

Top health industry issues of 2012: Connecting in uncertainty

.....
November 2011

At a glance

In 2012, health industry organizations will connect in new ways with each other and their consumers as they wade through economic, regulatory, and political uncertainty.

Introduction

What a difference a year can make. Last year at this time, our expectation was that insurers, providers, and pharma/life sciences companies would be reacting to and complying with changes in the Patient Protection and Affordable Care Act (PPACA). They are. But, it's complicated by a constitutional challenge that most likely will be decided by the Supreme Court in 2012. Also, a congressional "super committee" is considering funding issues that could further impact healthcare and the economics of the industry. A busy and increasingly long election season will further wear on an anxious electorate.

The global economy teeters at the precipice of stagnation or recovery. Realizing that even healthcare isn't immune, organizations are reaching out to connect with old rivals and new acquaintances in this time of heightened uncertainty. Some are stepping forward in cooperation; others are rewriting the rules of competition.

Providers are faced with revised Medicare payment schemes through value-based purchasing rules now in effect. At the same time, high unemployment and higher medical costs are further delaying a typical household's medical care. The resulting fall in volume spells financial hardship for many providers. Meanwhile, insurers and providers are teaming up to better understand population health amid massive quantities of data. The return on investment for health information technology is a long one, but large investments in areas like informatics may start to bear fruit.

Yet, opportunities abound for the industry. Information privacy and security is becoming an important factor for consumers in their hospital choice, after cost, quality, and access. Along with this comes increasing

expectations from consumers to have functional electronic health records (EHR). Big pharmaceutical firms are experimenting with innovative R&D and operating models. The industry also is responding to increasing numbers of drug shortages. And all players are finding ways to harness the expansive power of social media within and outside their organizations.

This year, PwC's Health Research Institute (HRI) again polled 1,000 US adult consumers about a variety of healthcare topics. Key findings include:

- Fifty-two percent (52%) of consumers HRI surveyed said they would be interested in an insurance plan that covered effective treatments at little cost to them, but charged higher prices for new treatments with unproven benefits.
- Nearly 75% of the respondents indicated a preference for healthcare organizations that encompass a wide range of health related activities and services. Consumers see integration as a boon to quality and cost, with 38% of surveyed consumers expecting a decrease in the cost of care and 36% expecting an increase in the quality of care if their health insurance company and provider were to merge.

- Sixty percent (60%) of respondents said they would be comfortable having their health data shared among healthcare organizations if doing so would improve coordination of their care.
- Consumers agree that healthcare is a prime election issue: it ranked equally (52% ranked healthcare either first, second, or third) with the national deficit as the second most pressing election issue after job creation.
- Nearly half (46%) of consumers say they have deferred care at least once this past year because of how much that care cost.
- Clear privacy and security policies were noted as a differentiator, being the top reason cited by consumers (at 30%) for why they would choose one hospital over another (holding cost, quality, and access equal).
- Sixty-one percent (61%) of consumers agree that pharmaceutical and biomedical research is an important engine for economic growth in this country. And 75% of consumers think that clinical trials should be conducted in the United States even though that might mean longer approval time and higher priced drugs.
- One-third of consumers (34%) reported they would have a less favorable impression of a health insurance company that decided not to participate in its state's health insurance exchange.
- Nearly a third (32%) of consumers has used some form of social media (Facebook, YouTube, blogs, etc.) for healthcare purposes.

Defining and paying for value: Theory becomes reality

Healthcare spending increases. It's as sure as the law of gravity. Or is it? Government and private insurers, and employers, are trying to wring costs out. Forget the Institute of Medicine's admonition to "bend the cost curve." Some will try to break it in 2012 as organizations start showing value. And if they don't, there will be penalties to pay.

Beginning Oct. 1, 2012, Medicare will reduce base payments for each hospital discharge by 1%, or about \$850 million for fiscal year 2013 as part of its Hospital Value-Based Purchasing (VBP) program.¹ This 1% withholding is expected to grow in subsequent years. Hospitals will have the opportunity to "earn back" the lost dollars if they achieve certain performance metrics (e.g. follow best

clinical practices, obtain high patient care experience scores). Hospitals that don't measure up will lose some or all of their withholding. Plans to reduce payments for hospital readmissions and payment adjustments for hospital-acquired conditions are two other ways hospitals could lose money if they don't perform.

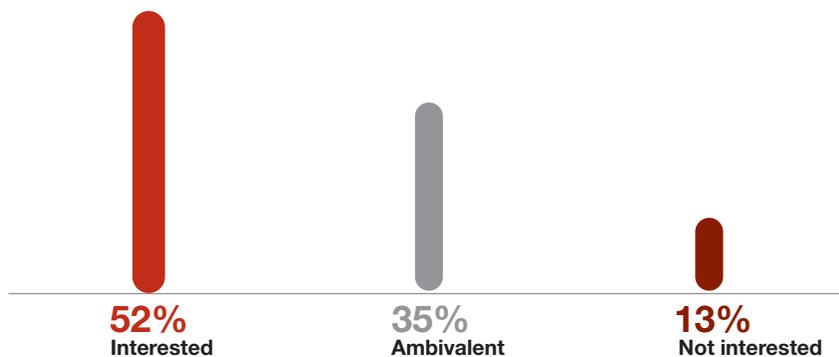
The Centers for Medicare and Medicaid Services' (CMS) Bundled Payments for Care Improvement Initiative is another opportunity for providers to reap rewards by excelling at delivering value. The program encourages providers to coordinate and deliver the most appropriate care by paying providers an episode-based payment. If they don't succeed, they'll be at a loss. Massachusetts' Blue Cross Blue Shield Alternative Quality Contract

(AQC) has used a similar concept since 2009 and provides an early model for CMS as it prepares for bundled payment pilots in 2012: apply global payments, give providers the opportunity to share in savings, and provide performance bonuses, with the goal of reducing medical expense trends.

For insurers, value will start with cutting administrative costs and keeping premiums down. By mid-2012, they must report the proportion of premium dollars spent on clinical care in 2011, known as their medical loss ratio (MLR). If they spent too much on administrative costs and not enough on healthcare, insurers must pay rebates to their members in August 2012, rebates the federal government estimates could total up to \$1.4 billion

¹ Healthcare.gov, Administration Implements New Health Reform Provision to Improve Care Quality, Lower Costs, April 2011

Figure 1: Percent of consumers who are interested in a value-based insurance plan



Source: PwC Health Research Institute Consumer Survey, 2011

or \$164 for an individual policyholder. (Administrative costs cannot exceed 20% for individual/small employer plans or 15% for large employer plans.²) In addition, any insurer that intends to increase premiums for individual or small group plans by 10% or more must submit a written justification to state regulators, who will make those proposals available to the public.

Comparative effectiveness research (CER) and value-based pricing are two mechanisms pushing on pharmaceutical, biotech, and medical device makers, with the US government spending more than \$4 billion on CER over the next decade.³ Other countries are further along the learning curve. Since 1999, the United Kingdom's National Institute for Health and Clinical Excellence (NICE) has provided guidance on treatments the National Health Service should pay for by assessing the clinical and cost-effectiveness of new drugs. Recently, NICE rejected several high-profile

drugs for lupus, multiple sclerosis, and melanoma. In response, some drug manufacturers have turned to patient access schemes to promote adoption of their drugs, including subsidizing multiple treatments or providing reimbursement if patients don't respond to treatment. Given the UK contribution to drug pricing worldwide, how the United Kingdom assesses value will be widely monitored.

Consumers appear to understand the need to contain costs, and that unproven therapies should cost more. Half (52%) of consumers HRI surveyed indicated they would be interested in value-based insurance plans, or plans that cover effective treatments at little cost to them but charge higher prices for new treatments with unproven benefits. (See Figure 1.) Employers are also pushing for more value from their healthcare partners. As an example, self-insured employers that worked with Seattle hospital system Virginia Mason to address big ticket healthcare

conditions saw a 23% reduction in MRI usage and fewer days lost from work than local averages (4.3 compared to 9.0).⁴

Implications

- New transparency on insurers' administrative costs and intended premium hikes could impact insurers' membership and reputations. Insurers are recognizing the need to establish a closer relationship with individual consumers and their caregivers to promote an advocate role.
- The push for value-based outcomes will affect approaches to clinical trials, R&D pipelines, and sales and marketing strategies for pharmaceutical and life sciences companies. Product development increasingly will stress effectiveness and economics as companies search for ways to prove the value of their products to payers and prescribers.
- Employers can use their purchasing power to demand performance-based pricing structures with provider, insurance, and wellness partners, tying payment to improvements in employee health or reductions in absenteeism.

2 PPACA Section 1001, Amendments to the Public Health Service Act; Public Health Service Act, Title XXVII, Part A, Section 2718

3 PPACA Section 6301, Patient-Centered Outcomes Research; HHS, Comparative Effective Research Funding; HRI estimates

4 C. Craig Blackmore, Robert S. Mecklenburg and Gary S. Kaplan, At Virginia Mason, Collaboration Among Providers, Employers, And Health Plans To Transform Care Cut Costs And Improved Quality, Health Affairs, 30, no.9 (2011):1680-1687

Higher out-of-pocket costs cramp utilization

Rising healthcare costs are eating into consumers' pocketbooks. In 2011, the average annual premium for employer-sponsored health insurance was \$5,429 for single coverage — up 8% from 2010 — and \$15,073 for family coverage — up 9% from 2010 and 113% from 2001.⁵ And, while household incomes grew over the last decade, healthcare costs eroded those gains. One study found that even with gross income gains of \$23,000, a typical family of four would have had only \$95 more a month in 2009 than in 1999 for non-health spending. However, if healthcare costs had risen with inflation, that same family would have had \$545 more per month, a difference of \$5,400 per year.⁶ As

healthcare costs continue to rise at an accelerating rate, households are looking for ways to curb their health spending.

From 2010 to 2011, employers increased their deductibles, out-of-pocket maximums, and co-pays, according to the PwC 2011 Touchstone survey. In addition, high-deductible plans showed the greatest growth rate of all plan designs. The percentage of employers whose most-enrolled plan was high deductible went from 13% in 2010 to 17% in 2011.⁷

Out-of-pocket costs for Medicaid patients are also increasing as states look to address revenue shortfalls. In fiscal year 2012, 14 states added new

or higher co-pays to their Medicaid programs, and some states are looking to take it further, limiting ER visits.⁸ Florida recently passed a measure that would charge a \$100 co-pay for using the ER for routine care.

Higher deductibles and co-pays have suppressed utilization. One Rand Corp. study found that high-deductible health plan (HDHP) enrollees cut back on preventive services such as childhood vaccinations, mammography, and cancer screenings.⁹ A Centers for Disease Control and Prevention (CDC) study found a higher percentage of HDHP enrollees didn't fill or refill prescriptions.¹⁰ Regardless of health plan, 46% of consumers surveyed by

5 Kaiser Family Foundation, Employer Health Benefits: 2011 Summary of Findings

6 David I. Auerback and Arthur L. Kellermann, A decade of health care cost growth has wiped out real income gains for an average US family, *Health Affairs*, 30, no.9 (2011): 9: 1630 – 1636

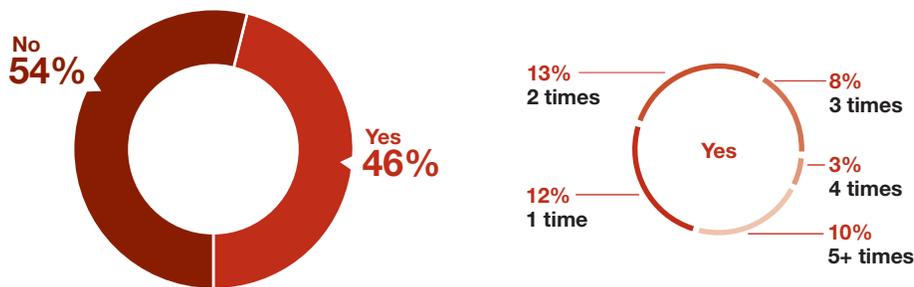
7 Behind the Numbers: Medical cost trends for 2012, PwC Health Research Institute, May 2011

8 Kaiser State Health Facts, Medicaid Cost Containment Actions Taken by States, FY2012

9 RAND Corporation, High-Deductible Health Plans Cut Spending but Also Reduce Preventive Care

10 CDC, Impact of Type of Insurance Plan on Access and Utilization of Health Care Services for Adults Aged 18-64 Years With Private Health Insurance: United States, 2007-2008

Figure 2: Percent of consumers who have deferred care in the past year because of cost



Source: PwC Health Research Institute Consumer Survey, 2011

HRI said they have deferred care in the past year at least once because of cost. (See Figure 2.)

In general, hospitals are feeling the effects. In 2009, the inpatient admission rate per 1,000 people was 115.7, the lowest it has been in 20 years.¹¹ Among not-for-profit hospitals, the average bed occupancy fell almost three percentage points from 2008 to 2010.¹² And, the growth rates for admissions and outpatient surgeries are down, while observation stays, a less expensive alternative to admissions, are up. Moody's is projecting a negative outlook for this sector, highlighted by the 2010 median net patient revenues growth rate of 4%, the lowest rate in more than a decade.¹³

Hospitals have managed to maintain their operating margins by reining in expenses such as wages and employee benefits. In 2010, median wage and benefit expenditures grew 4.1%, down from 8% in 2008.¹³ And, some health systems have shifted more care to e-visits to help manage costs and increase access for patients.

Implications

- Hospitals will need to look at alternative ways to grow revenue in the face of slowing utilization. Their revenues are further threatened by Medicare payment changes and the political push to cut spending via decreasing Medicare reimbursement.

- Attracting and retaining the right skilled workforce will continue to be a challenge. Hospitals will need to be creative in their talent management strategies.
- Employers must monitor how healthcare costs are affecting the health of their workers. Using behavioral economics principles and implementing innovative wellness programs could help encourage consumers to make better, and more economical, choices.

For a more in-depth look at medical costs, see Behind the numbers: Medical cost trends for 2012.

11 AHA Hospital Statistics, 2011 Edition

12 Moody's FY 2010 Not-for-profit Healthcare Medians Desktop Card

13 Moody's Investors Service, US not-for-profit medians show resiliency against industry headwinds but challenges still support negative outlook, August 30, 2011

Forging a new identity: Providers and insurers team up for population health

The identities of providers and insurers are blurring as they team up to harness data across the spectrum of care and benefit from new payment models. In the last year, health insurers have committed more than \$2 billion to acquire or align with physician groups, clinics, and hospitals, according to HRI estimates.

Two high-profile deals turned heads. Pennsylvania insurer Highmark invested in West Penn Allegheny Health System. In addition, Optum, insurer UnitedHealth Group's health services division, decided to buy a southern California company that manages 2,300 physicians. But that is not all: Humana, which bought occupational health provider Concentra in 2010, expanded even further in 2011 adding a chain of

Atlanta urgent care clinics. Aetna is developing co-branded health plans and new payment models with Virginia-based Carilion Clinic.

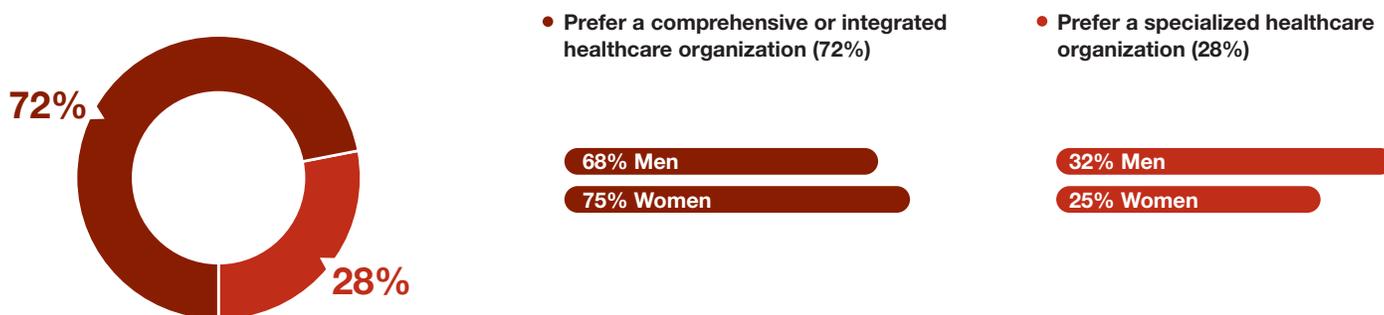
Large providers also are investing. In Boston, Partners HealthCare agreed to acquire Neighborhood Health Plan, a Medicaid and small group insurer. A new national association, the Hospital Health Plans Coalition, was formed in 2010 to raise congressional awareness and promote these provider-based plans in delivering integrated healthcare.

After recent CMS actions, providers now have several new population health oriented reimbursement plans to choose from — including two CMS shared savings models, four bundled payment models, and numerous commercial ACO plans. Population

health, a buzzword in health policy circles for decades, is in revival mode as these new accountable care models prompt providers to dust off old plans for integrated health systems. Technology and the threat of declining reimbursement make these models more appealing, and possibly, more profitable.

In the 1980s and 1990s, hundreds of hospitals started — then shut down — HMOs. The integration challenges with managing data, physicians, and incentives were too difficult. The landscape has changed with EHRs, physician alignment and new Medicare shared savings models. More providers can see the financial advantages of integrating care inside and outside the hospital.

Figure 3: Percent of consumers who prefer integrated healthcare models



Source: PwC Health Research Institute Consumer Survey, 2011

Patients could see tangible benefits from a more coordinated system, too. According to HRI research, nearly three-fourths of consumers want integrated care models. (See Figure 3.) Why? Of those surveyed, 38% think it will lower costs, and 36% expect the quality of care to increase if their health insurer and hospital or doctor were to merge.

Those consumers are on to something. If these provider-insurer partnerships are able to achieve results similar to recent Medicaid-provider partnerships, the impact could be substantial. Established in 1998, Community Care of North Carolina implemented a medical home model and engaged primary care physicians to serve as the point of care for patients. The program is supported by an infrastructure of community providers that coordinate care, implement disease management programs, and provide access to data and patient records through an integrated IT infrastructure. The recently released results have been powerful: nearly \$1.5 billion in savings from 2007–2009 for the state.¹⁴ By partnering with providers and emphasizing care coordination and population-based initiatives, North

Carolina was able to achieve costs savings without cutting provider fees or services, or otherwise reducing care.

Implications

- New operating models require new governance structures to set priorities. Organizations that address this need early on will be better positioned for a smooth transition.
- Long-time adversaries will weigh the risks and rewards of working together in a post-reform environment, knocking down long entrenched silos.
- Some mergers and partnerships may raise red flags among lawmakers about competition and access for consumers. As a result, these deals could stir up more regulatory activity.
- Data integration could sink or save new provider-insurer partnerships, depending on execution.
- Organizations, regardless of plans for integration or partnering, should evaluate data mining, informatics, and data sharing capabilities as the need for effective population health continues to grow.

For a more in-depth look at partnerships promoting population health, see From courtship to marriage: A two-part series on physician-hospital alignment.

14 Community Care of North Carolina, Our Results

The coming drug (shortage) wars

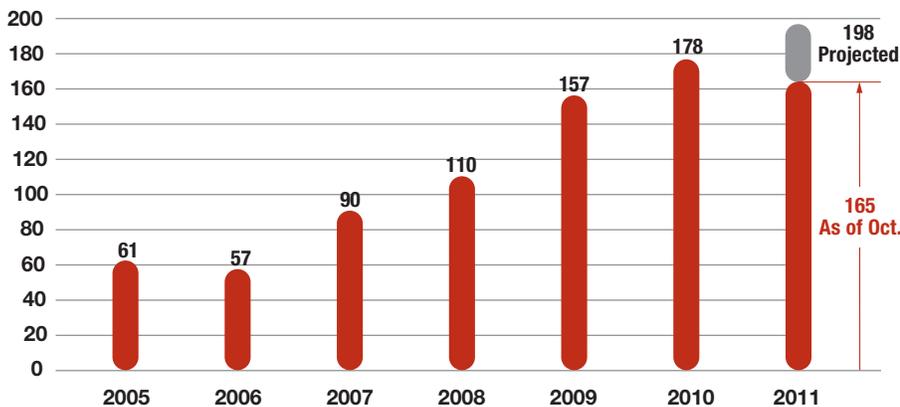
Drug shortages affect patients, providers, pharmaceutical manufacturers, and researchers alike. The FDA reported 178 separate incidents of drug shortages in 2010, and the shortages are expected to increase into 2012.¹⁵ (See Figure 4.)

While shortages have affected drugs in all classes, the majority have occurred among generics that are important staples of hospital care and treatment, such as injectables for cancer treatment or anesthesiology. The shortages are sometimes spawned by a

sudden increase in demand or product discontinuation, but the top causes seem to be manufacturing delays and quality issues among generics manufacturers. Today's complex global pharma supply chain can strain the situation further as delays may stem from raw material shortages or production problems in different countries. Industry consolidation has also contributed to drug shortages.¹⁶ With fewer firms involved in generics manufacturing and fewer still with the capability to produce injectables, the alternatives are limited when shortages occur. For example, the cancer drug Doxorubicin is now primarily made by three manufacturers that have all experienced production delays.¹⁷

Concerns about patient care and safety grow as drug shortages multiply. Two separate studies conducted in 2010 and 2011 found that a staggering 99% of US hospitals had experienced one

Figure 4: Incidents of drug shortages in the United States



Source: FDA, HRI analysis

15 FDA, Frequently Asked Questions About Drug Shortages

16 Valerie Jensen, Lorene M. Kimzey, and Mark J. Goldberger, FDA's role in responding to drug shortages, American Journal of Health-System Pharmacy, 2002:59:1423-5.

17 FDA, Current Drug Shortages

or more drug shortages.¹⁸ For almost half of these hospitals, shortages are a daily dilemma requiring considerable time and resources to determine viable alternatives. And the options are not ideal, causing providers to choose among delays in treatment, less effective substitutes, or no treatment at all. Often pharmacists, doctors, and nurses are left with no choice but to work with a less effective or unfamiliar treatment, which can lead to dosing errors, mistakes in dilutions, and compromised care.

To cope, hospitals are revamping their supply chains, inventory tracking, and distribution systems, and developing internal strategies for responding to shortages and using therapeutic alternatives. Even with advanced planning, in 2010 hospitals spent an estimated \$200 million on expensive, last-minute substitutes, not factoring in gray market purchases.¹⁹ Gray market distributors, those with inexplicable quantities of drugs in short supply, prey on hospitals in need of scarce drugs, not unlike ticket scalpers outside a popular music concert. Premier, a group purchasing alliance, estimated an average price premium of 650% for unsolicited drug sales to its member hospitals. Providers are disinclined to purchase from these gray market suppliers as it can be difficult to confirm reliability of products purchased outside of trusted suppliers.

In late October 2011, President Obama signed an executive order to help address the growing drug shortage problem. The order instructs the FDA to press drug companies to report drug shortages more quickly, expedite the review of new manufacturing facilities,

and step-up investigations into gray market mark-ups. The order is similar to a bill before Congress, H.R. 2245, “Preserving Access to Life-Saving Medications,” that would give the FDA increased authority in requiring pharma manufacturers to give greater notice of impending drug shortages. Despite the fact that the legislation has attracted some bipartisan support, it remains to be seen if the bill will move forward anytime soon.

Implications

- Hospitals that have plans in place to address drug shortages, including processes for determining, communicating, and implementing therapeutic alternatives decisions, will be better able to respond to sudden and unexpected shortages.
- Real-time drug inventory systems can help manufacturers anticipate patient demand and minimize reliance on gray market vendors. Drug manufacturers with strong governance and communication policies will be able to respond quickly and aggressively when shortages do occur.
- Expect increased FDA vigilance and communication both to manufacturers and consumers regarding drug shortages.
- While drug shortages primarily affect generics, both branded and generic manufacturers may face reputational risks as consumers feel the effects of these shortages. Manufacturers should closely monitor and proactively communicate their mitigation efforts.

For a more in-depth look at pharma supply chain issues, see *Pharma 2020: Supplying the future*.

¹⁸ American Hospital Association, University of Michigan Health System, and American Society of Health System Pharmacists, *Impact of Drug Shortages: Results of Two Independent National Surveys*, September 2011

¹⁹ Premier, *Navigating Drug Shortages in American Healthcare*, March 2011

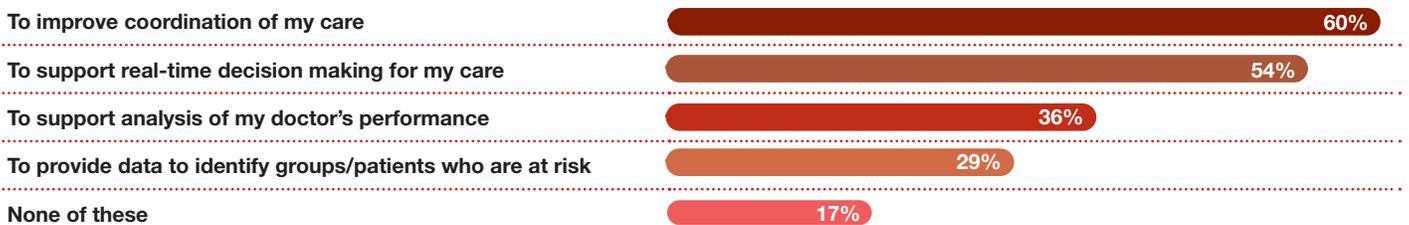
Getting smarter: Investments in health informatics ramp up

In 2012, data is power, and the organizations that learn how to effectively use and monetize it will gain a competitive edge. But data is ubiquitous, and identifying what's valuable and what's not within an organization's nooks and crannies is challenging. The practice of identifying valuable data and translating it into information to customize patient care and achieve the best possible outcomes is the domain of health informatics.

Each health sector has a vested albeit slightly different interest in informatics, but their needs are converging. Patients also are becoming more interested in sharing their data to benefit themselves and others. Sixty percent (60%) of the consumers surveyed said they would be comfortable having their health data shared among healthcare organizations if doing so would improve coordination of their care. (See Figure 5.)

Expect data sharing partnerships to grow in 2012. Many providers will continue to focus on EHR and health information exchange (HIE) implementation and data integration, and some leading organizations — for example, Geisinger Health System, Kaiser Permanente, Mayo Clinic, Intermountain Healthcare, and Group Health Cooperative — have already joined forces to better exchange clinical information. Their Care Connectivity Consortium will share data about

Figure 5: Purposes for which consumers would be comfortable having their health data shared among healthcare organizations (respondents were able to select all that apply)



Source: PwC Health Research Institute Consumer Survey, 2011

patients to easily and quickly access that information for care purposes.

Health insurers' role in disease management has helped them use data to better identify patients at risk for developing chronic illnesses. In 2012, they may see their role expand to applying informatics in everyday patient care. For example, in 2011, WellPoint announced that it was purchasing "Watson," IBM's data-crunching and artificial intelligence technology, to suggest treatment options and diagnoses to doctors. Like providers, health insurers are also pooling resources. Kaiser Permanente, Aetna, Humana, and UnitedHealthcare are forming the Health Care Cost Institute, which will make data in more than 5 billion de-identified claims available to researchers.

Pharmaceutical companies are interested in clinical data to better understand medication compliance, the real-world effectiveness of their drugs, and to facilitate clinical trials. Informatics can help them determine what leads to noncompliance, formulate targeted products, and prove that their drugs are the most cost-effective.

The global market for advanced analytics and business intelligence software tools is estimated to grow to approximately \$313 million by 2013, marking a 10.8% compound annual growth rate since 2007.²⁰ The United States is expected to be about half that market. But the industry faces myriad challenges before data uses can expand and data assets can be monetized. These include addressing data quality and integration, developing scalable analytical tools, amending a shortage of practicing informaticists and

trainers, and addressing privacy and security. How organizations collect patient-reported data may be another barrier. For example, PwC's consumer survey showed only 17% of patients fill out patient information online, while 61% still use paper forms to provide information to their doctor's office.

Organizations that are able to use their data with intelligence and purpose to effectively and affordably manage patient care will stand apart from the competition. For example, Medicare's value-based purchasing program and accountable care organizations are based on the submission of data to illustrate patient outcomes. The nature of these outcomes determines payment.

Implications

- More providers and health insurers are using predictive modeling to better manage high-cost patients. With reimbursement increasingly based on patient outcomes, organizations that are able to intervene before patients become chronically ill will save lives and money.
- Technology and informatics can also be used to build and enhance provider networks, linking community and rural providers to specialists, linking patients to providers "virtually," and remotely monitoring patients' health status and medication compliance.
- Large consortiums that are forming to share patient data on a common platform could have a competitive edge. Providers should look for shared EHR opportunities in their local markets to expand their data networks.

- As more data is collected and shared within and across organizations, efforts to secure that data and ensure patient privacy will become increasingly complicated.
- Pharmaceutical/life science companies will increasingly use clinical informatics to get more targeted products to market faster.

For more information about healthcare informatics, stay tuned for HRI's upcoming report in early 2012.

²⁰ Ovum, a Datamonitor company, Business Intelligence: Global Market Forecast Model to 2013, August 2008, © Ovum 2011

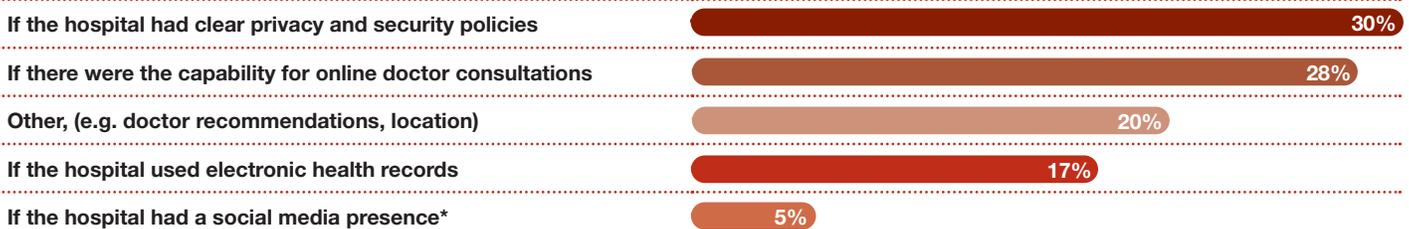
Privacy and security: A billboard for new business

More than half of healthcare organizations have had at least one privacy/security-related issue in the last two years, according to a recent HRI survey. As personal health data is increasingly digitized and shared, privacy risks balloon. Nearly three-quarters of healthcare organizations surveyed said they are using or intend to use health data for some purpose

other than to treat a patient. Yet only 47% said they have addressed related privacy and security implications.²¹ They should start. Among consumers surveyed about how they would choose one hospital over another (holding cost, quality, and access equal), clear privacy and security policies was the top differentiator (30%). (See Figure 6.)

Healthcare organizations will need to adapt old forms of patient consent and security protocols to cover new data uses or new channels of communicating and sharing data — such as electronic health records, health information exchanges, mobile devices, and social media. Less than one-fifth of healthcare organizations that are sharing data externally have

Figure 6: Attributes that would sway consumers to select one hospital over another, if cost, quality, and access were equal



*Has a blog, uses Twitter, Facebook, or YouTube to communicate and engage you

Source: PwC Health Research Institute Consumer Survey, 2011

21 Old data learns new tricks: Managing patient privacy on a new data-sharing playground, PwC Health Research Institute, 2011.

implemented a process for managing patient consent for sharing that data, including in health information exchanges. Also, while the trend in the pharmaceutical and life sciences sector over the last few years has been to outsource IT functions to third parties for cost savings and to better deliver capabilities globally, only 17% of survey respondents from the sector said that they have addressed the privacy and security issues related to Internet-based outsourced IT functions such as cloud computing. In 2011, the federal government's Office of the National Coordinator for Health Information Technology took the first step toward helping patients understand what it means when they give consent to share their data. The e-consent trial is expected to "design, develop, and pilot innovative ways to electronically implement existing patient choice policies, while improving business processes for healthcare providers."²² That's a tall order.

The government has made it clear that IT-enabled advances cannot come at the expense of patient privacy and security. More than 70% of healthcare executives surveyed by HRI said that recent breach enforcement actions have forced them to focus more on privacy and security. Organizations can expect increased government audits because criminal and civil penalties for breaches are a revenue source for the government's stimulus incentive program to drive widespread EHR adoption.

Implications

- As more stakeholders enter the data-sharing mix through digitized records, mobile devices, social media, and health databases, healthcare organizations need to build more granular access-control models to prevent overexposure of information.
- The healthcare industry cannot solve the privacy and security issue with policies alone. Innovative technology tools, such as those implemented in other industries grappling with data privacy, can provide ways to complement and enhance privacy and security efforts.
- Global pharmaceutical and life sciences companies and health insurers will face increasing challenges related to cross-border data transfers. Privacy laws are consumer protection laws, so the protection travels with the patient.
- Providers need to rethink how they comply with privacy laws and not limit their focus to HIPAA requirements. To be eligible for "meaningful use" incentives, they must also complete a security assessment that includes criteria for access control, identity management, and encryption.
- All healthcare organizations need strategies for managing business associate relationships. Under the HITECH Act, business associates

with which healthcare organizations share personal health information must now comply with the HIPAA Privacy and Security Rules and are subject to the same enforcement measures as covered entities.

- The trend toward cloud computing will continue — and extend to health insurers and providers — as healthcare organizations try to manage growing IT infrastructure and costs.

For more information about privacy and security, see *Old data learns new tricks: Managing patient privacy and security on a new data-sharing playground*.

²² Office of the National Coordinator for Health Information Technology, Announcement of E-Consent Trial Project Contract Award

Insurance exchanges: Health plans learn to compete in a new marketplace

2012 will be intense for health plans getting ready for state health insurance exchanges (HIXs). States are expected to begin certifying health plans in October 2012. With the average certification prep time estimated at 15 months, health insurers have no time to lose to access this massive opportunity. The HIX market is estimated to encompass nearly 12 million consumers and \$60 billion in premiums in 2014, and as many as 28 million consumers and nearly \$200 billion in premiums in 2019, according to HRI estimates.

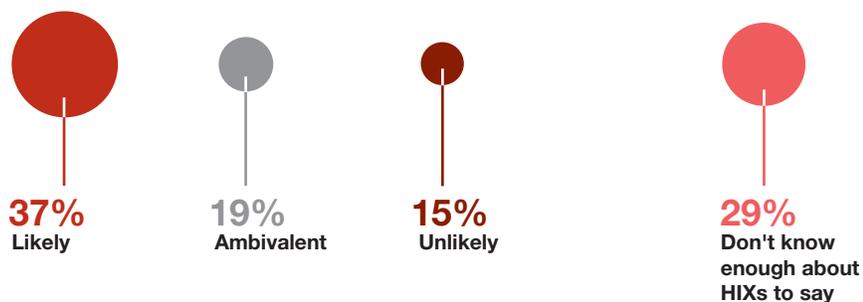
As insurers prepare to enter the exchange marketplace, they will need to understand how their product offerings and business models align with the exchanges, and how the new marketplace may shake up competition. In all scenarios, insurers will need to prepare for a shift in focus to the consumer, and develop

sales and marketing channels, customer interfaces, and product offerings that reflect and attract the individual consumer.

Two states, Massachusetts and Utah, were operating insurance exchanges prior to health reform. As of October 2011, 11 other states had enacted the legislative authority to establish the exchanges described in PPACA.²³ That leaves a lot of states still in limbo. With industry concern looming about the certification deadlines, the federal government has developed a new State Partnership model as a means of working with states to operate exchanges and provide additional flexibility. However, many of the regulations remain a work in progress. In 2011, the Institute of Medicine released its recommendations on how the US Department of Health and Human Services (HHS) should determine the “essential” health

23 The Commonwealth Fund, State Health Insurance Exchange Legislation: A Progress Report

Figure 7: Percent of consumers who think health insurance exchanges (HIXs) will make it easier to find and purchase a competitive health plan



Source: PwC Health Research Institute Consumer Survey, 2011

benefits that must be included in health plans sold through the exchange. Once HHS releases its final rule, insurers will need to ensure any plans they sell on an exchange meet those requirements.

Meanwhile, the concept of insurance exchanges is flowering in other forms. For example, Florida is working on its own exchange that would open in 2012, but not to individuals — only to small businesses. It would not provide subsidies or tax credits, or have an essential benefits requirement. Some health insurers are building private exchanges. Blues plans in six states recently purchased a majority stake in Bloom Health, an online marketplace that offers a variety of health plans to employees at small to midsize employers. Bloom plans to compete nationally with the state-run Small Business Health Option Programs, or SHOP exchanges.

If consumers don't know much about these new exchanges, they will soon. Many insurers are targeting specific population segments, expanding direct-to-consumer sales and marketing capabilities, and exploring new channels to reach consumers directly. As health insurers develop their strategies, they should

understand consumer expectations. Among consumers who responded to HRI's survey, 34% reported they would have a less favorable impression of a health insurance company that decided not to participate in their state's exchange. That negative impression could stem from consumer expectations about the value the exchange brings: 37% of consumers surveyed think health insurance exchanges will make it easier for them to find and purchase a competitive health insurance plan. (See Figure 7.)

Implications

- Technology integration with the exchanges could pose challenges, especially as most states have yet to announce their platforms or technology requirements.
- Broker and sales processes could undergo radical change as targets shift from the employer to the individual. Insurers may need to consider how they market inside and outside the exchanges (e.g. Medicaid, small group, individual).
- Broker commissions remain under pressure — some payers have already decreased payments to brokers to meet MLR requirements.

- A retail-oriented view of consumers will force insurers to make their products and services easy for individuals to understand and navigate. The direct-to-consumer sales process will change the way insurers think about consumer behaviors and preferences.
- Nontraditional health insurance companies may enter the health insurance exchange market or partner with existing insurers, retailers, or financial institutions.
- Many states are still trying to define their HIX model. Health insurers that are proactive in seeking opportunities to work with the states to define and operationalize the exchanges will have a distinct advantage and will be better prepared to successfully integrate with the exchanges and their operating models.

For a more in-depth look at health insurance exchanges, see *Change the channel: Health insurance exchanges expand choice and competition*.

A slimmer pharma tries on new business models

Branded pharmaceutical companies are trying on new business models as varied as the costumes in a Broadway musical. Lower cost generics manufacturers are logging market share gains from branded manufacturers. The scenario is becoming more frenzied in anticipation of a jolting \$118 billion revenue loss between 2012 and 2016 due to expiring blockbuster patents.²⁴ More than 80% of pharma and life science CEOs surveyed by PwC said they have altered course during the past two years, and 36% said they have modified their strategies in fundamental ways.²⁵

The years 2009 and 2010 were banner years for pharma mergers as companies looked to rebuild product pipelines. Only 11 of 42 members of the industry trade group, the Pharmaceutical Research and Manufacturers of America, of 15 years ago remain after years of mergers.^{26,27} These mergers created larger companies, but they have consequently been slimming down. The numbers paint a dismal picture. Since the beginning of 2011, more than 20,000 US job cuts were announced.²⁸ The US Department of Labor estimates that pharma sales and marketing staffs will shrink by 5% between 2008

24 EvaluatePharma, World Preview 2016, June 2011

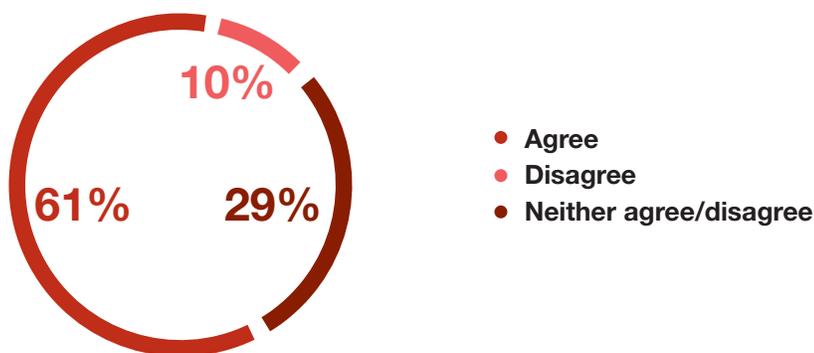
25 Growth Reimagined: Pharmaceutical and Life Sciences Industry Summary, 14th Annual Global CEO Survey, PwC, 2011.

26 Forbes, Our Shrinking Biopharma Ecosystem, September 2011

27 John L. LaMattina, The impact of mergers on pharmaceutical R&D, Nature Reviews Drug Discovery: August 10, 2011, 559.

28 Challenger, Gray, and Christmas, Job-Cut Announcement Report, November 2, 2011

Figure 8: Percent of consumers who agree that pharmaceutical and biomedical research is an important engine for economic growth in this country



Source: PwC Health Research Institute Consumer Survey, 2011

and 2018.²⁹ Following two years of mega mergers and acquisitions, major players are rethinking their approaches to sustaining R&D. The varied strategies include:

- Divest or slim down R&D divisions through massive layoffs and closing of research facilities.
- Maintain existing R&D arms, but separate them into independent, sometimes competing, units.
- Forge partnerships with academic research institutions.
- Act as corporate venture capitalists, crafting an investment portfolio of firms with promising pipelines.
- Shift more R&D to contract research organizations, lower cost labor, or overseas growth markets.

With the worldwide economy still struggling and major pharma dealing with declines in patent drug sales, slimming down could emerge as the

predominant model. The biggest casualty could be R&D productivity. The loss would come at a time when American consumers consider pharma R&D a critical part of the nation's economy. As indicated in HRI's consumer survey, 61% of consumers say pharmaceutical and biomedical research is an important engine for economic growth. (See Figure 8.) Additionally, three-fourths of consumers think that clinical trials should be conducted in the United States, providing jobs and revenue, even though that might mean longer approval time and higher priced drugs.

Big pharma is shifting from blockbuster drugs marketed to the masses to specialty products developed for small patient populations with hard-to-treat and rare diseases. These newer drugs are more complex and more expensive to produce, transport, and administer, and they require a different sales and marketing model.

Implications

- For an industry not accustomed to adroit strategy shifts, risks will remain high. Multinationals will hire more staff in emerging markets and fewer in developed nations. They will continue to invest in R&D and manufacturing facilities in developing nations.
- Pharma can no longer rely on individual physicians to drive sales. Purchasing groups, health plans and risk-based care groups carry increasing clout around purchasing decisions.
- Those in the R&D workforce who have weathered the storm are battered. Pharma firms that take heed of employee engagement and productivity levels and excel at post-merger integration will be better positioned in 2012.

For a more in-depth look at issues affecting the pharmaceutical industry, see *Pharma 2020: Challenging business models*.

²⁹ Bureau of Labor Statistics, US Department of Labor, Career Guide to Industries, 2010-11 Edition, Pharmaceutical and Medicine Manufacturing

Healthcare no longer social media's wallflower

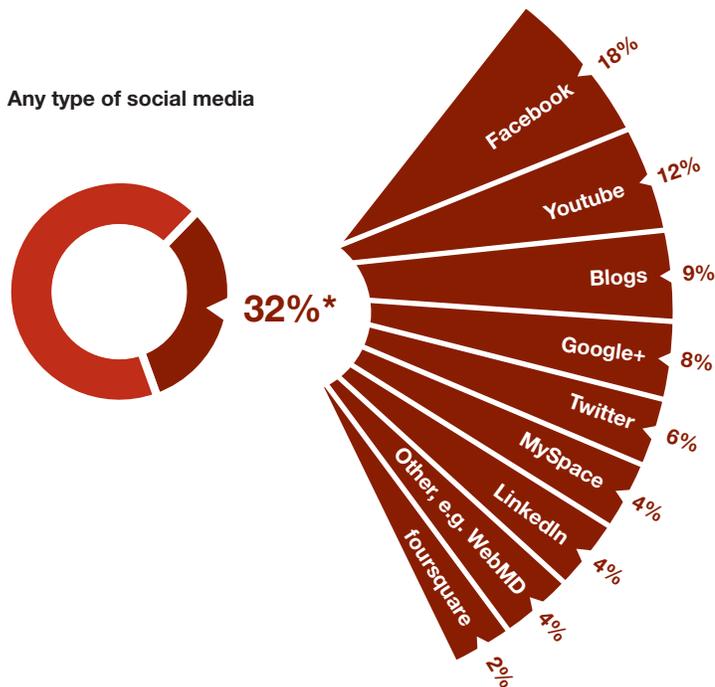
While websites and portals create a one-to-many relationship, social media creates a many-to-many relationship. Four out of five businesses with 100 or more employees want to use that

relationship to market and manage their businesses.³⁰ Social media, which uses web or mobile technologies for discussions and collaborations, is the newest channel to connect

people internally and externally to an organization. Whether it's reacting to customer complaints, monitoring web chatter or communicating with their workers, healthcare organizations are emerging as active participants in social media. So are consumers. Almost a third of consumers surveyed by HRI, and 50% of those under the age of 35, have used social media for healthcare purposes, with one in five consumers having used Facebook. (See Figure 9.)

Providers seem to be furthest along in reaching consumers through social networks. More than 1,200 hospitals participate in nearly 4,200 social networking sites, including Facebook, Twitter, YouTube, LinkedIn, foursquare, and blogs.³¹ And more than 60% of US physicians already use or are interested in using online physician communities, such as Sermo, where they collaborate and share information.³²

Figure 9: Percent of consumers who have used social media for healthcare purposes



*Respondents were able to select all that apply
Source: PwC Health Research Institute Consumer Survey, 2011

30 eMarketer, Social Media in the Marketing Mix: Budgeting for 2011, December 2010

31 Ed Bennett, Found in Cache

32 Manhattan Research, Pharma & Social Media: Practical Social Media Strategies for the Pharmaceutical Industry, 2009

Health insurers use social media to share insights with their members on plan benefits, health reform, and healthy lifestyles. Aetna plans to engage people in achieving personal health and wellness goals by translating positive offline actions, such as a workout at the gym, into benefits for the participant's virtual life.³³ Such efforts by insurers, if successful, could translate into better health for plan members and lower costs, in real life.

Elusive FDA guidance has inhibited pharma's full embrace of social media with consumers. Even so, more than 50 companies have posted videos on YouTube, Twitter, and Facebook.³⁴ And others post regularly on blogs that attract wide followings. Eli Lilly's in-house collaborative problem-solving network "e.Lilly" expanded beyond its corporate confines into an online global community for open innovation. This network, InnoCentive, joins companies seeking solutions to problems with 250,000 scientists, engineers, professionals, and entrepreneurs from more than 200 countries and includes participants such as the Cleveland Clinic and Roche.³⁵

Not only are healthcare companies using social media to reach consumers, they are using enterprise social platforms internally to share information and brain power, find solutions to problems, and spur innovation. For example, IPC The Hospitalist Company uses Yammer to connect more than 1,400 physicians in 21 states for peer consultations.³⁶ New generation platforms will enable data analytics and more integration

capabilities. For more information, download PwC's Technology forecast: Transforming collaboration with social tools.

Healthcare companies know they must engage in social media at some level. Many have already changed the way they listen to their customers and understand the importance of managing their digital identity. As the demand for online health information grows, so too will the ways healthcare organizations use social media.

Implications

- Social media foundations in marketing and communications will open new opportunities to improve health delivery and outcomes. It should be incorporated as part of a larger multi-channel strategy to connect with customers.
- Healthcare companies must identify, train, and empower employees who can respond to customer complaints and questions quickly and in a way that protects their brands. An organization-wide social media policy should outline how employees can participate and who is primarily responsible for monitoring and responding.
- Healthcare companies can apply behavioral economics principles to understand tradeoffs that consumers make and influence healthier choice selection.
- Social media provides opportunities to mine information on specialized sets of patients. These opportunities could prove especially inviting for new entrants to the healthcare field.

For a more in-depth look at social media and healthcare, stay tuned for HRI's upcoming report in Spring 2012.

33 Aetna, Aetna and Mindbloom Team Up to Encourage Healthier, More Balanced Living Through Social Gaming, May 2011

34 Dose of Digital, Pharma and Healthcare Social Media Wiki

35 InnoCentive

36 Yammer, Case Studies

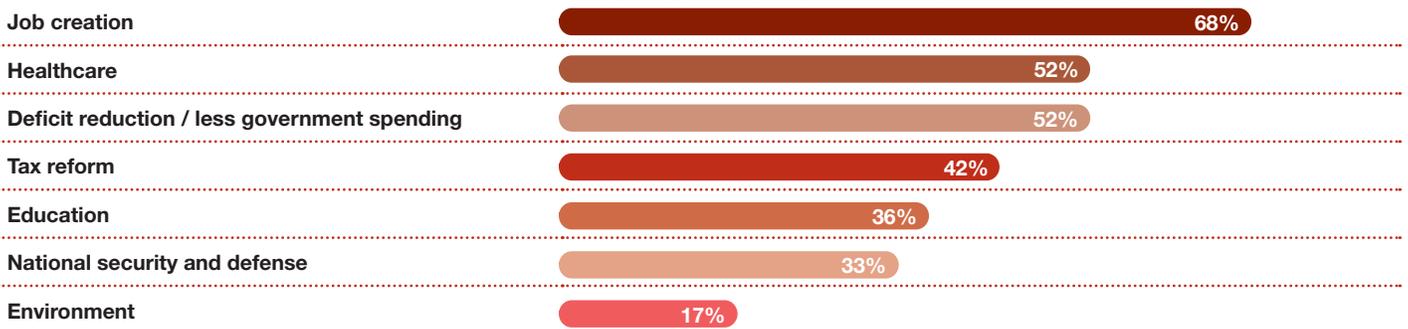
Politics as usual: Healthcare will take a central role in election year

Health reform, Medicare, and Medicaid will be among the most popular debate topics in 2012 as Republicans seek to repeal PPACA and Democrats vigorously defend it.

The potential Republican presidential candidates disagree on many points, yet they overwhelmingly agree on one thing: to repeal President Obama's signature health reform

law. Respondents to PwC's consumer survey agree that healthcare is a prime election issue: It was second only to job creation when ranking the issues of most concern in the election. (See Figure 10.)

Figure 10: Percent of consumers who ranked the following issues as the first, second, or third most important factor in the 2012 presidential election



Source: PwC Health Research Institute Consumer Survey, 2011

As 2012 election year politics run their course, healthcare organizations cannot ignore the upcoming regulatory milestones that are scheduled to unfold. Organizations may find it necessary to implement and respond to healthcare reform legislation even if it will change significantly or be repealed after the next election. They must learn to thrive in a new environment as CMS approves new accountable care organizations, the IRS collects new fees from pharmaceutical manufacturers, and Medicare starts withholding some payments to fund a new value-based incentive program. And the biggest wild card of all: whether the Supreme Court will rule on the constitutionality of the individual mandate, resulting in the validation/invalidation of a part of PPACA — a decision that could come during the 2012 presidential election campaign.

Debates surrounding healthcare reform invariably invoke Medicare, which in 2011 accounted for 15.4% of the federal budget. Medicare payments are expected to total \$555 billion in 2011, increasing to \$903 billion in 2020, or 17.5% of the federal budget.³⁷

Health reform aims to trim Medicare spending. Among other things, CMS will reduce annual market basket updates to hospitals and other providers, reduce Medicare Disproportionate Share Hospital payments, and set payments to Medicare Advantage plans closer to the average costs of caring for Medicare beneficiaries.³⁸ But both Democrats and

Republicans agree that these changes are not enough to guarantee the long-term solvency of Medicare. Other solutions include proposals such as income-based premium contributions and a higher eligibility age.

Medicaid is facing similar pressures, with its projected annual cost exceeding \$428 billion in 2011.³⁹ Several prominent Republicans — including presidential candidates⁴⁰ — have proposed turning Medicaid into block-grant programs, giving states a lump sum payment to manage as they choose. Republicans maintain that cash-strapped states can't cope with the prospect of millions of currently uninsured expected to join Medicaid's ranks in 2014 under health reform. Democrats argue that such changes could jeopardize healthcare for millions of low income and disabled Americans. More payment cuts to providers, benefit reductions, and increased out-of-pocket costs for beneficiaries could be on the table overall since healthcare represents a significant part of the budget and deficit reduction discussions. While the likelihood of Medicaid block grants is slim at the moment, that prediction could change if Republicans gain control of the White House and Congress in 2012.

Implications

- With two dramatically different visions for the future of healthcare held by Democrats and Republicans, there's a lot on the line. Health

organizations will need to marshal and allocate resources along several strategic pathways, including current implementation needs, advocacy to influence future policy decisions, and contingency planning for major dismantling or restructuring.

- If the Supreme Court strikes down the individual mandate, millions of Americans may forgo buying insurance, disrupting provider, payer, and pharma assumptions for new growth.
- Reducing Medicare provider rates will remain a discussion in deficit talks. Combine that with other efforts under way to reduce volume, and the squeeze is on hospitals. Value-based purchasing, never events, penalties for readmissions and accountable care organizations—every single initiative is designed to keep patients out of the hospital.
- Continued government action to address the deficit, such as the super committee effort, will add another level of pressure and uncertainty to healthcare spending. As a result, there may be a push for market penetration among providers and payers to make up for potential revenue losses.

For a more in-depth look at health reform, visit HRI's health reform website at www.pwc.com/us/healthreform

³⁷ CBO, Budget and Economic Outlook, August 2011

³⁸ Kaiser Family Foundation, Focus on Health Reform

³⁹ CMS National Health Expenditure Data Projections 2010 – 2020

⁴⁰ Kaiser Health News, GOP Presidential Hopefuls: Where They Stand On Health Care, October 2011

About this research

This annual report discusses the top issues for healthcare providers, health insurers, pharmaceuticals and life sciences companies and employers. In fall 2011 PwC's Health Research Institute commissioned an online survey of 1,000 US adults representing a cross-section of the population in terms of insurance status, age, gender, income, and geography. The survey collected data on consumers' perspectives on the healthcare landscape and preferences related to their healthcare usage.

About PwC

PwC US helps organizations and individuals create the value they're looking for. We're a member of the PwC network of firms with 160,000 people in more than 150 countries. We're committed to deliver quality in assurance, tax and advisory services. Tell us what matters to you and find out more by visiting us at www.pwc.com/us.

Health Research Institute

PwC's Health Research Institute provides new intelligence, perspectives, and analysis on trends affecting all health-related industries. The Health Research Institute helps executive decision makers navigate change through primary research and collaborative exchange. Our views are shaped by a network of professionals with executive and day-to-day experience in the health industry. HRI research is independent and not sponsored by businesses, government, or other institutions.

PwC Health Research Institute

Kelly Barnes
Partner, Health Industries Leader
kelly.a.barnes@us.pwc.com
(214) 754 5172

David Chin, MD
Principal (retired)
david.chin@us.pwc.com
(617) 530 4381

Sandy Lutz
Managing Director
sandy.lutz@us.pwc.com
(214) 754 5434

Benjamin Isgur
Director
benjamin.isgur@us.pwc.com
(214) 754 5091

Serena Foong
Senior Manager
serena.h.foong@us.pwc.com
(617) 530 6209

Christopher Khoury
Senior Manager
christopher.m.khoury@us.pwc.com
(202) 312 7954

Sarah Haflett
Manager, Health Information
Technology Research
sarah.e.haflett@us.pwc.com
(267) 330 1654

Jack Rodgers
Managing Director,
Health Policy Economics
jack.rodgers@us.pwc.com
(202) 414 1646

Ariel Gray
Research Analyst
ariel.b.gray@us.pwc.com
(415) 498 7136

Jaime Marks
Research Analyst
jaime.l.marks@us.pwc.com
(267) 330 2691

Alan Baronoskie
Research Analyst
alan.baronoskie@us.pwc.com
(214) 754 5265

**Health Research Institute
Advisory Team**

Joe Alban
Principal, Healthcare Provider
Advisory Leader
joe.albian@us.pwc.com
(312) 298 2018

Michael Galper
Partner, Healthcare Payer Leader
michael.r.galper@us.pwc.com
(213) 217 3301

Daniel Garrett
Principal and National Leader,
Health Information Technology
daniel.garrett@us.pwc.com
(267) 330 8202

Vaughan Kauffman
Principal, Healthcare Payer
Advisory Leader
vaughn.a.kauffman@us.pwc.com
(216) 363 5817

Douglas Strang
Partner, Pharmaceutical and Life
Sciences US Co-Advisory Leader
douglas.s.strang@us.pwc.com
(267) 330 3045

Michael Swanick
Partner, Pharmaceutical and
Life Sciences Leader
michael.f.swanick@us.pwc.com
(267) 330 6060

Michael Thompson
Principal
michael.thompson@us.pwc.com
(646) 471 0720

Robert Valletta
Partner, Healthcare Provider
Leader
robert.m.valletta@us.pwc.com
(617) 530 4053

**Health Research
Institute Contributors**

Janice Drennan
Manager
janice.s.drennan@us.pwc.com
(813) 348 7411

Dimitri Drone
Partner
dimitri.b.drone@us.pwc.com
(973) 236 4977

Steven Elek
Partner, Transaction Services Leader
steven.elek@us.pwc.com
(267) 330 2240

Barbara Gabriel
Manager
barbara.a.gabriel@us.pwc.com
(813) 348 7181

Jeffrey Gitlin
Principal, Enterprise Strategy Co-Leader
jeffrey.gitlin@us.pwc.com
(860) 241 7056

Jinn-Feng Lin
Principal
jinn-feng.lin@us.pwc.com
(312) 298 3792

Ross Stromberg
Director
ross.e.stromberg@us.pwc.com
(415) 498 7368

Thomas Weakland
Principal, Enterprise Strategy Co-Leader
tom.weakland@us.pwc.com
(312) 298 6896

HRI acknowledges the following additional contributors:

John Dugan, Seth Dunbar, Angel Franco, Lawrence Hanrahan, Jason Heider, Grant Hubbard, Betty Kaczmarek, Rachel Murray, Lucia Naranjo, William Rosenberg, Roxanne Ryan, Eric Simoni, Oliver Steck, Mark Sugrue, Ji Tang, Marissa Walls, Christopher Wasden, Robert Wilson

**Health Industries
Marketing**

Todd Hall
Director
todd.w.hall@us.pwc.com
(617) 530 4185

Nadia Leather
Director
nadia.m.leather@us.pwc.com
(646) 471 7536

Art Karacsony
Director
attila.karacsony@us.pwc.com
(973) 236 5640

pwc.com/us/healthindustries
pwc.com/hri
twitter.com/PwCHealth

.....
***To have a deeper conversation
about how this subject
may affect your business,
please contact:***

Kelly Barnes
Partner, Health Industries Leader
kelly.a.barnes@us.pwc.com
(214) 754 5172

Robert Valletta
Partner, Healthcare Provider Leader
robert.m.valletta@us.pwc.com
(617) 530 4053

Michael Galper
Partner, Healthcare Payer Leader
michael.r.galper@us.pwc.com
(213) 217 3301

Michael Swanick
Partner, Pharmaceutical and
Life Sciences Leader
michael.f.swanick@us.pwc.com
(267) 330 6060