An Optum Institute for Sustainable Health Report

Sustainable health communities: A manifesto for improvement

Seeking a Sustainable Solution

The mission of the Optum Institute for Sustainable Health is to provide workable solutions that help communities move toward greater sustainability. A *sustainable health community* is one where costs are lower, quality of care is higher, and health outcomes are consequently better for all patients. We do this through new research that is informed by our "on-the-ground" market presence, through the development of tools, data, and intelligence that help track progress and identify best practices, and through multi-stakeholder forums that encourage exchange and collaboration.

In this inaugural Institute report we explore the building blocks that form the foundations of sustainable health communities and present important new survey data that identify opportunities and challenges on the road ahead of us.

Seven opportunities to make health care more sustainable

Our major new Optum Institute/Harris Interactive national survey of physicians, hospitals, and U.S. adults (n=3400) clearly points to seven major opportunities for making the American health care system work better for everyone. Key findings include:

Challenges

1. **The Health Challenge:** U.S. adults believe that patients always or often receive needed preventive health care only a third (33 percent) of the time, and doctors think this is true only half (50 percent) of the time.
2. **The Quality Challenge:** Nearly two thirds of physicians (64 percent) say that there are "significant differences in the quality of care provided by doctors" in their local area.
3. **The Cost Challenge:** U.S. adults believe that health care costs in their community could be cut by between a quarter and a third (29 percent) without having a negative impact on quality. Looking to the future, only a quarter of physicians (26 percent), around a third of consumers (38 percent), and half of hospitals (50 percent) believe that—absent new action—their local health care community is on course to becoming more sustainable.

Opportunities

4. **The Care Coordination Opportunity:** U.S. adults, doctors, and hospitals do not feel that the health care delivered in their communities is coordinated; 16 percent, 9 percent, and 16 percent, respectively, describe it as extremely or very well coordinated.
5. **The Technology Opportunity:** Fully 90 percent of physicians say they expect to be using electronic medical record (EMR) systems within 2–3 years time, up from 55 percent today. But fewer than half (47 percent) of those EMRs allow doctors to share their patients' medical records electronically with hospitals. And only a third (35 percent) of physicians report having a computerized system in place to track patients with chronic conditions and ensure appropriate monitoring and follow-up care.
6. **The Incentive Alignment Opportunity:** Over the coming decade, more than a third (35 percent) of doctors expect that between 10 and 25 percent of provider reimbursement will be tied to performance, and a further fifth (22 percent) of doctors think that the proportion at risk will be higher, in excess of a quarter of reimbursement. Half (49 percent) of physicians say they currently feel "not at all prepared" to accept greater financial risk for managing patient care. Similarly, hospitals expect a major move to performance-based reimbursement, with 40 percent of hospital respondents expecting that more than a quarter of revenues will be at risk for the quality and/or efficiency of care delivery.
7. **The Information Transparency Opportunity:** Under half (46 percent) of physicians' EMR systems can provide patients with easy access to their medical records. And while nearly two thirds of doctors (64 percent) report knowing that there is significant variation in the quality of local patient care, under half (47 percent) of U.S. adults are aware of that.

What is ***un*sustainable** about the current U.S. health care trajectory?

In many ways, America's health care is world-class. The United States is a leader in bringing high-tech care to the bedside. U.S. health care is strong on innovation and research and is a documented leader in the treatment of many diseases, such as cancer and cardiovascular disease.[1]

But in other ways, the United States is not delivering as much value as it could for the $2.6-trillion investment it receives. There are well-documented access problems, inadequate health education, and maldistribution of providers in rural and inner-city areas. The United States lags other developed countries in the treatment of chronic illness and in avoidable complications of illness and disease.[2] A recent international study documented that the United States has the highest rate of premature deaths from conditions that could have been either prevented or treated successfully to avoid death and morbidity.[3]

Furthermore, spending is projected to increase from $2.6 trillion to $4.6 trillion by the end of the decade—which will place further pressure on families, employers, and governments.

Is this "crying wolf"? Surely, as countries get richer, they can afford to spend more on health because they need to spend a smaller share of their wealth on food, clothing, and shelter. Indeed, Cutler and Richardson estimated that from 1970 to 1990, health improved by $100,000 to $200,000 per person, which is greater than the increase in medical spending over those decades.[4] And more than four decades ago, *Fortune* magazine declared U.S. health care unsustainable at a time when the nation was spending just 6 percent of GDP on health care services.

In asserting that the current trajectory of U.S. health care is unsustainable, here's what we mean.

- First, regarding *population health*, the health care system and broader economic and social policies are not currently well positioned to minimize new pressures arising from new health threats, including obesity, the rising burden of chronic illness, and aging of the population. The rate of obesity in adults has doubled in the past 20 years and almost tripled in children two to 11 years old. Chronic disease is rising sharply and accounts for $3 of every $4 spent on health care, or nearly $7,900 for every American with a chronic disease.[5]
- Second, regarding *access to care*, the health care delivery system has important gaps. Perhaps an additional 32 million individuals may gain coverage as a result of legislative changes beginning in two years' time. But there are already pressures on primary care in many of the underserved parts of the country, and those pressures are expected to increase.
- Third, *increased health spending* can have negative consequences for multiple constituencies.
  - *For families*, rising health care costs have effectively eliminated income gains for the average family of four over the past decade. The typical U.S. family of four with employer-based health insurance saw its gross annual income increase from $76,000 in 1999 to $99,000 in 2009 (in current dollars); however, that

[1] Gatta and colleagues (Cancer, Vol. 89, No. 4, pp. 893-900.) compared five-year cancer survival rates between the United States and 17 European countries. The United States had the highest survival rates for cancer of the colon, rectum, lung, breast, and prostate and ranked among the top in other cancers. See also How Does the Quality of U.S. Health Care Compare Internationally? The Urban Institute, August 2009, Elizabeth Docteur and Robert A. Berenson.

[2] For example, among 30 member countries of the Organisation for Economic Co-operation and Development, the United States ranked below average in adult asthma care, and hospital admission rates for asthma—an indicator of inadequate care for the condition—were second highest among 17 countries reporting. OECD (2009), Health Care Quality Indicators Project, http://www.oecd.org/health/hcqi.

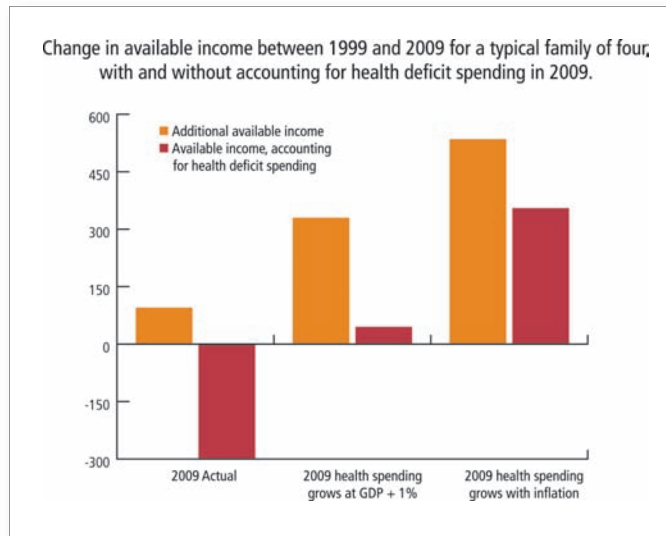
[3] Nolte and McKee (2008), "Measuring the Health of Nations: Updating an Earlier Analysis," *Health Affairs*, 27, no. 1: 58-71.

[4] D Cutler and E Richardson, The Value of Health: 1970-1990, AEA Papers and Proceedings, May 1998, vol 88 no. 2, pp 98-102.

[5] Centers for Disease Control and Prevention. Chronic Disease Overview: Costs of Chronic Disease. Centers for Disease Control and Prevention Web site. Available at http://www.cdc.gov/nccdphp/overview.htm, accessed October 29, 2011.

gain was largely offset by increased spending to pay for health care. Had health care costs grown more slowly—say, by equaling rather than exceeding general inflation—the family would have had nearly $5,400 more per year in real terms. The bottom line: Continued increases in health care costs contribute to the stagnation of middle-class incomes.[6]

– *For businesses*, under certain specific circumstances, high health care costs can stand in the way of job creation, export growth, and ongoing economic viability.



Source: Auerback D I, Kellermann A L *Health Affairs* 2011; 30:1630-1636

– *For taxpayers*, rising spending on Medicare and Medicaid represents large opportunity costs in terms of squeezes on other desirable social programs. Pressure to increase levels of taxation to fund growing public sector health spending may place a subsequent drag on economic growth.

So it's not only the impact of spending increases that is of concern; so, too, is the growing realization that there is waste and hence lost opportunity in the current system: medical errors; avoidable hospitalizations; patients not receiving care in accordance with best practices; redundancy due to lack of coordination; payment inaccuracies; paperwork and transaction inefficiencies; and so on. Not only is the system expensive, it's also wasteful.

What makes health sustainable?

A community's health care is sustainable when providers, patients, and payers work together to deliver high-quality health care that meets patients' needs in the most affordable way. A sustainable health community has the resources, tools, and incentives to effect positive change, and to make it lasting.

- "Sustainable," so as to ensure long-term improvements in health and well-being, and responsible stewardship of resources.
- "Health," because we can't focus only on the care of sick patients but on how to prevent illness and encourage wellness and prevention.
- "Community," because it will take the entire community to evoke change—from hospital-based and community health professionals, from patients, employers, payers, and government agencies. And for change to stick, it must reflect the resources and values that are unique to each community.

Sustainable health communities take a population perspective. The health care system is connected and collaborative by cutting down on unnecessary tests, reducing adverse drug reactions, lowering the number of common errors, and ensuring that patients get the right care at the right time.

Sustainability is not simply a synonym for capitation, accountable care organization (ACO), HMOs, or the reforms of the 1990s. The ACO concept is still evolving. At present, an ACO is often defined as a provider-

[6] D. Auerbach and A. Kellermann, A decade of rising health care costs wipes out real income gains for the average U.S. family, *Health Affairs* September 2011 vol. 30 no. 9 1630-1636.

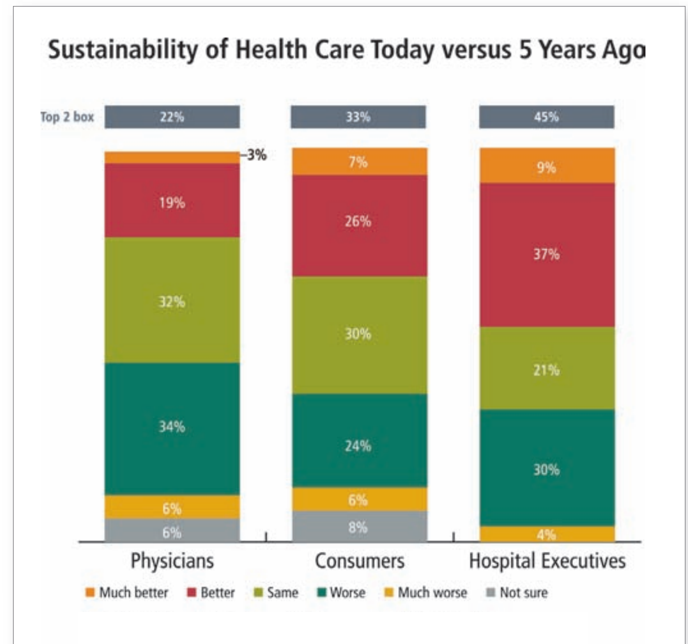
led collaborative-care organization (CCO) that cares for all or some of the health care needs of a defined population. The ACO agrees to be held accountable for attaining measurable quality improvements and meeting cost targets. While provider payment models may vary, all of them contain incentives to improve quality and efficiency.

Where are we today? Evidence from a new national survey of key stakeholders

To understand how we move communities toward sustainable health, it's important to gauge where we are now—and to appreciate whether the key stakeholders who will influence our direction share the same perceptions and priorities.

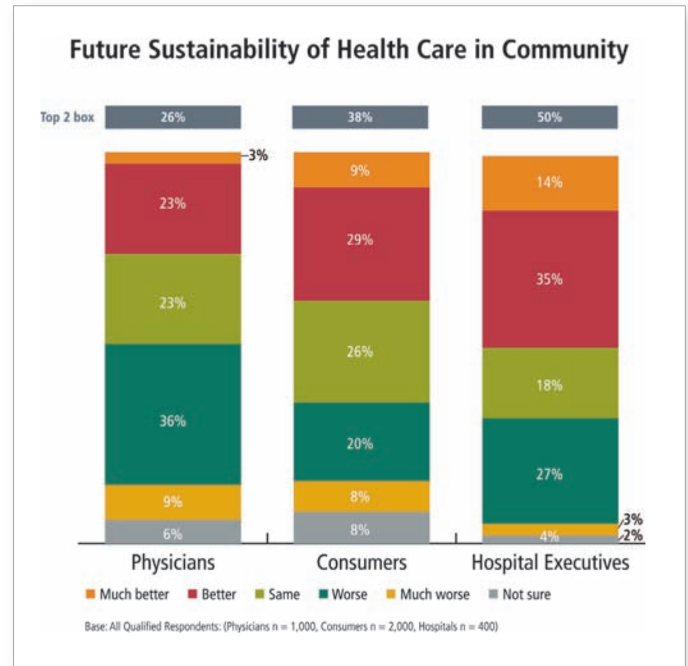
In October 2011, the Optum Institute commissioned Harris Interactive to conduct a national survey of U.S. adults, hospital leaders, and physicians in order to capture their views on the sustainability of their own health care communities.[7] The survey asked not only about today's health care environment but also whether the trajectory of change was for the better or for the worse. The survey also captured health care priorities and participants' perceptions of what it would take to become more sustainable: reining in costs and improving quality.

- Looking to the future, hospital executives were more optimistic than physicians about the current trajectory.
  - Forty-five (45) percent of hospital executives said their communities are more sustainable today than five years ago, and half said they expected the next five years to bring continued improvements.
  - Physicians see the prospects more negatively: Only one in five (22 percent) said their communities today are more sustainable than five years ago, and only roughly the same number (26 percent) said changes would improve sustainability in the next five years.



Only a minority of consumers, physicians, and hospitals feel that health care in their communities is more sustainable now than five years ago.

Source: Optum Institute for Sustainable Health/Harris Interactive, Survey, October 2011



Looking ahead, hospitals are more optimistic than consumers and physicians about the future sustainability of their communities.

Source: Optum Institute for Sustainable Health/Harris Interactive, Survey, October 2011

[7] The Internet-based survey consisted of 1,000 United States (U.S.)-based primary care physicians (PCPs) and specialists, 400 hospital executives, and 2,000 U.S. adults. Physicians were designated as being urban, suburban, or rural using their response to where their office was located. Physicians from each specialty and geographic region were weighted to accurately reflect their respective populations using weights based on the 2010 American Medical Association (AMA) Physician Masterfile. Hospital executives were selected based on having knowledge relating to their hospital's reimbursement, quality, and provision of care policies and procedures. U.S. adults were selected to generate a representative random sampling of adults across all geographic regions. Results were weighted to account for sampling design and non-response. Statistical significance is reported at the 95-percent confidence level.

Survey results shed light on three key challenges facing communities today, commonly recognized by all stakeholders:

1. The Health Challenge: The Optum Institute/Harris Interactive survey asked all three stakeholder groups whether patients in their community received needed preventive care. U.S. adults believe that patients always or often receive needed preventive health care only a third (33 percent) of the time, and doctors think this is true only half (50 percent) of the time.

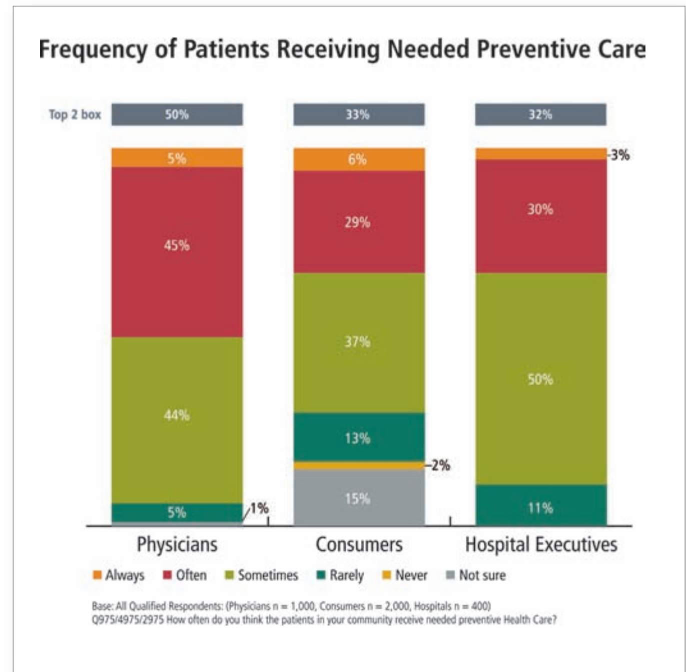
2. The Quality Challenge: Nearly two thirds of physicians (64 percent) and hospital executives (62 percent) say that there are "significant differences in the quality of care provided by doctors" in their local area. Fewer U.S. adults responded that they were aware of quality differences. Reducing quality variation requires greater transparency and reporting, particularly so that patients are empowered with information that allows them to judge and choose higher quality and more appropriate care.

3. The Cost Challenge: U.S. adults, physicians, and hospital executives alike felt that the quality of care in their communities was on balance as good or better than average. However, all three groups felt that costs could be significantly cut without jeopardizing quality. U.S. adults believe that health care costs in their community can be cut by between a quarter and a third (29 percent) without having a negative impact on quality. Physicians and hospital executives, on average, thought cuts of approximately 15 percent were feasible.

Building sustainable health: community by community

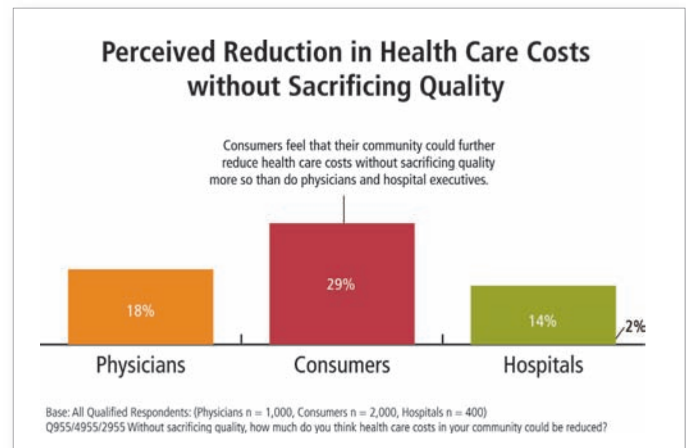
Communities that have made progress improving quality or controlling costs share a combination of attributes that contribute to their high levels of performance. Those attributes reinforce a population perspective, facilitate shared decision making, and ensure that care gets delivered effectively, efficiently, and in accordance with patients' needs and priorities. The core attributes of sustainable health are:

- Incentives that support win-win outcomes
- Transparency in costs, performance, and outcomes
- Delivery systems that are coordinated across the continuum of care
- Care based on the best available evidence
- Meaningful stakeholder engagement



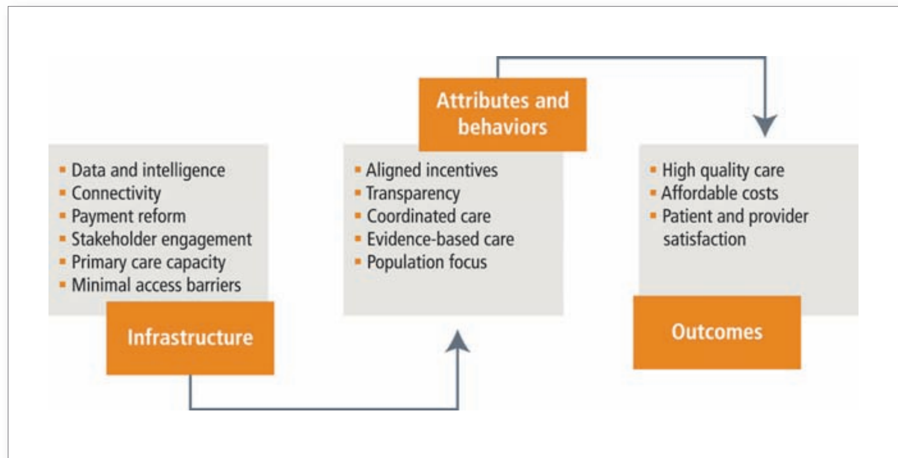
Perceived patient access to needed preventive care is low across stakeholder groups. While physicians are most likely to feel that patients in their community received the needed preventive care, only half report they receive this care often/always.

Source: Optum Institute for Sustainable Health/Harris Interactive, Survey, October 2011



Consumers say costs could be cut by nearly one-third without affecting quality.

Source: Optum Institute for Sustainable Health/Harris Interactive, Survey, October 2011



The Institute of Medicine's report on essential health benefits (EHB) underscores the importance of incentives. "The committee believes that the benefit package should become more fully evidence-based, specific, and value-based over time … ensure stewardship of limited financial resources by focusing on high value services of proven effectiveness, [and] promote shared responsibility for improving our health…"

— IOM 10/6/2011 23

Aligned incentives

Well-functioning, sustainable health systems have incentive structures that support win-win rather than zero-sum approaches to negotiation, investment, and value creation, as between payers/employers/patients on one hand and health professionals/hospitals/ other providers on the other. Incentives permit gain sharing across providers and payers and are structured to encourage innovation.

Sustainable incentives focus on promoting value rather than revenue growth or cost sharing *per se*. For example, providers are compensated on the basis of performance and patient outcomes, and patients pay lower co-pays and premiums when they take charge of their health and actively engage in proven prevention.

New incentives are also relevant for consumers, not just their providers. That is the underlying premise of value-based insurance design, which aligns patients' cost sharing with the value of clinical services. Value is defined as benefits in excess of costs, comparing the cost-effectiveness of one intervention with alternatives, considering as well the most appropriate setting and provider. With value-based insurance design, high-value services are encouraged through minimal cost barriers and direct financial incentives.[8]

There is a growing body of evidence demonstrating that alignment of incentives works. For instance, when Pitney Bowes eliminated co-payments for statins, patients responded, increasing adherence by 2.8 percentage points; and when co-payments for medication inhibiting blood clotting were reduced, patient adherence improved by 4 percent. Not only does patient compliance improve, but also many of the adverse consequences and many of the expenses associated with preventable complications are eliminated. The state of Minnesota reported a savings of 7 percent after instituting an incentive program wherein enrollees saw physicians who practiced in more-efficient and more-effective primary care clinics.[9]

"At one level, it's the wide variation in medical prices within U.S. markets that creates an opportunity for transparency to reduce spending. This variation exists even for relatively common procedures. In New Hampshire in 2008, the average payment for arthroscopic knee surgery was $2,406 with a standard deviation of $1,203 in hospital settings and $2,120 with a standard deviation of $1,358 in nonhospital settings.[10] In Massachusetts, the median hospital cost in 2006 and 2007 for magnetic resonance imaging (MRI) of the lumbar spine, performed without contrast material, ranged from $450 to $1,675."[11]

—AD Sinaiko, MB Rosenthal. Increased Price Transparency in Health Care—Challenges and Potential Effects. *NEJM* 2011; 364:891–894.

[8] Chernew, M. , et al, Evidence that value-based insurance can be effective. (2010) *Health Affairs* 29(3):530-536.; Garber, A. M. Medical necessity, coverage policy, and evidence based medicine. IOM Committee on the Determination of Essential Health Benefits, January 13, 2011, Washington, DC.

[9] MedPac June 2011 report to the Congress: Medicare and the health care delivery system. Washington, DC: Medicare Payment Advisory Commission.

[10] Tu HA, Lauer JR. Impact of health care price transparency on price variation: the New Hampshire experience. Issue brief no. 128. Washington, DC: Center for Studying Health System Change, 2009.

[11] Massachusetts Division of Healthcare Finance and Policy. Measuring healthcare quality and cost in Massachusetts.

Transparency

Sustainability requires transparency around costs, performance, and outcomes, coupled with a focus not only on absolute performance relative to other communities but also on rates of improvement. Transparency and incentives work hand in hand. Transparency is important for several reasons.

- Transparency helps patients and providers make informed choices about care.
- It enables providers to learn and improve by benchmarking their performance against that of others and by illuminating best practices.
- It enables payers to reward improvements in quality and efficiency.
- It promotes competition, and it levels the playing field for market participants—patients, payers, and providers alike.

As we will see later, transparency relies on the ability to collect data, measure meaningful processes and outcomes, and analyze and share the data in a way that puts meaningful information into the hands of patients, providers, and payers at the point of decision making.

Care coordination and integration

Today in the United States, over 140 million people live with chronic conditions and disabilities that require complex care involving the services of multiple providers spread across multiple venues.[12] Care must be coordinated among primary care physicians, specialists, diagnostic centers, pharmacies, home care agencies, acute care hospitals, skilled nursing facilities, and emergency departments. Within each site, nurses, physicians, laboratory technicians, and other providers must in turn coordinate with each other. It makes for an enormous challenge, and failure to meet it has costly and all-too-common consequences.

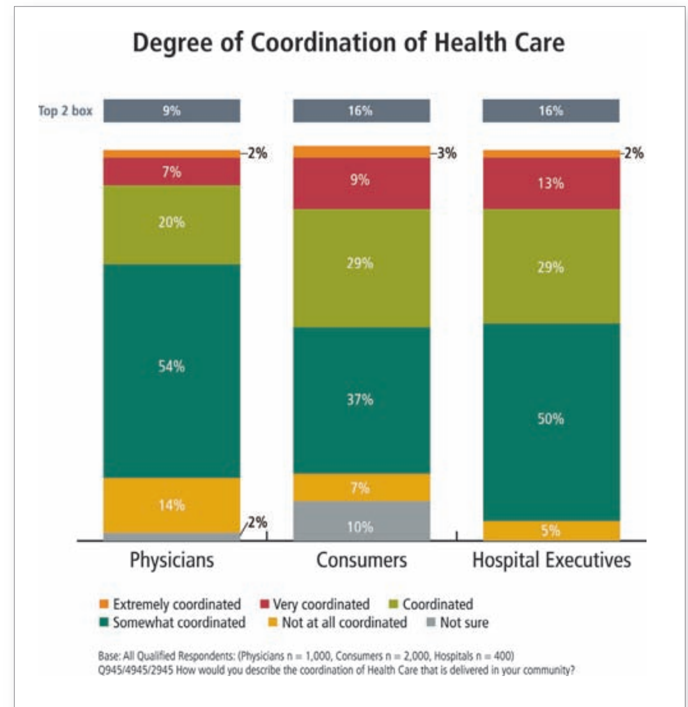
> "Nearly 20 percent of Medicare patients are readmitted within 30 days after a hospital discharge and over half of these patients have not seen a physician between discharge and readmission. Research suggests that better care coordination and discharge planning could materially reduce these cases and their costs."
>
> — AF Hernandez et al, Relationship between early physician follow-up and 30-day readmission among Medicare beneficiaries. *JAMA* 2010;303:1716-22.

Recent research documents that failures in the coordination of care are frequent and create serious and avoidable harm and costs. For example, referrals from primary care physicians to specialists often contain insufficient information, and consultation reports from specialists back to primary care physicians are often late and inadequate.[13] Patients' medical records and test results are frequently not available at the time of a scheduled appointment. And referrals often necessitate duplicative testing and examinations because information does not accompany the patient.[14]

Physicians, hospital leaders, and U.S. adults agree there is a shared opportunity to enhance care coordination. When asked to gauge the degree of care coordination in their communities, fewer than half of the respondents to the Optum Institute/Harris Interactive survey replied that care was well-coordinated. Physicians were most attuned to gaps and care fragmentation: Only 39 percent responded that care was "coordinated" in their communities.

[12] CDC, http://www.cdc.gov/chronicdisease/overview/index.htm; Chronic Care in America: A 21st Century Challenge, a study of the Robert Wood Johnson Foundation & Partnership for Solutions: Johns Hopkins University, Baltimore, MD for the Robert Wood Johnson Foundation (September 2004 Update). "Chronic Conditions: Making the Case for Ongoing Care."
[13] Bodenheimer, T. , 2008, Coordinating Care—A Perilous Journey through the Health Care System, *NEJM*; 358;10 March 6, 2008.
[14] Schoen C, Osborn R, Huynh PT, et al., Taking the pulse of health care systems: experiences of patients with health problems in six countries. *Health Affairs* (Millwood) 2005; Suppl Web Exclusives: W5-509–W5-525.

Care that is integrated and coordinated around the needs of patients—and not necessarily institutions—is at the core of sustainable health communities. Such integration and coordination includes reforms such as accountable care organizations and patient-centered medical homes that are designed to enhance coordination of care across providers and promote better patient monitoring and accountability for patient outcomes. The improvement of care coordination requires building a strong primary care foundation, putting in place interoperable electronic health records (EHRs) that allow information to be shared, clinically integrating primary-specialty-inpatient-outpatient care (but not necessarily through mergers or common ownership), and reforming payment so that providers are rewarded for good patient outcomes rather than for the services they deliver at a single point in the care continuum.



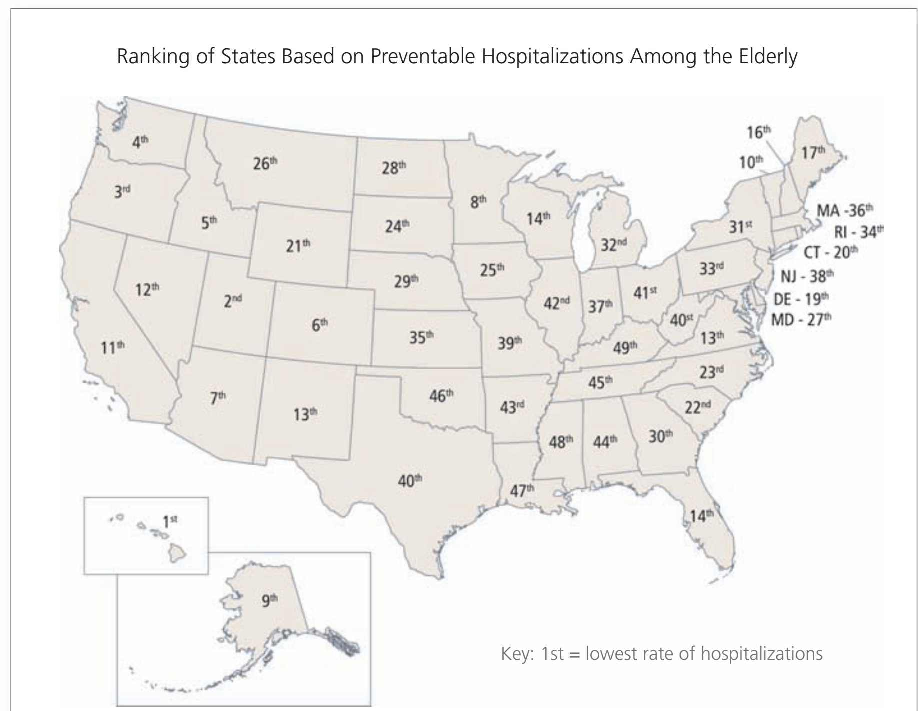
Patients, hospital executives, and physicians agree there are substantial opportunities to improve care coordination.

Source: Optum Institute for Sustainable Health/Harris Interactive, Survey, October 2011

Integration also promotes innovation by accelerating the spread of new and better approaches to care. The Institute for Healthcare Improvement has studied innovation over the past decade and notes that a major factor in the closing of performance gaps is the ability of health care providers and their organizations to rapidly spread best practices. While "pockets of excellence exist in our health care systems . . . knowledge of better ideas and practices often remains isolated and unknown to others."[15] High-performing health care organizations develop ways of communicating better practices coupled with cultures, reward systems, and linked infrastructures that support change.

Evidence-based care

For health care to be sustainable, patients must receive the right care at the right time in the right setting. But on average, Americans receive about half of recommended medical care processes.[16] This gap persists despite longstanding initiatives by the government, payers, and health care delivery systems. Variation in performance across the country is as striking as the gap itself: For example, in 2010 Medicare beneficiaries suffered preventable hospitalizations at the rate of 70 for every 1,000 seniors nationwide. The number varied from 29 per 1,000 in Hawaii to more than 105 per 1,000 in West Virginia.



From America's Health Rankings: www.americashealthrankings.org

[15] Massoud MR, Nielsen GA, Nolan K, Nolan T, Schall MW, Sevin C. A Framework for Spread: From Local Improvements to System-Wide Change. IHI Innovation Series white paper. Cambridge, Massachusetts: Institute for Healthcare Improvement; 2006.

[16] The Quality of Health Care Delivered to Adults in the United States, McGlynn, EA, Asch SM, Adams JH, et al, *New England Journal of Medicine* 2003; 348:2635-2645.

What can be done to move communities and the nation toward more evidence-based performance? Given the diversity of the health care system, there will be no simple solution. However, actionable information and intelligence are the building blocks of evidence-based care. Clinical practice guidelines, best practices, patient histories, performance, and outcomes must be accessible at all levels. Sustainability requires focus on automation of the entry and retrieval of patient data, clinical guidelines, and care outcomes to support clinical decision making at the point of care. Making evidence available also supports patient engagement by letting individuals understand their own health, judge the consequences of personal behaviors, and assess the actions providers take on their behalf.

Stakeholder engagement

Lack of stakeholder buy-in is a major barrier to community-wide health initiatives, clinical data sharing, and quality improvement programs.[17] Sustainability requires active stakeholder engagement, specifically:

- Strong clinical leadership
- Engaged consumers/patients and focus on improving the stock of population health, not just managing the flow of health care treatments and interventions
- Engaged employers and payers that are committed to getting value for patients, to taking a longer-term perspective on employee/patient health and wellness, and to driving accountability from the delivery system in providing care
- Solutions that engage all of a community's major payers, including Medicare, Medicaid, and commercial plans as well as employers and business groups—so that problems are addressed and not simply shifted
- Forums and processes by which stakeholders engage in goal-directed improvement and community health stewardship
- Improvement strategies that recognize the interconnectedness of the local health care ecosystem and make use of both positive and negative feedback loops—otherwise, pressure in one part of the system shows up as an unintended consequence elsewhere, such as in the forms of cost shifts, uninsurance, underinsurance, and shortages of resources and providers; sustainability rests on built-in feedback and ongoing evaluation

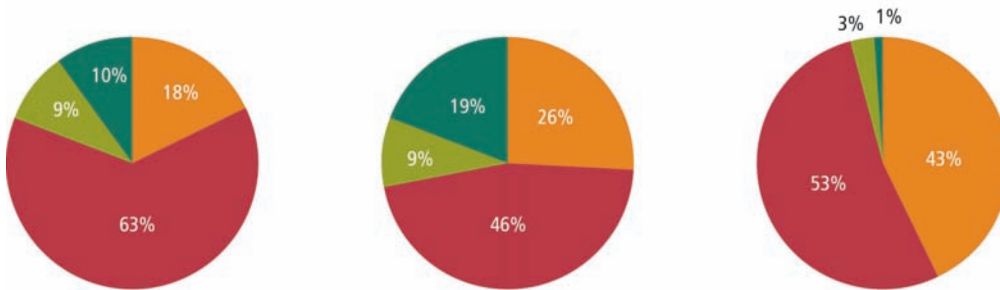
Today, physicians, U.S. adults, and hospital leaders overwhelmingly share the perception that there are untapped opportunities for collaboration to improve quality and reduce costs. More than 70 percent of physicians and U.S. adults and more than 90 percent of hospital executives told our Optum Institute/Harris Interactive survey that health care in their communities could be improved on both cost and quality dimensions through collaborative efforts that exist today. However, efforts are slow to gain traction. About 30 percent of physicians and 40 percent of U.S. adults and hospital executives saw that stakeholders were active or very active today in finding solutions to health care problems.

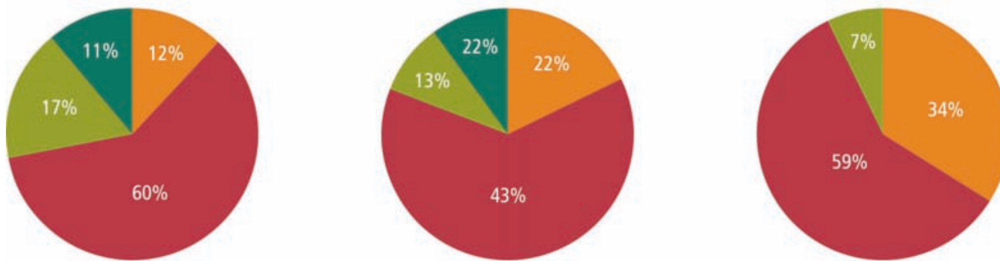
Predictive modeling for more personalized care

By using algorithms to combine and analyze patient records and claims data, providers can identify high-risk patients, proactively identify care opportunities, and better understand population health as a whole. Those providers can use that predictive modeling to prioritize various care management interventions or institute programs aimed at improving patient behavior. From a patient engagement standpoint, this approach helps providers deliver more personalized care.

That's what happened when Optum helped two state agencies in Michigan aggregate and analyze data from 16 health-related programs and 41 sources to prevent cases of lead poisoning in children, among other goals. OptumHealth™ worked with the Michigan Department of Community Health and the Michigan Department of Information Technology to develop and implement a data warehousing and analytics strategy that would identify high-risk cases. The strategy helped reduce the number of children with lead poisoning by 35 percent from 2003 to 2007. It also increased to 72 percent as of January 2009 the percentage of Medicaid-enrolled three-year-olds screened for lead. In addition, the strategy identified 14 Michigan communities that represent nearly 80 percent of all child lead-poisoning cases so the state could target lead-poisoning prevention efforts.

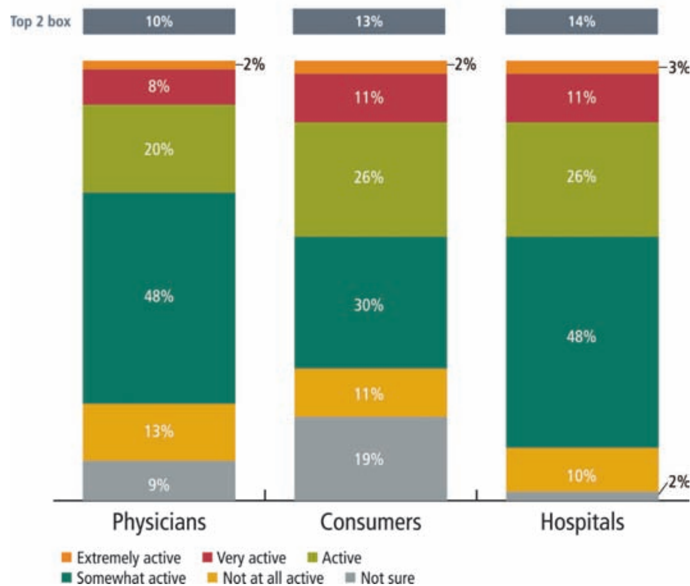
[17] Miller, Robert, and Bradley S. Miller, "The Santa Barbara County Care Data Exchange: What Happened?" *Health Affairs*, Vol. 26, No. 5 (September/October 2007); Lorenzi, Nancy M., Strategies for Creating Successful Local Health Information Infrastructure Initiatives (Dec. 16, 2003), http://aspe.hhs.gov/sp/nhii/LHII-Lorenzi-12.16.03.pdf.





Physicians, consumers, and hospital leaders see substantial opportunities in their communities to cut cost and improve quality through collaboration...

Source: Optum Institute for Sustainable Health/Harris Interactive, Survey, October 2011



...but current collaboration activity is slower to gain traction.

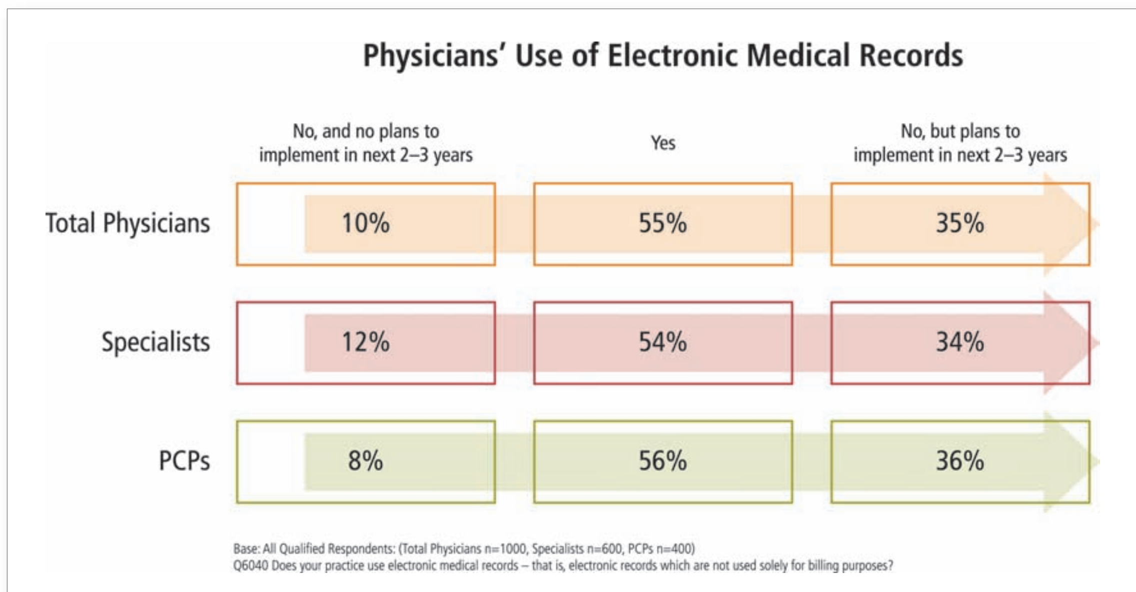
Source: Optum Institute for Sustainable Health/Harris Interactive, Survey, October 2011

Building the infrastructure for sustainable health

Certain common building blocks appear to be necessary, if not sufficient, conditions for progress. Critically, those building blocks work in tandem. They are multiplicative and synergistic: Doing one or two things won't by themselves produce the desired results.

The building blocks of a sustainable health community are:

- Data and intelligence
- Connectivity
- Payment reform for accountability and shared risk
- Patient empowerment and stakeholder engagement
- Primary care capacity



About half of physicians overall are already using some type of electronic medical record, and another third have plans to implement one in the next two to three years.

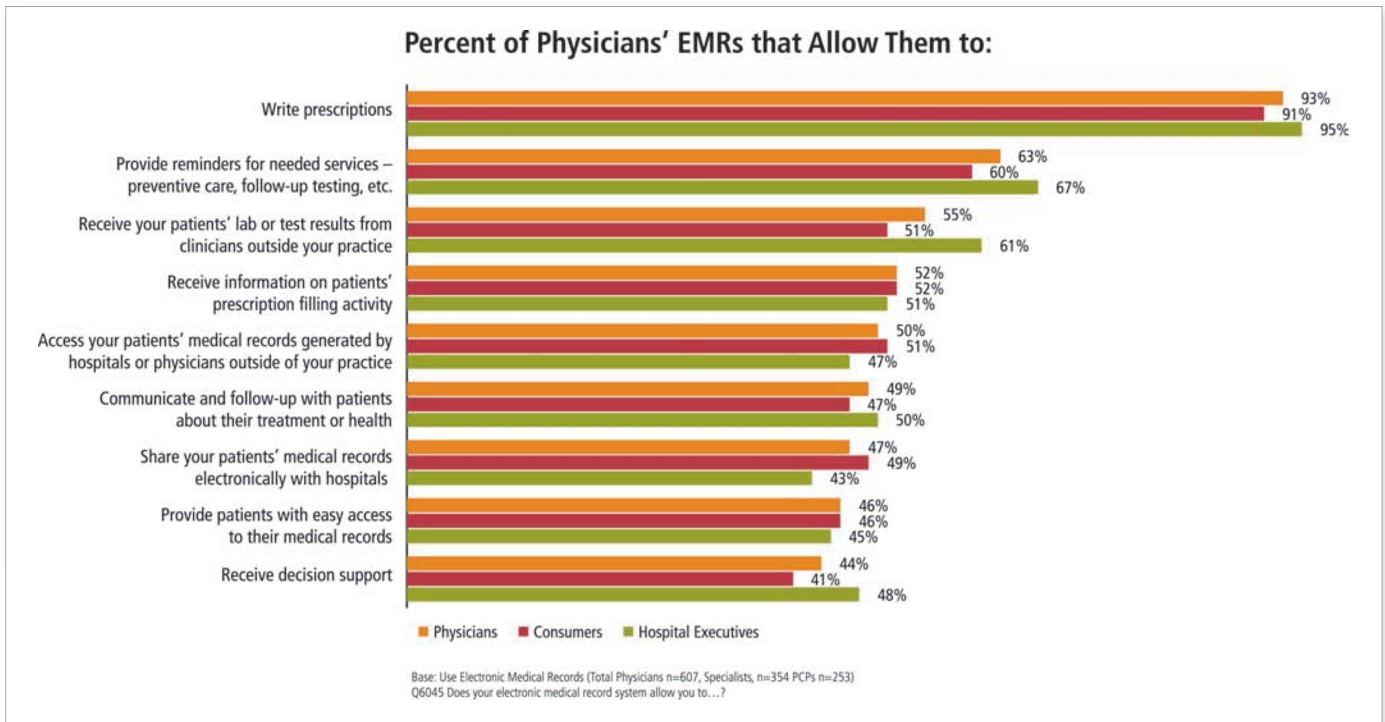
Source: Optum Institute for Sustainable Health/Harris Interactive, Survey, October 2011

Intelligence

Transparency, alignment, coordination, and evidence-based care all require a strong information base. The adoption of electronic health records and applications that promote so-called meaningful use of health information technology (HIT) constitutes a first, necessary step. But HIT alone by itself neither improves health care nor cuts costs. Unlocking the value of HIT requires the ability to turn data into intelligence. Technology is only the platform. Shared information—such as comprehensive encounter data—makes technology valuable. Information exchange lets clinical data follow patients across care settings and gives providers the ability to observe outcomes that occur outside the walls of their practices. Analytics, in turn, make the information intelligent and valuable, letting providers and patients use information to make evidence-based decisions in a timely manner.

An intelligent system includes many of the following information and analytic capabilities.

- **Comprehensive data management infrastructure:** Such infrastructure integrates the warehousing of economic, transaction, and clinical data, including medical and pharmacy claims, electronic health records, and patient management and health risk appraisal information. Interoperable electronic health records with clinical decision support are necessary to provide point-of-care functionality. Consumer/patient/provider



Nearly all physicians' EMRs allow them to write prescriptions. Other usability options are less common.

Source: Optum Institute for Sustainable Health/Harris Interactive, Survey, October 2011

portals facilitate broad connectivity and interaction. Technology should support telehealth initiatives to reach rural, frontier, and underserved areas of the community.

- **Real-time decision support:** Real-time decision support with actionable guidelines at the patient level is a particularly powerful application of HIT. Clinical decision support systems (CDSSs) provide patient-specific recommendations by combining patient histories from EHRs with current clinical observations and matching the information to a clinical knowledge base of diagnostic and treatment strategies. Examples of electronic CDSSs are alerts and reminders, dashboards, computer-assisted diagnosis, order sets, and drug dosage calculations. In general, CDSSs can enhance clinical effectiveness and can assist health care providers in the decision-making process by making it easier to access complete sets of patient information and appropriate, current, and evidence-based medical guidelines. A CDSS works best when information is available at the point of care and the CDSS interface mimics—rather than impedes—clinical work flow. CDSSs also make information available to other providers, to nursing and billing functions, to medical research, and to patients, thereby reinforcing the visit by reviewing care options and by automating printed visit summaries, risk assessments, and follow-up instructions.
- **Population health analytics:** Such analytics give providers and payers an understanding of a community's demographics; they identify high-risk populations; and they pinpoint proactive interventions to slow the progress of disease or alleviate the burden of illness. By analyzing a specific patient population, providers can identify which services and procedures are the most prevalent and most frequently administered. Next, by comparing care patterns with national norms and clinical guidelines, providers can proactively identify care opportunities and better understand a region's overall health challenges. Providers and payers can forecast future populations' needs and can estimate costs through models that track the natural progression of disease and pinpoint the value of interventions that slow disease progression.

Clinical and claims data aggregation can facilitate performance benchmarking, which enables the community to compare performance against national and internal standards. For example, in New York, the Rochester RHIO (Regional Health Information Organization) can provide physicians with regular reports about those physicians' clinical performance so they can actively apply practices that improve care and outcomes. The RHIO bases its performance benchmarking on national standards for diabetes, cardiovascular conditions, cancer screenings, and more. This has helped its physicians perform at the 90th percentile—well above national performance levels. In addition, integrated claims data in the Rochester RHIO system make it possible to furnish cost data to physicians so that physicians can better understand the financial ramifications of their decisions. Other advantages can result from using actuarial analytic tools to understand and balance risk. Furthermore, aggregate data facilitates performance reporting for regulatory compliance.

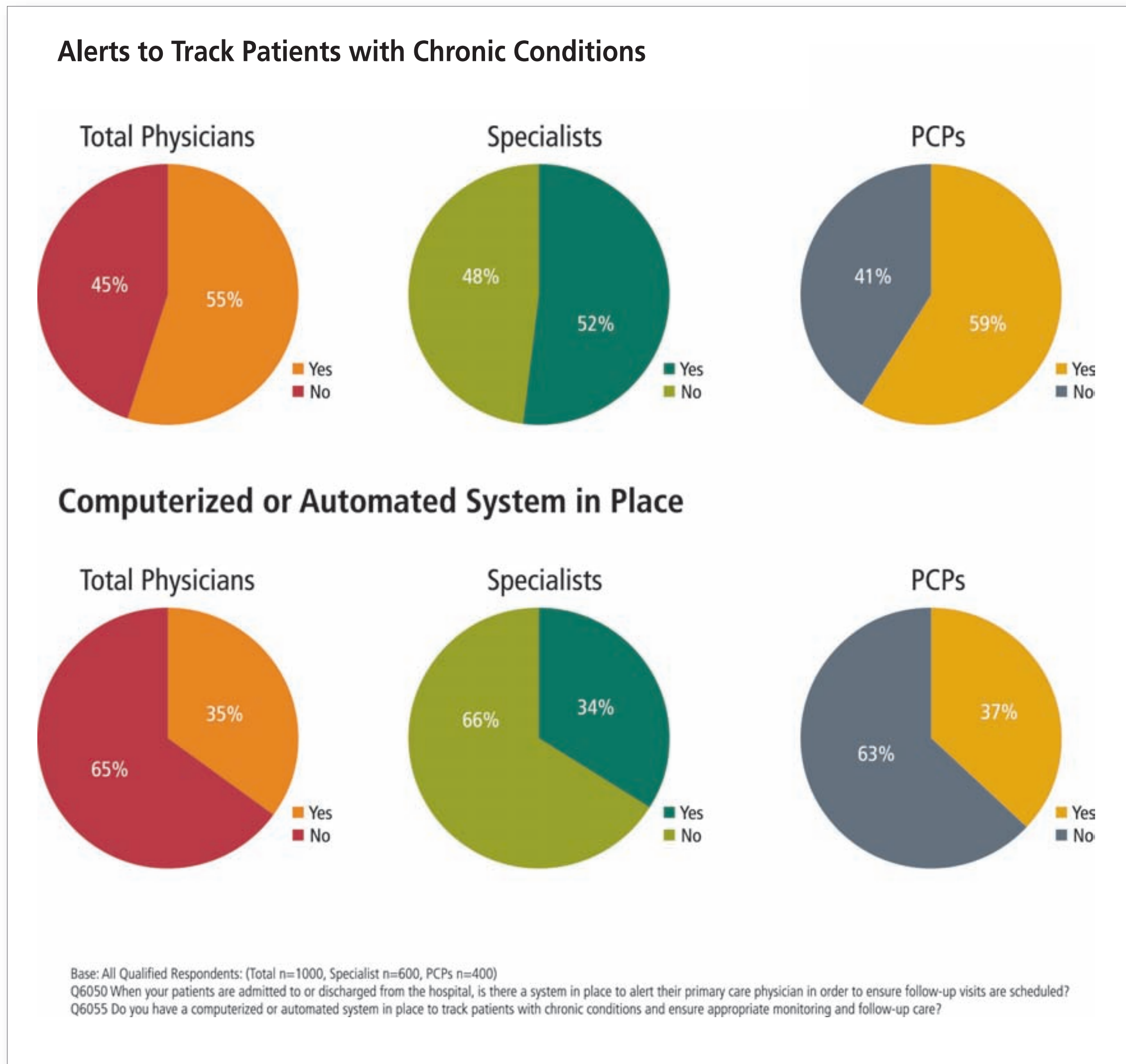
- **Clinical analytics:** With EHRs, computerized physician order entry, integrated claims, and financial data warehousing, providers will have unprecedented visibility into their case mix, utilization patterns, costs of care, and outcomes of care. At the same time, because moving toward sustainability may mean that providers take on more accountability and bear more financial risk, clinical analytics are needed to compute performance metrics, identify opportunities for clinical process improvements, track care coordination, and manage clinical work flows and costs. Providers also can use data to prioritize tasks according to the best use of their time, thereby creating effective work flows for themselves and their support staffs. In real time, a physician can be prompted to pass responsibilities to other staff and then move on to another patient and a higher-priority task. This enables physicians to spend their time with patients more effectively—from both the clinical and financial points of view.
- **Payment integrity analytics:** These analytics can modernize health care transactions to ensure that payments are accurate and efficient. It has been estimated that billions of dollars are being wasted on inaccurate or inappropriate billings due to coding errors, inappropriate treatments, abusive practices, and outright fraud. Administrative cost savings are win-win propositions, benefiting all stakeholders. State-of-the-art predictive modeling technologies can identify and stop inaccurate payments and turn wasted costs into savings. Optum estimates public and private payers could perhaps save 1 percent of health care costs by using predictive payment accuracy technologies that enable accurate and appropriate payments to be made to providers on a timely basis.
- **Community engagement analytics:** Sustainability requires that patients become engaged and activated in the management of their health. Intelligent analytics can aid in measuring patient satisfaction. HIT portals and personal health records provide patients with direct access to their health records and can help them access knowledge databases that provide the information needed to manage disease and chronic conditions, improve primary prevention, and navigate the health care system.

Connectivity and coordination

The success of the SHC model requires a shift toward a broad and all-encompassing view of patient health. Today, health care focuses on single encounters with the delivery system because providers are still largely paid fees for services rendered in a visit. Under evolving care delivery models, however, providers will be paid based on overall population health, and rewards will be based on the ability to see and show how a population's health progresses over time.

Coordination and connectivity need organizational models that let providers collaborate across the continuum of care and the health information exchange (HIE) that supports an overall picture of each patient's health. An EHR is only the beginning.

A health information exchange is a secure clinical network that connects all medical "trading partners" within a specific geographic area. Most U.S. health care is highly fragmented, comprising physicians, independent hospitals and clinics, testing labs, imaging centers, pharmacies, and other medical services. Each facility has its own separate patient record system and specialized work flow—a "silo of care" that makes it difficult for other clinicians to get the patient information needed for effective diagnosis and treatment.



More physicians have hospital admit/discharge systems in place than systems to track their chronic-condition patients to ensure monitoring and follow-up care.

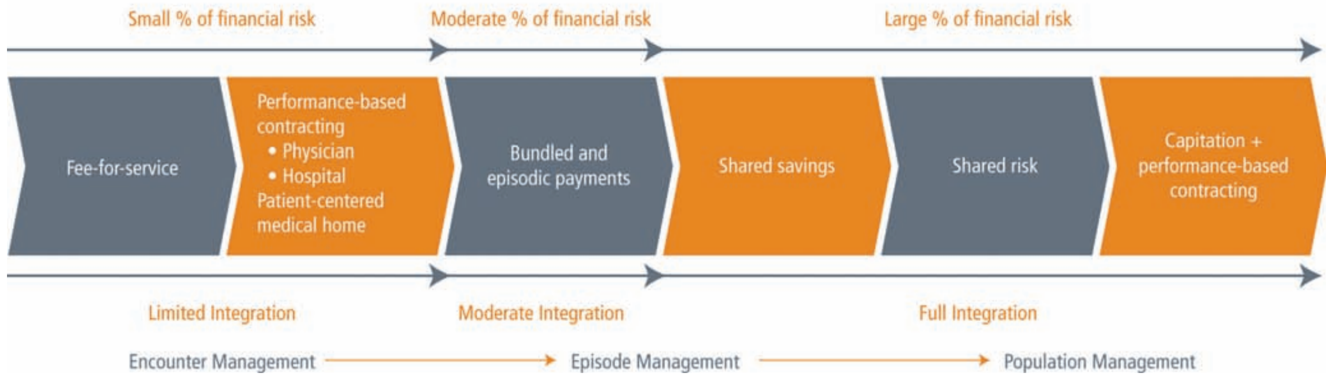
Source: Optum Institute for Sustainable Health/Harris Interactive, Survey, October 2011

A health information exchange network connects all of the participating providers and their patient record systems within its defined medical community: a hospital, an integrated delivery network, a region, or a state. Once connected, patient-authorized participants can instantly receive and exchange their patient's clinical results as well as access a complete and up-to-date medical record at the point of care. This record includes the patient's relevant diagnoses, treatments, test results, X-rays, and medications from all providers connected to the HIE.

This full and accessible medical record helps physicians make accurate assessments, select more-effective treatments, and accomplish better and faster recoveries, all of which results in better quality of care. In the process, the HIE makes health care more efficient by saving valuable physician, staff, and patient time; eliminating redundant tests and X-rays; and reducing delays and paperwork costs. Access to this complete patient record is also critical to patient safety—for instance, by preventing life-threatening drug interactions when emergency medical technicians or emergency room personnel are treating patients who are unable to inform them of current medications or medical conditions.

Payment reform: shared risk and accountability

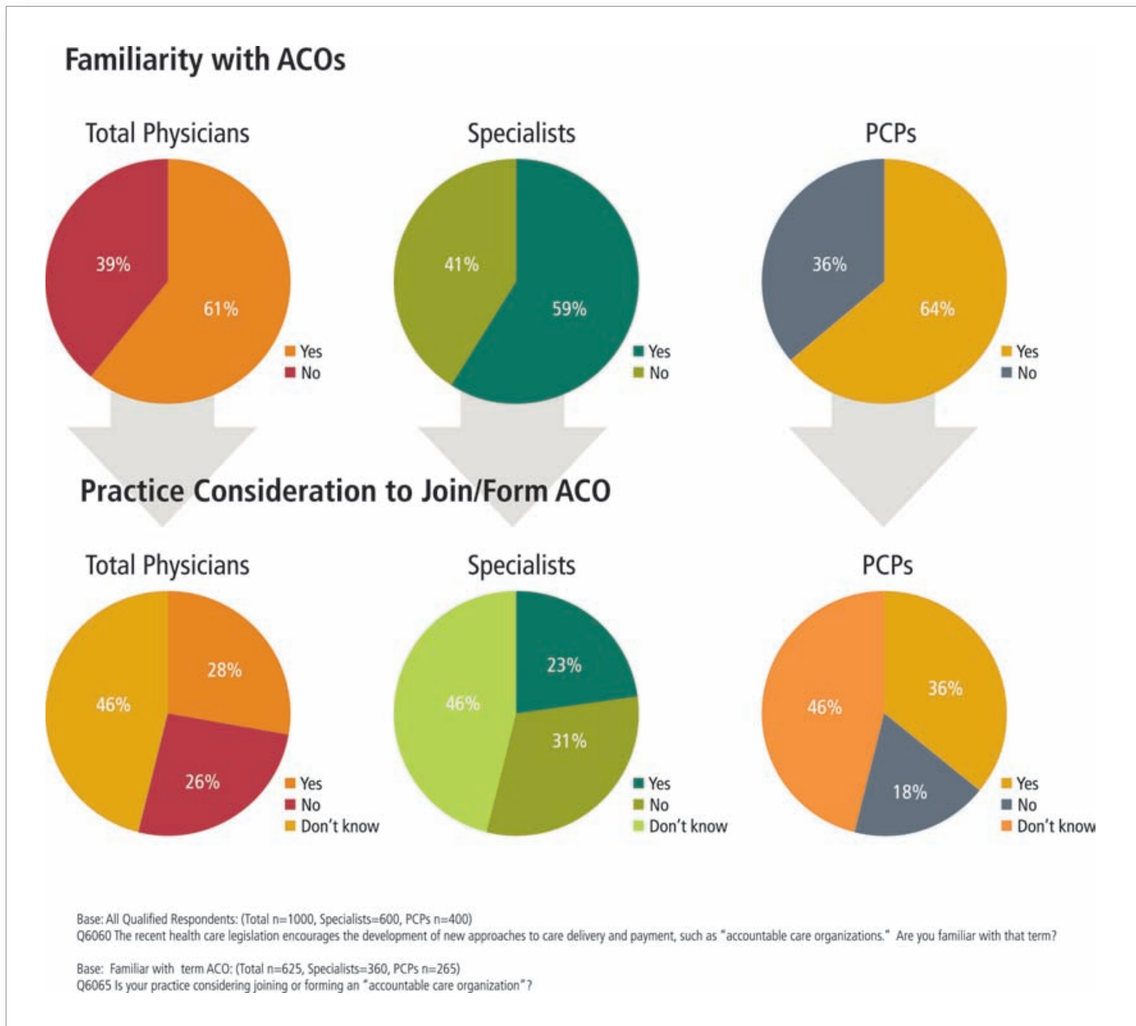
There is a range of options for moving away from fee-for-service payment in order to encourage the provision of both higher-quality and more-efficient care. Those options lie along a continuum. Shared risk and reward increases hand in hand with clinical integration, enabling providers to manage comprehensive episodes of care as a step toward managing overall population health. Payment models can usefully be considered as falling along this payment spectrum:



- Pay-for-performance and care management initiatives, in which fee-for-service payments are adjusted or modestly supplemented either (1) with bonuses to reward quality and efficiency or (2) with additional fees to fund investments in care coordination, a prominent example being the patient-centered medical home
- Bundled or episode-based payments, whereby a provider receives a fixed sum either (1) to cover most or all of the costs of services delivered to a patient during a hospitalization or episode of care or (2) to treat a particular disease for a defined period of time
- Shared-savings and shared-risk approaches—used most notably by accountable care organizations—whereby payments to providers are closely tied to control of the overall costs of the care that providers' patients receive while achieving quality targets
- Capitation payments, whereby providers receive a negotiated dollar amount—usually prepaid monthly—to cover the costs of delivering all or most of the services rendered to the enrollees in their care

There is a clear opportunity for incentive alignment in communities today in anticipation of greater risk sharing and performance-based payment, according to the Optum Institute survey. Over the coming decade, a third (35 percent) of doctors expect that between 10 and 25 percent of provider reimbursement will be tied to performance, and a further fifth (22 percent) of doctors think that the proportion at risk will be higher, in excess of a quarter of reimbursement. Half (49 percent) of physicians say they currently feel "not at all prepared" for this move. Similarly, hospitals expect a major move to performance-based reimbursement, with 40 percent of hospital respondents expecting that more than a quarter of revenues will be at risk for the quality and/or efficiency of care delivery.

There are several building blocks, or key capabilities, that are needed in order to improve the system's ability to align incentives, share risks, and promote accountability.



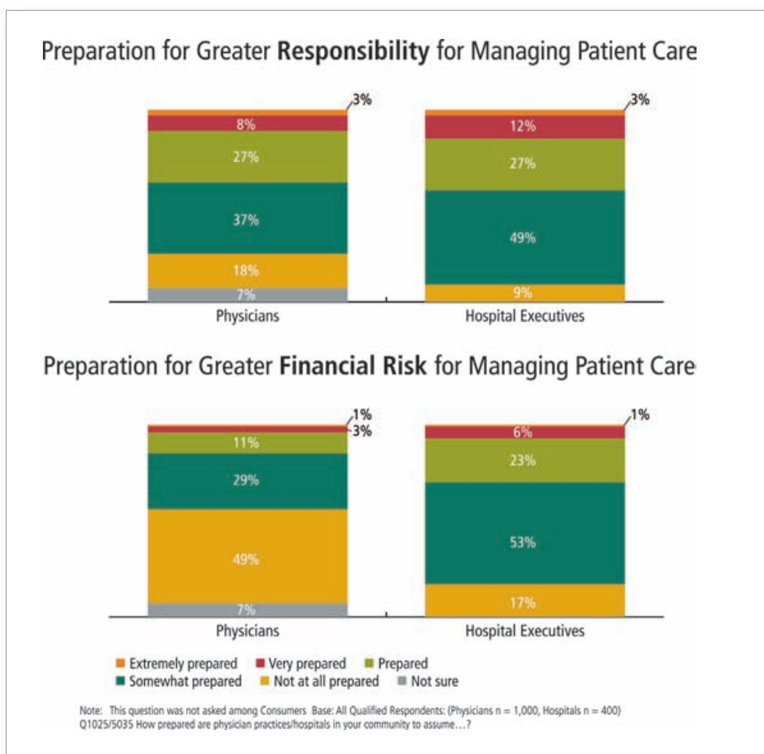
Across all physicians, three-fifths are familiar with ACOs, but nearly half are not sure about their practice's plans for joining or forming an ACO.

Source: Optum Institute for Sustainable Health/Harris Interactive, Survey, October 2011

Hospital executives are more likely than physicians to feel that within the next 10 years, practices/hospitals in their community will accept performance-based risk on a higher percent of reimbursement services.

Source: Optum Institute for Sustainable Health/Harris Interactive, Survey, October 2011

- **Risk adjustment.** Risk adjustment is essential to payment reform: To correctly align incentives in order to care for complex as well as healthy patients, payment must be adjusted to reflect the expected higher costs and poorer outcomes that accompany patients with higher health care needs. But risk adjustment can have a broader role than calibration of payments. Understanding risk can provide opportunities for improving quality and care coordination by proactively targeting care at patients who will benefit from it.
- **Episode and bundled-care measurement.** To reward more-comprehensive packages of care, we need to be able to measure such bundles. This presents a challenge, since most health care data is still generated as the by-product of a fee-for-service claims transaction. Episode-grouping methodologies, which bundle claims into distinct, clinically valid episodes of care, have been in use in the commercial sector for more than a decade. The refinement of those methodologies to encompass chronic care, complex patients, and care that crosses inpatient and outpatient settings allows pay for the performance of clinically complete and coordinated care.
- **Organizations structured to bear risk.** Shared-risk payment models and capitation create direct incentives for efficient, population-based care management. However, in the absence of organizational change, most providers today lack the financial capacity, scale, and management infrastructure to effectively manage risk. Under the fee-for-service model every organization in the delivery system is both a cost center and a revenue center; payment reform implies that all be cost centers. Financial success depends on providers' ability to collectively manage care.[18]



Physicians and hospital executives share concerns that providers in their communities are not currently prepared to take on responsibility for care and costs.

Source: Optum Institute for Sustainable Health/Harris Interactive, Survey, October 2011

[18] J C Robinson and L P Casalino, Vertical integration and organizational networks in health care, *Health Affairs*, 15, no.1 (1996):7-22.

Communities are taking steps toward sustainability

Increasing sustainability is a common goal to which highly diverse parts of the country can all aspire. But in practice, each community will follow its own path to that goal, based on its unique resources, infrastructure, culture, and preferences.

For example, Optum Accountable Care Solutions has partnered with **Tucson Medical Center** and local Arizona physicians to develop one of the nation's first sustainable health communities. Based on a collaborative-care model in which hospitals, physicians, residents, employers, and others share the risks and rewards of making the health system work better for everyone, the new model will help hospitals, participating physicians, and health plans collaborate so as to better coordinate care, improve quality, and increase consumers' satisfaction with the health system. The main components of the Tucson alliance are:

- The development of four Office Centers of Excellence to provide the analytics needed for determining areas in need of change, measuring progress, and managing the critical information and connectivity required
- The use of advanced health data and analytics that would ensure information is available to support decisions at the point of care and to share among all involved parties
- Shared risks and rewards for the participating physicians; Optum will provide the analytic tools that will help physicians identify best practices and measure their own performance in those areas

Another case study is that of **Grand Junction, Colorado**, which has long been recognized as a community that makes health care "work"—in terms of both cost and quality.

- *Cost:* In 2006, average Medicare spending per capita in Grand Junction was $5,800—30 percent lower than the national average of $8,300 and more than 60 percent lower than high-cost areas like McAllen, Texas.
- *Quality:* Grand Junction patients benefited from above-average health care outcomes, leading-edge health information technology, and innovative primary, preventive, and palliative care—and they realized those benefits without a formally/legally integrated delivery system.

Today, Grand Junction and the Quality Health Network (QHN) anchor the Colorado Beacon Consortium (CBC). The consortium is one of 17 health information technology pilot communities receiving grants funded by the American Recovery and Reinvestment Act of 2009, so it can serve as a national model for the broad use of health care information technology.

QHN supports more than 75 percent of medical providers in Colorado's Mesa County and surrounding areas by connecting them to a comprehensive HIE.[19] QHN and the Colorado Beacon Consortium's quality improvement efforts focus on the improvement of care transitions and care coordination both within and between medical neighborhoods. Specifically, the CBC is working to achieve four objectives:

- To reduce unnecessary emergency room visits and hospital admissions
- To improve quality of care for patients with asthma, diabetes, and heart disease
- To decrease the health risks associated with obesity and depression
- To strengthen secure health information exchange at the community level so as to ensure the meaningful use of electronic health records by physicians, nurses, and other providers

The CBC is promoting the use of health information technology to achieve primary care practice-led care coordination through such efforts as:

[19] OptumInsight's Axolotl HIE business developed and supports the health information exchange for the Colorado Beacon Communities.

- Creating physician learning collaboratives to engage and equip local providers to work together in new ways, to focus on the use of performance data, and to share information on steps for making their systems more efficient and more patient-centered
- Using patient registries—databases with information about individual patients with particular characteristics such as a diagnosis of diabetes—to support effective and appropriate treatment planning and population health management
- Training providers on how to understand and use the data available via health information exchange
- Developing a website and other electronic tools to support primary care practices and clinics that are working to build patient-centered medical homes
- Conducting meetings with and delivering technical assistance to regional extension centers so as to help providers use electronic health records meaningfully
- Promoting interoperability and health information exchange so as to increase preventive screening, increase childhood immunizations, and help patients quit smoking to improve population health
- Helping providers submit patient information in order to get feedback from supporting community organizations

The CBC is on track to achieve by 2013 a level of 60 percent of all primary care providers within the region who meaningfully use electronic health records to improve quality of care.

How do we get there?

To date, too much of the policy debate has relied on cross-sectional comparisons of so-called high-performing geography or system A versus so-called low-performing geography or system B without considering either the historical path that community A took to achieve its high performance and the particular circumstances that gave rise to it or the feasible strategies now open to community B. In fact, some of the current strategies run the risk of reinforcing the differentials rather than supporting convergence. A sustainable health community is not "one size fits all." Given communities' different starting points in terms of care delivery, their different resource availabilities, and their different needs and preferences, SHCs will likely look different from each other and will take different routes toward becoming more sustainable.

The missing ingredients all concern how to facilitate transitions from low- to high-performing status. Simply promulgating new financial incentives and risk-sharing arrangements won't by themselves achieve that. There needs to be (1) explicit action to introduce underpinning infrastructures and capabilities into these communities, coupled with (2) an explicit development process that permits new incentives and behaviors to flourish.

Optum Sustainable Health Community Index

The goal of the Optum Institute is to encourage communities in making the transition to greater sustainability and promoting the factors that enable these transitions. How will we specifically do this? By partnering, doing research, bringing together multiple constituencies, offering forums for discussion and collaboration, and developing new data and intelligence.

One way of stimulating action and measuring progress will be through the periodic publication of a new Optum Sustainable Health Index. The index and its components will be published in a number of formats. Community-level scorecards will focus on communities' recent progress in meeting their quality, cost, and stakeholder goals. Cross-community analyses will examine how variations in the factors that bring about sustainability can help identify the leading indicators of progress. By identifying factors that cause change, we can inform the community investments and policies that accelerate it.

What will we measure? There is a growing inventory of measures and metrics that take the pulse of community health and cost trends. The utility of many of the public data sources, however, is limited by long delays between the time that data get collected and then reported, coupled with infrequent updating. While the Sustainable Health Community Index will draw on current public data sources, it will also make use of the vast data intelligence that gets generated from our own sources, from new multipayer data-pooling initiatives, and, when there are gaps, from the commissioning of new data collection efforts and studies.

Research will inform the exact components and metrics used in the index. We anticipate that the index will capture key domains, as follows.

Examples of possible domains measured in the Optum Institute's Sustainable Health Index
PROGRESS TOWARD TRIPLE-AIM GOALS
Changes in costs: per capita, risk- and wage-adjusted Medicare costs, commercially insured costs, by health care setting, by key condition/disease
Quality and population health: mortality, morbidity, health-risk behaviors, obesity, chronic disease, avoidable hospitalizations, ambulatory-sensitive conditions
INFRASTRUCTURE, ATTRIBUTES, AND ENABLERS
Health information exchange
Use of evidence-based medicine: percentage of care that is in accordance with national practice guidelines
Collaborative-care initiatives: ACO
Provider organizations that can support and share risk
Primary care capacity
Access to care and insurance coverage

Snapshots of core indicators

Community snapshots benchmark the industry's progress toward achieving SHC goals.

Community Snapshot: Community XYZ

Examples of Possible Domains: Health Status							
Average Life Expectancy		**Obesity**		**Smoking**		**Diabetes**	
XYZ	75.2	XYZ	22.6%	XYZ	20.3%	XYZ	6.3%
National Avg	76.6	National Avg	23.2%	National Avg	22.0%	National Avg	7.3%
1 Std Dev Range	75 – 78.3	1 Std Dev Range	20.2 – 26.1%	1 Std Dev Range	18.4 – 25.7%	1 Std Dev Range	5.9 – 8.7%
National Max	80.3	National Max	31.4%	National Max	31.9%	National Max	10.9%
National Min	71.2	National Min	15.3%	National Min	7.2%	National Min	3.5%
Ranking (out of 306)	70	Ranking (out of 306)	190	Ranking (out of 306)	216	Ranking (out of 306)	233

Maximum Composite Score is 9, minimum score is 1.
A higher composite score represents more relative opportunity for improvement.

Triple Aim Status								
Quality			**Cost**			**Satisfaction**		
	Composite Score	Most Unfavorable Measure		Composite Score	Most Unfavorable Measure		Composite Score	Most Unfavorable Measure
XYZ	2.5	Physician Variability 1.02	XYZ	3.3	Back Pain Incidents 21,490	XYZ	3.0	Average Life Expectancy 75.2
National Avg	3.7	1.00	National Avg	3.5	2,212	National Avg	3.7	76.6
1 Std Dev Range	2.4 - 5.0	1 - 1	1 Std Dev Range	2.4 - 5.7	-1,236 – 5,660	1 Std Dev Range	1.9 - 5.8	75 - 78.3
National Max	7.2	1.18	National Max	7.4	31,378	National Max	9.0	80.3
National Min	1.6	0.84	National Min	1.7	27	National Min	1.0	71.2
Ranking (out of 306)	215	166	Ranking (out of 306)	147		Ranking (out of 306)	122	70

Maximum Composite Score is 9, minimum score is 1. A higher composite score represents more relative opportunity for improvement.

About the survey data

This survey was conducted online within the United States by Harris Interactive on behalf of the Optum Institute for Sustainable Health between October 19–28, 2011 among U.S. physicians (N=1000), U.S. adults (N=2,000), and U.S. hospital executives (N=400) regarding health care cost, quality, and sustainability in their communities. For full methodology including weighting variables please contact Carol Simon at carol.j.simon@optum.com.

About the Optum Institute for Sustainable Health

The Optum Institute was formed by Optum to provide analysis and insight into the rapidly changing health care landscape. The goal of the Optum Institute for Sustainable Health is to serve as both an authoritative resource and enabler of sustainable health communities. The Institute works with providers, employers, government, and community leaders to transform health delivery—from clinical and operational transformation to consumer engagement and education that promotes healthy lifestyle choices.

The Optum Institute draws expertise from health care leaders, medical experts, and government analysts from all three Optum businesses—OptumHealth, OptumInsight™, and OptumRx™—as well as a range of external consultants to support, deliver, and facilitate:

- Research and analyses
- Community-based forums
- Executive education programs
- Public policy debates
- Industry partnerships

About Optum

Optum is a health services business dedicated to making the health system better for everyone. Its three market-leading business segments—OptumHealth, OptumInsight, and OptumRx—employ more than 30,000 people worldwide who deliver integrated, intelligent solutions that work to modernize the health system, improve overall population health, and enable sustainable health communities.

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