Case Study

Using LexisNexis® Analytics, Geisinger Health Plan Case Managers Staff Clinics, Create Model Program That Has Gained National Attention.

For Geisinger Health Plan (GHP), it's all about knowing where to point your case managers. The life-, health- and cost-saving interactions of these health plan nurses with patients and providers serve as the special ingredient in an important innovation that Geisinger undertook with its large primary care practices.

Sent out to serve as part of the staff of community clinics owned by Geisinger Health System across northeast and northcentral Pennsylvania – and as part of the system's model "Medical Home" program – this cadre of case managers has dropped hospital admissions for entire practice populations by approximately 15 percent, positively influencing medical expense for Medicare populations. Other sites in its system were clamoring for similar case-management assistance, and the program has since rolled out to 37 unique practices who have embedded case managers.

What's Geisinger's recipe for success? According to the staff, one very important component is the use of predictive modeling with a health plan that provides its nurse case managers with one of the foremost tools for producing patient-risk panels, LexisNexis® Population Health Monitor. And with over 220,000 patients in the plan, in more than 40 counties, Geisinger Health Plan has a formidable population management responsibility. Says its Vice President of Health Services, Janet Tomcavage, RN, MSN: "With so many patients to manage, the question is where do you find the most value from this level of resource – nurse case managers – so that they have the maximum impact."

Need for Robust, Validated Selection

In the mid-1990s, GHP increased its focus on managing populations with targeted disease-management conditions. Nearly 10 years later, though, most of its limited methodologies remained internally developed and it had not sought outside tools or consultation. As a result, its process of referral for disease management remained heavily, and overly, dependent on physician referral.

"We also used pieces of our claims system for a kind of poor-man's disease-management system," recalls Tomcavage. "We saw good impact on many individual outcomes, such as improvements in A1C [test of average blood glucose control in diabetes] and blood pressure, but had difficulty consistently demonstrating a positive ROI for this activity."

Thus, GHP had begun to manage diseases, patients and care, but not with a selection process that gave it the efficiency to manage costs across populations. The health plan knew the value that nurses in this role could bring to primary care, but questioned whether it had an adequate process to identify the right patients – and enough of them – with whom the nurses could intervene.

"We felt we were not necessarily identifying the patients at risk or with the most complex needs," says Tomcavage. "We came to realize that our approach lacked the intelligence that comes from data systems based on larger experiences."

Ready and Varied Reporting Features

Geisinger charged Tomcavage with re-engineering its process for case management. After consulting with other health plans and knowledgeable sources in the disease management industry, her group chose LexisNexis' Risk Navigator *Clinical* to use as its tool for globally risk-stratifying its community-based populations. The health plan set up the process for inputting its data and brought this solution and interface fully online at the start of 2007.

Using Population Health Monitor, Tomcavage's clinical reporting team now generates monthly patient lists for its case managers, who use them to concentrate attention on patients who have risk scores of 4 and especially 5 (on a scale of 1 to 5, and with an acuity index score of 80 to 100). They also use the "movers" feature, which flags patients who move up 2 or more risk levels in the course of a month. **Concentration on "movers" allows costs to be avoided by earlier intervention.**

In this way, the case manager has straightforward criteria for enrolling patients in case management. Discussing these cases with the practice physician while referring to the electronic medical record, the nurses can add to their notes and can plan and support interventions and counseling. In addition, they will begin to take advantage of the new Population Health Monitor "motivation" score to predict which patients will prove the best participants in taking charge of their health.

"Using Population Health Monitor to drive risk stratification is so much easier than going through our records manually," says Tomcavage, "and it gives us a more comprehensive snapshot than we had before."

The scores serve as targets for improvement as well. They also permit the team to stratify groups of employees for their employers into low-, moderate- or high-risk subsets.

Info Management for Medical Home Program

Geisinger employs more than 50 nurses in this case management role for which Population Health Monitor is critical. The health plan embeds these employees in 37 owned clinics and seven other participating, contracted clinics – most assigned full-time to a single one of these large sites.

"These nurses see themselves as part of the clinic and an extension of the practice," explains Tomcavage.

As such, they also serve as a key component of – and, in fact, the basis for – Geisinger's pioneering "Medical Home" program. This partnership between plan and primary care sites focuses on enhanced access to care and targeted action for high-risk individuals.

Looked upon as the next generation of medical management, it works to keep patients in the "sphere of influence" of primary care around the clock, every day. It also includes aspects of pay-for-performance and health care consumerism. Information management, provided in large part by Population Health Monitor, drives cooperation between plan, provider and case manager.

Physicians Embrace Strategy

The nurses can log onto the application at the point of care to help guide the intervention, often after having done so initially with the physician to review the cases proposed for management. Tomcavage's team has found that the doctors usually agree quite readily to the additional case-management component of care.

"We weren't sure how the providers would react to it at first, but they view these informatics, and the nurse interventions that follow them, as great tools," she says, noting also that assessing and intervening with risk in this way is especially useful in Medicare populations, which may not receive the coordinated care that they need.

"We are often bringing patient-management data that the providers have never seen and don't know about, with regards to their practice," she adds. "They are shocked sometimes by the cost of care for specific patients. Plus, we can help them spot patients that they've lost track of, often because the patient comes in only episodically. Reviewing panels of patients like this can be a great avenue into case management at these practice sites."

Results Bear Out Value

GHP is using the metrics from Population Health Monitor in its Medical Home program for some sites that have thousands of patients. Across locations, it has seen an immediate decrease in admissions, including challenging patient populations such as those with heart failure and chronic obstructive pulmonary disease (COPD). The plan is also pleased and optimistic about the trending it sees with its diabetes patients.

"In hindsight, this experience has also confirmed to us that using expensive case management resources with lower-risk patients is not cost effective," notes Tomcavage, who has presented nationally on the Medical Home program.

That said, though, her group is looking for ways to use the measures to direct program resources efficiently to patients of more moderate risk as well. In its fourth year now, Medical Home has concentrated on approximately the 15 percent of patients at highest risk. But the team would like to proactively affect the top half of the risk pool and, additionally, the well segment of the population, using steps that have a positive ROI.

GEISINGER HEALTH PLAN

Population Identification
7/1/2007 thru 6/30/2008
AIS 80 – 100 &/0r Risk Rank 5

Forecasted Risk Index	AIS	CIS	Risk Rank	Sex	Age	Total Paid	Forecasted Cost	Primary ETG Group	Program Status as of 8/27/08
4.1	91	35	5	M	82	$42,187.00	$44,456.00	Cerebrovascular Accident	MHOpenr
4	80	37	5	M	68	$46,972.00	$43,405.00	Cardiovascular Surgery	Closed-Need met
6.21	100	28	5	M	67	$137,724.00	$67,387.00	Infectious Disease	MHIdentified
3.19	93	25	5	F	75	$70,344.00	$34,563.00	Degenerative Ortho disease	MHCL-Needs meet
4.53	94	60	5	M	81	$49,157.00	$49,173.00	Cerebrovascular Accident	
10.2	97	51	5	F	71	$133,870.00	$110,630.00	Renal Failure, Chronic & Nephrosis	MHOpen
5.59	90	62	5	M	81	$25,981.00	$60,613.00	Renal Failure, Chronic & Nephrosis	MHIdentified
8.87	95	50	5	F	79	$113,895.00	$96,235.00	Renal Failure, Chronic & Nephrosis	MHCL- CC

Patient Panel. To bring better population management to its Medical Home primary care practices, Geisinger Health Plan needed a health plan metrics tool that helped it identify individuals who would benefit most from case management. Sheets such as this one, produced by LexisNexis Population Health Monitor, are now the basis of the interaction of the plan's embedded nurse case managers with providers and patients at clinic sites throughout the system.

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