

# A Pragmatic Home Hospital Equity Dashboard in a Safety Net Health System

Constantinos I Michaelidis, MD, MBA, MS, Arvin Garg, MD, MPH, Casey Phillips BSN, RN, Shiv Sutaria MD, Candra Szymanski, MS, RN, Timothy VanStraten BEng, Eric Alper, MD

## BACKGROUND

- Addressing inequities in the US healthcare system is a major goal of the Centers for Medicare & Medicaid Services (CMS).<sup>1</sup>
- The CMS Acute Hospital Care at Home waiver enacted in November 2020 enabled rapid scale of home hospital programs in the US and more equitable access of patients with traditional Medicare or Medicaid to home hospital care
- Single-center cohort analyses from safety net health systems serving Medicaid predominant populations suggests similar if not superior safety and efficacy of home hospital in disadvantaged populations. Yet there remains a paucity of work describing pragmatic approaches for equity assurance processes.<sup>2</sup>

## Intervention

- Program Background:** UMass Memorial Medical Center (UMMMC) is a safety net tertiary care hospital serving patients in central Massachusetts. In response to inpatient capacity challenges, UMMC launched a hospital at home (HAH) program in August 2021 and has cared for 1,317 patients in its first two years.
- Program Opportunity:** the UMMC HAH program leadership aimed to systematically monitor for HAH program inequities in admissions, escalations and readmissions across demographic groups.
- Dashboard Development:** We developed a pragmatic HAH health equity dashboard to evaluate quarterly admissions, escalations and readmissions across self-reported gender, race, ethnicity, and language using the UMMC brick and mortar hospital (BAH) hospitalist service as a comparator.

## RESULTS

Table 1. Demographics of inpatients admitted to the UMMC HAH (n=1,317) versus BAH hospitalist services from 8/1/21-7/31/23

	Admitted to HAH Hospitalist Service	Admitted to BAH Hospitalist Service
Female	47.7%	46.8%
Hispanic or Latino	16.4%	12.1%
American-Indian or Alaska Native	0.6%	0.2%
Asian	2.7%	1.9%
Black or African-American	6.5%	6.1%
Native Hawaiian or Other Pacific Islander	0.6%	0.1%
Other, Unknown, Decline	15.6%	11.1%
White	67.4%	73.1%
Non-English Speaking	14.3%	11.0%

Table 2. Percentage of patients transferred back from HAH to BAH (escalation percentage) during their HAH admission by demographics from 8/1/21-7/31/23.

Demographic	Escalation Percentage
All Patients (n=1,317)	11.6%
Female (n=628)	9.4%
Male (n=689)	14.0%
Hispanic or Latino (n=216)	8.1%
Not Hispanic or Latino (n=1,101)	12.4%
American Indian or Alaska Native (n=2)	50.0%
Asian (n=36)	0.0%
Black or African-American (n=86)	9.4%
Native Hawaiian or Other Pacific Islander (n=8)	0.0%
White (n=888)	12.6%
English Speaking (n=1,129)	12.5%
Non-English Speaking (n=188)	6.8%

## RESULTS

Table 3. UMMC 30-day same system readmission probability for inpatients admitted to the UMMC HAH versus BAH hospitalist services from 8/1/21-7/31/23.

	30-Day Readmissions, HAH Hospitalist Service	30-Day Readmissions, BAH Hospitalist Service
Female	12.0%	15.7%
Male	13.9%	17.5%
Hispanic or Latino	11.4%	14.9%
Not Hispanic or Latino	13.2%	16.9%
American-Indian or Alaska Native	0.0%	13.3%
Asian	0.0%	14.2%
Black or African-American	9.4%	14.3%
Native Hawaiian or Other Pacific Islander	0.0%	9.5%
White	13.5%	17.2%
English Speaking	13.4%	17.0%
Non-English Speaking	10.2%	13.4%

## DISCUSSION

- A pragmatic equity dashboard can facilitate equity assurance in a safety net home hospital program.
- Our HAH equity dashboard suggests similar HAH vs. BAH patient demographics and lower HAH vs. BAH 30-day readmission probability across all demographic groups.

## References

- <https://www.cms.gov/pillar/health-equity>
- Federman AD, Soones T, DeCherrie LV, et al. Association of a bundled Hospital-at-Home and 30-Day postacute transitional care program with clinical outcomes and patient experiences. JAMA Intern Med. 2018;178(8):1033-1040.