

# 2015 Global health care outlook

## Common goals, competing priorities



# Contents

<b>Overview and outlook</b>	<b>1</b>
<b>Global health care sector trends in 2015</b>	<b>5</b>
Cost	5
Adapting to market forces	7
Transformation & digital innovation	12
Regulations & compliance	13
<b>Stakeholder considerations</b>	<b>15</b>
<b>Contacts</b>	<b>17</b>

# Overview and outlook

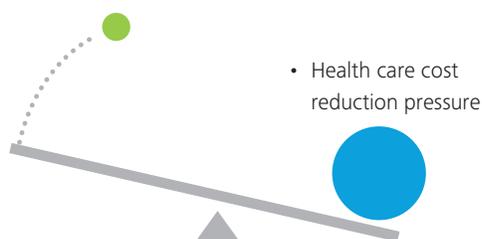
Across the globe, governments, health care delivery systems, insurers, and consumers are engaged in a persistent tug-of-war between competing priorities: meeting the increasing demand for health care services and reducing the rising cost of those services.

And rising they are. Health spending is estimated to have increased by 2.8 percent in 2013 — an uptick from two percent in 2012 — to total \$7.2 trillion<sup>†</sup>, or 10.6 percent of global gross domestic product (GDP).<sup>1</sup> As the global economy recovers from prolonged recession, health spending is expected to accelerate, rising an average of 5.2 percent a year in 2014-2018, to \$9.3 trillion.<sup>2</sup> This increase will be driven by the health needs of aging and growing populations, the rising prevalence of chronic diseases, emerging-market expansion, infrastructure improvements, and treatment and technology advances.

Yet even as demand rises, the pressure to reduce costs and demonstrate value is intensifying (Figure 1). As a result of these contradictory forces, spending is likely to increase slightly more slowly than in the past decade, when growth averaged seven percent a year.<sup>3</sup>

**Figure 1: Contradictory forces influence health care spending**

- Aging populations
- Growth of emerging markets
- Advances in treatments



Source: Deloitte Touche Tohmatsu Limited, 2014

Despite an overall focus on cost containment, some markets are projected to experience rapid spending growth as public and private health care systems develop. This expansion in developing markets — especially in Asia and the Middle East — may bring opportunities for international hospital chains, pharmaceutical and medical technology companies seeking geographic and revenue growth. Globalization, however, is likely to bring problems, too, as countries struggle to make sure they have sufficient health care workers, facilities, and supplies to care for patients at a manageable cost.<sup>4</sup> The growing complexity of treatments, population aging, and public health outbreaks, such as the current Ebola crisis in Africa, will add to clinical and cost pressures.

As they endeavor to balance competing priorities, health care stakeholders are also working to achieve common goals: innovate in new and exciting ways, and generate scientific, medical, and care delivery breakthroughs that can improve the health of people worldwide. This 2015 global health care outlook examines the current state of the sector, describes the top issues facing stakeholders, and suggests considerations for the future.

## Current and projected health care spending

Most of the world's regions are facing a formidable challenge to manage the rapidly increasing cost of health care. Spending in North America is anticipated to grow an average of 4.9 percent annually in 2014-2018, driven partly by the expansion of insurance coverage under the United States' implementation of the 2010 Patient Protection and Affordable Care Act (ACA).<sup>5</sup> U.S. health care spending, already the highest in the world, is likely to reach 17.9 percent of GDP by 2018.<sup>6</sup> Canada is expected to see slightly slower growth — 4.5 percent annually in local-currency terms in 2014-2018, reaching 11.6 percent of GDP<sup>7</sup> — although its regional fragmentation makes coordinated cost controls difficult.<sup>8</sup>

<sup>†</sup> Monetary figures referencing \$ symbol represent USD unless otherwise stated

<sup>1</sup> *World industry outlook: Healthcare and pharmaceuticals*, The Economist Intelligence Unit, May 2014. Total spending is for the 60 markets that EIU covers.

<sup>2</sup> *World industry outlook: Healthcare and pharmaceuticals*, The Economist Intelligence Unit, May 2014

<sup>3</sup> *Ibid*

<sup>4</sup> *Ibid*

<sup>5</sup> *Ibid*

<sup>6</sup> *Industry Report, Healthcare: United States of America*, The Economist Intelligence Unit, June 2014

<sup>7</sup> *Industry Report, Healthcare: Canada*, The Economist Intelligence Unit, March 2014

<sup>8</sup> *World industry outlook: Healthcare and pharmaceuticals*, The Economist Intelligence Unit, May 2014

Western Europe's strengthening but uneven economic recovery should ease some of the pressures on the region's health care systems. However, the continued need to reduce debt and fiscal deficits is expected to constrain public health care spending to just 2.4 percent annually over 2014-2018.<sup>9</sup> Budgets are tightest in some of those countries most affected by the euro zone crisis — Greece, Portugal, and Spain — where governments are pushing through reforms that will replace the current two-tier public/private system with one universal health care fund. Northern European markets, including the UK, Germany, and Sweden, are expected to see a more robust recovery in health care spending by 2018, but will continue to implement reforms to contain growth and increase competition among providers.<sup>10</sup> In Europe's transition economies, Russia's health care spending is expected to decline in 2014-2018 from an average of 7.5 percent a year to 6.4 percent, reflecting the political tensions with Ukraine and their detrimental effect on the Russian currency and economy.<sup>11</sup>

Across Latin America, health care spending is projected to increase an average of 4.6 percent annually over 2014-2018; several governments are trying to improve public health care systems amid general budget constraints.<sup>12</sup> In Mexico, for example, health care spending has grown steadily in recent years and is projected to rise annually by 8.2 percent in 2014-2018, to reach seven percent of GDP, up from 6.8 percent in 2013.<sup>13</sup> The Mexican government has reinforced its commitment to unify existing public health care services into a universal social service in the next five years.<sup>14</sup> Health care spending in Brazil has increased in recent years in GDP terms, attributable to consumers' rising disposable incomes and higher public health care expenditures. Brazil's total 2013 health care spending is estimated at 9.1 percent of GDP, according to the World Health Organization (WHO). While this spending rate is higher than the Latin American average, it is expected to remain constant to 2018.<sup>15</sup>

In Asia and Australasia, the rollout of public health care programs combined with growing consumer wealth are anticipated to boost health care spending an average of 8.1 percent in 2014-2018.<sup>16</sup> The strongest growth, at 15.2 percent a year, will be in India, with China following at 12.5 percent a year.<sup>17</sup> One of the most depressed markets is Japan, where spending dropped by an estimated 17 percent in 2013 due to yen devaluation and growth is expected to remain sluggish.<sup>18</sup> The most rapid growth is expected to be in the Middle East and Africa, which could see an annual average increase of 8.7 percent over 2014-2018 — due, in part, to population growth and efforts to expand access to care.<sup>19</sup>

### Demographic drivers

Among demographic spending drivers, population aging (Figure 2) will create additional demand for health care services in 2015 and beyond, primarily in Western Europe and Japan, but also in countries including Argentina, Thailand, and China, where it will combine with a sharp decline in the number of young people. Life expectancy is projected to increase from an estimated 72.7 years in 2013 to 73.7 years by 2018, bringing the number of people over age 65 to around 580 million worldwide, or more than 10 percent of the total global population. In Western Europe and Japan the proportion will be higher, at 20 percent and 28 percent, respectively.<sup>20</sup> Much of the gain in life expectancy can be attributed to treatment advances, especially for cancer and cardiovascular disease, and falling infant mortality rates in developing countries. Additionally, the fight against communicable diseases via better sanitation, improved living conditions and wider access to health care, as well as more widespread vaccination practices, are helping to extend life expectancies.<sup>21</sup> However, communicable diseases such as AIDS-HIV, multi-drug-resistant tuberculosis, and — most recently, Ebola — remain threats.

<sup>9</sup> Ibid

<sup>10</sup> Ibid

<sup>11</sup> Ibid

<sup>12</sup> *World industry outlook: Healthcare and pharmaceuticals*, The Economist Intelligence Unit, May 2014

<sup>13</sup> *Industry Report, Healthcare: Mexico*, The Economist Intelligence Unit, June 2014

<sup>14</sup> Ibid

<sup>15</sup> *Industry Report, Healthcare: Brazil*, The Economist Intelligence Unit, September 2014

<sup>16</sup> *World industry outlook: Healthcare and pharmaceuticals*, The Economist Intelligence Unit, May 2014

<sup>17</sup> Ibid

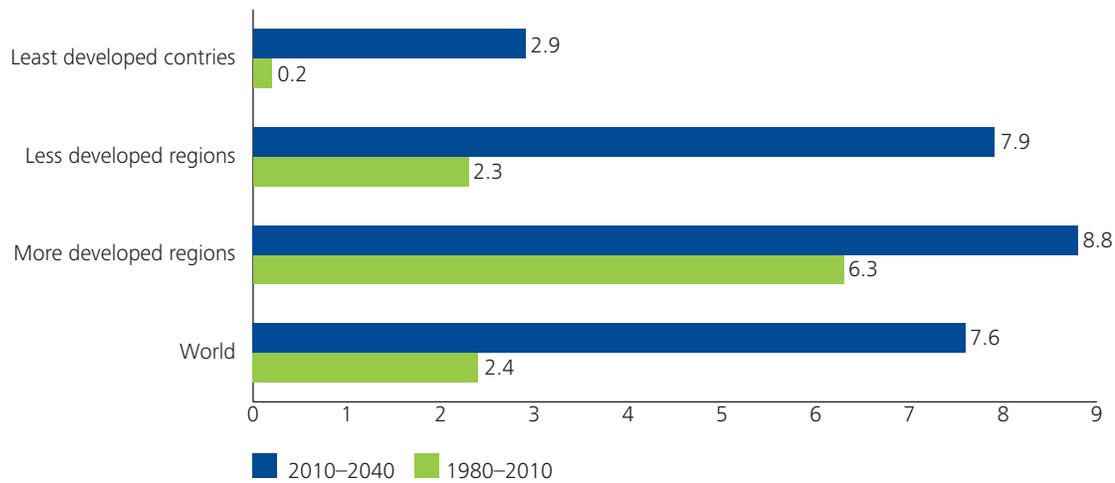
<sup>18</sup> Ibid

<sup>19</sup> Ibid

<sup>20</sup> Ibid

<sup>21</sup> Ibid

**Figure 2: Global health care drivers — population aging**  
 30-year increase in percentage aged 60 years or over



Source: United Nations, “World Population Aging 2013”

In developing markets, population growth and rising wealth are also anticipated to drive health care spending in 2015 and beyond. By 2018, the number of high-income households (those earning over \$25,000 a year) will rise globally by about 30 percent, to nearly 570 million, with over one-half of that growth coming from Asia.<sup>22</sup> Governments in some of these markets are expanding public health care services to meet citizens’ rising expectations, while in all markets, advances in health technologies,<sup>23</sup> the availability of antibiotics, and other

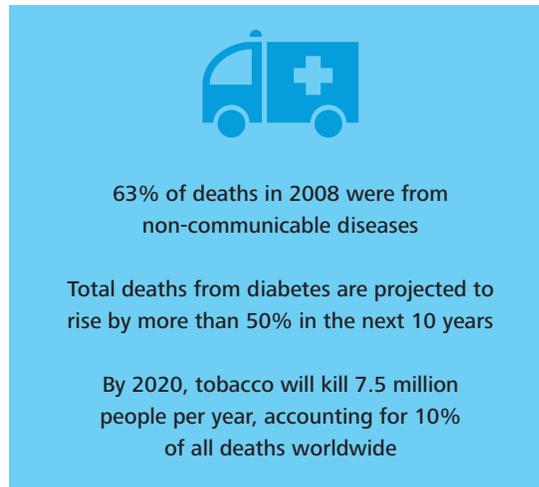
factors should continue to push up costs. Concurrently, the rise of age- and lifestyle-related chronic diseases (Figure 3) is increasing health care demand and spending. In developing markets, for example, cancer and heart disease are becoming the main causes of death, the result of urbanization, sedentary lifestyles, changing diets, rising obesity levels, and widespread availability of tobacco products. China and India now have the world’s highest number of diabetes sufferers at more than 98 million and 65 million individuals, respectively.<sup>24</sup>

<sup>22</sup> Ibid

<sup>23</sup> Ibid

<sup>24</sup> Ibid

Figure 3: Global health care drivers — chronic disease



Source: World Health Organization "Global Status Report on non-communicable diseases" 2010 World Health Organization "10 facts about diabetes" October 2013

Fortunately, advances in treatments for cardiovascular disease, diabetes, cancer and certain other chronic diseases are delivering promising results. As well, efforts to reverse the rise in obesity are intensifying; Organisation for Economic Co-operation and Development (OECD) data suggests that rates are stabilizing in several countries, with some seeing a decline in childhood obesity.<sup>25</sup> However, even treatment breakthroughs can bring challenges for governments and other health care payers: New treatments are increasingly expensive and tiered pricing does not necessarily ensure affordability. Accordingly, growing numbers of public health programs are focusing on lifestyle changes and disease prevention.<sup>26</sup>

#### Outlook

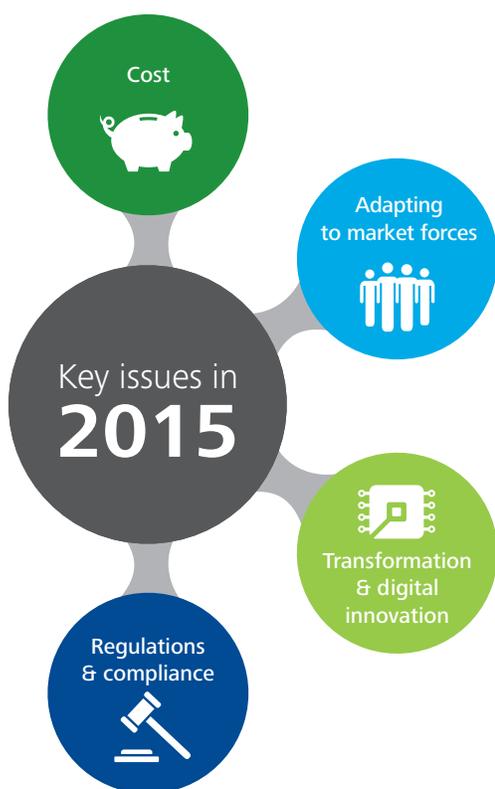
The global health care sector outlook for 2015 is mixed. Treatment advancements and government initiatives to increase access to care should drive sector expansion but pressure to reduce costs is escalating. Growing populations and consumer wealth are increasing demand for health care services but aging societies and chronic diseases are forcing health payers to make difficult decisions on benefit levels. In the midst of this tug-of-war, many historic business models and operating processes will no longer suffice. Read on to learn more about trends impacting the global health care sector in 2015 and suggested considerations for stakeholders.

<sup>25</sup> Ibid

<sup>26</sup> Ibid

# Global health care sector trends in 2015

Four major trends are anticipated to impact stakeholders along the global health care value chain in 2015: cost, adapting to market forces, transformation and digital innovation, and regulations and compliance.



## 1. Cost



Cost is the biggest health care issue facing most countries in 2015. Pressure to contain costs and demonstrate value is coming from all sides — governments, providers, health plans, life sciences companies, and consumers.

Political uncertainty, persistent economic stress, and austerity measures in numerous countries are calling into question the sustainability of public health care funding. In addition, questions and concerns exist about the amount

of funding needed to better align supply to demand and, in particular, how to fund integration and primary care while meeting increasing demands for acute activity.

From a regional perspective, Europe's health systems are experiencing considerable duress, and not just in the countries most impacted by the regional economic crisis. After making painful cuts to drug prices, wages and staffing levels, some governments are now trying to push through broader reforms, with the hope that they will make health care systems more sustainable in the future. In Japan, where the majority of health care spending is publically funded, the government has begun a number of initiatives to control spending, such as encouraging use of cheaper generic drugs, self-management of chronic diseases, and preventive care.

In the United States, continual cost increases and margin erosion are impacting providers and health plans. Both health funding and insurance coverage are undergoing significant transformation through the Affordable Care Act (ACA), which has expanded Medicaid coverage and introduced mandatory health insurance in an effort to increase coverage and slow the rise in health care costs.<sup>27</sup> But even though more U.S. consumers are gaining insurance, they are paying more of their health plan premium and experiencing higher out-of-pocket (OOP) cost-sharing for all types of health care services. These increases are expected to continue as employers shift to high-deductible offerings<sup>28</sup> and individuals gain coverage through insurance marketplaces<sup>29</sup> (also known as public health insurance exchanges). Moreover, government estimates of health care spending do not take into account discretionary consumer spending on a number of products and services, which adds considerably to the total. In another example of consumer cost-sharing, low spending on health care by some governments places much of the burden on patients and their families. For example, consumer OOP spending—which comprises 69 percent of India's total health expenditure—is among the highest in the world, and much more than countries such as Thailand (25 percent), China (44 percent), and Sri Lanka (55 percent).<sup>30</sup>

<sup>27</sup> *Industry Report, Healthcare: United States*, The Economist Intelligence Unit, June 2014

<sup>28</sup> *Health care costs, benefits, and reform: What's the next move for employers? Results of Deloitte's 2013 Survey of U.S. Employers*, Deloitte Center for Health Solutions, Deloitte Development LLC, 2014

<sup>29</sup> *Consumers and health insurance exchanges: Awareness, preferences, and concerns*, Deloitte Center for Health Solutions, Deloitte Development LLC, 2014

<sup>30</sup> Healthcare spending (<http://www.livemint.com/Opinion/pl58bANI9zaF0AR2MkUYuN/Fixing-Indias-healthcare-system.html>)

Among other health care cost drivers in both developed and developing countries are overuse of medical services and over-prescription of drugs, as well as changing demographics such as population aging, chronic diseases, and other health issues that are increasing care volume. Mexico, for example, has been experiencing an epidemiological transition from communicable diseases to chronic degenerative diseases. The government, in response, is seeking to transform the nation's health care model from its current focus on healing to a focus on disease prevention, and is introducing policies and programs that support innovative research and development (R&D) for new medicines that combat chronic diseases.

Across the world, governments, health systems, and other stakeholders are recognizing the need for innovation; advances in health technologies and data management can help facilitate new diagnostic and treatment options. However, the high cost of targeted therapies, personalized medicine, genetic-based medicine, medical devices, and other advances continues to add to the health care cost burden. So does waste, fraud, and abuse: 30 percent of total U.S. health spending in 2009 (\$750 billion) was wasted on unnecessary services, while an estimated \$98 billion in Medicare and Medicaid spending could be attributed to fraud and abuse in 2011.<sup>31</sup>

Amid virtually universal concerns about unsustainable, rising costs and the possible emergence of a two-tier health care system in certain countries — government insurance for everybody and private insurance for those who can pay for it — there is growing advocacy and action around the shift from volume- to value-based health care (VBC). Governments and other payers are developing and implementing strategies to align providers under new payment arrangements even as old business models persist (e.g., those that feature payments based on fee-for-service; limited financial risk; provider incentives to increase payment rates, specialization/intensity, and volume; and limited focus on outcomes and information-sharing). For instance, existing incentive structures for U.S. health care providers and a system of relatively fragmented

private coverage reduces providers' negotiating power and raises overhead. (Many other prosperous countries have centralized negotiations with health care providers or set prices centrally, and this limits costs).<sup>32</sup>

New VBC models focus on maximizing value (lower cost and higher quality) of health care delivered through the alignment of incentives and management of risk. Care coordination is driven by standardized protocols and the use of health information technology (HIT) to facilitate information-sharing. The transition to VBC will require investment into supporting clinical integration, population health, and other cost-reduction/revenue-enhancement opportunities to respond to new payment systems and grow market share.

VBC's future depends most heavily on physicians, due to their integral role in health care delivery. The Deloitte Center for Health Solutions' *2014 Survey of U.S. Physicians* examined current and expected levels of VBC engagement in the U.S. and what physicians need to feel more confident about their participation. Respondents said they are aware that the shift to VBC is happening and inevitable; they expect about 50 percent of their compensation in the next 10 years to be value-based. However, many physicians are reluctant to participate in VBC, preferring status quo in their work setting and how they are paid. Also, physicians are concerned about the consequences of financial risk (e.g., being held accountable for things out of their control).<sup>33</sup>

VBC's emphasis on improved patient outcomes extends down the health care value chain to include health plans and life sciences companies. Plans will need to develop strategies to align with providers under new payment arrangements, and greater collaborations and partnerships will be required — between providers and plans and between plans and non-traditional players like niche technology companies. Life sciences companies, in turn, are becoming more responsible for providing evidence of their products' efficacy and value before they can be introduced to the market. The UK's National Institute for Health and Clinical Excellence (NICE) undertakes technical appraisals of

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<sup>31</sup> Committee on Energy and Commerce, "Hearing entitled "Examining Options to Combat Health Care Waste, Fraud and Abuse," November 2012

<sup>32</sup> Ibid

<sup>33</sup> *Preparing for the inevitable: Physician priorities in a value-based world: Perspectives from the Deloitte 2014 Survey of U.S. Physicians*, Deloitte Center for Health Solutions, Deloitte Development LLC, 2014

the clinical and cost-effectiveness of health technologies, such as new pharmaceutical and biopharmaceutical products, to ensure that all National Health Service (NHS) patients have equitable access to the most clinically- and cost-effective treatments that are available.<sup>34</sup>

## 2. Adapting to market forces



Transformational change is taking place across the global health care sector. Several dynamic market forces, in particular are requiring providers and health plans to rethink traditional business models to better address shifting or emerging health care challenges and opportunities. These forces include the increasing role of government, scale to prosper, competition for talent, improving access to care, and consumerism.

**Increasing role of government** – Governments’ pivotal — and growing — role as payor, regulator, and market-shaper in the global health care sector cannot be understated. In most countries, the government is the primary funder and provider of health care services for the vast majority — if not all — of the population; a very expensive responsibility, as population levels increase and costs continue to grow, overall global health care spending as a percentage of GDP is projected to total 10.3 percent by 2018.<sup>35</sup>

Around the globe, numerous governments are introducing broad reforms to cut costs and improve the quality of their health care systems. China is in the midst of a reform effort to provide “safe, effective, convenient and affordable” health care for both rural and urban residents by 2020.<sup>36</sup> India’s new Bharatiya Janata Party (BJP)-led government is announcing a new health policy to focus on reducing malnutrition, improving the use of essential medicines, expanding immunization, modernizing public hospitals, and instituting a better tobacco control program. The government wants a holistic health care system that is universally accessible, affordable, and dramatically reduces OOP expenditures.<sup>37</sup>

The South African National Department of Health’s (HRH) 2012-2017 strategic plan includes the re-engineering of the country’s system of primary health care.<sup>38</sup> It also calls for the provision of effective, evidence-based care; a supportive regulatory environment for HRH; equitable staffing; health workforce development; recruitment and retention; and fostering an environment for clinical research.

The UK’s NHS has been the subject of several structural reform programs in the past 20 years to boost efficiency and widen competition, but their effectiveness has been hindered by the disjointed way in which successive governments have advanced different programs.<sup>39</sup> Recent calls to introduce co-payments, rationing, or to halt certain types of treatments have dominated political discussions; with years of fiscal austerity looming, health care is anticipated to be a major issue in the May 2015 general election.<sup>40</sup>

Implementation of the ACA in the U.S. is proceeding despite ongoing political wrangling, efforts to roll back certain reform elements, and technical glitches in the Health Insurance Marketplace, the new national portion of the web-based consumer insurance exchange. Delays still threaten to undermine the ACA’s key goal, which is to extend health insurance to millions more Americans. In February 2014, the federal government decided to delay the mandate for medium-sized companies to insure their employees until 2016, two years later than the original deadline.<sup>41</sup>

The biggest focus for government legislators remains pricing and reimbursement rules, as they try to minimize pharmaceutical spending growth. Reference pricing systems have already brought prices down in many countries, but have not stopped government payers from pushing for even greater savings. In 2014, both Sweden and the UK secured pricing deals with drug manufacturers, on top of other efforts to drive down costs.<sup>42</sup>

<sup>34</sup> 2015 *Life sciences outlook, United Kingdom*; and 2015 *Global life sciences outlook: Adapting in an era of transformation*, Deloitte Touche Tohmatsu Limited, 2014

<sup>35</sup> *World industry outlook: Healthcare and pharmaceuticals*, The Economist Intelligence Unit, May 2014

<sup>36</sup> *Industry Report, Healthcare: China*, The Economist Intelligence Unit, August 2014

<sup>37</sup> *Industry Report, Healthcare: India*, The Economist Intelligence Unit, July 2014

<sup>38</sup> China Daily, Africa portal, Deloitte analysis

<sup>39</sup> *Industry Report, Healthcare: United Kingdom*, The Economist Intelligence Unit, June 2014

<sup>40</sup> *Ibid*

<sup>41</sup> *Industry Report, Healthcare: United States*, The Economist Intelligence Unit, June 2014

<sup>42</sup> *World industry outlook: Healthcare and pharmaceuticals*, The Economist Intelligence Unit, May 2014

Governments and other health care payers are also heavily promoting the use of generic pharmaceuticals. In the U.S., generic drugs account for about 70 percent of the market by volume.<sup>43</sup> In Europe they account for around 50 percent, although the proportion differs significantly by country. Many nations, including Japan, Italy, Spain, Poland, and France, have adopted pro-generic policies that encourage doctors or pharmacists to substitute generics for branded products. Some governments are concerned that the shift to generics is not happening fast enough. In December 2013, France's competition authority proposed a shake-up of pharmacies and distribution to enable stronger competition.<sup>44</sup> The U.S. government is also cracking down on industry anti-competitive practices — bolstering these efforts, U.S. health plans are using a variety of methods to contain pharmaceutical costs, including reference pricing, which discourages the use of very expensive prescription drug brands; formularies (lists of medicines approved for insurance coverage); and tiered co-payment schemes that require consumers to pay more OOP for brand-name drugs than for generics.

**Scale to prosper** – Converging market forces are setting the stage for what may be a period of rapid consolidation among health care providers, particularly in the U.S. Both vertical (health systems acquiring physician practices, ambulatory centers, diagnostic centers, home care services, etc.) and horizontal (hospitals acquiring other hospitals) consolidation have been increasing, despite heightened regulatory scrutiny. In addition, cross-sector convergence is expected to rise with the shift towards an “eco-system” of product and service providers. For example, it will become more common for a health plan to offer clinical services — both professional and technical — and for health care providers to offer health care financing products.<sup>45</sup>

While consolidation typically includes traditional mergers and acquisitions (M&A), options such as joint ventures, affiliations, or collaborations could also prove attractive as health systems seek to build scale, add capabilities, increase purchasing power, streamline services, and cut costs. For example, the shift to VBC will likely require health systems to differentiate through innovation and/or diversification. Few health systems have the financial and organizational resources to “go it alone” and accomplish these strategies. Thus, conditions may be aligning to support a period of rapid consolidation.<sup>46</sup>

Consolidation among U.S. health systems has been increasing in recent years. From 2009 through 2013, hospital deal volume increased 14 percent annually.<sup>47</sup> In addition to larger acquisitions, there also have been major mergers. In Brazil, large private-sector hospital groups are acquiring other establishments and forming large networks to gain economies of scale and increase their leverage in payer negotiations. Many of these hospitals have created centers of excellence (COEs), mainly for the specialties of cardiology, oncology, orthopedics, and neurology, after analyzing potential patient demand and payer margins. The Brazilian government is also exploring ways to strengthen public-private partnerships to increase the efficiency of the nation's public health care services.

In Japan, the majority of medical facilities are privately owned and run through small-sized medical corporations that are usually established by individual physicians. The government is currently discussing the introduction of a holding company scheme that consolidates and integrates small, fragmented medical corporations to realize optimal allocation of hospital beds and increase buying power through group purchasing.

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<sup>43</sup> IMS Health, as cited in *World industry outlook: Healthcare and pharmaceuticals*, The Economist Intelligence Unit, May 2014

<sup>44</sup> *World industry outlook: Healthcare and pharmaceuticals*, The Economist Intelligence Unit, May 2014

<sup>45</sup> *The great consolidation: The potential for rapid consolidation of health systems*, Deloitte Center for Health Solutions, 2014

<sup>46</sup> *Ibid*

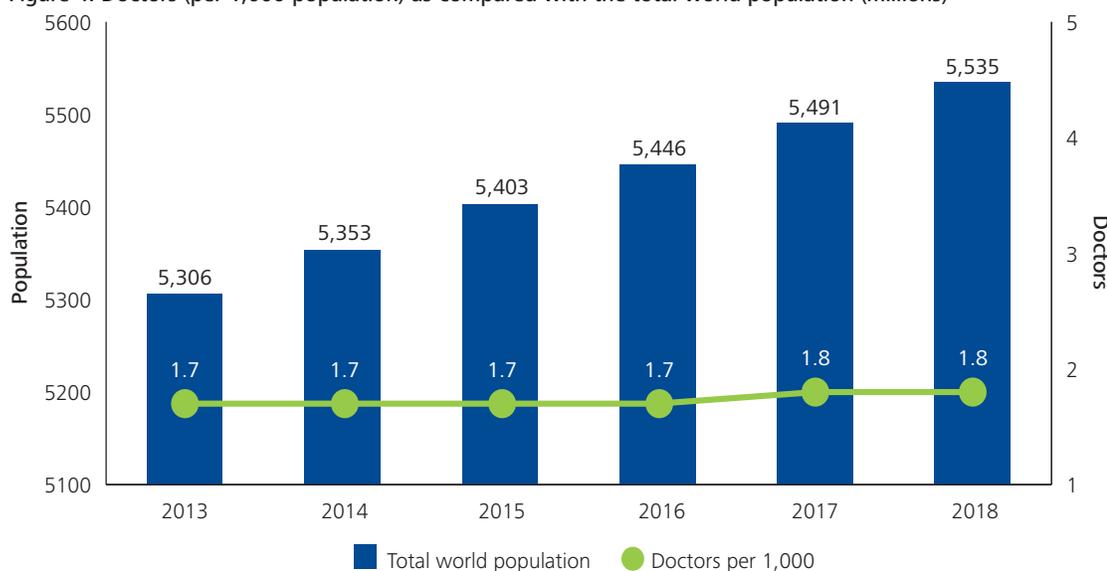
<sup>47</sup> Irving Levin Associates, Inc., *The Hospital Acquisition Report 2014*, July 2014, pg. 6, 7, [http://www.levinassociates.com/sites/default/files/abstracts/hosp\\_abstract.pdf](http://www.levinassociates.com/sites/default/files/abstracts/hosp_abstract.pdf). Accessed September 9, 2014. Cited in *The great consolidation: The potential for rapid consolidation of health systems*, Deloitte Center for Health Solutions, 2014

Large, cross-industry companies are making M&A deals and equity investments in China's hospitals and health systems. Since 2013, there has been an uptick in activity, with deal quantity at 35 percent and deal value at 64 percent of China's total health care industry M&A for the past 10 years. Life sciences companies accounted for 65 percent of these deals, with their investments primarily focused on possessing a hospital to empower the company's sales channels and extend value chain synergy; and boosting hospital profitability. Also, in China, many of the private hospitals are partnering with public hospitals to share medical technology and clinical practices.

**Competition for talent** – As their populations and health care needs grow, both developed and developing countries are struggling to supply adequate numbers of trained, qualified health care professionals, especially physicians and nurses. Globally, the number of doctors per 1,000 population is expected to remain virtually the same between 2012 and 2015 (Figure 4).<sup>48</sup>

Uneven distribution of caregivers is also a problem. The U.S. had an estimated 3.3 doctors per 1,000 population in 2013, more than Japan and the UK, but less than France and Germany.<sup>49</sup> South Africa's underfunded and overstretched public sector has, for many years, struggled to recruit and retain enough skilled medical staff. The number of doctors there is just 0.6 per 1,000 people, according to WHO.<sup>50</sup> Southeast Asia (SEA) has a chronic shortage of medical personnel: the average number of physicians in SEA is 2.1 per 1,000. Looking at individual SEA countries, Indonesia has only 0.4 doctors per 1,000 people. The country loses a significant share of its domestic health care market spending because Indonesian residents travel to neighboring countries like Singapore and Malaysia to seek medical treatment — nearly 1.5 million Indonesians comprise overall medical tourism numbers, with a corresponding outflow of \$1.4 billion yearly.

Figure 4: Doctors (per 1,000 population) as compared with the total world population (millions)



Source: Economic Intelligence Unit

<sup>48</sup> Economic Intelligence Unit Database, Losing Ground: Physician Income, CNN Health, World Bank

<sup>49</sup> Industry Report, Healthcare: United States, The Economist Intelligence Unit, June 2014

<sup>50</sup> Industry Report, Healthcare: South Africa, The Economist Intelligence Unit, April 2014

Middle Eastern countries are heavily dependent on expatriate health care workers. Saudi Arabia, for example, has an expatriate physician population of around 76 percent.<sup>51</sup> India has a ratio of 0.7 doctors and 1.5 nurses per 1,000 people compared with the WHO average of 2.5 doctors and nurses per 1,000 people. This shortage of qualified professionals is one of the key challenges for the Indian health care industry. The situation is aggravated by the concentration of medical professionals in urban areas, which have only 30 percent of the population in India. Many Indians, especially those living in rural and semi-urban areas, are still receiving services from unqualified practitioners. The industry needs an additional 1.54 million doctors and 2.4 million nurses to match the global average. Furthermore, India has an acute shortage of paramedical and administrative professionals.<sup>52</sup>

One of the key components of wholly-foreign owned hospitals in China is foreign physicians. Under current rules, these clinicians must pass the Chinese medical test to get a practicing certificate, which prevents entry for many. Some foreign hospitals have hired Chinese physicians to fill care gaps, but most of these are part-time employees due to the nation's current employment system. It is expected that the Chinese government may streamline the registration process for foreign physicians practicing in China to help alleviate the shortage.

Mitigating the human resource crunch at all levels of the health care value chain is not the only staffing challenge facing hospitals and health systems in 2015. Organizations will need to source, recruit, and retain executives with new leadership skills and professionals trained to meet the needs of 21st-century health care models, such as advanced nurse practitioners, physician assistants, medical technology specialists, and information technology (IT) staff for integrating and standardizing data from multiple sources.

**Improving access to care** – Workforce shortages are a major contributor to health care access problems around the world. Other contributors are patient location, lack of health care infrastructure in certain countries, and outdated facilities in both developed and developing markets. For example, India's public health care system is patchy, with underfunded, overcrowded hospitals and clinics, and distressingly inadequate rural coverage.<sup>53</sup> Similarly, South Africa's government has acknowledged the need for a significant improvement in the quality of care in its public hospitals.<sup>54</sup> Additionally, many hospitals worldwide lack funding to invest in game-changing HIT.

Hospital bed provision varies widely country by country (Figure 5), indicating the difference in access to health care around the globe. While the U.S. has one bed for every 350 people and Japan's ratio is one for 85, India has one bed for every 1,050 people. To match bed availability to the standards of more developed nations, India needs to add 100,000 beds this decade, at an investment of \$50 billion.<sup>55</sup> Brazil, meanwhile, has an estimated one hospital bed for 500 people, a relatively low number, and their distribution and the quality of provision is patchy.<sup>56</sup>

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<sup>51</sup> GCC healthcare sector, Alpen Capital, April 22, 2014

<sup>52</sup> Fortis Healthcare Ltd – Annual Report March 2014 - [http://www.fortishealthcare.com/pdf/Fortis\\_AR\\_2013-14.pdf](http://www.fortishealthcare.com/pdf/Fortis_AR_2013-14.pdf)

<sup>53</sup> *Industry Report, Healthcare: India*, The Economist Intelligence Unit, July 2014

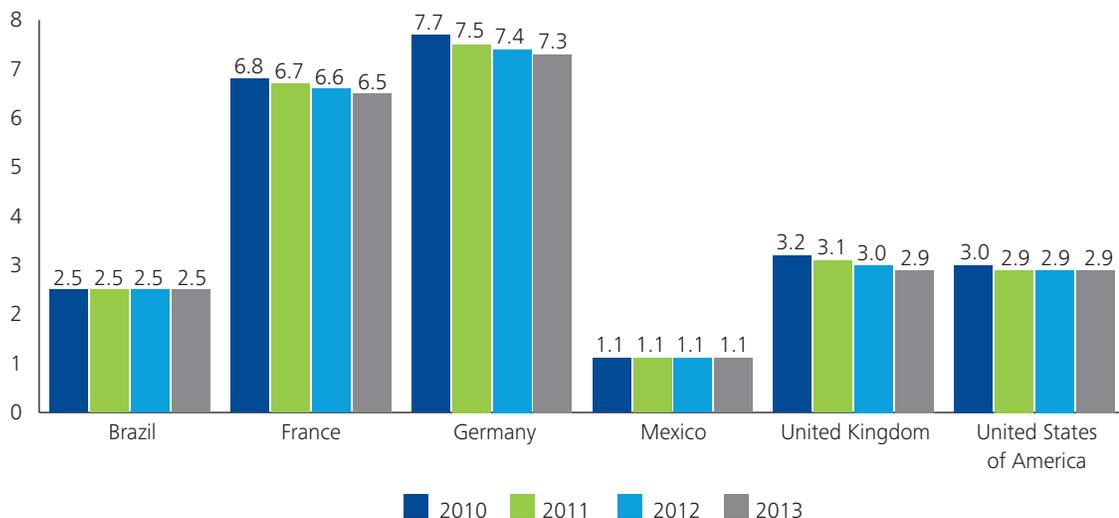
<sup>54</sup> *Industry Report, Healthcare: South Africa*, The Economist Intelligence Unit, April 2014

<sup>55</sup> Challenges in Indian Healthcare industry – Pratap Reddy, Apollo Hospitals (<http://www.dnaindia.com/money/column-government-spending-and-private-investments-in-healthcare-is-need-of-the-hour-prathap-c-reddy-2005322>)

<sup>56</sup> *Industry Report, Healthcare: Brazil*, The Economist Intelligence Unit, September 2014

Figure 5: Access to care: Hospital beds

Hospital beds per 1.000 people



Source: Economic Intelligence Unit

Reducing the demand gap will require substantial infrastructure investments and innovative solutions to provide health care outside of the costly, traditional hospital setting to more affordable options such as homes, walk-in clinics, and virtual access.

**Consumerism** – Patients facing large deductibles and cost-sharing for medical treatments and services — including specialty pharmaceuticals and medical devices — are becoming more cost-conscious. In countries where consumers have a choice of health insurance plans and health care providers, they are using their increased purchasing power and access to information to drive health care decisions and purchases. Larger co-pays and deductibles passed on to consumers may be a double-edged sword. While they may drive more appropriate utilization of health system resources by consumers there is a growing risk of non-compliance with treatment regimens when patients cannot afford their medicines.

The availability and easy access to health-related information via the Internet, social media groups, and rating websites such as the UK’s NHS Choices site, are increasing patient expectations around treatment options, product price, quality and transparency. On the one hand, more and better information could improve consumer self-awareness and reduce misdiagnoses, demand, and costs. Conversely, improved measurement and accountability for the overall patient experience could require providers and health plans to develop and market more product and service choices, increasing administrative costs.

The shift to patient-driven health care is becoming a major focus in the United States, Canada and, to a lesser extent, the UK and Brazil. Providers and health plans in these countries will need to identify and employ innovative ways to satisfy the unmet needs of their consumers, who seek transparency, value, and convenience. Engaging consumers in shopping for health plans, selecting providers, and taking care of their own health are good first steps to strengthen relationships and build future brand loyalty and market share.

HIT advances such as electronic health records (EHRs), telemedicine, and mHealth can be valuable partners in health care's shift towards a patient-centered delivery model. Consumers responding to Deloitte's most recent survey of U.S. health care consumers say they are comfortable with the idea of using technology in new and different ways and are interested in using mHealth in the future.<sup>57</sup> In addition, a majority of respondents say they would like access to tools or websites that enable them to review quality rankings, satisfaction rankings, and patient reviews for specific doctors and hospitals.<sup>58</sup>

### 3. Transformation & digital innovation



Adoption of new digital HIT advances such as electronic health records, mHealth applications, and predictive analytics is transforming the way physicians, payers, patients, and other health care stakeholders interact. Digital innovations are helping to facilitate new diagnostic and treatment options, increase process efficiency, and reduce costs. Technology advancements are also connecting developed and emerging markets — and participants along the health care value chain. Providers in Europe, for instance, are becoming increasingly connected and spending more time online for business and clinical purposes.

Health technology changes may be rapid and, in some parts of the world, disruptive to established health care models. However, their potential to improve the care process is already being seen. Among notable developments:

- **Mobile health (mHealth)** – mHealth is expected to be a valuable partner in health care's shift towards a patient-centered, value-based delivery model. mHealth has the potential to improve workplace efficiencies, increase patient safety, better coordinate care, facilitate payments, and engage patients.<sup>59</sup> By leveraging the power and reach of mobile communications, mHealth is making it

possible to bring care to many rural, underserved parts of the world, such as China and Africa. Care and monitoring that previously required a visit to a clinic or office can be managed remotely at home or work.

- **Telemedicine** – The global telemedicine market, which stood at \$14.2 billion in 2012, is expected to grow at a CAGR of 18.5 percent during 2012-2018.<sup>60</sup> Telemedicine can bridge the rural-urban divide by extending low-cost consultation and diagnosis facilities to the remotest areas via high-speed Internet and telecommunication. Telemedicine is a fast-emerging sector in India; several major hospitals have adopted telemedicine services and entered into public-private partnerships (PPPs). In 2012, the telemedicine market in India was valued at \$7.5 million; it is projected to rise to \$18.7 million by 2017.<sup>61</sup>
- **Additive manufacturing (AM)** – Often referred to as “3D printing,” AM also has disruptive potential in health care. The prospective benefits of AM are numerous—it can spur additional innovation, improve patient access to life-saving devices, simplify and accelerate the supply chain and production process, and achieve considerable savings. The medtech industry already stands at the forefront of this transformative change—medical applications account for about one-sixth of AM market revenues.<sup>62</sup>
- **Artificial Intelligence (AI)** – Through exponential increases in data, computing power, connectivity, miniaturization of hardware and advanced software capabilities at lower costs, AI will rapidly accelerate the development of next-generation “smart” medtech devices and could cause profound disruption in the way health care is delivered in the future.
- **Diagnostic devices** – Medical devices that enable early detection and quick diagnosis could prove to be particularly impactful. An example of such a device is LifeQ, developed by South African-based HealthQ, which uses optical sensors and non-invasive devices to measure key physiological metrics.<sup>63</sup>

<sup>57</sup> *Survey of U.S. Health Care Consumers*, Deloitte Center for Health Solutions, Deloitte Development LLC, 2013

<sup>58</sup> *Ibid*

<sup>59</sup> “The four dimensions of effective mobile health: people, places, payment, and purpose,” A View from the Center, Deloitte Center for Health Solutions, Deloitte Development LLC, January 13, 2014, [http://blogs.deloitte.com/centerforhealthsolutions/2014/01/the-four-dimensions-of-effective-mobile-health-people-places-payment-and-purpose.html#VEgE\\_Gd0yUk/](http://blogs.deloitte.com/centerforhealthsolutions/2014/01/the-four-dimensions-of-effective-mobile-health-people-places-payment-and-purpose.html#VEgE_Gd0yUk/). Accessed October 22, 2014

<sup>60</sup> <http://www.businesswire.com/news/home/20131216005542/en/Research-Markets-Global-Telemedicine-market-stood-14.2#.VJlxVI4ACY>

<sup>61</sup> IBEF – Healthcare, March 2014

<sup>62</sup> *Wohlers Associates, Additive manufacturing and 3D printing: State of the industry, 2013, p. 14. 2Epicom Business Intelligence Ltd., The WorldMedical Markets Fact Book 2012, 2012*

<sup>63</sup> <http://ehealthnews.co.za/news/healthq-revolutionises-wearable-tech/>

- **Wearable technologies** – Non-traditional players are entering the health care ecosystem, increasing competition and driving new behaviors. New consumer-facing technologies like the pulse-reading Apple Watch and HealthKit software designed to log activity and health data<sup>64</sup> are designed to motivate people to be more active and healthy.<sup>65</sup> Apple Watch, FitBits and other wearable technologies may change the way people who are managing chronic diseases such as diabetes or depression experience care. HealthKit, for example, should enable applications that remind people to take medications or help them track their moods to work more smoothly together and transmit data to doctors' records. Over the next few years, the hype around wearable technologies is likely to lessen as stakeholders learn which are truly impactful to health.
- **Big data and analytics** – Compiling, accessing, sharing, and applying big data and analytics can drive more efficient and robust business and clinical decision-making. For example, providers can leverage vast amounts of patient data gathered from a variety of sources to determine the clinical value of specific treatments and how to make them better. In addition, medical facilities and other care providers can share/access patients' medical records to help eliminate unnecessary testing and/or medication. Analytics also plays an increasingly important role in genomics-centered medical advancements by handling the extremely large data sets that are used for both diagnostics and treatment decisions.

Despite the promise of new science and technology innovations, challenges exist to widespread adoption. Technology advances can be prohibitively expensive for public health care systems already struggling to fund basic services. Physicians indicate that a lack of interoperability is a barrier to EHR adoption.<sup>66</sup> And while consumers are

comfortable with the idea of using technology in new and different ways and are interested in using mHealth in the future,<sup>67</sup> safeguarding information security and privacy is likely to become more challenging in an increasingly connected health care environment.

#### 4. Regulations & compliance



The global health care regulatory landscape is complex and evolving. The primary driver is patient health, safety, and privacy; however authorities' approaches to protecting patients can vary widely from country to country. Adding to this complexity are factors including rapid clinical and technology changes; increased scrutiny by governments, the media, and consumers; more sophisticated risk-monitoring techniques; and coordination across agencies and regions.

Much of health care's regulatory focus is on drug and patient safety. In Europe, a major overhaul of regulations (Good Pharmacovigilance Practices or GVP) was launched in mid-2012 and new rules on falsified medicines and pharmacovigilance came into force in 2013, requiring companies to control ingredients' manufacturing standards and monitor drugs more carefully after launch.<sup>68</sup> The U.S. Food and Drug Agency (FDA) continues to clamp down on off-label marketing and the failure to disclose safety risks. Developing countries are also tightening up, although not without difficulty. India, for example, doesn't have a central regulatory authority for its health care sector. However, in 2011, a high-level expert group assembled by the Planning Commission of India suggested establishing a National Health Regulatory and Development Authority to monitor both government and private sector health care providers. The group also proposed establishing a National Health and Medical Facilities Accreditation Authority (NHMFA) to define health care facility standards in the country.

<sup>64</sup> "Dr. Apple Takes First Steps into the Trillion-Dollar Health Sector," *Bloomberg Businessweek*, September 10, 2014. <http://www.businessweek.com/articles/2014-09-10/apple-watch-healthkit-and-tim-cooks-health-care-strategy>. Accessed December 4, 2014

<sup>65</sup> Ibid

<sup>66</sup> *2013 Survey of U.S. Physicians*, Deloitte Center for Health Solutions, Deloitte Development LLC; The value of medical device interoperability, West Health

<sup>67</sup> *Survey of U.S. Health Care Consumers*, Deloitte Center for Health Solutions, Deloitte Development LLC, 2013

<sup>68</sup> 2014 World Preview, Outlook to 2020, EvaluatePharma, June 2014

Numerous regulatory agencies are also pushing for increased transparency of payments made by life sciences companies to health care professionals and institutions. In the U.S., implementation of Physician Payments Sunshine Act, which aims to empower patients by requiring disclosure of physician-life sciences company interactions, is under way.<sup>69</sup> In May 2014, with some limitations, pharmaceutical companies had to submit data on all transfers of value they made to doctors and teaching hospitals in the fourth quarter 2013, for publication online.<sup>70</sup> The trend towards greater physician payment transparency is expanding beyond the U.S., with France, Japan, and Australia recently adopting transparency regulations. By 2015, 70 percent of pharmaceutical sales will occur in countries which have HCP transparency regulations.<sup>71</sup>

In another area of regulatory concern, safeguarding security and privacy is likely to become more challenging

in the evolving health care environment (Figure 6). A rising data flow and number of organizations sharing sensitive information electronically escalates the risks of hacking and infection with malware and viruses. Health care information security breaches cost the industry up to \$5.6 billion annually<sup>72</sup> and undermine clinician and patient confidence in shared, online records.

Provider organizations that handle protected health information (PHI)—and nearly every entity in the industry does—deal with tens of thousands of malicious cyber events each year. In the U.S., the Health Insurance Portability and Accountability Act (HIPAA) Omnibus Rule, effective September 2013, allows for massive fines for patient data breaches as well as organizational audits.<sup>73</sup> Yet, preventing all breaches is nearly impossible. Providers can, however, mitigate cyber security and privacy risks with a secure, vigilant, and resilient security program that addresses both internal and external threats.<sup>74</sup>

**Figure 6: Health care security and privacy challenges**

**Safeguarding security and privacy likely to become more challenging with the evolving health care landscape**



EHR: Electronic health record; ePHI: Electronic protected health information; PHR: Personal health record

Source: Deloitte Touche Tohmastu Limited

<sup>69</sup> Press Release by Senator Charles Grassley, February 1, 2013

<sup>70</sup> 2014 World Preview, Outlook to 2020, EvaluatePharma, June 2014

<sup>71</sup> Deloitte 2014 Global HCP Transparency, January 2014 Study [www.deloitte.com/us/2012globalHCPstudy](http://www.deloitte.com/us/2012globalHCPstudy), Deloitte Development LLC

<sup>72</sup> Ponemon Institute, Fourth Annual Benchmark Study on Patient Privacy & Data Security, March 2014, via <http://www2.idexperts.com/ponemon-report-on-patient-privacy-data-security-incidents/>

<sup>73</sup> Modifications to the HIPAA Privacy, Security, Enforcement, and Breach Notification Rules Under the Health Information Technology for Economic and Clinical Health Act and the Genetic Information Nondiscrimination Act; Other Modifications to the HIPAA Rules; Final Rule, 78 Fed. Reg. 5566 (January 25, 2013) via <http://www.gpo.gov/fdsys/pkg/FR-2013-01-25/pdf/2013-01073.pdf>

<sup>74</sup> Update: Privacy and security of protected health information, Deloitte Center for Health Solutions, Deloitte Development LLC, 2014

# Stakeholder considerations

2015 should prove to be a positive but challenging year for the global health care sector; one in which traditional clinical and business models may no longer gain traction in a transforming marketplace. Aging populations, therapeutic advances, chronic diseases, disruptive technologies, and the search for scale should drive sector growth. In addition, products and services that engage patients and leverage advanced technology and analytics should improve care access and quality. Finally, cost-cutting, investing in the right talent, public-private partnerships (PPPs), and inter-industry collaborations should improve operational effectiveness and bolster health system sustainability.

The following are among important considerations for health care stakeholders as they look to address marketplace and organizational issues in 2015 and beyond:

**Cost:** As expenses and patient numbers mount, health care stakeholders will need to operate more efficiently, lower their unit costs, and identify ways to optimize the value of their limited resources. Government, provider, and payer efforts to control health care spending, reduce variations in care, and engage consumers in self-care will continue to drive the industry's transition from volume- to value-based care. To boost physicians' participation, health care partners (health systems, hospitals, health plans, and other stakeholders) should build physician-centered strategies around the clinical and business resources, capabilities, and skills that survey respondents say they need for VBC success. These include expanded clinical support capabilities, enabling technology, HIT, access to non-physician staff to coordinate patient care, and managerial expertise and business knowledge. As well, providers want fairly structured value-based payment models and support to manage risk and protect financial interests.<sup>75</sup>

In other cost-cutting moves, governments are implementing measures such as direct contracts with hospitals, readmission penalties, and discharge planning to bring down expenses. Providers are developing expertise in population health management, outsourcing non-core activities and collaborating with payers, life sciences companies, and other

organizations to fund infrastructure improvements and share information and expertise. Some of these collaborations are expected to advance new care delivery models and targeted treatments required for delivering personalized care.

**Adapting to market forces:** The transforming health care marketplace is prompting stakeholders to rethink traditional business models, redefine value propositions, innovate through new products and services, and embrace M&A and other partnering arrangements. For providers, this means continuing the transition to value-based care and implementing alternative delivery models (e.g., mHealth) that can help to improve access, reduce costs, and offer more value to end users. Many of these new models will require costly infrastructure investments: Mexico's recently announced national infrastructure plan for 2014-2018 proposes up to \$5.6 billion in improvements in order to narrow the gap with Mexico's OECD peers. In addition to building and modernizing hospitals, the plan focuses on improving overall infrastructure in lower-income areas, such as the southeast.<sup>76</sup> In another example, India's Ministry of Health & Family Welfare has allocated \$5.8 billion for near-term development.<sup>77</sup> To fund these and similar initiatives, cost-constrained governments and health systems will need to identify collaborative opportunities such as public-private partnerships to help fund hospital and technology build-outs, especially in the developing world, since the supply of health care there continues to fall short of demand.

Health care organizations also will need to source, retain, and invest in the right talent.<sup>78</sup> In addition to more clinical professionals overall, skilled technical staff will be needed to develop, integrate, and operate data-driven technology advancements. Numerous countries are taking steps to address their health care professional shortage. The U.S. federal government has established a National Health Care Workforce Commission to review supply and demand and make recommendations regarding national priorities and policy. Also, competitive grants are provided to enable state partnerships to conduct comprehensive planning and carry out health care workforce development strategies at state and local levels. The government of China has taken actions

<sup>75</sup> Ibid

<sup>76</sup> *Industry Report, Healthcare: Mexico*, The Economist Intelligence Unit, June 2014

<sup>77</sup> China Daily, Africa portal, Deloitte analysis

<sup>78</sup> Dealing with Disruption: 16th Annual Global CEO Survey

to speed up caregiver training to respond to the needs of China's rapidly aging population. The country has also set a target to train six million caregivers by the end of 2020. In Brazil, the government has introduced a program called Mais Médicos (more doctors) to hire local and foreign doctors to work in poor and remote areas, where there are shortages. By mid-2014 around 15,000 new clinicians (over three-quarters from Cuba) had been enrolled, and in August the program was extended.<sup>79</sup>

Health plans pursuing innovation should adopt a more encompassing definition of "product" which includes provider networks, different financial arrangements, and consumer engagement models. They should also consider consumer-focused strategies to drive engagement (in shopping for health plans, selecting providers, taking care of their own health) and improve the customer experience — all of which can help to increase health plans' value.

**Transformation & digital innovation:** Health care stakeholders should embrace the "digital agenda" to drive efficiency, generate insights for business and clinical decision-making, and advance care delivery.

Many providers are using disruptive technologies, such as mobile devices and the Internet, to provide care anywhere, effectively and economically. They are also employing EHRs, big data, and analytics to digitize, collate, and analyze patients' records, both to improve the service they provide and to get new insights into how best to treat disease. Both providers and health plans looking to reduce costs are peeling off parts of the value chain, such as medical management, consumer engagement, and administrative functionality through cloud-based technology solutions. Meanwhile, social media is becoming immensely important as a feedback mechanism, marketing vehicle, and potential clinical tool.

Technology innovation is about internal and external walls tumbling down and lines blurring — among providers, health plans, governments, life sciences companies, and

consumers. Health care stakeholders pursuing clinical and operational advances should foster a strong culture of innovation, resource it appropriately, secure leadership support, and seek collaborators to share funding, risks, and successes. Pooling information and expertise with other enterprises in the same or adjacent industries can provide new opportunities for generating both solutions and revenue.

**Regulations & compliance:** Taking a risk-based approach to compliance planning, execution, and monitoring makes good clinical and business sense in the risk-intensive and highly regulated health care environment. Health care organizations should promptly assess potential capability gaps, define their vision and needs,<sup>80</sup> establish a forum and governance process for risk-related decision making, secure adequate funding and trained staff, and develop appropriate implementation and remediation programs.

Cyber security should be a major focus of enterprise risk planning. New care and insurance models, electronic information transmission, and permeable boundaries among industry participants increase the complexity of managing PHI. Organizations can avoid or mitigate cyber breaches with a centralized security program that contains authoritative, uniform, and efficient policies and decisions; encourages employees to recognize and report potential threats; and verifies the cyber security and privacy practices of third-party business partners that handle PHI.<sup>81</sup>

Finally, information-sharing and partnering can help to reduce operational and regulatory risks. Some countries are working across governments and agencies to promote a more systematic approach to regulatory rule-making, monitoring, and enforcement. For example, in the Southeast Asia/Asia Pacific region, which is generally regarded as having a fragmented regulatory framework with patchy enforcement, governments have been moving independently and collectively towards establishing more structured, collaborative regulatory oversight.<sup>82</sup>

<sup>79</sup> *Industry Report, Healthcare: Brazil*, The Economist Intelligence Unit, September 2014

<sup>80</sup> *Update: Privacy and security of protected health information*, Deloitte Center for Health Solutions, Deloitte Development LLC, 2014

<sup>81</sup> *Ibid*

<sup>82</sup> *2015 Global life sciences outlook: Adapting in an era of transformation*, Deloitte Touche Tohmatsu Limited, 2014

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