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3M Health Information Systems

Case study:

CMO: Montefiore Care Management

Bronx, New York

"Our work with 3M Health Information Systems and the ability to collaboratively create meaningful, actionable information and analytics is not only helping us respond to program incentives and new initiatives, it better positions us for the future, which is increasingly value-based."

– Henry Chung, MD, vice president and chief medical officer, CMO: Montefiore Care Management

Snapshot of Montefiore Care Management

Montefiore Health System is an academic health system serving the Bronx and Westchester County. Its care management organisation (CMO) works with a network of nearly 4,000 physicians and ancillary providers who provide care to a variety of private and government-sponsored health insurance programs. Through the CMO, Montefiore provides care management for approximately 450,000 individuals.

Montefiore and Montefiore Care Management participate in several healthcare reform initiatives. In 2011, the Montefiore Accountable Care Organisation (ACO) was selected to participate in the Pioneer ACO Model program, an initiative sponsored by the Centers for Medicare & Medicaid Services (CMS). As a Pioneer ACO, the Montefiore ACO provides traditional, fee-for-service Medicare beneficiaries with higher quality care while reducing expenditures through enhanced care coordination. Besides being one of the first Pioneer ACOs in the U.S. and the only one in New York state, the Montefiore ACO has consistently been one of the top-performing Pioneer ACOs in the country.

3M products used by Montefiore Care Management

- 3M™ Population-focused Preventables Software
- 3M™ Potentially Preventable Readmissions (PPR) Grouping Software
- 3M™ Clinical Risk Groups (CRGs)
- 3M℠ Healthcare Transformation Suite

Measuring ACO success

Under CMS' Pioneer ACO Model program, participants are required to report on quality and patient satisfaction measures as well as lower the costs to the Medicare program. To be successful, the Montefiore ACO needed to:

- Target at-risk members for care management
- Measure quality of care and health outcomes
- Quantify program costs and savings
- Determine the effectiveness of its care management programs

The Montefiore ACO needed robust analytics to achieve these tasks. While CMS provides Medicare Pioneer ACOs with claims data, it is only raw data. Montefiore had to turn this overwhelming amount of data into useful information, so they turned to their current partner, 3M Health Information Systems (3M), for help. Together, the two organisations developed analytics that helped the Montefiore ACO measure quality performance and total cost of care (TCC).

For the three performance years, the Montefiore ACO was able to show that it improved the quality, outcomes and cost of care for Medicare patients in the program.

Montefiore ACO performance year two: Actual versus expected overall PPR rates
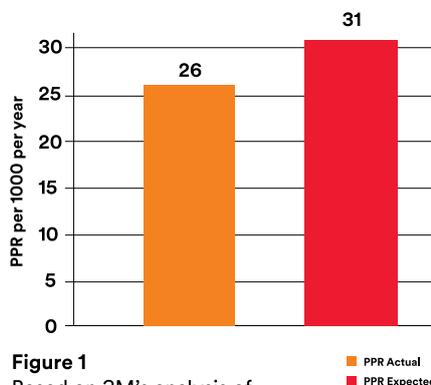

Figure 1
Based on 3M's analysis of Montefiore CMO's data, the ACO's actual rate of overall PPRs was lower than expected for the program's second year of operation.

Montefiore ACO performance year two: Actual versus expected overall PPR rates for select chronic conditions
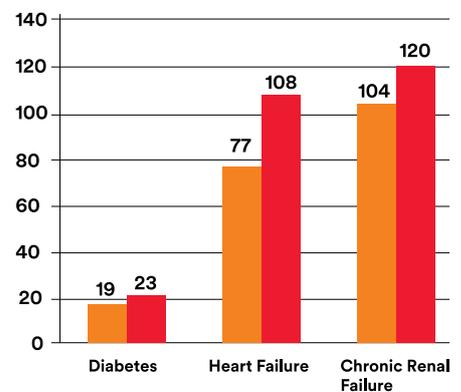

Figure 2
Based on 3M's analysis of Montefiore CMO's data, the ACO's actual rate of PPRs for diabetes, heart failure and chronic renal failure was lower than expected for the program's second year of operation.

Paying attention to preventables

To stay ahead of CMS' quality standards for Medicare Pioneer ACOs, the Montefiore CMO manages potentially preventable events (PPEs). Specifically, they track potentially preventable readmissions (PPRs), potentially preventable ED visits (PPVs) and potentially preventable admissions (PPAs). PPEs give them clinically relevant, risk-adjusted data to inform their care management strategies, keeping members healthy and out of the hospital, and helping those with chronic illnesses manage their diseases.

Using 3M's PPE solutions and analytics from the 3M℠ Healthcare. Transformation Suite, Montefiore was able to demonstrate that its ACO successfully lowered PPRs and PPVs. This held true for PPRs and PPVs overall, as well as for the at-risk Medicare populations with diabetes, heart failure, and chronic renal failure (*see Figures 1–4*).

"This information was invaluable in assessing the overall effectiveness of our programs for the older adult group," says Henry Chung, MD, vice president and chief medical officer, Montefiore Care Management. "But, perhaps more importantly, it let us dig deeper and identify what was working for at-risk populations, such as those with diabetes or heart failure."

"While our rates for PPRs and PPVs were lower than expected, we found out that our rates for PPAs were higher than expected," notes Chung. "After a deep dive into the data, we believe this may have been linked to Medicare patients without a strong primary care physician (PCP) connection. This has led us to increase our outreach efforts to encourage patients to receive primary care preventive services with a PCP instead of using specialists exclusively for their medical care."

A closer look at cost of care

In addition to measuring quality and health outcomes, the ACO also tracks TCC for its attributed population. This showed that the ACO's focus on care coordination, quality of care, and health outcomes led to an average gross savings of nearly 6 percent over the first three years.

Zeroing in on at-risk members

In addition to its Pioneer ACO, the Montefiore CMO is using the data to provide prompt care for at-risk patients outside of its ACO population. The CMO team developed a way to combine electronic medical record (EMR) and claims data. They use this data to identify patients with chronic conditions, multiple chronic conditions, and a need for intensive care management. With this information, case managers use a set of criteria to target at-risk patients, conduct outreach, do a baseline assessment, and match patients to appropriate care management resources and programs.

Recognising the importance of risk adjustment, Montefiore CMO's next step is applying 3M™ Clinical Risk Groups (CRGs) to further segment and target its membership, particularly those with high costs and high rates of preventable services.

"It's a robust system for categorising every member in a fairly unique, hierarchical way," says Dr. Chung. "Because 3M CRGs are categorical, they offer providers the information they need to determine what is happening with a patient."

Montefiore ACO performance year two: Actual versus expected overall PPV rates
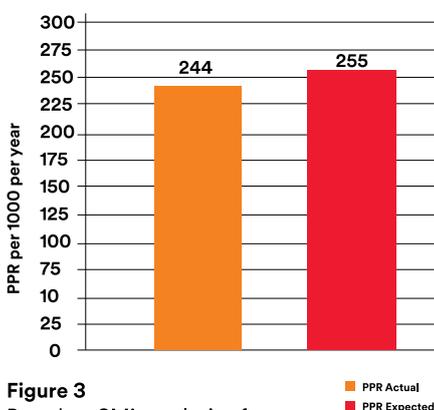

Figure 3
Based on 3M's analysis of Montefiore CMO's data, the ACO's actual rate of overall PPVs was lower than expected for the program's second year of operation.

Montefiore ACO performance year two: Actual versus expected PPV rates for select chronic conditions
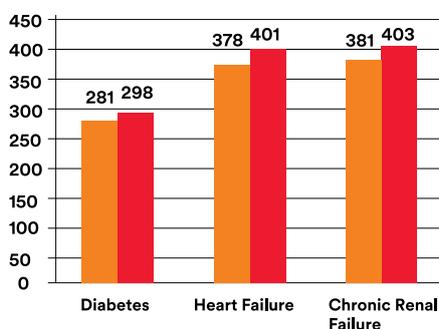

Figure 4
Based on 3M's analysis of Montefiore CMO's data, the ACO's actual rate of PPVs for diabetes, heart failure and chronic renal failure was lower than expected for the program's second year of operation.

The Montefiore CMO has also used 3M CRGs for several research initiatives. These studies uncovered members with end-stage renal disease (ESRD) and behavioral health diagnoses who weren't currently in a care management program, but who should be more closely managed.

Getting down to the patient level

What's next? With the application of 3M CRGs to their at-risk population, the Montefiore CMO will be able to support providers with patient-level data and strengthen their care management programs.

"We've been intrigued by the use of the 3M CRG methodology and the new perspective it offers," says Urvashi B. Patel, PhD, MPH, senior director and chief data scientist, Montefiore Care Management. "The risk-adjustment nature of 3M CRGs and the capability to drill down to the patient level are among the key reasons we will be employing them in our data mining and data strategies moving forward."

Today, the Montefiore CMO is collaborating with 3M to develop reports within their 3M℠ Informed Analytics Platform. These reports provide critical information for a number of projects underway at Montefiore CMO, such as improving quality measures, examining PPAs, and addressing high-cost members and one-day stays. One report in particular examines metrics by payer. It includes general membership characteristics, which encompass every type of disease category, as well as trends in PPEs and TCC.

"Data transparency gives our providers and colleagues the ability to examine what is happening with patients—and why," says Dr. Chung. "This not only informs our programs and strategies, but offers a granular look at patients so we can change or intensify a treatment or care management approach—something more and more value-based initiatives require. For example, it will help us identify an individual with poorly controlled diabetes who also has a behavioral disorder that is not being adequately treated."

"Our work with 3M Health Information Systems and the ability to collaboratively create meaningful, actionable information and analytics is not only helping us respond to program incentives and new initiatives, it better positions us for the future, which is increasingly value-based," says Dr. Chung.

Call today

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3M

3M Health Information Systems
3M United Kingdom PLC
3M House
Morley Street
Loughborough
LE11 1EP

0800 626578
sales.his.uk@3M.com

www.3M.co.uk/his