The Challenge: Reducing ER Utilization for High Risk Patients

A community paramedicine program to bring mobile health services to patients deemed most at risk of developing health concerns that end up requiring hospitalization. Many of the patients were recently discharged CHF patients. The aim of the program was to help these patients avoid unnecessary ER utilization.

Methodology to Support the Program

The program required coordination between AMR’s specially trained emergency medical technicians (EMTs) and paramedics that would visit patients in their home, and two virtual command centers in Texas and Florida staffed with RNs. The Medical Command Centers link 911 services, nurse navigators and the mobile clinical care teams.

Life365 followed a phased implementation approach to support the organization; defining program goals, understanding current operations (boots on the ground EMTs and virtual command center capabilities), developing a project plan to meet program goals, developing clinical workflows - specifically tasks and workflows between virtual command center and boots on the ground, supporting staff during go-live including in person assistance and documenting key workflows for future staff, and lastly - measuring and reporting.

Examples of functionality implementation to meet the needs of the organization included custom patient surveys, custom integration of a heart rate / activity tracker, custom portal functionality to meet the needs of the clinical staff, implementation of a new telehealth platform, and development of a “push to call” button app to connect patients to virtual medical command center, 24/7.

Tools Utilized to Support the Organization

As part of the ongoing care program, patients were provided with a tablet that wirelessly transmitted information to the community paramedics and 24/7 nurse command center. Patients used the tablets to report daily blood pressure, oxygen levels, heart rate and weight and, in certain cases, blood glucose and spirometry.

The Life365 platform was leveraged to provide virtual visits, capture biometric measurements, supplemental information from customized patient surveys (including health status, EuroQol questionnaires, and patient satisfaction), coordinator management to schedule medication and appointment reminders. Life365 resources were tapped to assist in development of customized patient education, program launch and user materials designed to enhance user experience and engagement.

Results

After implementation, the post-discharge project resulted in a reduction of all-cause 30-day readmission rate for persons with one or more of the chronic conditions targeted and generated approximately $1.4 million in savings. The program has been successful for several years, and continues to grow.
The driving force behind CHP’s philosophy is to look at the patient holistically – their medical health, as well as mental health and social well-being. Data from these sources guide how our team creates targeted care plans for our members.

Our “People + Technology + Data” approach enables clinical decision support for our home health staff, armed with patient data collected through our technology, and analysis of the resulting biometric data and trends.

This allows us to triangulate insights into how we provide care and how we can continue to hone our best practices for this model.

This aggregation of data enables our care team daily with parametric and patient reported data that supplements our decision making process, shapes our daily workflows and helps prioritize the most critical needs of our members – so we can make expedient and accurate choices on where to spend energies to provide the best care.

The Challenge: Engaging Under served Populations

Catalytic Health Partners sought to address is poor health of an under served population, as measured by multiple gaps in care and very high utilization of hospital and acute care resources, resulting in high costs to the healthcare system. CHP’s patient population is a high risk, chronic care cohort of Medicaid and dual eligible members located in rural Tuscon, AZ with 20% being Hispanic. The goal was to provide the right engagement, communication and combination of resources and tools to move the members to a better state of health.

Methodology to Support the Program

CHP created a member engagement program to monitor the health and lifestyle of this population using a combination of healthcare professionals (nurse practitioners, licensed psychiatric counselors, social workers, nurses & medical assistants) supported by a technology interface – utilizing Life365’s Digital Health Platform to facilitate the technology integration for biometric monitoring, and assuring data flow into CHP’s electronic record and analytics infrastructure. With Life365 acting as the technology enabler, CHP clinical resources could focus on implementing their holistic approach to patient care. Additionally, CHP invited supporting Life365 team to interview staff and meet select participants in their environments, to better understand the workflow first hand for the roll-out.

Tools Utilized to Support the Organization

The user experience was driven by best practices for the population as well as targeted insights gathered for specific individuals. To allow CHP staff to stay in touch with more members efficiently, a cellular enabled Android tablet became clinicians’ “eyes and ears” between face-to-face visits, providing telehealth sessions via 2-way video, telephonic audio only consults and customized patient questionnaires. Life365 utilized Catalytic’s inventory of tablets deployed in members’ homes, installing an app to easily connect Bluetooth scales, blood pressure monitors, glucose meters and blood oxygenation meters to collect vitals data. Beyond integration and technical support, Life365 helped produce user support materials, and the platform enabled CHP to choose, procure and deploy the right monitoring and engagement solutions throughout the program’s population.

The diverse combination of data points provided a fuller picture of members’ physical and behavioral health status, which streamlined efficiency in communication and coordination for all stakeholders. It also helped prioritize workflow and enable earlier intervention – including in-office and virtual visits, adjustment to therapy, or transportation to services.

Results

Deployment of the full system produced significant impact. After six months CHP saw a 65% decrease in emergency room utilization and a 40% reduction in acute care utilization across the patient population. Members’ report an improvement in quality of life, corroborated by a 34% improvement in their PHQ9 scores. Customer satisfaction is measured on a routine basis with a 4.8 rating on a 0-5 point scale with 0 being highly unsatisfied and 5 highly satisfied; 84% of members participated in the survey. Additionally, CHP analysis of workflow performance indicated a 30% increase in efficiency.
Health Link Home Health Agency has provided personalized in-home health care to individuals and families since 2005. Health Link is based in San Francisco, CA and is California licensed and certified.

The Health Link team has experience in home health, hospice and elderly care – as well as rehabilitative, post-acute and surgical care.

The CMS Five-Star Rated Company offers services including: skilled nursing, hospice care, home health aides, medical social workers, occupational therapy, speech therapy, and physical therapy.

Health Link Home Health Agency (HLHHA) sought to deploy telehealth and remote patient monitoring (RPM) services to reduce healthcare costs. They engaged Life365 in early 2019, with goals to:

- Proactively monitor patients to help avoid more costly care scenarios
- Provide support to home health and hospice patients between in-person visits
- Coordinating care for patients with their referring providers and hospitals

As the pandemic brought additional challenges to healthcare resources, HLHHA sought to provide rapid deployment of new monitoring kits to assist in monitoring patients with / and recovering from COVID-19.

Methodology to Support the Program

Life365 consulted with the customer to define program goals, understand their current operations, and helped them determine which tools and devices could be utilized to help meet their goals.

Life365 interviewed key staff members pre and post implementation to ensure functionality met the needs of their workflows. Minor updates were made to the Life365 Clinical Portal to enhance workflow for notifications to clinical staff regarding patient readings that were out of range, breaching established parameters.

The company keeps inventory on site to bring to patient’s homes. To assist the customer in self-managing inventory and logistics, Life365 provided extra training to ensure HLHHA staff was adept and comfortable in preparing kits for deployment to patients. This model has worked well for their team to manage internally.

Tools Utilized to Support the Organization

Health Link implemented their telehealth program with two Life365 “turn-key” RPM solutions: 1) an Android tablet with a pre-configured software suite to enable Telehealth and patient engagement, and 2) an Android phone that acts as a more passive “cellular hub”. The two options allow HLHHA to offer each patient a solution that best fits their needs and technology comfort level. Both options are “kiosk edition” with a simple user interface, with bloatware removed and only the apps and / or content needed for the RPM program, ie: transmission of vitals data. The devices’ locked-down firmware ensures ease of use, strong security, and remote device management and software updates. The tablet provides an enhanced experience including 2-way video capabilities, patient surveys, and other apps, intended for a more “tech savvy” user. The “cellular hub” is suited for users who may be less comfortable with technology, more requiring minimal end user interaction – used primarily to capture and transmit vital sign data to the cloud.

Health Link’s population had a variety of conditions, which required a mix of peripheral medical devices to meet patient needs. HLHHA used a mix of Life365’s pre-configured kits based on disease state, and supplemental add-on devices (such as thermometers and spirometers), on a case-by-case basis.

HLHHA had customized “survey” packages created at the program level, based on disease state, providing additional insights to health status beyond just vital signs.

A telehealth video platform was implemented as part of the program, that enabled patients to efficiently connect with HLHHA staff with the touch of a button.

In Summary

Health Link patients received in-person care and remote monitoring by clinical staff. The consistent flow of health data provided a better view of patient health trends overall, and “out of range” readings could be investigated, and acted upon as needed with coaching, or virtual and in-person visits, to avoid more costly care scenarios – giving patients and their families peace of mind. HLHHA has enhanced their patient care, arming their clinicians with added data insights to improve health outcome metrics. The program demonstrates their commitment to innovation and dedication to reaching the highest levels of patient satisfaction and care.