



IT TAKES VISION

# Hospital Global Budgets: Overview

**Working draft for discussion purposes only**

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# Limitations

This project is performed under the Actuarial Services Contract (contract #MQD-2024-008) between Milliman and the State of Hawai'i Med-QUEST Division (MQD) dated July 1, 2024.

These presentation slides are for discussion purposes only. They should not be relied upon without benefit of the discussion that accompanied them.

This presentation and Q&A is not intended to be an actuarial opinion or advice, nor is it intended to be legal advice.

In preparing this presentation, we relied on data and information from the Centers for Medicare and Medicaid Services (CMS), the State of Hawai'i, and publicly available sources. We have not audited or verified this data and other information. If the underlying data or information is inaccurate or incomplete, the information we present may likewise be inaccurate or incomplete.

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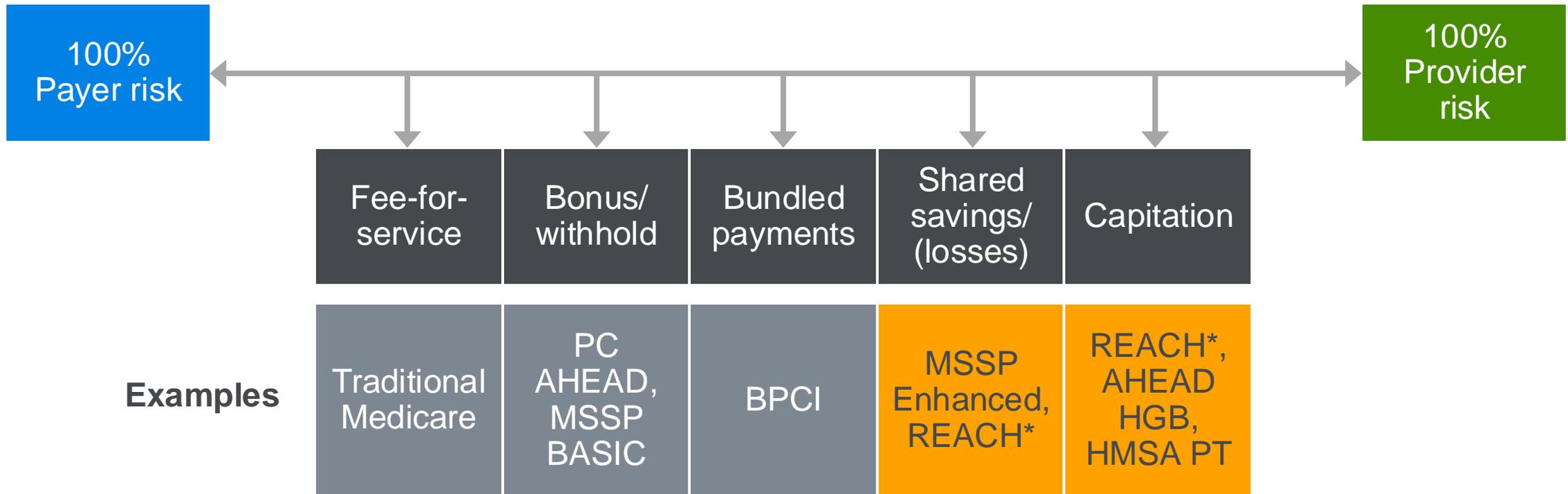
# Agenda

1. Hospital Global Budget
2. Hawaii Hospital Trends
3. Hawaii Hospitals Overview
4. Hospital Participation Scenarios
5. Hawaii Hospital Revenue Stability
6. Hospital Quality

# Hospital Global Budget

AHEAD Model

# Risk continuum and alternative payment models



***AHEAD Hospital global budgets (HGB) will be paid to participating hospitals in the form of prospective, bi-weekly payments in place of traditional Medicare FFS claims payments. The Transformation Incentive Adjustment (TIA) is an upfront financial investments by CMS for hospitals joining in PY1 & PY2.***

# Standard Hospital Global Budget Model (Medicare FFS)

- Eligible hospitals include acute care and critical access hospitals (CAH)
- Budget is on a paid basis (excludes patient cost sharing)
- Baseline is a 3-year blend (10%/30%/60%) ending 6-months prior to the first performance year

## Components

- CAH payment floor: HGB floor for CAHs is 101% of costs
- Trend to performance year is driven by PPS trends:
  - Hospital specific IPPS and OPPS trends net of Part A/B cost sharing.
  - No adjustments for underlying trends in utilization and intensity.
- Transformation incentive adjustment (TIA): +1% for first two PYs. Some states have negotiated higher TIA.
- Other adjustments: market shift, service line change, demographic, and quality

## Inclusions

- Includes cost-based settlements (101% for CAH)
- Before sequestration, but sequestration applies to the budget payments

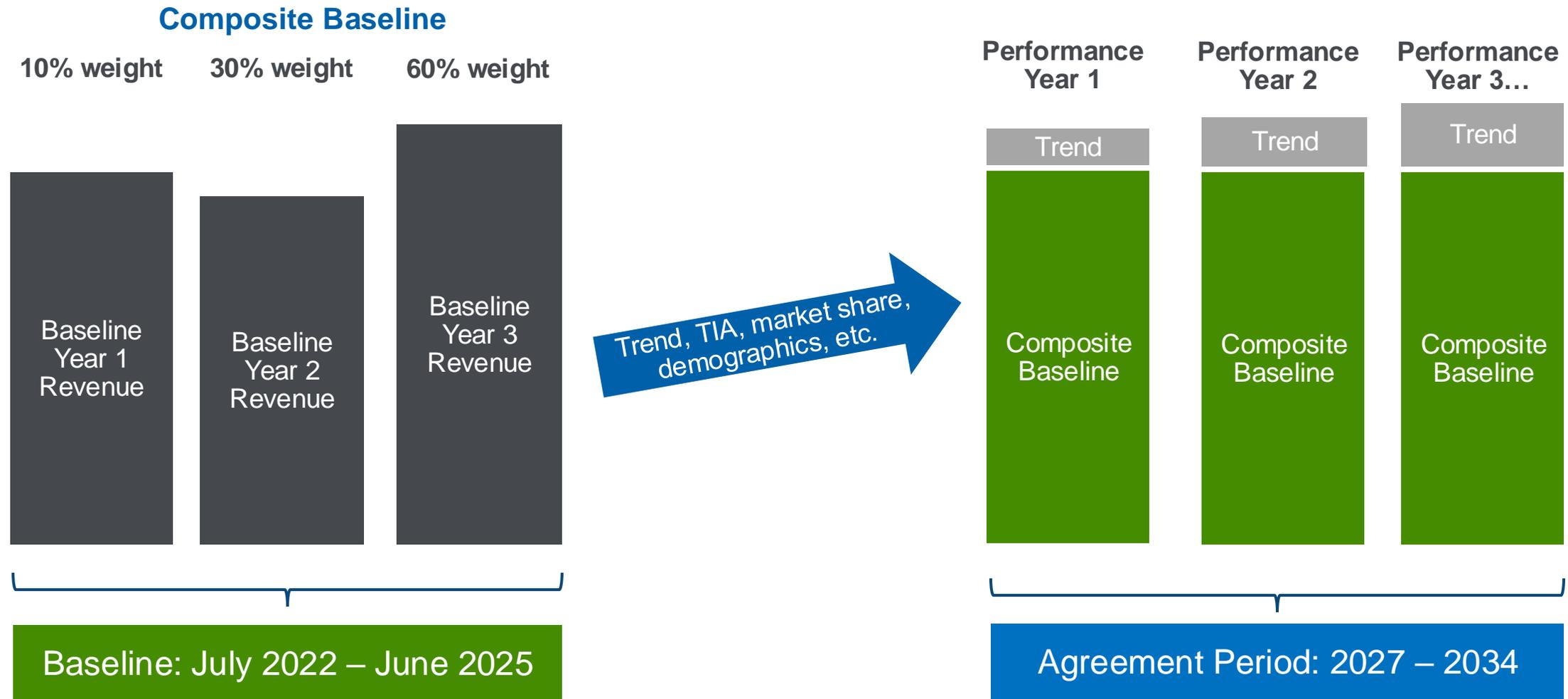
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## Exclusions

- Payment components: new technology, pass through (GME, organ acquisition)
- Antineoplastics or cancer drugs
- Payments made to distinct part units (e.g., a rehab unit inside acute care hospital)

# Standard Hospital Global Budget Model (Medicare FFS)

The overarching financial benchmark approach is similar across Medicare FFS Alternative Payment Models



# Baseline and Performance Period Adjustments (Medicare FFS)

Baseline revenue levels combined with trends and adjustments determine the hospital global budget (HGB).



## Inpatient adjustments:

Trend: Case Adjusted Rate (CAR); i.e., DRG base rate

Exclusions:

- Pass through\*
- New Technology add-on payments
- Patient cost sharing (IP deductible)
- Distinct subparts (psychiatric, rehabilitation, etc.)

## Outpatient adjustments:

Trend: Wage Adjusted APC Conversion Factor (WAACF)

Exclusions:

- Cancer drugs (antineoplastics, less vaccines and saline)
- New Technology APC payments
- Patient cost sharing (Part B deductible and cost sharing)
- Distinct subparts (psychiatric, rehabilitation, etc.)

## Other adjustments (inpatient and outpatient):

Cost floor (CAH only)

Volume shifts

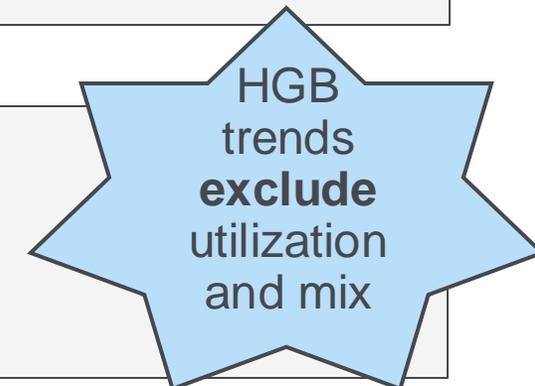
- Market shift
- Service line
- Unplanned volume

Demographics

Social risk

Transformation Incentive Adjustment (TIA)

State performance on TCoC



# Hospital Global Budget (HGB) Build-up Illustration (Medicare FFS)

In this simplified illustration the baseline period revenue and the Medicare unit price trends are key drivers.

	Inpatient			Outpatient			Total		
	BY1 (FY 2021)	BY2 (FY 2022)	BY3 (FY 2023)	BY1 (FY 2021)	BY2 (FY 2022)	BY3 (FY 2023)	BY1 (FY 2021)	BY2 (FY 2022)	BY3 (FY 2023)
<i>Baseline Weight</i>	10.0%	30.0%	60.0%	10.0%	30.0%	60.0%	10.0%	30.0%	60.0%
<b>Baseline Budget Development (\$ Millions)</b>									
Total Medicare FFS Revenue	\$139.8	\$139.6	\$153.2	\$53.4	\$54.4	\$70.7	\$193.2	\$194.0	\$223.9
% of Revenue Included in Global Budget	85%	85%	87%	72%	72%	74%	72%	72%	73%
Remove patient cost share	\$14.0	\$14.0	\$15.3	\$10.7	\$10.9	\$14.1	\$24.7	\$24.8	\$29.5
Remove specialty hosp. and distinct part units	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Remove new technology and organ acquisition costs	\$4.2	\$4.2	\$4.6	\$0.5	\$0.5	\$0.7	\$4.7	\$4.7	\$5.3
Remove Antineoplastics or Cancer drugs	\$0.0	\$0.0	\$0.0	\$2.7	\$2.7	\$3.5	\$2.7	\$2.7	\$3.5
Remove Medicare as Secondary Payer (MSP)	\$2.8	\$2.8	\$3.1	\$1.1	\$1.1	\$1.4	\$3.9	\$3.9	\$4.5
Add back sequestration	\$0.0	\$0.4	\$3.2	\$0.0	\$0.1	\$1.4	\$0.0	\$0.5	\$4.7
<b>Global Budget Medicare FFS Revenue</b>	<b>\$118.8</b>	<b>\$119.0</b>	<b>\$133.4</b>	<b>\$38.5</b>	<b>\$39.3</b>	<b>\$52.4</b>	<b>\$157.3</b>	<b>\$158.3</b>	<b>\$185.8</b>
Cumulative CMS Market Basket Trend to BY3	8.2%	3.6%	n/a	13.3%	9.4%	n/a			
<u>Trended GP Medicare FFS Revenue</u>	<u>\$128.6</u>	<u>\$123.3</u>	<u>\$133.4</u>	<u>\$43.6</u>	<u>\$43.0</u>	<u>\$52.4</u>	\$172.2	\$166.3	\$185.8
<b>Weighted Baseline</b>			<b>\$129.9</b>			<b>\$48.7</b>			<b>\$178.6</b>
Cumulative CMS Market Basket Trend to PY1 (2027)			5.3%			8.2%			
<b>Weighted Baseline - Trended to PY1 (2027)</b>			<b>\$136.7</b>			<b>\$52.7</b>			<b>\$189.4</b>

Source: Revenues in millions are based on the Medicare FFS data from CMS cost reports. Trend estimates are based on the Milliman IPPS/OPPS Trend Model. <https://www.milliman.com/en/insight/2025-medicare-ipp-and-opp-trend-summary>. Includes IME, DSH, & UCP for Medicare FFS. Excludes managed care IME. Illustrative estimates used for patient cost share, new technology, organ acquisition costs, and cancer drugs.

# Hawaii Hospital Trends

Medicare FFS

# Unit Price Trends by County (Medicare FFS)

Honolulu is estimated to experience negative inpatient and outpatient Medicare unit price trend for 2024-2025. These trends will affect BY1 and BY2 which make up approximately 40% of the HGB budget.

## Inpatient Hospital Trend

## Outpatient Hospital Trend

County	22-23	23-24	24-25	22-23	23-24	24-25
Hawaii	2.5%	1.8%	1.9%	2.0%	8.2%	-0.1%
Honolulu	5.3%	2.4%	-0.7%	6.8%	4.0%	-0.1%
Kauai	4.9%	1.7%	1.8%	1.5%	8.5%	-0.1%
Maui	1.9%	3.0%	2.1%	12.6%	3.5%	0.0%

Since the weights vary by baseline year, relative impact of trend on benchmark will vary. For e.g., 8.2% outpatient trend observed in Hawaii county hospitals in 23-24 will impact 10% of the benchmark but, -0.1% will impact 30% of the benchmark calculation.

Source: Estimates are based on the Milliman IPPS/OPPS Trend Model. Includes IME, DSH, & UCP. Excludes managed care IME.

<https://www.milliman.com/en/insight/2025-medicare-ipp-and-opp-trend-summary>

# Unit Price Trends by Hospital (Medicare FFS)

The top three hospitals are estimated to have inpatient and outpatient trend reductions for 2024-2025.

The impact of trends on benchmark depends on the baseline year (BY). E.g., 3.2% outpatient trend for Queen’s Medical Center in 23-24 will impact 10% of the benchmark (BY1), but -0.2% will impact 40% of the benchmark (BY1 and BY2).

Hospital	FY2023 Medicare FFS Revenue (\$M)	Inpatient Hospital Trend			Outpatient Hospital Trend		
		22-23	23-24	24-25	22-23	23-24	24-25
The Queen's Medical Center	\$223.9	3.6%	1.2%	-1.0%	9.4%	3.2%	-0.2%
Straub Medical Center	\$83.3	6.0%	2.2%	-0.6%	5.3%	4.5%	-0.2%
Pali Momi Medical Center	\$55.0	8.0%	4.0%	-0.3%	5.3%	4.5%	-0.2%
Maui Memorial Medical Center	\$51.1	1.2%	3.1%	2.7%	16.1%	3.2%	-0.2%
Hilo Medical Center	\$50.2	0.7%	1.6%	2.5%	0.4%	9.5%	-0.2%
Adventist Health Castle	\$36.9	8.7%	4.7%	-1.1%	12.2%	4.5%	-0.2%
Kuakini Medical Center	\$30.9	4.7%	3.1%	-0.4%	2.0%	4.5%	-0.2%
Wilcox Medical Center	\$25.9	4.9%	1.2%	2.6%	0.4%	9.5%	-0.2%
Kona Community Hospital	\$17.7	3.6%	1.3%	2.7%	0.4%	9.5%	-0.2%
Queen's North Hawaii Community Hospital, Inc.	\$16.3	3.5%	3.1%	2.7%	0.4%	9.5%	-0.2%
Kaiser Permanente Moanalua Medical Center	\$11.9	13.2%	1.3%	-2.0%	3.3%	3.2%	-0.3%

Source: Estimates are based on the Milliman IPPS/OPPS Trend Model. Includes IME, DSH, & UCP. Excludes managed care IME.

<https://www.milliman.com/en/insight/2025-medicare-ipp-and-opp-trend-summary>

## 2022 to 2023 Trend Review (Medicare FFS)

Revenue trends and unit price trends are correlated from 2022 to 2023 for the largest hospitals. Smaller hospitals have less predictable direction of revenue trend and unit cost trend.

Hospital	Medicare FFS Allowed			2022 - 2023 Trend	
	FY2022	FY2023	Trend	IP Unit Price	OP Unit Price
The Queen's Medical Center	\$194.0	\$223.9	15.4%	3.6%	9.4%
Straub Medical Center	\$76.3	\$83.3	9.2%	6.0%	5.3%
Pali Momi Medical Center	\$51.3	\$55.0	7.2%	8.0%	5.3%
Maui Memorial Medical Center	\$54.4	\$51.1	-6.0%	1.2%	16.1%
Hilo Medical Center	\$50.5	\$50.2	-0.7%	0.7%	0.4%
Adventist Health Castle	\$33.0	\$36.9	11.9%	8.7%	12.2%
Kuakini Medical Center	\$30.7	\$30.9	0.7%	4.7%	2.0%
Wilcox Medical Center	\$24.3	\$25.9	6.5%	4.9%	0.4%
Kona Community Hospital	\$21.1	\$17.7	-16.0%	3.6%	0.4%
Queen's North Hawaii Community Hospital, Inc.	\$14.6	\$16.3	11.7%	3.5%	0.4%
Kaiser Permanente Moanalua Medical Center	\$13.7	\$11.9	-12.7%	13.2%	3.3%

# Hawaii Hospitals Overview

Hospital revenue and Medicare FFS /  
Medicaid revenue

# Hawaii Hospitals: Location and Type

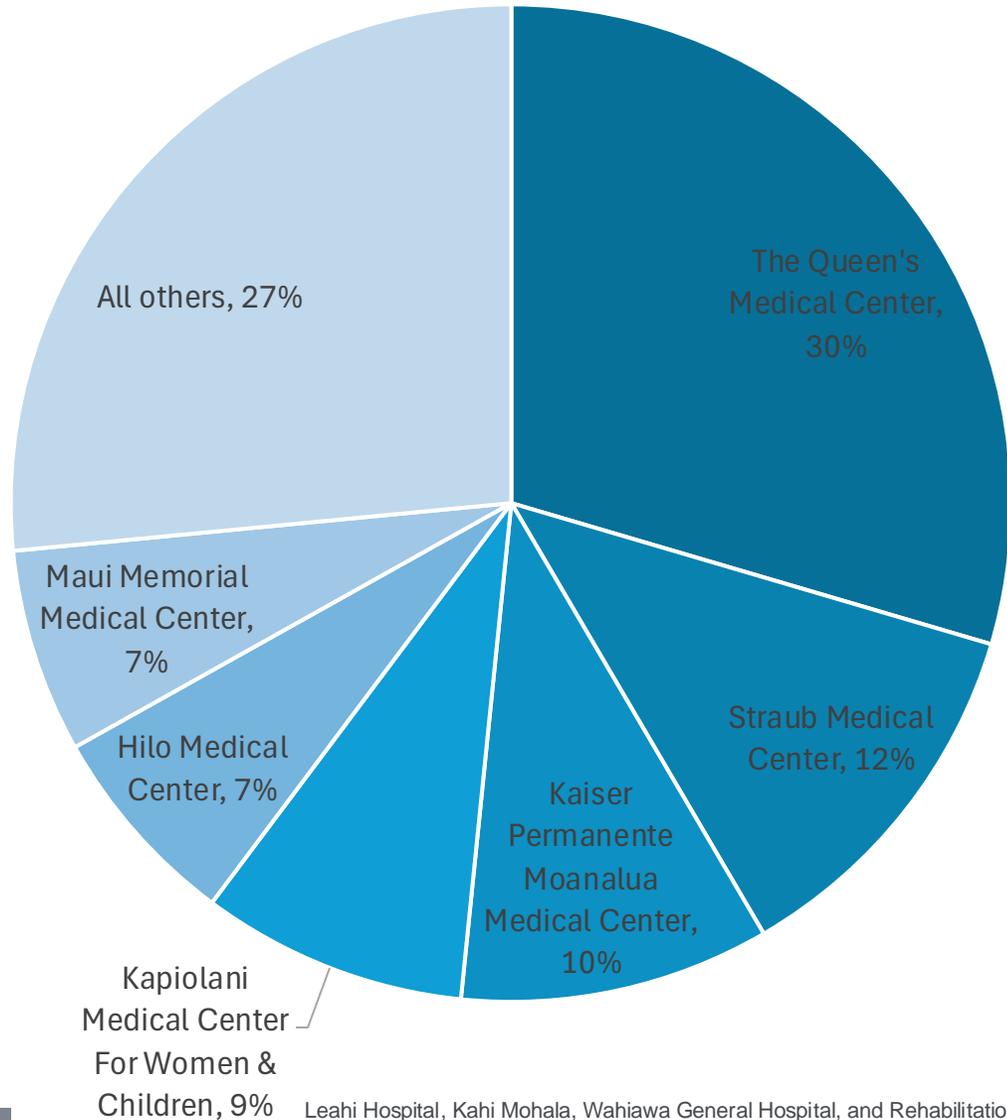
Volumes are concentrated in Honolulu.

At least one non-CAH hospital will be needed to meet the 10% Medicare FFS volume threshold.

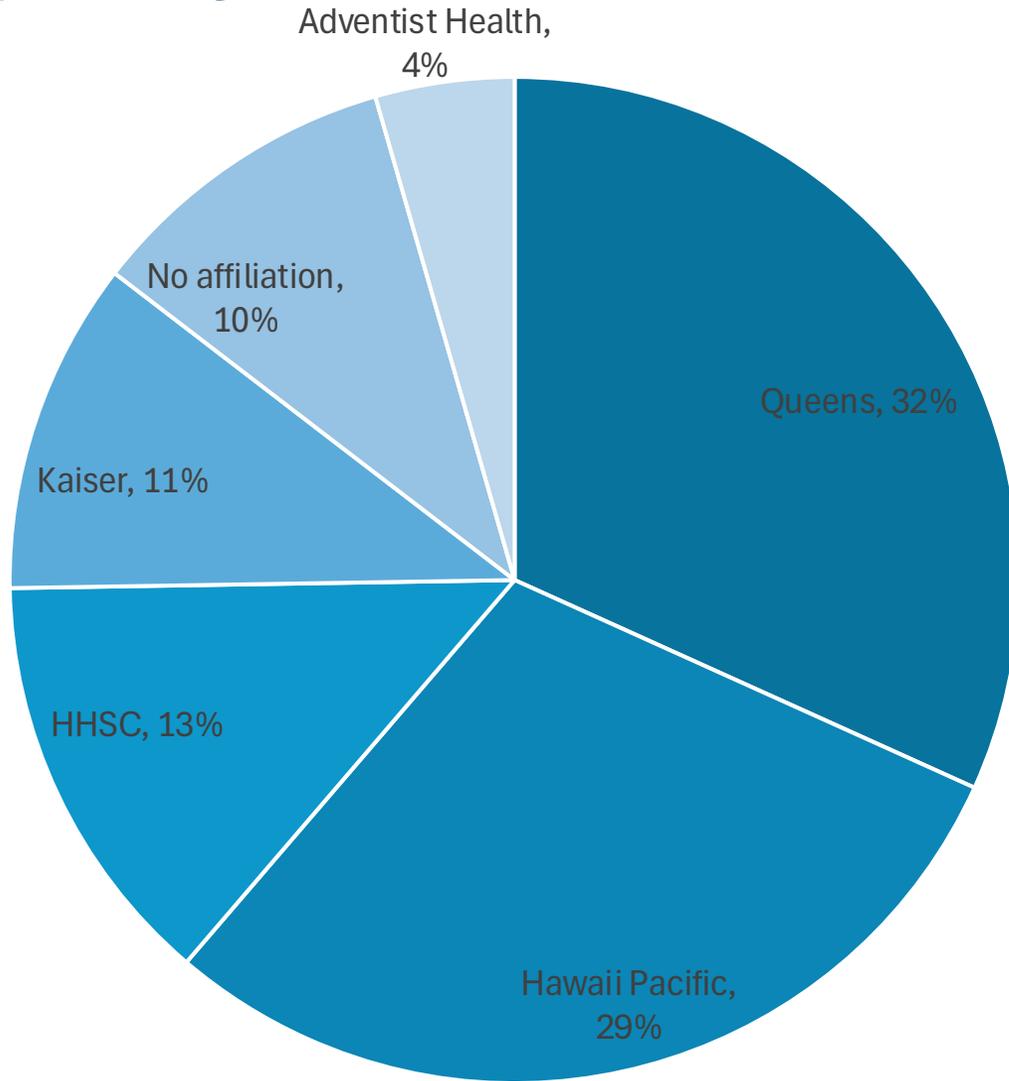
County	Critical Access Hospitals (CAH)	Non-Critical Access Hospitals (Non-CAH)	% of FY2023 Medicare FFS NPR
Honolulu	<ul style="list-style-type: none"> <li>Kahuku Medical Center</li> </ul>	<ul style="list-style-type: none"> <li>Kaiser Permanente Moanalua Medical Center</li> <li>The Queen's Medical Center</li> <li>Adventist Health Castle</li> <li>Straub Medical Center</li> <li>Pali Momi Medical Center</li> <li>Kapiolani Medical Center For Women &amp; Children</li> <li>Kuakini Medical Center</li> </ul>	70.2%
Maui	<ul style="list-style-type: none"> <li>Kula Hospital</li> <li>Molokai General Hospital</li> <li>Lanai Community Hospital</li> </ul>	<ul style="list-style-type: none"> <li>Maui Memorial Medical Center</li> </ul>	8.7%
Kauai	<ul style="list-style-type: none"> <li>Samuel Mahelona Memorial Hospital</li> <li>Kauai Veterans Memorial Hospital</li> </ul>	<ul style="list-style-type: none"> <li>Wilcox Medical Center</li> </ul>	5.5%
Hawaii	<ul style="list-style-type: none"> <li>Kohala Hospital</li> <li>Ka'u Hospital</li> <li>Hale Ho'ola Hamakua</li> </ul>	<ul style="list-style-type: none"> <li>Hilo Medical Center</li> <li>Kona Community Hospital</li> <li>Queen's North Hawaii Community Hospital, Inc.</li> </ul>	15.6%
<b>Total</b>	<b>9 CAHs</b>	<b>13 Non-CAHs</b>	<b>5.8% CAH 94.2% Non-CAH</b>

# Hospital Revenue Share (FY 2023; All Payers)

Queen's Medical Center makes up approximately one third of Hawaii's hospital revenue.



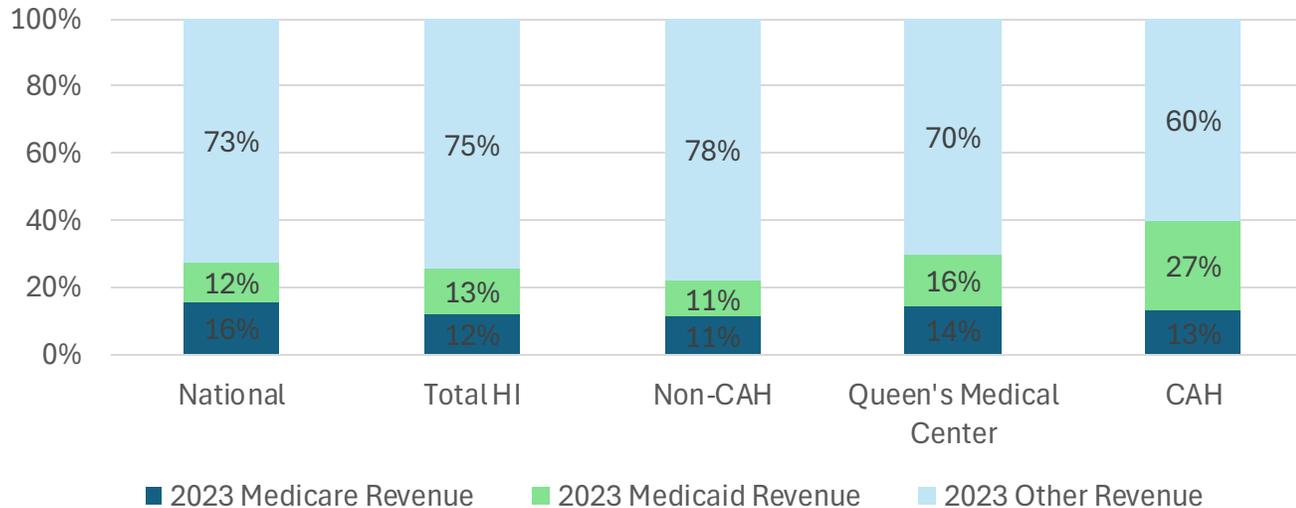
# Hospital System Revenue Share (FY 2023; All Payers)



At the system level, Queen’s and Hawaii Pacific Health make up approximately two thirds of Hawaii’s hospital revenue.

# Hospital Revenue Share (FY 2023, All Payers)

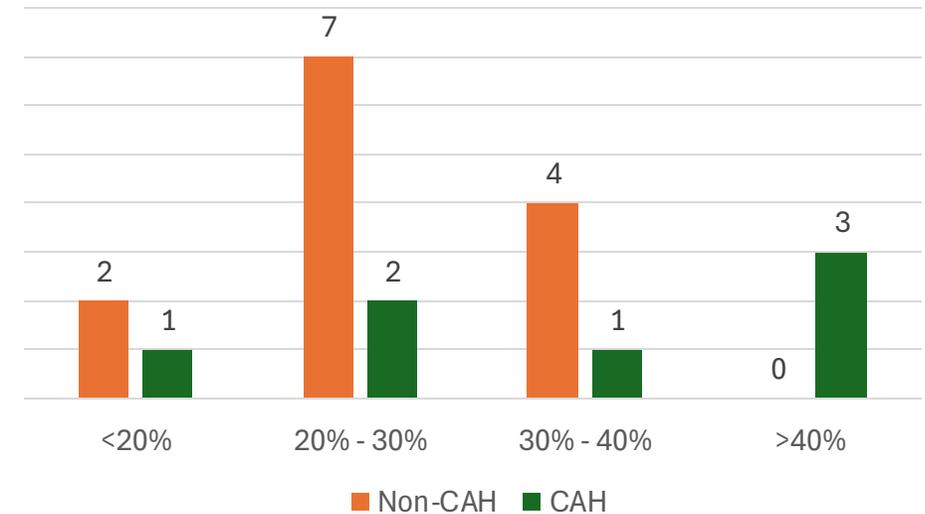
2023 Revenue Share by Line of Business



- Private payers are the majority of revenue for each hospital type.
- Medicare and Medicaid revenue share is greatest for Critical Access Hospitals (CAHs).

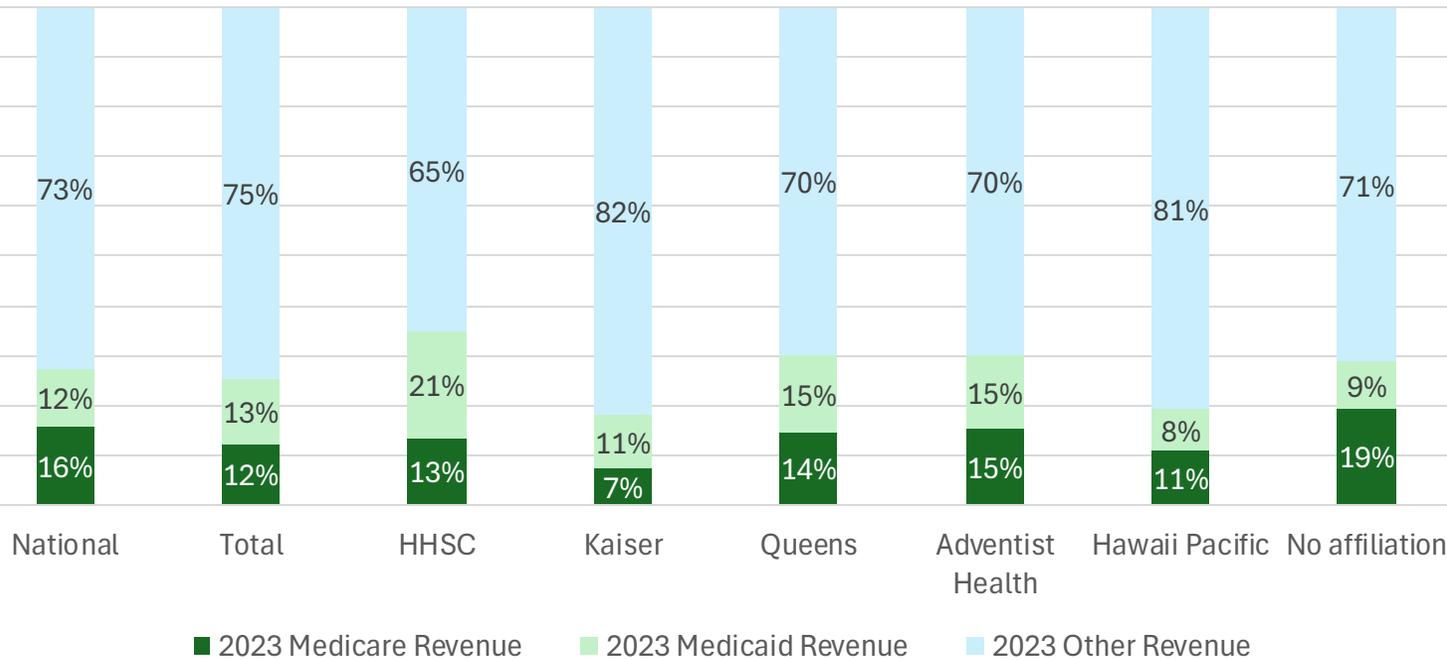
- Includes all Hawaii Acute Care hospitals
- Other Revenue is composed of:
  - Commercial (40% of population)
  - Individual / Exchange (2% of population)
  - Medicare Advantage (10% of population)
  - TRICARE (10% of population)

Medicare & Medicaid Revenue Share Distribution



# Hospital System Revenue Share (FY 2023, All Payers)

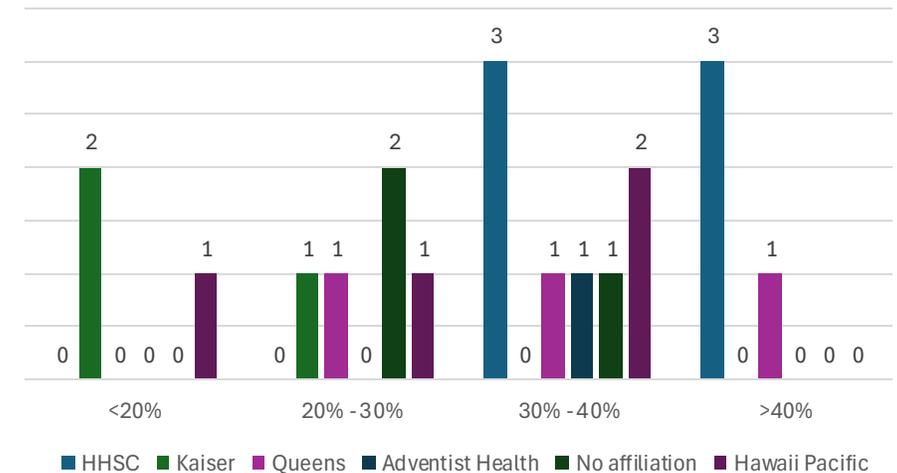
2023 Revenue Share by Hospital Group



- Private payers make up most of the revenue for all hospital systems
- Medicare and Medicaid revenue makes up 20% - 30% of revenue for the majority of facilities.
- Medicaid revenue share is the highest for HHSC system

- Includes all Hawaii Acute Care hospitals
- Other Revenue is composed of:
  - Commercial (40% of population)
  - Individual / Exchange (2% of population)
  - Medicare Advantage (10% of population)
  - TRICARE (10% of population)

Medicare & Medicaid Revenue Share Distribution



Source: Hospital revenues are based on the CMS cost reports. <https://www.cms.gov/data-research/statistics-trends-and-reports/cost-reports>

# HGB Participation Scenarios

AHEAD Model

# Hospital Participation and Impact on Medicare FFS Revenue

Share of total Medicare FFS and Medicaid revenue for Hawaii

Participation Scenario	Medicare FFS	Medicaid
All Critical Access Hospitals	5.8%	8.6%
<b>Queens Health System Hospitals</b>	<b>38.1%</b>	<b>29.0%</b>
Kaiser Hospital System	2.1%	5.3%
<b>HHSC Hospital System</b>	<b>14.6%</b>	<b>16.7%</b>
<b>Hawaii Pacific Hospital System</b>	<b>25.9%</b>	<b>37.4%</b>
<b>Big Island hospitals</b>	<b>15.6%</b>	<b>14.3%</b>
Big Island excluding Hilo Medical Center	7.9%	7.6%
Kauai Hospitals	5.5%	6.5%
<b>Oahu Hospitals</b>	<b>70.2%</b>	<b>72.0%</b>

AHEAD requires 10% of Medicare FFS for PY1. Five scenarios presented can achieve target.

Medicare and Medicaid revenue percentages are similar. Kapiolani (not shown) is the exception.

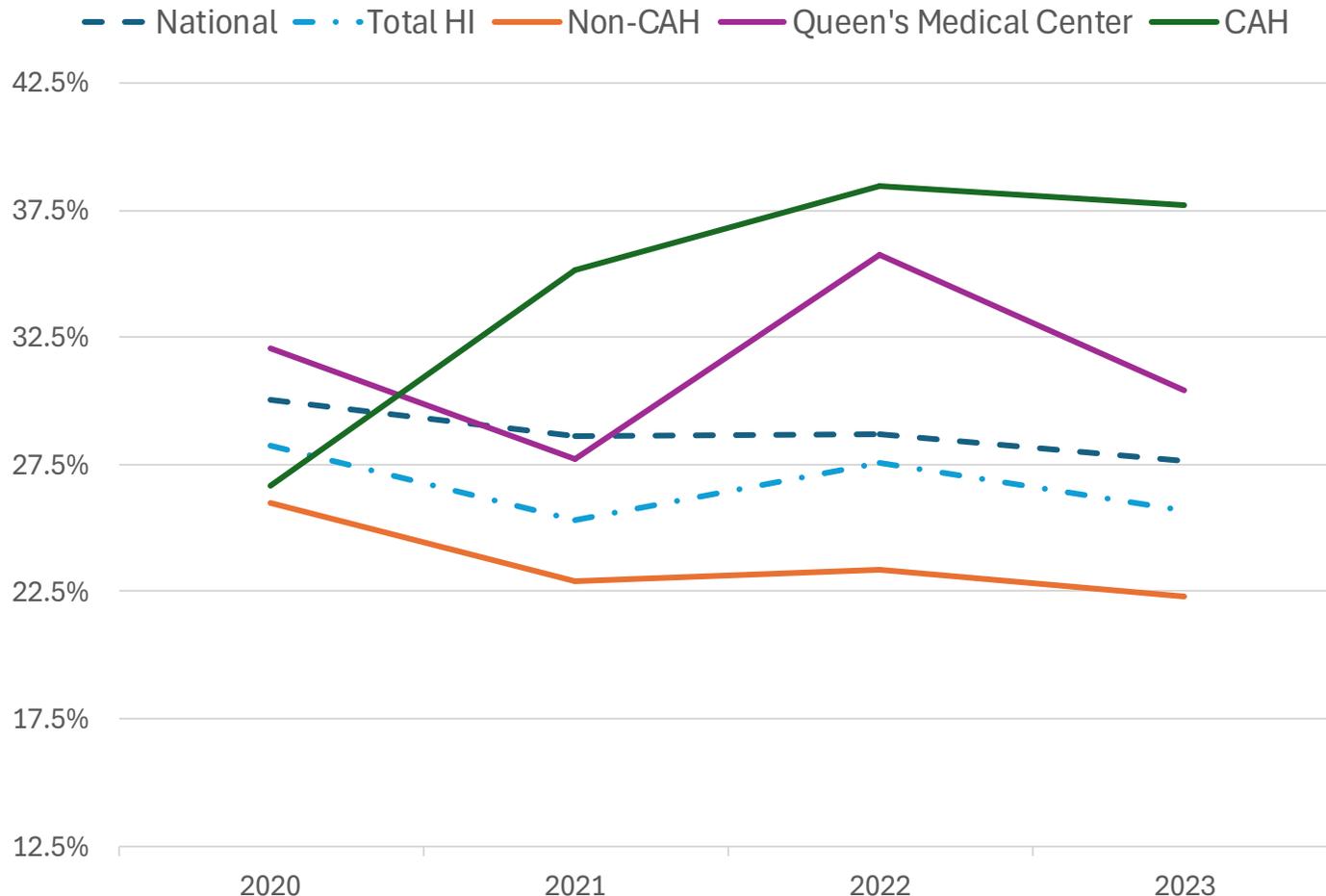
CAHs are less than 10% in total. Kauai plus Big Island hospitals gets to over 10%.

# Hospital Revenue Stability

Margins and Occupancy

# Medicaid and Medicare FFS Revenue Share

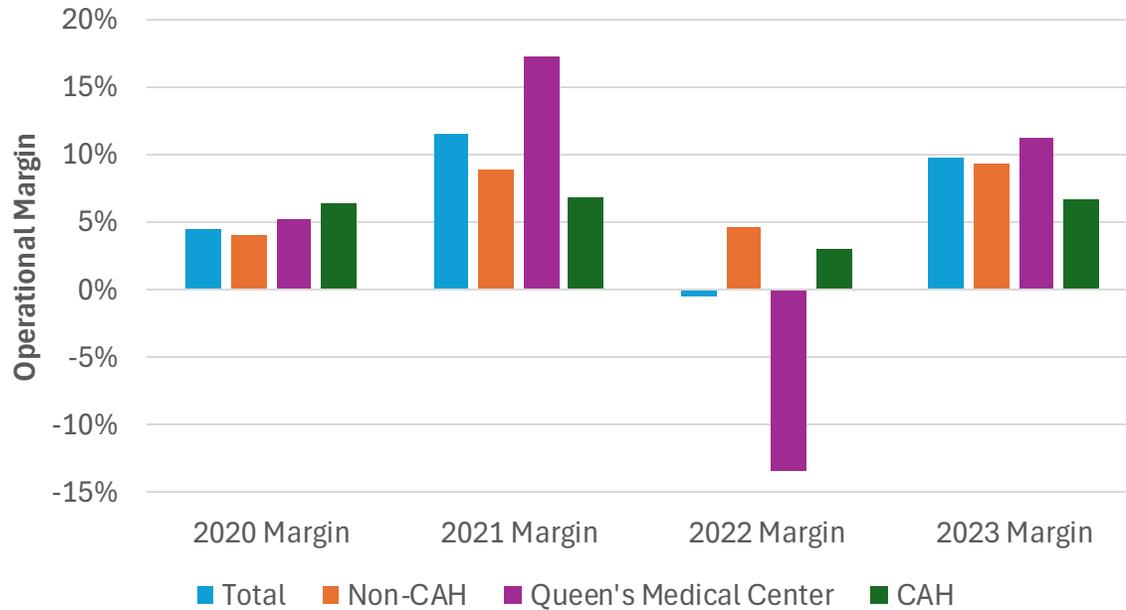
Medicaid and Medicare FFS are part of the AHEAD HGB initially. Therefore, for participating hospitals this revenue will be determined by the budget model.



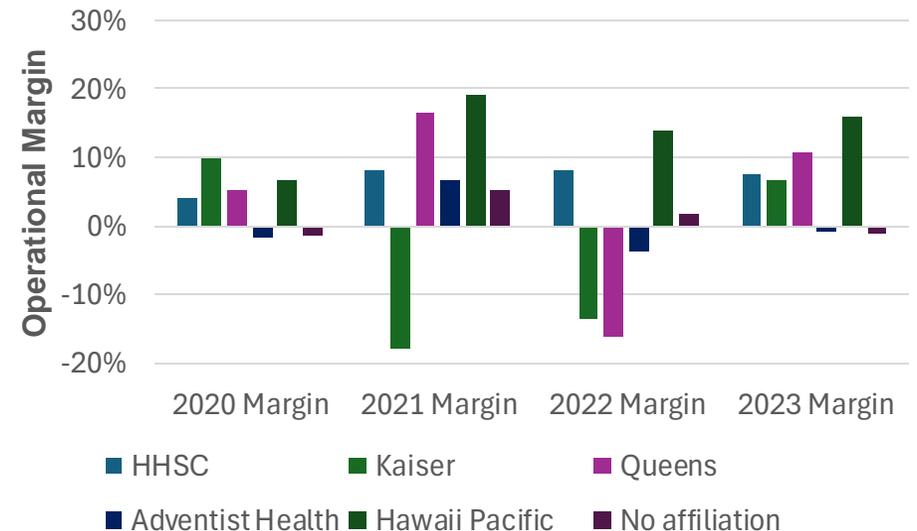
- CAHs' Medicaid and Medicare FFS revenue share increased over the four-year period.
- Queen's Medicaid and Medicare FFS revenue share is uneven over the four-year period with dips in 2021 and 2023.
- Other non-CAHs' Medicaid and Medicare FFS revenue share decreased over the four-year period.
- Hawaii's overall Medicaid and Medicare FFS revenue share is lower than the national average.

# Overall Operating Margins by Hospital Fiscal Year

Baseline period margin performance is an important indicator of performance under a budget model. Entering a budget model in a loss position may require cost reductions to succeed.



- Margins have generally remained positive since 2020, excluding a large loss from Queen’s Medical Center in FY2022.
- CAHs have had the lowest margins of all hospital types.
- 2023 National and Total Hawaii operational margins are 5.9% and 9.7% respectively



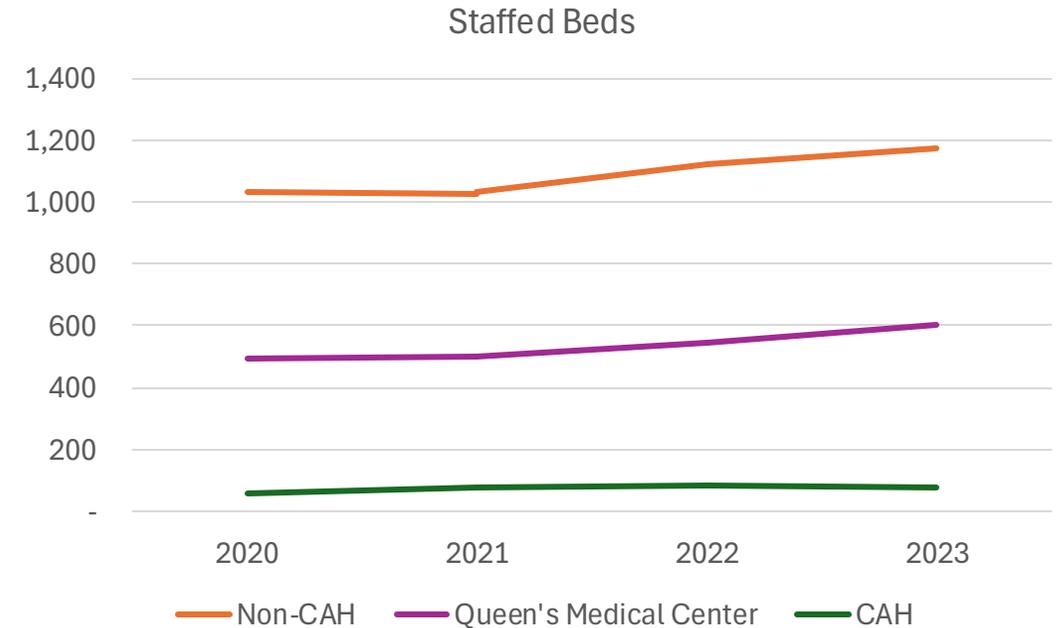
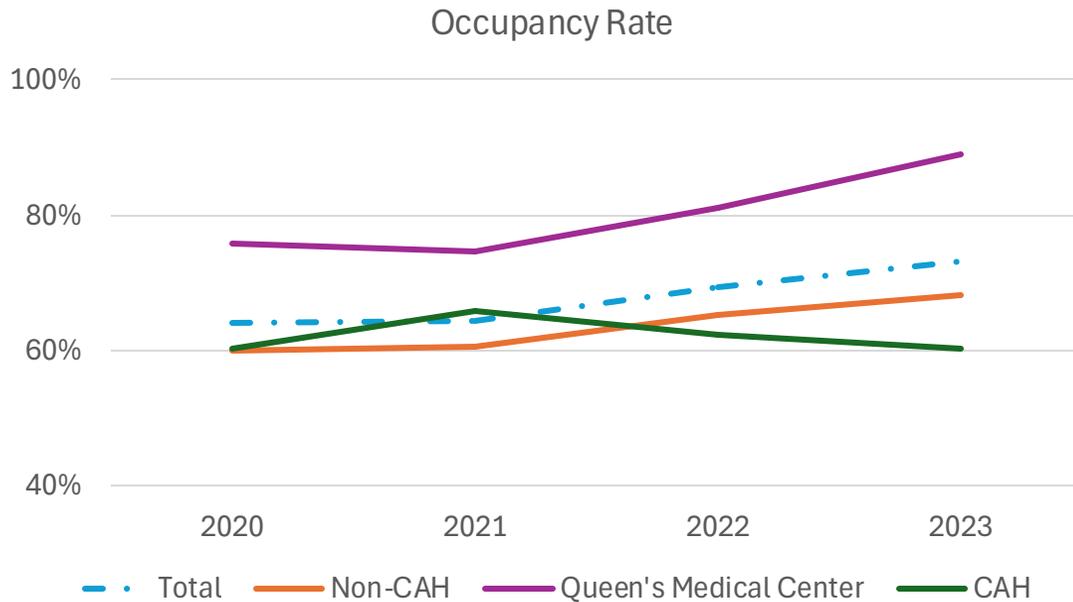
- Hawaii Pacific and HHSC hospital systems have maintained positive margins for the four-year period
- Kaiser, Queen’s and Adventist hospital systems have maintained inconsistent margin trends
- This slide inclusive of all LOBs

# Overall Occupancy and Staffed Hospital Beds

Occupancy and staffed beds have increased since 2021.

Higher occupancy rates are generally associated with higher margins.

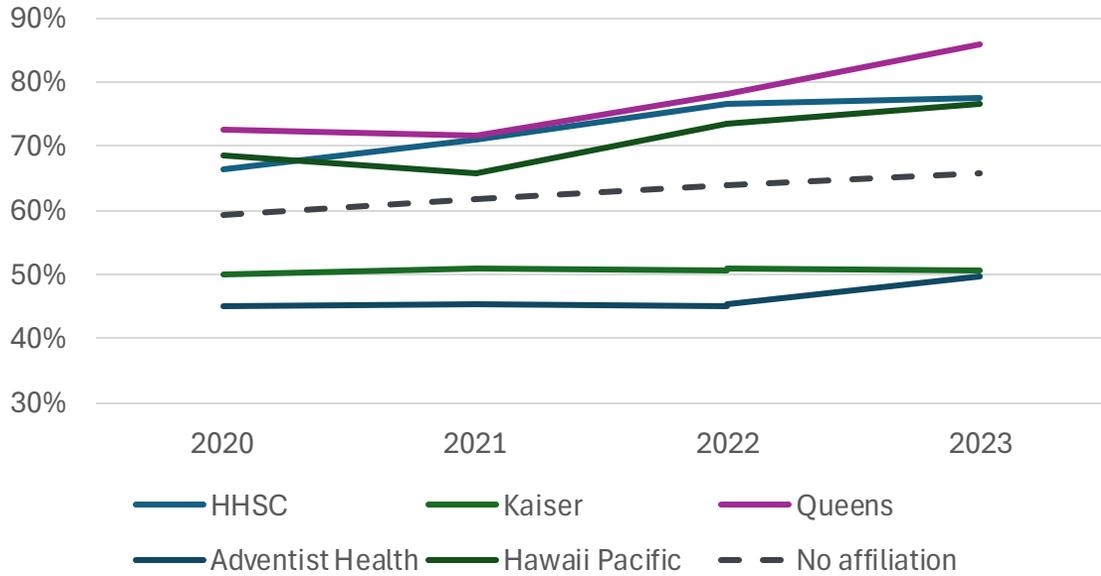
- All hospitals types have increased staffed hospital bed capacity since 2021.



- Hospital Occupancy rates have steadily increased for all but CAHs
- 2023 National Occupancy rates are 66%, which is lower than the Hawaii average of 73%

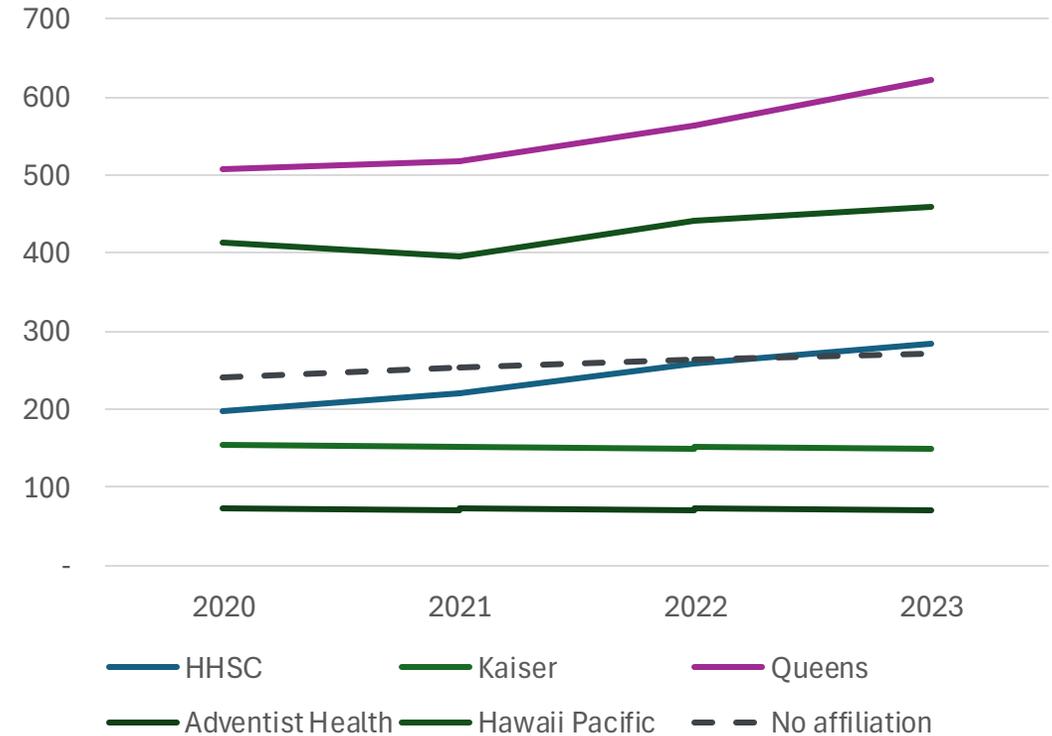
# Hospital System Occupancy and Staffed Hospital Bed Availability

Occupancy Rate



- All hospital systems have increased in staffed bed capacity with the exception of Kaiser.

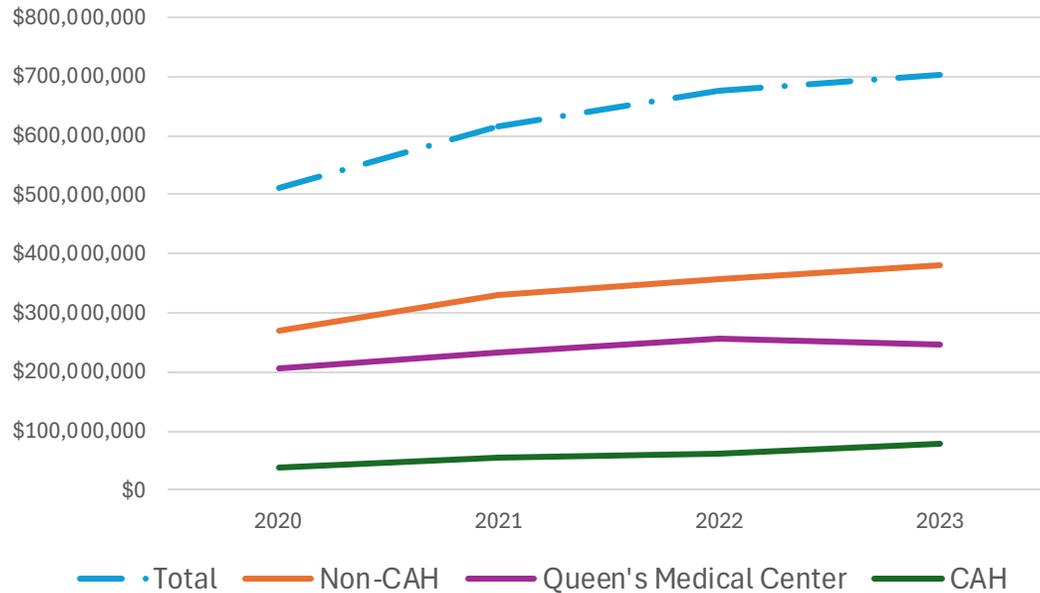
Staffed Beds



- Hospital occupancy rates have steadily increased except for the Kaiser hospital system
- 2023 national occupancy rates were 66%, which was lower than the Hawaii average (73%)

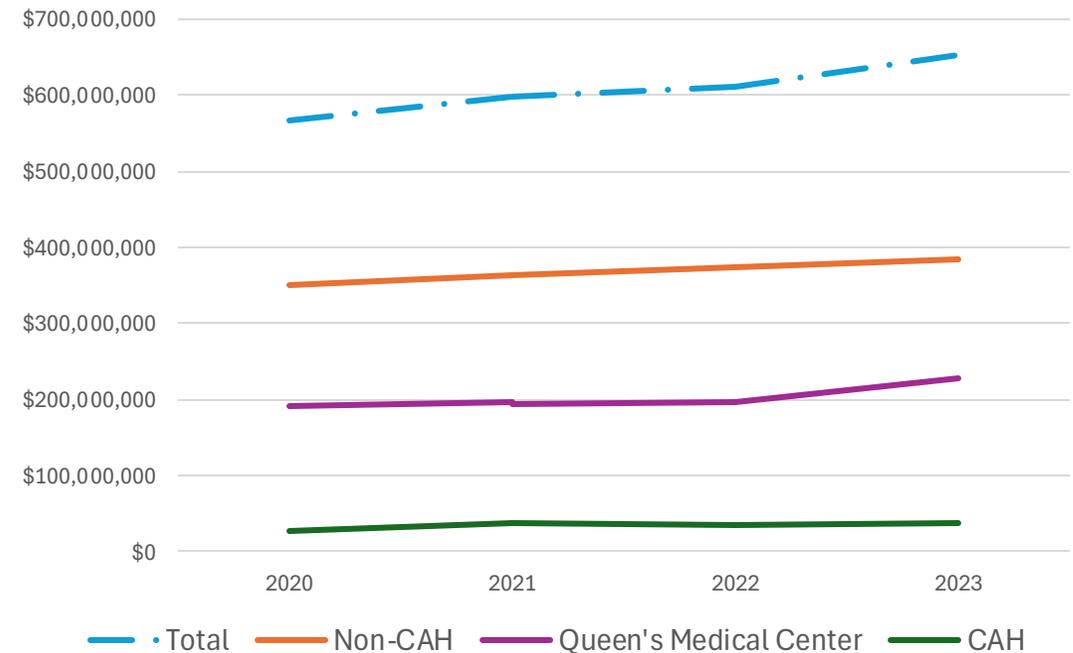
# Medicaid and Medicare Revenue

## Medicaid Revenue



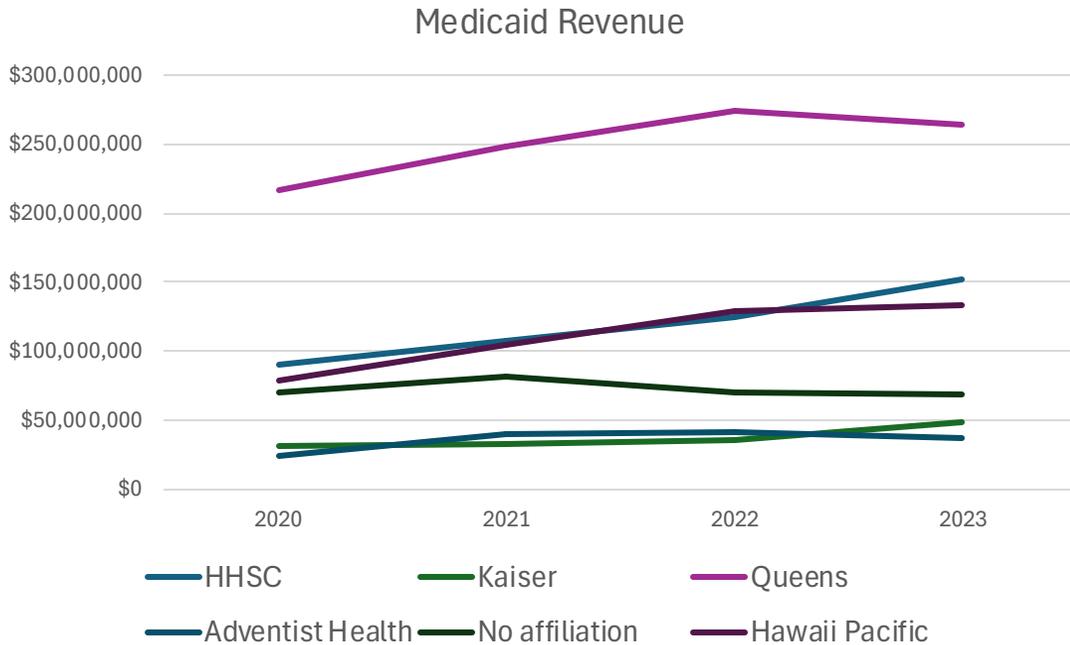
- Medicaid and Medicare revenues have grown in aggregate, but revenue growth varies by hospital type.
- Medicare revenue was relatively flat from 2020 – 2022 and then grew in 2023 primarily driven by Queen’s Medical Center

## Medicare Revenue

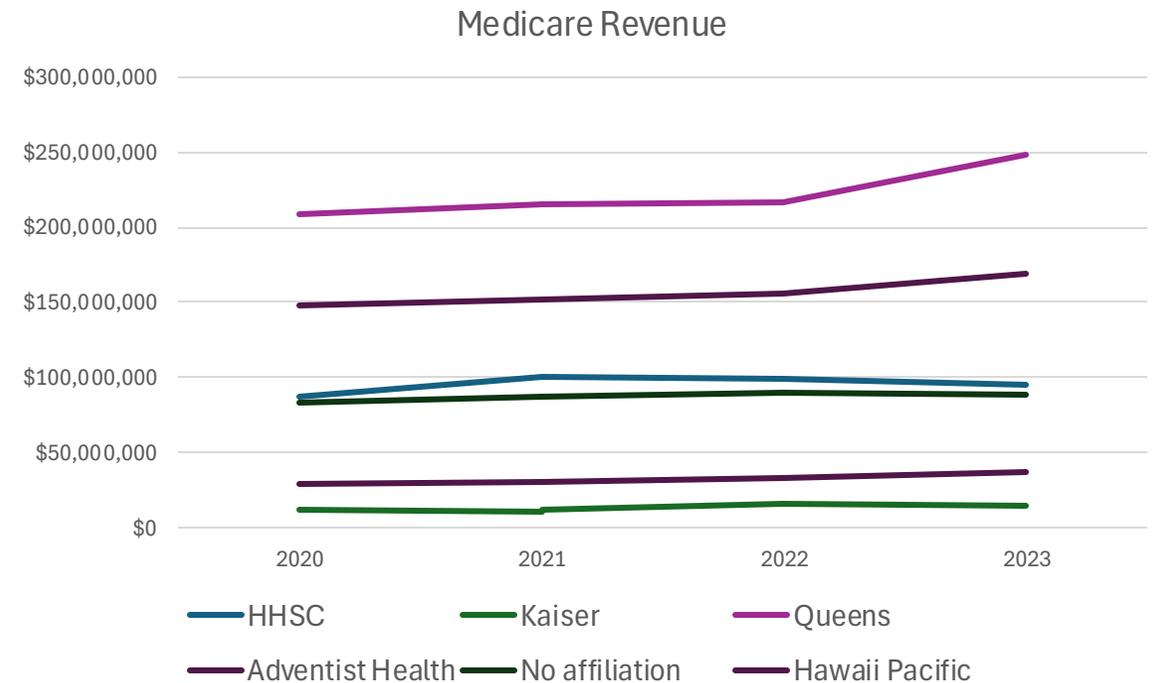


- Medicaid revenues have increased for all hospital types
- Since the budget weights assigned to Medicare FFS revenue vary by each baseline year, revenue stability over the baseline period for the participating hospitals is an important consideration

# Hospital System Medicaid and Medicare Revenue



- Medicare FFS revenue has grown for Queen’s and Hawaii Pacific hospital systems
- Remaining hospital systems have either remained the same or slightly decreased



- Medicaid revenues have increased for Queen’s and HHSC hospital systems
- Since the budget weights assigned to Medicare FFS revenue vary by each baseline year, revenue stability over the baseline period for the participating hospitals is an important consideration

# Hospital Quality

AHEAD Model

# AHEAD HGB Quality Adjustments (Medicare FFS)

Non-CAH hospitals can increase their budget trends through performance in national quality programs.

AHEAD has a unique upside-only quality program for CAHs with a 2% maximum upside.

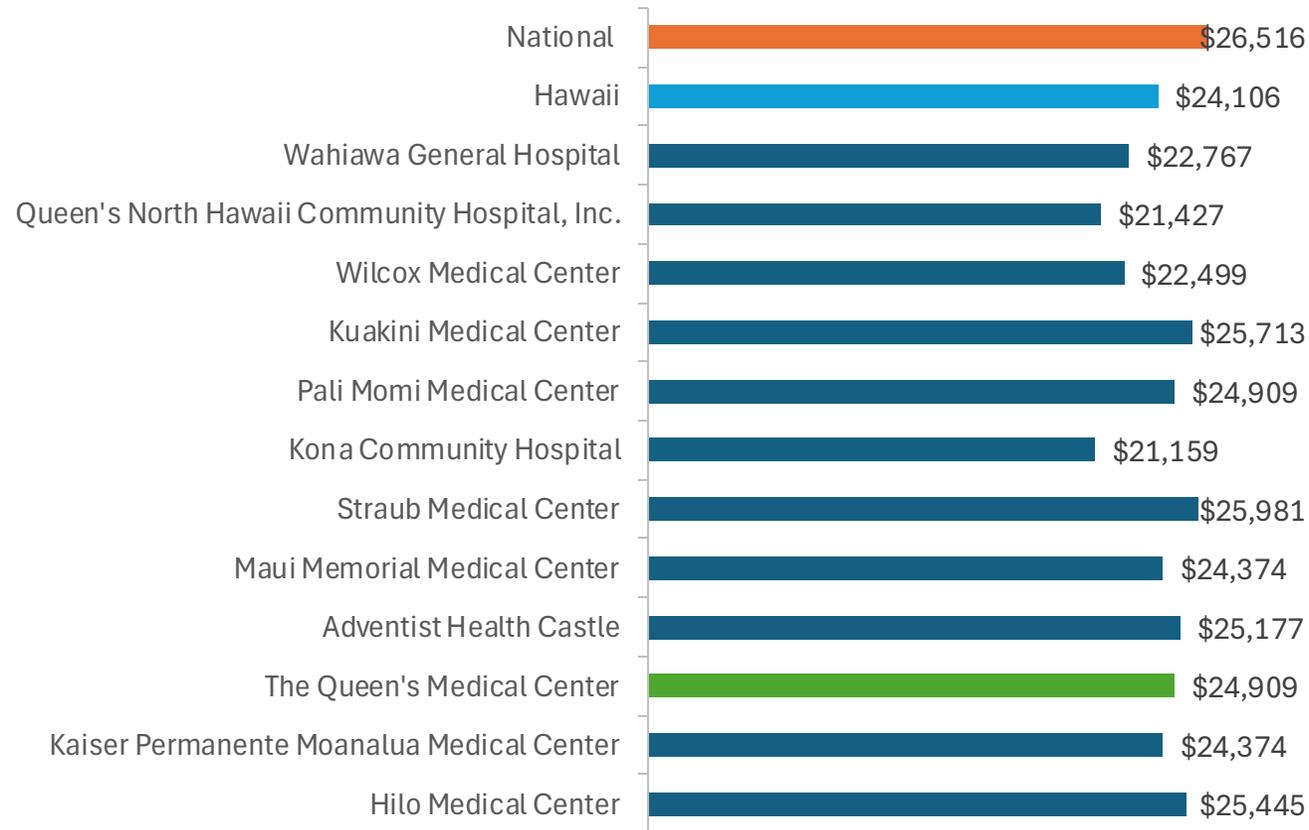
Regular acute care hospitals use the national Medicare quality programs (part of IPPS and OPPS):

- Hospital Readmission Reduction Program (HRRP)
- Value Based Purchasing (VBP)
- Hospital-Acquired Condition (HAC) Reduction Program
- Inpatient Quality Reporting Program
- Outpatient Quality Reporting (OQR) Program
- Meaningful use / interoperability

Critical Access Hospitals (CAHs) do not participate in the national Medicare quality programs.

In AHEAD, CAHs will participate in an upside-only quality incentive program: 2% maximum budget increase beginning in PY2028.

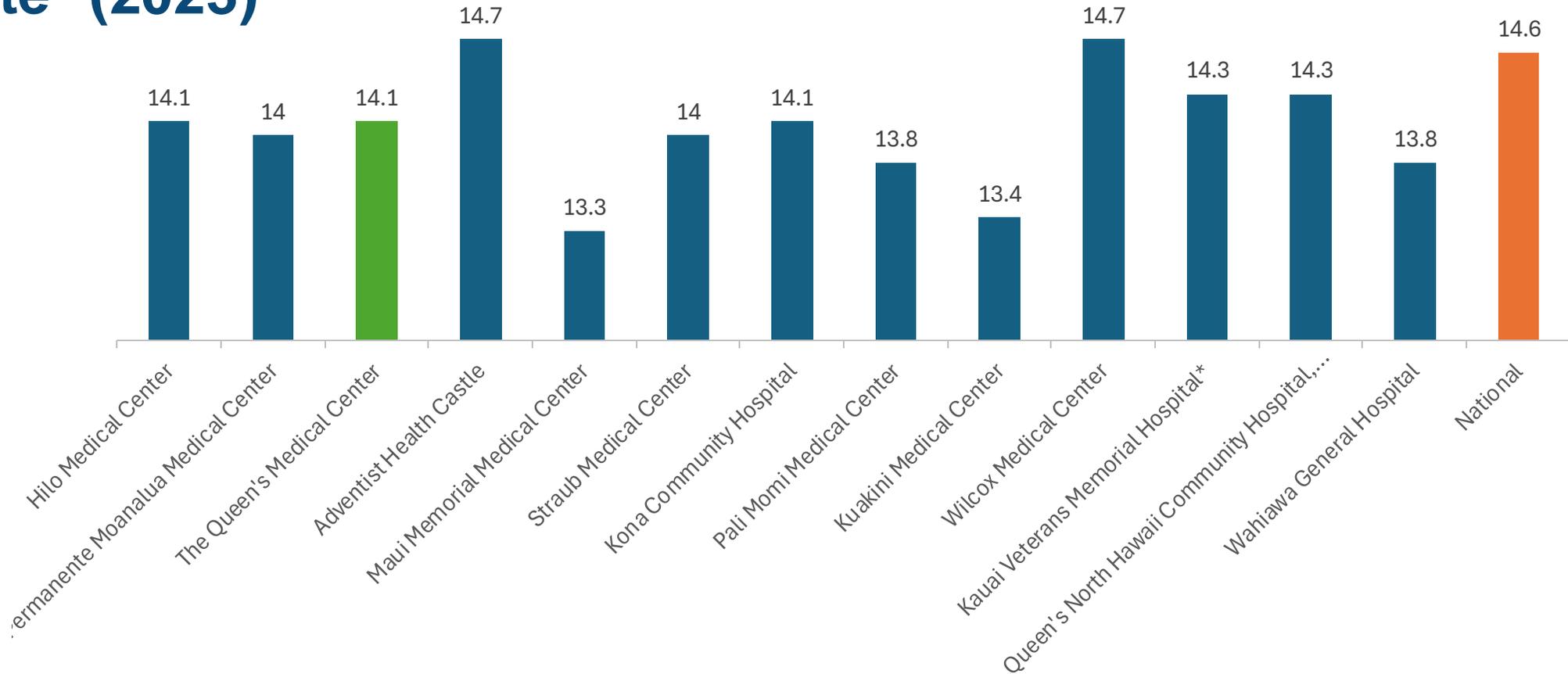
# Hawaii Hospitals: Medicare Spending Per Beneficiary\* (CY 2023)



All non-CAH hospitals show risk adjusted Medicare hospital spending per patient less than the National Benchmark. Hawaii as a whole has 9% lower Medicare FFS Spending Per Beneficiary than the national average. The spend is calculated based on Part A and Part B covered services.

\* Measure assesses Medicare Part A and Part B payments for services provided to a Medicare beneficiary during a spending-per-beneficiary episode that spans from three days prior to an inpatient hospital admission through 30 days after discharge. The payments included in this measure are price-standardized and risk-adjusted. Only hospitals with reporting for the time-period are shown.

# Medicare FFS Quality: 30-day All Cause Hospital Readmission Rate\* (2023)



Hawaii hospitals are similar to or lower than the National average for the 30-day Readmission Rate for Medicare population.

The 30-day unplanned hospital-wide readmission measure is an estimate of unplanned readmission to any acute care hospital within 30 days of discharge from a hospitalization for any cause. This measure includes all eligible medical, surgical and gynecological, neurological, cardiovascular, and cardiorespiratory admissions

# Thank you

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