

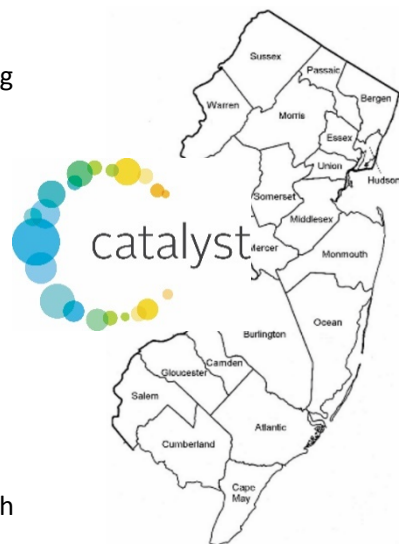
New Jersey Innovation Catalyst Initiative Case Story: Trinitas Regional Medical Center's Mobile Integrated Health Service

Trinitas Regional Medical Center (“Trinitas”) is a not-for-profit, safety net hospital in Elizabeth, New Jersey. Each year, Trinitas treats more than 17,000 inpatients, has over 450,000 outpatient visits, and is consistently among the five largest charity care providers in the state. Within the city of Elizabeth, disparities due to social determinants of health have resulted in a local population that is not only disproportionately affected by chronic illnesses such as diabetes, asthma, and heart disease, but also under-educated on how to properly self-manage these chronic conditions. Based on the results of a comprehensive community health needs assessment to evaluate the health needs of individuals living in the Medical Center’s service area, Trinitas and its partners determined that lack of screening, poor awareness of risk factors and improper management of chronic diseases were the most pressing health issues facing the city. In addition, many of the hospital’s underserved patients choose the ED over primary care providers because they find it to be more convenient, cheaper, and easier than making an appointment when they need to see a provider. This has led to overcrowding in the hospital’s ED, which was designed to handle 45,000 patient visits annually, but now sees over 73,000 patients every year.



Based on health care utilization data from Elizabeth’s underserved population, the innovation team at Trinitas was interested in exploring the use of EMTs or Paramedics as Community Health Integrated Practitioners (CHIPs) who could serve as the point of contact with these patients. The CHIPs could then guide these patients into a proper care pathway to achieving better health outcomes. The innovation team’s idea was a natural extension of earlier work conducted by the team in this area. According to Joseph McTernan, DHSc, MBA, FACHE, Senior Director of Community and Clinical Services at Trinitas Regional Medical Center, the three team members—all paramedics—have experience using this approach to population health management. While working on his doctoral dissertation, McTernan wrote a paper on paramedics’ knowledge and attitudes towards diabetes care and whether they are compatible with moving beyond the emergency response to health care

delivery/management by paramedics in community-based programs. The entire team previously created a program with paramedics that focused on heart failure re-admissions. While the hospital was using several different heart failure re-admission models, the team realized that there were groups of patients that did not fit the mold of these other funded models. The team used the paramedicine curriculum,



conducted a gap analysis with the community health worker model, and found that there were several issues that the team needed to bridge between the paramedicine curriculum and the community health worker curriculum. Based on this work, the team was able to develop a training program that they could use for heart failure patients. The team then created a tailored program for heart failure patients, again working with the housing authority in the city of Elizabeth, and documented success with this approach.

The team realized that their model showed promise in terms of its ability to work successfully with other patient populations. Successful models incorporating community paramedicine have been launched elsewhere in the country, including programs in Colorado, Minnesota, and Maine. The California Emergency Medical Services Authority in partnership with the California Health Care Foundation is conducting 13 community paramedicine pilot projects throughout California. The overarching goals of the California pilot projects are to provide more effective, efficient, and timely health care, avoid unnecessary transports to hospital emergency departments, relieve emergency department overcrowding, reduce hospital readmissions, and lower health care costs.¹ The pilot projects are not meant to replace any health programs that are already available to community members.

With this promising approach, the innovation team at Trinitas decided to focus their project on the community that resides in buildings managed by the Housing Authority of the City of Elizabeth. The housing project of focus has approximately 1,000 residents. The innovation team determined that the housing project population had 895 emergency department visits and 90 inpatient admissions in 2013, with 10% of the population accounting for 30% of ED visits and 30% of residents accounting for 50% of inpatient admissions. With a focus on high health care utilizers, the innovation team is using a “high-touch” approach to better educate this community, help them be more proactive around wellness, disease prevention, and access to care, and connect these patients with primary care physicians so they can better self-manage their chronic illnesses. Ultimately, the innovation team hopes to demonstrate *“...how a well-orchestrated community program directed by medical professionals at an inner-city medical center can effectively transform cultural norms and increase access to health care for a largely underserved, economically disadvantaged population through the use of online technology, mobile integrated health services and educational outreach.”*

“We really gave a lot of thought to human design. We used story boarding and then we reached out and met with a group of residents prior to starting the program and we engaged them to be super users. They have been giving us some good feedback. We held back for the first couple of meetings and we just sat and listened, asked some questions and listened some more. We then came forward with some ideas, bounced some ideas off of the super users and they had positive feedback for us.”

**–Joseph McTernan, Senior Director of
Community and Clinical Services
Trinitas Regional Medical Center**

Although early in its implementation, the innovation team is confident that the program is gaining traction in the community. The innovation team piggybacked their pilot on a community initiative that uses a mobile food market to supplement food for the last three days of the month, when subsidies to

¹ Emergency Medical Services Authority - Introduction to Community Paramedicine. (2016). Emsa.ca.gov. Retrieved 14 December 2016, from http://www.emsa.ca.gov/Community_Paramedicine.

purchase food are more likely to run out. It gave an opportunity for the team to meet with 178 residents on a single day, where they were able to engage the community by conducting screenings and talk to them about their needs. Through this process, they were able to engage an initial 23 patients. With the transition to the winter months, the team hopes to start up again in the spring when the mobile food market returns, and is currently exploring other strategies to further engage the community. Anecdotally, McTernan is reporting that some of the residents are beginning to bond with the team members and they are starting to follow-up with and engage in regular discussions with these residents. Although it's too early to draw any conclusions, McTernan believes the model is promising given their engagement with residents. Along these lines, the team also conducts health fairs for the community where they generally see about 200 people. They are also exploring opportunities with the Family Success Center that sits in the middle of the housing project. The Family Success Center and the housing authority actually provided space for the community paramedics to meet with the residents. Residents can meet with the paramedics directly at their home or they can start a relationship with the paramedic team by going to this space that's well-established, safe, and well-known to this community. The team meets with the residents on a weekly basis. According to McTernan, a lot of the upfront work includes trust-building, *"It's just starting out and we're building that trust and starting to see some of that movement."*

Looking ahead, the innovation team is working with its IT department to mine through ED patient data on a quarterly basis to identify patients residing within Elizabeth Housing Authority buildings and build comprehensive reports containing the patients' ED utilization. The CHIPs will create an outreach plan that targets Housing Authority residents in 3-month intervals. Annually, it is expected that CHIPs will each be assigned 100 at-risk patients (25 patients, quarterly) to contact and screen. CHIPs will be expected to make at least one in-person visit and conduct at least three follow-up phone conversations with each of their patients over the 3-month period. There are no invasive treatment modalities or medication administration involved in the CHIP visit. The CHIP would document their visit in a chart, and then report to designated medical physicians or a referral program. In the short-term, the innovation team will monitor indicators including the number of patient contacts made, the number of screenings that are completed for depression, substance abuse, anxiety, and diabetes, the number of referrals to appropriate social services, increased use of primary care providers, and attitudes of the Mobile Integrated Health Service members six months and one year into the program. Over the long-term, the innovation team hopes to document a financial return on investment for this promising model. And, finally, it should be noted that the project was recently featured in [NJBiz](#) this past October 2016, highlighting the potential for this approach to serve as a viable bridge between the community and needed health care resources and social services.

