Overview

The need

To meet its goals for population health and value-based billing, Orlando Health needed to automate patient engagement and unlock patient data across all clinical systems; however, this meant manually scanning through millions of records or relying on outdated claims data

The solution

Orlando Health implemented the IBM Watson Health™ platform as it met all of the IT infrastructure requirements Orlando Health had identified for its population health management (PHM) initiative, including aggregating data from multiple EHRs, and automation to free up healthcare staff to address deeper patient needs

The benefit

Orlando Health generated $6.6 million in shared savings from two ACO contracts; using Watson Health solutions, Orlando Health was able to reach a population of 270,000 people; by using automated outreach and follow-up, Orlando Health increased the amount of gaps of care it closed by 22 percent; and all risk reporting is provided through the Watson Health platform

Orlando Health

IBM Watson Health helps Orlando Health build a clinically integrated network to help promote a healthier community

Based in Orlando, Florida, Orlando Health is one of the state's most comprehensive private, not for-profit healthcare networks. Its 1,780- bed family of eight hospitals serves nearly 2 million Central Florida residents and roughly 4,500 international visitors annually in keeping with the city's reputation as a major tourist center. It is also Central Florida's fifth-largest employer with more than 14,000 employees, including 500 employed physicians.

Building a strategy to transition to value

Government and commercial payers are transitioning from encounter-based reimbursement to new payment models that reward coordination of care and population health management. One of the keys to this transition is verifying the clinical information about their patients is up-to-date.

Orlando Health recognized the trend early and realized it must act to stay ahead of the upcoming changes. Included in its plans was adopting a population health management (PHM) solution working to get all of its primary care providers (PCPs) recognized as NCQA Level 3 Patient-Centered Medical Homes (PCMHs). Yet in reviewing the availability of patient data to use in making the transition to value-based billing, the health system realized it had two options. One was to manually aggregate the records for its large patient population across the various electronic health record (EHR) systems being used by its physicians – which would be impractical from a resource standpoint. The other was to rely on claims data that could be months old, which would be insufficient because much can change in a patient's health over that time.

To overcome these obstacles, Orlando Health implemented IBM Watson Health's PHM platform. Watson Health offered a robust set of solutions to help Orlando Health establish a Clinically Integrated Network (CIN), including acting as a pseudo-health information exchange (HIE) to aggregate data from all the different EHRs, and then automate functions such as building registries, identifying care gaps, engaging patients to close the gaps in care, and running quality performance reports. In one year, and touching more than 270,000 patient lives, Orlando Health was able to increase the number of its diabetic patients who received HbA1c tests by 7 percent; increase preventative mammogram screening by 10 percent and colorectal cancer screening by 9 percent; and increase the number of patients overall who closed care gaps by 22 percent. These successes also allowed the organization to generate $6.6 million in shared savings from two accountable care organization (ACO) contracts in the first year.

Managing a large population

Orlando Health has approximately 3,000 affiliated physicians in primary and specialty care. The health system has been an enthusiastic supporter of the ACO model, participating in the Medicare Shared Savings Plan and Cigna's ACO program since 2013, joining Florida Blue's program in 2014 and AvMed's in 2015. It does so because Orlando Health believes it's the right thing to do for patients. Its commitment to the Orlando community manifests itself not just with the care it provides but also in support of local civic and private organizations.

It was this concern for the community as a whole that first led to Orlando Health's interest in the growing area of population health management. While the health system had been doing an outstanding job of responding to patient needs individually, PHM held the promise of helping it create a healthier community. Moving from a reactive mode to proactively encouraging patients to seek recommended care and close care gaps on the scale required, however, would not be easy.

"Data about our patients is held in several different EHRs that aren't compatible with one another," says Tawnya Adkisson, RN, Director of Care Coordination for Orlando Health. "We needed to be able to see across all clinical systems to get a complete view of the patient. Our claims system could provide that consolidated view, but by the time the data appeared there it could be six months old. Either way, it would take a lot of resources to scan through millions of records manually to narrow the list to the most at-risk patients, identify care gaps, engage with them to set up appointments for the appropriate care and evaluate the program's performance. We did not have those types of resources."

Solution components

Software
– IBM® Phytel Outreach
– IBM® Phytel Coordinate
– IBM® Phytel Remind
– IBM® Phytel Transition

Executives at Orlando Health realized that in order to manage this large population effectively it would need to take two steps. One was to find a way to unlock the data stored in the many different practice management and EHR systems used by its employed and affiliated physicians. The second was to automate as much of the discovery and patient engagement process as possible in order to free up clinicians and other healthcare staff to address deeper patient needs. As they began looking into solutions for each they made a surprising discovery.

"We thought solving these issues would require two separate projects," says Adkisson. "When we found a single solution that could meet both needs – it was a huge win."

"You don't find a lot of health IT companies that care as much about their customers as we care about our patients. But Phytel definitely falls into that category. They are simply an outstanding company."

– Tawnya Adkisson, RN,
   Director of Care Coordination for Orlando Health

Establishing the base

After a review of multiple options in both areas, Orlando Health realized that the IBM Watson Health platform met all the requirements Orlando Health had identified for its PHM initiative. Work began in November of 2012.

The first step was to use the IBM Watson Health platform to establish the technology foundation of Orlando's CIN, with Watson Health essentially acting as an HIE. The Watson Health platform has the ability to interface with and accept data from the multiple EHRs and practice management systems used by and within Orlando Health's employed and affiliated physicians, creating a single reference source for patient data across all providers who participate in its clinically integrated network arrangement. One of the challenges was validating that the workflows enabled the proper data to be captured.

"Dictated notes don't show up as discrete data in the proper fields in the EHR," Adkisson says. "We had to make sure everything that was being done was captured and mapped properly so Phytel could pull it and we could use it for PHM and reporting purposes. Especially since Phytel would be our only source of Group Practice Reporting Option (GPRO) reporting for the MSSP. It involved a lot of mapping between the systems, and a lot of training of our clinicians."

With that capability in place, the next step was to begin building patient registries for patients who met certain criteria, such as having chronic conditions (including multiple morbidities) or those who fit the recommended parameters for preventive screenings such as mammograms or colorectal exams.[1]

"Trying to accomplish this identification process alone through manual means would have been overwhelming," Adkisson says. "It takes a long time to scroll through individual health records to see what each patient needs or what care gaps they have. With Phytel solutions we put in the parameters we wanted examined and the record review all happened behind the scenes. It brought all our EHRs together as one, then highlighted where the care gaps were."
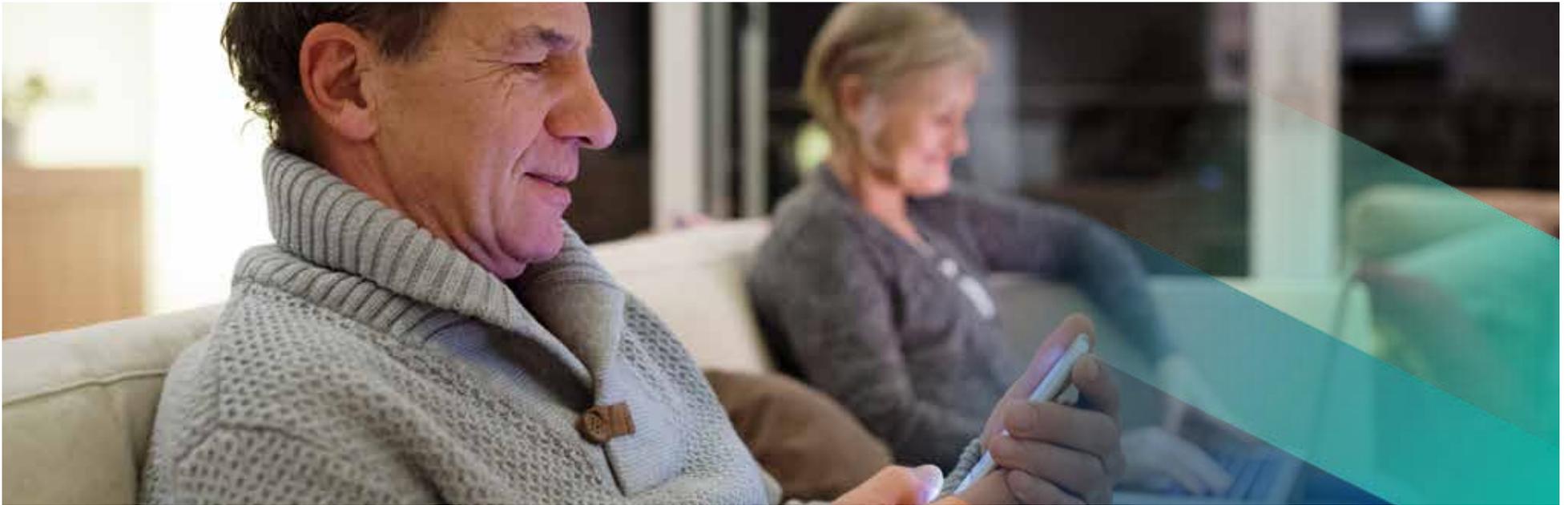
Automating outreach

With the patients identified, Orlando Health used Phytel Outreach to contact patients who consented via mobile technologies, including phone, email and text. Messages were sent informing patients of care gaps, both for chronic conditions and missing preventive screenings, with the recommendation they contact their PCP to schedule an appointment. As schedule appointments approached, Phytel Remind generated automated reminders.

"With these proactive contacts and reminders, patients are more likely to show up for scheduled appointments, which impacts their lives as well as our ability to take advantage of shared savings," Adkisson says.

One example of how the program worked comes from patients with chronic obstructive pulmonary disorder (COPD). Evidence-based guidelines show the best-managed patients visit their PCP every six months. Those who are beyond the six-month timeframe are at higher risk for a hospital admission.

"Because Phytel Outreach is constantly mining our EHR, it can look back and see that a patient hasn't been seen in the last six months and that she's not scheduled for the next two months," Adkisson says. "Provided patients have consented, it will then generate an automated call to the patient saying 'this is your doctor's office, please call us.' When the patient calls we can look at the Phytel dashboard, see the issue, tell the patient we want to make sure they are feeling okay today and that based on the recommended intervals for COPD it's time to schedule an appointment."

Changing patient behaviors

Orlando Health launched the program by using the Watson Health platform to identify a list of more than 270,000 lives with some form of care gap, whether it was around a chronic condition such as diabetes, or being overdue for preventive care.

By utilizing IBM Watson Health, Orlando Health was able to point to outstanding results, including:
- 7 percent increase in diabetic patients who had current HbA1c tests
- 10 percent increase in preventive mammograms
- 9 percent increase in preventive colonoscopies
- 15 percent increase in falls-risk screenings
- 10 percent increase in patients who were screened for depression and had a plan of care developed to address it
- 22 percent overall increase in the number of patients who took action to close a care gap after receiving a Watson Health communication

While the numbers are impressive, it is the impact on actual people that Adkisson finds most gratifying.

"The Phytel solution identified one woman who was out of range for a mammogram based on customer-provided search criteria, and we then used the Phytel Outreach solution to generate an automated patient outreach," she explains. "When she came in we learned that she'd previously discovered a lump in her breast but had ignored it until she received the call. The lump was found to be malignant, and we were able to do a lumpectomy that preserved some of the tissue while avoiding a major, aggressive course of action. Even though she lived next door to the doctor she said if she hadn't received the call she may not have done anything about it. Who knows what would have happened then? This technology made a difference in that individual's life."

Shared medical appointment program yields incredible improvements

The IBM Watson Health platform was also used to launch a pilot program focused on getting Orlando Health's sickest patients to participate in shared medical appointments. In this program, a cohort of patients who share chronic co-morbidities that may be modified through lifestyle changes are brought together for 90-minute monthly group appointments that provide education and support from their physician as well as a nurse care coordinator, dietitian, exercise physiologist, pharmacist or any other healthcare professionals the patients require. The meeting also provides the opportunity to close care gaps while they're there. The idea is to use the group setting to make the appointments less intimidating, and to focus on what's important to the patients. In this manner, patients are engaged in the learnings and are able to achieve goals they set for themselves.

"We started by asking one physician to identify patients with high LDL scores that he thought might be interested in participating in the program," Adkisson says. "We then supplemented that list by sending out a mass communication via Phytel Coordinate to other patients with high cholesterol that had been identified."

The pilot attracted 18 patients, all of whom shared multiple co-morbidities such as diabetes, hypertension and obesity. After a year in the program, the patients saw decreases in weight, blood pressure, and HbA1c and LDL levels.

Financial impact from shared savings

While Orlando Health strongly believes in PHM as the right thing to do for patients, its original purpose for looking into the Watson Health platform was to help it transition more readily to the world of value-based billing. This area, too, has been highly successful.

Orlando Health was able to generate a shared savings from its two ACO contracts in 2013, leading them to initiate a third contract in 2014 and a fourth in 2015. More are expected as the program continues to move forward. The health system currently is using the Watson Health platform for all of its required risk reporting, yielding additional savings over having to implement or run separate reports.

The IBM Watson Health platform has also been instrumental in helping Orlando Health reach its goals for certifying its PCPs as PCMHs. A number of Watson Health products are pre-validated by NCQA to receive significant autocredit points for specific PCMH 2014 factors. In addition, using these NCQA pre-validated tools eliminates the need to submit separate documentation for factors eligible for autocredit. Many other Watson Health-enabled functions, when executed by the care team and quality leaders, help enable visible and consistent compliance with important elements related to team-based care and population health. As of Q1 2015, all but two have met Level 3 criteria, which is the highest certification the National Committee for Quality Assurance provides.

The effectiveness of the PHM program has had another residual effect as well. As local PCPs learn about Watson Health's ability to aggregate EHR data across platforms, more are requesting to become affiliated with the health system.

Great working relationship

The results the organization has generated is not the only thing that has kept Orlando Health delighted. The team also has high praise for IBM Watson Health's dedication to customer service – especially when it comes to dealing with updates.

"Every time our various EHRs get updated, it can cause problems with the mapping between the EHRs and Phytel software," Adkisson explains. "But we have a simple solution for it. We call Phytel and they take care of it quickly. You don't find a lot of health IT companies that care as much about their customers as we care about our patients. But Phytel definitely falls into that category. They are simply an outstanding company."

IBM Watson Health population management platform product distinctions support the ability of healthcare providers to:
– Create a methodology for population health management
– Create a clinical information network to aggregate data from disparate EHRs and providers, acting as a pseudo-health information exchange
– Identify gaps in recommended care across a patient population
– Utilize automated outreach, which uses customer-provided criteria (e.g., missed or overdue appointments, overdue necessary tests, etc.) to help identify patients with care gaps and then use the Watson Health platform to generate automated outreach to the patients, encouraging them to set appointments
– Generate automated reminders to patients about upcoming appointments
– Enable their technology to help PCPs become certified as PCMHs
– Create the foundation for participation in government and commercial payer shared savings plans

In conjunction with using IBM Watson Health solutions, Orlando Health was able to achieve the following:
– Percentage of all adult female patients receiving preventive mammogram screenings increased by 10 percent in the first year
– Percentage of all patients over 50 years of age receiving preventive colonoscopy screenings increased by 9 percent in the first year
– Percentage of elderly patients receiving falls-risk screening increased by 15 percent in the first year
– Percentage of patients who received depression screening and a follow-up plan increased by 10 percent in the first year
– Nurse and non-clinical care manager time spent on patient care rather than manually searching patient records for care gaps
– All reporting to MSSP is provided through Watson Health

Solution components

IBM® Phytel Outreach

IBM® Phytel Coordinate

IBM® Phytel Remind

IBM® Phytel Transition

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About IBM Watson Health

In April 2015, IBM launched IBM Watson Health and the Watson Health Cloud platform. The new unit will work with doctors, researchers and insurers to help them innovate by surfacing insights from the massive amount of personal health data being created and shared daily. The Watson Health Cloud can mask patient identities and allow for information to be shared and combined with a dynamic and constantly growing aggregated view of clinical, research and social health data.

For more information on IBM Watson Health, visit: ibm.com/watsonhealth.

Notes

[1] 1 The protocols and measures for the Phytel solutions are built off of best practice evidence-based guidelines that review and stratify a patient's data. A few organizations our evidence-based guidelines are drawn from and align with include the following: American College of Preventive Medicine (ACPM); American Diabetes Association (ADA); American Heart Association (AHA), National Institutes of Health (NIH); National Committee for Quality Assurance (NCQA) and HEDIS.

WH 18566 1117

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