



For entire health care ecosystem

Home-Based Care Market Scan

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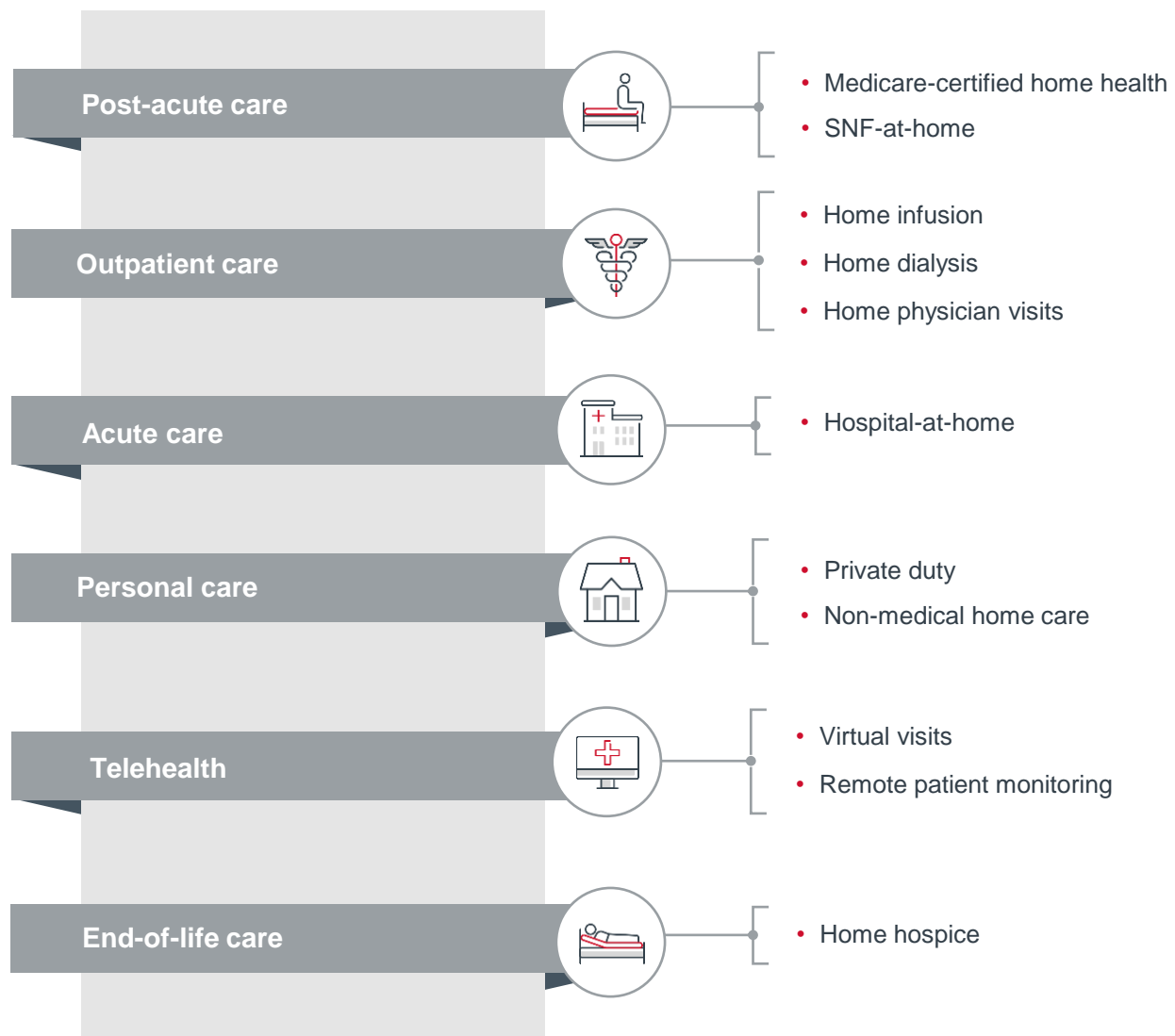
Introduction

The Covid-19 pandemic sparked innovation in multiple facets of the health care industry, including home-based care. However, few are certain of what home-based care actually means. “Home-based care” is a blanket term that actually encompasses a number of fundamentally different types of care. This market scan aims to shed light on the differences between types of home-based.

For each type of home-based care there is a brief overview, a list of potential services it includes, a list of organizations who are major players in that space or short profiles of organizations who have recently innovated in that space, and our take on the future of those services.

The below visual outlines the different types of home-based care. Read on to learn about the types of care listed below.

The different types of home-based care



Source: Advisory Board interviews and analysis.

Medicare certified home health

Post-acute care

Overview

Clinicians visit the patient's home to deliver physician-prescribed care after a hospital stay, illness, or injury to help rehabilitate and achieve an optimal level of independence—or to proactively manage chronic conditions to help prevent avoidable hospitalizations.

Services include:

- Short-term nursing service
- Physical therapy
- Occupational therapy
- Speech language pathology
- Medical social work
- Home health aide services

Largest providers

- [Kindred Healthcare](#)
- [Amedisys Inc.](#)
- [LHC Group Inc.](#)
- [Encompass Health](#)
- [AccentCare](#)

Reimbursement

Medicare-certified home health is reimbursed through Medicare. In January 2020, CMS introduced a new home health payment model: the Patient Driven Groupings Model (PDGM), which is based on patient characteristics rather than therapy utilization. *For additional information please see our [PDGM Resource Center](#).*

Impact of the first year of the Covid-19 pandemic on sector growth

While the total Medicare FFS volumes discharged to each post-acute site of care declined during Q2 2020, referral share of hospital volumes increased from 19.6% to 23.2% from Q2 2019 for home health providers. This reflects the home-first approach hospitals took during the early parts of the pandemic. While it is possible that increased home health referral share is due to volumes diverting from SNF to home health, it can also be attributed to patients who delayed seeking care and would have otherwise discharged home without home health services, had they been less acute at admission.

While changing caregiver dynamics and expansion of the types of care that can be given at home have helped home health providers gain a greater portion of hospital discharges, home health adherence—getting patients referred to home health to receive this care—continues to be a challenge in shifting more care home, with utilization consistently 10 percentage points lower than referrals throughout the first five months of 2020.

Certified home health continued

Post-acute care

Patient fears regarding bringing healthcare workers into their homes during the early months of the pandemic may have exacerbated this trend, but even prior to the pandemic, the non-adherence numbers are staggering and illustrate the disproportionate impact on black and Hispanic populations.

Future projection

We expect certified home health growth to be small but positive. Growth could be driven by increased desire for home health rather than facility-based care by discharging physicians, and an expanding patient expectation for convenient care. However, because there are clear parameters around which patients qualify for home-health services under Medicare (i.e. patients must be home-bound) volumes that would shift to homes instead of post-acute care facilities are limited. Additionally, patients who need significant assistance with ADLs and do not have family caregivers available, or cannot afford the out-of-pocket costs of ADL assistance, will need to go to SNF. *For additional information, see Our Take: Preparing for a Post-Pandemic World.*

SNF-at-home

Post-acute care

Overview

SNF-at-home is an up-and-coming form of post-acute care. While it is not clearly defined, it typically involves treating patients who qualify for a short-term stay at a skilled nursing facility (SNF) in the home setting instead. While it can include Medicare Certified home health services, it differs from home health because of additional wrap-around services provided, such as non-medical home care and physician rounding.

Reimbursement

SNF-at-home models that involve Medicare certified home health receive the Medicare reimbursement for the home health services. Services beyond the Medicare benefit, such as support with activities of daily living (ADLs), are not covered by CMS and are either paid for out of pocket by the patient or covered by individual managed care plans.

Services include:

- Skilled nursing
- Physical therapy
- Occupational therapy
- Speech language pathology
- Activities of daily living assistance
- Caregiver training
- Physician rounding
- Virtual visits
- Remote patient monitoring

Innovative organizations

- **Contessa Health** operates SNF-at-home in three markets as of April 2021. Their model includes home nursing visits, in-home therapy services, periodic physician rounding, and ADL assistance.
- **UnityPoint at Home** developed a model of SNF-at-home that couples Medicare certified home health with training for family caregivers to provide ADL assistance. They are in the process of developing and expanding this model.

Impact of the first year of the Covid-19 pandemic on sector growth

SNF-at-home has gained traction during the Covid-19 pandemic. However, SNF-at-home is still in the early stages of development and most programs have not yet been implemented or are in early pilot stages. This is likely due to a lack of clear definitions or funding avenues since most of the services within the model are not covered by CMS.

Future projection

SNF-at-home at home will likely experience some modest growth as the pilot programs get off the ground, however it is unlikely to become mainstream barring significant changes in reimbursement opportunities.

Home infusion therapy

Outpatient care

Overview

Home infusion is the intravenous administration of medication in a patient's home, rather than in an inpatient or outpatient care setting

Services include:

- Infusion performed by a nurse in the patient's home
- Coordination between care team, pharmacy, and home infusion staff

Reimbursement

Historically, reimbursement has been available solely through a managed care payer. However, Medicare began reimbursing home infusion therapy services on January 1, 2021.

Innovative organizations

- **Penn Medicine** Penn piloted a program starting in March 2020 where medical staff sent the infusion medicine and other necessary equipment directly to the patient, and then a nurse visited the patient at home or work to deliver an injection for their cancer treatment. Penn already performed other types of infusions at home, but for cancer patients specifically, the number of patients receiving home infusions increased from 670 in mid-February to 845 by mid-April. This is still a relatively small number compared to the amount they perform a day in the facility. *For a full case study on Penn's Home Infusion service line, [click here](#).*
- **CareCentrix** provides nursing, drugs, and the administration of supplies and functions to support infusion therapy in the home.
- **Valley Vital Care** of Virginia offers home infusion therapy to ensure patients have access to care amid the pandemic.
- **Zealand University Hospital in Næstved, Denmark** equips cancer patients with a PixCell's HemoScreen™ hematology analyzer to enable home-based testing of blood values to support oncology treatment of cancer patients in homecare settings as part of a new study. The six-minute, five-part Complete Blood Count supports clinical decision making for infusion remotely, thereby limiting immunocompromised patients' exposure to contagion in a hospital.
- **Jefferson Health's Sidney Kimmel Cancer Center** offers chemotherapy and other infusions to select cancer patients by partnering with **Jefferson Home Infusion**. For additional detail on this program, please see [Emerging idea: Oncology home infusion](#).

Home infusion therapy continued

Outpatient care

Impact of the first year of the Covid-19 pandemic on sector growth

The Covid-19 pandemic coupled with CMS reimbursement spurred home infusion growth in 2020. However, these programs face barriers related to provider and commercial payer reluctance, as well as supplier accreditation making it difficult for them to go mainstream.

Future projection

About 25% of infusions overall were done at home before the pandemic. Because of the increased interest in the home setting and the expansion of Medicare reimbursement, we estimate that a significant proportion of infusions will move to the home setting in the next five years.

However, cancer home infusions, which make up a small portion of infusion, are unlikely to see significant growth due to safety concerns among the medical community. If the Penn trial (and any other trials that were launched or expedited in response to Covid-19) proves effective, they could lay key groundwork that would help enable a small portion of chemotherapy by infusion to move into the home setting.

Home dialysis

Outpatient care

Overview

Home hemodialysis is a treatment for end-stage renal disease (ESRD) patients that replaces the work of kidneys to clear wastes and extra fluid from the patient's blood.

Services include:

- Hemodialysis performed at home by a clinician
- Patient and care partner education and training

Reimbursement

CMS covers home dialysis services, training, equipment and supplies.

Innovative organizations

- **Fresenius Kidney Care** Home dialysis trainings grew 25% in Q1 2020 from Q1 2019 at Fresenius Kidney Care. Additionally, they worked to integrate a technology into their dialysis machines and developed algorithms to help identify concerns earlier in the process to try to avoid unnecessary hospitalizations.
- **Mount Sinai** Over 80% of Mount Sinai peritoneal dialysis patients are using a cloud-based platform called Sharesource that shares data from their dialysis cyclers to allow providers to monitor them remotely. Most of their home dialysis patients also are doing their monthly visits via telehealth so they don't have to go to the facility at all. Mount Sinai has also contracted with a courier service that sends someone to Mount Sinai to pick up medications and deliver them directly to patients.
- **Humana Home Solutions and REACH Kidney Care** formed a partnership in July 2020 to provide home dialysis for Humana patients, as part of Humana's omnichannel approach to care in the home.

Impact of the first year of the Covid-19 pandemic on sector growth

Due to the increased interest in the home setting throughout 2020, CMS expand coverage of types of home dialysis equipment covered.

Future projection

We expect increased interest in home dialysis to continue after the pandemic, particularly since the National Kidney Foundation and proposed ESRD Treatment Choices Model had already been working to shift more dialysis into the home before the pandemic. Additionally, there is a clear patient preference to receive dialysis in the home due to the large time commitment. Furthermore, a 2019 presidential executive order launched the Advancing American Kidney Health initiative with a goal of 80% of patients with end-stage renal disease (ESRD) treated with either home dialysis or kidney transplantation by 2025. While there is no consensus about how much of dialysis can be provided in the home, other countries see home dialysis rates of over 20%, while only 2% of US ESRD patients receive home dialysis. Because of this, we estimate a significant proportion of dialysis will move to the home setting in the next five years.

Source: "Dialysis Services and Supplies," CMS, <https://www.medicare.gov/coverage/dialysis-services-supplies>; Flanagan, Erin et al, "Home Dialysis in the United States: A Roadmap for Increasing Peritoneal Dialysis Utilization," *American Journal of Kidney Disease*, [https://www.ajkd.org/article/S0272-6386\(19\)31127-8/fulltext](https://www.ajkd.org/article/S0272-6386(19)31127-8/fulltext); Advisory Board interviews and analysis.

Home physician visits

Outpatient care

Overview

Physician or advanced practitioner visits are delivered in the patient's home, usually targeted at seniors with high-risk of no-show for medical appointments, medically complex patients, or other high-risk patients. Services are typically delivered in-person, but providers may also leverage telehealth or remote patient monitoring technology to augment care.

Services include:

Traditional in-person primary care and specialist services

Reimbursement

Home-based primary care is covered under CMS' Program for All-Inclusive Care of the Elderly (PACE) and the Independence at Home demonstration. Additionally, these services are sometimes covered by Medicare Advantage plans and other managed care payers.

Innovative organizations

- **Northwell Health**, as part of the Independence at Home demonstration, found that seniors with complex conditions and functional impairments have frequent deteriorations in health status and difficulty getting to traditional primary care and specialty services. This leads to a reliance on ambulance transport, ED and hospital care. They created a house call program, where a 24/7 call center staffed with a nurse can triage and select the appropriate intervention: refer the patient to the ED, send a community paramedic to the patient's home for further evaluation, or provide support over the phone. The community paramedic can then complete a home visit where they can provide baseline primary care support like administering medication, performing diagnostics, or connecting with a physician via telemedicine.
- **Landmark** works with health plans to provide medical, behavioral health, palliative care, and social services to patients in their homes through house calls and telehealth visits.
- **Qualified Quacks** is a concierge medicine company that charges flat rates for home visits instead of a monthly or annual fee like other concierge medicine companies. The company expanded their services to offer Covid-19 nasal swab and antibody tests and sends them to a lab for results within 48 hours.
- **Heal and Humana** announced a partnership at the end of July 2020. Humana acquired a stake in Heal, a home-based primary care company, as part of Humana's omnichannel approach to providing care in the home.

Home physician visits continued

Outpatient care

Impact of the first year of the Covid-19 pandemic on sector growth

Covid-19 has increased interest in home physician visits and home-based primary care, and companies like Landmark and Heal have seen significant expansions.

Future projection

In-person house calls will likely become more common for the most vulnerable patients, but are unlikely to go mainstream because they are difficult to scale for providers, and typically only covered by insurance under specific circumstances. For example, patients must be dual-eligible to receive coverage from the PACE program, which only operates through a handful of organizations. Medicare Advantage typically focuses home-based primary care coverage for patients with multiple chronic conditions.

Despite the fact that this model is unlikely to become the norm for primary care, there is still significant growth opportunity for home-based primary care to serve the most vulnerable. Companies like Landmark and Heal have found ways to overcome scaling and reimbursement challenges. Furthermore, CMS's Independence at Home demonstration realized \$63 million in savings in its first four years alone showcasing the value of these services for seniors with multiple chronic conditions.

Source: AAHCM Applauds Results of Year 4 Medicare Independence at Home (IAH) Demonstration," Newswise, June 2019, <https://www.newswise.com/articles/aaahcm-applauds-results-of-year-4-medicareindependence-at-home-iah-demonstration>; "Managing Effectively in Complex Chronic Populations," HealthScape Advisors, January 2018, https://www.landmarkhealth.org/wpcontent/uploads/2019/05/ManagingEffectively-in-Complex-Chronic-CareMarkets-Whitepaper-Digital_FINAL.pdf; Advisory Board interviews and analysis.

Hospital-at-home

Acute care

Overview

Patients receive hospital-level care from a team of doctors, nurse practitioners, nurses, and other professionals in their own homes, often as an ED diversion strategy and to discharge patients earlier to free up capacity.

Services include:

- Access to nurses and coordinators who monitor health status, communicate with doctors, assist in making doctor appointments, and answer any medical questions
- 24/7 on-call service to respond to any urgent or immediate needs
- Daily visits, or more often if needed, from a doctor or nurse practitioner, either in-person or by video visit
- Lab services, IV medications, and other equipment or therapy brought directly to the home. This can include electrocardiograms, echocardiograms, x-rays, respiratory therapy, oxygen therapy, intravenous fluids, intravenous antibiotics, and pharmacy services.
- Daily visits from home care nurses to check vital signs and administer certain medications, including infusions
- Social work oversight to coordinate care and develop a follow-up plan as needed

Reimbursement

Hospital-at-home is typically reimbursed through value-based care arrangements, such as ACOs or Medicare Advantage plans. However CMS created a [waiver program](#) in November 2020 for hospital-at-home. While this waiver is only active during the public health emergency, it sets a precedent and suggests CMS may consider expanding hospital-at-home coverage in the long-term.

Innovative organizations

Providers

- **Mount Sinai Health System** expanded their hospital-at-home program with Contessa Health during the Covid-19 pandemic. *View our case study [here](#).*
- **Atrius Health** implemented a hospital at home program that saw readmission rates decrease 50%, and total cost of care decrease 30% in comparison to a like patient cohort.
- **Advocate Health Care** implemented a hospital at home program which includes services such as home nursing care, hospice, home medical equipment, rehab therapy, infusion services, and neonatal care.
- **Dispatch Health**, an urgent care in the home company, [announced](#) a partnership with Humana to provide hospital-level care at home.
- **Johns Hopkins Medicine** offers a Hospital at Home™ program for patients with chronic conditions such as CHF and COPD.

Hospital-at-home continued

Acute care

- **Marshfield Clinic Health System** saw patient satisfaction scores of 93% since the inception of their hospital at home program, which is consistently higher than their traditional inpatient scores.
- **Huntsman Cancer Institute** first launched its program in 2018 for treatment of their cancer patients called Huntsman at Home™. Care ranges from symptoms management to end-of-life care, and acute medical and post-surgical services. A recent study of outcomes over a 14-month period indicate that patients were 58% less likely to be admitted to the hospital for an unplanned stay and had 48% less ED visits than a control group of patients during the first 30 days.
- **Penn Medicine** initiated a flipped discharge program called Supporting Older Adults at Risk (SOAR). The program improved quality metrics such as readmission rate and time to medication reconciliation. Additionally, SOAR patients report increased satisfaction and felt their needs were better understood and met. .

Vendors

- **Contessa Health** is a hospital-at-home enablement company that partners with health systems and Medicare Advantage plans.
- **Medically Home** is a hospital-at-home technology vendor.

Impact of the first year of the Covid-19 pandemic on sector growth

The Covid-19 pandemic promoted hospital-at-home growth as providers sought to keep patients out of their buildings to maintain inpatient capacity and protect vulnerable patients by treating them in their homes. Furthermore, CMS created waivers to cover hospital-at-home services, furthering expansion.

While there is no data on the total number of hospital-at-home programs operating in the US currently, companies like Contessa Health and Medically Home have grown rapidly to meet this need during the pandemic.

Future projection

While hospital-at-home programs have anecdotally proven positive from a patient satisfaction and quality standpoint, there isn't enough scientific evidence of the quality outcomes and patient demand for these services to confidently say they will become more mainstream or be sustainable once the pandemic is over. However, hospitals that have made investments in their hospital at home programs during the pandemic and who have experienced growing acceptance amid providers aren't likely to backtrack when the pandemic ends. Therefore, we expect the growth seen during the pandemic to be sustained, but any additional growth to be modest.

Private duty nursing care

Personal care

Overview

Ongoing care is provided by nurses, with on-call support usually available 24 hours a day.

Services include:

- Care for diseases and conditions such as traumatic brain injury (TBI), spinal cord injury (SCI), amyotrophic lateral sclerosis (ALS), multiple sclerosis (MS), and more
- Long-term ostomy/gastrostomy care
- Long-term feeding tube care
- Long-term catheter care
- Long-term ventilator care
- Long-term tracheostomy care
- Monitoring vital signs
- Administering medications
- Training caregivers to support a patient

Largest providers

- [Kindred Healthcare](#)
- [LHC Group](#)
- [AccentCare](#)
- [Bayada](#)
- [Comfort Keepers](#)

Reimbursement

Private duty nursing is primarily paid for out-of-pocket. It is not covered by Medicare, and is sometimes covered by Medicaid, but this varies by state. For more information on Medicaid coverage, click [here](#).

Impact of the first year of the Covid-19 pandemic on sector growth

Some patients may want to avoid facility-based settings for fear of Covid-19, and may opt for private duty care in the home. This will be limited by whether patients meet complex payer criteria for coverage, and/or their ability to pay out-of-pocket for care.

Future projection

Because of a lack of reimbursement, private duty nursing is unlikely to see significant growth. However, as wealthy baby boomers continue to age, there may be an uptick in demand.

Source: "Medicaid Benefits" Private Duty Nursing Services," Kaiser Family Foundation, <https://www.kff.org/medicaid/state-indicator/private-duty-nursing-services/?currentTimeframe=0&sortModel=%7B%22colld%22:%22Location%22,%22sort%22:%22asc%22%7D>; "The Top 10 Largest Home Health, Hospice Providers in 2020," Home Health Care News, <https://homehealthcarenews.com/2021/02/the-top-10-largest-home-health-hospice-providers-in-2020/>; Advisory Board interviews and analysis.

Non-medical home care

Personal care

Overview

Non-medical home care providers help patients at home with activities of daily living (ADLs). Care is typically provided in shifts, with on-call support available 24 hours a day.

Reimbursement

Individuals pay out of pocket for non-medical home care at an hourly rate. CMS allows Medicare Advantage plans to cover non-medical services for members, but fee-for-service Medicare does not provide coverage.

Services include:

- Assistance with self-care, such as grooming, bathing, dressing, and using the toilet
- Enabling safety by assisting with transfer (e.g., from bed to wheelchair, wheelchair to toilet), and fall prevention
- Assistance with meal planning and preparation, light housekeeping, laundry, errands, medication reminders, and escorting to appointments
- Companionship and engaging in hobbies and activities
- Supervision for someone with dementia or Alzheimer's disease

Largest providers

- [Kindred Healthcare](#)
- [Amedisys Inc.](#)
- [LHC Group Inc.](#)
- [AccentCare](#)
- [Bayada](#)

Impact of the first year of the Covid-19 pandemic on sector growth

Because non-medical home care is typically paid for out-of-pocket, and because most providers are smaller local organizations, it is difficult to track growth. Anecdotally, Covid-19 has not led to growth in these services, as many family caregivers were at home and available to provide non-medical support like ADLs. Additionally, fears around letting agency caregivers into the home led many patients to reject home care.

Future projection

Medicare Advantage included non-medical home care services in the list of services that plans can choose to cover in 2019, however, only 7% of Medicare Advantage plans cover non-medical home services. This lack of reimbursement makes non-medical home care growth challenging. However, as wealthy baby boomers continue to age, non-medical home care is likely to experience modest growth in markets where patients are able to afford the out-of-pocket costs.

Virtual visits

Telehealth

Overview

Telehealth represents the interactive, electronic exchange of information for the purpose of diagnosis, intervention, or ongoing care management between a patient and/or health care providers situated remotely. Virtual visits enable provider-to-patient and provider-to-provider interactions to replace in-person visits or check-ups.

Services include:

- Providers may connect directly with patients for a range of services like primary care, ongoing treatments, or medical management of chronic conditions
- Providers can also connect with other providers for guidance on specialty care, a second opinion, or for educational purposes
- Virtual visits may be supplemented through remote patient monitoring via wearables or apps, which enable remote providers to collect patient data virtually

Reimbursement

In the past, widespread adoption of virtual visits was limited by reimbursement and regulatory hurdles, such as cross-state licensing restrictions and where care could be delivered and received. CMS and many commercial payers temporarily relaxed telehealth regulations and expanded coverage of virtual visits during the Covid-19 pandemic. CMS has signaled they will continue to cover more kinds of services, for more patients, via telehealth in the future. Commercial payers will likely follow suit. It is unlikely that virtual visits will continue to be reimbursed at parity.

Innovative organizations

Primary care:

- **Premera Blue Cross** has launched a virtual primary care plan called Premera Now, in partnership with telehealth company 98point6. The plan will be available in Washington on October 1st and may provide value for the long-term as employers attempt to decrease medical expenses from nonessential visits. Patients connect with PCPs via text and report their symptoms to an automated assistant which are later reviewed by a licensed physician before providing treatment or a diagnosis via the app.
- **One Medical** is a digital primary care delivery model, and amid the pandemic, is partnering with hospitality brand, Montage International. One Medical is providing 24/7 virtual care services to guests of the brand's properties. Upon reopening, Montage International will offer guests a 30-day membership to One Medical's full suite of digital health services. Additionally, they will provide annual One Medical memberships to their US-based associates.

Virtual visits continued

Telehealth

- **ChenMed and Oak Street Health** Both have shifted more than 90% of their volumes from in-person appointments to virtual visits. Their key enablers were proactively ensuring patients had the technology they needed at home, adapting the technology to make it more user-friendly and offering alternatives for patients who wanted or needed them. For example, ChenMed delivered iPads to patients' homes, while Oak Street Health partnered with a vendor to offer video visits in a simple user interface. Oak Street Health also scaled their telephone visit capacity to accommodate more appointments for patients who are not comfortable using video visits.

Specialty care:

- **University of Pittsburgh Medical Center** has moved all pre- and post-op visits virtual for their colorectal surgery clinic and plans to keep at least 60% of those visits virtual after the pandemic.
- **Franciscan Health** in Indiana is offering virtual physical, occupational, and speech therapy along with athletic training at their outpatient clinic in order to continue to care for patients, comply with social distancing, and address Covid-19 concerns.

Impact of the first year of the Covid-19 pandemic on sector growth

Covid-19 has immensely expanded the use of virtual visits in order to stay consistent with social distancing practices, address patient fears of coming into a facility, and because CMS and many commercial payers have expanded coverage and reimbursement for telehealth services. The expanded adoption has provided a national demonstration for telehealth that would never have been possible otherwise. This “trial by fire” has overcome pre-Covid-19 obstacles of consumer use and clinician adoption, and it has set the stage for potentially transformative integration of telehealth across the care continuum.

Future projection

Even after risk of Covid-19 infection subsides, we anticipate that the appetite for the convenience of telehealth—from the perspective of patients and providers—will fuel significant growth compared to pre-Covid-19 volumes.

Consumer experience with virtual visits will lead to increased demand for telehealth services. Clinician familiarity with telehealth will lead to greater openness to and creativity with providing care remotely. Data on patient experience and outcomes will enhance understanding about which telehealth applications work and which don't. Progress towards reimbursement parity will be essential to unlocking full and widespread value of telehealth.

Remote patient monitoring

Telehealth

Overview

Remote patient monitoring (RPM) is the collection and transmission of clinical data from outside conventional care settings to providers. RPM is enabled through technology such as wearables, mobile apps, blood pressure cuffs, and pulse oximeters. The use of RPM is critical to support the continued adoption of virtual visits, which don't provide an opportunity to perform the physical examinations and monitoring that are often essential for diagnosis and treatment. RPM can fill this gap, allowing physicians to collect important information as they normally would during in-person examinations, on an ongoing basis.

Services include:

- Measure vitals
- Monitor care adherence
- Set alerts/reminders
- Encourage patient engagement

Reimbursement

Medicare covers remote patient monitoring separately from telehealth. It is currently reimbursed through a handful of codes covering collection and interpretation of data by the billing physician, equipment setup and associated costs, interactive communication, and blood pressure monitoring. For additional information on remote patient monitoring coverage under Medicare, click [here](#). Many Medicaid programs and private payers also cover remote patient monitoring services. For RPM policies by state, see [here](#).

Innovative organizations

- **Intermountain Healthcare** is using telehealth to deliver home health for patients with chronic illnesses. Patients can take their blood pressure or blood sugar readings at home and have a nurse connect with them through video visit.
- **University of California San Diego** engineers have developed a platform for remote patient monitoring of Covid-19 positive patients who were sent home to recover because they weren't in need of hospitalization. The wearable device monitors vital signs, activity levels, and sleep levels. Patients also complete a daily questionnaire about their symptoms, all connected to the eCOVID-19 app that is connected to a secure dashboard for provider use. This effort is being used to replace a process where care teams made daily calls to patients who were sent home to monitor their symptoms.
- **UCLA Health** After discharge, UCLA uses remote patient monitoring to track outcomes and prevent readmissions. Patients use a wearable device at home to track vital signs, and videoconference with providers to check-in on surgical incisions.

Remote patient monitoring continued

Telehealth

Innovative organizations continued

- **Providence Health** is remotely monitoring non-admitted ED patients displaying Covid-19 symptoms. By providing thermometers and pulse oximeters, providers can check for symptom escalation virtually using a digital health platform from Xealth.
- **Tyto** is a digital health kit capable of completing a medical exam at home. It has a digital camera and attachments that allow for remote examinations of the ears and throat, heart and lung sounds, and body temperature. The corresponding app allows the patient to connect live with a provider.

One year impact of Covid-19

The pandemic accelerated the use of RPM beyond its traditional purpose of chronic care management as providers used RPM to treat mild cases of Covid-19. RPM helped patients manage their conditions at home, preventing unnecessary visits to the hospital, which preserved capacity and reduced risk of infection. RPM ensured that patients received needed care if they couldn't (or wouldn't) seek in-person care.

Future projection

We expect the rise in virtual visits to accelerate the use of RPM as it provides the level of continuous monitoring and interaction needed to support patients long-term. Beyond virtual visits, the increase in RPM is driven by the need to comprehensively monitor an aging and chronically ill population and by retailers' growing focus on patient engagement.

Home hospice

End-of-life care

Overview

The home is the most common setting for the delivery of hospice and palliative care services to terminally ill patients at the end of their life, which is typically defined as having a life expectancy of six months or less. There are two categories of home-based hospice services:

- *Routine home care*, the most common type of hospice care, covers most hospice services delivered at home
- *Continuous home care* is delivered to patients in crisis and includes at eight or more hours per day.

Reimbursement

Home hospice is covered by Medicare FFS and Medicare Advantage.

Services include:

- Physicians, nurses, home health aides, social workers, religious and spiritual guides, and volunteers manage physical and emotional needs
- Home medical equipment, drugs and biologics for symptom management, PT/OT/SLP services, music and art therapy, and spiritual services
- Bereavement and counseling services for patient, family members, and caregivers.
- Respite care services, which typically involves a short inpatient hospice stay

Largest providers

- VITAS Healthcare
- Kindred Healthcare
- Amedisys, Inc.
- HCR Manorcare
- Seasons Hospice & Palliative Care

Impact of the first year of the Covid-19 pandemic on sector growth

Medicare FFS data suggests that demand for hospice during Q2 2020, the first quarter during which Covid-19 was an epidemic in the U.S., remained on par with previous years. Loss of direct access to common referral sites like hospitals, SNFs, and senior living communities combined with increased PPE costs and shorter lengths of stay due to patients delaying medical care have damaged many hospice agencies' finances. Additionally, patient and family anxieties around bringing hospice providers into the home negatively impacted home-based hospice services. To combat this, many hospice agencies expanded telehealth use to continue to deliver key pieces of end-of-life care in the home.

Future projection

Use of hospice services has grown significantly across the last decade and will likely continue beyond the pandemic. The new Medicare Advantage Hospice Benefit¹ will also fuel growth of home-based hospice services as MA payers have historically shown a preference for delivering care in the home in lieu of facility-based settings. *For more information on the Medicare Advantage Hospice Benefit, click [here](#).*

1. Although hospice services have historically been carved out of Medicare Advantage plan benefits, the Center for Medicare and Medicaid Innovations is testing how allowing Medicare Advantage plans to cover hospice benefits will impact enrollees' access to end of life services. The model, currently in a demonstration period, will run from January 2021 to December 2024.

Source: "2020 Top 100 Hospice and Home Health Providers Report," LexisNexis, date accessed April 2021, <https://risk.lexisnexis.com/insights-resources/research/2020-hospice-and-home-health-providers-report>.

Project Director

Emily Heuser

Research Team

Kaci Brooks

BrooksK@advisory.com

Aliki Karnavas

Tripti Rathi

Jordan Angers

Program Leadership

Alicia Daugherty

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