maryland
health services
cost review commission

Hospital at Home in Maryland

Joint Chairmen's Report

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Table of Contents

Executive Summary

The 2021 Joint Chairmen's Report (JCR) directed the Health Services Cost Review Commission (HSCRC) and the Maryland Health Care Commission (MHCC), in consultation with the Office of Health Care Quality and Maryland Medicaid, to analyze the potential of broadening the use of the Hospital at Home® program (and similar programs that provide hospital acute-level services at home) in Maryland. The HSCRC and MHCC conducted a literature review and met with stakeholders to better understand implementation of the program and its potential implications in Maryland.

The HSCRC and MHCC found that, to date, the program has been implemented successfully in many other US states and other countries with generally positive results. Furthermore, by reducing utilization and improving patient satisfaction, Hospital at Home® aligns with Maryland's unique Total Cost of Care Model. HSCRC and MHCC's analysis suggests that there are limited regulatory barriers to broadening use of the Hospital at Home® model in Maryland. The HSCRC and MHCC identified two options for ensuring that hospitals can bill for Hospital at Home® services.

Introduction

The 2021 Joint Chairmen's Report (JCR) directed the Health Services Cost Review Commission (HSCRC) and the Maryland Health Care Commission (MHCC) (collectively referred to as "the Commissions"), in consultation with the Office of Health Care Quality and Maryland Medicaid, to analyze the potential of broadening the use of Hospital at Home® in the State of Maryland. Specifically, the JCR included the following language:

> The committees are interested in the expansion of a Hospital at Home model in Maryland. This model offers patients an alternative to inpatient hospital-based care, was founded in Maryland through Johns Hopkins Medicine in the mid-1990s and has operated in various pilot programs at other hospitals outside of the state. During the recent public health emergency, the federal government has offered broad regulatory flexibility to hospitals to provide services in locations other than traditional hospital settings, the Hospitals Without Walls program. However, while it is unclear if this regulatory flexibility will continue beyond the current public health emergency, there is interest from states to develop model programs to continue it. The committees request that the Health Services Cost Review Commission (HSCRC) and the Maryland Health Care Commission (MHCC), in consultation with the Office of Health Care Quality and Maryland Medicaid, report on the efficacy of the Hospital at Home model, how this model fits into the Maryland Total Cost of Care Model, barriers in existing State law and regulations that currently exist to prevent the broadening of the model, cost implications to public and private payers and, if the commissions think the model should be more broadly implemented, recommendations on how to do so.

To fulfill the requirements in the JCR, HSCRC and MHCC analyzed existing literature on the Hospital at Home® model and similar programs that provide hospital-level acute care at home, with particular attention to how the model would fit into Maryland's unique health care system. HSCRC and MHCC also evaluated potential barriers--both regulatory and financial--to implementing hospital-based programs in Maryland and outlines its recommendations for the model in the State. Entities such as payers have also implemented the model in other states, but this report focuses solely on hospital-based initiatives.

Hospital Care at Home Programs

The Hospital at Home® program is one of several programs that provide hospital-level care in a patient's home instead of in a traditional inpatient setting.[1] This report will refer to these programs as "hospital care at home programs". These programs are offered to patients who meet narrowly defined eligibility criteria to ensure they can be safely treated at home. Patients who need intensive services and/or multiple visits from specialists continue to be treated in the hospital. Typically, conditions with defined treatment protocols, such as congestive heart failure (CHF), chronic obstructive pulmonary disease (COPD), community-acquired pneumonia, and cellulitis are included in the hospital care at home programs. These treatment protocols ensure that patients receive the same care they would have received in the hospital but from the comfort of their own homes.[2]

Although individual programs vary in design, most of the programs include three steps:

Step 1: An emergency department or community physician identifies a patient who is sick enough to be hospitalized but stable enough to be treated at home and determines that the patient meets the medical eligibility criteria for participating in the program (which include both allowed and disallowed diagnoses).[3] The suitability of the home is assessed to confirm it meets basic safety criteria. Programs generally require that homes have electricity, working plumbing, and may also require air conditioning and heat. A caregiver meets the patient at home and explains the treatment protocol.

Step 2: Clinical staff visit the patient daily to administer intravenous medications and fluids, provide nebulizer treatments, and conduct tests, including ultrasounds, X-rays, and electrocardiograms. When the care team is not in the home, they communicate with the patient via telemedicine equipment. Patients are constantly monitored using remote patient monitoring equipment to capture any decline in the patient's condition when clinicians are off site. Hospitals are prepared to transport a program participant to the hospital at any time if the patient's condition declines.

Step 3: Once the patient no longer qualifies for hospital-level care, the patient is discharged from the hospital care at home program. Like any hospital discharge, the hospital ensures that the patient's primary care physician is informed of the discharge and the patient is connected with other necessary care providers, which may include home health services. Typically, a hospital care at

[1] Hospital at Home® is a registered trademark of the Johns Hopkin's University. https://trademarks.justia.com/779/24/hospital-at-home-77924963.html

[2] https://www.hospitalathome.org/about-us/overview.php

[3] Some programs also admit patients to the hospital care at home program after their inpatient hospital stay, to complete the latter part of their hospitalization. https://www.chcf.org/wp-content/uploads/2021/01/MedicalCareHomeComesAge.pdf, p.9. All patients in a hospital care at home program must meet the criteria for hospital-level of care.

home program provides continuing oversight for at least 30 days to ensure that the patient does not require a readmission to either a hospital inpatient bed or the hospital care at home program.

The Hospital at Home® Model was designed and piloted at the Johns Hopkins Bayview Medical Center in the mid-1990s. An analysis of the program by the Agency for Healthcare Research and Quality identified 41 hospitals and health systems that had implemented a Hospital at Home® program as of April 2021. Hospital care at home programs have also been popular internationally, including use in Britain, Israel, Australia, Italy, and Spain. [4] During the COVID-19 pandemic, the Centers for Medicare and Medicaid (CMS) created the Acute Hospital Care at Home program to allow Medicare to pay for hospital services provided at home.[5] As of early 2021, 128 hospitals representing 57 health systems in 30 states were approved to participate in CMS's Acute Hospital Care at Home program. Payers such as BlueCross BlueShield, Cigna, and Kaiser Permanente have also invested in models of care that provide hospital care at home.[6] For example, Kaiser Permanente launched the KP@ Home program in their Northwest region in 2020.[7] Hospital care at home programs have also received reimbursement from Medicaid Managed Care Organizations and Medicare Advantage plans.[8]

Numerous studies have demonstrated the efficacy of the Hospital at Home® program and similar hospital care at home programs. A meta-analysis of 61 randomized controlled trials found that hospital care at home programs reduced both mortality and costs.[9] Some hospital care at home programs have also been shown to improve patient satisfaction[10] and quality of life[11] compared to patients receiving equivalent inpatient care. Other programs have shown lower rates of readmissions, ED revisits, and SNF admissions,[12] as well as shorter length of stay and lower rates of mortality for patients receiving hospital care at home rather than

[4] See https://pubmed.ncbi.nlm.nih.gov/21077817/, https://link.springer.com/article/10.1007/s11739-021-02661-8, and https://jamanetwork.com/journals/jamainternalmedicine/article-abstract/224755

[5] CMS's Acute Hospital Care at Home program is a component of CMS's "Hospital without Walls" program which was designed to increase hospital capacity during the COVID-19 public health emergency. Other aspects of the Hospital without Walls program allow hospitals to transfer patients to outside facilities, such as ambulatory surgery centers, inpatient rehabilitation hospitals, hotels, and dormitories, while still receiving Medicare hospital payments.

[6] Ziegler, Hospital at Home the Emergence of Acute Care Models in A Home-based Setting - Spring 2021 Industry White Paper

[7] https://about.kaiserpermanente.org/our-story/our-care/bringing-health-care-home

[8] https://www.healthaffairs.org/doi/pdf/10.1377/hlthaff.2011.1132

[9] Caplan GA, Sulaiman NS, Mangin DA, Aimonino Ricauda N, Wilson AD, Barclay L. A meta-analysis of "hospital in the home." Med J Aust. 2012;197(9):512-519. doi:10.5694/mja12.10480

[10] Leff B, Burton L, Mader S, et al. Satisfaction with hospital at home care. J Am Geriatr Soc. 2006;54(9):1355-1363.

[11] Aimonino Ricauda N, Tibaldi V, Leff B, et al. Substitutive "hospital at home" versus inpatient care for elderly patients with exacerbations of chronic obstructive pulmonary disease: a prospective randomized, controlled trial. **J Am Geriatr Soc.** 2008;56(3):493-500.

[12] Federman AD, Soones T, DeCherrie LV, Leff B, Siu 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. doi:10.1001/jamainternmed.2018.2562

in the inpatient setting.[13] There is also evidence to suggest that these programs cost less than traditional inpatient care. The meta-analysis included 34 studies that compared the cost of hospital care at home programs compared to traditional hospital stays. Thirty-two out of thirty-four studies showed lower costs for hospital care at home, with substantial cost savings in some cases. For example, one recent study estimated that Hospital at Home® was 19% cheaper than traditional hospital care.[14]

Overall, the Commissions have determined that there is evidence to suggest that hospital care at home programs can improve patient care for certain patients while lowering cost, compared to equivalent inpatient hospital care. Based on this evidence, the HSCRC and MHCC believe that hospital care at home programs could help to advance the goals of the Maryland Health Model, which seeks to align health provider incentives so that patients receive high quality care in the least expensive appropriate setting and encourage hospital investment in care improvement. For that reason, the Commissions support further uptake of the model by hospitals and other entities across the State.

Barriers to Implementation

Given that hospital care at home programs have the potential to improve the quality of care while simultaneously reducing costs, the adoption of these programs in Maryland has been disappointing. The Commissions worked with staff from OHCQ and Medicaid to determine if there are any regulatory barriers that inhibit hospitals from deploying hospital care at home programs in the State. The Commissions have concluded that the implementation of hospital care at home programs by a hospital does not require a Certification of Need (CON) or changes to a hospital's license.[15]

Where hospital care at home programs have been implemented successfully, it is typically because payers have negotiated new payment arrangements for the hospital care at home programs or provided the same level of payment as is provided for traditional inpatient care. For example, CMS' Acute Hospital at Home program provides the same payment rate for the care provided to Medicare patients at home as Medicare pays for traditional inpatient care. This change, as well as the pressures on hospital capacity during the COVID-19 pandemic, led more than 100 hospitals to launch an Acute Hospital at Home program.

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[13] Cryer L, Shannon S, Van Amsterdam M, and Leff B. Costs For 'Hospital At Home' Patients Were 19 Percent Lower, With Equal Or Better Outcomes Compared To Similar Inpatients. Health Affairs. 2012; 31(6): 1237-1243. https://doi.org/10.1377/hlthaff.2011.1132

[14] Levine DM, Pian J, Mahendrakumar K, Patel A, Saenz A, Schnipper JL. Hospital-level care at home for acutely ill adults: a qualitative evaluation of a randomized controlled trial. J Gen Intern Med. Published online January 21, 2021. doi:10.1007/s11606-020-06416-7

[15] If hospital care at home programs were adopted in Maryland, some regulatory modernization may be required to ensure patient safety. Specifically: OHCQ may need to update its patient safety regulations to ensure that the quality of care would be maintained regardless of the setting of care. MHCC may also decide to update the relevant State Health Plan standards, which govern the review of projects, if hospital care at home has more than a negligible impact on demand for hospital beds. However, in the judgement of the Commissions, current OHCQ and MHCC regulations allow hospital care at home programs to be deployed in Maryland.

Compared to hospital financial incentives in other states, Maryland's unique hospital payment system lessens the financial barriers to deploying a hospital care at home program. Under the Maryland Total Cost of Care Agreement with CMS, hospitals in Maryland are paid a "global budget", which is an annual payment amount for hospital services based on the population served rather than actual hospital utilization. The global budgets are intended to incentivize hospitals to keep patients healthy and out of the hospitals, instead of maximizing the number of patients that are admitted to hospitals. The global budget system aligns well with the acute hospital care at home programs. In other parts of the country, hospitals are incentivized to admit patients to traditional inpatient services rather than an acute hospital care at home program because they will lose revenue equal to the difference between the inpatient payment rate and the Hospital at Home® payment rate. Under the global budgets, hospitals in Maryland will not lose any revenue if the number of inpatient admissions declines, regardless of why the decline occurs. Thus, implementation of a hospital at home program that keeps people out of inpatient hospital beds would not have an impact on hospital revenue in Maryland. Under global budget revenues, there is no financial disincentive for a Maryland hospital that wants to implement a hospital care at home program.

However, the HSCRC regulated all-payer rate setting system that underpins the global budget system for hospital payment was not designed with acute hospital care at home programs in mind. There are three regulatory barriers to billing for an acute hospital care at home program services. [16] First, the Centers for Medicare and Medicaid Services require that nursing care be provided on site 24/7 for a hospital bed to qualify for payment under Medicare.[17] Second, HSCRC's authority to set rates is limited to outpatient services provided "at a hospital", inpatient hospital services, and emergency department services. [18] The HSCRC would need to create a bundled payment rate for outpatient services that Hospital at Home patients receive (such as the emergency department visit initiating the Hospital at Home intervention). Third, Medicaid may need to apply to CMS to amend the State's Medicaid section 1115 Waiver and/or its State

[16] Hospitals do not need to bill for Hospital at Home services directly. Because of the global budgets, the hospital collects the same amount of revenue regardless of whether the service charges are billed to a payer. Therefore, a hospital could finance the Hospital at Home program out of its retained revenue (e.g. the difference between its global budget and the service charges that are actually billed to payers). However, this raises some administrative and policy issues.

[17] Specifically, provider compliance with CMS's Medicare conditions of participation are required to receive Medicare payment. CMS's waived Hospital Conditions of Participation §482.23(b) and (b)(1) for the Acute hospital Care at Home. These provisions of the COP require nursing services to be provided on the hospital premises 24 hours a day, 7 days a week and the immediate availability of a registered nurse for the care of any patient.[17] CMS waived this requirement during the federal COVID-19 public health emergency for the Acute Hospital Care at Home program. The waiver of these conditions allows hospitals to provide hospital care at home with daily visits by nurses (rather than placement of a nurse in the home 24/7). CMS has indicated that their Acute Hospital Care at Home program may expire when the federal COVID-19 Public Health Emergency (PHE) ends.

[18] "At a hospital is defined in regulations as services provided in a building on the campus of a hospital in which hospital services are provided. COMAR 10.37.10.07-1

Plan Amendment to allow for Medicaid payment for the program. These barriers would have to be overcome to allow a hospital to be reimbursed for providing acute hospital care at home services.

Reimbursement Options and Recommendations

The Commissions identified two options that would allow hospitals to bill for acute hospital care at home program services: 1) HSCRC and CMS could make regulatory changes in order to treat services provided outside of the hospital as traditional inpatient care; or 2) HSCRC could establish a new bundled payment rate for the hospital services provided at home. Both options would have the same clinical requirements but would be reimbursed differently.

> **Option 1:** Historically, hospitals have been prevented from charging the normal hospital inpatient rate for acute hospital care at home program services by CMS (for Medicare) and HSCRC regulations (for all-payer rates). Currently, an exemption to CMS' 24/7 nursing requirement exists under CMS's Acute Hospital Care at Home program, allowing hospitals to receive Medicare payment for services provided through this program. To allow Maryland hospitals to participate in this program, the HSCRC would need to determine that these services are "inpatient" services consistent with CMS's treatment of these services. However, it is unclear whether CMS will continue the Hospital without Walls program after the end of the federal COVID-19 public health emergency.
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> **Option 2:** The HSCRC could create a new bundled payment rate for acute hospital at home services under its existing rate-setting authority. This bundled payment rate would pay the hospital a higher rate for an Emergency Department service that triggers an admission to a hospital care at home program episode. The rate would be set equal to the average cost of the emergency department visit and the entire cost of the patient's stay in the hospital care at home program. These bundled payment arrangements are similar to how private payers have historically financed hospital care at home programs. This option would not require any action by CMS or other entities.

Given that CMS has not made any indication regarding the continuation of the Hospital without Walls program, Option 2 is preferable. The HSCRC intends to work with hospitals that are interested in implementing a hospital care at home program to develop the appropriate bundled payment rates.

Conclusion

Given current published data on hospital care at home programs, the Commissions believe that hospital care at home programs could help to advance the goals of the Maryland Health Model. For that reason, the Commissions support the uptake of the model by hospitals and other entities across the State.