



Banner Health®

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The LeadingAge Center for Aging Services Technologies (CAST) is focused on accelerating the development, evaluation and adoption of emerging technologies that will transform the aging experience. As an international coalition of more than 400 technology companies, aging-services organizations, businesses, research universities and government representatives, CAST works under the auspices of LeadingAge, an association of 6,000 not-for-profit organizations dedicated to expanding the world of possibilities for aging.

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PHILIPS

Targeting the ‘Superusers’ of Healthcare With Telehealth

Categories

Health Outcomes, Staff Efficiencies, Quality of Life/Satisfaction with Care, Hospitalization and Hospital Readmissions

Organization Name

Banner Health

Organization Type

Health Care System

Other Partners

Philips

Organization Description

With facilities in 7 states, Banner Health employs over 46,000 people and is Arizona’s largest private employer. It’s also one of the largest secular, nonprofit healthcare system in the U.S. with more than \$5 billion in annual revenue.

Project Description

“Superusers” of health care services represent 5% of patients — often elderly — that have multiple chronic conditions and account for up to 50% of all healthcare spending. For this group, healthcare needs and remote care management are vastly different from other patient populations. Technology solutions used with this population need to be industrial-strength and much broader in scope than consumer-grade telehealth technology that consumers occasionally use to have a convenient televisit with a doctor to avoid having to go to a walk-in clinic or urgent care. Banner and Philips partnered using technology as a strategic mechanism for the remote care of superusers.

Telehealth and RPM System Type

Store and Forward: Biometric Remote Patient Monitoring, Real-Time Biometric Remote Patient Monitoring, Real-Time Interactive Two-Way Video.

The Philips supplied hardware includes an Android tablet, custom software and a range of biometric sensors for blood pressure, oxygen saturation, weight, and heart rate measurements.

Also included is Philips Lifeline — a personal emergency response device with automatic fall detection.

Telehealth and RPM System Embodiment

Single-User/Patient Home Base Unit

Business Model

Banner Health implemented the program as Standard of Care. While most patients were Medicare eligible, no reimbursement was sought from CMS. Banner covered the costs of the telehealth program including telehealth equipment hardware and software costs.

Implementation Approach

The pilot included 135 “in home” patients. Requirement for patients in the program include having at least 5 chronic health conditions. The program also matches patients with multi-disciplinary care team that includes health coaches, nurses, social workers, pharmacists and primary care “intensivists” in a way that delivers near-instant access for patients to an entire care team. Combining team-based continuous care with remote delivery is a key part of the success. This isn’t consumer-grade, episodic care by a single specialist working in isolation.

Outcomes

- 27% reduction in cost of care
- 32% reduction in acute and long-term care costs
- 45% reduction in hospitalizations

“Telehealth has helped us move beyond the limitations of geography, access to specialists and constraints on time. First it was the technology, which changed the paradigm and opened up new ways of serving patients. What has happened as a result is vastly improved patient care, not only because of increased access and efficiency, but also because of a new integrated team approach which came out of having a centralized hub of physicians, specialists, nurses and pharmacists. Telehealth, at its best, improves the physician/health care provider experience and improves not only the measurable care patients receive, but the care experience as well.”, said Hargobind Khurana, MD — Senior Medical Director of Health Management at Banner Health.

Challenges and Pitfalls to Avoid

Care of older adults with multiple chronic conditions, referred to as “superusers” of healthcare services in this case study, is challenging and different from caring for other populations. It requires an integrated care coordinated and delivered by a multi-disciplinary care team.

Coordinated care is hard to achieve without the right technology tools, and without a culture that embraces, encourages and instills this care delivery paradigm through development of communications and response protocols, training, outcome tracking and ongoing refinement.

Consumer-grade telehealth is not suited for delivering care for this population.

Lessons Learned

Care of superusers requires an integrated and well-coordinated from a multi-disciplinary care team.

The success of integrated and coordinated care hinges upon having robust response protocols, frequent communications, and most of all equally-robust industrial-grade enabling technology.

Combining the multi-disciplinary integrated care team, coordinated care, with the right enabling telehealth technology leads to reduced hospitalizations, long-term care, and acute care costs.

Advice to Share with Others

Have a specific target population of patients, preferable superusers or frequent fliers of healthcare.

Adopt a multi-disciplinary care approach, response and communications protocols that address the needs of the target population.

Make sure you have comprehensive telehealth tools that provide your integrated care team with the information they need in a timely manner, and that facilitate communications between team members, and ultimately help them deliver the proactive care needed.

The study results were published in [Forbes](#).