The COVID-19 pandemic has significantly accelerated interest in developing and expanding hospital-at-home programs, and with new payment support from CMS, these programs can be expected to proliferate in coming months and years. For those health systems with their own health plans and/or with a significant enrollment in accountable care organizations (ACOs) that are taking significant financial risk, a hospital-at-home program can offer the potential to improve care and reduce costs for a segment of the patient population.

Today’s growing interest in hospital-at-home programs is a reversal of the trend that preceded COVID-19. Despite evaluations showing the effectiveness of such programs, adoption was slow due to a number of factors:

• Physician concerns about patient safety
• Patient lack of confidence in receiving some of their care through telehealth
• Reluctance of payers, especially fee-for-service Medicare, to pay providers appropriately for delivering acute services in a home setting

Despite these barriers, a number of health systems have developed their own hospital-at-home programs. Meanwhile, a number of for-profit market disruptors have developed their own programs, sometimes in partnership with health systems. Examples include Medically Home, Amedisys, Contessa Health and Envision Healthcare. (See the sidebar below for health system examples of hospital-at-home programs).

KEY CONSIDERATIONS FOR DEVELOPING A HOSPITAL-AT-HOME PROGRAM

There are a number of reasons the idea of developing a hospital-at-home program has become much more attractive to hospitals and health systems. We explore four of the most compelling factors contributing to this new receptivity below. Before moving forward with development of a hospital-at-home program, however, organizations should make sure they are prepared for the undertaking. The following are key preliminary steps and considerations that must be addressed to lay the foundation for success:

• Evaluate the health systems’ home care program to determine whether it has the needed expertise, technology and infrastructure
• Work with providers to decide which health conditions to target and develop associated protocols
• Assess the financial impact of implementing these strategies, including capital and operating revenue and costs, as well as the potential impact on reducing hospital utilization
• Determine if the program can be implemented for only selected populations for which the health system takes significant financial risk related to total spend
• Determine whether the program can be implemented internally or whether it would be more beneficial seek a partner that has

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Have hospital-at-home programs finally come of age?

Hospital-at-home programs have existed for more than 20 years. But only recently have they started to build momentum.
specific expertise in implementing and operating a hospital-at-home program

- Work with providers to ensure they are receptive to building the program and are ready to incorporate it into their workflows
- Develop metrics to track outcomes and financial results

WHY ORGANIZATIONS ARE TAKING A NEW LOOK AT HOSPITAL-AT-HOME PROGRAMS

Again, there are many compelling reasons for pursuing a hospital-at-home strategy. Today, four key factors are converging to make such programs more attractive for some health systems.

1. Consumer and providers acceptance of telehealth. The use of telehealth has skyrocketed since the COVID-19 pandemic began. According to a McKinsey & Company consumer survey, telehealth use increased from 11% of consumers in 2019 to 46% during the pandemic.\(^a\) Brigham Health reported in an Aug. 13, 2020 webinar that its telehealth visits increased from 5,000 per year to 5,000 per day during the pandemic.

Although telehealth visits have declined somewhat since physician offices have opened up again, it is expected that virtual visits will stabilize at a much higher level than was seen before the pandemic. The same McKinsey & Company report projects that up to $250 billion of healthcare spend could be virtualized as a result of the growing acceptance of virtual care by consumers and providers.

Both patients and providers have become more comfortable with using telehealth. The convenience factor is likely to continue playing a major role in the continuing use of telehealth by consumers. In the short term (at least), fear of contracting coronavirus also has induced a preference for telehealth and treatment at home.

2. Improved coverage by payers. The rate of telehealth growth has been significantly influenced by regulatory and payment changes. In March 2020, CMS announced the Hospitals Without Walls program, which allows hospitals to deliver acute care services in patients’ homes. The more than 80 new services related to telehealth that CMS temporarily approved, including payment changes, have certainly helped spur the adoption of telehealth.

On Nov. 25, 2020, CMS expanded on the March announcement by introducing an innovative Acute Hospital Care at Home program, which provides qualifying hospitals with unprecedented regulatory flexibility to treat eligible patients at home. Six health systems with extensive experience providing hospital care at home were initially approved: Brigham and Women’s Hospital, Boston; Huntsman Cancer Institute, Salt Lake City; Massachusetts General Hospital, Boston; Mount Sinai Health System, New York; Presbyterian Healthcare Services, Albuquerque, New Mexico; and UnityPoint Health, Des Moines, Iowa. And as of Jan. 15, the numbers of health systems and hospitals included in the program had grown to 36 and 88, respectively.\(^b\)

Commercial payers have also expanded their coverage of telehealth, and some are providing telehealth visits without copays.

The degree to which the temporary regulatory and payment changes in place during the COVID 19 pandemic will become permanent is an open question. However, it appears likely that some of these temporary changes will become permanent, given the growing acceptance and success of telehealth and hospital-at-home programs.

3. Emergence of new technologies. Another force facilitating increased adoption of hospital-at-home programs is the increasing capability of telemonitoring technology. Telemonitoring has been in use for many years. Telemonitoring equipment like digital blood pressure cuffs, stethoscopes, scales, glucose monitors and

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\(^{b.}\) CMS, “Acute Hospital care at home Program approved list of hospitals as of 1/15/21.”
pulse oximeters are used to record and transmit data to clinicians to enable them to monitor conditions like chronic obstructive pulmonary disease (COPD), congestive heart failure (CHF), diabetes and asthma. Also, electronic medication dispensers have been helpful in improving medication compliance.

The advent of new telemonitoring capabilities has enabled additional conditions to be remotely monitored so that patients running into problems can be identified early. Examples are:

- **Heart failure** – Implanted cardiac devices can transmit heart rate and rhythm showing atrial fibrillation and arrhythmias.
- **Diabetes** – A small patch worn on the upper arm can transmit glucose levels to remote locations for monitoring.
- **Respiratory diseases** – A low-cost (under $2,000) single probe ultrasound device that connects to a smart phone or tablet has recently been approved by the FDA. It can be affordable for home care companies and can be used to identify conditions such as certain lung disorders.

It is not hard to imagine additional passive monitoring and wearable devices becoming readily available for consumers and their care team, given devices like the Apple Watch Series 6, which can monitor the wearer’s heart rate, heart rhythm and oxygen saturation.

This telemonitoring data can be combined with information from electronic medical records, claims data, pharmacy data and other sources.
sources to provide enormous data sets, all of which will be facilitated by upcoming interoperability regulations.

Using the rapidly developing field of artificial intelligence, these data can be analyzed and algorithms developed to enable care teams to identify patients who need intervention early in their exacerbations to head off more serious illness/injury.

4 Increase in health systems taking risk.

The decrease in costs reported in studies of hospital-at-home programs have largely been the result of reduced admissions, emergency department visits and post-acute care expenses. If a health system depends predominately on fee-for-service payment and has excess inpatient capacity, adoption of a hospital-at-home program could cause a decline in the organization’s census and net income. However, if a health system is operating at capacity and can back-fill lost admissions, and/or if it is taking significant financial risk for many of the patients it serves, then a hospital-at-home program may help increase net income.

There has been an increase in lives covered by health systems taking financial risk for at least a portion of the patients they serve. In a recent Health Affairs Blog post, David Muhlestein and others write:

**Case examples of hospital-at-home programs**

Possible designs for hospital-at-home programs are exemplified by programs developed by six U.S. health systems.

**Presbyterian Healthcare Services, Albuquerque, New Mexico.** Presbyterian offers specialized programs for disease management and care including heart and lung disorders requiring cardiac and pulmonary care, wound and ostomy care, diabetic care, pain and symptom management, infusion therapy, urinary disorders, orthopedic and neurological care, pediatrics and high-risk obstetrics.

**Mount Sinai Health System, New York.** Mount Sinai’s hospital-at-home program offers care at home from physicians, nurse practitioners, registered nurses, social workers, care coordinators, physical therapists and other specialists. Services include IV medications, lab tests, physical therapy, occupational therapy and oxygen concentrators.

**Marshfield Clinic, Marshfield Wisconsin.** Marshfield Clinic’s Home Recovery Care offers two types of programs: medical and rehabilitation. The medical care program is for medical conditions such as pneumonia, congestive heart failure and urinary tract infections. The rehabilitation care program is for rehabilitation conditions including infusions, wound care and occupational/physical therapy.

**The MetroHealth System, Cleveland.** MetroHealth provides care for COVID-19 patients and vulnerable non-COVID-19 patients remotely via live video telehealth exams. Patients are provided kits with tablets, internet connectivity, webcams/headsets and Bluetooth peripherals such as blood pressure cuffs, pulse oximeters, glucometers and other technology.

**Intermountain Healthcare, Salt Lake City, Utah.** Intermountain at Home, originally focused on primary care and palliative care, has been expanded to include higher-acuity patients. The program is designed to serve a wide array of patients including those with congestive heart failure, cellulitis, pneumonia and selected cancers. The program is currently intended for payers with whom Intermountain Healthcare has a value-based or risk relationship.

**Brigham Health, Boston.** Brigham Health’s Home Hospital provides hospital-level care to acutely ill adults from the comfort of home. The program includes home visits by clinicians, remote monitoring, acute medications and home imaging (e.g., x-rays and ultrasound).
“By the start of the third quarter of 2019, there were 1,588 existing public and private ACO contracts, covering almost 44 million lives. By comparison, there were 1,611 ACO contracts around this time last year, covering 40.9 million lives.”

The authors also reported that the proportion of ACO’s taking downside risk is generally increasing.

There also has been an increase in provider-sponsored health plans over the past decade. In another Health Affairs Blog post, Allan Baumgarten and Katherine Hempstead write, “Between 2010 and 2018, more than 40 provider systems formed new health insurance companies or acquired existing health plans.”

A 2016 survey by Atlantic Information Services found that enrollment in provider-sponsored health plans, in both government and commercial markets, had increased from 32.8 million in 2014 to 36.2 million beneficiaries in 2015, for a 10% increase in a single year.

As noted earlier, for those health systems that own health plans and/or have a significant enrollment in ACOs that are taking significant financial risk, a hospital-at-home program offers the potential to improve care and reduce costs for a segment of the patient population. Further, some hospital-at-home programs, such as Medically Home and Intermountain Healthcare, are now including patients with more complex health problems. This development promises to make these programs even more attractive for any health system that is open to taking financial risk.

Add to that prospect the growth in telehealth that has occurred this year due to the COVID 19 pandemic, and it is likely we will see a still greater proliferation of hospital-at-home program.


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