living facilities are home-like, non-institutional settings. Payment for room and board is prohibited.*
>
> *Section 30.200 describes Assisted Living Facilities as a facility, as defined in HRS 321-15.1, that is licensed by the Department of Health. This facility must consist of a building complex offering dwelling units to individuals and services to allow residents to maintain an independent assisted living lifestyle. The facility must be designed to maximize the independence and self-esteem of limited-mobility persons who feel that they are no longer able to live on their own."*

Hawai`i Medicaid ALF proposed new benefit:

MQD proposed to include Medicaid covered ALF services for the "at risk" population within the HCBS package of benefits with a proposed effective date of August 1, 2024 (pending CMS approval). This new service level would be available for individuals who are assessed to be at risk of deteriorating to the institutional level of care: *"This proposed improvement is consistent with the State's goal of ensuring full access to the benefits of community living so that individuals can maintain independence in the least restrictive setting of their choosing, as clinically appropriate."*[15] MQD's proposed changes would be effective August 1, 2024 as part of its proposed Section 1115 Demonstration Renewal Application.

Long-Term-Care Level of Care (LOC) and At-Risk Determinations are conducted by MQD's External Quality Review Organization Services (EQRO) vendor as detailed below:

> *"[Health Services Advisory Group] HSAG conducts LOC determinations on requests submitted by the QUEST Integration health plans and community providers for Medicaid members requiring nursing facility (NF) level of care or who are at risk of deteriorating to the NF LOC. HSAG maintains an electronic data base of requests and determinations in "HILOC"—a secure Web application available to Hawaii Medicaid health plans and their contracted Medicaid providers."*[16]

ALF Composite Rate Development

In developing the ALF comparison rates, we used a mix of core ALF services from HAH's ALF service matrix received on September 6, 2023, reviewed a mapping of core ALF services to MQD services with ALF providers, and relied on discussion with MQD to inform the final services and service unit assumptions. For purposes of developing ALF composite rates relevant to assumed current economies of scale, we relied on the applicable service-specific rates from the Phase I and Phase II Medicaid HCBS rate calculations. Transportation costs were built separately and relied upon the MQD fee schedule for non-medical transportation services, this was also informed from feedback submitted by HAH and representative ALFs.

Key Level 1 and Level 2 scenario differences highlighted below:

- Level 1 ("At-risk" level of care code 11): Assumes a total direct service time of 5 hours per day, consisting of housekeeping, escort services, personal care, activities, dining service, nursing care, and medication administration. The preliminary ALF per diem rate range is between $134.79 and $164.88 assuming service recipients who meet the "At-risk" level of care (not currently eligible for this benefit).
- Level 2 ("Institutional" level of care code 01): Reflects higher assumed direct service time per day for a total of 9 hours and includes skilled nursing care in addition to services included in Level 1, which we assume would most likely be for individuals who meet institutional level of care (currently eligible for this benefit). The preliminary ALF

[14] QUEST Integration Medicaid Section 1115 Demonstration. State of Hawai'i, Department of Human Services. October 14, 2020. Retrieved from: https://www.medicaid.gov/sites/default/files/2020-10/hi-quest-expanded-ca.pdf

[15] QUEST Integration Section 1115 Demonstration. State Of Hawai'i, Department of Human Services, Med-QUEST Division. October 16, 2023. Retrieved from: https://medquest.hawaii.gov/content/dam/formsanddocuments/med-quest/section-1115-demonstration-renewal-for-2024/1115_Demonstration_Application_Public_Comment_FINAL_10132023.pdf

[16] Hawaii Medicaid EQRO. Health Services Advisory Group. Accessed online on October 30, 2023 from: https://www.hsag.com/en/myhawaiieqro/

per diem rate range is between $219.88 and $269.33.

The ALF Level 2 rate options reflect a 63% average rate differential from Level 1 rate options.

Transportation costs assumed 1.5 trips per week (5-mile trip per person) and are aligned with the current Medicaid fee-for-services fee schedule base rate for procedure code **A0130** billed with modifier **WQ** plus the mileage billed at procedure code **A0425**. Procedure codes descriptions are provided in Figure 15 below.

FIGURE 15: PROCEDURE CODES DESCRIPTION

PROCEDURE CODE	DESCRIPTION[17]
A0130	Non-Emergency Transportation: Wheelchair Van
A0130 Modifier: WQ	Curbside Pickup and Discharge
A0425	Ground Mileage, Per Statute Mile

Figure 16 and Figure 17 below provide detail ALF level service components:

FIGURE 16: ALF LEVEL 1 SERVICE COMPONENTS ("AT-RISK" LEVEL OF CARE)

CORE ALF SERVICE	ASSUMED SERVICE UNITS PER DAY	PROPOSED MEDICAID HCBS RATE COMPOSITE	TOTAL UNITS PER DAY
Housekeeping	0.25 (hours)	Personal Assistance Level 1	1.0 (hour)
Escort Services	0.75 (hours)		
Personal Care	1.50 (hours)	Personal Assistance Level 2	1.5 (hours)
Activities	2.00 (hours)		
Dining Service	Lunch and Snacks		
Nursing Care	0.25 (hours)	Adult Day Health	2.5 (hours)
Skilled Nursing Care	0.00 (hours)		
Medication Administration	0.25 (hours)		

FIGURE 17: ALF LEVEL 2 SERVICE COMPONENTS ("INSTITUTIONAL" LEVEL OF CARE)

CORE ALF SERVICE	ASSUMED SERVICE UNITS PER DAY	PROPOSED MEDICAID HCBS RATE COMPOSITE	TOTAL UNITS PER DAY
Housekeeping	0.50 (hours)	Personal Assistance Level 1	2.0 (hours)
Escort Services	1.50 (hours)		
Personal Care	2.00 (hours)	Personal Assistance Level 2	2.0 (hours)
Activities	4.00 (hours)		
Dining Service	Lunch and Snacks		
Nursing Care	0.50 (hours)	Adult Day Health	5.0 (hours)
Skilled Nursing Care	0.25 (hours)		
Medication Administration	0.25 (hours)		

[17] Medicaid Fee-for-Service (FFS) Fee Schedule, without modifiers. Med-QUEST Hawaii. September 11, 2021. Retrieved from: https://medquest.hawaii.gov/content/dam/formsanddocuments/plans-and-providers/HI_Fee_Schedule_as_of_20210911_FINAL_20220412.pdf

Chapter 16: Medicaid Provider Manual. Med-QUEST Hawaii. January 2011. Retrieved from: https://medquest.hawaii.gov/content/dam/formsanddocuments/resources/Provider-Resources/provider-manuals/PMChp16.pdf

Each of the included proposed ALF components are based on waiver service definition requirements, and feedback from ALF members submitted via HAH and discussions over multiple stakeholder meetings with ALF members. The proposed monthly rate is calculated by multiplying the proposed rate composite's daily rate by 30.5 days.

For more detailed calculations, refer to the ALF rate calculations in **Appendix A.**

HOME DELIVERED MEALS MARKET-BASED RATE DEVELOPMENT

As part of MQD's goal to understand the actual cost of delivering HDM, the development of the HDM comparison rate approach considered current market-based associated cost factors and pricing of HDM. The rate development used 2022 HDM claims data provided by health plans and 2023 statewide meal rates provided by the HI EOA. This approach supports rate alignment across EOA and MQD agencies and intends to limit large discrepancies across public payors for the same service. Assumed meal costs were trended to CY 2024 using the Consumer Price Index (CPI) [18] All Food forecasted mid-point precent change as described below:

- Scenario 1 "Low": Utilized CY 2022 claims data to calculate the average MC payment per meal. The average payment per meal was trended to CY 2024 using the CPI forecast midpoint percent change for 2023 of 5.8% and 2024 of 2.9%.
- Scenario 2 "High": Relied on a summary of 2023 Hawai'i HDM unit costs provided by the EOA, received on November 9, 2023, used to calculate the average per meal unit cost. The average 2023 HDM unit cost were trended to CY 2024 using the CPI forecast midpoint percent change for 2024 of 2.9%.

See **Appendix A** for the HDM rate summary.

ESTIMATED PAYMENT IMPACT

The estimated payments under each modeled comparison rate scenario for ADS and HDM were calculated by multiplying modeled rates by the service units in the CY 2022 Medicaid MC encounter data, originally received from the MCOs on May 1st, 2023, via separate data feed extracts. We compared modeled comparison rate payments to 2022 baseline payments by calculating the sum of the reported MCO paid amounts in the CY 2022 Medicaid MC encounter data. The average unit cost was calculated by dividing the sum of paid claim dollars by the sum of paid units. ALF estimated payment impact assumes projected ALF service utilization from new 30 units (beds) statewide, resulting in all new expenditures (given there is currently little to no Medicaid ALF utilization).

[18] Changes in Consumer Price Indexes, 2021 through 2024. U.S. Bureau of Labor Statistics Consumer Price Indexes (not seasonally adjusted) and forecasts by USDA, Economic Research Service. November 2023. Retrieved from: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.ers.usda.gov%2Fwebdocs%2FDataFiles%2F50673%2FCPIForecast.xlsx%3Fv%3D2583&wdOrigin=BROWSELINK

Caveats and Limitations

This report is intended for the use of the State of Hawai`i Med-QUEST (MQD) in support of its 2023 Phase 2 Home and Community-Based Services (HCBS) rate study and is not appropriate for other purposes.

We understand this report will be shared publicly with Hawai`i HCBS stakeholders, including HCBS providers, Medicaid Managed Care Organizations, the Healthcare Association of Hawaii, and the Hawai`i State Legislature. To the extent that information contained in this report is provided to any approved third parties, the report should be distributed in its entirety. Any user of the data must possess a certain level of expertise to not misinterpret the information presented.

Milliman makes no representations or warranties regarding the contents of this report to third parties. Likewise, third parties are instructed that they are to place no reliance upon this report prepared for MQD by Milliman that would result in the creation of any duty or liability under any theory of law by Milliman or its employees to third parties. Other parties receiving this letter must rely upon their own experts in drawing any conclusions about the rates, assumptions, and trends.

Before implementing the comparison rates developed in this rate study, there are a number of implementation steps that must be considered and are described in this report, including new funding that would need to be appropriated by the Hawai`i State Legislature.

Future alignment of the projected rate and actual HCBS provider experience will depend on the extent to which future experience conforms to the assumptions reflected in the independent rate model. It is certain that actual experience will not conform exactly to the assumptions used in the rate development due to differences in HCBS labor costs, provider efficiency, and many other factors. Actual amounts will differ from projected amounts to the extent that actual experience is higher or lower than expected.

Milliman has developed certain models to estimate the values included in this report. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose. The models rely on data and information as input to the models. We have relied upon certain data and information provided by MQD and other sources and accepted it without audit. To the extent that the data and information provided is not accurate, or is not complete, the values provided in this report may likewise be inaccurate or incomplete. The models, including all input, calculations, and output may not be appropriate for any other purpose.

Appendix A

State of Hawai'i
Department of Human Services
Med-QUEST Division
HCBS Rate Study – Phase II
Appendix A.1: Preliminary HCBS Rate Calculations - Scenario 1 "Low"

Service Information

Service Code: S5105

Service Description: Adult Day Care

Reporting Units: Per Diem

Ref.	Description	Registered Nurse	Activity Assistant (Adult Day Aide)	Supervisor	Total	Notes
A	Hourly wage	$ 50.05	$ 18.44	$ 21.02		
B	Number of employees	0.20	5.00	1.00	6.20	
C	Total Daily Hours	1.60	40.00	8.00	49.60	
D	PTO/training/conference time adjustment factor	**11.1%**	**11.1%**	**11.1%**		Based on separate PTO build
E	Adjusted total hours of time per day	**1.78**	**44.42**	**8.88**	**55.08**	E= C * (1 + D)
F	**Total wages expense per day**	**$ 88.93**	**$ 818.98**	**$ 186.76**	**$ 1,094.67**	F = A * E
G	Employee related expense (ERE) percentage	23.9%	40.0%	37.4%		Based on separate ERE build
H	**Total ERE expense per day**	**$ 21.24**	**$ 327.56**	**$ 69.86**	**$ 418.66**	H = F * G
I	Administration / Program Support / Overhead				20.0%	Portion of daily costs
J	**Daily Administrative Expenses**				**378.33**	J = I * (F + H) / (1 - I)
K	**Daily Costs**				**$ 1,891.65**	K = F + H + J
L	Number of clients per team				30.00	
M	**Per Diem Rate**				**$ 63.06**	**M = K / L**

Ref.	Summary of Rate Model Components				Total	Notes
N	Direct Service Provider Salaries & Wages				$ 36.49	
O	Employee Related Expenses				$ 13.96	
P	Administration, Program Support & Overhead				$ 12.61	
Q	**Total Rate**				**$ 63.06**	

State of Hawai'i
Department of Human Services
Med-QUEST Division
HCBS Rate Study – Phase II
Appendix A.2: Preliminary HCBS Rate Calculations - Scenario 2 "Medium"

Service Information

Service Code: S5105

Service Description: Adult Day Care

Reporting Units: Per Diem

Ref.	Description	Registered Nurse	Activity Assistant (Adult Day Aide)	Supervisor	Total	Notes
A	Hourly wage	$ 50.05	$ 18.44	$ 21.02		
B	Number of employees	0.20	6.00	1.00	7.20	
C	Total Daily Hours	1.60	48.00	8.00	57.60	
D	PTO/training/conference time adjustment factor	**11.1%**	**11.1%**	**11.1%**		Based on seperate PTO build
E	Adjusted total hours of time per day	**1.78**	**53.30**	**8.88**	**63.97**	E= C * (1 + D)
F	**Total wages expense per day**	**$ 88.93**	**$ 982.78**	**$ 186.76**	**$ 1,258.46**	F = A * E
G	Employee related expense (ERE) percentage	23.9%	40.0%	37.4%		Based on separate ERE build
H	**Total ERE expense per day**	**$ 21.24**	**$ 393.07**	**$ 69.86**	**$ 484.17**	H = F * G
I	Administration / Program Support / Overhead				20.0%	Portion of daily costs
J	**Daily Administrative Expenses**				**435.66**	J = I * (F + H) / (1 - I)
K	**Daily Costs**				**$ 2,178.29**	K = F + H + J
L	Number of clients per team				30.00	
M	**Per Diem Rate**				**$ 72.61**	**M = K / L**

Ref.	Summary of Rate Model Components				Total	Notes
N	Direct Service Provider Salaries & Wages				$ 41.95	
O	Employee Related Expenses				$ 16.14	
P	Administration, Program Support & Overhead				$ 14.52	
Q	**Total Rate**				**$ 72.61**	

State of Hawai'i
Department of Human Services
Med-QUEST Division
HCBS Rate Study – Phase II
Appendix A.3: Preliminary HCBS Rate Calculations - Scenario 3 "High"

Service Information

Service Code: S5105

Service Description: Adult Day Care

Reporting Units: Per Diem

Ref.	Description	Registered Nurse	Activity Assistant (Adult Day Aide)	Supervisor	Total	Notes
A	Hourly wage	$ 50.05	$ 21.02	$ 22.37		
B	Number of employees	0.20	6.00	1.00	7.20	
C	Total Daily Hours	1.60	48.00	8.00	57.60	
D	PTO/training/conference time adjustment factor	**11.1%**	**11.1%**	**11.1%**		Based on seperate PTO build
E	Adjusted total hours of time per day	**1.78**	**53.30**	**8.88**	**63.97**	E= C * (1 + D)
F	**Total wages expense per day**	**$ 88.93**	**$ 1,120.53**	**$ 198.72**	**$ 1,408.18**	F = A * E
G	Employee related expense (ERE) percentage	23.9%	37.4%	36.3%		Based on separate ERE build
H	**Total ERE expense per day**	**$ 21.24**	**$ 419.17**	**$ 72.13**	**$ 512.54**	H = F * G
I	Administration / Program Support / Overhead				20.0%	Portion of daily costs
J	**Daily Administrative Expenses**				**480.18**	J = I * (F + H) / (1 - I)
K	**Daily Costs**				**$ 2,400.90**	K = F + H + J
L	Number of clients per team				30.00	
M	**Per Diem Rate**				**$ 80.03**	**M = K / L**

Ref.	Summary of Rate Model Components				Total	Notes
N	Direct Service Provider Salaries & Wages				$ 46.94	
O	Employee Related Expenses				$ 17.08	
P	Administration, Program Support & Overhead				$ 16.01	
Q	**Total Rate**				**$ 80.03**	

State of Hawai'i
Department of Human Services
Med-QUEST Division
HCBS Rate Study – Phase II
Appendix A.4: Preliminary HCBS Rate Calculations - Scenario 1 "Low"

Service Information

Service Code: S5102

Service Description: Adult Day Health

Reporting Units: Per Diem

Ref.	Description	Registered Nurse	Nurse Aide	Supervisor	Total	Notes
A	Hourly wage	$ 50.05	$ 17.45	$ 18.44		
B	Number of employees	1.00	6.00	1.00	8.00	
C	Total Daily Hours	8.00	48.00	8.00	64.00	
D	PTO/training/conference time adjustment factor	**11.1%**	**11.1%**	**11.1%**		Based on seperate PTO build
E	Adjusted total hours of time per day	**8.88**	**53.30**	**8.88**	**71.07**	E= C * (1 + D)
F	**Total wages expense per day**	**$ 444.64**	**$ 929.93**	**$ 163.80**	**$ 1,538.37**	F = A * E
G	Employee related expense (ERE) percentage	23.9%	41.2%	40.0%		Based on separate ERE build
H	**Total ERE expense per day**	**$ 106.18**	**$ 383.05**	**$ 65.51**	**$ 554.74**	H = F * G
I	Administration / Program Support / Overhead				20.0%	Portion of daily costs
J	**Daily Administrative Expenses**				**523.28**	J = I * (F + H) / (1 - I)
K	**Daily Costs**				**$ 2,616.39**	K = F + H + J
L	Number of clients per team				30.00	
M	**Per Diem Rate**				**$ 87.21**	**M = K / L**

Ref.	Summary of Rate Model Components				Total	Notes
N	Direct Service Provider Salaries & Wages				$ 51.28	
O	Employee Related Expenses				$ 18.49	
P	Administration, Program Support & Overhead				$ 17.44	
Q	**Total Rate**				**$ 87.21**	

State of Hawai'i
Department of Human Services
Med-QUEST Division
HCBS Rate Study – Phase II
Appendix A.5: Preliminary HCBS Rate Calculations - Scenario 2 "Medium"

Service Information

Service Code: S5102

Service Description: Adult Day Health

Reporting Units: Per Diem

Ref.	Description	Registered Nurse	Nurse Aide	Supervisor	Total	Notes
A	Hourly wage	$ 50.05	$ 19.15	$ 21.02		
B	Number of employees	1.00	6.00	1.00	8.00	
C	Total Daily Hours	8.00	48.00	8.00	64.00	
D	PTO/training/conference time adjustment factor	**11.1%**	**11.1%**	**11.1%**		Based on seperate PTO build
E	Adjusted total hours of time per day	**8.88**	**53.30**	**8.88**	**71.07**	E= C * (1 + D)
F	**Total wages expense per day**	**$ 444.64**	**$ 1,020.53**	**$ 186.76**	**$ 1,651.93**	F = A * E
G	Employee related expense (ERE) percentage	23.9%	39.2%	37.4%		Based on separate ERE build
H	**Total ERE expense per day**	**$ 106.18**	**$ 400.22**	**$ 69.86**	**$ 576.26**	H = F * G
I	Administration / Program Support / Overhead				20.0%	Portion of daily costs
J	**Daily Administrative Expenses**				**557.05**	J = I * (F + H) / (1 - I)
K	**Daily Costs**				**$ 2,785.24**	K = F + H + J
L	Number of clients per team				30.00	
M	**Per Diem Rate**				**$ 92.84**	**M = K / L**

Ref.	Summary of Rate Model Components				Total	Notes
N	Direct Service Provider Salaries & Wages				$ 55.06	
O	Employee Related Expenses				$ 19.21	
P	Administration, Program Support & Overhead				$ 18.57	
Q	**Total Rate**				**$ 92.84**	

State of Hawai'i
Department of Human Services
Med-QUEST Division
HCBS Rate Study – Phase II
Appendix A.6: Preliminary HCBS Rate Calculations - Scenario 3 "High"

Service Information

Service Code: S5102

Service Description: Adult Day Health

Reporting Units: Per Diem

Ref.	Description	Registered Nurse	Nurse Aide	Supervisor	Total	Notes
A	Hourly wage	$ 50.05	$ 19.15	$ 21.02		
B	Number of employees	1.00	7.00	1.00	9.00	
C	Total Daily Hours	8.00	56.00	8.00	72.00	
D	PTO/training/conference time adjustment factor	**11.1%**	**11.1%**	**11.1%**		Based on seperate PTO build
E	Adjusted total hours of time per day	**8.88**	**62.19**	**8.88**	**79.96**	E= C * (1 + D)
F	**Total wages expense per day**	**$ 444.64**	**$ 1,190.62**	**$ 186.76**	**$ 1,822.01**	F = A * E
G	Employee related expense (ERE) percentage	23.9%	39.2%	37.4%		Based on separate ERE build
H	**Total ERE expense per day**	**$ 106.18**	**$ 466.93**	**$ 69.86**	**$ 642.97**	H = F * G
I	Administration / Program Support / Overhead				20.0%	Portion of daily costs
J	**Daily Administrative Expenses**				**616.25**	J = I * (F + H) / (1 - I)
K	**Daily Costs**				**$ 3,081.23**	K = F + H + J
L	Number of clients per team				30.00	
M	**Per Diem Rate**				**$ 102.71**	**M = K / L**

Ref.	Summary of Rate Model Components				Total	Notes
N	Direct Service Provider Salaries & Wages				$ 60.73	
O	Employee Related Expenses				$ 21.43	
P	Administration, Program Support & Overhead				$ 20.54	
Q	**Total Rate**				**$ 102.71**	

State of Hawai'i
Department of Human Services
Med-QUEST Division
HCBS Rate Study – Phase II
Appendix A.7: Assisted Living Facility Service Rate Calculation - Level 1

Included ALF Core Services and Assumed Service Time		Proposed Analogous Medicaid HCBS Services		Modeled ALF Rate Components						Average Paid per Unit 2022 Provider Experience for Demonstration	
HAH Provided Core ALF Services	Assumed Service Units per Day	Service Type	Total Units Per Day	HCBS Service Hourly Rate	Low Calculated Rate	HCBS Service Hourly Rate	Medium Calculated Rate	HCBS Service Hourly Rate	High Calculated Rate	HCBS Service Hourly Rate	Calculated Rate
			A	B	C = A * B	D	E = A *D	F	G = A * F	H	I = A *H
Housekeeping Escort Services	0.25 (hours) 0.75 (hours)	Personal Assistance Level 1	1.0 (hour)	$35.00	$35.00	$41.04	$41.04	$44.16	$44.16	$35.12	$35.12
Personal Care	1.50 (hours)	Personal Assistance Level 2	1.5 (hours)	$45.68	$68.52	$53.56	$80.34	$56.40	$84.60	$38.69	$58.04
Activities Dining Service Nursing Care Skilled Nursing Care Medication Administration	2.00 (hours) Lunch and Snacks 0.25 (hours) 0.00 (hours) 0.25 (hours)	Adult Day Health	2.5 (hours)	$10.90	$27.25	$11.61	$29.01	$12.84	$32.10	$8.76	$21.89
Transportation[1]	1.5 trips per week (5-mile trip per person)	Fixed add-on cost of $4.02 calculated assuming current Medicaid FFS fee schedule rate of $9 base fee and $1.95 mileage fee per trip.									
		Modeled ALF Per Diem Rate			**$134.79**		**$154.41**		**$164.88**		**$119.06**
		Average Monthly Rate Assuming 30.5 Days			**$4,111.03**		**$4,709.52**		**$5,028.77**		**$3,631.35**

Notes:

ALF Level 1 scenario assumes resident level of care is "at risk" of deteriorating to institutional level of care (not currently a QI covered Assisted Living service).

Phase I Personal Assistance Level 1 (low, medium, high) 15-minute unit rate converted to hourly, based on final Milliman HCBS Phase I report dated 12/30/2022.

Phase II Adult Day Health (low, medium, high) per diem unit rate converted to hourly, based on Milliman Adult Day stakeholder presentation dated 08/24/2023.

HAH provided ALF Core Services in Column B were based on the ALF Rate Component Mix file received via email from HAH - Robert Choy on 09/06/2023. Therapy, Emergency Response and Maintenance services were not included in Level 1 and Level 2 scenarios based on discussion with MQD. Therapy services are paid for separately, and Emergency Response and Maintenance and covered under room and board.

The Average Paid per Unit in 2022 Provider Experience for Demonstration calculated per diem and average monthly rates include a transportation assumption that is based off of the MQD fee schedule and not CY 2022 Medicaid managed care utilization.

[1]**Source:** *Medicaid Fee-for-Service (FFS) Fee Schedule 2021, without modifiers. MedQUEST Hawai'i. December 12, 2023. Retrieved from: https://medquest.hawaii.gov/content/dam/formsanddocuments/plans-and-providers/HI_Fee_Schedule_as_of_20210911_FINAL_20220412.pdf*

State of Hawai'i
Department of Human Services
Med-QUEST Division
HCBS Rate Study – Phase II
Appendix A.8: Assisted Living Facility Service Rate Calculation - Level 2

Included ALF Core Services and Assumed Service Time		Proposed Analogous Medicaid HCBS Services		Modeled ALF Rate Components						Average Paid per Unit 2022 Provider Experience for Demonstration	
HAH Provided Core ALF Services	Assumed Service Units per Day	Service Type	Total Units Per Day	HCBS Service Hourly Rate	Low Calculated Rate	HCBS Service Hourly Rate	Medium Calculated Rate	HCBS Service Hourly Rate	High Calculated Rate	HCBS Service Hourly Rate	Calculated Rate
			A	B	C = A * B	D	E = A *D	F	G = A * F	H	I = A *H
Housekeeping	0.50 (hours)	Personal Assistance Level 1	2.0 (hours)	$35.00	$70.00	$41.04	$82.08	$44.16	$88.32	$35.08	$70.17
Escort Services	1.50 (hours)										
Personal Care	2.00 (hours)	Personal Assistance Level 2	2.0 (hours)	$45.68	$91.36	$53.56	$107.12	$56.40	$112.80	$38.69	$77.38
Activities	4.00 (hours)	Adult Day Health	5.0 (hours)	$10.90	$54.50	$11.61	$58.03	$12.84	$64.19	$8.76	$43.80
Dining Service	Lunch and Snacks										
Nursing Care	0.50 (hours)										
Skilled Nursing Care	0.25 (hours)										
Medication Administration	0.25 (hours)										
Transportation[1]	1.5 trips per week (5-mile trip per person)	Fixed add-on cost of $4.02 calculated assuming current Medicaid FFS fee schedule rate of $9 base fee and $1.95 mileage fee per trip.									
		Modeled ALF Per Diem Rate			**$219.88**		**$251.24**		**$269.33**		**$195.36**
		Average Monthly Rate Assuming 30.5 Days			**$6,706.27**		**$7,662.91**		**$8,214.50**		**$5,958.60**

Notes:

ALF Level 2 scenario assumes a resident who meets institutional level of care (currently a QI covered Assisted Living service).

Phase I Personal Assistance Level 1 (low, medium, high) 15-minute unit rate converted to hourly, based on final Milliman HCBS Phase I report dated 12/30/2022.

Phase II Adult Day Health (low, medium, high) per diem unit rate converted to hourly, based on Milliman Adult Day stakeholder presentation dated 08/24/2023.

HAH provided ALF Core Services in Column B were based on the ALF Rate Component Mix file received via email from HAH - Robert Choy on 09/06/2023. Therapy, Emergency Response and Maintenance services were not included in Level 1 and Level 2 scenarios based on discussion with MQD. Therapy services are paid for separately, and Emergency Response and Maintenance and covered under room and board.

The Average Paid per Unit in 2022 Provider Experience for Demonstration calculated per diem and average monthly rates include a transportation assumption that is based off of the MQD fee schedule and not CY 2022 Medicaid managed care utilization.

[1]**Source:** *Medicaid Fee-for-Service (FFS) Fee Schedule 2021, without modifiers. MedQUEST Hawai'i. December 12, 2023. Retrieved from: https://medquest.hawaii.gov/content/dam/formsanddocuments/plans-and-providers/HI_Fee_Schedule_as_of_20210911_FINAL_20220412.pdf*

State of Hawai'i Department of Human Services Med-QUEST Division HCBS Rate Study – Phase II Appendix A.9: Home Delivered Meals Rate Calculation						
	Scenario 1 "Low"			Scenario 2 "High"		
Service	Average MC Rate (CY 2022)	Trended MC CY 2022 Average Rate	EST. % CHANGE	Average 2023 HDM Unit Cost - Provided by EOA	Trended CY 2023 HDM Unit Cost	EST. % CHANGE
Home Delivered Meals	$10.18	$11.07	8.7%	$14.85	$15.28	50.1%

Notes:

1-Trending of rates relied on the following source: Changes in Consumer Price Indexes, 2021 through 2024. U.S. Bureau of Labor Statistics Consumer Price Indexes (not seasonally adjusted) and forecasts by USDA, Economic Research Service. November 2023. Retrieved from:
https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.ers.usda.gov%2Fwebdocs%2FDataFiles%2F50673%2FCPIForecast.xlsx%3Fv%3D2583&wdOrigin=BROWSELINK
2-Average 2023 HDM unit cost calculations relied on Hawai'i 2023 HDM Unit Cost summary received from the Executive Office on Aging (EOA) on 11/09/2023.

Appendix B

State of Hawai'i
Department of Human Services
Med-QUEST Division
HCBS Rate Study – Phase II
Appendix B: PTO, Training Time, and Conference Time Adjustment Factor by Provider Group

	A	B	C	D	E	F	G	H	I	J
Provider Group	Total Hours	Paid Holidays and PTO per year	On-going training/ conference time hours per year	Total	Training hours/inefficient time for each new hire	Turnover percentage	New hire training hours per year	Hours of replacement for non-productive time	Annual productive time	PTO / training / conference time adjustment factor
				B + C			E * F	D + G	A - H	A / I - 1
Activity Assistant (Adult Day Aide)	2,080	160	40	200	20	35%	7	207	1,873	11%
Registered Nurse	2,080	160	40	200	20	35%	7	207	1,873	11%
Supervisor	2,080	160	40	200	20	35%	7	207	1,873	11%
Nurse Aide	2,080	160	40	200	20	35%	7	207	1,873	11%

Appendix C

State of Hawai'i
Department of Human Services
Med-QUEST Division
HCBS Rate Study – Phase II
Appendix C: Direct Care Worker Groupings and Wages

Direct Care Worker Groupings		May 2022 – BLS Wages			July 2024 – Trended BLS Wages (3.12% Annual Trend Rate)[1]		
Bureau of Labor Statistics (BLS) Positions	BLS Wage-Blend Weight	25th Percentile	50th Percentile	75th Percentile	25th Percentile	50th Percentile	75th Percentile
Activity Assistant (Adult Day Aide)		**$15.11**	**$17.25**	**$19.67**	**$16.15**	**$18.44**	**$21.02**
Home Health and Personal Care Aides	75%	$13.56	$15.42	$17.31	$14.50	$16.48	$18.50
Maids and Housekeeping Cleaners	25%	$19.75	$22.73	$26.73	$21.11	$24.30	$28.57
Supervisor		**$15.11**	**$17.25**	**$19.67**	**$16.15**	**$18.44**	**$21.02**
Home Health and Personal Care Aides	75%	$13.56	$15.42	$17.31	$14.50	$16.48	$18.50
Maids and Housekeeping Cleaners	25%	$19.75	$22.73	$26.73	$21.11	$24.30	$28.57
Case Manager		**$41.98**	**$52.49**	**$59.09**	**$44.87**	**$56.10**	**$63.17**
Healthcare Social Workers	25%	$27.44	$36.72	$40.11	$29.33	$39.25	$42.88
Registered Nurses	75%	$46.82	$57.74	$65.42	$50.05	$61.72	$69.93
Nurse Aide		**$16.32**	**$17.91**	**$22.17**	**$17.45**	**$19.15**	**$23.70**
Nursing Assistants	100%	$16.32	$17.91	$22.17	$17.45	$19.15	$23.70
Registered Nurse		**$46.82**	**$57.74**	**$65.42**	**$50.05**	**$61.72**	**$69.93**
Registered Nurses	100%	$46.82	$57.74	$65.42	$50.05	$61.72	$69.93

Notes:

[1] Wages trended from 5/1/22 to 7/1/24 at an annual rate of 3.12%

Wage Data Source: Bureau of Labor Statistics. (April 2023). May 2022 State Occupational Employment and Wage Estimates: Hawai'i. Retrieved from: https://www.bls.gov/oes/current/oes_hi.htm

Trend Data Source: Federal Reserve Economic Data. (June 2023). Average Hourly Earnings of All Employees, Education and Health Services. Retrieved from: https://fred.stlouisfed.org/series/CES6500000003

Appendix D

State of Hawai'i
Department of Human Services
Med-QUEST Division
HCBS Rate Study – Phase II
Appendix D: Employee Related Expenses Using Median Wage

	A	B	C	D	E	F	G	H	I	J	K	L
	Trended Median Wage	Annual Employee Salary	Medicare	Social Security	FUTA	SUI	Workers Comp	Insurance	Retirement	ERE per Employee	ERE Percentage	Annual Salary and ERE
Provider Group	Trended from 5/1/2022 to 7/1/2024 at a rate of 3.12%	A * 2,080	B * 1.45%	B * 6.2% up to $160,200 estimated taxable limit	6% of First $7,000 Earned	B * 6.2% up to $56,700 estimated taxable limit	B * 1.4%	Trending based on Milliman Medical Index	B * 3.7%	Sum of C through I	J / B	B * (1 + K)
Activity Assistant (Adult Day Aide)	$18.44	$38,349	$556	$2,378	$420	$2,378	$537	$7,651	$1,419	**$15,338**	**40.0%**	**$53,687**
Supervisor	$18.44	$38,349	$556	$2,378	$420	$2,378	$537	$7,651	$1,419	**$15,338**	**40.0%**	**$53,687**
Nurse Aide	$19.15	$39,822	$577	$2,469	$420	$2,469	$558	$7,651	$1,473	**$15,617**	**39.2%**	**$55,439**
Registered Nurse	$61.72	$128,382	$1,862	$7,960	$420	$3,515	$1,797	$7,651	$4,750	**$27,955**	**21.8%**	**$156,337**

Milliman is an independent consulting, benefits and technology firm. Our expert guidance and advanced analytical solutions empower leading insurers, healthcare companies and employers to protect the health and financial well-being of people everywhere. Every day, in countries across the globe, we collaborate with clients to improve healthcare systems, manage risk, and advance financial security, so millions of people can live for today and plan for tomorrow with greater confidence.

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