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ST. LUKE'S IMPROVES THE HEALTH OF ITS HIGH-RISK/HIGH-NEED PATIENT POPULATION

New Care-Transition Processes Proven a Success

ST. LUKE'S INNOVATION PROJECT SUMMARY

Challenge

St. Luke's needed to jump-start its efforts to reduce unnecessary hospital re-admissions

Innovation Process

- Project team determined the need for a better tool to identify high-risk patients and improvements in its current care coordination process
- Team tested its solutions with a limited group of inpatients

Results

- Increase of patient referrals to post-discharge care
- Significant savings in health care costs
- Approval from health system leaders to expand the solution to other areas

CASE STUDY

The immersive, team-based AHA Innovation 90 program (ahainnovation.org) enables hospital teams to tackle innovation problems and produce a solution ready for implementation in 90 days. **Here's an example of one team's success.**

A FASTER PATH TO **SOLVING A CARE TRANSITIONS CHALLENGE**

St. Luke's Health Care System, Duluth, Minn., consists of two hospitals, 14 primary care clinics, 30 specialty clinics and two pharmacies that serve northeastern Minnesota, northwestern Wisconsin and the Upper Peninsula of Michigan. St. Luke's has provided medical leadership since its founding as the first hospital in Duluth in 1881. It has retained its renowned patient-centered focus throughout its growth into a regional health system serving three states.

To help it reduce patients' preventable emergency department (ED) visits and hospital re-admissions, St. Luke's was seeking a way to improve quality of care and outcomes for its high-risk patient population. It had established a team to explore how to improve patients' transitions between inpatient acute care and home or ambulatory services such as primary care or skilled nursing home — and ensure continued follow-up care as needed. "It was a team of really good people, but it just wasn't moving quickly; we just didn't seem to have the right tools," says Kimberlie Terhaar, St. Luke's vice president of strategy and innovation.

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DISCOVERY PHASE: **INTERVIEWS**

Team members conducted over 20 interviews with physicians, nurses, care coordinators and case managers at St. Luke's Hospital, an acute-care facility in Duluth, and with care coordinators at St. Luke's clinics, to gain their perspectives on where potential issues in care transition processes lay. They discovered:

- Most of the hospital personnel did not know that the clinic care coordinators existed, much less the scope of their capabilities
- All agreed that lack of communication across the health care system was a major pain point
- Physicians and nurses both saw the need to incorporate a means for a nurse's "gut check" — a way for nurses to raise a flag when they felt that a patient would not do well despite objective risk measurements indicating otherwise

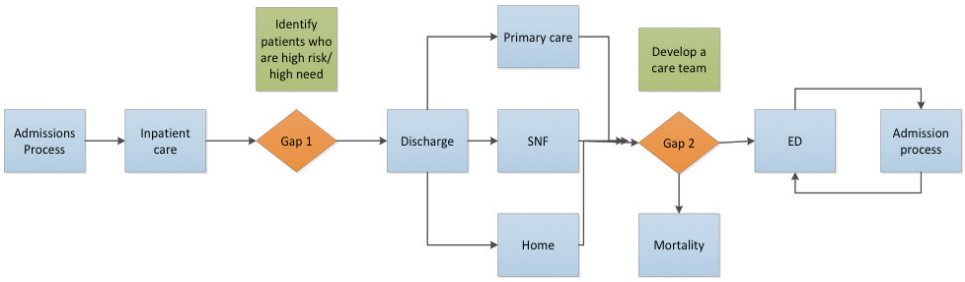
BOOT CAMP **BOOST**

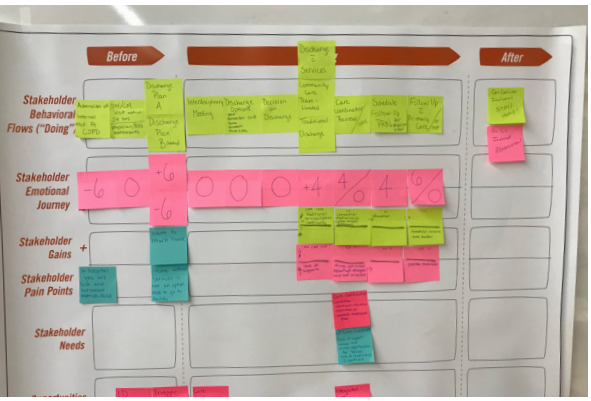
To jump-start its project, St. Luke's entered a cross-functional team of six members, including Terhaar as its executive champion, in the American Hospital Association's (AHA's) Innovation 90 program. The program consists of a three-day, immersive, off-site boot camp followed by 90 days of coaching, after which teams will know whether their innovation is likely to succeed and worthy of further investment.

During the structured boot camp, the team identified gaps in St. Luke's care transition process and emerged with an innovation prototype to explore. "We learned from the boot camp that pushing people to express their ideas quickly and without criticism doesn't take away from the quality of the ideation process, it just moves it forward quickly," Terhaar says.

Back at St. Luke's, the team began work on addressing the two main care transition gaps: the need to identify high-risk/high-need patients once they're admitted to the hospital, and the need to improve coordination of care after discharge, with the ultimate development of a dedicated, post-discharge care team for each high-risk patient.

INNOVATION **PROTOTYPE**





DISCOVERY PHASE: **RISK ASSESSMENT**

The team also reviewed literature to evaluate risk assessment tools for effectiveness in identifying high-risk patients — those who would be most likely to be re-admitted and benefit most from post-discharge care coordination — and landed upon the LACE (Length of stay, Acuity of admission, Comorbidities, Emergency department visits) tool.

The group compared the effectiveness of the current St. Luke's risk assessment tool — the modified BOOST (Better Outcomes by Optimizing Safe Transitions) — with the modified LACE tool, which happened to be already available through St. Luke's quality reporting and management software. The results surprised the team. Of a sample of 212 patients:

- BOOST identified **2 as high risk**, 33 as moderate risk, and 147 as low risk
- LACE identified **97 as high risk**, 75 as moderate risk, and 40 as low risk

So, at that point, many patients who could be candidates for the care coordination intervention were falling through the cracks.

THE PILOT: **TESTING THE HYPOTHESIS**

In a 39-day pilot, the team tested its prototype based on what it had learned during the discovery phase. It conducted the study in St. Luke's Hospital's 7 West medical unit, composed primarily of complex internal medicine patients.

1 To improve identification of high-risk patients:

- It implemented the LACE tool, which ascertained that an average of over 50 percent of the unit's patients were high-risk.
- It incorporated nursing gut checks. Primary nurses now join the morning Interdisciplinary Team meeting, allowing them and other care team members to notify the case manager and social worker of concerns that might not be caught by the LACE risk calculation (e.g., they know a diabetic patient won't be able to consistently administer insulin post-discharge).

2 To improve the current care coordination process, it launched an entire process redesign:

- It enhanced communication between hospital case managers and clinic care coordinators by updating the acute-care case management assessment in the hospital's electronic medical record system. Now, selecting "yes" in the EMR enables the case manager to notify the care coordinator that the patient is currently enrolled in care coordination, or is appropriate for care coordination based on the patient's high risk score or a gut-check concern. Selecting "no" does not trigger care coordination.
- It enhanced the care coordinator's role and patient engagement by launching a new process for follow-up with patients after discharge. In addition to the notification process from the acute care department, care coordinators utilize another medical record quarrying tool to determine patients who frequently use the ED.
    - After receiving a flag on the patient's discharge report, the care coordinator contacts the patient two and seven days after discharge — confirming follow-up appointments, responding to other needs and concerns, and determining care plan adherence. The coordinator then meets the patient at his or her first follow-up appointment in clinic.
    - After receiving a discharge report on patients who frequent the ED, the coordinator connects them with their or a primary care provider.
- To improve care quality within the system's skilled nursing homes (SNFs), St. Luke's developed a community care team model. It stations an advanced practice provider at each SNF, enhancing day-to-day care while freeing up more time for physicians to devote to care-intensive patients.

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ALICE: A POPULATION HEALTH SUCCESS STORY

After leaving St. Luke's Hospital against medical advice, Alice was re-admitted 10 days later suffering from a urinary tract infection, lethargy and frequent falls at home. Fifteen days later, the physicians were ready to discharge her.

However, she had nowhere to go because she was about to be evicted from her home. And with chronic illness, mental illness and financial complications, in addition to her known fall risk, she ended up staying in the hospital for 179 days. She lacked a program that would allow her to live a quality life beyond the hospital.

Today, with a care coordination and collaboration process in place, she lives independently in her new apartment with her cat. She receives weekly, one-on-one interaction with her personal care coordinator, which, along with bi-monthly clinic visits, is controlling Alice's chronic and mental health conditions.

What's more, since care coordination, **Alice's health care costs have dropped from an average of $8,288 to $1,122** per month and she has had **no hospital re-admissions.** The savings represents a three-year period — the higher number being representative of Alice being high-risk without care coordination and the lower being high-risk with care coordination.

PILOT **RESULTS**

The redesigned and enhanced communication and care coordination processes have led to **"increased post-discharge referrals of patients both to primary care appointments and to services including skilled nursing homes, rehab, and home health care,"** says Terhaar. That not only means patients will be less likely to readmit to the hospital, but **"it gives physicians more time to focus on patient care, since they don't have to figure out themselves how to set patients up for further care once they're discharged,"** she explains.

"The community care team model brings a similar result within the SNFs," Terhaar says. **"It cuts down on physicians receiving phone calls and faxed orders. With less administrative work, physicians have more time for patients. Plus, they don't have to physically go to the nursing home as often. Our physicians are very pleased with that model."**

At the end of its 90-day Innovation 90 program, the project team was also pleased. **"I'm excited that our project team — even though it meant a little work in addition to their day job — came out of the process feeling very satisfied," Terhaar says. "That's a real win, because you need everybody on board to do it again with future innovations."**

NEXT **STEPS**

While the pilot was too short to illicit measurable, long-term outcomes, the results were positive and meaningful enough for St. Luke's executive leadership to approve a rollout to other areas of the hospital and health system. It is replicating the new processes in other inpatient departments, for instance, including the 6 West cardiac unit.

It has also focused on filling in the second gap in its care transitions project: establishing a new care team model. To better manage high-risk patients at its internal medicine clinic, recently hired care coordinators and advanced practice clinicians will pair up to join each of four groups of four physicians in new teams of six. "And after that, we will be working on some other staffing models," Terhaar says, including integrating mental health professionals into the primary care clinics.

The project team has identified additional population health management opportunities to explore, such as growing St. Luke's palliative care and hospice programs to help prevent hospital re-admissions for end-stage physiological symptoms. It also sees additional collaborative opportunities with home care and house call services to keep patients in their homes.

AHA Education

Interested in participating in the next Innovation 90 Bootcamp?

Contact Carl Aiello at caiello@aha.org or visit us online at **www.ahainnovation.org** for pricing and more information.