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Case Study

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Genesys HealthWorks: Pursuing the Triple Aim Through a Primary Care-Based Delivery System, Integrated Self-Management Support, and Community Partnerships

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ABSTRACT: Genesys HealthWorks is a model of care developed by Genesys Health System in metropolitan Flint, Michigan, to improve population health and the patient experience of care while reducing or controlling increases in the per capita cost of care. These are the objectives of the Institute for Healthcare Improvement's Triple Aim initiative, in which Genesys participates. Genesys is pursuing these aims by engaging community-based primary care physicians in a physician–hospital organization that emphasizes care coordination, preventive health, and efficient use of specialty care. It also promotes health through the deployment of health navigators, who help patients adopt healthy behaviors, and by partnering with a county health plan to extend access to primary care and other services to low-income, uninsured county residents.

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OVERVIEW

Genesys Health System developed a model of care known as HealthWorks to improve the health of the population in Flint, Michigan, and surrounding Genesee County, while also improving patients' experience of care and lowering (or at least reducing the rate of increase in) the per capita cost of care. These are the three primary objectives of the Institute for Healthcare Improvement's Triple Aim initiative, for which Genesys was one of 15 prototype organizations. (More than 40 organizations are participating in the program today.) The Commonwealth Fund is studying several of these organizations to learn how they are engaging in the Triple Aim and what lessons their experience holds for others who wish to undertake or promote transformation in health care delivery.

The organizing principle of the Triple Aim is that simultaneously pursuing these three objectives enables health care organizations to identify and fix problems that lead to poor coordination and inefficient delivery of care. It also

helps health care organizations focus attention on and redirect resources to those activities that will have the greatest impact on health. In many cases, these organizations play the role of "macro-integrator"—a term coined by IHI to describe entities and coalitions that bring stakeholders and resources together to pursue a shared vision of an optimized system of care for a defined population.[1]

The Genesys HealthWorks model of care embodies the Triple Aim's unifying "macro-integrator" function through three key elements that emphasize the importance of primary care, health promotion, and patient self-management support:

1. Engaging community-based primary care physicians in a physician–hospital organization that emphasizes the importance of primary care and makes more efficient use of specialty care;
2. Promoting health through the deployment of health navigators, who support patients in adopting healthy lifestyles to prevent and manage chronic disease; and
3. Partnering with community organizations to extend the goals of the model to the entire local population.

The model has achieved notable results in two patient populations. Among patients who receive care through Genesys Health System and its affiliated physicians, the model has helped lower the use and cost of care while improving physician performance on quality indicators. A study by General Motors (GM) found the automaker spent 26 percent less on health care for enrollees who received services at Genesys versus local competitors, according to the Genesys PHO. Meanwhile, the use of health navigators has improved health behaviors of patients in multiple demonstrations. Extending the health navigator model to serve low-income, uninsured patients enrolled in a tax-supported county health plan has led to improved health status and reduced use of the hospital and emergency department.

This case study describes the circumstances that led Genesys to develop the HealthWorks model and then describes each of the model's elements, the results the model has helped achieve, and key lessons learned.[2] Chief among these is the importance of partnership between physicians, local health care systems, and community organizations to build a strong primary care infrastructure that can in turn support broader efforts to improve health behaviors and health in the community.

ORGANIZATIONAL BACKGROUND

Genesys Health System is a nonprofit, integrated health care delivery system that provides a continuum of medical care services to patients in Genesee County and surrounding areas (Exhibit 1). It includes a 410-bed acute-care teaching hospital (the Genesys Regional Medical Center) that provides Level II trauma services, a convalescent center, a home health agency, a durable medical equipment supplier, resident and home hospice care, and various ancillary/diagnostic services and sites. The Genesys Regional Medical Center is located in the suburb of Grand Blanc on the southeastern edge of Flint.

The health system partners with a network of 150 community-based primary care physicians affiliated with the Genesys Physician–Hospital Organization (PHO) (Exhibit 2). The physicians practice in medical groups in a multicounty service area and admit patients to the hospital—Genesys Regional Medical Center—almost exclusively. Genesys Integrated Group Practice (GIGP) makes up the core of participating physicians in the Genesys PHO. It includes 81 primary care physicians who operate in private practices ranging in size from one to six physicians each. (The remaining 69 primary care physicians affiliated with the PHO work in independent small practices.) As members of the GIGP, the shareholder physicians agree to work together to achieve quality and utilization goals (described below). For specialty care, these physicians refer patients exclusively to a closed panel of 354 contracted medical specialists (who receive most of their referrals from the PHO) and a few hospital-employed specialists. GIGP

Exhibit 1. Genesys Health System Service Area

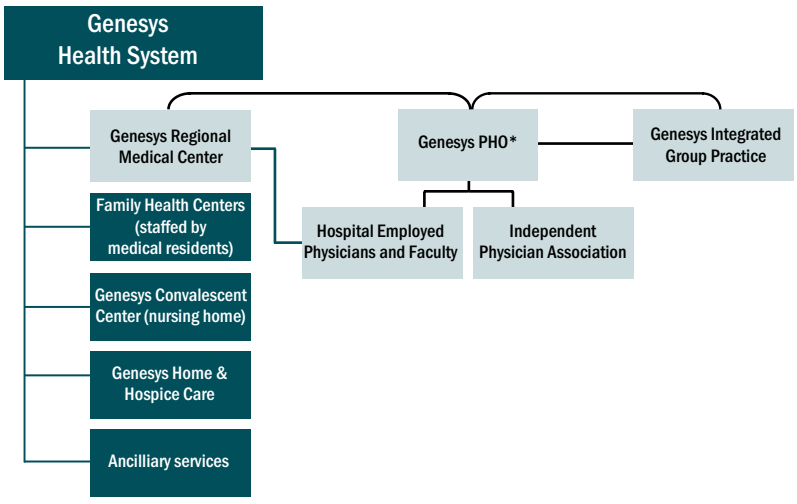
Source: Genesys Health System.

also owns and operates three diagnostic centers and three after-hours clinics.

The Genesys PHO is a physician-led organization that negotiates a mix of risk-based managed care contracts (that may specify a fixed payment per member) with health plans on behalf of the hospital and the physicians. The PHO also handles a variety of functions delegated to it by health plans including physician credentialing and utilization management. It is one of five Michigan physician organizations chosen by Blue Cross Blue Shield of Michigan (BCBSM) to participate in a pilot-test of delegated care management responsibilities for patients covered by fee-for-service insurance. (See Appendix A for more information on the Genesys PHO.)

Roughly one-third of Genesys PHO physicians use the Misys electronic health record (EHR) to track and coordinate their patients' care; all use some form of electronic prescribing system for all of their prescriptions, as required by the PHO. The PHO is converting

Exhibit 2. Genesys Health System and Genesys Physician–Hospital Organization



* The PHO is a partnership between Genesys Regional Medical Center and Genesys Integrated Group Practice.
PHO = Physician–Hospital Organization.
Source: Genesys Health System.

Exhibit 3. Health Insurance Coverage Among Nonelderly Residents: 2006–2008

	Employer-Based Coverage	Individually Purchased Coverage	Medicaid Coverage	Uninsured
Flint metropolitan area	53.4%	2.7%	19.4%	22.8%
Michigan	67.5%	4.9%	14.7%	12.7%

Source: Employee Benefit Research Institute analysis of Current Population Survey, March 2007–2009.

from Misys to Allscripts EHR (because of the merger of these two vendors) and anticipates that all PHO physicians will be using the Allscripts EHR by the end of 2011. (At present, the ambulatory EHR does not link to the hospital's EHR system.)

The health system forges relationships with community organizations to improve population health and patient access. One example is its participation in Genesee Health Plan, a tax-supported county health plan that provides primary care and preventive health services, limited prescriptions, and laboratory tests to approximately 27,000 low-income uninsured residents of Genesee County. When Genesee Health Plan formed its provider network, the PHO helped by requiring primary care physicians who participate in its managed care contracts to provide key components of a "medical home" and basic health services to members of the health plan.[3] As a result, Genesys PHO physicians, along with two Genesys primary care residency clinics, serve as primary care providers for 41 percent of Genesee Health Plan's members as of May 2008. (See Appendix B for more information on Genesee Health Plan.)

Both Genesee County and Flint have undergone a substantial decline in population and employment in the last three decades, reflecting the changing fortunes of the U.S. auto industry on which the community relies. Flint had an unemployment rate of 26.6 percent as of December 2009; Genesee County's rate was 16.0 percent.[4] Almost one of four nonelderly residents lacked health insurance in the Flint metropolitan area during 2005–2007 (Exhibit 3). Flint residents, in particular, have less health insurance coverage and greater socioeconomic disparities than surrounding Genesee county, the state of Michigan, and the nation. Genesee County ranks last out of 82 counties in Michigan on measures of healthy behavior, which include smoking, adult obesity, binge drinking, and teen birth rates. (See Exhibit 4, County Health Ranking).

Genesys Health System estimates that its affiliated primary care physicians now care for 40 percent to 45 percent of the 435,000 residents in Genesee County, which is the focus of its Triple Aim efforts. The Genesys Regional Medical Center treats 31 percent of hospital patients in its primary service area, and draws patients from a secondary service area that includes parts of six surrounding counties (Exhibit 1). It competes with two nonprofit teaching hospitals in its primary service area: the 443-bed Hurley Medical Center and the 458-bed McLaren Regional Medical Center (one of eight regional hospitals operated by McLaren Health Care), both located in Flint. Genesys, Hurley, and McLaren together care for about 90 percent of the hospital patients in Genesee County. Hurley and McLaren both have primary care networks that include employed physicians.

The payer mix for patients receiving care from the Genesys Integrated Group Practice is as follows: 31 percent Blue Cross Blue Shield of Michigan (primarily fee-for-service payment); 30 percent Medicare; 21 percent commercial health maintenance organizations (capitated payment); 10 percent Medicaid (predominantly managed care); 4 percent other insurance; and

4 percent uninsured. (Payment mix is similar for the PHO as a whole.)

Genesys Health System, which employs approximately 3,100 staff, is a member of Ascension Health, a Catholic health care system that operates 69 acute care hospitals in the United States. Its philosophy of care reflects a promise to provide "Healthcare That Works, Healthcare That Is Safe, and Healthcare That Leaves No One Behind."[5]

IMPETUS FOR CHANGE

The history of Genesys Health System is intertwined with that of the U.S. auto industry, which dominated the economy of Genesee County for more than a century. Local automakers including General Motors (which was founded in Flint and at its peak employed roughly half of the Flint population) created a stable base of well-insured patients for local hospitals and physicians. By the late 1970s and early 1980s, Genesee County had some of the highest health care utilization rates and costs in the country, yet health outcomes were not optimal.

Unhealthy behaviors were prevalent and part of the local culture. With excellent health insurance benefits, many patients came to expect local providers could address any problem they developed. "I had more than one patient say to me, 'Well, I always knew that after I got my second bypass surgery, that's when I might consider quitting smoking,'" says Trissa Torres, M.D., M.S.P.H., medical director of Genesys HealthWorks.

Nor was the patient experience of care ideal. "Our [physician] offices were not coordinated and had significant variations and practice standards," says Mike James, president and CEO of Genesys PHO. "Physician relationships with the patients were inconsistent. Some were very good and some, quite frankly, were very distant." Moreover, the relationship between physicians and specialists did not promote clinical collaboration. "They ran into each other in the hospital occasionally, but it was not anything that related to care plans or trying to improve quality," he says.

The impetus for change came in the 1980s, with the decline in U.S. auto industry. As General Motors struggled to maintain market share, the company put pressure on local health care providers to lower their costs, which contributed to the cost of manufacturing American cars. Around the same time, the area's unemployment rate began rising as automakers moved manufacturing operations overseas to lower costs. General Motors, which employed 80,000 workers in Flint in the late 1970s, shed jobs at such a rate that by early 2010, it employed less than 8,000 people in Flint.[6]

To continue to thrive, Genesys Health System needed to change its approach to care so that it would reduce its costs and enhance its ability to positively influence health outcomes in the community. That need is still pressing today. Flint is still one of the most economically challenged cities in the country. Indeed, the role that the economy played in Genesys Health System's transformation cannot be overstated. It alarmed both the hospital and the physicians and compelled them to collaborate in ways uncommon in more stable economic environments. Cities or regions facing similar (or less) distress may learn from their experience.

THE VISION

In 1991, Genesys Health System outlined its plan to increase the quality of its services and lower its costs by increasing the availability and quality of primary care. Primary care physicians would build strong relationships with their patients and guide care decisions that promote health and prevention, while optimizing utilization.

The health system's plan called for an increase in the number of primary care providers in the community, the development of an integrated delivery system that would span the continuum of care, and greater use of care management techniques to decrease utilization and promote cost-efficiency. The plan also called for a reduction in hospital bed capacity. Genesys Health System accomplished this by consolidating its four predecessor hospitals (with a combined capacity of 908 beds) into one regional medical center, which opened in 1997, thus reducing excess capacity in the community by about 500 beds.[7]

The integration of physician, institutional, and community objectives and incentives was an essential element of the plan, according to Young S. Suh, then-president and CEO of the system.[8] "We believe the changes we are implementing will ultimately lead to higher satisfaction for patients, physicians, and staff," Suh wrote.

Because Genesys's plan would reduce acute and specialty care services and thus have an adverse impact on hospital revenues, the system needed to increase its patient base by expanding its primary care referral population. "It does not work if you are treating the same number of patients," James says. To address this, the health system expanded its service area from one county to five.

When it updated these goals in 2007, it sought input from the community. The health system hosted a three-day work session where 40 participants, including physician, community, and health system leaders, gathered to set the health system's 25-year goals. The statement the committee developed—known as VisionScape—reinforced the goals outlined in 1991 and expanded upon them through several related elements. The first of these—developing the "hospital of the future"—seeks greater engagement of the medical staff through comanagement companies, which will align the incentives for hospitalist and specialty care physicians to work together more closely to improve quality, safety, and efficiency as Genesys drives toward becoming a high-reliability organization.[9]

In addition, VisionScape called for an expansion and enhancement of medical education in the area. Genesys Health System—which already trains residents in family medicine, internal medicine, and several specialties and medical students through a long-standing affiliation with Michigan State University—is working with community partners to develop new models of medical education to enable team-based training across disciplines.

VisionScape also ratified the health system's efforts to promote healthy behavior—rather than just treating disease—by applying the HealthWorks model of care (described above) to realize the Triple Aim of improved population health, better care experience, and reduced cost. "Unhealthy lifestyles relate directly to the leading causes of death in our community and also to high overall health care costs. The healthier our population is, the more we can lower the need for expensive acute care services," Torres says.[10] This case study focuses on how Genesys Health System is applying the HealthWorks model to achieve the objectives of the Triple Aim.

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A PRIMARY CARE-BASED PHO

Genesys Physician–Hospital Organization has played a pivotal role in establishing a robust primary care infrastructure by aligning the interests of its affiliated physicians with the hospital and by setting standards to achieve quality and efficiency goals. (See Appendix A for a full description of the PHO.)

The PHO was created in 1994, when health system leaders believed the country was moving toward universal managed care. While that national plan never came to fruition, the PHO continued to operate as if it had—encouraging its physicians to define standards of practice and referral protocols and apply them uniformly to patients whether they were covered by health maintenance organizations or not.

"It took us five years to really change the culture," James says. The PHO did so by employing a moral argument, which emphasized that "to treat your risk (managed care) patients one way and treat your fee-for-service [patients] another way is wrong," James says. Having one model of care also made sense because patients often move between fee-for-service and managed care plans.

The PHO leaders believed that physician-directed practice standardization would ultimately

lower costs by reducing unnecessary and duplicative specialty services and ancillary tests and improve chronic disease care, which would further reduce hospital admissions and emergency department visits. "Our strategy from the beginning was to provide a higher quality of care in a more efficient manner than the market," James says. "Key to this is a strong doctor–patient relationship."

Key elements of the PHO's strategy include establishing physician-directed quality improvement, making specialty care more efficient, promoting more effective utilization management, improving chronic and preventive care, and engaging patients in self-management through a patient-centered medical home. The PHO is also actively engaged in aligning payment incentives to support its model of care. It is one of 35 Michigan physician organizations participating in Blue Cross Blue Shield of Michigan's Physician Group Incentive Program (see Appendix A).

Beginning in November 2008, 11 PHO-affiliated physicians began participating in a trial of a patient-centered medical home as part of the Blue Cross Blue Shield of Michigan's Physician Group Incentive Program. The medical home trial provides incentives to physicians to participate in performance reporting and provide extended access, preventive health services, and links to community services. The physicians were able to do this fairly easily because the PHO had encouraged physicians to adopt many of these elements of patient-centered medical homes years before. "The systemic approach to utilization and quality was already in place," says Ann Donnelly, senior vice president of administration and medical management for the PHO. The PHO plans to expand the medical home model to all affiliated physician practices by 2013.

The focus of the PHO's work on the patient-centered medical home is on increasing patient self-management support through two mechanisms: 1) patient health goal-setting with providers, and 2) the integration of health navigators into primary care, which is described in the next section.

INTEGRATED SELF-MANAGEMENT SUPPORT

A health navigator program that supports patients in adopting healthy behaviors that reduce health risks, thereby helping to prevent or manage chronic diseases, is a key component of the Genesys HealthWorks model to improve population-based health across the system and in the community.

The generally poor health status of Genesee County residents (see Exhibit 4) points to the need for promoting healthy lifestyles as a means to improving the health of the community, says Torres. "When we review the factors that relate to overall health, our county is last or next to last in all of these categories. It supports the fact that we need to go above and beyond acute care delivery . . . to focus on improving healthy behaviors."

While the health navigator program focuses on behaviors that will have the greatest impact on health outcomes (e.g., physical activity, healthy eating, tobacco avoidance), it also encourages success by helping patients tailor behavior change plans to their preferences, interests, and readiness for change. For example, a patient may wish to reduce stress before tackling weight loss.

The health navigator model was developed and evolved through a variety of pilot and research projects starting in 1997 and is currently being used in two subpopulations: 1) among patients receiving care from primary care physicians participating in the patient-centered medical home pilot program at Genesys PHO; and 2) among low-income, uninsured residents enrolled in Genesee Health Plan (GHP). In the two programs, 11 health navigators serve a patient population of approximately 45,000.

While GHP is distinct from Genesys Health System, collaboration with the health plan "enables us to bring our model to serve the most needy in our community," Torres says.

Unlike many case management programs that focus exclusively on high-risk patients, patients may enter the health navigator program with varying health status levels, whether they are generally healthy, have a chronic disease, or recently suffered an acute episode

Exhibit 4. County Health Ranking*

	Genesee County	Michigan	Rank (out of 82 Michigan counties)
Health outcomes			78
Mortality			73
Premature death	9,251	7,390	
Morbidity			79
Poor or fair health	16%	14%	
Poor physical health days	4.0	3.6	
Poor mental health days	4.2	3.7	
Low birthweight	9.7%	8.1%	
Health factors			81
Health behaviors			82
Adult smoking	26%	23%	
Adult obesity	34%	28%	
Binge drinking	16%	18%	
Motor vehicle crash death rate	16	13	
Chlamydia rate	709	370	
Teen birth rate	50	36	
Clinical care			21
Uninsured adults	12%	12%	
Primary care provider rate	132	113	
Preventable hospital stays	74	76	
Diabetic screening	81%	82%	
Hospice use	41%	38%	
Social & economic factors			78
High school graduation	68%	72%	
College degrees	19%	24%	
Unemployment	11%	8%	
Children in poverty	25%	19%	
Income inequality (1)	43	45	
Inadequate social support (2)	23%	19%	
Single-parent households	12%	10%	
Violent crime rate	887	550	
Physical environment			75
Air pollution-particulate matter days	8	3	
Air pollution-ozone days	12	4	
Access to healthy foods	54%	51%	
Liquor store density	1.3	1.1	

* Data were collected from various sources and represent time periods ranging from 2000 to 2008. (1) Income inequality can range from zero (representing equal income distribution among households in a community) to 100 (representing the hypothetical concentration of all income in one household in a community). (2) Inadequate social support is the percent of the adult population that responded that they never, rarely, or sometimes get the support they need.
Source: http://www.countyhealthrankings.org.

of illness. The health navigator supports both the patient and the physician: helping the patient identify and achieve his or her health behavior change (which may include setting a health goal); reinforcing the physician's recommendations related to healthy lifestyles, medication adherence, self-monitoring, provider visits and preventive screening; and linking the patient to community resources. (See the Results section for evidence of the effects of this program on patient health.)

Within the PHO, health navigators are registered nurses who document their interventions and provide updates in the EHR on patients' progress toward goals. This feedback enables the primary care physicians to reinforce health goals at subsequent visits. The cost of the health navigators for this population—approximately $72,000 for each full-time equivalent (FTE) with a caseload of roughly 6,000 patients—is shared equally by the PHO and the hospital.[11]

At GHP, where the background of the health navigators varies to include health educators, social workers, dieticians, and others in health-related fields, the cost per FTE with a caseload of 6,500 patients is approximately $69,000. GHP initially contracted with Genesys Health System for the services of navigators but has begun to employ some navigators as the program has expanded at the health plan.

The health navigator program at GHP initially targeted patients with diabetes and asthma. The health plan has since broadened the program to include smokers, patients with chronic diseases, and those with acute needs upon enrollment and post-emergency department visits. The intensity of the intervention depends on the nature of the patient's social and emotional needs in combination with their medical condition. In both programs, the team members typically spend 30 to 45 minutes on an initial call or an in-person interaction with a member to assess his or her needs. Follow-up calls (lasting approximately 10 to 15 minutes) are made to the member at a frequency determined by individual needs. Health plan members, who are reassessed at three and six months, often work with multiple navigator staff over time. "Right out of the gate (we tell them) we work as a team that works for the client," says Jemeka Thomas, a health navigator.

In both settings, the skills required of health navigators are not related solely to medical care but also include motivational interviewing, rapport building skills with patients and providers, and a broad understanding of community resources, which may be tapped to address patient needs. "You meet the patient where they are and you do what's a priority for that patient," Torres says. That may mean overcoming barriers to care, accessing community resources, or helping to get answers to questions about clinical care or prescription medications, in addition to supporting lifestyle change.

The following case report illustrates the impact of the health navigator program. The patient described is a member of Genesee Health Plan.

COMMUNITY PARTNERSHIPS

In addition to supporting Genesee Health Plan (through the PHO physician network and the health navigator model), Genesys engages in other community efforts to help improve population health. The health system is a member of the Greater Flint Health Coalition, which joins local providers, purchasers, consumers, insurers, schools, and faith-based organizations in efforts to improve the health status of Genesee County residents, while decreasing costs and inefficiencies in care. The coalition sponsored a community campaign to increase physical activity in the area, among other activities. In addition, the health system and its community partners advocate for greater funding for the uninsured.

The health system's participation in IHI's Triple Aim initiative has also enabled Genesys Health System to forge partnerships with organizations around the world, working to accomplish similar goals. "This collaboration has been wonderful because it has allowed us support from the IHI faculty and the participants around the globe who continue to challenge us to push the envelope. In this context, we can share our learnings. We can also learn from others in areas that they excel in," Torres says.

CASE REPORT: A HEALTH NAVIGATOR IN ACTION

A middle-age male with a history of hypertension was contacted by a GHP health navigator following his admission to the hospital for uncontrolled blood pressure. During their first conversation, the patient mentioned that he had stopped taking his medication a few years ago because he lacked health insurance. Because of his high blood pressure, he had failed an employer-required physical and was unable to return to work. He was also experiencing high stress due to a recent change in his family situation and financial pressures, which were exacerbated by the bill he received for his recent hospital admission.

During their call, the health navigator offered support to the patient, assuring him that he had access to his primary care physician for follow-up appointments through GHP. She also encouraged him to build a relationship with his provider. To assist him in covering the cost of his recent hospital admission, the health navigator also linked him to the hospital's charity care coordinator. She also connected him to GHP's prescription assistance program so that he could obtain medications that were not covered by the plan. Finally, she engaged him in a discussion of healthy eating, exercise, and smoking cessation and helped him to identify ways to fit these into his daily lifestyle.

The health navigator called the patient several times over the next three months to support his progress in making behavior changes. During the thee-month follow-up call, he said he had developed a relationship with his primary care physician and was visiting the office regularly, as scheduled. He also was taking his medication as prescribed, which helped him pass his physical and return to work. He also said he had changed his diet (by taking fruits and vegetables to work as snacks and substituting Mrs. Dash for salt). He also reported he was riding his bike regularly for exercise and had stopped smoking.

As an example of this intersite learning, Genesys shared its model for health navigators with the Vermont Blueprint for Health, a statewide partnership to improve the health and health care system for Vermont residents. That helped inform the design of Vermont's community care teams. "In return, they have shared their success with implementation statewide, which informs our efforts toward regional spread," Torres says.

Genesys is also participating in the Dartmouth/Brookings Accountable Care Organization Learning Network to help position the health system and its partners for anticipated payment reforms that will promote transformational changes in health care delivery.[12]

TRIPLE AIM RESULTS

Genesys HealthWorks demonstrates a model for pursuing the Triple Aim by emphasizing primary care, health promotion, and self-management support, as well as partnerships with community groups to improve access and area health status. Genesys Health System measures the impact of these efforts in a variety of ways, which are outlined below. This section illustrates the progress that Genesys HealthWorks and its physician and community partners have made in reaching for these goals of the Triple Aim.

Population Health

The health navigator model has been tested and demonstrated in several pilot and research projects in various populations of patients over 11 years, suggesting its effectiveness.

The health system first applied the model as a part of a health risk reduction service that it operated from 1997 to 2003 to help 1,400 patients and employees quit smoking and/or increase physical activity.

"Many of the patients weren't trying to change their behavior before they were engaged," Torres says. "Our service helped increase their readiness for change and achieve results." The program led to a 25 percent quit rate (120 of 478 smokers), which is higher than quit rates based on physician advice (between 5% and 8% percent) and on par with the quit rate for dedicated smoking cessation programs in which participants are often highly motivated.[13] Fifty-five percent, or 255 of 463 patients, increased the number of days they were physically active compared with a six-month prior period. Through this program, Genesys found that average annual health care claims were $300 lower for employees who were physically active than for those who were sedentary, and $200 less for nonsmokers than for smokers.

The health system subsequently used the model in a Community Health Educator and Referral Liaison (CHERL) Project from 2003 to 2008, which supported 800 patients from 15 primary care practices in reducing unhealthy behavior. The grant-funded project led to statistically significant improvements in health behaviors and outcomes, including smoking, physical activity, body mass index, and health status, as described in Exhibit 5.[14]

The health navigator program led to the following improvements in behaviors among 1,763 low-income, uninsured patients enrolled in Genesee Health Plan who were engaged in the health navigator program from Aug. 2003 to April 2010 and who were assessed (by telephone survey) at both baseline and six months after engagement.[15]

Among patients at risk of unhealthy behaviors at baseline, who reported improved risk at six-month follow-up (Exhibit 6):

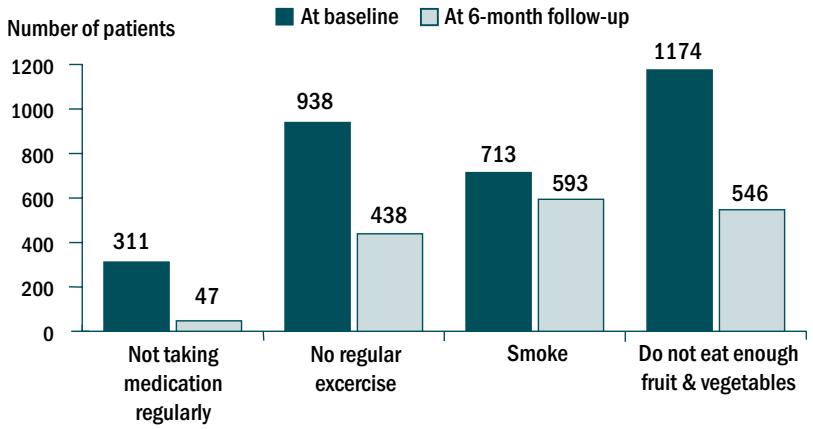
- 53 percent who did not eat adequate amounts of fruits and vegetables, now do;
- 53 percent who reported no regular physical activity, now are physically active;
- 78 percent who were physically active at baseline, maintained their physical activity;
- 17 percent of smokers quit; and
- 85 percent of patients who were not taking their medications regularly, now do.

Exhibit 5. Self-Reported Health Behaviors Among 800 Participants in the Community Health Educator and Referral Liaison Project: 2003–2008

	Baseline	Three-Month Follow-Up	Six-Month Follow-Up
Current smokers (%)	30.9	26.5	25.6
Body mass index	35.6	35.2	35.1
Physical activity (minutes/week)	150	203	180
Days of limited physical activity in past month due to poor physical/mental health	4.8	4.4	3.5
Alcohol drinks/occasion (all patients)	1.0	0.9	0.9

Source: Adapted from J. Summers Holtrop, S. A. Dosh, T. Torres et al., "The Community Health Educator Referral Liaison (CHERL): A Primary Care Practice Role for Promoting Healthy Behaviors," *American Journal of Preventive Medicine,* Nov. 2008 35(5 Suppl.):S365–S372.

Exhibit 6. Impact of Health Navigator Program on Selected Health Risks Among Engaged Patients Enrolled in Genesee Health Plan



Source: Genesys Health System based on telephone survey data collected between August 2003 and April 2010 for 1,763 engaged patients who were assessed at both baseline and at 6 months post-engagement. Of the 1,763 patients, 797 have diabetes.

Among 797 patients with diabetes who were not engaged in self-management at baseline, the following reported changed behavior at six-month follow-up (Exhibit 7):

- 82 percent who did not regularly check their blood sugar, now do;
- 90 percent who did not check their feet regularly, now do;
- 45 percent who had never received formal diabetes education, now have attended Diabetes Self-Management Education; and
- 52 percent who had not had a diabetic eye exam within the past year, received one.

A previous analysis of data from August 2003 to July 2009 found the following:

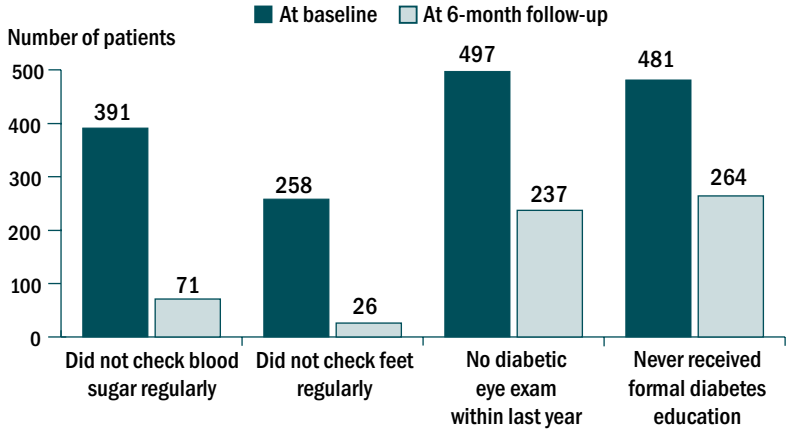
- In a subanalysis of 34 diabetic patients, each self-reported health behavior improvement was associated with an average 0.8 improvement in hemoglobin A1c, a measurement of blood sugar control.
- Among patients reporting poor management of chronic pain, 37 percent (182/488) reported improved pain management. Likewise, among patients screening positive for depression, 42 percent (260/620) reported improved symptoms.

Among a subset of Genesee Health Plan patients engaged in self-management support from 2006 to 2008 for whom hospital utilization data were available at both baseline and six months later, engagement was associated with reductions of approximately 50 percent or greater in hospitalizations and emergency department visits (Exhibits 8 and 9).

To gauge the impact of integrated self-management support on patient health, Genesys also is monitoring the patients of PHO physicians participating in the patient-centered medical home trial. On a monthly basis, it counts the number of patients engaged in setting health goals. Of approximately 18,000 patients, 5,179, or 28.7 percent, have set 10,251 health goals. For Genesee Health Plan during 2009, about 20 percent of 8,385 new enrollees were engaged in health navigator interventions. In 2009, health navigators supported these new patients and existing patients through 25,073 contacts, attempts, or patient-related activities and 4,810 links to other services based on patient needs.

In the inpatient setting, an analysis of Medicare data by the private firm HealthGrades ranked the

Exhibit 7. Impact of Health Navigator Program on Self-Management Among Engaged Diabetic Patients Enrolled in Genesee Health Plan



Source: Genesys Health System, based on telephone survey data collected between August 2003 and April 2010 for 797 patients with diabetes who were assessed at both baseline and at 6 months post-engagement.

Genesys Regional Medical Center among the top (best) 5 percent of hospitals nationally on risk-adjusted mortality and complication rates for 27 common Medicare inpatient procedures and diagnoses.[16] Data from the federal Hospital Compare Web site indicate that the Genesys Regional Medical Center performs better than the 90th percentile (i.e., in the top 10 percent) of hospitals nationally on 30-day mortality for patients hospitalized for heart failure and pneumonia.

Patient Experience

To assess patient experience, the PHO annually surveys patients in its affiliated physician practices using an internally developed survey instrument adapted in part from the work of other Triple Aim prototype sites. The survey asks patients to evaluate their physicians and their state of health (among other matters) on a five-point scale. The average rating from respondents reporting whether they could achieve life changes they set was 3.27 out of 5, while the average rating from respondents reporting whether the provider team knows them was 3.95 out of 5. The average rating for overall satisfaction was 4.4 out of 5 (no comparative data are available).

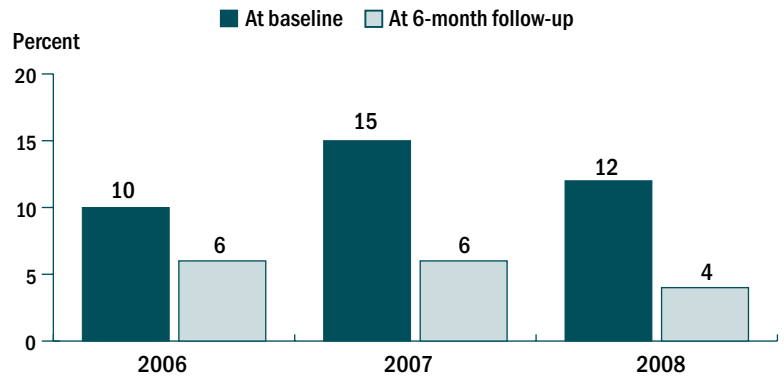
In 2009, Genesys PHO conducted a one-time survey of the 2,102 patients who engaged with a health navigator in the patient-centered medical home using an internally developed survey instrument. More than eight of 10 agreed or strongly agreed that the doctor helped them to be healthy and cared about them, and more than seven of 10 agreed or strongly agreed that the doctor knew them well and helped them set a health goal at the visit (Exhibit 10; no comparative data are available).

Per Capita Cost and Resources Used

An analysis sponsored by General Motors and the United Auto Workers and conducted by Thomson Reuters analyzed non-managed care medical claims data for nearly 50,000 PPO enrollees in the Flint area, a group that included GM's salaried and hourly workers and early retirees. It covered the period from 2004 to 2007 and showed that costs for patients treated by Genesys physicians were 26 percent lower overall (plus or minus 5%) than those treated by the system's competitors (Exhibit 11).[17] The health system attributes the savings to lower lengths of stay and fewer admissions and readmissions per patient, which the analysis demonstrated.

More recent managed care data received by Genesys PHO from insurers with managed care contracts with the PHO showed hospital days per 1,000

Exhibit 8. Percent of Patients Engaged in Self-Management Support Who Report One or More Hospital Admissions in the Past Three Months



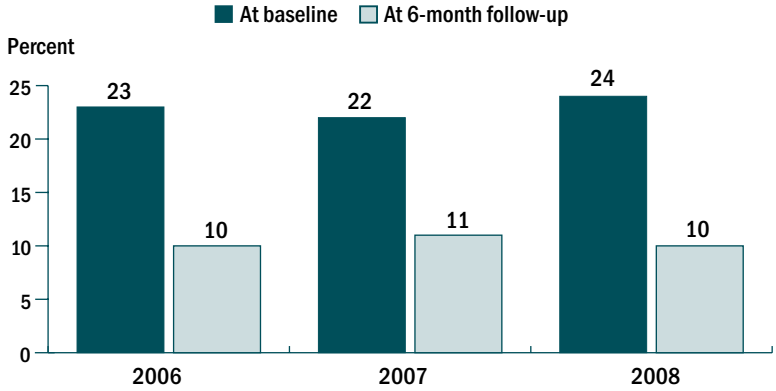
Source: Genesys HealthWorks and Genesee Health Plan.

covered patients are 26.2 percent lower than competitors, emergency department visits are 14.7 percent lower, and the rate of generic drug utilization is 72 percent—one of the highest generic utilization rates in the state. A lower rate of referrals to specialists also contributes to the cost savings. "When we focus on those four things—hospital days, ED admits, generic prescribing rate, and specialist referrals—we are achieving about 30 percent better utilization than our competitors," James says.

In the BCBSM Physician Group Incentive Program, the PHO performs better on some measures of efficiency compared with its peers (Exhibit 12).

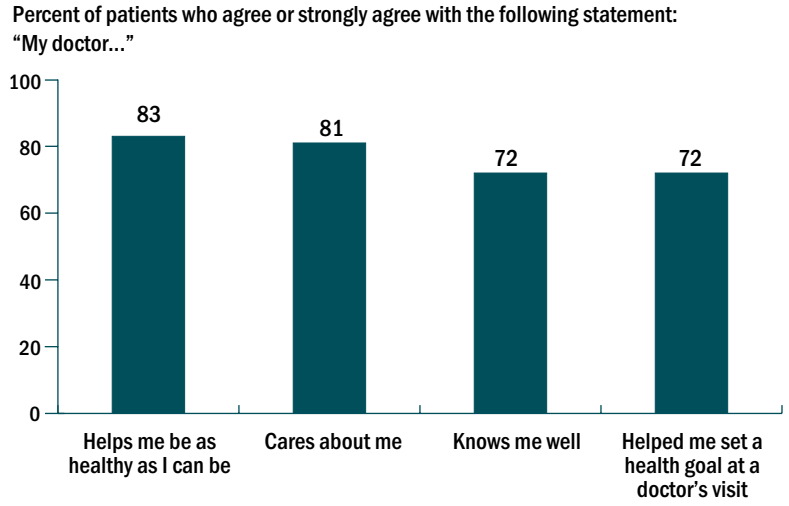
The health navigator intervention also contributes to reductions in the rate of hospital admissions and the use of emergency department services (Exhibits 8 and 9), which in turn can be expected to result in reduced costs.

Exhibit 9. Percent of Patients Engaged in Self-Management Support Who Report One or More E.D. Visits in the Past Three Months



Source: Genesys HealthWorks and Genesee Health Plan.

Exhibit 10. Patient Experience in the Patient-Centered Medical Home Trial: Genesys Physician Hospital Organization

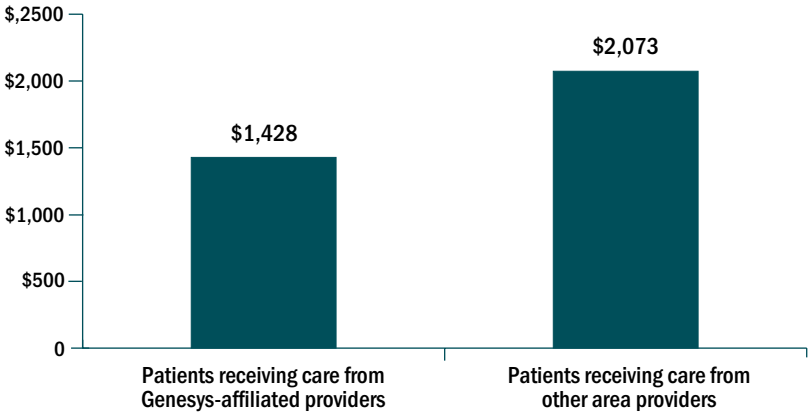


Source: Genesys Health System, based on a Spring 2009 survey distributed to 2,012 Genesys PHO patients who had the opportunity to engage with a health navigator.

Opportunities for Improvement

The system may have additional opportunity to improve efficiency for Medicare patients relative to the state and nation. Data from the Dartmouth Atlas of Health Care, which examined care in the last two years of life for Medicare patients with chronic illness, indicate that those who received the majority of their care from Genesys Regional Medical Center from 2001 to 2005 had somewhat higher Medicare spending and more physician visits per person compared with the state and national averages, although hospital use was closer to the average (Appendix Exhibit C1). Genesys performed somewhat better than the regional average for the Flint Hospital Referral Region (HRR) on these measures (with particularly lower specialists visits per person) while accounting for about 40 percent of the

Exhibit 11. Health Care Spending Per Patient: General Motors Flint Area Employees and Early Retirees Enrolled in a PPO Benefit Plan: 2004



Source: Genesys Health System, based on Thomson Reuters analysis conducted for General Motors/UAW. Includes 50,000 salaried and hourly employees and early retirees. Analysis did not adjust for differences in patients' health risks. PPO= Preferred Provider Organization.

Exhibit 12. Selected Results for the Genesys PHO Among 35 Michigan Physician Organizations Participating in the Physician Group Incentive Program (PGIP)

Measures (lower rates are better)	Genesys PHO	PGIP		
		Low	Average	High
Total risk-adjusted rate of hospital discharges per 1,000 covered patients	80.4	65.1	82.3	94.8
Risk-adjusted rate of discharges for ambulatory care-sensitive conditions per 1,000 covered patients	5.70	3.81	6.06	10.2
Risk-adjusted rate of emergency department visits per 1,000 covered patients	189.6	180.8	242.4	325.9
Use of high-tech imaging services (standardized cost per member per month)	$15.29	$15.29	$18.12	$20.73
Use of low-tech imaging services (standardized cost per member per month)	$9.46	$6.80	$8.85	$12.29

Source: Blue Cross Blue Shield of Michigan Physician Group Incentive Program. Based on dates of service from July 1, 2008 to June 30, 2009.

patients, suggesting that Genesys is a lower-cost provider in a higher-cost region of the state and nation.[18]

The total increase and annual rate of growth in Medicare reimbursements from 1992 to 2006 in the Flint HRR was substantially lower than for the state or the nation (Appendix Exhibit C2). Torres suggests that higher Medicare costs at baseline may reflect the historical influence of generous employer benefits and poorer population health status carrying over to care in the Medicare years, while the lower rate of growth may reflect the moderating influence of the area's relatively greater reliance on primary care (Appendix Exhibit C3). The fact that Medicare enrollees are not obligated to select and use a primary care provider inhibits the system's ability to effectively manage their care, Torres notes.

In the inpatient setting, Genesys Regional Medical Center ranked above the average for the Flint Hospital Referral Region and the state of Michigan but below the average of the top 25 percent of hospitals nationally on composite measures of clinical quality for patients hospitalized for heart attack, heart failure, pneumonia, and surgical care. In a count of patients rating a 9 or 10 on a 10-point scale on patient experience ratings on the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS), Genesys Regional Medical Center was above the Flint regional average on five of 10 measures and met or exceeded the state average on two measures, but was below the average of the top 25 percent of hospitals nationwide on all 10.[19] Genesys Health System leaders recognize the need to match its primary care focus with excellent inpatient care and are putting increased emphasis on inpatient quality through the comanagement companies, described above, as well as on patient experience and coordination of care across the delivery system.

INSIGHTS AND LESSONS LEARNED

The application of the Genesys HealthWorks model described in this case study illustrates how physicians, local health care systems, and community organizations can work together to pursue the objectives of the Triple Aim: a healthier population, better patient-care experiences, and more efficient use of resources that may result in lower costs. The multilayered population-based vision that Genesys Health System articulated for its participation in the Triple Aim—reaching concentrically through its own patient population to the broader community and region that it serves—makes partnership essential to achieving the vision. "We will continue to expand our Triple Aim partners until we

can engage the entire population in a new model of care that focuses on health, not just disease, and thus lead us toward achieving the Triple Aim in our community," says Torres.

By emphasizing partnership in each of its components, the HealthWorks model facilitates the "macro-integrator" role envisioned by the progenitors of the Triple Aim—that of bringing stakeholders and resources together to pursue a shared vision of an optimized system of care for a defined population. In particular, this has involved a partnership with the Genesys PHO and the Genesee Health Plan to enhance the primary care infrastructure for both insured and uninsured patients. A key intervention, health navigators partner with both physicians and patients to support improved self-management and health behavior changes that can lead to improved health outcomes. The following sections highlight lessons learned in these two related elements—primary care infrastructure and population health, followed by a discussion of the tensions inherent in pursuing the Triple Aim.

Enhancing the Primary Care Infrastructure

Genesys saw early on that a strong primary care delivery system built around a "right-sized" hospital would be essential to meeting purchasers' demands for greater value and efficiency in health care. To develop such a model, Genesys partnered with physicians in private practice to develop a virtually integrated delivery system that could help to change practice patterns and lower costs. "It is the sincerity of getting the engagement of the physicians . . . so that they understand, this is not a courtesy invitation into the operations of the health system. It does not work like an appendage of the hospital. It is a true joint venture," says Mark Taylor, CEO of Genesys Health System. He credits this partnership building with creating a culture where "turf and walls and silos become very offensive."

Involving physicians in decision-making and problem-solving has been the linchpin for change. Physicians helped to determine the appropriate guidelines for clinical care and specialty referral. And once those guidelines were set, the PHO reinforced them by negotiating with insurers to obtain delegated authority for medical management so that primary care physicians would not be overruled by an outside managed care organization. This clinical autonomy appears to have given the Genesys PHO an endurance that was often lacking in other efforts to establish the model. "Nationally that was what was wrong with HMOs," James says. "They were trying to block necessary care. In our system, you can't override the primary care physician."

Creating a mutually beneficial partnership between physicians and the hospital requires a shift in management philosophy. Many hospital CEOs who operate from a hospital-centric paradigm are reluctant to share control with physicians, although doing so was critical to the success of the Genesys PHO, says Taylor. He says he warns other hospital executives not to attempt such change if they expect to continue business as usual. "This transformation is not possible if the hospital leadership insists on controlling the process. Trust is a key piece of this partnership, and having a hospital that attempts to control the process will break trust and cause the venture to fail."

A peer-to-peer culture created a strong incentive for physician engagement, as did the identification and involvement of motivated doctors who act as peer leaders to test and spread innovations such as the patient-centered medical home and self-management support. "They act as champions to help bring that message to the next round of learners who then help bring it to the next round of learners, so that a lot of the engagement becomes doctor-to-doctor in terms of adoption of a new approach," Torres says.

The threat of constrained resources also played a part in bringing various stakeholders together. Few places in the U.S. suffered the type of economic collapse that Flint did when the auto industry downsized there. That collapse precipitated an equally uncommon

level of cooperation among health care providers, hospitals, and community groups to ensure that the medical system would survive to provide care. A long-term plan, ratified by community leaders, that spells out Genesys Health System's commitment to transforming care and to meeting community needs was a key step in undertaking and sustaining change. The plan creates "a clarity and certainty of purpose," says Taylor.

Improving Population Health

A central value that guided the PHO—consistency of care for all patients—laid the foundation for its population-based focus. "The idea is that from a provider's perspective, you practice medicine the same way. When somebody comes into your office, you use the same approach, which should be an evidence-based, cost-effective approach regardless of what kind of insurance that they have," James says. That same philosophy supported its partnership with Genesee Health Plan to ensure that the low-income, uninsured residents could obtain basic primary care through its network. In return, those patients were less likely to use the emergency department and inpatient services inappropriately, which reduces the burden of uncompensated care supported by other payers and insured patients and thus improves overall efficiency.

Building on a strong foundation of primary care enables a health system to more fully realize its potential for improving population health. "We are doing a lot of work to improve our health care delivery [but] no matter how well you do in health care delivery that is really only a fraction of the determinants of overall health," Torres notes. In support, she points out that Genesee County ranks relatively well in the state of Michigan on clinical care, yet poorly on health status and outcomes measures (Exhibit 4). "Clearly these data support that the fact that we need to go above and beyond health care delivery. That [is] why we put so much of our focus on improving healthy behaviors," she says.

Improving population health requires reorienting health care delivery from acute care episodes to chronic disease management and ultimately to prevention. This requires a concomitant shift from health care delivery to engage the community and reach people "where they live, where they work, and where they go to school," Torres says. Yet, Genesys has found that worksite wellness programs and school-based health programs are more effective when linked to health care delivery. "People tend to see doctors as authorities on health; you can get a lot of mileage from giving primary care providers a role in reinforcing the health promotion message," she says.

> "To treat your risk (managed care) patients one way and treat your fee-for-service patients another way is wrong . . . . When somebody comes into your office, you use the same approach, which should be an evidence-based, cost-effective approach regardless of what kind of insurance that they have."
>
> Mike James, president and CEO, Genesys Physician–Hospital Organization

The health navigators act as a bridge across health care delivery and health improvement by engaging both physicians and patients in the effort to promote healthy behaviors and link patients with community resources. "In our health navigators' interventions, a significant focus is on reaching beyond the doctor's office to support patients in their homes and in the community," Torres says.

"As a health care organization, we see ourselves as having the responsibility to help bring everyone together and lead this effort. But we are missing an opportunity if the message we are giving is: 'we've got medicine, we've got technology, we can cure you.' That is not the primary message our community needs to hear. The message our community needs is: 'we want to help you be healthier by engaging in healthier lifestyles,'" she says. That requires engaging with community partners to change the environment to support and promote health, a process that the health system's involvement with Genesee Health Plan helps to facilitate.

Balancing the Triple Aim

There are inherent tensions in pursuing the Triple Aim, requiring constant balancing to keep the overall vision in alignment as particular objectives need more or less attention. Congestive heart failure provides an example. "When we improve the health of our congestive heart failure patients through better ambulatory care management and they don't end up in the hospital, the hospital loses revenue. There has to be a conscious decision that it's okay for the hospital to lose revenue in this context because it improves the health of the community," Torres says. Taylor calls this "an acknowledgment that sometimes we will be making decisions that will harm a part of the organization for the greater good."

One way to do that is to reposition the reduction in hospital admissions as a benefit to the whole system. The message is as follows: By lowering admissions, the system lowers its costs, which attracts payers and patients to the extent that they are focused on better value. Hospital leaders also point out the hospital can't be allowed to shrink. If it did, "we can't maintain the education and research and the other component parts that are attractive to a high-quality medical staff," and are of benefit to the community, Taylor says.

The solution, from the health system's perspective, is to encourage the physician group to increase the base for its primary care patient population from 400,000 to 500,000 people. The focus is on expanding more into contiguous counties around Genesee County, which are more rural and rely on smaller community hospitals. The health system's leaders note that the hospital would likely partner with other regional hospitals to supplement their services to better meet the needs of an expanded patient base and may draw relatively small numbers of patients from several distant competitors.

Under payment reforms that encourage more efficient use of hospitals, some health systems may seek to follow the approach taken by Genesys to maintaining inpatient capacity by expanding the primary care service area. These systems may face a limit in their ability to do so, depending on their local market conditions and the point at which efficiency gains reach an equilibrium. Not all hospitals may be able to undertake such a strategy, however. In either case, some health systems may need to reduce their inpatient bed capacity, as Genesys did early in its transformation, to realize the benefits of more efficient care patterns in reducing costs.

CONCLUSION

In summary, there are many aspects of the HealthWorks model that make it appealing as an approach for transforming health care delivery to better achieve the goals embodied in the Triple Aim. For example, the model was applied in an environment of small private physician practices that predominates in most of the United States today, demonstrating that achieving greater integration and organization of care does not necessarily require an employed physician staff model. Genesys and its partners have begun to make progress toward achieving the goals of the Triple Aim. They are further along than many other communities while also facing much more difficult economic circumstances. Although some aspects of their approach may be unique, the lessons they have learned may be transferrable to other organizations and communities that share similar circumstances and interests in improving both care and health.

For a complete list of case studies in this series, along with an introduction and description of methods, see *The Triple Aim Journey: Improving Population Health and Patients' Experiences of Care, While Reducing Costs,* available at www.commonwealthfund.org.

APPENDIX A. GENESYS PHYSICIAN–HOSPITAL ORGANIZATION

This appendix describes how the Genesys Physician–Hospital Organization works to improve quality and efficiency of care. It also provides an overview of the Blue Cross Blue Shield of Michigan Physician Group Incentive Program, in which the Genesys PHO participates. Key elements of the PHO's strategy have been summarized in the case study.

PHYSICIAN-DIRECTED QUALITY IMPROVEMENT

Physicians lead committees that oversee utilization management, quality improvement and credentialing (for both primary care and specialty care physicians), finance, electronic medical record standards, and other matters (see Exhibit A2).

The PHO's Quality Improvement and Credentialing Committee is composed of approximately 20 primary care physicians who develop clinical practice guidelines for conditions such as acute pharyngitis in children, management of adults with major depression, and outpatient management of uncomplicated deep vein thrombosis, among others. Committee members also help to implement programs to increase and document the quality of care provided by physicians for conditions such as asthma and diabetes care, as well as screenings for breast and cervical cancer. "They are setting the guideline for 150 doctors who will be held accountable to that benchmark. They're very cognizant of that and there's lots of discussion," says Ann Donnelly, senior vice president of administration and medical management for the PHO.

The Quality Improvement and Credentialing Committee also sets performance targets for outcomes and management goals for these diseases and screenings after reviewing recent organizational performance and external benchmarks, such as the 90th percentile of performance (top 10 percent of health plans) reported by the National Committee for Quality Assurance (NCQA). Recent results indicate that the PHO is achieving rates of performance that are better than the national average for health plans on several quality measures and better than the national 90th percentile benchmark for some measures (Exhibit A1).

Exhibit A1. Selected Quality of Care Metrics

	2009 Genesys PHO Results*			HEDIS 2009**	
Measure	**Target**	**Managed Care Patients (claims data)**	**All Patients (chart audit)**	**National Average**	**National 90th Percentile**
Breast cancer screening	94.3%	81.4%	88.9%	70.2%	78.7%
Cervical cancer screening	94.1%	84.4%	86.5%	80.7%	86.7%
Colorectal cancer screening	83.9%	67.9%	79.9%	58.6%	69.6%
Diabetes HbA1c testing	94.9%	89.2%	93.5%	89.0%	93.7%
Diabetes control (HbA1c <7)	52.0%	38.0%	48.2%	43.3%	54.3%
Blood pressure management: 140/90 for patients with coronary artery disease	98.1%	85.0%	93.4%	NA	NA
Coronary artery disease patients screened for low-density lipoprotein cholesterol	93.9%	88.9%	89.4%	88.9%	93.2%

HEDIS = Healthcare Effectiveness Data and Information Set.
* For PHO results, claims data for managed care patients follows the HEDIS methodology, while the chart audit for all patients follows an internal methodology.
** HEDIS 2009 benchmarks are for commercial health maintenance organizations (HMOs) and represent care received during calendar year 2008.
Source: Genesys PHO and the National Committee for Quality Assurance (HEDIS benchmarks).

Physicians receive information about these goals through a regularly circulating newsletter, direct mailings, and physician committee meetings. Nurses then perform manual chart-review audits to determine the extent to which PHO-affiliated physicians, who are operating in private practices, meet those performance targets. The results are reported in individualized report cards, which are distributed on a quarterly basis. This type of feedback "helps me to be a better physician," says Dhiraj Bedi, D.O., a family practice physician who is affiliated with the PHO through Genesys Integrated Group Practice. Practicing alone, she says she wouldn't have access to such benchmarks.

Physicians performing at a significant deviation from their peers are more closely evaluated. Those identified as outliers receive more intensive, targeted education. Some are assigned a physician mentor.

The PHO's leaders believe such peer-to-peer consultation helps to improve accountability and performance. "What engages the physicians is having the opportunity to be leaders in quality improvement. Unless you have that full engagement of your doctors, you're not going to be able to achieve your outcomes," Donnelly says.

A published evaluation of the PHO's quality initiative (called the Clinical Excellence Program) suggests that these improvement efforts are bearing fruit. Several quality measures for diabetes—such as rates of testing for hemoglobin A1c (which measures blood sugar control) and low-density lipoprotein cholesterol levels—steadily improved or remained at a very high level over the five-year assessment period (2002 to 2006). The most substantial improvement was in nephropathy screening, which increased to 81 percent in 2003 from 43 percent the year before. Notably, physician participation in the program steadily increased from 40 to 84 practices during the evaluation period as it transitioned in stages from a voluntary to a mandatory program.[20]

Exhibit A2. PHO Committees

Genesys PHO Committee	Function
Utilization Management	· Approximately 20 primary care physicians plus one hospital representative · Evaluate managed care utilization statistics and improvement plans
Quality Improvement/ Credentialing	· Approximately 20 primary care physicians · Sets standards for care for physicians with evidence-based medicine/ clinical practice guidelines · Evaluates primary care physician and organizational performance related to the management of patients in the ambulatory care setting. · Sets goals and benchmarks for the organization · Works with physicians who are below benchmarks to improve performance and thereby improve organizational rates · Reviews and recommends primary care physicians for credentialing.
Specialist Quality Improvement/ Credentialing	· Approximately six physicians (primary care physicians and specialists) · Reviews protocols for ambulatory management · Reviews communication processes between primary care physicians and specialists · Reviews and recommends specialists for credentialing
Preferred Panel Committee	· Approximately 10 primary care physicians plus one hospital representative · Reviews utilization and satisfaction results of specialists on (or requesting inclusion on) the preferred panel · Requests review of specialists whose utilization or satisfaction results are significantly different from peers within their specialty
Finance Committee	· Approximately 12 physicians plus two hospital representatives · Reviews performance of managed care contracts · Reviews utilization as it relates to financial trends
Electronic Medical Record Committee	· Approximately 10 physicians · Reviews standards of care set by the Quality Improvement/Credentialing Committee and embeds prompts and reminders into the medical record · Ensures documentation templates reflect appropriate language and medical review
Physician Advisory for Patient-Centered Medical Home Initiatives	· Approximately 33 physicians · Evaluates processes and operations to meet the intent of patient-centered medical home, including but not limited to: patient education materials, communications between primary care physicians and health navigators, reports to determine physician and staff compliance with process
Medical Directors Committee	· All six medical directors and the CEO of the PHO · Reviews reports from committees and medical directors · Sets policy for the organization · Discusses strategy and vision for the organization

Making Specialty Care More Efficient

The PHO's Preferred Panel Committee evaluates the number of specialists required to meet the needs of patients and strives to maintain that level in the PHO's closed panel. The committee reassesses the volume of specialists within a specialty annually, at a minimum, and makes adjustments as changes in new technologies, therapeutic regimens, and the disease burden of the community require.

The committee that determines the specialist-to-primary care physician ratios does not impose its decisions unilaterally. Before changing the supply of specialists, the Preferred Panel Committee often gives existing specialists an opportunity to remedy the problems they've identified. "Before they make a decision to [add] an orthopedic surgeon to the panel, we bring our preferred panel of orthopedic surgeons together and say, 'You know, we're three months getting people (an appointment) in your office, or we have this gap in service that's not being addressed or may not be available in the area. Do you want to fix this internally, or should we recruit another doctor into the panel?' And 90 percent of the time they say, 'Oh, gee, we didn't know that,' and they fix it internally, and literally within a month [the problem] is gone," James says.

Specialists on the Genesys PHO's closed panel receive a consistent volume of patients from the PHO and are thus motivated to work closely with primary care physicians to optimize the type of referrals they get. The management of patients with back pain provides an illustration of how this collaboration between primary care and specialty care physicians works in practice (see box below).

Using a closed panel of specialists requires extensive, up-front communication with patients—especially those who have previously been enrolled in open network plans. "There is an educational session with the patient where the primary care physician sits down and explains how the system works. Patients need to weigh the benefits of having coordinated care against the drawbacks of changing physicians," James says.

BACK PAIN MANAGEMENT

In the case of lower-back pain, many specialists prefer to focus their time on the patients who need surgery and allow primary care physicians to manage those who may be treated through physical therapy or pain medication. To do the latter, primary care physicians needed additional training. The PHO arranged this by having one of the panel's neurosurgeons describe the types of back pain he sees and identify how he determines whether patients should be treated with physical therapy, pain management, and/or steroid injections. The neurosurgeon also explained how he determines that physical therapy has failed and surgery is required, as occurs in approximately 20 percent of cases.

Using this information, primary care physicians have begun managing patients with back pain who can benefit from physical therapy following an approach consistent with national standards, rather than simply referring them to specialists for surgical evaluation, as was done in the past. Approximately 50 percent to 60 percent of the patients with back pain who did not need surgery are now handled in the primary care physicians' offices. At the same time, "our surgeons are doing more surgeries per hour," James says. In order to make this system work, "you have to have the specialists and primary care physicians agree on the protocol," he says. Other conditions where treatment protocols and handoffs have been created include, but are not limited to acne treatment and eye exams for glaucoma.

Utilization Management

Currently, three managed care companies have delegated responsibility for credentialing and utilization management to the PHO, which reviews and approves referrals for specialty care and hospital admissions. "The HMO has no ability to override and deny those issues," says Mike James, president and CEO of Genesys PHO. Beginning in April 2010, the PHO will take delegated responsibility for care management for patients enrolled in Blue Cross Blue Shield of Michigan's PPO (Preferred Provider Organization) product, which will help fund the deployment of health navigators in the PHO (described in the case study).

The staff of Genesys PHO generate a "Utilization Review Report," which they distribute to each primary care physician monthly. The report provides each primary care physician with data on his or her performance, as well as data on the medical groups. Data in the report include:

- Hospital Days (rate per 1,000)
- Average Length of Stay
- Discharge (rate per 1,000)
- Percent of Non-Genesys Admissions
- Referrals (rate per 1,000)
- Rate of Nonpreferred Panel Referrals
- Emergency Department Visits (rate per 1,000)
- After-Hours Visits (rate per 1,000)
- Generic Rate
- Formulary Rate

This report is reviewed by Genesys PHO's senior director of medical management to identify physicians who are significantly outside the group averages, with particular attention to the reports of primary care providers who are working with a physician mentor to improve performance.

Participation in the Physician Group Incentive Program

Genesys PHO also participates in Blue Cross and Blue Shield of Michigan's (BCBSM) Physician Group Incentive Program (PGIP), which was established in 2004 to encourage physician organizations and medical groups to take responsibility for facilitating transformational changes in health care delivery that would improve population-level performance. The insurer embarked on this strategy after consulting with physician leaders in the state, who said that they wanted flexibility to design their program but also needed support to build the infrastructure necessary to bring about such change, according to Thomas Simmer, M.D., the insurer's chief medical officer. BCBSM is also a participant in IHI's Triple Aim initiative, focusing on its work (described below) to foster the development of patient-centered medical homes.

As of 2010, the PGIP included 35 Michigan physician organizations, four of which provide management services to smaller physician organizations, bringing the total number to more than 100. Altogether, these organizations represent more than 8,000 primary care physicians and specialists who together care for the majority of patients

covered by the insurer's statewide PPO network. Physician organizations range from large multispecialty groups that employ their physicians to looser aggregations of physicians in small private practices. Reimbursement for the care of patients covered by BCBSM accounts for about 30 percent of the Genesys PHO's revenue.

At the outset, the program supported these groups in building the infrastructure necessary to: 1) define a population of patients for which they are responsible, 2) set goals for improvement, and 3) measure and monitor the impact of their efforts in reaching those goals. An initial focus on chronic disease management has since expanded to include support for a broader range of activities to improve efficiency, access, coordination of care, preventive services, and patient self-management support.

Among the measures publicly reported at the physician group level are:

1. A set of 32 quality measures similar to NCQA HEDIS metrics.
2. Generic prescription drug use.
3. Selected utilization measures, such as risk-adjusted rates of hospital admissions and potentially preventable admissions, emergency department visits, use of high-tech and low-tech imaging services, and per member per month costs of services.

To measure population-level performance, the PGIP also encouraged participating groups to broaden their data collection to include information from all payers so they could follow all of their patients with specific conditions. "We wanted them to start looking at themselves as the vehicle through which population health and population-level health care is delivered," says Simmer.

The insurer's annual funding for the program started at $10 million and increased to $100 million this year. Close to $80 million of this funding is held in an incentive pool, which is based on a percentage of total professional payments. This percentage is currently 3.1 percent and will increase to 3.7 percent in July 2010.

Of the $100 million, $75 million is committed to the PGIP reward pool, $20 million is used to increase fees for physicians participating in the patient-centered medical home trial, and $5 million is to reimburse providers for the cost of team-based services delivered by midlevel practitioners such as a nurse, pharmacist, diabetes educator, or social worker. The insurer reimburses physician groups $60 per 30-minute session for these care management services, a practice other insurers are beginning to adopt.

The $75 million PGIP reward pool is divided into a reward for participation and a reward for performance. Determining how much a group will receive is a two-stage process. The insurer determines the reward payment based on the extent to which the practices are engaged in building patient-centered medical home infrastructure, implementing it in routine practice, achieving improvement, and optimizing results on cost and quality measures. The insurer considers whether a group met performance targets as well as their progress and their financial investment in improvement. "We try to create the business model for them so they can succeed," Simmer says.

Physicians participating in the insurer's Patient-Centered Medical Home pilot receive a 10 percent enhancement in their fees. In July, that uptick will increase to 20 percent for some physicians, based on how well their organizations are managing per member per month costs. The insurer wants to encourage physicians to focus not only on their own individual performance but also to influence their groups to function more effectively, Simmer says.

Although the financial incentive serves to encourage participation and interest, the deeper intent of the PGIP is to encourage physician groups to take on the "serious challenges" of making meaningful improvements in care, Simmer says. Because the process of improvement falls in the domain of the provider and not the payer, the insurer tries to avoid "role confusion" by focusing on results and not on methods.

In Simmer's observation, the Genesys PHO stands out for a dedicated leadership team that is focused on process and improvement. "They are . . . asking how you can be a high performance system. They haven't achieved perfection, but they are clearly facing a very serious [challenge] to do that," given the local economic conditions in Flint, Simmer notes. "They are straining every nerve and fiber to do it."

When looking across the participating organization, Simmer notes an inverse relationship between a physician group's interest in qualifying for an incentive and their level of commitment to making meaningful changes. He notes that the Genesys PHO is focused on the latter. "They really realize the most important thing is the patient, rather than the intricacies of how their reward might be higher this way or that," he says.

The Genesys PHO reports that it is using the additional dollars it receives through participation in the PGIP to help offset the cost of its ongoing improvement efforts and transformation to a new model of care. "The PGIP fits into our overall culture, but it wasn't one of the driving factors" in the group's transformation, says Mike James, the PHO's president and CEO. Rather than designing its efforts around a particular payment model, the PHO is prepared to work with any type of reimbursement change or incentive that will further its objectives for high performance care, he says.

Overall, the Genesys PHO ranks among the top 10 PGIP organizations in terms of its level of participation and performance, Simmer says (see Exhibit 12 for selected results). "We feel very comfortable that there is a very strong alignment with our interest in their success in accomplishing [the goals of the Triple Aim]."

APPENDIX B. GENESEE HEALTH PLAN

Genesee Health Plan (GHP) is a community-based, nonprofit organization that provides low-income, uninsured adults in Genesee County with access to primary care and other basic health care services. The limited coverage plan serves approximately 27,000 people, or about 72 percent of the county's low-income, uninsured adults, at an annual cost of $24 million.

GHP is funded through a dedicated local property tax levy (which provides $11.3 million per year through 2013), charitable support, and state and federal financing. Its members receive primary and preventive care and other basic ambulatory health care services including specialty care, outpatient laboratory and radiology services, and limited prescription drug coverage from a narrow formulary (approved list) of generic drugs. The plan does not cover emergency department visits or hospitalizations. It does cover physician services for outpatient surgeries and provides an annual lump-sum payment to local hospitals to help defray the institutions' uncompensated care costs. GHP partners with Genesys Health System to provide members with access to a team of health navigators that includes nurses and health educators who help patients develop healthy behaviors, overcome barriers to care, and enhance self-management skills.

GHP relies on a network of 192 primary care physicians, most of whom are affiliated with one of the three local hospital systems with which GHP partners: Genesys Health System, Hurley Medical Center, and McLaren Regional Medical Center. These physicians provide "medical homes" for the patients and coordinate referrals for specialty care using a network of 289 specialists. The primary care providers are reimbursed on a fee-for-service basis using the Medicaid rates plus 14 percent. Specialty physicians are paid Medicaid rates plus 4 percent.

The health plan has increased access to medical services for uninsured residents of the county, while reducing unnecessary or preventable emergency department visits and hospitalizations. An analysis by Health Management Associates[21] found:

- GHP members see primary care physicians at almost the same rate that enrollees of local commercial health plans do (2.1 times per year versus 2.4). For well-care visits (i.e., annual physicals), GHP members see physicians at the same rate as their counterparts in commercial health plans.
- The rate of emergency department use among GHP enrollees fell by half between 2004 (82 visits per 100 members) and 2007 (40 visits per 100 members).
- Hospital admissions fell by 15 percent between 2006 (4.26 per 100 members) and 2007 (3.62 per 100 members), which represented an estimated savings of more than $1 million for the health plan's hospital partners.

APPENDIX C. MEDICARE DATA FROM THE DARTMOUTH ATLAS OF HEALTH CARE

Exhibit C1. Resource Use Among Chronically Ill Medicare Beneficiaries in Their Last Two Years of Life, 2001–2005*

	Genesys Regional Medical Center	Flint HRR** Average	Michigan Average	United States Average
Total Medicare reimbursements per enrollee	$57,761	$58,248	$53,296	$52,838
Hospital days per enrollee	24.30	25.31	23.13	23.60
Total physician visits per enrollee	77.05	77.57	71.80	70.11
Specialist visits per enrollee	29.46	32.20	27.58	30.71

* Includes beneficiaries with one or more of nine chronic conditions assigned to the hospital at which they received the majority of their care in the last two years of life. Geographic measures represent weighted averages of the included hospitals in the region and exclude members of the chronically ill population who were not hospitalized during the last two years of life and could not be reliably assigned to hospitals. This was done in order to provide comparable measures that use the same patient populations. Data were adjusted for differences in patients' age, sex, race, primary chronic condition, and whether they had more than one of nine chronic conditions. Reimbursement data were not adjusted for differences in local prices or in graduate medical education or disproportionate share hospital payments.
** HRR = Hospital Referral Region.
Source: http://cecsweb.dartmouth.edu/atlas08/datatools/bench_s1.php.

Exhibit C2. Medicare Reimbursements per Enrollee (adjusted for inflation)

	1992	2006	Total Growth	Annual Growth
Flint HRR	$6,114	$9,100	$2,985	**2.88%**
Michigan	$5,162	$8,785	$3,623	**3.87%**
US	$5,110	$8,304	$3,193	**3.53%**

Source: http://www.dartmouthatlas.org.

Exhibit C3. Physician Workforce, 2006

	Total Specialists per 100,000 Residents	Primary Care Physicians per 100,000 Residents	Total Specialists per Primary Care Physician
Flint HRR	101.02	78.43	1.29
US	127.5	71.93	1.77

Source: http://cecsweb.dartmouth.edu/atlas08/datatools/bench.php.

Notes

[1] D. M. Berwick, T. W. Nolan, and J. Whittington, "The Triple Aim: Care, Health, and Cost," *Health Affairs,* May/June 2008 27(3):759–69.

[2] Information for the case study was obtained from a site visit, interviews, and e-mail communications with organizational leaders (recognized in the Acknowledgments), the organization's Web site, presentations and internal documents provided by the organization, and other publicly available sources noted below.

[3] A primary care "medical home" is a physician practice or clinic that provides patients with accessible, continuous, comprehensive, patient-centered, and coordinated primary care.

[4] U.S. Department of Labor, Bureau of Labor Statistics, Local Area Unemployment Statistics, Tables LAUCN26049003 (Genesee County) and LAUPA26100003 (Flint City), available at http://www.bls.gov/lau/data.htm.

[5] D. McCarthy and E. Staton, "Case Study: A Transformational Change Process to Improve Patient Safety at Ascension Health," *Quality Matters* (New York: The Commonwealth Fund, Jan. 2006).

[6] Flint and Genesee County remain home to a large number of General Motors retirees who were covered until recently with a very rich benefit package. In 2009, GM and the United Auto Workers established the Voluntary Employee Benefit Association (VEBA) to oversee retire benefits, as part of a renewed effort to control costs. The implications of this for local health care providers is not yet known.

[7] Around this time, the Greater Flint Area Health Coalition, initiated by GM and UAW, was formed and continued to encourage the three area hospitals to cut costs by not duplicating each other's services. Through the consolidation of predecessor hospitals, Genesys narrowed its scope of inpatient services by excluding a burn unit, a neonatal unit, certain cranial surgeries, and organ transplants.

[8] Y. S. Suh, "A System for the Future: Genesys Health System Designs and Builds a Patient-Focused Care Delivery Network," *Health Progress*, Dec. 1993 74(10):51–53.

[9] According to the Agency for Healthcare Research and Quality, a High Reliability Organization exhibits five key characteristics: 1) sensitivity to operations, 2) reluctance to oversimplify, 3) preoccupation with failure, 4) deference to expertise, and 5) resilience. See Agency for Healthcare Research and Quality, *Becoming a High Reliability Organization: Operational Advice for Hospital Leaders,* AHRQ Publication No. 08-0022 (Rockville, Md.: AHRQ, April 2008), available at http://www.ahrq.gov/qual/hroadvice).

[10] The linkages between improved health behaviors and population health, first described in the landmark Framingham Heart Study, were most recently noted in: E. Kvaavik, G. D. Batty, G. Ursin et al., "Influence of Individual and Combined Health Behaviors on Total and Cause-Specific Mortality in Men and Women," *Archives of Internal Medicine,* April 2010 170(8):711–18.

[11] The health system expects that insurers will adopt some or all of the cost of this program as the medical home model becomes more established.

[12] https://xteam.brookings.edu/bdacoln/Pages/home.aspx.

[13] Task Force on Community Preventive Services, *Guide to Community Preventive Services,* available at http://www.thecommunityguide.org.

[14] J. Summers Holtrop, S. A. Dosh, T. Torres et al., "The Community Health Educator Referral Liaison (CHERL): A Primary Care Practice Role for Promoting Healthy Behaviors," *American Journal of Preventive Medicine,* Nov. 2008 35(5 Suppl.):S365–S372, available at http://www.genesys.org/Internet/Web/CherlWeb.nsf. The project was funded by the Robert Wood Johnson Foundation and the Agency for Healthcare Research and Quality.

[15] Genesys HealthWorks reports that, in prior programs, self-reported telephone data were corroborated with clinical data such as hemoglobin A1c and body mass index.

[16] HealthGrades "Distinguished Hospital for Clinical Excellence" (2010). The hospital also received HealthGrades "America's 50 Best Hospitals" in 2009 and the "Patient Safety Excellence Award" in 2009.

[17] The GM analysis did not adjust for differences in patients' health risks.

[18] Results are for Medicare beneficiaries with one or more of nine chronic conditions who received the majority of their care at Genesys Regional Medical Center in the last two years of life. Data were adjusted for differences in patients' age, sex, race, primary chronic condition, and whether they had more than one of nine chronic conditions. Reimbursement data were not adjusted for differences in local prices or in graduate medical education or disproportionate share hospital payments (www.dartmouthatlas.org).

[19] For data and methods, see www.whynotthebest.org. Data were downloaded in April 2010.

[20] A. Donnelly, P. Kommareddi, M. James et al., "Intensified Diabetes Care Monitoring and Physician Education: Impact on Outcomes and Costs of Care," *Disease Management & Health Outcomes*, 2008 16(2):113–23.

[21] D. Strugar-Fritsch, J. Dalton, D. Roberts et al., *Genesee Health Plan Longitudinal Impact Analysis: Data and Interpretation* (Lansing, Mich.: Health Management Associates, Oct. 2008).

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