

# *Healthcare's new entrants:* Who will be the industry's Amazon.com?

Health Research Institute  
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## Heart of the matter

*As the health sector's center of gravity shifts toward customers, savvy new players are moving fast to capitalize on the change. These new entrants are poised to shake up the industry, drawing billions of dollars in revenue from traditional healthcare organizations while building lucrative new markets in the burgeoning New Health Economy.*

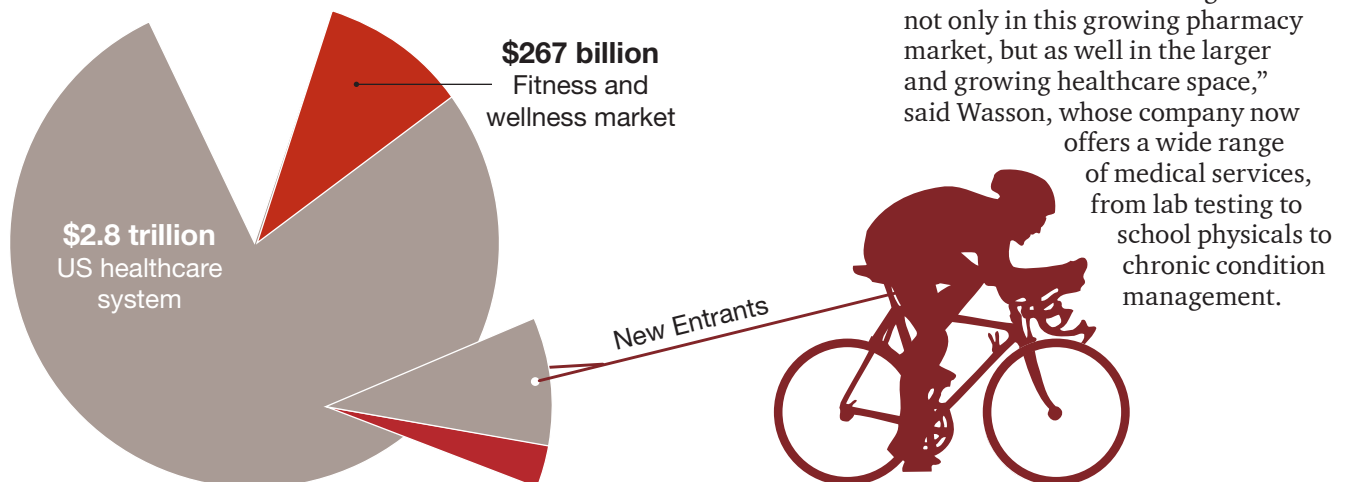
### Executive summary

The \$2.8 trillion US healthcare industry is being upended by companies attuned to the needs and desires of empowered consumers. These new entrants are nibbling at the edges of the traditional healthcare ecosystem, setting the stage for a New Health Economy.

These new entrants—from the retail, technology, telecommunications, consumer products and automotive industries—are fashioning the contours of this expanding market. They regard their global reach, customer insights, commitment to transparency and trusted brands as critical assets to capture and dominate the fragmented health sector (see Figure 1).

**Figure 1: New entrants are moving first and fastest toward building a new health economy centered around the consumer, transparency, convenience and prevention**

*Over time these newer players will draw billions from traditional healthcare systems while expanding the fitness and wellness space.*



Source: HRI analysis and Centers for Medicare and Medicaid Services National Health Expenditures (2012)

As healthcare's incumbents inch toward a value-driven world, their customers—employers and individuals—are signaling they may not wait.

A new survey by PwC's Health Research Institute (HRI) found that consumers are willing to abandon traditional care venues for more affordable and convenient alternatives. Nearly one in two respondents said they would choose new options for more than a dozen common medical procedures, such as using an at-home kit to diagnose strep throat or having chemotherapy administered at home. This simple shift in the market threatens at least \$64 billion of traditional provider revenue. More will follow.

The neighborhood drugstore is a leading indicator of the consumer migration to more affordable and convenient care options. "Five years ago, hardly anyone went to a drugstore for a flu shot," Walgreen Co. President and CEO Gregory Wasson told investors at the JP Morgan Healthcare Conference in January.<sup>1</sup> Today, Walgreen's share of the \$10 billion immunization market is 4%, with room to grow.

"We intend to continue to grow share not only in this growing pharmacy market, but as well in the larger and growing healthcare space," said Wasson, whose company now offers a wide range of medical services, from lab testing to school physicals to chronic condition management.

HRI also found:

- Two dozen of 2013's *Fortune 50* companies are healthcare new entrants.<sup>2</sup> Of those, seven are retailers; eight are technology and telecommunications companies. Two are automakers, including Ford Motor Co., which is developing services for chronic condition management while driving.
- New entrants will propel the democratization and decentralization of healthcare, empowering consumers to access care anywhere.
- Consumer interest in price and quality transparency has sown a hot new market. This is the fertile ground that produced Castlight Health, which provides employers and employees easy-to-use cost and quality dashboards. The startup debuted with a value of more than \$3 billion in its initial public offering in March.<sup>3</sup>
- New players are reshaping and expanding the \$267 billion US fitness and wellness industry, which presents rapid paths to market, abundant sources of data and opportunities to create new market segments. (See "About this Research" on page 18 for more information.) Cash-based and less regulated than much of healthcare, this market features lower barriers-to-entry and fewer risks.

Early glimmers of healthcare's versions of OpenTable and Hotwire can be seen in upstarts such as ZocDoc and iTriage, while others are pitching 24-7, flat-fee online evaluation and treatment. *Fortune 50* telecommunications companies are constructing the networks to link stakeholders and their data.

Incumbents face critical decisions about whether to compete with these emerging healthcare players, or align with them. Consolidation will

follow. Within a decade, the health business will look and feel like other consumer-oriented, technology-enabled industries. Soon, it will have its own Amazon.com-style, iconic, new economy brands.

### What this means for your business

While opportunities abound, healthcare remains a complex and highly-regulated ecosystem. One of the biggest barriers to change, its third-party payment system, is unlike that of any other industry. Success will require an understanding of market needs, consumer desires, regulatory requirements and reimbursement complexities.

- *Focus on the business model.* Base business models on generating value in the New Health Economy.
- *Not all innovation is created equal.* Aim for disruptive leaps as customers will reward truly transformative services and products. Embrace a fast, frugal, frequent, failure model to quickly develop and test ideas.
- *Turn the tables.* Consider a consumer-to-business (C-to-B) strategy, using consumer data to refine business models, enhance customer experience and earn greater loyalty.
- *Engage risk management early.* The traditional rules of healthcare still apply. Involve regulatory, legal and compliance counsel early.
- *Collaborate.* Blend the best of emerging ventures and incumbents, filling skill and asset gaps.
- *Think bigger than a website.* Healthcare's next-generation consumer is mobile and lives online. It will take more than a website and a handle on a social media service such as Twitter to thrive in the New Health Economy.

### For traditional healthcare organizations:

- *Always put the consumer at the center.* Evaluate everything from operating hours to availability of clinicians via digital devices to transparency of pricing and quality.
- *Figure out what matters most.* Traditional health companies will find it harder to compete on commodity services as lower-priced options emerge. Decide whether to chase commodity revenue or develop new revenue models anchored on core capabilities while investing in new ones.

### For new entrants:

- *Develop a new value equation.* Don't be discouraged by traditional ways of thinking about healthcare. Focus on the customer, who wants and needs change and is critical to enabling it.
- *Emphasize quality.* Match or beat incumbents on quality by using innovative approaches such as virtual networks of experts for second opinions.

While the US healthcare system is famed for producing life-saving medical interventions, it has failed to create efficient business models that deliver outcomes commensurate with costs. As the system moves in fits and starts into a consumer-oriented digital future, the race is on to become the Amazon.com of healthcare.

*A new entrant is a disruptive, recent arrival to a market or industry. These may include companies whose core businesses reside entirely outside of the new industry, or businesses expanding into new roles.*

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## **An in-depth discussion**

*Abundant opportunity in the expanding health sector is attracting new players from far afield, from Fortune 50 retailers and telecom companies to fledgling startups backed by venture capital. These new entrants are moving fast with fresh ideas about how to satisfy consumers' appetites for better health and more convenient, affordable, high-quality care.*

They are in the vanguard of the New Health Economy, the next era in the health sector's slow transformation to a truly consumer-centered, competitive market. In short order, a company's success will depend on its ability to compete, deliver results and focus on the customer's needs and desires.

Consumers already are primed to abandon traditional modes of care for new ones, suggesting billions in healthcare revenue are up for grabs now, according to a December 2013 consumer survey commissioned by HRI.

Non-traditional players are creating these new modes of care—from home diagnostic kits that snap into smartphones to online services that triage and prescribe treatments based

on computer algorithms. They are striving to be the disruptors that transform health, similar to the shakeups sparked by Netflix, Amazon.com and Apple.

### **Consumers are ready to move; billions of dollars up for grabs**

Consumers are ready to abandon traditional care models for ones that echo experiences in banking, retail and entertainment.

In HRI's new consumer survey respondents were presented with a series of familiar medical tests and treatments, from strep throat diagnosis to administration of chemotherapy, in new settings closer to home and often enabled by technology. These new ways

of delivering care are available now, or are under development.

Respondents were asked how likely they would be to opt for an alternative, such as diagnosing strep throat using an at-home kit or having chemotherapy administered at home. They also were told the new options would cost them less than traditional ones such as a hospital or physician's office.

About half indicated they were likely to choose these alternatives for themselves. More than 50% said they would opt for home or online services for minor services such as a having a rash evaluated. More than one-third would consider alternatives for more sophisticated care such as infusion therapies (see Figure 2 on the following page).



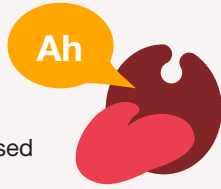
**Figure 2: New entrants are creating options consumers want, threatening billions of dollars in hospital and physician revenue**

*How likely would you be to choose these options, if they cost less than the traditional choice. Percent of respondents answering "Very likely" and "Somewhat likely."*

**58.6%**

Use an at-home strep test purchased at a store

**\$150 million\***



**49.1%**

Have a wound or pressure sore treated at a clinic in a retail store or pharmacy

**\$796 million** for debridement

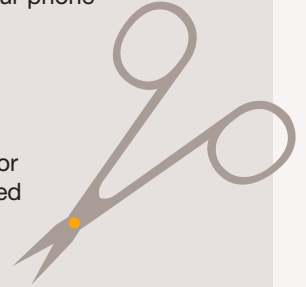


**48.3%**

Check vital signs at home with a device attached to your phone



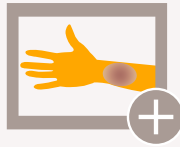
Have stitches or staples removed at a clinic in a retail store or pharmacy



**54.8%**

Send a digital photo of a rash or skin problem to a dermatologist for an opinion

**\$358 million** for evaluation of contact dermatitis and other minor rashes



**41.7%**

Do urinalysis test at home with a device attached to your phone

**\$694 million** for urinalysis by dipstick or tablet reagent



**46.9%**

Check for an ear infection at home using a device attached to your phone



**43.6%**

Have an electrocardiogram at home using a device attached to your phone, with results wirelessly sent to your physician

**\$2.9 billion** for routine ECG



**38.6%**

Have a live visit with a physician via an application on your smartphone

**\$42.1 billion** for office and outpatient clinic visits



**42.6%**

Have a pacemaker or defibrillator checked at home wirelessly by your physician

**\$110 million** for pacemaker evaluation



**36.7%**

Have chemotherapy at home  
**\$3.3 billion** chemotherapy administration



**26.2%**

Have dialysis at a medical clinic in a retail store

**\$1.9 billion** for hemodialysis



**34.4%**

Get an MRI at a clinic in a retail store or pharmacy

**\$11.6 billion** for MRI without contrast



\*Strep revenues also included in office and outpatient visits.

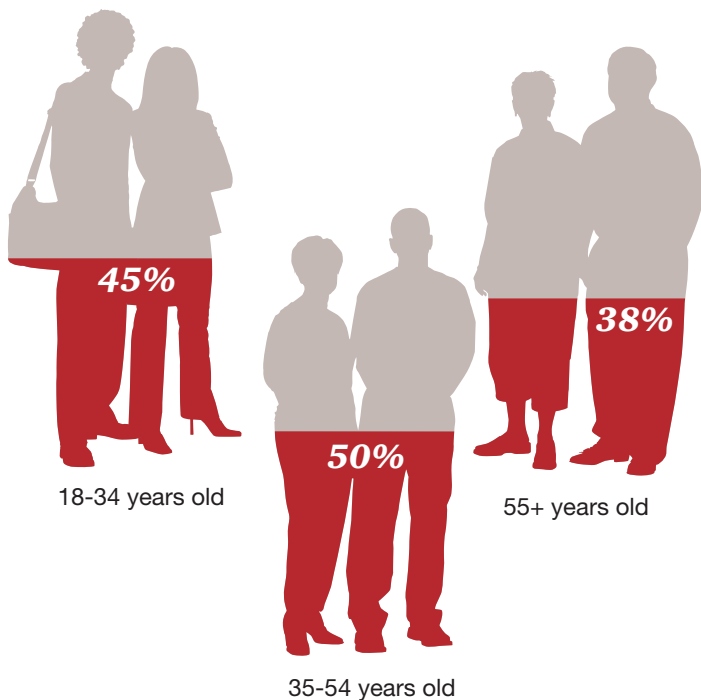
Source: HRI consumer survey, 2013 and 2011 Truven Health MarketScan® Research Databases. See "About this research" on page 18 for more information.

Respondents between the ages of 35 and 54 were most likely to choose the new possibilities, as were those who indicated that healthcare expenses had put a strain on family finances in 2013 (see Figure 3). These groups—the middle-aged and consumers feeling a financial pinch from medical bills—will be among the first to adopt newer, cheaper, easier options, as will those in rural and emerging markets.

In general, consumers were most comfortable with new ways of diagnosing common ailments and receiving primary care services in new settings. Many consumers

**Figure 3: Middle-aged consumers are most likely to choose new options**

*Percent answering they would be “very likely” or “somewhat likely” to choose new healthcare-style options*



Source: HRI consumer survey, December 2013

also were open to receiving lengthy treatments for serious illness or chronic conditions in new settings, such as having chemotherapy infused at home.

How much did US providers receive for delivering the services highlighted in the survey in traditional settings? HRI calculates that US hospitals, physicians and other caregivers received at least \$64 billion in 2011 for providing these services and treatments.<sup>4</sup>

Companies developing convenient, affordable care alternatives also will become stiff competition for the US diagnostic and medical laboratory industry, which had revenues of about \$50 billion in 2013.<sup>5</sup>

Many of these alternatives are available now, or are on the verge of being commercialized. The smartphone device that captures digital images of the ear canal goes on sale this year for \$199. The Scanadu Scout, a Star Trek-inspired vital sign “tricorder,” is aimed for a place next to the thermometer in the family medicine cabinet and is in trials.<sup>6</sup>

Online services already offer to evaluate digital photos of rashes, moles and skin conditions or connect a consumer with a physician within an hour for a flat fee. With individuals footing more of the bill through high-deductible health plans and insurance exchanges, the popularity of these low-cost alternatives will rise.

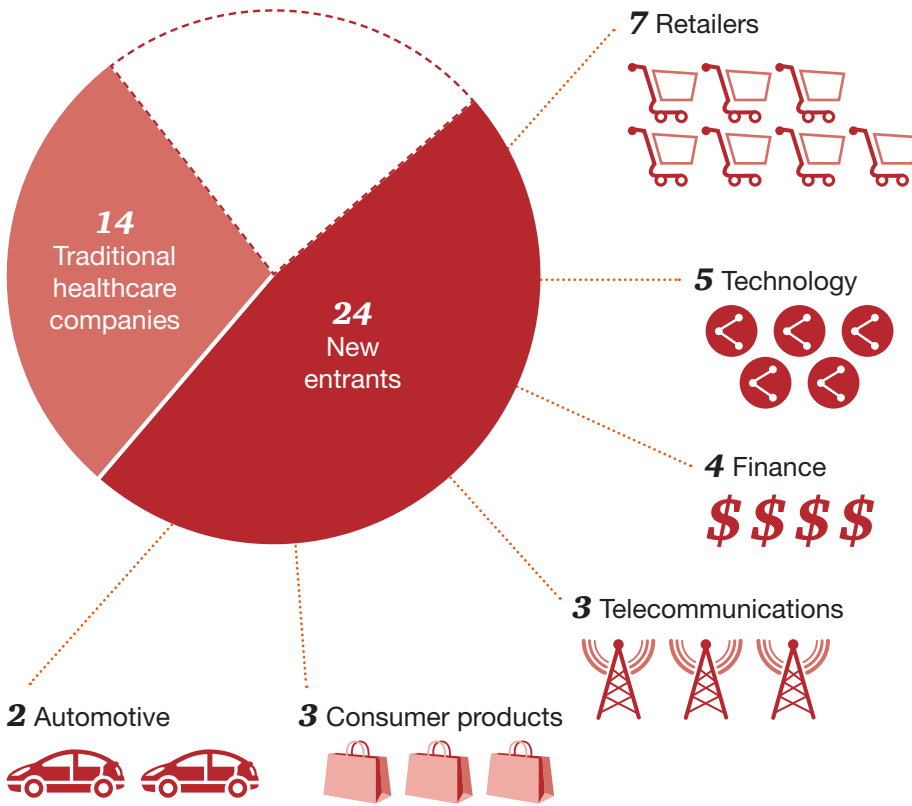
The emergence of these services and technologies pose critical choices for traditional providers: Compete or partner? “Is it going to be some random startup or is it going to be your doctors?” asked Dr. Joshua Riff, chief medical officer of Target. “You have the infrastructure. You have the knowledge. You have the experts. You need to be leveraging these technologies.”

While the survey results signal a threat for today’s healthcare companies, they also highlight an opportunity to reduce costs. A hospital with a value-based care contract could find it cost-effective to send patients to local retail clinic partners rather than surgeons to have post-operative stitches removed, for example.

**Figure 4: Of Fortune 50 companies, 24 are new entrants**

*The top companies also include 14 traditional healthcare organizations.*

Fortune 50 companies



Source: Fortune 50, 2013

## Bring on the new entrants

Of the 38 Fortune 50 companies with a major stake in healthcare, 24 are new entrants, from retailers to technology companies to telecommunications businesses to consumer products companies. (See Figure 4). These are the players muscling into—and expanding—the health market. In their eyes, today’s system may represent \$2.8 trillion in the US alone, but the New Health Economy of tomorrow will include trillions more globally as consumers shop for products and services online.<sup>7</sup>

Moving the swiftest, in general, are retailers, telecom and tech companies armed with consumer prowess, brand recognition and digital savvy. Many of these companies combine expertise:

- Earlier this year, Samsung unveiled its new Galaxy S5 smartphone, complete with a built-in heart rate monitor.<sup>8</sup> In 2013, Apple also was issued a US patent for a “seamlessly embedded heart rate monitor” for devices such as its iPhone.<sup>9</sup>
- CVS Caremark announced it would stop selling tobacco products in its 7,600 stores as part of a strategy to expand its role as a healthcare company.<sup>10</sup>

- AT&T opened its mHealth platform to developers in 2012, aiming to become the essential ingredient in healthcare’s future game-changing apps.<sup>11</sup>
- Time Warner Cable Business Class announced a “virtual visit” experiment with Cleveland Clinic caregivers can interact with patients through televisions using secure video technology.<sup>12</sup>
- In 2013, Google announced the birth of Calico, a company focused on aging and associated illnesses. Its chief has experience in both healthcare and consumer-oriented technology.<sup>13</sup>

These players arrive on the health scene with strong consumer credentials. Many have deep relationships with millions of customers and rich databases of information on them. Walgreen’s Balance Rewards program has data on 74 million active members.<sup>14</sup> The program provides Walgreen Co. with “incredible insights into what our customers and patients want,” Wasson told investors.

And at a time when venture capital investment in life sciences is down, money is pouring into startups targeting digital health, price transparency, workflow and electronic medical records systems and population health management.<sup>15</sup>

In some cases, these companies are looking for a piece of the \$2.8 trillion pie. In others, they hope to entice customers to other parts of their business with quality healthcare. Or they view health as a cost-cutting tool to be sold to traditional healthcare purchasers or a hook to gather valuable data that can be monetized into insights or ad sales.

These new entrants also are creating new markets, such as services to help customers make wise, cost-



effective health choices. And with the array of mobile apps, online e-docs, neighborhood retail clinics, urgent care clinics, primary care doctors and hospital emergency departments, the appetite for smart customer guidance will grow.

As care moves closer to home, services supporting large healthcare institutions, from food service to laundry, may find their business evolving and even shrinking. Survival will depend upon developing new ways to service a decentralized market.

### **Democratization of care: Cheap, easy and close to home**

Not long ago, Americans depended upon local newspapers, radio and television programs for news. Digitalization democratized news, allowing virtually anyone with Internet access to obtain and share information from anywhere at any time.

Spotting opportunity, new entrants streamed in, claiming billions in advertising revenue.<sup>16</sup> Other industries—music, entertainment, travel—have undergone similar revolutions, learning the same lesson: innovate, partner or fade.

A similar shakeup is underway in healthcare. Customers are no longer entirely dependent on family doctors or local hospitals for medical expertise, or even, increasingly, treatments. For example, technology companies and academic medical centers are learning to digitize and democratize medical expertise so healthcare systems can deliver top care virtually anywhere.<sup>17</sup>

Do-It-Yourself, or Nearly-Do-It-Yourself, healthcare is growing as once-complex conditions and diagnoses become simpler and

### **Case study: CellScope**

Based in San Francisco, CellScope was born in 2010 with the goal of building a home medical kit of sophisticated devices taking advantage of the smartphone's capabilities. The company's debut product is the Oto, a smartphone otoscope that takes digital images of the ear canal.

"Oto is intended to turn the mobile phone into a smart medical device, meeting a really meaningful need," CEO Erik Douglas told HRI. Ear infections are responsible for 15 to 30 million U.S. office visits annually, Douglas said.

Registered with the FDA and on target to sell for about \$199 later this year, Oto is one of many consumer-oriented diagnostic tools threatening to disrupt the health sector. Taking advantage of technology that has become cheaper, more powerful and smaller, companies such as CellScope are banking on families adding these next-generation diagnostic tools to their medicine cabinets.

CellScope is betting parents will pay for the Oto out-of-pocket or place the device on a baby shower gift registry. "We have been avoiding making a big bet on reimbursement because it is out of our control," Douglas said. "We don't have years to wait for a code."

Physicians have been early champions of the Oto, Douglas said, but the company is still working out how to compensate them for time spent reading digital images sent by patients. "All companies of this ilk need ways for doctors to be compensated," he said. "We cannot expect doctors to work for free."

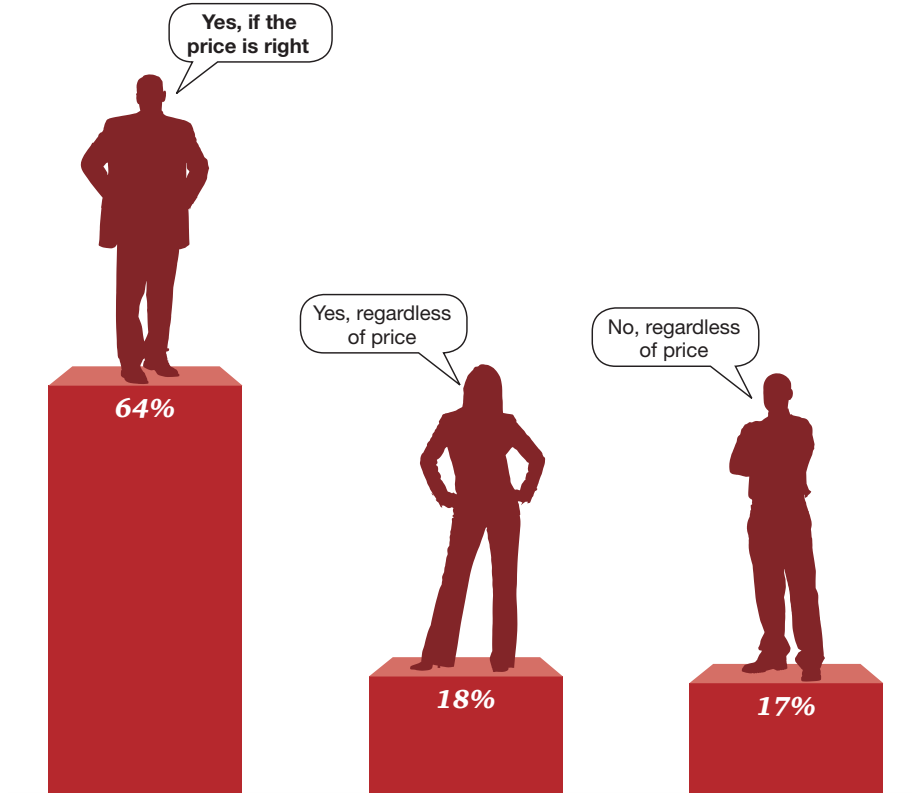
But, in a value-oriented environment, a tool that can replace in-person, follow-up visits for ear infections could be financially worthwhile to a physician with a busy practice. A quick look at a digital image of a healing ear could free up a slot for a higher-value visit, and save time and money for mom and dad, too.

*"We're our own construction workers and we can do our own contracting jobs. We're our own travel agents. We're our own movie producers. We're accepting all of these technologies to do things for ourselves and I think healthcare is the next frontier."*

*—Dr. Josh Riff, Target*

**Figure 5: Consumers are ready to receive care in new ways, in new places**

*Are you open to trying new, non-traditional ways of seeking medical attention or treatment?*



Source: HRI consumer survey, December 2013

cheaper to manage at home. Witness retail shelves of over-the-counter pregnancy tests, HIV tests and proton pump inhibitors. Or the evolution of the threat of Streptococcus infections, from health menace in the pre-antibiotic era to curable disease on the brink of being able to be diagnosed at home by mom.

Patients always will be limited in what they can do in their own homes, but many will jump at the chance to “co-produce” their care. Even parents with smartphone otoscopes won’t be diagnosing ear infections or prescribing antibiotics, said Dr. Roni Zeiger, CEO of Smart Patients, an online patient community.

“Instead, it makes the mom more of a partner or a collaborator in a process,” Zeiger said in an interview. “The big opportunity is working together, playing to all of our strengths.”

Every player in this democratized health system will be connected wirelessly by telecommunications companies, which have developed cloud storage, big data analytics and security services, often with embedded telemedicine and other care services. Niche players will proliferate, using technology to cater to specific needs of small “orphan” patient populations.

These DIY tests and treatments could divert millions of patients away from physicians’ offices, urgent care clinics and emergency rooms (see Figure 5). Researchers developing a simple test for adult sore throats caused by group A strep calculated their tool could prevent 780,000 doctor visits annually.<sup>18</sup> That’s about \$94 million in physician revenue a year.<sup>19</sup>

## Case study: Hospital at Home

*Whiz-bang ideas and consumers’ love is not enough.*

The healthcare industry’s payment system remains so complex that only those armed with real-world strategies for payment will survive, as some muscular, sophisticated technology and financial services companies have already learned.

Take Hospital at Home, a care model that is consumer-centered, home-based and technology-equipped. The Hospital at Home model enables patients with diagnoses such as congestive heart failure to avoid inpatient admission by supporting them at home with technology and clinician visits. Studies found it is popular with patients and produces equal or better outcomes to similar inpatients. Costs were lower than inpatient care, too.<sup>20</sup>

Yet Hospital at Home has failed to spread widely since it was developed by Johns Hopkins geriatrician Dr. Bruce Leff and his team, starting in 1994. The problem? The industry’s bias toward facility-based care and a lack of financial incentives for adoption in a fee-for-service world, said Leff, director of the Center on Aging and Health-East at Johns Hopkins Medical Institutions.

The rise of value-based models may change that as systems seek ways to provide cheaper, good quality care, he said. But today, Medicare fee-for-service still dominates, and just a handful of systems offer Hospital at Home, including Presbyterian Healthcare Services in Albuquerque and several Veterans Affairs hospitals. “I have been at this almost 20 years,” Leff told HRI. “I am hoping this happens in a big way before I need it.”

## Clear opportunity

The market for services offering transparency in healthcare pricing and quality is embryonic, yet growing. New entrants and traditional businesses, particularly insurers, are grappling for share in this new area. In three years, venture capital firms have invested \$400 million in start-ups targeting price transparency, while companies such as Aetna, Cigna and UnitedHealth Group have launched their own tools for members.<sup>21</sup>

Most of these services allow consumers to compare prices and various quality measures for healthcare services, physicians, drugs and procedures. Some offer Yelp-style user reviews. Still to come: a national comprehensive shopping option.

One early mover is Castlight Health, with its personalized out-of-pocket cost estimates, clinical quality data, real-time deductible information and more. In 2013, the company had revenues of \$13 million, listing clients such as Microsoft and Mondelez International.<sup>22</sup>

Competition is stiff. In its initial public offering filing with the US Securities and Exchange Commission, Castlight lists new entrant competitors such as Truven Health Analytics, Healthcare Bluebook and HealthSparq, plus traditional insurers such as Aetna, Cigna, UnitedHealth Group and WellPoint.<sup>23</sup>

The hunger for transparent pricing may partially explain the popularity of retail clinics, which prominently display price lists. In 2007, just 9.7% of respondents to an HRI consumer survey had visited a retail clinic.<sup>23</sup> By 2013, 35% of survey respondents reported they had visited one in the past year.

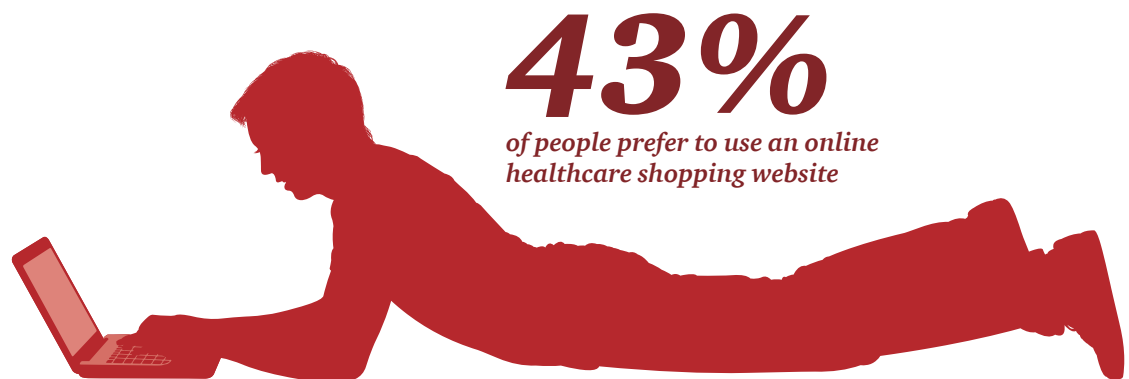
Open vistas remain. Respondents to HRI's consumer survey who wished to shop for medical care preferred "an online healthcare shopping website that offers different options at different prices" over other choices, such as calling providers or using insurance companies' websites. Yet the American public awaits an Amazon.com-style healthcare shopping website (see Figure 6).

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### Figure 6: More than half of consumers want to shop for healthcare... but their preferred method of doing so doesn't exist yet

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*Which way would you prefer to shop for health and medical services, such as doctors, procedures and hospitals?*



Source: HRI consumer survey, December 2013

## Case study: Wal-Mart

When Wal-Mart debuted its \$4-generic drug program in 2006, the pharmacy world looked a lot like the rest of the health sector, with opaque pricing, said Marcus Osborne, Vice President of Health and Wellness Payer Relations at Wal-Mart Stores.

“We just wanted to make price matter in pharmacy,” Osborne said. “The consumer reaction was they voted with their feet, and we picked up a significant share of pharmacy.”

Now Wal-Mart is exploring whether it can do the same thing for basic medical care, a perennial concern of its cost-conscious customers, Osborne said. “How do we introduce service and access at fundamentally transformative price points so there is no one in America who can’t have access to care?” he said.

Last year, partnering with Kaiser Permanente, the retail giant opened micro-clinics called Kaiser Permanente Care Corners in two stores in California. Each has basic diagnostic equipment such as blood pressure cuffs and offers telemedicine connections to Permanente clinicians.

Each mini-clinic is about 300 square feet, with nurses and physicians available for telehealth video appointments. Appointments are open to shoppers who are Kaiser Permanente members and Wal-Mart employees and their dependents.

Osborne said the company also is exploring other primary care clinic models, with plans to run more tests, learning what works before expanding on a large scale. “There is a new world order coming and it does require investment in base delivery of services that don’t exist,” he said. “I think it will be a new healthcare service offering, heavily technology-enabled, dead simple to engage with.”

## Growth curve

Americans spent \$2.8 trillion on healthcare in 2012, an oft-cited figure that ignores another lucrative health market—fitness and wellness.<sup>25</sup>

HRI estimates the nation spent another \$267 billion in 2012 on health-related goods and services such as fitness classes, Fitbits, sports apparel, organic foods, nutritional supplements and massage therapy (see Figure 7).

Free of heavy regulatory constraints and reimbursement complexities, this growing market occupies a unique space. Barrier to entry is lower than, for example, in the insurance industry, where the founders of the startup Oscar had to raise \$55 million just to obtain an insurance license in New York.<sup>26</sup>

The path to market is direct, with fewer regulatory constraints, allowing companies to quickly place products into consumers’ hands for feedback. Consumers already expect to pay out-of-pocket for these products and services, simplifying business models.

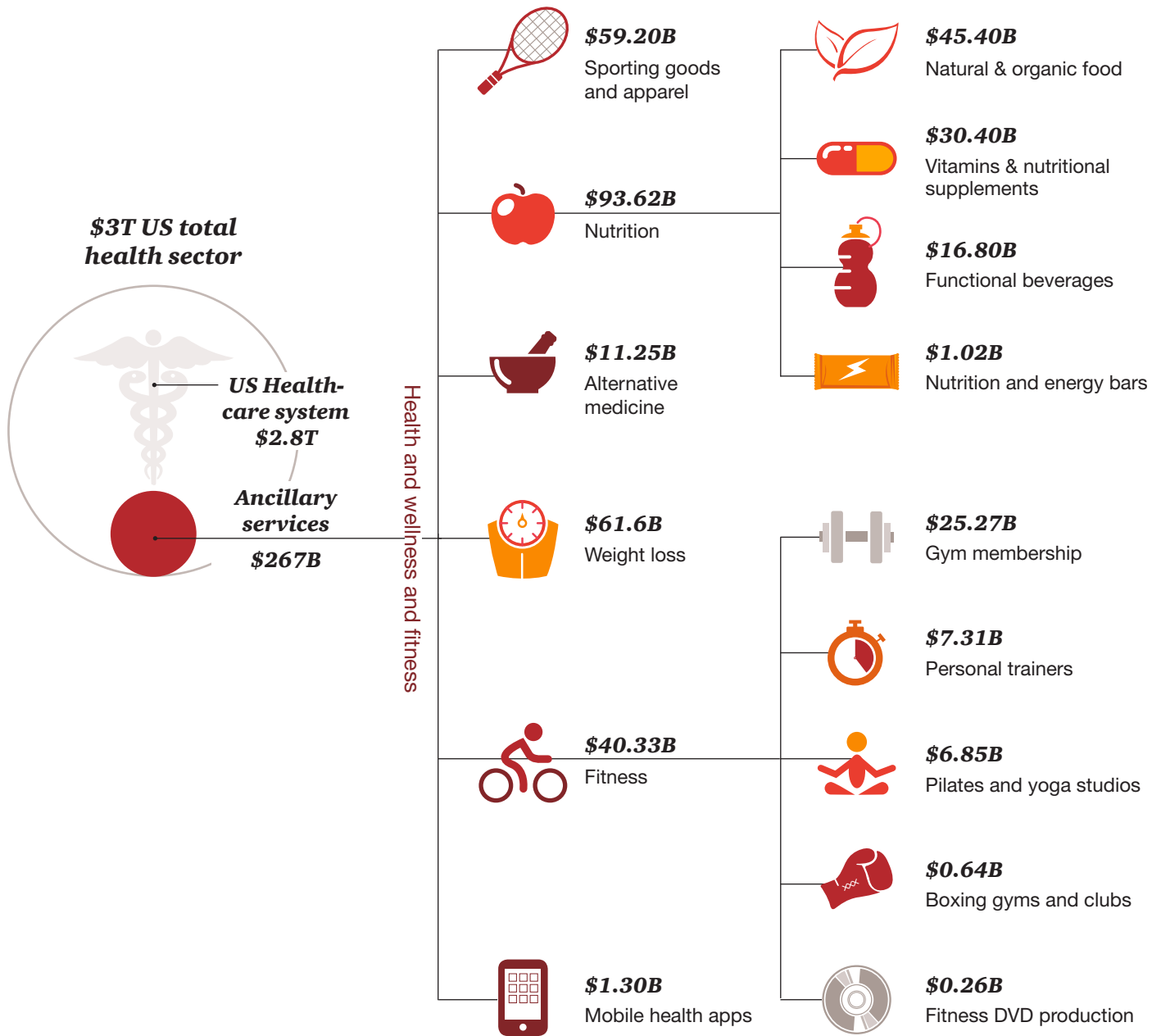
New entrants such as Nike and Jawbone sell wearable devices to monitor basic fitness markers, offering useful, shareable information while gathering valuable consumer health data. Yet few in the healthcare industry have used this tsunami of data to deliver more personalized care and experiences. But the opportunity is there.

This path to market also can serve as a launching pad for forays into more complex regions of healthcare. This is the strategy of the startup Jiff, which developed a digital exchange for employee wellness programs and has its sights set on building a digital health assistant to help individuals evaluate symptoms.

“If Jiff goes out and builds a virtual digital health assistant first, there are all kinds of technical problems to solve to get from point A to point B,” said Jiff founding CEO Derek Newell.

**Figure 7: Growing the \$267 billion wellness and fitness market**

*In 2012, Americans spent more than \$2.8 trillion on healthcare, and another \$267 billion on other health-related products and services, such as dietary supplements, weight loss programs, sporting equipment and gym memberships.*



Source: HRI analysis, please see "About this research" on page 18 for more information.

**\$3 trillion**

Americans spent nearly \$3 trillion, or almost \$10,000 a person, maintaining health and wellness in 2012.



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## What this means for your business

In coming years, consumers will move billions of dollars to businesses offering more affordable, simpler, more convenient care. Health organizations will compete with industries such as travel, entertainment and retail for discretionary dollars. Here's how to help your business take advantage of these New Health Economy opportunities.

- *Start with the consumer and work backwards.* Consumers will abandon companies unable to deliver care on their terms. Health organizations should understand consumers' needs and desires, creating new options for access, information and products and services. Consider rethinking operating hours, availability of clinicians via digital devices and transparency of pricing and quality.

For example, Walgreen Co. draws a third of its vaccination traffic in off-hours.<sup>27</sup> Other companies offer near-instant evaluations, via phone or online, round-the-clock. As these services proliferate, customers will come to expect the convenience and transparency they take for granted as they shop, bank or book vacations. Health companies should compete on experiences provided, not just services delivered.

As Nasrin Dayani, Executive Director for AT&T ForHealth Solutions, told HRI, "We believe the ultimate jury of that game-changing app and that game-changing device are the consumers themselves. It will not be decided by the providers or payers."

- *Be flexible.* All organizations should develop strategies for both fee-for-service medicine and value-based models. Traditional healthcare companies must prepare to move from B-to-B to B-to-C-to-B, utilizing customer data to personalize experiences and care.

- *Engage risk management counsel early.* Innovation requires striking the right balance of involvement by regulatory and legal counsel. Too much risk aversion can hamper experimentation. Airbnb launched its travel rental business in 2008 before many communities had decided whether it fit local ordinances.<sup>28</sup> Today Airbnb has served more than 11 million guests in 192 countries.<sup>29,30</sup>

Yet regulatory risks are real. 23andMe, a genetic testing service, learned this last year when it received a warning letter from the U.S. Food and Drug Administration (FDA). The agency cited an alleged lack of communication from the company over how it marketed its saliva collection kit and personal genome service.<sup>31</sup> The company stopped offering its health-related genetic tests to new customers.<sup>32</sup>

- *Don't go it alone.* Success will require inside knowledge of the complexities of the fragmented healthcare system, technological prowess and strong ties to consumers. Few organizations possess all of these.

Traditional health players should consider strategic partnerships with new entrants, which also may possess broad distribution networks. Aligning with new entrants may transform a potential competitor into a future collaborator.

Newer players can also benefit from smart alliances. As partners, traditional healthcare companies can serve as guides to the regulatory and payment maze.

- *Compete in cyberspace.* Eighty percent of Americans aged 18 to 34 own a smartphone; half of American adults do.<sup>33</sup> Developing efficient, affordable ways to deliver care to consumers' devices is critical, as is finding solutions to regulatory, privacy and security

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concerns. Consumers will reward those who make healthcare as easy and affordable as online shopping for travel, consumer goods and entertainment.

Mobile will be crucial in the New Health Economy. All players should understand how to create new value propositions based on social, mobile, analytic and cloud technology, generating positive customer experiences.<sup>34</sup>

- *Integrate.* Skeptics point out that an a la carte medical system will undermine efforts to integrate care if data are not readily available to all caregivers. Retail clinics have been criticized by some physician groups, citing lack of access to information about patients. Customers have not embraced universally-accessible personal health records. Integration and accessibility of data will be key to building a seamless, coordinated health system.

### **For traditional healthcare organizations:**

- *Triage sources of revenue.* As cheaper options emerge, especially for commodity services, traditional healthcare companies should evaluate which services are worth defending. The loss of less-lucrative services could free space and time for higher-value offerings. Consider partnering with new entrants. Experiment before revenue starts to disappear.
- *Rethink marketing.* As consumers shift to DIY medicine and new providers, drug makers must adjust marketing to reach consumers where they live—online and at home.<sup>35</sup> Patients are becoming influential opinion leaders. Companies will need to determine how to address the growing diversity of influencers in their marketing campaigns.

- *Rethink the value proposition.* The growth of new price and quality transparency services will place pressure on drug manufacturers as stakeholders gain the power to compare different products' values. Pharmaceutical and life sciences companies must re-evaluate pricing models and develop new ways to add value, perhaps by partnering with new entrants targeting patients with relevant diseases or conditions.

### **For new entrants:**

- *Get paid.* New entrants must know how to adapt to current and prospective payment systems. The business model is as important as the technology or service. As Zeiger of Smart Patients put it, “We don’t need more technology. We mostly need faster evolutions of the business.”

The digital world has trained consumers to believe they don’t need to pay much for many online services, such as content and social media. Companies must be creative in designing business models that hook others into paying for value.

Business model innovation is a complex process with no single recipe for success. Companies should create a defined business innovation process first, using business model simulation as a tool. Simulations can help fine-tune projects before they are tested in the real world, allowing for rapid, low-cost, low-risk improvement.

- *Know the stakeholders.* New entrants need to understand the interactions and roles among insurers, pharmaceutical and life sciences companies, providers, manufacturers and patients and how to tap new channels to enter the market, especially as it becomes increasingly consumer-oriented.

## Conclusion


Dramatic change has been predicted for the health industry many times over. This time, the environment is finally ripe for that transformation.

Revenue will circulate differently, to many new players. Consumers, spending more of their own money, are exerting greater influence and going beyond the traditional industry to find what they want and need. In the New Health Economy, purchasers increasingly will reward

organizations providing the best value, whether it's an academic medical center, a tech company with a great app or a healthcare shopping website (see Table 1).

Within a decade, healthcare will feel very different than it does today. The players may be different, with partnerships between new entrants and traditional organizations. And this New Health Economy will have its Uber, its Netflix, its Amazon.com.

**Table 1: The health ecosystem is changing swiftly**

<i>Where are you on the journey?</i>		10 years 
<b>Consumer engagement</b>	Digital presence is through organization website; maybe Twitter accounts	Two-way communication with consumers, seamless integration, business is organized around consumer, digital engagement is part of corporate DNA, care reaches consumers where they are
<b>Data</b>	New data sources, but fragmented and lacking in standardization; fledgling analytic capabilities and usage of data	Analytics integrated into core of business, standardization, data driving behavior modification of consumers
<b>Innovation</b>	Pilots and experiments testing ideas; business model simulations; incubators supporting fast-frequent-frugal-failure cycles	Successful pilots knitted into core business; strategic partnerships driving innovation
<b>Regulation/compliance</b>	Experimentation	Mature programs, approvals by regulators, fully compliant
<b>Business model/payment</b>	Working within dominant fee-for-service /B to B and nascent value-based model/direct-to-consumer	Scales have tipped toward value and direct-to-consumer
<b>Care delivery</b>	Centered around the hospital complex and physicians' offices	Centered around consumer, close to home, through digital devices

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## Endnotes

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- 3 <http://www.reuters.com/article/2014/03/13/castlight-ipo-idUSL3NOMA58F20140313>
- 4 Includes payments from commercial insurers and Medicare. For more detail on the analysis, see “About this research” at the end of this report.
- 5 <https://www.ibisworld.com/industry/default.aspx?indid=1575>
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## **About this research**

In December 2013, PwC's Health Research Institute commissioned a survey of 1,000 US adults representing a cross-section of the population in terms of age, gender, income and geography. Through its survey, HRI sought to measure consumer preferences related to delivery of care. One portion of the survey presented respondents with more than a dozen common medical procedures, treatments and services in new care settings, such as retail-based medical clinics and home, and asked respondents how likely they would be to choose each option.

HRI matched each common procedure, treatment or service to diagnostic or Current Procedural Terminology codes, and then, using the most recently-available data in the Truven Health MarketScan® Databases (2011), calculated annual revenues received by US providers for commercial claims and Medicare in the databases. Approximate national revenue numbers were calculated by applying a national multiplier to these revenue numbers.

HRI also estimated the size of the US health and wellness market to be \$267 billion. To accomplish this, HRI established categories for this market, and then analyzed relevant reports from PwC, trade associations, IBISWorld, research2guidance, Baird and Market-data Enterprises.

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