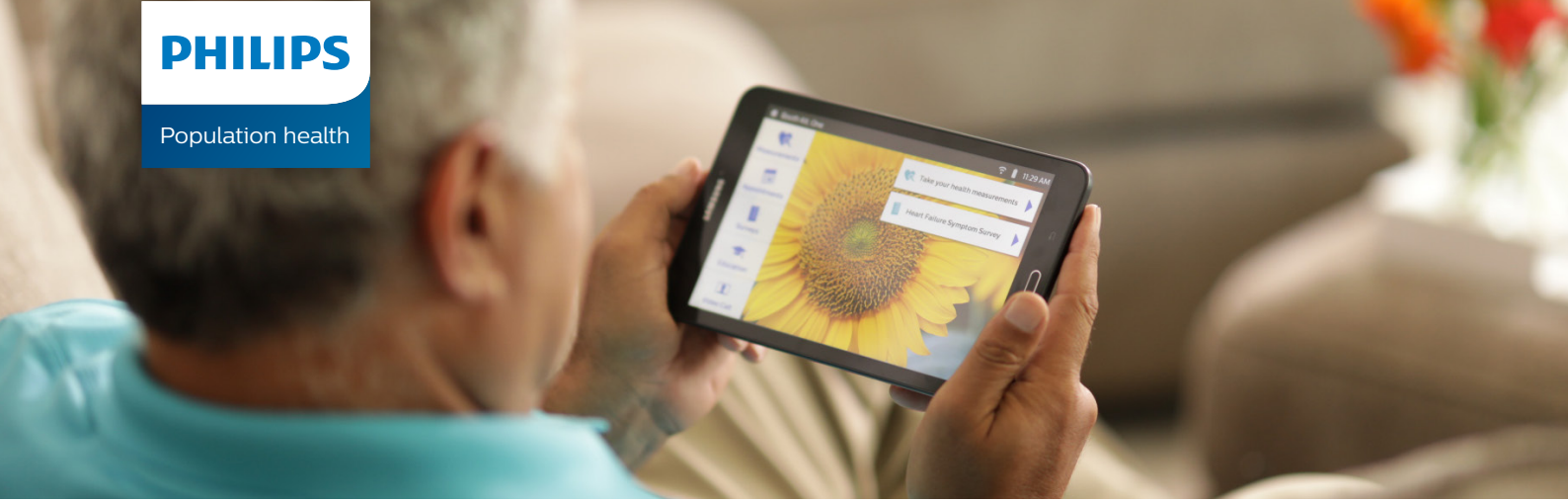
PHILIPS

Population health



# **Remote patient monitoring:** Partnering to keep people healthy at home

**↓50%**

reduction in 30-day readmissions for CHF patients[1]

**Goals**

- Reduce readmission rate for CHF population
- Expand telehealth and RPM programs
- Improve consistency of care processes

**Results**

- Catholic Home Care reports that it reduced 30-day readmission rate for patients with primary diagnosis of CHF by 50% (from 26% in 2016 to 13% in 2018). Furthermore, in 2019 (through July) program reports 6.3% 30-day readmission rate for CHF patients.[1]
- Program almost doubled telehealth utilization from 442 to 819 patients as of Q4 2018.
- Catholic Health Services (CHS) has expanded RPM program to pre-eclampsia population.

Catholic Home Care, a division of Catholic Health Services of Long Island, launched a remote patient monitoring (RPM) program in partnership with Philips in 2015. The initial goal was to better manage 30-day readmission rates of patients with an acute exacerbation of congestive heart failure (CHF), which was a pervasive challenge within the Catholic Health Services system.

Catholic Home Care experienced such initial success in managing the health of its CHF populations that it has since expanded the program to include additional patient populations that can benefit from remote monitoring.

## Putting the patient at the center of care

The partnership with Philips allows Catholic Home Care to deliver structured care management combined with evidence-based telehealth to high-risk patients. Interdisciplinary care teams, which may include physicians, mid-level practitioners, nurses, telehealth clinicians and many others, focus on the needs of patients and their caregivers, and foster active participation in their care plan.

## CHF program summary

The Catholic Home Care team focused on identifying and improving all factors directly impacting 30-day readmission of CHF patients, incorporating remote patient monitoring into their care protocols, and standardizing practice variability in the management of patients. That means that all patients with the targeted diagnosis who are on home care services are eligible for the remote patient monitoring program for a 30-day period.

During this period, the Catholic Home Care team coordinates nursing touchpoints, assists with appointment scheduling and deploys and onboards the telehealth equipment, including a tablet and a digital scale. Patients commit to daily vital sign monitoring to document and monitor changes in weight. The connected scale transmits measurements to the care team which notifies specially trained nurses when a patient's metrics exceed established parameters and allows them to determine the best follow-up action per their standardized care protocols.

Additionally, Catholic Home Care provides educational content to patients via the connected tablets. The team uses teach-back methodologies to educate patients on CHF self-management strategies including patient stated goals, diet, fluids and weight, medications, exercise and other activities, signs and symptoms to report, and also reconciles medications every two weeks.

> *"Remote patient monitoring was instrumental in engaging patients and caregivers in managing CHF as well as providing support during the crucial post-acute phase of care."*
>
> **– Barbara Rowe, DNP, FNP, Director of Specialty Care Services, Catholic Home Care**

## Sustaining CHF readmission reduction over time

This combination of structured care protocols embedded in the remote patient monitoring program that leverage objective measurements, subjective feedback during touchpoints and opportunities for patient education allowed Catholic Home Care to reduce 30-day CHF readmissions rates from 31.2% from the pre-intervention sample to less than 17%.

In 2018, Catholic Home Care enrolled an additional 591 CHF patients in its remote patient monitoring program. The 30-day readmission rate for patients on this program has decreased to 13% in 2018.[2]

## Program outcomes

- Reduction of 30-day readmission rate of CHF patients compared to 2017 baseline data
- Identification and improvement of factors directly impacting readmission of CHF patients
- Development of restructured evidence-based protocols and standardization of practice guidelines to help decrease practice variability in the management of CHF patients

## Lessons learned

- Partnership with system entities is essential in delivering seamless, cross-continuum provision of evidence-based care for CHF patients
- Daily weight management is a crucial component to effective disease management
- Patient engagement is requisite for sustained long-term managementof CHF symptoms

## Expanding RPM to other conditions

Catholic Home Care's experience with the RPM program was so successful in the CHF population, and the structured approach was so easily scalable, that it expanded the program to include other health conditions, including patients with chronic obstructive pulmonary disease (COPD), open heart surgery, uncontrolled diabetes and pre-eclampsia.

One of those expanded RPM programs involved new mothers who had had pre-eclampsia, which carries an increased risk of blood pressure fluctuations for 30 days post partum. Early identification of pre-eclampsia has been shown to improve early medical intervention and reduce the likelihood of cardiovascular disease later in life.[3] Women who have been diagnosed with pre-eclampsia during their pregnancy or who have experienced fluctuations in blood pressure following delivery are good candidates for RPM, since fluctuations are difficult to detect clinically without daily measurement.

In its first year alone, the program served close to 300 patients. In 2019 to date (July 31st) program's census has grown to 324 patients with a remarkable 1.25% readmission rate.

## Postpartum care plan

The postpartum pre-eclampsia program provides visits from a maternal child health nurse as well as daily telemonitoring:

**Monitoring begins** the day after hospital discharge

The patient is **assessed by a maternal child health nurse** and placed in the program

**The patient receives instructions** for using the RPM equipment

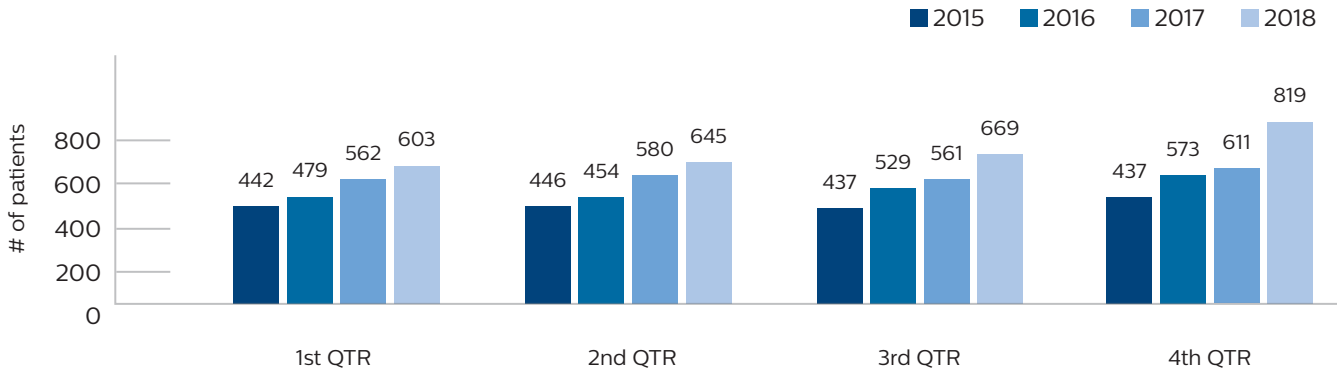
The team performs **testing at the same time each day** and as needed

The care team is alerted and can **respond to any deviations**

## Value of remote patient monitoring

Catholic Home Care's remote patient monitoring program is an example of the value of a partnership between health systems and technology partners. With RPM, patients have the opportunity to experience greater control over their health while clinicians gain rapid insights into their patients' vital signs and health that enable them to intervene proactively and thereby prevent costly escalations in the disease. Health systems also benefit by being able to measure quality metrics and improve care delivery.

# Catholic Home Care's telehealth utilization




## Looking to the future

Each day, more than **2,900 patients turn to the Catholic Home Care team** of more than 700 dedicated professionals, para-professionals, and support staff to ensure that their **home care needs are being met 24 hours a day, 7 days a week.**[4]

Physicians, discharge planners, insurance case managers and family members refer patients who can benefit from skilled services in their home environment.

Catholic Home Care takes pride in provides a variety of services and programs dedicated to supporting patients and their families in managing conditions with dignity and ease – programs geared not only to maintain, but also improve quality of life and independence. These programs have grown year over year, and continued growth and expansion is expected. Catholic Home Care will continue to partner with Philips to provide patients with a proactive, engaging approach to care management.

1 All data provided by Catholic Home Care
2 All outcomes and metrics based on data provided by Catholic Home Care, and are not predictive of results that may be obtained via use of remote patient monitoring programs by other providers
3 https://www.sciencedirect.com/science/article/pii/S0735109714011541
4 https://catholichomecare.chsli.org/learn-more