

Beyond the Hospital Walls: How Digital Technology Drives Care within the Home



The utilization of digital technology in healthcare has accelerated over the last few years.

The COVID-19 pandemic created an environment that in many ways forced healthcare providers and patients to embrace digital technology. This increased use of digital technology affected not only how but also where healthcare is delivered. Technologies enabling telemedicine, virtual care, and remote monitoring are now being leveraged to successfully administer hospital-level care in the home. This model of care, where hospital-level care occurs in the patient's home, is most often known as "hospital-at-home" and is being embraced by health systems across the United States. According to a 2022 survey by Current Health, 17% of 103 health systems studied offer hospital-at-home services with another 46% evaluating or planning to add this benefit.

Since the pandemic, hospital-at-home has seen an increase in implementation, and it continues to grow nationwide. Currently, almost 400 hospitals and health systems across 33 states support hospital-at-home programs. Over the years, programs are expected to see growth by 50%, as the U.S. population will continue to age. The potential to reduce healthcare costs, decrease the risk of hospital-acquired infections, and increase patient satisfaction are just some of the benefits of this model of care.

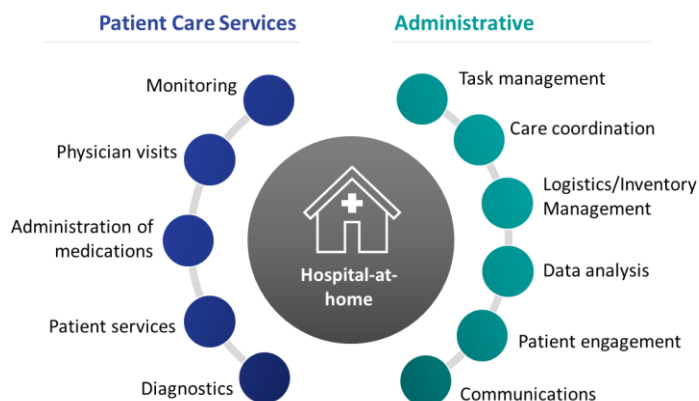
Ipsos believes in order for hospital-at-home programs to be successful, the integration of digital technology is and will continue to be a critical factor.

Technology as a Game Changer

Digital technology plays a central role in the rise of the hospital-at-home model in the United States.

Advances in technology in the last few years have enabled incredible improvements in efficiently managing the tasks involved in providing care at home.

Due to the complexity of this care model, technology plays a critical role in hospital-at-home.



Hospital-at-home can include a variety of services including physician visits, administration of medications, monitoring, patient services, diagnostics, and all other "inpatient level services." However, importantly, this model of care also includes the other aspects of healthcare such as task management, care coordination, logistics, inventory management, data analysis, patient engagement and communications, which are made more complex due to the remote nature of the care.

While some health systems have internally developed programs and associated technology to enable their hospital-at-home programs, most have decided to partner with established hospital-at-home companies and / or technology providers. A few examples of hospital-at-home providers currently active in the US include Medically Home, Current Health, Biofourmis, Dispatch, and Contessa. Each of these companies offer slightly different services and capabilities on their technology platforms. There are also many technology companies that offer more targeted solutions that can be used as part of the hospital-at-home market.



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Digital Technology Impact

With so many different players trying to get into the hospital-at-home space and individual health systems setting up their own programs, predicting the future is a challenge. However, there are few themes that rise to the top for most:



Wearables

There is enormous excitement about the potential of wearables in the at-home healthcare continuum. The use of wearables (e.g., smartwatches, wristbands, rings, etc.) is already mainstream and the idea of being able to utilize their ubiquity to provide even better care for patients is very appealing. Wearables are already starting to be used as part of clinical trials and while they are not currently being used in acute care management, integration into acute care seems like the natural progression.



AI & Predictive Analytics

As more and more data are generated, artificial intelligence and predictive analytics will become increasingly important to generate meaningful insights for more proactive patient care. There are already some health systems that are utilizing predictive analytics for their chronic care of heart failure patients to determine which patients will likely require attention from a healthcare provider sooner than others. As algorithms are refined, using data from remote patient monitoring devices and perhaps even wearables, could be used to target care for the hospital-at-home patients even further.



Cloud Platforms

Cloud platforms such as Amazon Web Services, Google Cloud, and Microsoft Azure have already established partnerships with many health systems to store and analyze their health and operational data. As more data is generated from hospital-at-home programs, these cloud platforms will become even more vital to ensure seamless continuity of healthcare delivery.

Opportunities

The hospital-at-home care model is still in the early development phase in the United States and a best-practice or standardized approach has not yet been established. Therefore, there is an opportunity for health systems and their hospital-at-home provider partners to establish the best-in-class definition.

One area of possible differentiation between current hospital-at-home programs is their use of remote monitoring technology, which is used to gain access to continuous hospital-level monitoring of a patient's vital signs. All technology is collecting data, but some are already incorporating predictive analytics to aid in interpretation of that data. One such example is BioIntellisense's BioButton, which is a medical grade wearable device for continuous monitoring, that can aid in the early detection of adverse vital sign trends through their analytic capabilities.

Another area of distinction is staffing, which can be crucial to the success of a hospital-at-home program. When it comes to the important question of staffing and managing the convergence between what is happening in the field and the health system, individual hospital-at-home programs have taken different approaches. Some programs have their own staff going to the patients' homes while their partner manages the command center; others manage their own command center while the field staff is provided by the partner.

Lastly, other technologies, such as the use of patient experience platforms or physician portals, can also differentiate hospital-at-home programs from one another. Patient experience platforms for example can be used for simple tasks that focus mainly on communication, while others utilize the data collected to help improve patient engagement overall.



"Wearables are going to become much more reliable. You can trust the data coming from wearables." — Stakeholder Interview by Ipsos

"Predictive analytics will aid with faster diagnosis, it will make data capturing easier, faster and less expensive." — Stakeholder Interview by Ipsos



"There is a large population of patients who would have been in the emergency room again and readmitted to the hospital if we were not monitoring them remotely." — Stakeholder Interview by Ipsos



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Ipsos Point of View of Considerations for the Future

Blurring boundaries between stages of care

Hospital-at-home is often seen as one part of a larger shift to move the entire continuum of care into the patient's home. As this occurs, the way that care is segmented and reimbursed will need to change. If transitions of care are no longer designated by a change in location or care team, then the process of admission and discharge may also change. Health systems and payers will need to rethink their current care and reimbursement models in order to fully accommodate hospital-at-home.

Leveraging technology to address operational inefficiencies

While successful in reducing hospital visits, the CMS Acute Hospital-at-Home program faced challenges in sustainability likely due to its reliance on more manual processes and in-person care, leading to higher costs and strain on resources. One potential solution to address these constraints is the use of remote patient monitoring (RPM) technologies. By streamlining workflows and automating tasks (e.g., appointment scheduling, medication reminders, etc.), RPM allows healthcare staff to better focus on their patients. This underscores the importance of leveraging technology to address potential cost and resource challenges within hospital-at-home programs.

Changing inpatient drug & device considerations

As a large proportion of the care is administered in the home and the boundaries between different levels of care become less distinct, ease of administration / use may become an increasingly important criteria for medications and devices. Patients, caregivers, and other medical personnel may need to conduct tasks while only being digitally supervised. Medications and devices that make this process easier may be perceived favorably. This will be important for both pharmaceutical and medical technology manufacturers to keep in mind.

Understanding implications for health equity

Opinions differ regarding the implication of hospital-at-home on health equity. Champions note that the ability to be present in the patient's home allows for much greater awareness of the social determinants of health and ability to target care accordingly. Others worry that patients on the lower end of the socioeconomic spectrum will not reap the benefits from this care model, due to concerns about cost and availability of infrastructure. Since this is a relatively new care model and is still in the early development phase, there is a substantial opportunity to ensure that health equity is built into the fabric of hospital-at-home programs.



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Closing Thoughts

As more programs develop and refine their offering and both health systems and their provider partners gain more experience, the process to set up a successful hospital-at-home program will be streamlined. It will be important to watch these developments, including which technologies and digital innovations, will rise above the others and become a standard component of all hospital-at-home programs.

How can Ipsos help?

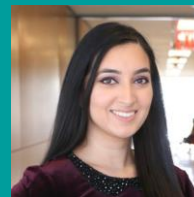
The hospital-at-home care model is here to stay. As the hospital-at-home market continues to develop, it will be important for key stakeholders, whether that be hospitals and hospital systems or digital health companies, to be best equipped with all the necessary tools to ensure success. Ipsos can help you commercialize, implement, and activate your hospital-at-home program. Ways that we can help include, but not limited to:

1. **Market landscape** to understand the current hospital-at-home landscape, explore current and future trends and uncover any unmet needs or white space.
2. **Opportunity assessment** to build or leverage potential partnerships between digital health companies and hospitals/hospital systems, in order to provide the best hospital-at-home programs and create synergies.
3. **Customer and stakeholder insights** to understand the drivers and barriers, perceptions, and satisfaction associated with hospital-at-home programs to ensure positive experiences and identify areas for improvements.
4. **Reimbursement landscape** to navigate the complex and changing needs among payers and health insurers.



“Patients prefer not having to come into the hospital if they do not have to and physicians are also accepting of it too. The culture is changing as we move forward with technology that allows you to provide care outside the walls of the hospital.” — Stakeholder Interview by Ipsos

Please contact the Advisory Team at Ipsos to plan your engagement strategy:



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Ipsos conducted interviews with stakeholders involved in the implementation of the hospital-at-home care model within their respective hospitals / health systems