Identifying population risk in new members requires aggregated health status data.
As new enrollees flood in from growing public exchanges and expanded Medicaid programs, health plans are seeking to assess member health to align appropriate interventions and to better predict costs. But in order to do so effectively, they need access to as much information as possible. Using the aggregation of multiple data sets — including claims-based data and health risk appraisal (HRA) data — plans can categorize risks more effectively than using claims data alone, according to Gus Gardner, group president, Optum®. When plans try to answer the question, “Who will be our high-cost members next year?” they will find that “Two percent of the population incurs 40 percent of the costs, and half of the 40 percent in the high-cost cohort had minimal or no claims engagement in the prior year,” Gardner said at a recent Optum Perspectives webinar, “How to Assess Population Health by Aggregating Multiple Data Sets.” “What does that mean? That the critically ill are not seeking care or perhaps are naïve about their new plan,” Gardner continued, adding that “no claims equal invisible risk.” He explained that although biologic function information is a good measure of health, these data “are hard to acquire and harder to organize, normalize and interpret.” Further, he said, “If there are no claims, it would be reasonable to assume that there are little to zero clinical data.”

Patient-centric assessment approach supplements existing data

To solve for this problem, Optum has taken a patient-centric approach to determining and measuring good health. “We have looked to patient-reported functional health and well-being measurement [in the absence of clinical data] and devoted years to making these measures valid, reliable and statistically meaningful,” Gardner told webinar attendees. He noted that these measures have been used as endpoints in more than 8,000 clinical trials and their results have been published in more than 22,000 peer-reviewed journal articles.

“Traditional HRAs tend to measure risk in the future, and not necessarily in an actionable window to detect a problem, intervene and avoid suboptimal outcomes, such as hospitalization or institutionalization,” Gardner explained. Optum tools — such as the SF Health Surveys — measure functioning status, well-being, emotional distress, energy, work impact and disease burden; use standardized, norm-based scoring so that outcomes are comparable across groups, conditions and populations; and are benchmarked against age, gender and condition-specific norms. (See Figure 1)

Figure 1

Using the SF Health Surveys to predict outcomes

Using the aggregation of multiple data sets — including claims-based data and health risk appraisal (HRA) data plans can categorize risks more effectively.

— Gus Gardner
Group President, Life Sciences, Optum

Expert presenters
Gus Gardner, Group President, Life Sciences, Optum
Deborah Lange, MS Senior Director, Business Solutions, Optum
Optum uses a norm-based model to provide context, according to Gardner, because without context, scores lack meaning. “A thermometer is a glass tube filled with mercury,” he said. “Without hashtags, there is no context. Interpretation without scale has limited usefulness or actionability.”

The SF Health Surveys adds predictive value to claims using patient-reported health status is recommended because it takes “a standardized view of burden, risk, probability of utilization, frailty and mental health, and the probability of using behavioral health services and [puts those] into an interpretive report,” he stated. “These scores correlate well with things like utilization,” he continued. “Using them, you are able to assess risks in real time…which is very helpful to offset the latency of claims-based modeling.”

For example, Gardner described a patient whose health status was identified as below the norm on a physical component summary. This patient had asthma but had not been prescribed medications. After prescription medicine treatment intervention, the patient improved enough to see a 50 percent reduction in physical disability, a 33 percent reduction in hospitalization, lower expenditures, and a bump up much closer to the norm.

Measuring health from the patient’s point of view

Because insight about the member’s health status is critical to proper stratification, it is important to go straight to the source by directly engaging members using health surveys that are conducted in several ways: online/electronically, paper/mail, over the telephone and at the point of care assessment.

Measuring health status helps:

- Capture health burden from chronic disease
- Identify members at high risk for adverse outcomes
- Predict probability of near-term utilization (e.g., hospital readmissions and use of health care services)
- Identify frail members at high risk of falls
- Screen for depression and other emotional distress
- Monitor members’ physical functioning, activities of daily living and emotional well-being
- Quantify population and individual wellness for intervention and behavioral change initiative
- Identify negative health trends using longitudinal score analysis and normative data comparisons (better/same/worse comparison to established norms)

Real-time reports provide an at-a-glance view of each member compared to national norms, Gardner said, which facilitate doctor-patient communication.

Case study: Learning more about the dual eligible population

Deborah Lange, senior director, Business Solutions, Optum, shared a case study during the webinar that demonstrated the value of using a claims-based analytic modeling solution combined with HRA data. She explained that a plan approached Optum to help it navigate a three-year demonstration project designed to better understand dual eligible beneficiaries.
The mission of the project is to implement a managed care solution — using a single, organized delivery system — that would identify and manage high-risk members by:

- Screening members for intervention
- Risk-stratifying members upon enrollment using medical history claims data
- Implementing a comprehensive, state-approved HRA to identify patient needs
- Informing the Integrated Care Management Team and monitoring health outcomes

“We had the opportunity to utilize [the plan’s] historical information — claims data and HRAs — and to screen members to determine who needed help the quickest,” Lange said. “Then, we could dig deeper using enhanced claims data and new HRA data as it became available.” Optum created a patient-centric risk repository to collect the disparate data so they could be used to identify risk and track outcomes.

The detailed process of identifying HRA priority and care levels using claims data, and then refining the care level using HRA data, resulted in recommended care levels (RCLs) for medical, behavioral and social needs. (See Figure 2) The three domains then were combined into one overall RCL, according to Lange.

“Not only did we give the plan the RCLs, but also all of the data behind them”, she said. “And, although care management staff is trained to focus on an overall care level [suggested by the analytics], they also receive the ‘how did we get to that answer,’ in case it influences any adjustments they want to make to different intervention strategies with a particular member.”

Optum also employs sophisticated analytics that integrate data, which gave the plan a single place to go to access data and generate reports using health management dashboards. Integrated analytics can leverage both claims-based predictive modeling and survey-based risk assessments, increase accuracy, paint a more complete picture of the patient, assess changing health status, and create a patient repository for operations and research, Lange said.

“Most of us are used to claims-based systems whether or not they contain predictive modeling features,” she stated during the webinar. “With the advent of a tool like the SF-12®, we have a whole new opportunity to begin collecting and analyzing information about members.” She noted that even though Optum is in the early stage of this three-year project to learn more about dual eligibles, “we are very hopeful that we will have truly influenced the health care cost and quality in this particular population.”

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**Figure 2**

*Identifying recommended care level (RCL) using claims and HRA*

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**How Optum can help**

Optum helps health plans:

- Stratify populations
- Predict future risk (cost)
- Identify evidence-based gaps in care
- Deliver more targeted health services to members and compare performance to industry benchmarks

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