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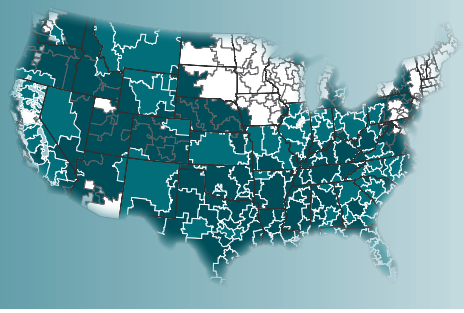

Grand Rapids and West Central Michigan: Pursuing Health Care Value Through Regional Planning, Cooperation, and Investment

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ABSTRACT: The region of West Central Michigan encompassing Grand Rapids and surrounding communities ranks in the top quartile among 306 U.S. regions evaluated by The Commonwealth Fund's *Scorecard on Local Health System Performance, 2012*, performing especially well on measures of prevention and treatment quality, avoidable hospital use, and costs of care. This relatively higher performance may stem from the area's conservative medical practice style and local stakeholders' stewardship of community health and health care, as illustrated by a long history of regional planning and accountability for promoting the efficient use of resources. Complementary efforts and incentives to improve quality of care, community outreach programs, and a commitment to strengthening the safety net also may influence regional performance. However, more recently, rising costs and increasingly competitive market dynamics appear to be challenging the social contract that has long guided community cooperation.

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BACKGROUND

The Commonwealth Fund's *Scorecard on Local Health System Performance, 2012,* found wide variation across 306 regions* of the United States on 43 indicators assessing health care access, quality, efficiency, and outcomes (Appendix A).[1] This case study series examines selected U.S. regions that performed relatively well on the *Scorecard*—overall or on particular dimensions of performance—despite challenges associated with poorer performance, such as higher poverty rates compared with similarly performing peers.[2]

This report focuses on the Grand Rapids "hospital referral region," which includes all or parts of 19 counties in West Central Michigan (Exhibit 1).[3] The region ranked 43rd on the *Scorecard*, placing it in the top quartile on dimensions measuring the quality of prevention and treatment and potentially avoidable hospital

* The unit of analysis for the *Scorecard on Local Health System Performance, 2012,* is the hospital referral region, defined by the *Dartmouth Atlas of Health Care* on the basis of travel and referral patterns for complex care among Medicare beneficiaries.

use and costs of care (Exhibit 2). The case study draws on interviews with a range of local stakeholders to identify factors that may contribute to better performance in the region.

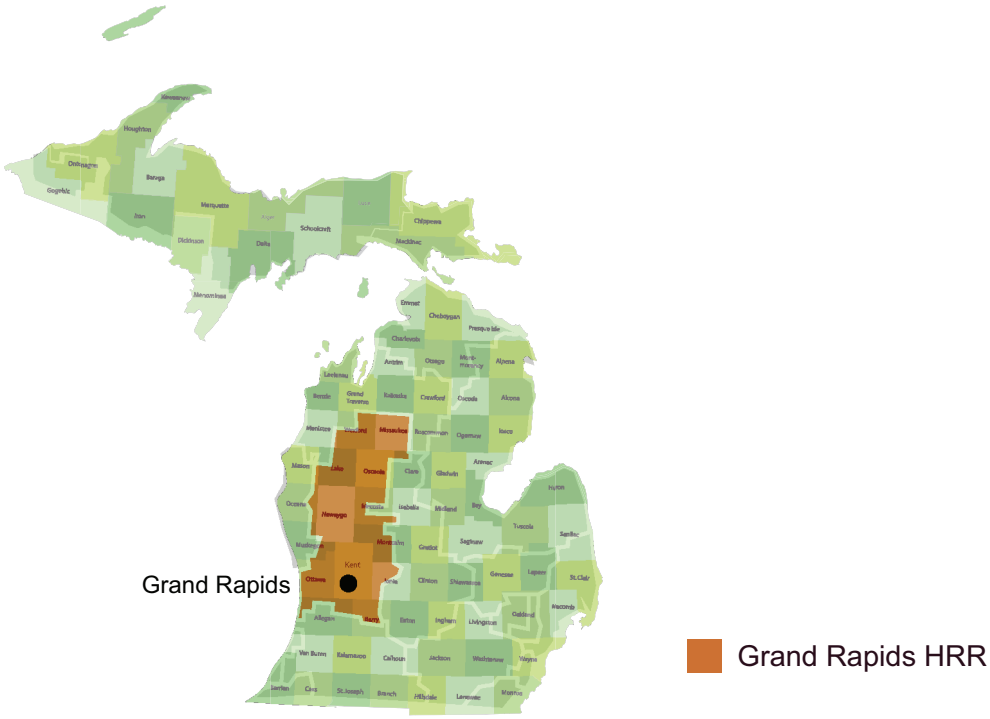
OVERVIEW OF THE WEST CENTRAL MICHIGAN REGION

Grand Rapids, a regional health care hub and Michigan's second-largest city, has been dubbed a community of givers, the most generous of which are local families that draw their wealth from the companies they founded—among them Amway, Meijer department stores, and furniture manufacturers such as Steelcase, Inc. These families' philanthropic investments have financed much of the construction of Grand Rapids' "Medical Mile," a corridor that includes a new children's hospital, a state-of-the-art research institute, the headquarters of Michigan State University College of Human Medicine, and Grand Valley State University's College of Health Professions, among other facilities.

The philanthropic investment in medical infrastructure, combined with employer-driven efforts to consolidate health care resources, has allowed local hospitals and health systems to offer a range of specialty services—such as adult and pediatric transplant programs—that is unusual for the size of the community. The region is attractive for other reasons as well. It has a vibrant arts community and other cultural amenities supported by local philanthropists, as well as many outdoor recreation destinations including the nearby beaches of Lake Michigan.

While these attractions have drawn new residents, community leaders say the region's culture continues to reflect the social values of the Dutch immigrants who moved there in the late 1800s. These cultural values stress the importance of self-reliance and prudent use of resources—especially in medical care. "We're talking about a conservative community that…doesn't want to spend needlessly and wants to get the biggest bang for the buck," says Lody Zwarensteyn, past president of the Alliance for Health,

Exhibit 1. The Grand Rapids Hospital Referral Region in West Central Michigan



Note: The Grand Rapids HRR includes ZIP codes in the following Michigan counties: Allegan, Barry, Clare, Eaton, Ionia, Isabella, Kent, Lake, Manistee, Mason, Mecosta, Missaukee, Montcalm, Muskegon, Newaygo, Oceana, Osceola, Ottawa, Wexford (as shown on map on right).
Source: Adapted from the Dartmouth Atlas of Health Care, www.dartmouthatlas.org.

Exhibit 2. Performance Summary for the Grand Rapids Hospital Referral Region

Dimension	Quartile	Rank
Overall	1	43
Access	2	86
Prevention and Treatment	1	14
Potentially Avoidable Hospital Use and Cost	1	65
Healthy Lives	2	100

Note: Performance is based on 43 indicators covering the time period 2007–2010. See Appendix A for a complete list of indicators and the specific time periods they cover.
Source: The Commonwealth Fund *Scorecard on Local Health System Performance, 2012.*

an organization founded in 1948 at the behest of employers and hospitals to oversee regional planning.

Steven R. Heacock, senior vice president of public affairs for Spectrum Health System, the region's largest health care provider as well as its largest employer, says this philosophy is pervasive. "Even though they may be spending somebody else's money in health care, there's an attention paid to 'Do I really need this? Isn't there a way for me to do this in a cheaper way?' And it's not just the patients that act that way, [it's also] the doctors."

The conservative culture makes practicing evidence-based medicine second nature for area physicians, says Zwarensteyn, perhaps contributing to the region's relatively better performance on quality and utilization measures. Total costs of care per enrollee in the region are lower than national medians for both Medicare and commercially insured populations, according to the *Scorecard on Local Health System Performance, 2012*. As a result, health care costs account for a smaller share of the local economy in West Michigan than they do for the nation, making the area an attractive place to do business, according to The Right Place, a regional economic development organization.[4]

PATHWAYS TO HIGHER PERFORMANCE

Stakeholders described several pathways by which the region has manifested stewardship for community health and health care. These include: 1) a history of regional planning and accountability to promote efficient use of resources and enhance health care value, 2) complementary efforts and incentives to improve quality, 3) community outreach to address the health needs of underserved populations, and 4) commitment to strengthening the safety net (Exhibit 3). Although these pathways do not account for every aspect of the region's performance, they offer a lens through which to observe the multifaceted ways in which stakeholders in the region are addressing challenges and working to improve the local health system. Some of the activities described below have occurred since the time period measured by the *Scorecard*, exemplifying how the region's capabilities continue to progress along these pathways.

A History of Regional Planning and Accountability

Efforts to contain health care spending and enhance the value of health care services in the Grand Rapids area date back to 1948, when local hospitals and employers came together to form what is today known as the Alliance for Health. From its start, the group has strived to reduce duplication of health care services and avoid what Zwarensteyn, its president, refers to as "mindless rivalries." In 1972, the organization began conducting local certificate-of-need reviews under delegated authority from the State of Michigan. The regional alliance now has a diverse membership of local employers, community health agencies, providers, and educators, who collectively view the resources devoted to health care as a common good that requires careful stewardship.[5]

It was on these grounds that community leaders asked in the 1990s that two large competing hospitals, Butterworth Hospital and Blodgett Memorial Medical Center, merge in order to conserve resources. The merger was challenged by the Federal Trade Commission, which feared it would lead to

Exhibit 3. Demographic and Health System Characteristics: West Central Michigan[6]

Demographics and Health
The Grand Rapids hospital referral region has a population of almost 1.2 million. The city of Grand Rapids (population 190,000) has a more diverse racial and ethnic makeup than the region as a whole (Appendix B). Although median household income in the region ($51,371) is higher than the median for all U.S. regions ($49,276), regional income disparity is evidenced by the more than one-quarter (25.5%) of Grand Rapids residents who have household incomes below the federal poverty level, compared with a regional median of 14.8 percent. Rates of preventable deaths, smoking, and tooth decay in the region are somewhat lower than the corresponding medians for all U.S. regions (Appendix A).

Hospitals and Health Systems
The region is served by 14 nonprofit hospitals. The number of hospital beds per capita is slightly lower than the median among all U.S. regions (2.1 vs. 2.4 per 1,000 population). The hospital market is concentrated around three major systems:

1. Spectrum Health System, with a 60 percent market share, operates 11 hospitals, including a Level 1 trauma center and the region's only children's hospital, in addition to 170 ambulatory care service sites. The Spectrum Health Medical Group employs 1,050 physicians and advanced practice providers. Other physicians are affiliated through a physician–hospital organization (PHO).
2. Mercy Health Saint Mary's, a member of Livonia-based CHE Trinity Health (the second-largest Catholic health care system in the United States), operates an acute-care hospital, a cancer hospital, and a neuroscience center in Grand Rapids. Its affiliated PHO recently joined Mercy Health Physician Partners, creating a regional network of almost 500 primary care and specialty physicians and advanced practice professionals in West Michigan.
3. Metro Health operates an osteopathic teaching hospital in the suburbs of Grand Rapids, as well as 12 ambulatory care facilities. The Metro Health PHO includes 204 physicians, approximately 20 percent of whom are employed by Metro Health.

Physicians and Health Centers
The number of primary care physicians per capita is close to the national rate, but the region has fewer specialists per capita. Stakeholders say that independent physician organizations are influential in the local medical culture. Among them are the Physician's Organization of Western Michigan (POWM), an independent practice association (IPA) of 573 physicians that has relationships with local hospitals. Cherry Street Health Services, a federally qualified health center, employs 37 physicians who practice in 15 clinic locations, nearly all within Grand Rapids. Mercy Health St. Mary's operates five urban and rural health centers serving homeless, uninsured, and HIV/AIDS patients as well as underserved minority residents and migrant workers in the Grand Rapids area.

Health Insurers
Enrollment in health maintenance organizations (HMOs) in the region is almost double the national median (31% versus 16%). The regional commercial market is dominated by two nonprofit insurers: Priority Health, majority-owned by Spectrum Health, with a 38 percent share; and Blue Cross Blue Shield of Michigan, with a 36 percent share of the regional market. Priority Health and Grand Valley Health Plan, a small local staff-model HMO, both rank in the top 10 percent of 474 private health plans evaluated for quality performance by the National Committee for Quality Assurance.[7]

Employers
The largest employment segments in West Central Michigan are trade, transportation, and utilities; manufacturing; education and health services; and professional and business services. Leading companies are in the automotive, biopharmaceuticals, metal manufacturing, and plastics industries.[8] Agriculture is important to the region, with many fruit farms employing seasonal migrant workers.

anticompetitive behavior, but the community rallied political support for the merger and ultimately prevailed, on the condition that the merged entity, which took the name Spectrum Health, make continuing and significant investments in improving community health.[9] It does so in large part through its Healthier Communities foundation (described below).

The Alliance for Health has weighed in on decisions involving the allocation of capital expenditures and the regionalization of specialty services. "Our people in this area said, 'Look, if decisions are going to be made, they ought to be made by the people who are subject to the consequences of those decisions,'" Zwarensteyn says. For example, the group recommended that Spectrum Health and Saint Mary's Health Care share a positron emission tomography (PET) scanner, which they did for five years through a joint venture arrangement in collaboration with local radiologists.[10] And, more recently, the Alliance recommended that the state deny MetroHealth's 2010 request to create a second cardiac transplant program in the area on the grounds that the region did not have enough patient volume to assure good surgical outcomes at a second center.

The organization also has wielded influence by pushing to make some prices transparent as a way of encouraging accountability and discouraging excess charges.[11] When these data reveal a large increase in price for a service, "the people react in the community and that gets trustees to react," says Zwarensteyn. Prices also must be considered in relation to service use to gauge the impact of regional planning. By constraining the supply of high-cost services such as medical imaging, for example, the certificate-of-need process leads to higher prices but lower overall cost because of comparatively lower use of such services in the region, according to John Fox, M.D., associate vice president of medical affairs for the local health plan Priority Health.

Complementary Efforts and Incentives to Improve Quality

West Central Michigan has taken a similar regional approach to quality improvement by pursuing models of care that have the potential to improve quality as well as efficiency. In 1992, for example, the region's hospitals became some of the first in the country to make use of hospitalists, who make it easier to standardize care processes, says Phil McCorkle, the recently retired CEO of Saint Mary's Health Care. Grand Rapids also established one of the nation's first community-based hospice programs (it began accepting patients in 1981) and has heavily promoted the use of hospice services through public education campaigns, according to James Fahner, M.D., a local pediatric oncologist. This effort, together with the availability of a 20-bed inpatient hospice care facility, may account in part for the region's relatively strong performance on the *Scorecard*'s measure of timely hospice use (Appendix A). More recently, the area's three competing health systems have invested in building a community health information exchange, known as Michigan Health Connect, now used by more than 1,000 physicians throughout the state to automate health care referrals and access hospital discharge information and laboratory test results, helping to improve care coordination and transitions.

The area also has been ahead of the curve in promoting teamwork and the practice of "teaching up," whereby medical students and residents educate their mentors about new practices. "We have made teaching teamwork a core focus of training" beginning in medical school, says John O'Donnell, M.D., director of preclinical curriculum at Michigan State University College of Human Medicine. "Our second-year curriculum . . . shows the students that a team of physicians will do far better than a solo. Having multiple people's input on tough problems has always been valued," he says. Moreover, the students "aren't afraid to speak up to the doctor—and the doctors are used to it—when something better could be done," says O'Donnell, who notes that he learned about the latest evidence on preventive medicine from his students.

Physicians and nurses also are heavily engaged in quality improvement in area hospitals. For example, clinicians working in Spectrum Health hospitals throughout the region have improved their compliance with hand hygiene guidelines from about 60 percent to over 95 percent of observed behaviors.[12] Spectrum's Helen DeVos Children's Hospital reduced its overall rate of serious safety events by 90 percent through a multifaceted initiative that serves as a model for the regional health system, according to Tom Peterson, M.D., formerly the hospital's executive director for safety, quality, and community health.[13] As a result of these efforts, staff has "the characteristics of a high-reliability team, like a willingness to oppose the authority gradient" and assertively raise safety issues, says James Tucci, M.D., chief clinical systems integration and improvement officer for Spectrum Health.

Local efforts to improve ambulatory care quality are reinforced by the pay-for-performance programs, sponsored by Blue Cross Blue Shield of Michigan and Priority Health, which supported the development of "all-payer" patient registries and helped medical practices make improvements to achieve recognition as patient-centered medical homes. Primary care practices working with Priority Health, for example, can increase their revenue by up to 30 percent through the incentives, which have amounted to $190 million over the past 17 years.[14] Blue Cross Blue Shield reports that its incentive program has been a catalyst for population health management, resulting in improved quality and reduced use of hospital and radiology services among participants statewide.[15]

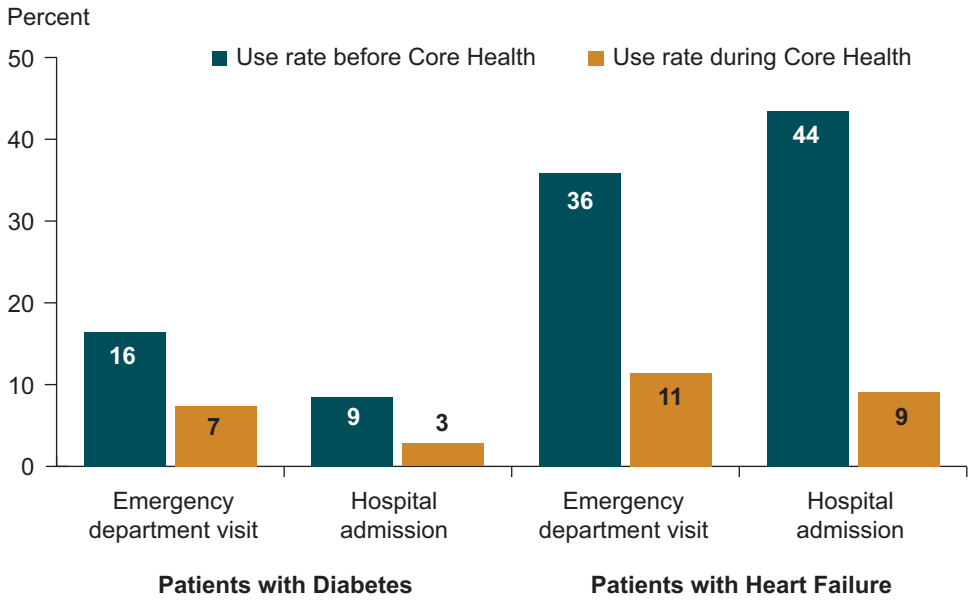
Physician leaders believe the incentive programs are instrumental in strengthening and organizing primary care, says Jeff Connolly, president of West Michigan operations for Blue Cross Blue Shield of Michigan. Spectrum Health Medical Group, for example, has invested physicians' performance bonuses back into improving the practice infrastructure, on the reasoning that high performance is expected rather than exceptional, says Tucci. The health plans also support quality and innovation by sponsoring pilot programs in the region to promote best care practices.

Community Outreach to Meet the Health Needs of Underserved Populations

The region's performance also may be influenced by the significant resources and effort that philanthropists, health systems, government agencies, and community organizations have committed to identifying and addressing the community's unmet health needs. One of the most prominent examples is Spectrum's Healthier Communities foundation, which invests $6 million each year in programs focused on improving chronic disease management, reducing infant mortality, and increasing access to health care for children. For example, the foundation's Core Health program is free for 12 months to patients with diabetes and heart failure at high risk for poor health outcomes.[16] Registered nurses and community health workers visit patients in their homes to monitor their condition, address socioeconomic challenges (such as low literacy or lack of transportation to medical appointments), and make connections to primary care and community resources. After joining the program, participants—who have numbered almost 900 since 2009—are much less likely to visit an emergency department or to be admitted to the hospital (Exhibit 4), saving $2.53 for every dollar invested in the program.[17] "We [also saw] that the quality of life for these patients was tremendously improved because they were now making their doctor's appointments, they were understanding their disease, [and] they were seeing decreases in their body mass index, decreases in blood pressure, and decreases in cardiovascular risk," says Erin Inman, director of Healthier Communities.

Other successful community-based efforts have focused on improving birth outcomes in Grand Rapids and Kent County, especially among African Americans, for whom the infant mortality rate is more than three times higher than among white infants. The Strong Beginnings program, designed with input from members of the African American community, uses community health workers as part of a team that provides outreach, case management, social support, health education, mental health care, and resources to high-risk mothers during their pregnancy and up to

Exhibit 4. Spectrum Health Core Health Program Three-Year Outcomes



Notes: The use rate represents the percentage who reported an ED visit or a hospital admission in the previous month.
Source: Erin Inman. Presentation to the Michigan Community Health Worker Alliance Annual Meeting, October 11, 2012.

two years after delivery.[18] A related interconception care program, coordinated by the health department, is similarly working to improve the health of women who have experienced a bad pregnancy outcome by encouraging good nutrition, regular dental care, and birth spacing of at least 18 months. The program is associated with longer pregnancy terms, higher infant birth weights, and fewer admissions to a neonatal intensive care unit.[19] Likewise, the infant mortality rate is 50 percent lower among Strong Beginnings participants (8.3 per 1,000 live births over six years) than among all African Americans in Grand Rapids (16.7 per 1,000 during 2008–2010).[20] Perhaps as a consequence, there has been a recent downward trend in Kent County's infant mortality rate, from a peak of 9.4 percent in 2003 to 6.7 percent in 2011.[21]

Among other local nonprofits that promote community health is Grand Rapids' YMCA, one of several around the country participating in the national Activate America: Pioneering Healthier Communities program. With support from local businesses, the YMCA provides services promoting health, wellness, and nutrition, as well as outreach such as a "Veggie Van" that delivers fresh fruit and vegetables to neighborhoods that lack access to supermarkets.[22] The YMCA also collaborates with the region's health systems on programming, such as a weight-loss program for obese women and teenagers, developed with Spectrum Health, and a cardiovascular rehabilitation program at the David D. Hunting YMCA.

Commitment to Strengthening the Safety Net

Community leaders in West Central Michigan also exhibit a commitment to strengthening the safety net. In 2001, for example, the community formed the Kent Health Plan Corp., a nonprofit, to provide access to outpatient care and prescription medicine to roughly 4,000 low-income residents. Funded with contributions from local philanthropies and hospitals and from Kent County that were matched with Medicaid dollars, the program relied heavily on patient navigators to help patients find primary care doctors and on volunteer nurses to provide self-management classes for patients with chronic conditions such as diabetes and hypertension. Although the plan will change after Michigan's Medicaid program is expanded, it has demonstrated that using patient navigators has reduced

A New Care Model for the Future: Spectrum Health's Center for Integrative Medicine

To help reduce unnecessary use of the emergency department (ED), Spectrum Health invites frequent ED users (typically those with more than 10 visits per year) to use its Center for Integrative Medicine for a six-month "reorientation" and bridge to primary care. The message is that "the health care system hasn't provided what you need," says R. Corey Waller, M.D., the center's director. Three-quarters of invited patients make an initial four-hour visit, which includes extended time with Dr. Waller, a social worker, and a case manager,[23] who treat the patients' life problems—such as addiction or lack of housing or transportation—as if they were medical ones. The clinic has a high retention rate, which Waller attributes to respectful treatment by the multilingual staff. Since it was established in 2012, following a successful pilot test in 2008, the center's team has been seeing about 900 patients a year, who have collectively experienced a two-thirds reduction in ED visits. Priority Health has begun funding six-month episodes of care at the clinic for its members; the health system hopes the state's Medicaid program will follow suit. Although the center did not contribute to performance measured by the *Scorecard,* it demonstrates a spirit of innovation that can help the community better meet the intensive needs of patients who account for a disproportionate share of health care spending.

per-member, per-month cost by 37 percent ($179 to $113). Meanwhile, the Kent County Medical Society and Kent County Osteopathic Association jointly launched Project Access, a program that encouraged area specialists to see indigent patients on a rotating basis. With the implementation of the Affordable Care Act, that program has transitioned to becoming a referral resource center.

Despite these efforts, the relatively high rate of potentially avoidable hospital ED visits in the region suggests the need for more urgent care and after-hours care options and for improved access to care in rural areas of the region. Programs to address this need are under way. For instance, when the community realized that many Medicaid beneficiaries were having trouble seeing dentists and were turning up in the ED seeking help, Cherry Street, one of the region's federally qualified health centers, doubled the number of dental chairs in the clinic. The center also provides dental care in several school clinics and is working with a nonprofit to open a dental clinic in an underserved area of Grand Rapids.

Cherry Street and some private pediatric practices also have participated in Kent County's Children's Healthcare Access Program, which drew on philanthropic dollars to strengthen primary care for 15,000 low-income children enrolled in Priority Health's Medicaid health plan. The program led to a 35 percent reduction in ED visits and a 46 percent decline in hospital admissions in the first year. Asthma control also improved, as evidenced by a 78 percent decrease in school days missed because of the disease.[24]

Following coverage expansions under the Affordable Care Act, the Children's Healthcare Access Program is merging with Kent Health Plan to create an organization that will assist people in the use of whatever health plan they may have—whether Medicaid, Medicare, or commercial insurance. Much of the focus will be on keeping people out of the ED.

CHALLENGES AND INSIGHTS

West Central Michigan has made strategic investments that build toward a health system that meets patients' needs from cradle to grave—including a children's hospital and numerous community-based health programs that improve the care of patients with chronic diseases and encourage all residents to think about their preferences for end-of-life care. The sustained development of a comprehensive community health system, with many different actors playing a role, appears to reflect a community-mindedness that also manifests itself in regional planning and cooperation around local economic development.[25]

The small size of the regional market seems to foster a sense of stewardship and accountability among residents as well as health care leaders. "With many providers and business leaders serving on the same boards, they've come to have an understanding of one another's challenges," Dr. Fahner says. "There's not a separation. They are right there and we listened to them. We learned from them. Likewise they go back to their business and say, 'Here are the challenges in American health care.' It's a wonderful mutual understanding of the challenges on both sides of the ledger."

The commitment to building a stronger local health system—through medical education programs that address local health care workforce needs, prudent use of technological advances and adoption of care innovations, and recruitment of highly competent staff—gives the community the "best of Boston" at lower cost, says Dr. O'Donnell. The emphasis on high-quality care also helps draw talent, says Dr. Tucci. "You begin attracting people from other parts of the state or other states, as we've done in recent years, that are coming because of that vision," he says.

While market consolidation has been beneficial in many respects, there is growing concern about the market power of Spectrum Health and rising competitive tensions among health care institutions that may undermine the spirit of cooperation in the community. Metro Health recently announced its intent to enter into an equity partnership with the for-profit chain Community Health Systems, which will provide it with enhanced capital to compete in and inject investor ownership into the local hospital market for the first time. There's also concern that competition and the emphasis on specialty care is leading to duplication of services, as seen in the development of three local cancer centers and in the rising rate of spine surgeries, which is beginning to rival patterns of other high-use areas of the state, such as Detroit. As health reform creates pressure for more cost-conscious care, "we need to be even more diligent not to duplicate services," says Bill Manns, president of Mercy Health Saint Mary's in Grand Rapids.

Rising costs of care in the region may eventually challenge its reputation for lower spending. "We've seen cost increases that have been rather substantial," says Zwarensteyn. Starting from a relatively lower level compared with other regions, Medicare spending per beneficiary rose faster than the national median (18.8% vs. 10.5%) in the Grand Rapids hospital referral region from 2007 to 2011, indicating increased use of services. An analysis by Grand Valley State University found that the region faces cost pressures from an aging population as well as increasing rates of poverty, obesity, and other risk factors.[26]

Physician leaders like Spectrum's Tucci believe the region could benefit from even greater integration to promote better care coordination and bend the cost curve. Nascent "value-based" reimbursement arrangements may encourage competition on cost and quality. For example, Trinity Health (including Saint Mary's Hospital in Grand Rapids) and Blue Cross Blue Shield of Michigan recently announced a value-based partnership, while the Physician Organization of Western Michigan is partnering with the University of Michigan in an accountable care organization.

Nevertheless, local leaders like Zwarensteyn think that tackling the cost problem will require renewed community action to prevent the region's focus on enhancing the health care sector from backfiring on economic development by making the region more like other high-cost areas. To that end, the Alliance for Health is partnering with physician groups, health plans, and employers to test payment reforms that support the primary care medical home as a hub for care coordination, which may help reduce unnecessary use of specialty care. As the region's providers gear up to realize the potential of accountable care, they also are concerned about the impact of market-driven approaches on patients, who need an understanding of what it means to be engaged in new care arrangements, says Manns.

All told, the West Central Michigan region offers insight into the role that community leaders can play in shaping a local health system, and into the elusive influence of local cultural values on the behaviors

of physicians and patients. And, while culture can offer a strong foundation for performance, local leaders also note the importance of incentives and a web of community accountability in effectively driving or setting boundaries on behaviors so that they lead to improved outcomes. As the nation moves toward value-based purchasing in health care, it may be helpful to give equal attention to cultivating supportive community relationships and regional strategies that can help channel market forces toward socially desired ends.

Appendix A. Local Scorecard Performance Results for the Grand Rapids Hospital Referral Region

Dimension and Indicator	Data Year	GRAND RAPIDS					
		HRR Quartile	HRR Rate	All-HRR Median	Top 90th Percentile	Top 99th Percentile	MI State Rate
Access							
Percent of adults ages 18–64 insured	2009–2010	2	83.7	80.2	87.5	92.6	82.1
Percent of children ages 0–17 insured	2009–2010	1	96.6	93.8	96.3	98.2	95.7
Percent of adults reported no cost-related problem seeing a doctor when they needed to within the past year	2009–2010	2	86.1	85.3	90.7	93.9	86.1
Percent of at-risk adults visited a doctor for routine checkup in the past two years	2009–2010	2	87.0	85.2	90.4	92.9	85.3
Percent of adults visited a dentist, dental hygienist, or dental clinic within the past year	2010	2	71.8	69.7	77.9	82.7	72.5
Prevention and Treatment							
Percent of adults with a usual source of care	2009–2010	1	90.1	82.4	88.8	92.0	86.7
Percent of adults age 50 and older received recommended screening and preventive care	2008 & 2010	1	51.1	44.2	50.8	54.5	48.4
Percent of adult diabetics received recommended preventive care	2008–2010	2	48.1	45.5	55.7	63.1	46.7
Percent of Medicare beneficiaries received at least one drug that should be avoided in the elderly[1]	2007	2	21.6	25.0	17.9	12.9	n/a
Percent of Medicare beneficiaries with dementia, hip/pelvic fracture, or chronic renal failure received prescription in an ambulatory care setting that is contraindicated for that condition[1]	2007	2	17.5	19.7	15.3	12.5	n/a
Percent of patients hospitalized for heart failure who received recommended care[2]	2010	1	96.0	94.7	97.5	98.9	95.6
Percent of patients hospitalized for pneumonia who received recommended care[2]	2010	1	97.6	95.1	96.9	98.3	94.9
Percent of surgical patients received appropriate care to prevent complications[2]	2010	1	97.2	96.2	97.4	98.6	96.5
Percent of hospitalized patients given information about what to do during their recovery at home	2010	1	87.8	82.6	86.2	87.9	83.4
Percent of patients reported hospital staff always managed pain well, responded when needed help to get to bathroom or pressed call button, and explained medicines and side effects	2010	1	65.7	63.2	67.1	70.3	63.9
Risk-adjusted 30-day mortality among Medicare patients hospitalized for heart attack[3]	7/2007–6/2010	3	15.6	15.6	14.4	13.1	14.9
Risk-adjusted 30-day mortality among Medicare patients hospitalized for heart failure[3]	7/2007–6/2010	3	12.0	11.4	9.9	9.1	10.5
Risk-adjusted 30-day mortality among Medicare patients hospitalized for pneumonia[3]	7/2007–6/2010	3	11.6	11.8	10.6	9.5	11.0
Percent of home health care patients whose ability to walk or move around improved[4]	4/2010–3/2011	3	51.7	53.4	56.7	58.6	54.8
Percent of home health care patients whose wounds improved or healed after an operation[4]	4/2010–3/2011	3	87.1	88.0	90.3	92.0	87.8
Percent of high-risk nursing home residents with pressure sores[5]	2008–2009	1	6.4	10.9	7.9	6.1	n/a
Percent of long-stay nursing home residents who were physically restrained[5]	2008–2009	1	3.2	3.3	1.5	0.6	n/a
Percent of long-stay nursing home residents who have moderate to severe pain[5]	2008–2009	1	2.4	3.6	2.2	1.4	n/a
Percent of Medicare decedents with a cancer diagnosis without any hospice or who enrolled in hospice during the last three days of life	2007	1	48.5	55.6	46.6	38.6	55.0

Dimension and Indicator	Data Year	GRAND RAPIDS HRR Quartile	GRAND RAPIDS HRR Rate	All-HRR Median	Top 90th Percentile	Top 99th Percentile	MI State Rate
Potentially Avoidable Hospital Use and Cost							
Hospital admissions among Medicare beneficiaries for ambulatory care–sensitive conditions, per 100,000 beneficiaries	2009	2	5,410	6,184	4,045	2,691	6,700
Readmissions within 30 days of discharge as percent of all admissions among Medicare beneficiaries	2008	2	16.8	17.7	15.1	13.1	19.5
Potentially avoidable emergency department visits among Medicare beneficiaries, per 1,000 beneficiaries	2009	3	214	197	162	139	225
Percent of long-stay nursing home residents hospitalized within six-month		1	13.3	20.0	11.9	8.3	18.8
Percent of first-time nursing home residents readmitted within 30 days of hospital discharge to the nursing home		2	18.6	20.6	15.8	12.7	23.0
Percent of home health care patients with a hospital admission	4/2010–3/2011	1	22.1	26.6	22.4	19.9	23.1
Medicare imaging costs per enrollee	2008	1	$222	$288	$189	$143	$330
Total Medicare (Parts A & B) reimbursements per enrollee[6] (expressed as a ratio to all-HRR median)	2008	2	$7,503 (0.94)	$7,952	$6,432	$5,699	$8,856
Total reimbursements per commercially insured enrollee ages 18–64[6] (expressed as a ratio to all-HRR median)	2009	1	$2,919 (0.88)	$3,314	$2,801	$2,524	$2,880
Healthy Lives							
Potentially preventable mortality, deaths per 100,000 population[7]	2005–2007	2	82.9	91.3	71.6	59.1	94.6
Breast cancer deaths per 100,000 female population[8]	1996–2005	2	25.6	28.9	22.6	19.4	25.5
Colorectal cancer deaths per 100,000 population[8]	1996–2005	3	23.2	22.8	16.9	12.8	19.2
Infant mortality, deaths per 1,000 live births[8]	1996–2005	3	6.9	6.8	4.9	4.0	7.8
Percent of live births with low birth weight[8]	1996–2005	1	6.6	7.5	6.0	5.4	8.2
Suicide deaths per 100,000 population[8]	1996–2005	2	15.0	15.4	8.2	4.7	11.2
Percent of adults who smoke	2009–2010	2	17.7	19.0	12.6	8.4	19.2
Percent of adults ages 18–64 who are obese (BMI >= 30)	2009–2010	3	30.3	29.5	23.8	17.9	31.8
Percent of adults ages 18–64 who have lost six or more teeth because of tooth decay, infection, or gum disease	2009–2010	1	7.5	10.1	5.9	3.6	9.0
Percent of adults ages 18–64 report fair/poor health, 14 or more bad mental health days, or activity limitations	2009–2010	2	28.6	29.5	23.5	19.6	29.9

HRR = hospital referral region, as defined by the *Dartmouth Atlas of Health Care*.
n/a = data are not available for this indicator for this HRR.
[1] Metric forms part of the score reflecting potentially inappropriate prescribing among elderly Medicare beneficiaries.
[2] Metric forms part of the score reflecting receipt of recommended hospital care.
[3] Metric forms part of the score reflecting hospital mortality.
[4] Metric forms part of the score reflecting quality of home health care.
[5] Metric forms part of the score reflecting quality of nursing home care.
[6] Total per-person Medicare spending estimates include payments made for hospital (Part A) and outpatient (Part B) services. Estimates exclude extra payments to support graduate medical education and treatment of a disproportionate share of low-income patients; adjustments are made for regional wage differences. Commercial spending estimates, generated from a sophisticated regression model, include reimbursed costs for health care services from all sources of payment, including the health plan, enrollee, and any third-party payers, incurred during 2009. Outpatient prescription drug charges are excluded, as are enrollees with capitated plans and their associated claims. Commercial spending estimates were adjusted for enrollee age and sex, the interaction of age and sex, partial-year enrollment, and regional wage differences.
[7] Data for this indicator come from county-level 2005–2007 NVSS-M data files, aggregated to the HRR level, for most HRRs. Estimates for the Anchorage and Honolulu HRRs represent state-level data and are compiled from years 2006–2007.
[8] Data for this indicator come from the Community Health Status Indicators (CHSI) database. CHSI data are reported at the county level. Counties with small populations require more years of data for stable estimates. HRR-level estimates can, but do not necessarily, include data from each year between 1996 and 2005, depending on the population sizes in the counties in the HRR.
Note: Refer to Appendix B in the *Scorecard on Local Health System Performance, 2012,* for indicator descriptions, data sources, and other notes about methodology.

Appendix B. Demographic and Market Characteristics

	Data Source	Data Years	City of Grand Rapids	Grand Rapids HRR	Michigan	Median HRR
Demographic characteristics						
Total population	American Community Survey, U.S. Census	2007–2011	189,853	1,164,560	9,920,621	616,212
Age under 18			25.1	26.0	24.0	23.7
Age 65 and older			10.8	12.0	13.5	13.6
Race[1]						
White	American Community Survey, U.S. Census	2007–2011	66.8	86.4	79.3	82.6
Black or African American			21.6	5.9	14.1	6.5
Other race or multiracial			11.6	7.7	6.6	7.4
Ethnicity						
Hispanic or Latino			15.8	7.8	4.4	6.6
Non-Hispanic, white			57.8	82.4	76.7	74.4
Non-Hispanic, black or African American			21.1	5.7	13.9	6.3
Non-Hispanic, other race or multiracial			5.3	4.2	5.0	4.1
Median household income			$38,731	$51,371	$48,669	$49,276
Percent below federal poverty level (FPL)			25.5	14.8	15.7	14.8
Percent below 200% FPL			47.8	33.7	33.5	34.5
High school education or less, adults over age 25			43.1	43.4	42.7	45.3
Bachelor's degree or higher			27.6	25.7	25.3	24.1
Market characteristics						
Hospital beds per 1,000 population	Dartmouth Atlas	2006		2.1	2.5	2.4
Hospital market concentration[2]	Medicare Provider of Service File	2010		3,748 (high)	3,354* (high)	2,541 (high)
Primary care physicians per 100,000 residents	Dartmouth Atlas	2006		66.6	77.0*	68.8
Specialty physicians per 100,000 residents				107.1	117.6*	117.5
Market share of top three insurers (commercial)	Managed Market Surveyor, Healthleaders-Interstudy[3]	2010		84.2	76.6	74.6
HMO penetration (among all payers)				31.4	26.2	16.5
Total reimbursements per commercially insured patient under age 65	Commercial claims[4]	2009		$2,919	$2,880	$3,314
Total standardized Medicare (Parts A & B) spending per beneficiary	IOM analysis of Medicare claims[5]	2009		$7,857	$9,410	$8,483
Percent change in standardized Medicare spending per beneficiary (2007–2011)	IOM analysis of Medicare claims[5]	2007–2011		18.8	13.6	10.5

HRR = hospital referral region, as defined by the *Dartmouth Atlas of Health Care.*

Note: The U.S. rate represents the median of all HRR-level rates.

* State rate not available. Figure reported represents the median of all HRRs anchored within the state.

[1] The authors stratified each region's population by those identifying as "white only," "black or African-American only," or "any other race or combination of racial backgrounds." These three categories capture 100 percent of the population. Individuals identifying as Hispanic or Latino ethnicity (and non-Hispanic racial prevalence) are displayed separately.

[2] Market concentration is calculated using the Herfindahl-Hirschmann Index (HHI). General standards outlined by the U.S. Department of Justice divide the spectrum of market concentration into three broad categories: unconcentrated (HHI below 1,000), moderately concentrated (HHI from 1,000 to 1,800), and highly concentrated (HHI above 1,800).

[3] The Commonwealth Fund's analysis of Managed Market Surveyor, Healthleaders-Interstudy (Jan. 2010). HealthLeaders-Interstudy. Used with Permission. All Rights Reserved.

[4] Commercial spending estimates provided by M. Chernew, Harvard Medical School Department of Health Care Policy, analysis of the Thomson Reuters MarketScan Database. Total per-enrollee spending estimates generated from a sophisticated regression model include reimbursed costs for health care services from all sources of payment, including the health plan, the enrollee, and any third-party payers incurred during 2009. Outpatient prescription drug charges are excluded, as were enrollees with capitated plans and their associated claims. Estimates for each HRR were adjusted for enrollees' age and sex, the interaction of age and sex, partial-year enrollment, and regional wage differences.

[5] Analysis performed by the Institute of Medicine. Total Medicare per-person spending estimates include payments made for hospital (Part A) and outpatient (Part B) services. Estimates exclude extra payments to support graduate medical education and treating a disproportionate share of low-income patients. Data are standardized by making adjustments for regional wage differences.

NOTES

1 D. C. Radley, S. K. H. How, A. K. Fryer, D. McCarthy, and C. Schoen, *Rising to the Challenge: Results from a Scorecard on Local Health System Performance, 2012* (New York: The Commonwealth Fund, March 2012). Unless otherwise indicated, regional data come from the *Scorecard* or supplemental data prepared by the Scorecard team (see Appendices for data sources). The "All-HRR Median" reported in the *Scorecard* is not the same as the "U.S. median," but is rather a "median among all regions."

2 Among 26 regions with more than 1 million population that ranked in the top quarter overall on the *Scorecard on Local Health Performance, 2012,* the Grand Rapids HRR was one of the four regions with the highest poverty rates (percentage of people with family income below the federal poverty level) during 2007–2011. The others are Tucson, Arizona, and Buffalo and Rochester, New York.

3 In local parlance, West Michigan is generally considered to extend to Lake Michigan and thus includes the Muskegon area, which the *Dartmouth Atlas of Health Care* defines as a separate hospital referral region (HRR). While the Muskegon HRR is not the subject of this report, it also ranks among the top quartile of U.S. regions on the *Scorecard on Local Health System Performance, 2012*. Local leaders say that health care is increasingly integrated across the Grand Rapids and Muskegon communities. Mercy Health, for example, recently announced the consolidation of its operations across the two communities. See: M. D. Anderson, "Mercy Health Partners to Provide More ''Seamless, Patient-Directed'' Service with Merged Regional Operation," MLive, April 17, 2013, http://www.mlive.com/news/muskegon/index.ssf/2013/04/mercy_health_partners_to_provi.html.

4 The Right Place, "Cost of Doing Business," http://www.rightplace.org/Why-West-Michigan/Cost-of-Doing-Business.aspx.

5 According to the American Health Planning Association, "Health services policymakers have used certificate-of-need (CON) regulation to help shape the health care system for more than three decades. The rationale for imposing market entry controls is that regulation, grounded in community-based planning, will result in more appropriate allocation and distribution of health care resources and, thereby, help ensure access to care, maintain or improve quality, and help control health care capital spending." The U.S. Department of Justice and the Federal Trade Commission have argued against CON regulation on anticompetitive grounds; see Improving Health Care: A Dose of Competition: A Report by the Federal Trade Commission and the Department of Justice, July 2004, http://www.ftc.gov/reports/improving-health-care-dose-competition-report-federal-trade-commission-department-justice. For a response, see: American Health Planning Association, The Federal Trade Commission & Certificate of Need Regulation, Jan. 2005, http://www.ahpanet.org/files/AHPAcritiqueFTC.pdf.

6 Background on the region was derived in part from HealthLeaders-InterStudy, *2012 Market Overview: Grand Rapids,* as well as from interviews with local stakeholders (see Acknowledgments), websites, and demographic and market data prepared for the *Scorecard on Local Health System Performance, 2012* (see Appendix B).

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8 The Right Place, "Why West Michigan: Our Case in a Nutshell," http://www.rightplace.org/Why-West-Michigan/Quick-Facts.aspx.

9 Through its Healthier Communities foundation, Spectrum Health contributes $6 million annually toward programs to help improve care for underserved residents of the region.

10 Because of increased volumes of imaging, both institutions have since received permission to purchase their own machines; see: P. Shellenbarger, "Grand Rapids–Area Hospitals Say CT/PET Scanners Are Must-Have Machines," *Grand Rapids Press*, Jan. 22, 2009, http://www.mlive.com/news/grand-rapids/index.ssf/2009/01/press_photo_jon_m_brouwerpam.html.

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