Intensive Ambulatory Care Program

Banner Health – Phoenix, AZ

Overview
Using telehealth innovatively has been a long-standing priority for Banner Health, one of the nation's largest nonprofit health systems and employers. More than a decade ago, Banner embraced telehealth with the launch of its tele-ICU system, which has consistently improved outcomes across the organization.

Building on the success of the program, in 2013 Banner deployed the tele-ICU model outside the hospital to target patients with multiple chronic conditions. According to the Centers for Disease Control and Prevention, chronic diseases are responsible for 7 of 10 deaths each year, and treating people with chronic diseases accounts for 86 percent of our nation's health care costs. Within the population of Banner's own health plan, 5 percent of its patients accounted for 50 percent of health care spending because of multiple chronic conditions.

To better manage its chronically ill population, Banner's Intensive Ambulatory Care (IAC) telehealth pilot enrolled members within its health network for whom the system was at-risk financially. To participate, patients needed to be receiving treatment for five or more chronic conditions and to have accumulated a previous 12-month spend of more than $20,000 for those conditions. Participants were provided with traditional home health tools – such as scales, glucometers, and heart monitors – that were Bluetooth enabled, along with a tablet for video visits.

"The goal for the pilot was to improve the quality of life for participants while reducing costs by looking for adverse trends and intervening before those trends became adverse outcomes," says Deborah Dahl, Banner's vice president of patient care innovation.

Banner created a full-time telehealth team composed of physicians, pharmacists, social workers, cognitive behavioral therapists, and registered nurses "behind the camera," while certified nursing assistants trained in motivational interviewing, learning phenotypes, and learning activation functioned as health coaches in the field. Central to the team's approach was developing a personal relationship with each patient.

"Many telehealth solutions are focused on episodic events, so there isn't the time or need to build a relationship," says Dahl. "But in the IAC program, we wanted to motivate our patients to make behavior changes where appropriate and help them be generally happier. Achieving that requires a personal connection and trust."

Impact
In an updated study that builds on the original pilot data released in 2015, Banner and its technology partner Phillips examined 1,283 patients who had at least one year pre-IAC and one year post-IAC follow-up to compare the impact of the IAC program on patient outcomes.

The analysis of patient results over the first full year of the program revealed that the IAC program helped by:

- **Reducing overall costs of care by 34.5 percent.** This cost saving was driven primarily by a reduction in hospitalization rates and days in the hospital, as well as a reduction in professional service and outpatient costs.
- **Reducing hospitalizations by 49.5 percent.** Before enrollment in the IAC program, there were 10.9 hospitalizations per 100 patients per month; after enrollment, the acute and long-term hospitalization rate dropped to 5.5 hospitalizations per 100 patients per month.
- **Reducing the number of days in hospital by 50 percent.** Prior to enrollment, the average number of days in the hospital was 60 days per 100 patients per month, compared with 30 days after enrollment.
- **Reducing the 30-day readmission rate by 75 percent.** The 30-day readmission rate went from 20 percent before enrollment to 5 percent after enrollment.

Lessons Learned
Well into the pilot, the Banner telehealth team learned that the language they used did not always resonate with patients. "We had patients we would visit at home two weeks after an inpatient stay who believed that because they were out of the hospital, they were no longer 'sick' and didn't need to monitor their health," says Dahl. "They didn't understand what we meant by 'chronic' condition." Dahl believes they could have recruited even more participants had they met with them during discharge from the hospital, which would have allowed the team to be more proactive.

Dahl also believes there is ample opportunity to enhance the medication reconciliation process with patients. During participant onboarding, pharmacists from the telehealth team conduct video visits with each patient to review medications prescribed by their specialists. Of the 1,200 patients who have participated in the IAC pilot over three years, not a single patient's electronic medical record matched the medications that the patient was actually taking at home. "We've been talking about interoperability in health care for years," says Dahl. "There's a huge opportunity in the United States to address this, and we hope that sometime soon we'll see it in our organization."

Future Goals
Going forward, Banner would like to expand the program to include Medicaid or dual-eligible patients. Dahl's vision is that the health system will eventually develop and sustain a "virtual" hospital so that, for example, instead of being sent to a hospital observation unit, patients can be monitored for adverse events in their homes. "Telehealth provides an amazing opportunity to change the way health care is delivered in the United States," says Dahl. "Consumers are ready for this change, and health care organizations are starting to catch up to those expectations."

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