

New Jersey Innovation Catalyst Initiative Case Story: St. Joseph's Regional Medical Center's Heart Failure Education Toolkit

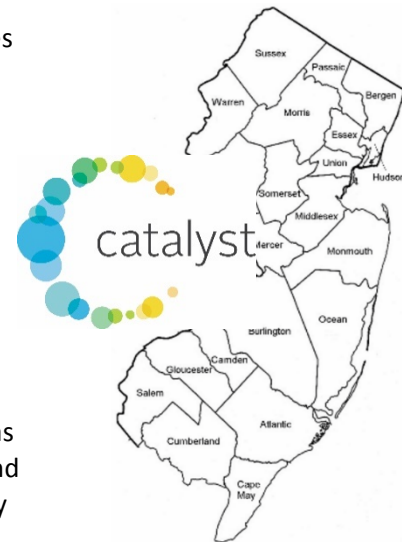


St. Joseph's Regional Medical Center ("St. Joe's") is the largest provider of charity care in New Jersey. In 2013, the Medical Center provided over \$83M of charity care to NJ's underserved population. The innovation team at St.

Joe's was interested in developing a new model for patient/caregiver education for their congestive heart failure (CHF) patient population that was more interactive (instead of passive) with the potential of spreading the model to other patient populations. The team identified through prior studies that patients do not retain information taught during hospitalization, including information about their medications, who to see after discharge, and how to navigate the health care system. The innovation team envisioned the program to include an inter-professional team of registered nurses, pharmacists, dietitians, and respiratory technicians and social services providing information for patients and families to realistically manage their chronic illness at home. This would include plans for addressing socio-economic and psychosocial issues that may impede their progress such as filling prescriptions and purchasing food that promotes a heart healthy diet. The team also was interested in incorporating technology in the teaching/learning process, such as developing a web-based patient education application for use on smart phones and patient portals or through the use of an interactive computer-based education program, so the patient could become an active participant in the learning process.

However, in its early work to develop a solution for a heart failure education model, the St. Joe's innovation team utilized such tools as observation, interviews, and empathy mapping to better understand the needs of St. Joe's heart failure patients, which resulted in a very different solution than they anticipated. Through a series of rapid experiments, the team learned that patients do not use the computer for educational activities and are more receptive to learning through pictures than lengthy text documents. According to Ilene Matza, a Cardiology Nurse Practitioner at St. Joe's and also the project leader, *"We went back to the drawing board. Our patients were telling us that our current methodology was not at all part of a positive patient experience. We were seeing readmissions, so obviously we were missing the boat for education."*

Based on the results of its rapid experiments, the innovation team instead decided to focus on a low technology solution to meet their patients' needs. The team developed a heart failure toolkit, which consists of a simple wall calendar and magnet. The wall calendar utilizes green/yellow/red zones of heart failure in an easy to recognize format, with green depicting that the patient feels well, yellow



depicting the patient does not feel well, and red depicting emergency-related symptoms. The magnet lists the symptoms of CHF and what to do about them. For those patients with a CHF diagnosis, the magnet serves as a reminder of symptoms that may develop. The innovation team arrived at this solution because they wanted a tool that people would use every day and wanted patients to integrate their management of CHF into their daily lives. According to Ilene Matza, *“The calendar is colorful and on your refrigerator. You can write anything on a calendar – your husband’s birthday, I’ve got to pick up the kids at four o’clock. It’s their calendar. We also thought, too, that our patients need to make it part of their lives and not separate it and say this is about your illness and then this is about your everyday life. When you live with a chronic illness, that’s exactly what we’re trying to teach – how to live with it.”*



The innovation team conducted a pilot with 29 CHF patients to test the value of the calendar and magnet. Prior to beginning the pilot, nurses educated patients on use of the zones to self-report their current health and the presence of any CHF-related symptoms. By the time the patient is ready to be discharged, they are given the calendar and the magnet. Once they are discharged, the nurse navigator makes a weekly phone call over a four-week period to find out how the patient is feeling, whether they got their prescription(s) filled and are taking their medication, whether they have any questions around illness management and have made a follow-up appointment, and what color zone the patient was in that day.

Among the sample of CHF patients, the team reported a 78% user rate. Patients reporting their status as either “yellow” or “red” were taught what to do (e.g., follow low-sodium diet or fluid-restriction diet more strictly, see their physician at an earlier time, or come to the emergency room). The low tech approach has been well-received by patients, nursing and ancillary staff. The team reported that patients who came to the heart failure center are reporting on their status according to their color zone, so the calendar and magnet have lasting impacts on the Center’s heart failure patients. Even during the telephone follow-up calls, patients are able to identify their symptoms, which is a first step to better self-manage their illness.

“Our co-design day with patients allowed us to think about what the patients see. They volunteered that they liked pictures better, that they liked the inspirational sayings, and I found that very nice to see. So we adjusted our thinking from there. The idea that people get stronger was enlightening for me and allowed me to see things from a different perspective. Our design emerged from a partnership with our patients. The fact that the patient has a voice and the patient needs to participate this way was probably the biggest difference as to why our team produced something that works. We’ve had patient education committees without patients on them for years and we always end up chasing our tails with the same type of education tool and then want to know why it didn’t work.”

–Ilene Matza, Cardiology Nurse Practitioner,
St. Joseph’s Regional Medical Center

An important finding from the co-design phase with CHF patients was the emotional aspect of heart failure that was not initially factored into the team’s solution. The use of the calendar allowed patients to express their feelings and write them down, including messages like “I feel lousy” or “I feel better” or “I’m doing a good job.” According to the innovation team, this was a big eye-opener and led them to think beyond just a focus on medical needs and healthy eating to other patient needs that they never initially considered.

Green Zone	ALL CLEAR: THIS IS YOUR ZONE	Yellow Zone	CAUTION: THIS ZONE IS A WARNING	Red Zone	*EMERGENCY*
Your symptoms are under control and you have: <ul style="list-style-type: none"> • No shortness of breath • No weight gain more than 2 pounds (it may change 1 or 2 pounds some days) • No swelling of your feet, ankles, legs, or stomach • No chest pain 		Call your doctor if you have: <ul style="list-style-type: none"> • Weight gain of 3 pounds in 1 day or a weight gain of 5 pounds or more in 1 week. • More shortness of breath • More swelling of your feet, ankles, legs or stomach • No energy or feeling more tired • Dry hacking cough • Dizziness • Feeling uneasy, you know something is not right • Difficulty breathing when lying down • Feeling the need to sleep sitting up in a chair 		Go to the emergency room or call 911 if you have any of the following: <ul style="list-style-type: none"> • Weight gain • Unrelieved shortness of breath while sitting still • Struggling to breathe • Chest pain • Confusion or can't think clearly 	

Moving forward, the innovation team wants to see patients improve their self-management of CHF and improve their quality of life. The team hopes to decrease re-admission rates to the hospital, increase the likelihood that CHF patients will follow through with their post-discharge appointments to their provider, and take their medications correctly. The innovation team is currently working with its marketing department to translate the toolkit for its Spanish and Arabic populations. Recently, the innovation team also hosted a heart healthy support group in the hospital with some of the patients who participated in the pilot. Based on feedback from the patients, the innovation team is considering working with its dieticians to start a heart healthy cookbook using recipes from its patients. The team hopes to include recipes that reflect the very diverse cultures of its patients and their families. The innovation team also hopes to expand the model throughout the hospital to other chronic illnesses and plans to offer their toolkit to use as a template for other APN-driven programs, including COPD and pediatric asthma. According to Ilene Matza, *“We want to create a model that we could then apply to other disease processes and patient populations using our heart failure framework and have that teaching tool still be as effective.”*

