

## Safety Net Innovation Challenge: A Case Study at Petaluma Health Center

### CCI and the Safety Net Innovation Challenge

Through its Safety Net Innovation Challenge (SNIC) program, the Center for Care Innovations (CCI) provides funding to California's health care safety net in partnership with Blue Shield of California Foundation. The SNIC program is designed to promote a culture of innovation and develop breakthrough solutions to transform health care. Starting in 2012, 12 organizations received funding to investigate breakthrough solutions through a Rapid Cycle Innovation process. Eight of these grantees received continuing support through the implementation phase. The safety net organizations are developing and launching innovations in one of three focus areas:

- Including the patient as a core member of the care team
- Improving primary care access
- Improving care transitions from hospital to primary care

The SNIC grantees formed Innovation Teams that are working their way through a four-stage innovation process, supported by regular coaching from an innovation expert and access to a multitude of resources and online tools.

## Keeping the Connection After Hospital Discharge Through Remote House Calls

**Challenge:** *Reduce preventable hospital readmissions for high-risk Petaluma Health Center (PHC) patients.* The PHC Innovation Team is working both to find the optimal technology and to integrate the virtual visits into the health center's routine workflow.

**Targets:** Established PHC patients hospitalized for a severe condition and at risk for readmission. Project patients also must be able to use a digital device or have a caregiver who is.

**Highlights:** By improving care coordination and communication after hospital discharge, the PHC Innovation Team is testing a "remote house call" between newly-discharged patients and their care teams, using a smart phone that is lent to the patient (with training) prior to discharge.

**Anticipated Impacts:** More timely contact with discharged patients; easier hospital-to-home transitions; better health care quality; reduced preventable hospital readmissions, length of stay and ER use; and reduced costs.

## The Innovation Challenge

Petaluma Health Center is the medical home for members of the safety net population in the northern California city of Petaluma. Its Innovation Team tackled the problem that some patients were experiencing difficult and disjointed transitions to primary care after being discharged from local hospitals, increasing their risk of being re-hospitalized.

The Innovation Team focused on the breakdown of communication in the period between hospital discharge and patients' first visit to the primary care team at the health center. They reasoned that a visit with high-risk patients soon after discharge, before they could physically get to the health center, would provide a way to reduce confusion about medication and self-care and avoid the medical crises that can result. The challenge was to develop a workable solution that is also financially feasible and sustainable.

*“[Previous experience has] taught us to act early; focus, focus, focus on the patient’s medication; and be ever-mindful of the long-term sustainability of each step we introduce.”*

**–Petaluma Health Center  
Innovation Team**

Through a Safety Net Innovation Challenge grant, the PHC Innovation Team is exploring the use of remote house calls to improve care coordination and communication between newly discharged PHC hospital patients and their care teams.

## The Innovation Journey

Petaluma Health Center has fine-tuned its multi-disciplinary care teams and developed a strong working relationship with Petaluma Valley Hospital, which cares for most of its patients when they need hospitalization. These relationships became critical in the effort to develop a post-discharge intervention that requires collaboration between health center and hospital staff. *“We worked hard to become a patient-centered medical home, and what we really wanted was for our patients to connect back to their primary care team as soon as possible,”* says Danielle Oryn, DO, Chief Medical Informatics Officer at Petaluma Health Center.

## More on Care Transitions...

Nationally, avoidable 30-day readmissions cost Medicare \$18 billion annually. This has prompted the launch of the Medicare Hospital Readmissions Reduction Program, established in the Affordable Care Act, which imposes a financial penalty on hospitals for higher-than-expected readmission rates. Although not every admission is preventable, a number of strategies can be implemented to lower preventable readmission rates. Developing solutions to this problem is a responsibility shared by patients, caregivers, providers, and other community professionals.

The members of the Innovation Team, an interdisciplinary group, used interviews as a stimulus and guide in developing the solution. They talked with a range of informants including hospitalists, emergency room doctors, a skilled nursing facility doctor, a Visiting Nurses Association representative, hospital administrators, hospital and PHC case managers, a pharmacist, and a number of patients and their families. Importantly, the interviews revealed just how much some patients did not understand—including in some cases why they had been hospitalized and what they needed to do after discharge to maximize healing. It became clear that the solution needed to re-connect high-risk PHC patients with their primary care teams as soon as possible after discharge, to avert complications and the possible need for readmission.

Their innovation coach, Jaspal Sandhu, PhD, Partner at Gobe Group, characterizes Petaluma Health Center as “*nimble and tech-friendly.*” With his encouragement, the Innovation Team brainstormed several

possible solutions before deciding to test the use of a loaned digital device in a remote house call between the patient and care team within 48 hours of discharge. This approach has required experimentation on several fronts: finding technology that is secure, reliable, and easy to use; identifying, recruiting, and training eligible patients; getting the device to and from patients; conducting a timely remote house call; streamlining the virtual visit and integrating it into clinic workflow; and meeting PHC’s operational needs.

The Innovation Team experimented with technology options to identify the device (platform) and software they would test in the implementation stage. A homeless shelter, the Mary Isaak Center, offered a controlled environment in which to work through early technical and usability issues, with a PHC case

manager present to assist the patient. Using a tablet for this preliminary pilot, they began to identify the challenges and potential benefits of their trial approach. As a result, they decided to use an easier smartphone for the testing in private homes during the implementation stage, which began in January 2014. The phones are limited to one application, for simplicity and security.

## The Solution

The Innovation Team's solution to use a remote house call is intended to work like "a real office visit," with the participation of the patient's full care team and integrated into the routine workflow. The Innovation Team did a dry run to familiarize the health center staff with the process and test how the virtual visit would work. This highlighted organizational challenges related to staff roles, patient privacy, scheduling and billing, all of which are being addressed.

Defining the criteria for patient participants and recruiting English- and Spanish-speaking patients is another key dimension of the project. Through experimentation, the Team developed these simple criteria: the patient has previously established care at PHC, is at risk for readmission for any reason, and is capable of using technology or has a caregiver who is.

The innovation is designed to integrate patients and their at-home caregivers into the care teams, educating them about their conditions and health management responsibilities. The team developed information materials for patients in both languages as well as training protocols for clinic care team members. *"From a nursing point of view, [this is about] encouraging the patient to take back many of the things that would be done by nursing in the hospital, such as medication management. We're encouraging the patient to be in charge on their own and doing this in the home, but with us there on the same page with them,"* says Mia Smit, RN, Project Manager and Clinical Nurse Informaticist at Petaluma Health Center.

The PHC Innovation Team has been testing the following process in 2014 with patients for whom PHC is the medical home:

- ❖ Patients are referred to the program by either a hospital or health center case manager, based on the criteria outlined above.



- ❖ The PHC case manager visits the patient prior to discharge to lend the smartphone and show the patient and/or family caregiver how to use it.
- ❖ The PHC case manager contacts the patient at home (or other residence) to schedule a remote house call within 48 hours of discharge.
- ❖ The PHC care team carries out the remote house call with the patient in the manner of a normal office visit—in a closed exam room at the clinic, with the full care team present (primary care physician, RN case manager or care team nurse, and medical assistant). In the call, using both audio and video, the care team helps the patient understand the treatment plan, medications, and diet and other self-care instructions.
- ❖ The patient returns the smartphone at the first face-to-face visit at the clinic. (The full cycle tends to take two-to-three weeks.)

The Innovation Team is using both quantitative and qualitative measures to assess the remote house call and monitor its impact. These measures include the readmission rate, patients' response to the remote house call, the ease of scheduling and managing the virtual visits, and financial and operational sustainability. The measures are expected to indicate how successfully the innovation addresses patient barriers, operational barriers, and hardware and software issues, including security and privacy, as well as the extent to which patients/caregivers, hospital staff, and PHC physicians and other care team members are accepting this solution.

## What's Next?

By the end of March, Petaluma Health Center had successfully tested the remote house call innovation with ten patients, and it will continue to test and fine-tune the intervention in the coming months.

The testing has already led to a number of useful findings. Dr. Danielle Oryn reports that the testing highlights the value of the remote visit for observing and clearing up medications issues such as which medications to take and which not, and how best to store and manage them. When patients are willing, the care team also has a view of the home. She adds that because none of its Spanish-speaking patients, a significant segment of the patient population, have yet accepted the device, PHC is exploring how to increase their comfort level in participating in the program. Another early challenge is the poor audio quality

when using the video. She also points to another important finding: *“The patients we have tried this with thus far are not web-enabled in our system. I think this means we are reaching a group through technology that we would normally not have reached in this way.”*

Once it has applied the lessons learned from the testing and developed a successful remote house call intervention, the health center plans to expand its use to other hospitals that admit PHC patients and in shelters and skilled nursing facilities where its patients reside.

### **About the Center for Care Innovations**

CCI – the Center for Care Innovations is a vital source of ideas, best practices, and funding for California’s health care safety net. By bringing people and resources together, we accelerate innovations for healthy people and healthy communities.



450 Geary Street, Suite 400, San Francisco, CA 94102  
Phone 415.830.3020 Fax 415.707.6988  
[www.careinnovations.org](http://www.careinnovations.org)