CommonSpirit

HRS Health Recovery Solutions

CommonSpirit Health at Home Expands Remote Patient Monitoring in Response to COVID-19

In Partnership with Health Recovery Solutions

Introduction and Background: CommonSpirit's History Providing Virtual Care Services

CommonSpirit Health at Home is a full service healthcare organization that believes the best place for someone to get better, and faster, is in their own home. Their commitment is to provide the best quality and comprehensive home health to the communities we serve by offering unique services dedicated to meeting the total needs of their patients.

In 2018, CommonSpirit Health at Home first piloted a Remote Patient Monitoring (RPM) program with the primary goal of changing patient behavior to reduce rehospitalizations and emergency department (ED) visits. Responding to rising healthcare costs and a 12% increase in chronic disease over ten years, CommonSpirit Health at Home's pilot program targeted patients with the highest risk for readmission: congestive heart failure (CHF) and chronic obstructive pulmonary disease (COPD) patients.[1]

In 2020 in response to the pandemic, CommonSpirit Health at Home expanded their pilot program, offering RPM services to home health patients in 12 states across 40 locations and expanded enrollment to numerous conditions including CHF, COPD, hypertension, diabetes, post-surgical, pneumonia, oncology, and COVID-19, among others. To engage patients and prevent hospital readmissions, CommonSpirit Health at Home aimed to enroll the highest-risk patients with multiple comorbidities, a history of medication and symptom mismanagement, and elevated risk for hospital readmission.

High-risk patients admitted to Home Health are enrolled in the RPM program and are typically monitored for at least a 30-day period. Patients receive either a tablet or access to the RPM platform via their personal smart device. In addition, patients are provided biometric monitoring devices with which to track their blood pressure, heart rate, weight, oxygen level, and potentially more.

During their enrollment period, patients are provided with an individual care plan and are expected to record their vital signs daily, respond to symptom surveys, and interact with educational videos and teach-back quizzes. All patient data is collected and reviewed daily by the CommonSpirit Health at Home team, enabling clinicians to triage patients, provide interventions as indicated to prevent adverse outcomes.

Since expanding the initial pilot program, CommonSpirit Health at Home has outlined additional goals for the Health at Home program:

- Reduce hospital readmissions and ED visits
- Increase clinical touch points through the use of virtual visits
- Increase in patient satisfaction
- Enhance pain and medication management for chronic care patients

With experience in delivering RPM services to high-acuity patients, CommonSpirit Health at Home was well positioned to address the challenges in care delivery and community prevention that arose during the COVID-19 Public Health Emergency.

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1. Partnership to Fight Chronic Disease. (n.d.). The Growing Crisis of Chronic Disease in the United States. Partnership to Fight Chronic Disease. https://www.fightchronicdisease.org/sites/default/files/docs/GrowingCrisisofChronicDiseaseintheUSfactsheet_81009.pdf.

COVID-19 Public Health Emergency: Emerging Challenges to US Healthcare System

The spread of COVID-19 presented numerous challenges to healthcare providers and organizations, revealing cracks in the US healthcare system, including challenges with hospital-based models of care, the primary care delivery model for acute care in the US, as well as supply chain demands.

Hospital-Based Care Model

Hospital capacity presented as a primary challenge to healthcare providers as COVID-19 cases spread throughout the US, impacting both rural communities with limited resources and urban communities with high rates of transmission. As COVID-19 hospitalizations overwhelmed in-patient care facilities, elective procedures were cancelled and new partnerships were needed to provide in-home care and remotely monitor patient recovery.

Community Spread and Limited Access to Care

In 2019, rural healthcare closures hit an all-time high, causing median travel distance to increase 20 miles. Combined with an increased rate of chronic disease, housing insecurities, and transportation limitations, coupled with COVID-19 testing obstacles, many rural communities faced an increased risk for community spread of COVID-19.

Staffing and PPE Availability

Personal protective equipment (PPE) shortages and clinical staffing demand quickly became a focus of the PHE. Delivery care models were required that would reduce the need for PPE, protected staff, and reduce workload on clinicians.

Shifting Industry Trends: The Growing Demand for Remote Patient Monitoring Services

The above challenges created pressure on the US healthcare system and healthcare organizations to shift care delivery during the PHE. Moving from a hospital-based to a home-based care model required the healthcare providers to rapidly deploy RPM remotely.

Meeting Consumer Demands

In 2019, prior to the COVID-19 PHE, just 11% of US healthcare consumers reported ever having used RPM services.[1] According to the CDC, during the PHE, use of RPM services, specifically the use of virtual visits to connect with care providers, saw a **50% increase in virtual visits** during the first quarter of 2021 when compared with the same time period a year prior.[2]

While some may categorize this increase in demand as a temporary adjustment during the pandemic, recent consumer surveys indicate a larger trend in patients' preference for continued use of RPM post pandemic. In a recent Sykes Survey from March 2021, polling 2,000 Americans, nearly 88% of respondents stated wanting to continue using RPM for non-urgent consultations after the PHE ended.[3]

88%

Of respondents in Sykes Survey stated they were interested in continued use of remote patient monitoring.

Supporting Clinicians

The shortage of healthcare professionals in the US has continued to grow in recent years. Particularly during the PHE, as capacity was stretched thin, clinicians required the support of technology to ease clinical documentation and enable them to connect with more patients per day. Moving forward, **providers are recognizing the use of RPM** to increase efficiency, reduce in-person visits, decrease windshield time, and rapidly review patient data for a larger patient census, resulting in improved outcomes.

Adjusting to CMS Regulations

With both patient and physician acceptance of RPM skyrocketing throughout the PHE, the Center for Medicare and Medicaid Services (CMS) had little choice but to respond by expanding reimbursement opportunities. In the 2021 Physician Fee Schedule (PFS) Final Rule, **CMS added 112 RPM services** to the list of approved services, an increase of 45%.[4]

112

Remote patient monitoring services added to CMS' list of approved services in 2021.

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1. Bestsennyy, O., Gilbert, G., Harris, A., & Rost, J. (2021, July 22). Telehealth: A quarter-trillion-dollar POST-COVID-19 REALITY? McKinsey & Company. https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/telehealth-a-quarter-trillion-dollar-post-covid-19-reality.
2. Centers for Disease Control and Prevention. (2020, October 30). Trends in the use of telehealth during the emergence of the Covid-19 Pandemic - United States, January–March 2020. Centers for Disease Control and Prevention. https://www.cdc.gov/mmwr/volumes/69/wr/mm6943a3.htm.
3. SURVEY report: Americans' perceptions of TELEHEALTH in the era of covid-19. SYKES. (2020, March). https://www.sykes.com/resources/reports/2020-telehealth-survey/.
4. Fact sheet FINAL Policy, payment, and Quality Provisions changes to the Medicare PHYSICIAN fee schedule for calendar Year 2021. CMS. (2020, December 1). https://www.cms.gov/newsroom/fact-sheets/final-policy-payment-and-quality-provisions-changes-medicare-physician-fee-schedule-calendar-year-1.

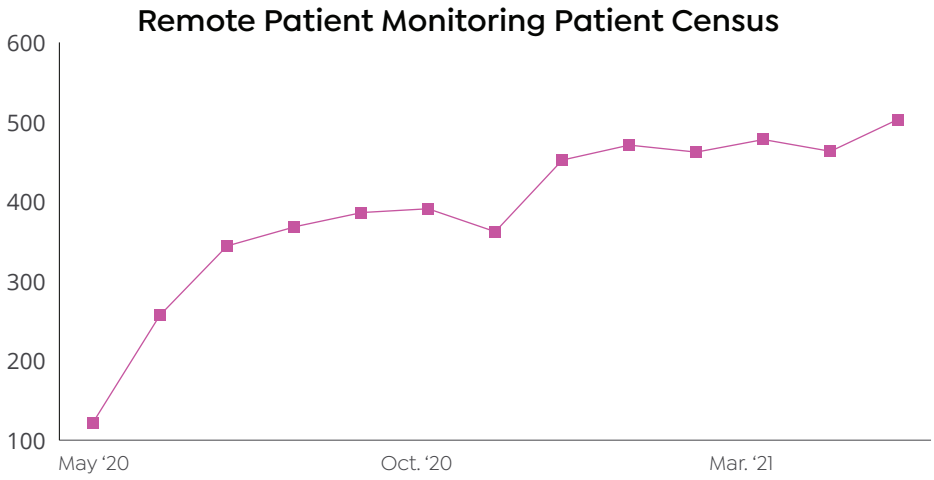
CommonSpirit Health at Home's Response to COVID-19: Leveraging Remote Patient Monitoring

Patient Identification and Enrollment

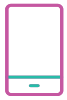
Over one year between April 2020 and May 2021, CommonSpirit Health at Home's program monitored over 2,800 patients between the ages of 1 to 103. The CommonSpirit Health at Home program offers multiple RPM platforms to enrollees to match each patient's comfort level leveraging technology and resources available to them.

Patients are identified for the CommonSpirit Health at Home program during an initial assessment once referred to CommonSpirit Health at Home to receive home health services. During the assessment patients are evaluated based on the following criteria:

- Acuity level
- Risk for admission
- Caregiver support
- Diagnosis
- Patient desire to limit in-person contact



During the initial assessment and enrollment, CommonSpirit Health at Home considers a patient's acuity level, diagnosis, caregiver support, and other factors to determine which RPM platform to offer:



PatientConnect Mobile: The primary RPM platform utilized by CommonSpirit Health at Home is a downloadable app, accessible to patients on iOS and Android devices. The app provides CommonSpirit Health at Home with a low-cost solution, and allows patients to use devices they are already comfortable and familiar with.

PatientConnect Core: A tablet is provided to CommonSpirit Health at Home patients without access to a smart device to enable participation in the Health at Home program.

Once enrolled, patients receive in-person training to ensure they understand the platform and their daily routine. During the training, patients review how to record their vital signs, submit symptom surveys, access educational videos, and contact the CommonSpirit Health at Home team through the tablet or patient's personal device. During the initial visit, as well as follow-up visits - both virtually and in-person - patients are encouraged to ask questions about their care plan and participation in the program.

Accountable Care Organization (ACO) Partnerships

ACOs are made up of hospitals, physician groups, and other care providers who coordinate patient care to incorporate social determinants of health into patient care, reduce healthcare costs, and improve health outcomes for Medicare patients. As COVID-19 cases and hospitalizations increased, CommonSpirit Health at Home partnered with an ACO to expand patient enrollment to manage a financially at-risk population.

The ACO partnership enabled CommonSpirit Health at Home to monitor a broad range of patients using RPM, specifically COVID-19 patients not eligible to receive home health services. Similarly to standard home health services, patients were identified by the ACO based on patients' risk level, oxygen (O2) saturation, and home caregiver support. Patients who met the eligibility criteria were enrolled in the RPM program at CommonSpirit Health at Home and discharged early from the hospital.

Through the partnership, the CommonSpirit Health at Home team monitored patients' vital signs and symptoms, provided educational materials, reviewed patient medications, and coordinated care with physicians.

Deploying a Skilled Nursing Facility (SNF) at Home Model

CommonSpirit Health at Home began laying the foundation for a SNF at Home program prior to the COVID-19 PHE, but the need to provide facility-level care at home accelerated deployment of the new model of care.

Skilled nursing facilities specialize in providing intensive post-acute care services to patients, including several hours of rehabilitation and skilled nursing services per day. To help provide the intensive care services necessary in a SNF at Home program, SNF at Home clinicians and patients leveraged a Bluetooth enabled RPM platform.

The SNF at Home program initially launched in communities across Omaha, Nebraska, targeting Medicare Shared Savings Program (MSSP) patients, including those with a COVID-19 diagnosis. The Program provides a robust ecosystem of care, bringing together different resources within the health system to provide SNF level-of-care at home for those who qualify. SNF at Home services include access to nurse practitioners and home health services, among other ancillary services.

Program success for the SNF at Home program is measured based on several key criteria: number of patients referred, number of patients admitted to the ED, cost of care for value-based contracts, average length of stay, hospital readmissions rate, and patient satisfaction scores.

Though the CommonSpirit SNF at Home model was not launched as a direct response to COVID-19, the program supported CommonSpirit Health at Home's overarching response to COVID-19 through the following outcomes:

1. **Reduce Hospital Length of Stay:** CommonSpirit Health at Home's SNF at Home program was yet another approach to reducing hospital length of stay. Through the SNF at Home program, stable, medium-acuity patients were diverted home following a brief hospital stay, freeing up hospital beds, staff, and resources.

2. **Prevent Contraction of COVID-19:** Skilled nursing facility and nursing home occupancy declined significantly throughout the COVID-19 PHE, due to patient hesitation and fear of contracting COVID-19. For post-acute patients, the SNF at Home program allowed patients to receive facility-level care at home, reducing the risk of contracting COVID-19 while being treated in a hospital or in-patient facility.

3. **Care Provided in Preferred Setting:** Allowed for patients to be cared for at home in the least costly and most desired location for patients and caregivers.

Remote Patient Monitoring Interventions

The CommonSpirit Health at Home team leveraged multiple RPM interventions to support in-home care for home health patients, ACO patients, and SNF at Home patients, including symptom surveys, biometric monitoring, medication reminders, and virtual visits.

Symptom Management

Disease-specific symptom surveys are provided through the RPM platform, to help patients understand and cope with symptoms due to their chronic condition or COVID-19. For patients diagnosed with COVID-19 or at risk of COVID-19, symptom surveys served as a daily screening and were compliant with CDC guidelines.

Daily review of COVID-19 patients and symptoms allowed CommonSpirit Health at Home to monitor patients' recovery or symptom changes, identify the need for intervention, and facilitate the necessary care.

Biometric Monitoring

Health at Home patients receive a set of biometric monitoring devices to record their vital signs each day. Patients are expected to record their blood pressure, weight, oxygen levels, and potentially more depending on their diagnosis. All biometric data is shared in real time with the CommonSpirit team, allowing for immediate evaluation of patients' vitals and interventions if necessary.

Medication Adherence

Medication adherence is a key goal of the RPM program as medication non-compliance has a direct impact on patient outcomes; particularly for high-acuity patients, with multiple comorbidities and complex medication regimens. Via the RPM platform, patients receive medication reminders and are required to record their daily medication intake for review by the CommonSpirit Health at Home team. The importance of medication compliance is reviewed with patients during their initial visit and continually reviewed during both in-home and virtual visits while enrolled.

When patients do not indicate in the app or on the tablet that their medication was taken daily, the CommonSpirit Health at Home team reaches out to them to remind them and see if they are having any technological or health issues preventing them from posting their responses for the day.

HIPAA-compliant Virtual Visits

CommonSpirit Health at Home has prioritized virtual visits, incorporating virtual visits into each patient's plan of care. Augmenting in-home visits with virtual visits is a critical component to the cost savings presented through the use of RPM. During the COVID-19 PHE, substituting appropriate in-home visits with virtual visits, enabled CommonSpirit Health at Home to conserve PPE and protect staff by limiting exposure. Additional virtual visits and phone calls also helped to reduce patient loneliness when many patients were feeling isolated.

In addition, virtual visits are utilized to triage patients when risk alerts are received by the CommonSpirit Health at Home team. Risk alerts are sent to the clinical team based on survey responses and custom parameters for biometric readings determined for each patient at the start of care.

CommonSpirit Health at Home Outcomes

Hospitalization Rate

CommonSpirit Health at Home partners with Accountable Care Organizations (ACOs) across the country to ensure patients receive the necessary care at an affordable price. Affordable Care Organizations operate through a value-based care model, in which payment for healthcare services is determined based primarily on patient outcomes, as opposed to the volume of services provided. Through this payment model, ACOs and other value-based care organizations are financially at risk for hospitalizations. CommonSpirit Health at Home reports all hospital and ED admissions during an episode of care, compared with most home health care organizations who only report 30 and 60 day readmissions.

Reducing hospital admissions through improved outcomes and patient engagement are key drivers of CommonSpirit Health at Home's RPM program. CommonSpirit Health at Home partners with Strategic Healthcare Programs (SHP), a leading performance improvement software company, to provide the RPM team with benchmarking data and performance metrics. Through the partnership with SHP, CommonSpirit Health at Home has the ability to compare admission rates between RPM patients and CommonSpirit's global patient populations, as well as compare hospitalization rates against benchmark data from SHP.

According to SHP's Acute Care Hospitalization (ACH) Scale, CommonSpirit Health at Home RPM patients have an average risk level of 3.3, which would predict a 27.4% ACH rate according to data derived from SHP's benchmarking. However, CommonSpirit Health at Home observed an ACH rate of 20.5% for HRS RPM patients. Therefore, our RPM patients were admitted back to the hospital 25% less often than SHP's risk tiers predict.

25%

Lower acute care hospitalization rate among CommonSpirit Health at Home RPM patients compared to SHP prediction models based on patient acuity, risk, and national home health data.

Patient Satisfaction Rate

The Centers for Medicare and Medicaid Services (CMS) surveys patients on a monthly basis regarding the skilled nursing services they recently received. The Home Health Care Consumer Assessment of Healthcare Providers and Systems (HHCAHPS) survey includes 34 questions, 25 analyzing care provided, communication between patient and clinician, and care issues. In addition, patients are asked to provide an overall rating of the home health agency and willingness to recommend the home health agency. Results of the survey are shared for public evaluation and impact the CMS rating given to home health agencies.

Over 79% of patients in the global population of CommonSpirit Health at Home stated they would “definitely recommend” CommonSpirit Health at Home, compared to 87% of RPM patients stating they would “definitely recommend” CommonSpirit Health at Home. Remote patient monitoring offers patients educational resources and enhanced communication with their care team, improving satisfaction with their care services and agency.

87%

Of patients enrolled in the remote patient monitoring program stated they would “definitely recommend” the program after participating.

Functional Outcomes

Patients’ functional abilities greatly impact their independence and quality of life. Following a fall, a procedure, or a hospitalization, patients’ functional abilities can be severely compromised. Functional outcomes measure dyspnea, pain level, ability to bathe, and ability to walk independently, among other factors.

Functional outcomes are determined by clinical assessments performed at the start and end of care. Additional clinical support and increased access to care contributes to improved functional outcomes for RPM patients. Patients enrolled on the RPM program reported greater improvement than the global CommonSpirit Health at Home patient population across three criteria: ambulation, bathing, and pain management.

About CommonSpirit Health at Home

CommonSpirit Health at Home, formerly CHI Health at Home, is a full-service health care organization that believes the best place for someone to get better, and faster, is in their own home. Providing quality home health care for over 40 years through specialized home care, home infusion, and hospice services, across the country, CommonSpirit Health at Home offers unique services dedicated to meeting the total needs of our patients.

Located in Milford, OH, CommonSpirit Health at Home has over 40 locations across 12 states, and nearly 3,000 associates who support our mission by creating and nurturing healthy communities across the nation. CommonSpirit Health at Home is proud to be part of CommonSpirit Health, the largest non-profit health care system in the country. Learn more at **commonspirit.org**.

About Health Recovery Solutions (HRS)

Health Recovery Solutions' (HRS) telehealth and remote patient monitoring solutions empower the nation's leading providers and payers to deliver care to patients across the continuum—reducing readmissions, optimizing clinician workflow, and improving patient satisfaction. HRS' disease-specific telehealth solutions are customized with educational videos, care plans, and medication reminders while also integrated with Bluetooth peripherals to engage patients in their self-symptom management. HRS' mission is to create a new standard of care by providing advanced telehealth and remote patient monitoring solutions that facilitate behavior change and ultimately improve patient outcomes. To learn more about Health Recovery Solutions, visit **healthrecoverysolutions.com** or email **marketing@healthrecoverysolutions.com**.