Maximize the value of your COPD population health programs with advanced analytics

OPTUM™

Analyze your patient population

Bend the cost curve: Learning more about your patients can lead to higher-quality care

As providers assume more risk, population health management (PHM) is being looked to as a way to improve the quality and delivery of health care and control costs. As part of this strategy, providers are expanding their chronic disease management programs into their communities and proactively monitoring and interacting with the populations they serve.

Underlying the success of these programs is the effective use of advanced analytics. With the help of sophisticated tools that scrutinize longitudinal claims and clinical data, for instance, providers are getting a more robust view of their patients with chronic obstructive pulmonary disease (COPD). They are identifying patients who haven't been seen regularly, or who whose health metrics are outside acceptable limits, and finding ways to more intensely manage them.

Foster change leadership, and a culture of data, before launching initiatives

Population health management starts with building a coalition of leaders to lead PHM initiatives. This may include a steering committee and the engagement of a range of disciplines spanning areas that are critical to success.

For example, before tackling chronic disease management, Cornerstone Health Care — a multi-specialty clinic in the Piedmont Triad region of North Carolina — convened workgroups to design processes and define measures. They focused on an automated system for outreach and patient engagement. The physician-led group began by educating and aligning its entire staff on the same clinical pathway.

For population health management to succeed, organizations need to do more than lead from the top down. They also need to cultivate a bottom-up cultural change by encouraging trust in their data. The Mayo Clinic Health System (MCHS), for instance, has engendered trust among physicians by offering training for those who use data to improve decision making. The integrated system also established governance mechanisms to ensure that priorities are aligned with capabilities and that data are used properly.

PHM

IMPROVE HEALTH CARE QUALITY

IMPROVE HEALTH CARE DELIVERY

CONTROL COSTS

Leveraging advanced analytics

With the help of sophisticated tools that scrutinize longitudinal claims and clinical data, providers are:

- Getting a more robust view of their COPD population

- Identifying patients who haven't been seen regularly

- Identifying patients whose health metrics are outside acceptable limits

- Finding ways to more intensely manage these metrics

# Predict the future: Are your patients at risk of being hospitalized?

Better managing patients with COPD means having a fuller picture of their health — including predicting their risk for future complications and more accurately targeting interventions.

In 2010, the cost to the nation for COPD was approximately $49.9 billion, including $29.5 billion in direct health care expenditures, $8 billion in indirect morbidity costs and $12.4 billion in indirect mortality costs.[1] It is a major cause of hospitalizations in the United States. But much of the cost and harm to quality of life caused by COPD can be prevented. Organizations can do so by applying advanced analytics to gain a deeper understanding of COPD patients and implement a plan for concerted intervention.

Advanced analytics enable organizations to gain valuable insight into critical diagnostic factors such as pulmonary function tests (PFTs); Global Initiative for Chronic Obstructive Lung Disease (GOLD) criteria; existence of comorbidities or complications such as asthma, frequent bronchitis or pneumonia and chronic hypoxemia; adherence to recommended vaccination guidelines and whether patients are on appropriate combinations of inhalers and oral medications.

Natural language processing (NLP), for example, can enhance the capture of symptom and PFT results. The technology is able to extract reportable data points from PFT reports — which are usually unstructured — giving organizations an exceptionally sharp focus on the clinical status of patients. Such information, in turn, can guide care coordination efforts.

In addition to identifying and acting on gaps in care, organizations can use analytics to track clinical, operational and financial performance. Dashboard reports, for instance, can provide valuable insight into clinical performance, laying the groundwork for initiatives designed to promote physician adoption of evidence-based medicine and drive improvements in quality, safety and efficiency. Gaining access to comprehensive longitudinal data can also help providers benchmark their practices against other practices across the country.

$49.9 billion

$29.5 billion was in direct health care expenditures

2010 TOTAL COST OF COPD
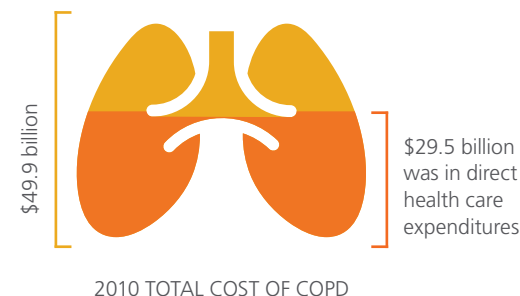
Organizations can use longitudinal data to:

IDENTIFY AND ACT ON GAPS IN CARE

TRACK CLINICAL, OPERATIONAL AND FINANCIAL PERFORMANCE

BENCHMARK THEIR PRACTICES AGAINST OTHER PRACTICES ACROSS THE COUNTRY

Predict the future: Are your patients at risk of being hospitalized?

Segmenting a patient population lays the groundwork for devising effective care management and patient engagement programs. For many organizations, this has included retooling their approach from a reactive model to one that is driven by predictive, proactive intervention and care.

Anceta — the American Medical Group Association's collaborative for improving population health through comparative clinical analytics — mines and compares data to understand how the highest-performing organizations achieve superior outcomes at a lower cost.[2] Focusing on ambulatory care for patients with chronic conditions such as COPD, Anceta has found a consistent theme emerge from its data: while there is some variation in clinical outcomes among its medical groups, there is far more variation in the care they provide, which directly relates to the overall cost.

Among the 6.8 million patients of the 18 medical groups for which Anceta has data, about 10 percent have COPD and/or a related condition such as chronic bronchitis, asthma or emphysema. By combining clinical and claims data together, Anceta is seeing in detail significant variance in coding, diagnostic strategies and treatment approaches, both within medical groups and across medical groups. By using advanced analytics, Anceta is helping its member groups understand their behavior in relation to the clinical disease evidence and pave the way for improvement.

For example, a closer look at the groups' use of ICD-9 49x.xx codes — which are important denominators for rates such as hospital admissions or ED visits per 1,000 patients — revealed marked variance within coding behavior. Within the 49x.xx codes, for example, 72 percent of one group's 65 and older patients were shown as having COPD — or COPD and a related condition. Yet another group's codes showed only 32 percent of its 65 and older patients having COPD, or COPD and a related condition.

Through advanced analytics, Anceta:

DISCOVERED 10% OF THEIR 6.8 MILLION PATIENTS HAVE COPD AND/OR A RELATED CONDITION

FOUND SIGNIFICANT VARIANCE IN CODING, DIAGNOSTIC STRATEGIES AND TREATMENT APPROACHES

IS HELPING ITS MEMBER GROUPS UNDERSTAND THEIR BEHAVIOR AND PAVE THE WAY FOR IMPROVEMENT

Stratify patients by risk to more effectively coordinate care

Working with clinicians and care coordinators, physician practice leaders at Sentara Medical Group, for example, used risk scores to identify patients with COPD and other chronic conditions who were at highest risk for an impending hospitalization. These patient samples were then reviewed with their primary care physicians in order to provide an in-depth understanding of the populations at risk.

Sentara, which has 380 primary care and specialty care physicians in Virginia and North Carolina, chose to first focus on patients who fell in the 90th percentile risk category for chronic conditions. Sentara's quality team was then able to expand the threshold to include patients in the 80th percentile risk category to increase opportunities for intervention. By leveraging the information in their patients' profiles, physicians were able to identify patients for outreach, as well as recognize and act on critical changes in patient care or outcomes.

To date, Sentara's efforts around proactive intervention have been successful. At one three-provider practice alone, 44 patients were identified as high risk. Of this group, only one of those patients had been part of previous high-risk patient lists. The practice reviewed the other patients and has since been able to engage more than 50 percent of the eligible group in care coordination programs.

San Francisco Bay Area-group Brown & Toland Physicians has used its data to create a working registry that in-house care coordinators use to target outreach to high-risk patients. Thirty to 40 percent of each day's schedule is held for same-day or next-day appointments so that patients identified as having gaps in care can be seen quickly. Patients with uncomplicated problems can be seen in 10-minute "quick sick" appointments. As a result, wait times for patients have dramatically improved.

Providers who use PHM principles to manage their patients with COPD are going to be ahead of the curve as the industry continues its march toward value-based reimbursement. Leveraging advanced analytics to create more comprehensive risk profiles for patients will better position providers to make the transition from treating illness to managing health.

SENTARA

For more than a decade, Modern Healthcare magazine has ranked Sentara as one of the nation's top integrated health care systems. They are a national leader in heart and kidney care, stroke care, and infection prevention.

BROWN & TOLAND HEALTH SERVICES

Known for excellent clinical care and innovation in the San Francisco Bay Area, Brown & Toland was one of the first medical groups in the nation to deploy integrated electronic health records (EHR) in a private practice setting. It was selected as a Pioneer Accountable Care Organization (ACO) in 2011 and is now leading transformation through its patient-centered medical home, My Health Medical Group (MHMG), which uses Optum health care analytics.

leveraging advanced analytics

TREATING
ILLNESS

MANAGING
HEALTH

SOURCES

[1] American Lung Association. Chronic Obstructive Pulmonary Disease (COPD) Fact Sheet, 2013. http://www.lung.org/lung-disease/copd/resources/facts-figures/COPD-Fact-Sheet.html. Accessed January 27, 2014.

[2] American Medical Group Association. Research and Benchmarking, Anceta. http://www.amga.org/AboutAMGA/CF/Anceta/index_anceta.asp. Accessed February 18, 2014.

CONTACT

800.765.6619
discover@optum.com
optum.com/analytics