

Care at Home: how suppliers can meet growing demand for innovative solutions for an emerging market

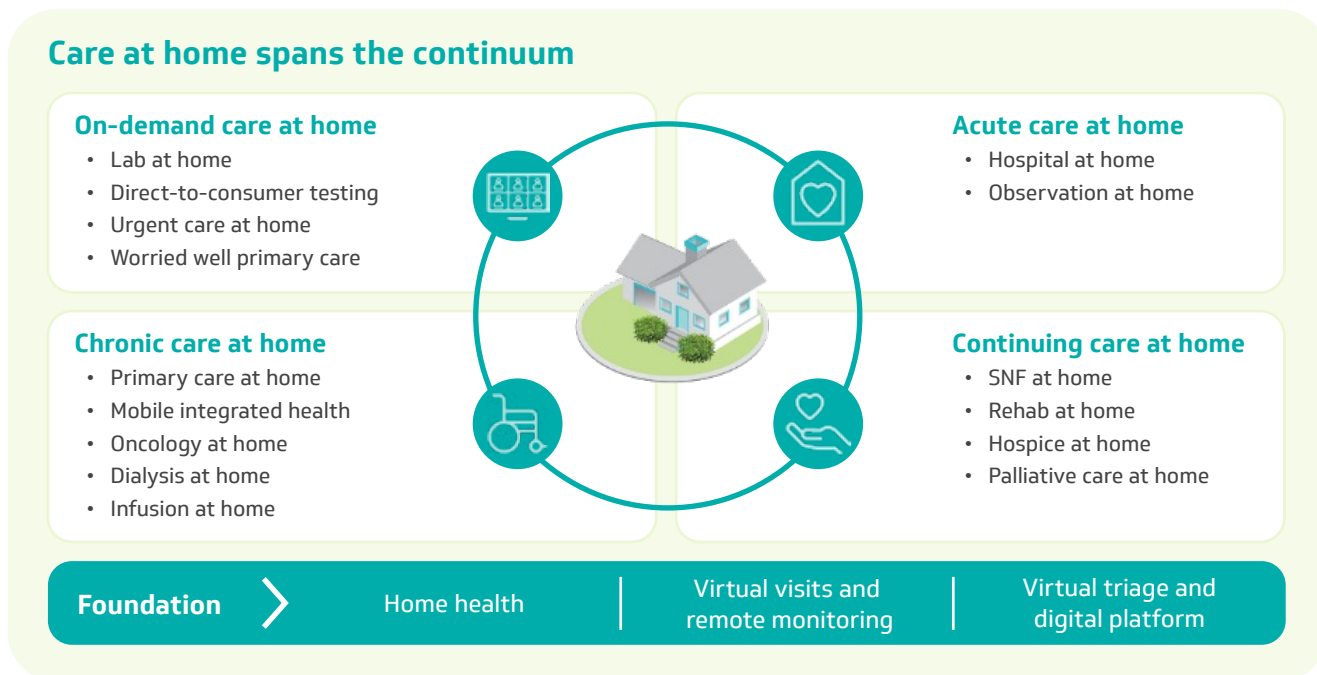


There's no question that care at home is becoming increasingly vital to health systems. Sg2's 2023 Impact of Change Forecast projects that home procedures will grow by 20% over the next 10 years, with home infusion medications use soaring to 26%. Over the next five years, Mass General Brigham (MGB) hopes to shift 10% of inpatient care to patients' homes.

It's projected that spend in the care at home segment will grow by 3 to 4 times its current value, adding between \$180 billion and \$265 billion between 2021 and 2025 for Medicare beneficiaries. Aside from strong growth, sicker patients are being treated at home, with more acute cases targeted to fall into this site of care bucket. A continuous move from bricks and mortar facilities to care at home can provide much needed relief to otherwise constrained hospitals.

Health systems are increasingly broadening their view of care at home, beyond just the highest acuity models most top of mind. As providers start to balance numerous models, suppliers will need to determine where they want to play in this diversifying arena.

Figure 1. Care at home spans the continuum



UMass Memorial Health in Massachusetts has cared for more than 1,300 patients at home since the beginning of its program in 2021. “These are folks who would otherwise be in the hospital,” says Dr. Constantinos Michaelidis, MD, Medical Director, Hospital at Home Program for UMass Memorial Health. “These are acutely ill, hospital-level patients. We're caring for those patients in the comfort of their own home with aggressive monitoring and therapy, and a team caring for that patient in the home.”

UMass Memorial Health's success is a good indicator of things to come. Concentrating care entirely within traditional healthcare settings will eventually be reserved only for the sickest and most complex patients. But as health systems shift more acute cases to the home, nearly all processes must be altered. Enabling health systems to treat more acute patients at home in greater numbers will require greater collaboration and innovation across the entire healthcare ecosystem, including suppliers. For example, staffing, technology, diagnostics and care must all be highly coordinated.

Manufacturers of medical supplies, from wound care to expensive medical devices, need to assess their products to make sure they're appropriate for use in a home care setting. Hospital-specific products to date haven't been developed with an eye toward versatility across care settings. Therefore, innovative new products for the home will be crucial to enhancing health system efficiencies and margins while increasing patient outcomes.

"The reason for suppliers to be there is clear at this point," says Andre LaFreniere, Commercial Business Development Lead for Battelle's health business. "The whole [home care] movement is centered around reducing the number of times that people come into a clinic for things that are routine and low-risk."

Suppliers can capture preferred vendor status by driving innovation for care at home products

As momentum grows for the care at home market, it's imperative for suppliers to determine how they can add value for providers. This requires examining internal capabilities and external provider challenges.

Internal considerations

- Which products and services currently support care at home?
- What levels of care at home align best with our current product suite, now and in the future?
- Which products enable us to be the most differentiated or add the greatest value?
- How can we help providers ease the burden of managing a care at home project?
- Where are the existing gaps in delivering high-quality care at home? Can we create an innovative solution?

External considerations

- What challenges do providers have in the care at home market?
- What gaps do other suppliers and partners have that could represent a competitive advantage?
- What needs do patients and their families have?
- Which providers and patients have challenges that our products and services can fill?

Health systems have a strong need for improved home-based technology and monitoring equipment and innovative tools that are nearly invisible to the patient. For example, negative pressure wound therapy (NPWT) is undergoing massive innovation, such as the miniaturization of healing apparatus. Portable machines now allow for convenient care and treatment in alternate care settings like the home. Smaller wearable designs promote **greater patient mobility and enhanced compliance** due to the longer intervals required between dressing changes.

Just as NPWT is undergoing innovation, so must other medical equipment. For example, one provider's wish list includes more advanced and streamlined body sensors that monitor heart rate, can perform EKGs, and monitor fall risk. In an ideal world, these sensors would enable the patient to communicate in real time with providers.

"There are a lot of things that don't exist yet, but we've had lots of discussions with our partners, and they are aware of our needs," says Michaelidis. "It's all about finding tools that are very simple and nearly invisible to the patient."

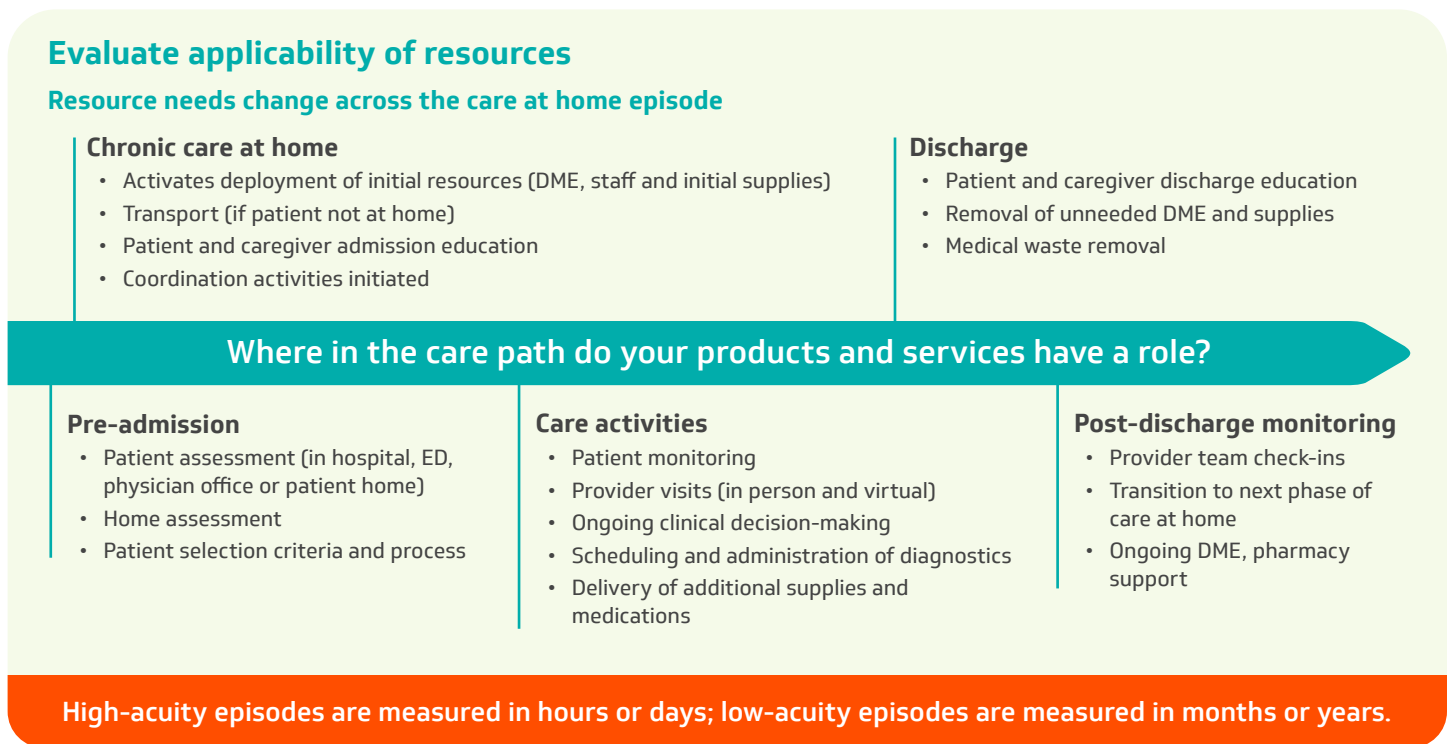
Moving products through the research and development stage and into production and marketing takes time. Manufacturers who want to capture the care at home market should prioritize this care delivery model. For example, in the drug delivery and self-injection market, there's been a major shift over the last couple of decades. In the past, patients would have to visit a clinic for an injection. Now, at-home auto injectors are common.

"It is all about user simplification," says LaFreniere, "and how do we make this as simple for users to adopt as possible. The injector market is now in its fourth or fifth generation of products, which are superior to what we've had. We're at the point where we are talking about incremental optimization."

Manufacturers should take their product development cues from the user paradigm. Consider what consumers are comfortable using -- like mobile phones and other technologies -- and translate that into future product designs. Suppliers should aim for the second or third generation of their products to be live by the time the care at home market matures. That's likely to be within 10-15 years, requiring new product launches within the next five years. Also consider that equipment and supplies need to be easy for providers and family care givers to use in the home environment.

Manufacturers can play a role in coordinating logistics as well, especially as systems aim to scale their programs. For example, Mass General Brigham's Healthcare at Home aspires to expand its program to 43 beds, with the goal of delivering care in the home to as many as 200 patients moving forward.

Figure 2. Evaluate applicability of resources across entire care at home episode to maximize the opportunity



Providing acute hospitalization in the home is complex. This type of care requires accurate logistics to make sure that staff, patients, supplies, medications and food are all delivered to the correct location at the appropriate time. Also, interpreter services, face-to-face video modalities and medication storage and management must be coordinated. “In healthcare, this is something that we’re not used to,” says Dr. Stephen Dorner, MD, MPH, MSc, Chief Clinical and Innovation Officer for Mass General Brigham Healthcare at Home.

“Ordering traditional durable medical goods from a home health agency standpoint doesn't require this level of sophistication. The detailed orchestration of this is a very intense operation that is continuously evolving and growing.” Among Dorner’s wish list are miniaturized drug storage cabinets or devices that store meds safely and on a kitchen counter, for example.

Figure 2 demonstrates how resources need to change across the entire care at home episode, and identifies opportunities for suppliers to innovate at each step of the patient journey.

Increase provider and patient education for effective product promotion

Information overload is pervasive throughout the healthcare environment regarding data and emerging products. In fact, it’s nearly impossible for a provider to be aware of all the products that are readily available to them, especially when you include reimbursement factors, which can limit a provider’s toolkit.

Providers face challenges in coordinating the various aspects of care at home. These challenges include patient needs, staffing, technology, patient monitoring and diagnostics.

“It takes a lot of effort to coordinate the 17 different departments whose services are needed to support the patient. And most of them don’t report to the hospital at home leadership.”

Medical director at an academic medical center hospital at home program.

Savvy manufacturers can earn supplier of choice status by upping their game when it comes to helping providers manage these challenges, especially product education. When negative pressure wound therapy was emerging, dozens of companies competed with differing therapies for diabetic ulcer wounds, for example. Even the most educated wound specialists can’t be expected to know all the options on the market.

“We have put a burden on providers to know all these things, so finding ways to communicate to them efficiently is important,” says LaFreniere.

As care migrates to the home, education programs will increasingly need to target all caregivers, including family members. Family education on product use can serve as an additional point of differentiation for suppliers. For example, most patients don't learn about care at home services until they are already in the hospital. Realistically, the care at home message needs to shift upstream so that patients are aware of the option and have the goal of trying to go home before they even step foot into a hospital.

"A critical educational campaign needs to be undertaken with the general public to have patients recognize that this is a safe, established way to receive care," says Dorner. "Parallel to that, the current generation of the clinical workforce in hospitals is not trained to think of the home as an acute site of care. There's a massive culture change effort that must be undertaken to have folks think about the home as an acute site of care, instead of a place you go once you've resolved all your acute care needs."

Conclusion

There are many unknowns regarding the care at home market. The biggest elephant in the room is reimbursement. For example, the CMS Acute Care at Home waiver will expire at the end of 2024. The uncertainty around what care at home will look like in the future could slow the rate of adoption and innovation. ProMedica in Ohio paused its hospital Care at Home program in 2023, while Adventist Health in California closed its 10 CMS-approved care at home facilities. Additionally, supplier innovation will continue to be muted given an uncertain demand for future solutions.

However, there's enormous potential for growth in the sector. More than 43 million encounters in the home are expected by 2030, and Medicare is expected to save greater than \$75 billion over the next decade by shifting services to the home.² Providers and suppliers who get in on the care at home movement early and solve today's challenges stand to gain market share and preferred status.

Manufacturers should collaborate with the entire healthcare ecosystem to make sure they remain viable moving forward. These joint efforts also include distribution systems, which will require massive process change to adapt to the care at home market. Although it may seem counterintuitive, partnering with competitors can enable massive innovation and a faster path to commercialization. Also, look beyond traditional healthcare providers; don't ignore emerging provider competitors, such as tech firms like Amazon and Google, and retailers like CVS and Walgreens. Look for pilot opportunities with your providers.

Supplier opportunities

- Differentiate and elevate integrated delivery network (IDN) value
- Providers are eager to engage with partners
- High-growth
- Fragmented market
- Ripe for innovation

Supplier risks

- Reimbursement uncertainty
- Complex ecosystem/interoperability
- Lower market volume
- Evolving standard of care
- Legacy hospital products lack versatility

Suppliers should monitor new alliances, such as the Advanced Care at Home Coalition, created by Kaiser Permanente and Mayo Clinic in collaboration with Medically Home. Also, look for opportunities to launch similar initiatives within the supplier community.

"There are lot of parties interested in solving the problems that we know folks are going to experience in trying to deliver home-based care across any phase of the continuum," says Dorner. "The ones that will have the greatest success will be those that develop a product that has applicability across multiple phases of the care continuum, in different stages of acuity."

The following is a snapshot of some of the health systems expanding their care at home programs

Mass General Brigham

The health system expanded its at-home hospital programs to three more Massachusetts communities in September. The health system currently is approved to care for 33 patients at home and is expanding to serve up to 45 patients. As part of a state-mandated performance-improvement plan, MGB expects annualized savings of \$1.3 million from its home-hospital expansion.³ In 2020, home hospital care became more popular when the Centers for Medicare and Medicaid Services introduced the Acute Hospital Care at Home waiver. This waiver allowed these programs to receive federal regulatory and financial authorization to help fight against the COVID-19 pandemic. Since then, MGB has provided Home Hospital services to over 3,000 patients, shifting the site of care for 15,000 days that would have been spent inside hospital facilities.

Kaiser Permanente

Kaiser's Care at Home program treats conditions such as cellulitis, chronic obstructive pulmonary disease (COPD), congestive heart failure, COVID-19, diverticulitis and pneumonia.

The program is proven to prevent hospital-acquired infections and has a 30-day hospital readmissions rate of 8%, compared with 13% for brick-and-mortar hospitals nationally.

Kaiser Permanente is a co-founder of the Advanced Care at Home Coalition, which brings together industry leaders in home and hospital care to advocate for all patients treated in U.S. hospitals who could safely receive care in their homes. Kaiser is advocating for a new acute care at-home demonstration model through the Centers for Medicare & Medicaid Services Innovation Center. In 2021, Kaiser, along with Mayo Clinic, invested nearly \$100 million into Medically Home.

UMass Memorial Health

UMass launched its program in 2021 after a six-month planning period. To date, the program has cared for more than 1,300 patients. Regarded as one of the higher admitting programs in the U.S., UMass Memorial Health treats acutely ill hospital patients at home. The program has lowered 30-day readmissions by about 30%, and the risk of a patient needing a skilled nursing facility following treatment by 80-90%. UMass Memorial Health was the recipient of the American Academy of Home Care Medicine program of the year in 2022.

Sources

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