

A middle-aged man with grey hair, wearing a teal polo shirt, is seated and looking down at a tablet computer he is holding in his left hand. He is smiling slightly. A blue blood pressure cuff is wrapped around his right upper arm, with a white tube leading to a white electronic device on a table in front of him. A lanyard with a white ID badge hangs around his neck. The background is a bright, out-of-focus window with yellow curtains.

PHILIPS

Population Health
Management

Albert's journey

How a collaborative care ecosystem
impacts every stakeholder

Few would question that digital technology has enabled a host of new ways to deliver more effective, more convenient and less expensive care. Yet many of these digital solutions stand in isolation rather than being part of a comprehensive solution – requiring too much work from all stakeholders and delivering too little value.

Imagine the impact on healthcare of an open ecosystem of integrated solutions and technology that can help anticipate and meet a wide spectrum of health needs. Such a solution would need to offer open architecture, allowing patients, providers, payers and caregivers to easily and seamlessly connect.

The power of this ‘open ecosystem’ solution to deliver more collaborative care across the continuum is perhaps easiest to understand when viewed through its impact on a fictional family – albeit one that shares issues with many real-life families – such as the Roberts family story illustrated here.





Our family includes 76-year-old widower Albert Roberts, his daughter Maria and her two children, and his son Juan. Since Albert's wife died two years ago, Maria has become increasingly worried about her father's ability to live alone, and she visits him several times each week – which has added to the stress of being a working mother. Caring for her father has taken a toll on her own health and worsened the mild depression she has had for many years.

Since his wife died, Albert and his family have been struggling to manage a growing number of health issues in addition to Albert's increasing frailty. Thanks to the synergy of multiple Philips solutions, our fictional family is managing their health concerns far more efficiently and cost effectively, with a positive impact on their quality of life. Let's look at the programs that benefitted Albert's family, as well as their providers, their health insurers and their employers surrounding a particularly frightening health episode.

The Roberts family are fictional characters and Northern health system is a fictional organization for illustrative purposes only to serve as an example of potential outcomes.

Albert has lived alone for the past two years, taking multiple daily medications, including one for hypertension. Unfortunately, his failing memory causes him to forget to take his medications more and more frequently – perhaps contributing to the dizziness he has experienced on occasion. Four months ago, one of Albert's dizzy spells resulted in a fall. Unable to reach a phone, Albert wasn't found until several hours later, when Maria happened to drop by during one of her visits.

Albert was rushed to Northern Hospital by ambulance, where he spent a week to have his twisted ankle and

concussion treated and his dizziness evaluated. His care team believed that the delay he experienced in receiving treatment worsened his health outcomes and increased the length of his stay.

Northern Hospital is part of the Northern Health System, which includes a Medicare Shared Savings Program (MSSP) accountable care organization (ACO) that has 10,000 members, including Albert. Albert's primary care physician, Dr. Renee Smith, is part of a Patient Centered Medical Home (PCMH) practice that participates in that ACO.

The difference a collaborative digital ecosystem can make

During Albert's hospital visit, the clinicians that attended to him updated his records to include an accurate list of current medications; they also documented his fall, the dizziness leading up to it, and his current living circumstances. This information was aggregated into the Philips population health management (PHM) platform – a robust digital ecosystem that Northern Hospital's care managers use to stay informed about the health of their patient populations.



Fortunately, the hospital and its MSSP ACO had partnered with Philips to help them manage patients like Albert. The insights the platform provided allowed the care team to access a thorough medical history and understand his risk. Armed with the knowledge that Albert had a medication sensitivity and was concerned about being a burden to his daughter, they were able to easily develop longitudinal care plans and put care coordination in place, so that their knowledge could be readily shared with Dr. Smith and other providers and sites of care well beyond his hospital stay.

Extending care into the home for independent living

The acute care team's first step was to discharge Albert to a brief stay in a skilled nursing facility (SNF) where he could continue recuperating before returning home. Before, Albert likely would have had to move into an assisted living facility since he was not safe on his own at home. But having the digital ecosystem in place armed his care team with a host of new solutions that could allow him to safely and quickly return home after his SNF stay.



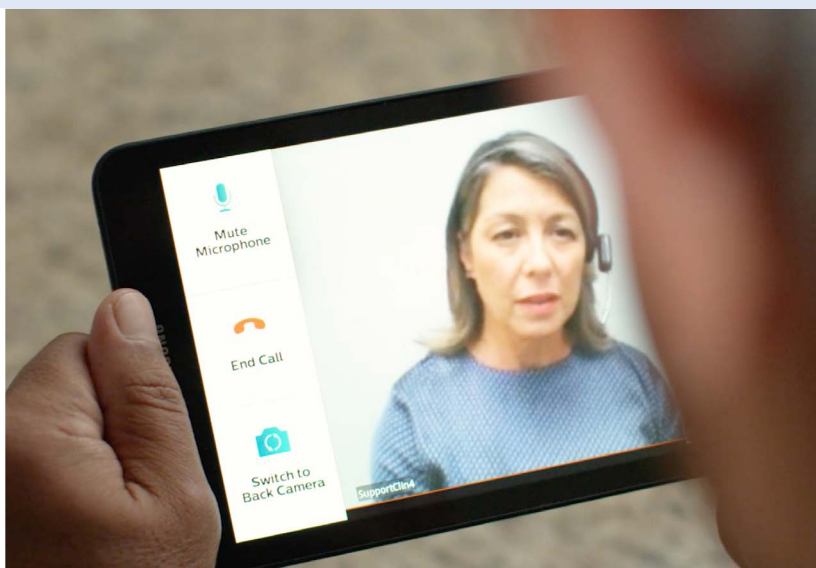
After identifying that Albert would benefit from new post-discharge remote patient monitoring and medication management programs, his care team equipped him with a tablet and Bluetooth devices he could use at home for 30 days to capture his vital signs, respond to surveys, video chat with his care team, and receive further education about

his condition. The team could check in regularly by video call and receive alerts when his blood pressure was out of range based on their protocols.

His care manager recommended that he receive an emergency response pendant that he could use in the event that assistance was needed, whether he was feeling dizzy or had another fall, connecting him to emergency responders around-the-clock, 365 days of the year. Both his physician and Maria received notifications if he had an incident, allowing his daughter and his care team to see the same information.

In addition, the program provided Albert with a medication dispenser that alerts him when it's time to take his pills and that dispenses his medications in pre-sorted packages delivered by mail. He no longer forgets to take his medications or risks taking the wrong ones at the wrong time.

Now, Albert can manage his complex care regimen nearly independently. Maria noticed that his mood improved, and that he was more active with her children again.



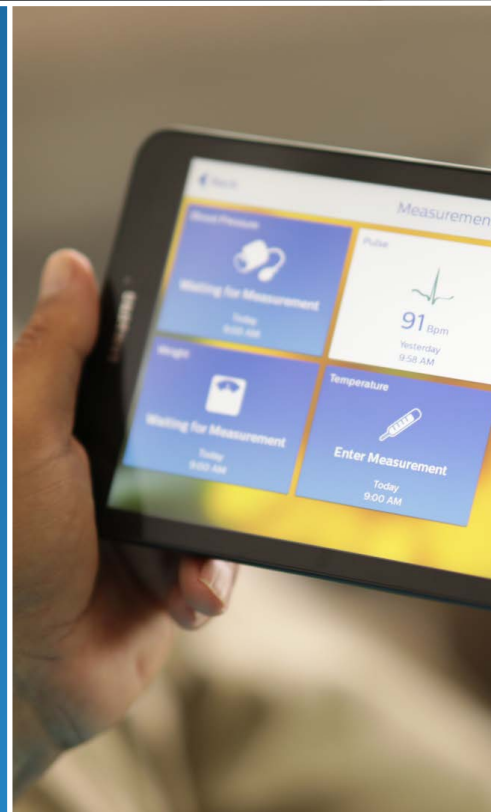


Benefits for providers

Albert's providers have also benefitted from collaboratively managing his care. Dr. Smith and her practice have become more efficient by being able to monitor patients like Albert remotely. Leveraging care protocols allows them to prioritize outreach to identify changes in symptoms and intervene earlier before health events escalate. They now also receive alerts for all ACO patients that surface directly into their EHR, so they can proactively anticipate and mitigate gaps in care. They are pleased to be spending less time coordinating care and managing medical crises.

This has enabled the practice to qualify for bonus payments tied to achieving the Triple Aim and allowed it to consider taking on additional risk contracts next year.

Northern's ACO is also reaping the rewards of these connected digital solutions. Using them to help manage risk and care for its panel of 10,000 Medicare enrollees has been an important factor in its ability to measurably reduce its emergency department (ED) visits and avoidable admissions this year. The ACO can now easily identify and stratify patients by risk, then give its care managers the data and insights they need to proactively navigate patients to appropriate preventive care.



Proactively detecting rising risk

Things have gone well for Albert in the past few months, but the emergency response service identified a changing pattern of use of the service. The predictive analytics solution from Philips helped identify that Albert was at increased risk for emergency transport in the next 30 days.

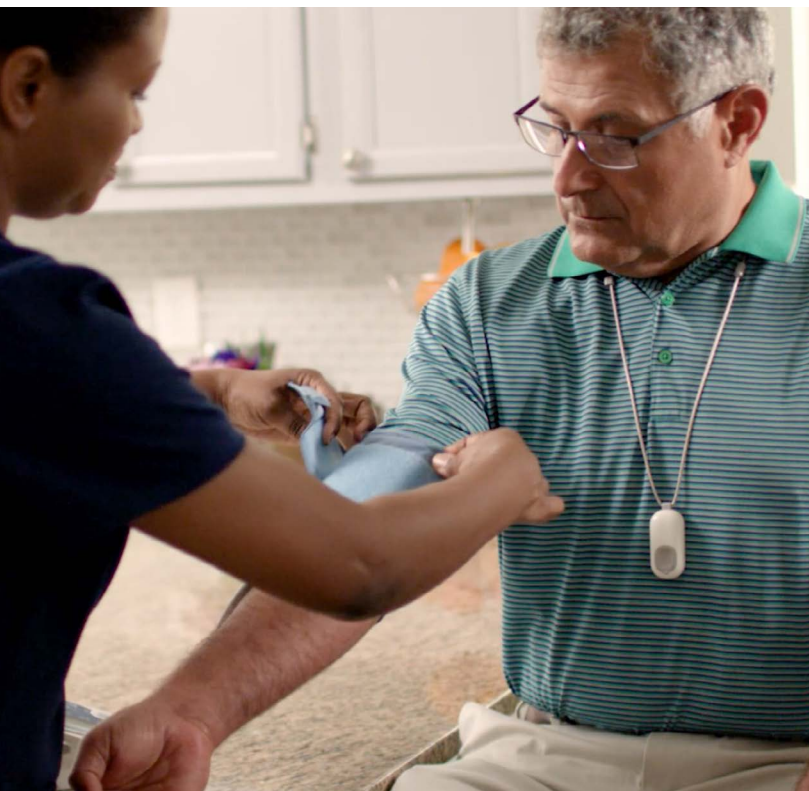
Concerned about this trend, the care manager reviewing the predictive analytics system notified Maria and scheduled a home nursing visit. The nurse found that Albert's blood pressure was low and immediately messaged Dr. Smith, who collaborated with Albert's pharmacist to adjust his blood pressure medication. The new prescription was immediately relayed to the dispensing pharmacy and Albert soon received a new packet of pills for his medication dispenser with the new prescription.

As a result of this prompt intervention, both Albert and his ACO avoided the inconvenience and expense of a potential ambulance ride and ED visit; that also helped his ACO meet one of its goals for this year – reducing the cost of unnecessary ED visits.

The convenience of digital solutions that monitor health and care outside the hospital is helping the ACO to engage enrollees in playing a more active role in their health.

Supported by his family and connected to his care team, Albert no longer fears having to leave the comfort of his home to go to an assisted living facility. This care ecosystem is also supporting Maria in keeping a close eye on her father so she can also juggle the demands of a career and family of her own.

Beyond its innumerable benefits to an older, frailer, high-risk population like Albert, a connected ecosystem of technology and care solutions can help younger, healthier populations improve their health and reduce unnecessary utilization of medical care. [Learn more](#) about the many ways other members of the Roberts family – and their care providers and health systems – are profiting from using Philips connected solutions for collaborative care.



The ACO is also able to improve its bottom line by using the Philips referral management system to keep more patients in network and steer them to 'high performance' providers that deliver measurably high-quality, lower-cost care.

