

# Top health industry issues of 2020: Will digital start to show an ROI?

In its 14th year, PwC Health Research Institute's report highlights the forces that will most powerfully affect the industry in 2020.



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## Heart of the matter



In 2020, US healthcare, and especially how it is delivered and how much we pay for it, will be top of mind. Politicians will float many bold plans for transforming the industry. Health system leaders will tout their investments in technology and transformation, as the US health industry works to catch up to the rest of the digital economy. The question for 2020 will be whether this digital transformation will benefit consumers—marking a new dawn for the US health industry and for the people whose lives depend on it.

There are a lot of questions to be answered in 2020. How much will consumer experience change as receptionists no longer hand them clipboards of forms to fill out? Will physicians, now aided by data-driven insights, make better diagnoses and write better prescriptions? Will the stream of new drugs coming to market swell thanks to faster, more efficient clinical trials and regulatory reviews? Will insurers provide consumers with choices that are better for their wallets and good for their health? The health industry is betting that digital transformation will make the difference in delivery and cost.

The health industry's appetite for data has grown beyond medical histories. It is collecting genetic information, consumer purchasing habits and financial histories. It is digesting claims. It is consuming tweets and message board posts. It is counting calories, steps, fertility cycles and how often we toss and turn at night. The US health industry is binging on data.

Digital health apps are multiplying, but what to do with the data they are generating? “You can get consumers to use the apps, but how do you get the combination of doctor and the health system or practice setting to change how they are doing things?” asked Christopher Khoury, the American Medical Association's vice president of environmental intelligence and strategic analytics. “This is the last problem to crack.”<sup>1</sup>

Many health organizations have yet to truly benefit from their digital investments. Thirty-eight percent of payer and provider executives surveyed by PwC in 2018 said their organizations have not incorporated digital into their corporate strategies. Many told PwC that they still do not see digital efforts paying off in a meaningful way.<sup>2</sup> Just



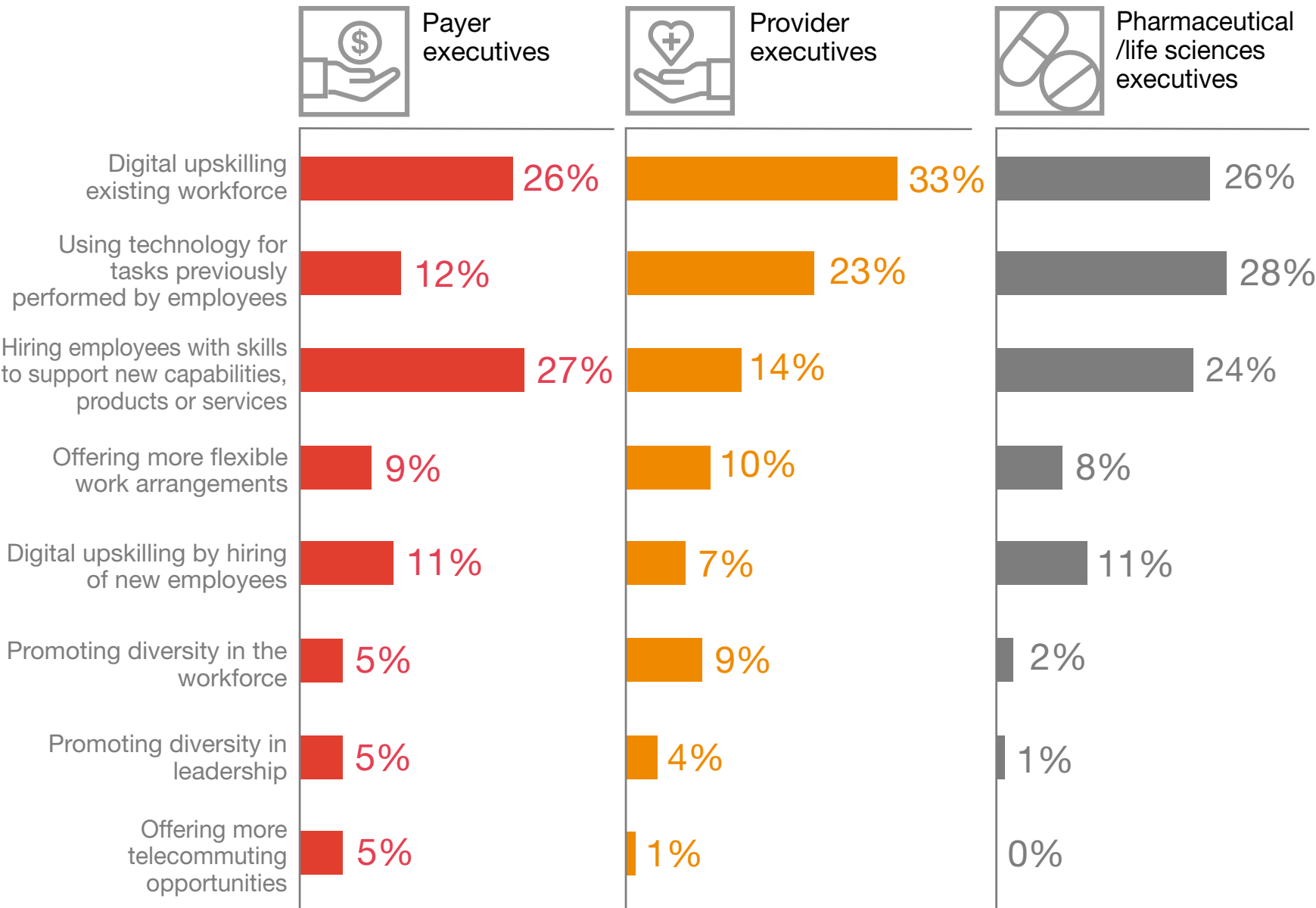
21 percent of healthcare companies employ a chief digital officer, compared with 32 percent of banking firms and 41 percent of insurance companies, according to a study by PwC.<sup>3</sup>

Despite the exuberance over data, challenges abound. Asked to name barriers to monetizing their organization’s data, executives across industries surveyed by PwC cited poor data reliability, issues with

data protection and privacy regulations, the inability to adequately protect and secure information, and a lack of analytical talent.<sup>4</sup> Healthcare executives told HRI that they are focused on finding more effective ways to use the data they are collecting. Asked about workforce strategies for 2020, executives repeatedly pointed to digital upskilling and emerging technologies (see Figure 1).

Figure 1: Healthcare organizations cite digital upskilling and using emerging technologies among the top workforce priorities for 2020

Which workforce strategy is your top priority for 2020?



Source: PwC Health Research Institute executive survey, September 2019

In this year's "Top Health Industry Issues" report, PwC's Health Research Institute (HRI) examines the relationship between digital investments, care delivery and cost; how health organizations are preparing for a looming tsunami of high prices; the astonishing percentage of large payers, providers and life sciences companies seeking their fortunes overseas and in innovation, and the tax risks of those moves; the ways health organizations are using transformative deals to make themselves over; the benefits to consumers of the industry's digitalization push; and the growing awareness that diversity and inclusion are business imperatives for health organizations.

For this report, HRI surveyed 3,500 American consumers, 300 provider executives, 100 payer executives and 100 executives from pharmaceutical and life sciences companies. HRI also interviewed numerous thought leaders working at top organizations in the industry. Time and time again, digital opportunities and concerns emerged as critical aspects of the issues identified as most pressing for 2020.

Healthcare executives told HRI they are asking tough questions about generating returns on their organizations' significant investments in digital technology and data. Progress is being made, they said, but will it be enough to justify these investments in time and money? How will the upcoming year's economic, political and regulatory uncertainty impact their organizations' efforts?

Healthcare, once again, is a pressing concern for likely voters in the 2020 elections. While versions of "Medicare for All" proposals make headlines, the most likely outcome of the

election—a divided government—may not produce seismic legislative change.

Instead, the election will determine the fate of issues such as drug prices, surprise billing and CMS' long push toward paying for value and not volume. This shift toward value-based payments is enabled by the now-ubiquitous electronic health records (EHR) systems and the industry's growing ability to analyze the data within them, along with the ballooning amount of information collected outside the examination room.

In 2020, the US health system will continue its long journey toward digitalization amid calls for bold changes from the presidential campaign trail and warnings of a recession, both in the US and abroad. Economic downturns historically hit the US health industry later than other parts of the economy, according to an analysis by HRI, giving healthcare organizations time to prepare. The industry's work on weaving data into its operations, business models and approaches to consumers will help it ride out the year's economic, and political, uncertainty. But the understanding of how these investments will lower costs and improve care delivery is still unclear.

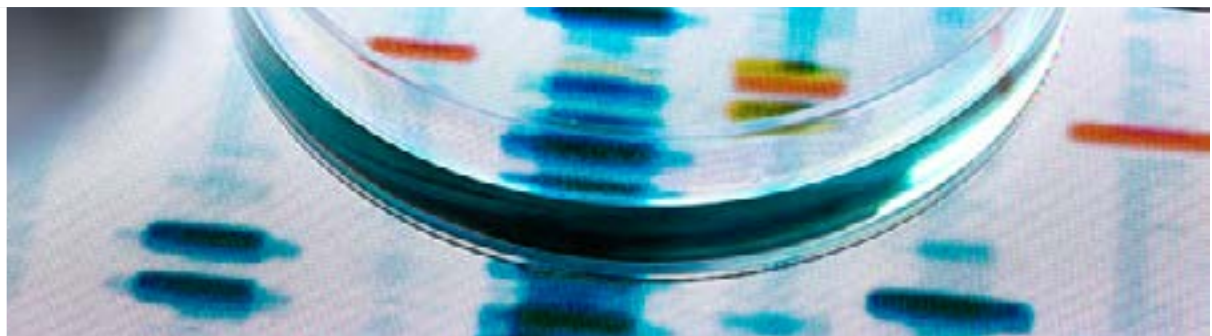


You can get consumers to use the apps, but how do you get the combination of doctor and the health system or practice setting to change how they are doing things? This is the last problem to crack."

**Christopher Khoury, vice president of environmental intelligence and strategic analytics, American Medical Association**



## A looming tsunami of high prices



Facing a tsunami of high-priced gene and cell therapies and ever-rising provider prices in 2020, employers, public and commercial payers, and American consumers will seek—and sometimes find—creative ways to finance care, spread risk and ensure that their money is paying for value.

Top of mind for payers and employers is the ballooning pipeline of emerging treatments, such as gene therapy, with million-dollar price tags and the potential to save or vastly improve lives. The impact of these therapies is not being felt acutely yet. As of September 2019, the FDA had approved just four gene therapies, with a total potential patient population of about 50,000 Americans per year, according to an analysis by HRI.<sup>5</sup> As of July 2019, providers in just five ZIP codes were offering all four FDA-approved gene therapy products.<sup>6</sup> Some states had no providers offering any of the therapies. And other snags involving clinical trials have slowed development, too.<sup>7</sup>

But by 2030, some experts estimate that 500,000 Americans will have been treated with gene and cell therapies.<sup>8</sup> And the pipeline is robust: The FDA expects to receive

200 investigational new drug applications for gene and cell therapies in 2020, with 10 and 20 approvals per year by 2025.<sup>9</sup> It's no wonder that when the National Business Group on Health polled its members about their concerns, 60 percent cited the pipeline of million-dollar treatments.<sup>10</sup>

Consumers are growing louder in their demands for value, for transparency in pricing and for affordability. “Working Americans will do anything possible to avoid interactions with the healthcare system, because it’s a sinkhole of personal time and money,” Niall Brennan, president and executive director of the nonprofit Health Care Cost Institute, told HRI.<sup>11</sup>

The 181 million Americans covered by employer-sponsored insurance continue to grapple with rising healthcare spending. In 2019, the average employer-sponsored family insurance plan hit \$20,576, an increase of 5 percent over the previous year, according to the Kaiser Family Foundation.<sup>12</sup> HRI is projecting a 6 percent medical cost trend for 2020, an uptick over the previous three years.<sup>13</sup>



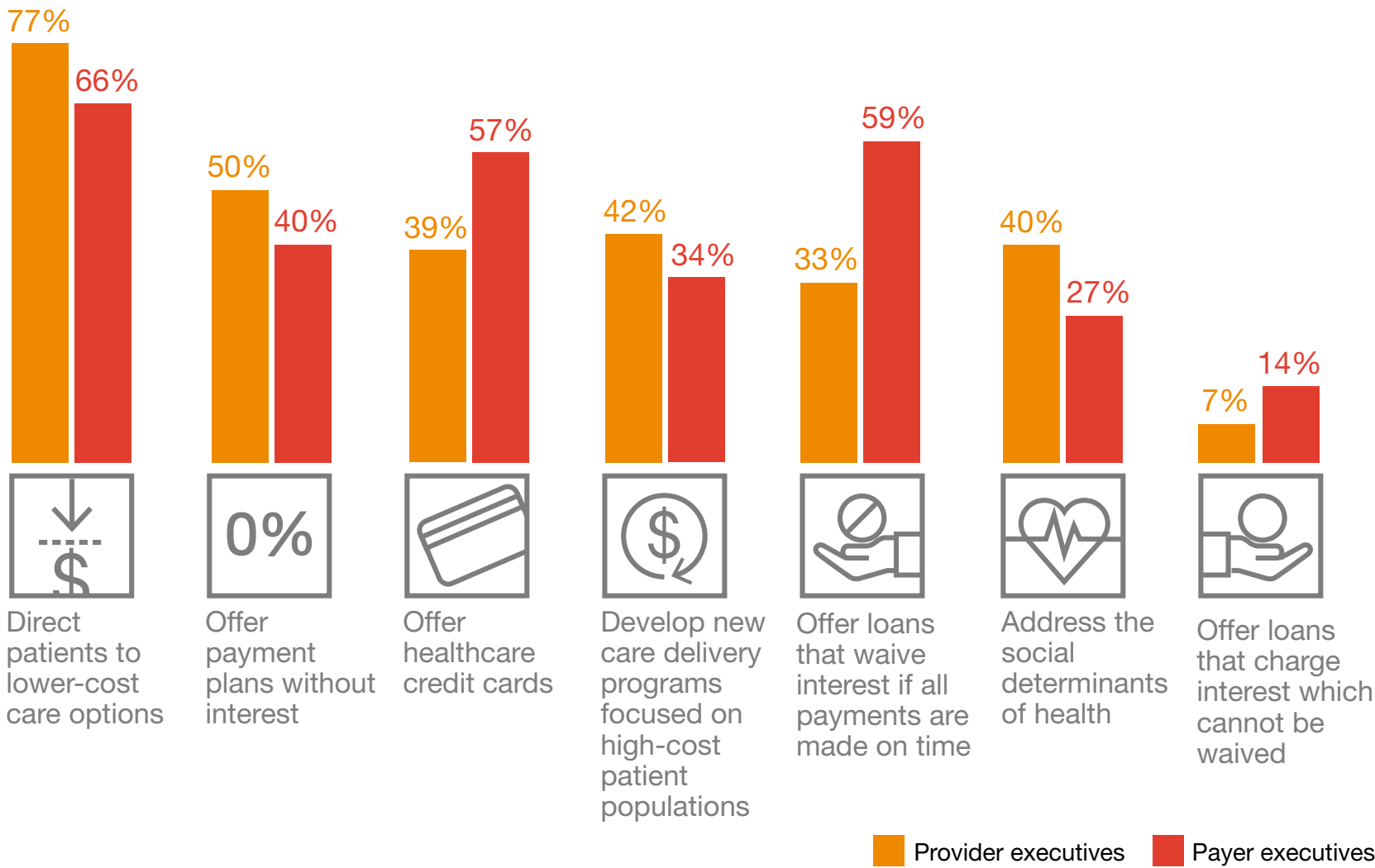
Wildly diverging provider rates make it hard for employers—and their employees—to know whether they are getting a good deal. Provider prices negotiated by commercial payers can be significantly higher than Medicare rates, according to a study of charges paid by employer-sponsored plans conducted by Rand Corp.<sup>14</sup> The study examined \$13 billion in inpatient and outpatient charges by 1,598 hospitals in 25

states between 2015 and 2017 and found that, on average, relative prices for hospital outpatient services were 293 percent of Medicare rates in 2017 and 204 percent of Medicare rates for hospital inpatient services.<sup>15</sup>

And in a survey of provider executives in 2019, HRI found that many systems are failing to use many strategies to help consumers pay for their care (see Figure 2).

Figure 2: Providers and plans have many financial options for consumers, yet Americans are still frustrated

What strategies is your organization employing to help make healthcare more affordable for patients?



Source: PwC Health Research Institute executive survey, September 2019

The cost pressure has been building for years, of course. But in recent months, a sense of crisis has set in. Democratic presidential candidates are talking about reshaping wide swaths of the \$3.6 trillion US healthcare system.<sup>16</sup> Lawmakers from both parties have introduced bold legislation tying prices paid by Medicare for some drugs to those paid by nations overseas.<sup>17</sup> Outraged consumers are sending journalists medical bills, hoping to be featured in “bill of the week” stories.<sup>18</sup>

States and drug companies are striking subscription deals: a flat fee for a year’s worth of unlimited treatment for the state’s Medicaid beneficiaries and public charges.<sup>19</sup> Commercial payers are developing coverage strategies for employers and their employees to mitigate unexpected spikes in costs due to high-priced treatments.<sup>20</sup> They also are beginning to balk at paying for some services in outpatient hospital departments, encouraging members to have planned surgeries, MRIs and other services performed at lower-cost sites of care.

“

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In the fall of 2019, Minnetonka, Minnesota-based UnitedHealthcare announced that it would start requiring site-of-service medical necessity reviews for some surgeries scheduled for outpatient hospital settings, with the aim of encouraging members to choose lower-cost sites of care, such as ambulatory surgery centers.<sup>21</sup>

“We see opportunity to shift well more than 20 percent of our medical spend to these more effective sites,” Dirk McMahon, CEO of UnitedHealthcare, told analysts in a 2019 earnings call. “For example, there is a significant opportunity for more hip and knee replacement procedures to be performed in ambulatory centers—with those settings often having a 50 percent cost advantage over traditional settings and with fully comparable, if not better, safety and quality.”<sup>22</sup>

Employers are setting up sophisticated worksite clinics and, in some cases, directly contracting with providers as they hunt for new ways to control spending without shifting additional costs to their employees.<sup>23</sup>

Merger and acquisition activity in the payer sector, especially vertical integration deals, is producing novel solutions for expensive treatments. In September 2019, Bloomfield, Connecticut-based Cigna Corp., which bought the pharmacy benefits manager Express Scripts in late 2018, announced Embarc Benefit Protection, a product to help plans and self-insured employers pay for two of the four FDA-approved gene therapies.<sup>24</sup> Those therapies are Luxturna, which treats a rare, inherited retinal disease and has a list price of \$425,000 per eye, and Zolgensma, which treats a specific form of spinal muscular atrophy in children younger than 2 and which is priced at \$2.1 million.<sup>25</sup>



The program allows participants to pay \$1 per member per month for coverage of the two treatments. Patients or, in the case of Zolgensma, their families would incur no out-of-pocket costs, and self-insured employers and plans would gain predictability. The company told Modern Healthcare that it will “white label” the program.<sup>26</sup>

The Embarc offering was made possible, in part, by a company purchased by Express Scripts in 2017, eviCore, which had experience managing specialty medication utilization and spending.<sup>27</sup> “This just takes care of the first two drugs that are in the marketplace, but we know many drugs are behind that,” said

Dr. Steve Miller, Cigna’s chief clinical officer, in a video released alongside a company statement on the offering.<sup>28</sup>

CVS Health, the Woonsocket, Rhode Island-based health company which completed its purchase of Aetna in 2018, told Modern Healthcare that it was exploring several payment options for expensive therapies, including annuity payments, stop-loss insurance and outcomes-based contracts.<sup>29</sup> The company also said it was considering changing its formulary and utilization management for therapies that have alternative treatments, according to the publication.<sup>30</sup>





## Implications

**Prepare now; the wave is coming.** As long as the focus remains on rare and ultra-rare diseases, gene and cell therapies won't bankrupt health insurers, Patrick Fortune, vice president of market sectors at Partners HealthCare, a not-for-profit healthcare system based in Boston, told HRI. "Over time, however, I think the aperture for gene and cell therapies will expand to larger patient populations, as we've seen in other therapeutic areas," Fortune said. Creating access and reimbursement models now, while the patient populations are small, will be critical to successfully scaling up these programs as more patients become eligible for expensive new treatments, he said.<sup>31</sup>

Providers, too, might need help financing gene therapy. Providers are a critical part of the gene therapy supply chain, collecting the cells from patients, properly packing them to be shipped off-campus to a processing facility and then, once the cells return, reintroducing them into the patients.

So far, the costs are high and reimbursement is uncertain. Under Medicare Part B, typically, providers purchase drugs and are reimbursed after the drugs have been administered, a process known as "buy and bill."<sup>32</sup> But buying now and waiting to

be paid back later, perhaps at a loss, is a different story when the treatment's price tag is more than \$1 million.

Providers may seek assurance or financing help from pharmaceutical companies or payers to offset financial risks associated with being part of the supply chain. But these deals will have to be carefully constructed to avoid being viewed as kickbacks.

**Consumer finance is a patient experience opportunity.** The billing and payment experience can help or harm an organization's reputation with consumers.<sup>33</sup> Data, along with consumer segmentation, can help determine what sorts of financing tools patients might need, or be most likely to use, and create positive experiences long after discharge, after the explanation of benefits is mailed or after the prescription is filled at the local pharmacy.

Research conducted by HRI concluded that consumer segments valued different features related to payment and billing, with, say, millennials much more likely to ask providers for discounts on the price of a visit, and more affluent patients much less interested in using retail pharmacy apps.<sup>34</sup> Healthcare organizations that carefully segment their

consumer populations and learn their preferences may be able to turn a pain point—billing and payment—into a positive experience that leads to return visits and good word-of-mouth.

GoodRx has found traction using technology making it easier for consumers to shop for drugs and compare prices, said Thomas Goetz, the company's chief of research. "It's understanding what actually matters to people," Goetz told healthcare executives at PwC's 180 Health Forum in 2019. "It's understanding how people will actually use these technologies. ... What does the user want? That's a principle of technology that other industries use as a matter of course. Serve your user. We're only starting to do it in healthcare."<sup>35</sup>

**Establish a value line.** Having a line of product and service options at different price points for customers is a smart growth

strategy in a healthcare ecosystem in which average deductibles have tripled over the past decade, making healthcare costs a difficult financial decision even for the insured. Rather than building their own value lines, traditional health companies should consider acquiring or partnering with firms that have figured out how to deliver value to the uninsured and underinsured and turn a profit.<sup>36</sup>

Recently, Walmart launched its first stand-alone Walmart Health center in Georgia, where customers can find primary care, dental care, mental health services and imaging services as well as access to wellness services through Walmart's partnerships with community health organizations.<sup>37</sup> The company also started offering 44 generic prescription drugs in four therapeutic categories for just \$4 each for a 30-day supply.<sup>38</sup>







## Regulation trumps policy



Despite strong rhetoric on healthcare from campaigning politicians, the outcome of the 2020 election is unlikely to bring about profound, industry-shaking change. Instead, the heated political contest likely will determine the fate of Trump administration policies on Medicaid, the Affordable Care Act (ACA), pricing transparency and trade.

“Regulation is perhaps more important than legislation right now,” Brian Marcotte, president and CEO of the National Business Group on Health, told HRI in an interview. “I think that there are some policy changes that Congress can take up that are smaller in nature but significant. But unless the next president and their political party takes the House and Senate, they won’t get any major healthcare legislation passed. So I think that the opportunity is more on regulation and policy at this point.”<sup>39</sup>

The election nevertheless could clear a path for lawmakers from both parties to address consumer-pleasing, bipartisan issues, such as drug pricing reform, a rethink of Medicare Part D and, possibly, a federal solution to surprise billing.

During the first three years of the Trump administration, the US healthcare spend maintained its upward climb, from \$3.4 trillion in 2016 to a projected \$3.8 trillion in 2019.<sup>40</sup> In 2020, CMS projects that US healthcare spending will reach \$4 trillion.<sup>41</sup> The percentage of uninsured Americans also has grown under this administration after shrinking in the wake of the passage of the ACA during the Obama administration, reaching a low in 2016. In 2018, 8.5 percent of Americans were uninsured, up from 7.9 percent in 2017.<sup>42</sup>





Healthcare continues to be a top priority for voters, according to a survey of American consumers conducted by HRI in the fall of 2019. Seventy-one percent of adult Americans of both parties said they were likely to vote for a candidate based on their healthcare policies or ideas.<sup>43</sup>

The election’s outcome will determine the fate of policies championed by the Trump administration that do not enjoy bipartisan support (see Figure 3). The administration has used its regulatory power to tweak the administration of the ACA, efforts that could

be rolled back under a Democratic president. This includes expanding sales of association health plans and short-term, limited duration

insurance, both of which are exempt from some of the ACA's consumer protections for the group and nongroup markets.<sup>44</sup>

Figure 3: The fate of four Trump administration priorities is at stake in the 2020 election

Policy	Status	Likely impacts			
		 Provider	 Payer	 Pharmaceutical/ Life sciences	 Employer
<b>Administration's push for more transparency in pricing for drugs and hospital services</b>	The administration published a final rule requiring drug manufacturers to publish list prices in TV ads, which was struck down in the courts. In summer 2019, CMS published a proposed rule requiring providers to publish negotiated rates for 300 "shoppable" services.	<b>Negative.</b> If it survives a legal challenge, the CMS proposal could have a modest negative impact on providers as payers and employer push for lowest-negotiated rates. The proposal also could lead to some price hikes.	<b>Positive.</b> If it survives a legal challenge, the CMS proposal could have a modest positive impact on payers, giving them windows into competitors' rates for a slice of services. But employers also will learn whether they negotiated well.	<b>Negative.</b> Struck down in the courts, the TV price proposal may be reconsidered. As written, it was mildly negative for a small number of life sciences companies that advertise on TV.	<b>Positive.</b> The CMS proposal would be modestly positive for employers, allowing them to see how well payers negotiate for the services.
<b>Congressional legislation linking Medicare prices for drugs to international prices</b>	House and Senate lawmakers have introduced bills that would tie prices for drugs in Medicare to those paid overseas.	<b>Mixed.</b> Some providers would benefit from reduction in drug spending; others would see payment rates for procedures fall.	<b>Positive.</b> Would reduce medical cost trend and spending.	<b>Negative.</b> Though certain sectors would be affected more than others (e.g., innovative medicines vs. generic medicines).	<b>Positive.</b> Would reduce medical cost trend and spending.
<b>Transformation of Medicaid through Section 1115 waivers</b>	CMS is encouraging states to apply for Section 1115 waivers to transform Medicaid programs with work requirements, block grants and more.	<b>Neutral so far.</b> Few states have taken CMS up on its offer, and those that have are mired in court battles. If CMS and the states prevail, the policies could have a modestly negative impact, driving up the numbers of uninsured in these states.	<b>Neutral so far.</b> Few states have taken CMS up on its offer, and those that have are mired in court battles. If the states prevail, the policies could have a modestly negative impact on Medicaid managed care organizations as beneficiary numbers drop.	<b>Neutral.</b>	<b>Neutral.</b>
<b>Additional tariffs on Chinese imports to the US</b>	As part of a broader negotiation strategy, the Trump administration is using tariffs on thousands of Chinese-made imports to the US, including some pharmaceuticals, durable medical equipment and medical devices.	<b>Negative.</b> Supply chain disruptions are likely to raise costs for medical products, as well as costs of building new facilities.	<b>Somewhat negative.</b> Supply chain disruption could increase costs, though costs may be passed on to customers and patients.	<b>Mixed.</b> While negotiations stand to increase intellectual property protections, short-term shocks could disrupt supply chains and raise costs.	<b>Mixed.</b> Likely to affect sectors differently, though supply chain disruptions may increase costs.

Source: PwC Health Research Institute analysis

It also includes encouraging states to apply for waivers to impose work requirements on some Medicaid beneficiaries, a move that has been struck down in lower courts and is working its way through the legal

system. The administration also is working with several states on proposals that would create "block grant"-type payments for federal funding for Medicaid.

The administration’s efforts around drug pricing have mostly bipartisan support and have coalesced around increasing approvals of generic products and requiring drug companies to publicize list prices in television ads, a move that was struck down by the courts.<sup>45</sup>

Both parties support changes to Medicare Part D to protect seniors with expensive prescriptions from skyrocketing out-of-pocket costs. Legislation drafted by the Democratic-led House and the Republican-led Senate proposed structural changes to the benefit and out-of-pocket caps for seniors.<sup>46</sup> These bipartisan efforts, slowed in an election year, could gain momentum after Election Day.

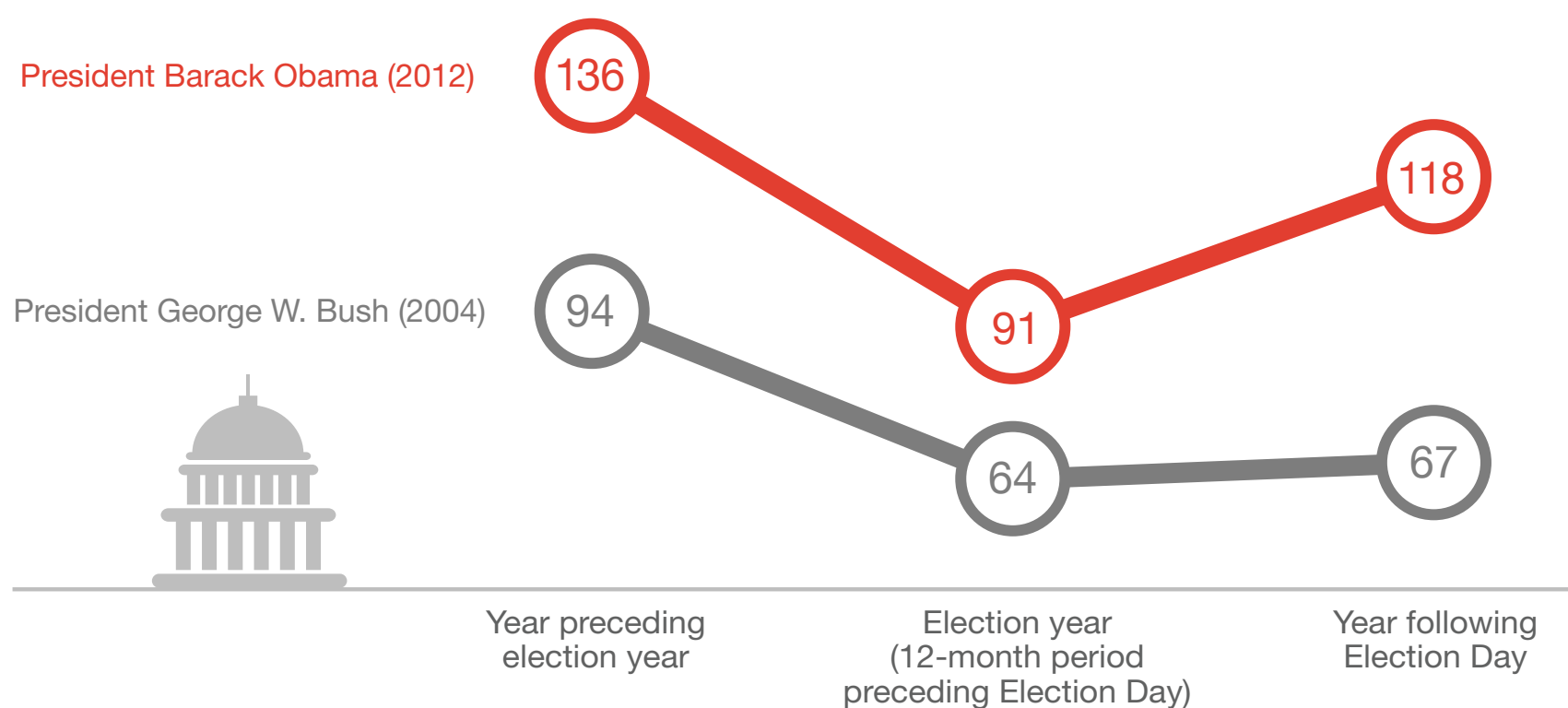
Overall, 2020 likely will be a slow year for action on healthcare out of Washington, DC. An analysis of regulatory activity shows a decline in the 12 months before a presidential election and a rebound in the 12 months after one (see Figure 4).

For the healthcare industry at large, leadership may be as important as policies. One of the most important decisions a president can make is the appointment of leaders for key agencies such as the FDA, HHS and CMS. Companies should pay attention to who is angling for these jobs in a new administration and what the effects could be for key policy issues and agency operations.

Figure 4: Expect a slow 2020 when it comes to healthcare regulation

## Fewer major regulations tend to be released in the lead-up to an election

But the regulations that are released can be more substantive in scope and intended impact



Source: PwC Health Research Institute analysis of Federal Register data. Based on all economically significant HHS regulations.





## Implications

**Plan for potential swings in a few critical areas.** Should the Republicans win the presidency again, providers and Medicaid managed care plans should prepare for a continuation of the administration's efforts to transform Medicaid by encouraging states to impose work requirements on some beneficiaries, increase eligibility reviews for coverage and seek block grants for federal funding. The administration also has tied immigration policies to public coverage.

These efforts have helped reduce Medicaid enrollment, driving up the numbers of uninsured Americans. Providers serving large numbers of Medicaid beneficiaries in states enthusiastically embracing these policies could see increases in uncompensated care and bad debt. Children's hospitals could be affected, as the number of children losing Medicaid coverage has increased, according to an analysis by The New York Times.<sup>47</sup> Medicaid managed care plans may find reductions in enrollment and increased churn as beneficiaries lose coverage more often.

A Democratic presidential win likely would signal an end to approvals of waivers for these sorts of programs and an end to policies linking immigration status to public coverage. Democrats may work to shore up the ACA exchange enrollment through

restoration of advertising dollars and funding for support services. They also may reverse course on the expansion of access to short-term, limited duration insurance and association health plans and attempt to pass legislation around drug pricing and surprise billing. Democrats also appear less likely to continue the Trump administration's Chinese trade policy, and pharmaceutical and life sciences companies, in particular, may benefit from increased certainty in this area.

But pharmaceutical companies likely will continue to experience some degree of uncertainty around trade no matter who wins the White House. Tariffs on essential chemicals produced in China have complicated supply chains for drug companies, which should scenario plan for extended trade tensions with this key nation.<sup>48</sup>

**The long march toward value-based care likely will continue no matter who wins.** Both parties favor the federal government's shift toward paying for quality and not quantity of services.<sup>49</sup> Publicly rating healthcare organizations also has bipartisan support. Health organizations should continue to invest in information infrastructure and staff that are able to collect and analyze data necessary for maximizing value-based payments.

In 2018, Danville, Pennsylvania-based Geisinger Health launched the Geisinger at Home program, which addresses nutrition needs and provides urgent and specialty care and other services.<sup>50</sup> At the Cleveland Clinic's 2019 Medical Innovation Summit, Dr. Jaewon Ryu, president and CEO of Geisinger Health, said the Geisinger at Home program, which is offered to the sickest 5 percent of the provider's patients, "led to a 43 percent drop in emergency room visits" in that group.<sup>51</sup>

The march toward value-based care also requires developing skills around addressing the social determinants of health, factors that have been getting more attention from CMS in recent years. "Medicare has been paying for diabetes for a long time, paying for things like somebody needing an amputation because a limb needs to be amputated, paying for the prosthetic. Just seven years ago they began to pay for diabetes prevention programs," former HHS Secretary Kathleen Sebelius told healthcare executives at PwC's 180 Health Forum. "Finally, CMS is getting the point that maybe investing before someone becomes diabetic makes a little more sense than waiting until you have to deal with some of the horrific outcomes."<sup>52</sup>

CMS has started reimbursing for services that could be categorized as social determinants of health, and has indicated interest in doing more.<sup>53</sup> Tax policy also is supporting these activities. The Tax Cuts and Jobs Act of 2017 created a tax program that could inject millions of dollars into projects aimed at addressing the social determinants of health.<sup>54</sup>

The opportunity zone program offers investors tax benefits in exchange for investments in low-income census tracts deemed "qualified opportunity zones" by the federal government. The investments present natural opportunities for health organizations to team up with investors, such as private equity firms or family offices, to address health issues in a struggling community.<sup>55</sup>

### **Identify other areas of change.**

Increasingly, companies outside healthcare are taking action, banding together to develop better, more efficient or more cost-effective care models.<sup>56</sup> "Our members are focused on the levers with which they can do something about addressing pricing, overall cost and quality," Elizabeth Mitchell, president and CEO of the Pacific Business Group on Health, told HRI.<sup>57</sup>

Healthcare companies should consider how strategic actions of non-healthcare firms may begin to remake the healthcare environment through competition rather than legislation. By strategically aligning investments to these trends, businesses can better weather any policy or regulatory changes that may come. They should also consider how economic trends may significantly affect healthcare trends.

The overall economy is another factor. Twenty-seven percent of healthcare executives polled by HRI said they were "very" concerned about a potential economic downturn or recession affecting their business in 2020, including 40 percent of life sciences executives. Just 22 percent of health services provider executives expressed the same concern.<sup>58</sup>



## Consumers inch closer to DIY healthcare



In 2020, DIY healthcare takes on new meaning as American consumers will begin to finally reap benefits from the enormous investments in data collection, storage and analysis that have been made by the US health industry. Beyond offering them tools to monitor their vitals, at-home devices to test for strep throat or flu or personal health records that consumers themselves must populate, companies are building business models around giving consumers access to their own data, with insights attached. New entrants are pulling together electronic health records, claims data, steps, lab work, sleep patterns and more to give consumers a holistic view of their health and where it is heading.

Companies now are using data to help consumers make better financial decisions around care. They are giving them more access to clinical trials, thanks to genomic information collected by consumer-facing genetics companies. At long last, American consumers are gaining some control over their health data and using them to make better decisions about their health and finances.

This is a key step in the consumerization of the US health industry, and one that has been mostly fueled by tech companies, startups and new entrants. Traditional healthcare organizations have made strides in using personal health information to improve the consumer experience and have given millions access to electronic health records through patient portals.<sup>59</sup> But they have so far been reluctant to give patients total control.

In 2020, traditional health organizations may find themselves pressured by consumers and these new players seeking more information, and they also may find opportunities in granting more access. Take Ciitizen Inc., which uses federal HIPAA requirements to request and extract EHR data to allow consumers to pool medical information from multiple providers and seek second opinions. The Palo Alto, California-based company also mines the data for potential insights and earns a fee by putting consumers in touch with companies interested in purchasing access to that data.<sup>60</sup>



Other companies also are financially rewarding customers for their data. For example, DNA sequencing firms NantOmics of Culver City, California, and Nebula Genomics of San Francisco allow consumers to opt into having their DNA test results used in research studies, for which consumers receive compensation. These companies' success will depend on whether consumers are willing to hand over their data and whether other health organizations will pay for the information.

Apple Inc. is betting that consumers will want all of their health data in one place and that that will increase the value—and sales—of its products.<sup>61</sup> According to Apple, the Cupertino, California-based company has agreements with 200-plus providers, from solo podiatrist practices to large, internationally recognized academic

medical centers, allowing patients to download their EHR data to Apple phones and other devices.<sup>62</sup>

Mountain View, California, consumer genetics company 23andMe in 2019 announced a partnership with TrialSpark, a clinical trials technology firm, to allow the use of its genomics data to support clinical trial recruitment by life sciences companies.<sup>63</sup>

“23andMe has a large database of highly engaged customers and patients that have consented to being contacted for research,”<sup>64</sup> said Dr. Praveena Kandula, head of strategic operations and strategic partnerships at New York City-based TrialSpark, in an interview with HRI. “But now what’s possible with this collaboration is that we can help put trial sites in the neighborhoods where patients are. Historically, patients would be referred to a trial site. I hope that this collaborative model is going to be able to make clinical trials more accessible and faster, and help get medical treatments to patients more quickly.”<sup>65</sup>

Despite exuberance over the potential of data to disrupt healthcare, companies must also be mindful of the hurdles to the use of their data. Across all industries surveyed by PwC, key obstacles to monetizing data include poor data reliability (34 percent), data protection and privacy regulations (33 percent), an inability to adequately protect and secure data (32 percent), and a lack of analytical talent (30 percent).<sup>66</sup> Healthcare executives told HRI that they are mostly focused on using their organization's data in more effective ways.

Across all industries surveyed by PwC, key obstacles to monetizing data include poor data reliability (34 percent), data protection and privacy regulations (33 percent), an inability to adequately protect and secure data (32 percent), and a lack of analytical talent (30 percent).

PwC, “Data Trust Pulse Survey,” February 2019, <https://www.pwc.com/us/en/services/consulting/cybersecurity/data-optimization/pulse-survey.html>.



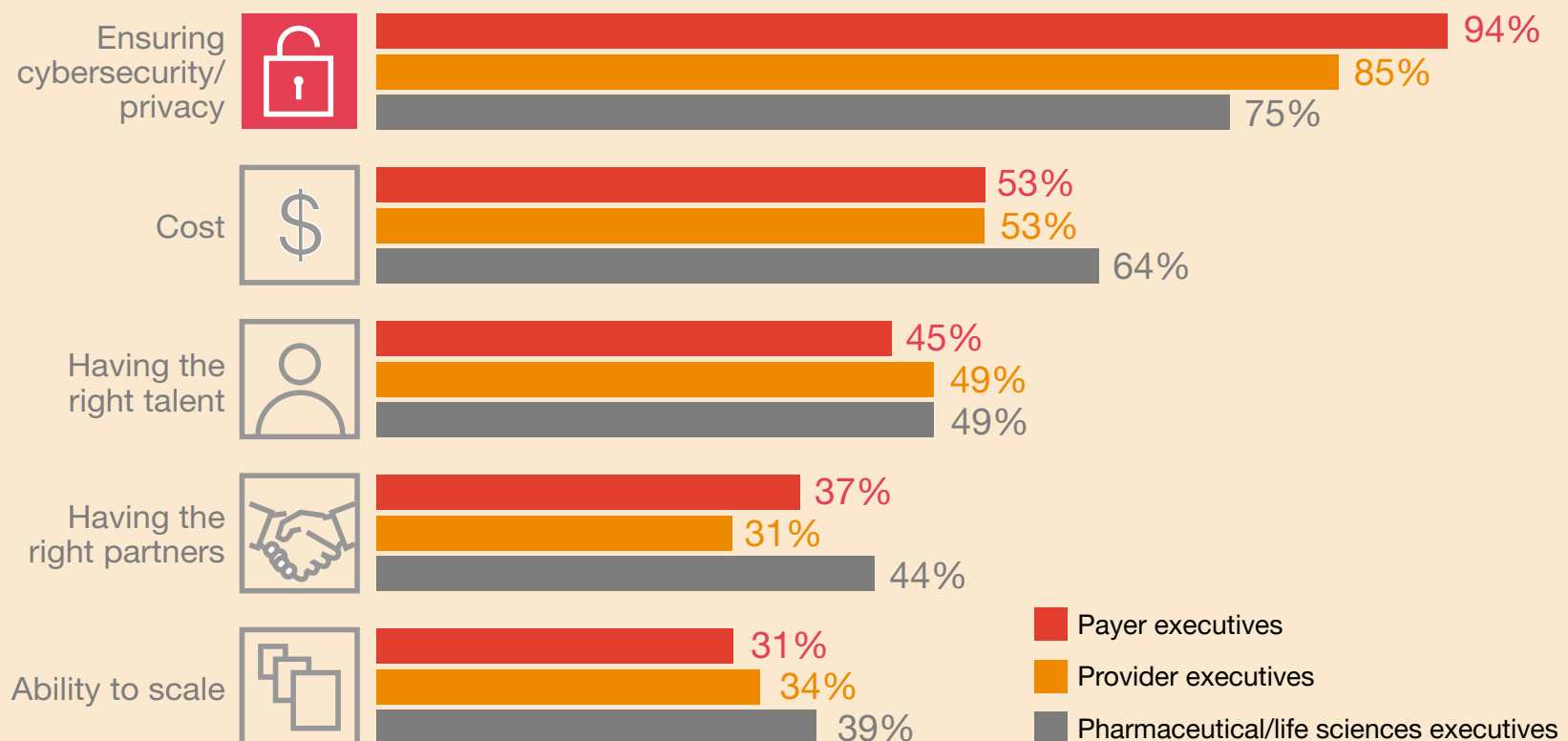
## Implications

**Third parties are of particular concern regarding data security and privacy.** When it comes to making use of their data, few companies are able to go it alone. They may have limited internal capabilities, lack data

science talent on staff, require contract services to store or send data, or rely almost entirely on contractors to conduct research on their behalf (see Figure 5).

Figure 5: Cybersecurity and privacy is seen as the largest barrier to digital strategies across all sectors

### Which of the following are barriers to your organization's digital strategies?



Source: PwC Health Research Institute executive survey, September 2019

These relationships help drive efficiencies, but they also leave data open to breaches.<sup>67</sup> In the same way that banks require their vendors to meet specific security compliance measures, so, too, should companies require—and audit—adherence to security standards. Contracts should also require vendors to alert a company to any data breaches promptly, and companies should have retainer agreements in place with cybersecurity firms to respond if an event is found to have taken place.

**Know that privacy and security regulations vary for business partners.**

Some nontraditional health companies and new entrants—such as companies offering patient portals or direct to consumer applications—are not bound by the same privacy and security regulations standards that are outlined in the Health Insurance Portability and Accountability Act.<sup>68</sup> This can lead to the use of individuals' data, such as for marketing purposes or sale, without their consent.

To gain consumer trust, health companies also must evaluate the effectiveness of their data de-identification processes to reduce or eliminate the risk of the data being re-identified.<sup>69</sup>

**Watch out for risks related to data representation.** When asked during PwC's 180 Health Forum about the extent to which emerging technologies such as genetic testing have penetrated healthcare, Ellen Jorgensen, co-founder

and chief science officer at Brooklyn, New York-based Carverr, cautioned that they have only for certain populations. "There's already a certain built-in inequity going on; part related to money, part to trust," Jorgensen said. "A lot of these great technologies are coming, but they aren't coming in the right way for some people."<sup>70</sup>

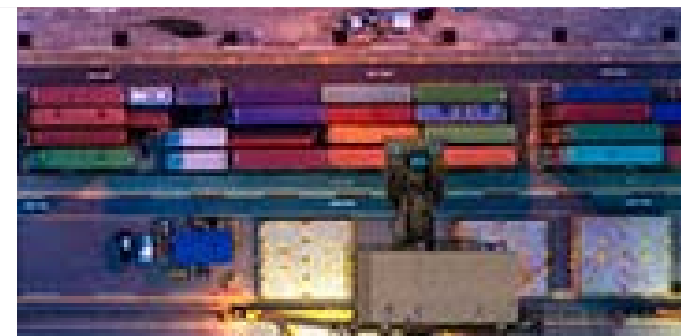
The risks of poor data representation can be magnified as sets are fed into AI projects. As the data economy grows, inequities of the present could extend into the future if engineers and companies fail to find datasets that are as diverse as the population that will eventually use the tools. "If you want your algorithm to work well on a general population, for example, you'll want an equally diverse mix of people in your research," according to an article in Wired exploring payments to consumers for their health data. "[The] value for someone from a group often left out of clinical studies—say, women of color—might be relatively high in some cases. White men, who are often overrepresented in datasets, could be valued less."<sup>71</sup>

“

A lot of these great technologies are coming, but they aren't coming in the right way for some people."

Ellen Jorgensen, co-founder and chief science officer, Carverr





## US health organizations are seeking opportunities overseas and through innovation—beware of the tax risks

US-based healthcare organizations increasingly are hunting for new ways to grow their healthcare mission overseas and through investments in novel technologies and business models. Their objectives can range from extending healthcare services to new communities to unearthing rich new sources of funds.

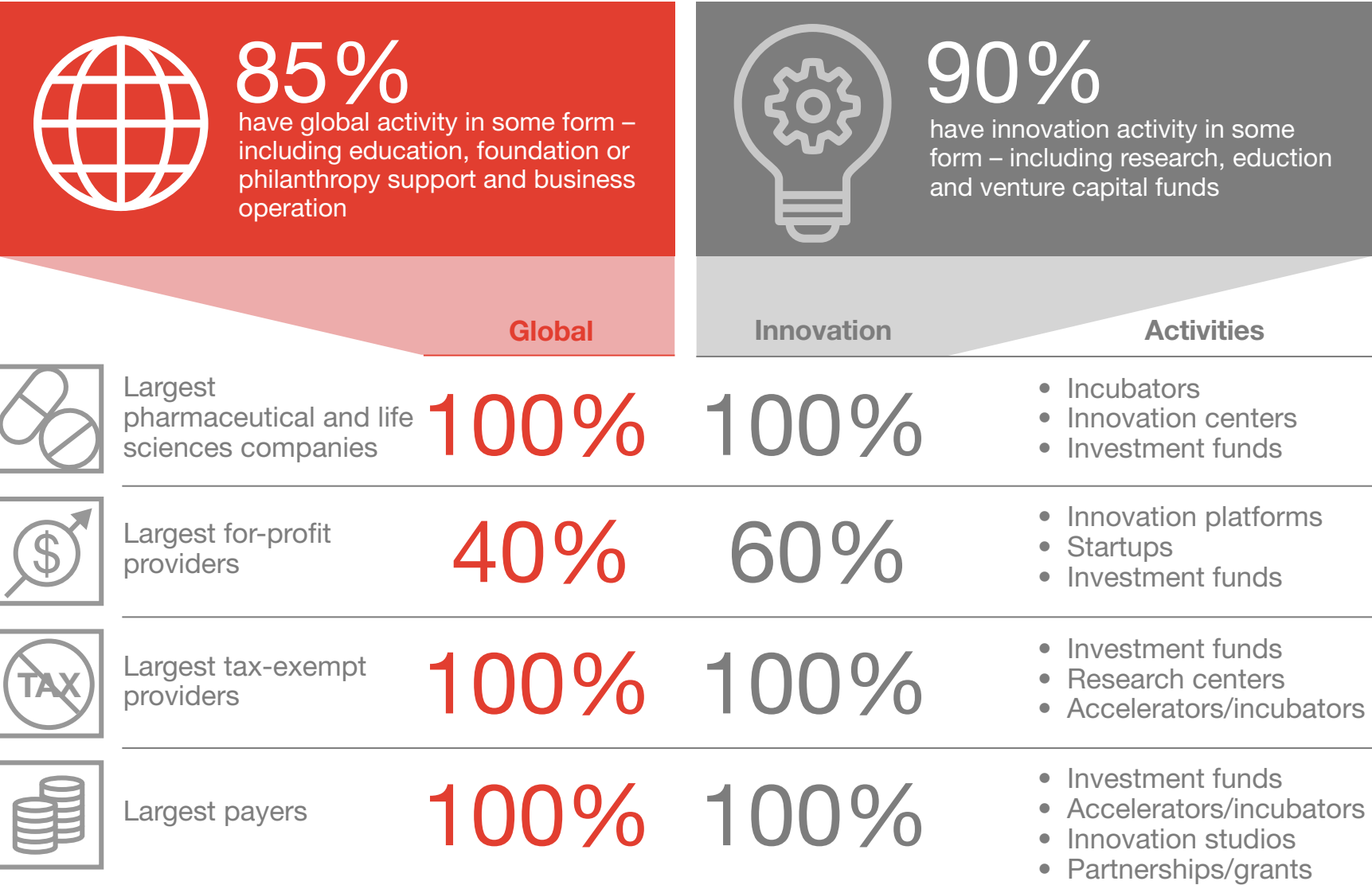
But global interests bring risks around tax, as do activities related to innovation. In 2020, as US health organizations continue to expand overseas, and into innovative ways of managing people's health, they should reconsider tax processes and obligations to avoid stumbling into perilous situations.

Eighty-five percent of the top US-based for-profit provider companies, tax-exempt provider organizations, payers, and life sciences companies are operating overseas, according to an HRI analysis of the holdings and activities of the five largest US-based companies and organizations in each

health sector by 2018 revenue.<sup>72</sup> These organizations are operating hospitals and behavioral health facilities outside the US. They're running retail pharmacies in South America and selling health plans to people in dozens of countries.<sup>73</sup> And, as life sciences companies have for decades, they are manufacturing and marketing medicines and medical devices used by millions of people around the globe.

Ninety percent of this group of large health organizations also are seeking income in innovation, HRI's analysis found.<sup>74</sup> They're funding venture capital funds, operating accelerators, incubators and innovation labs, and striking partnerships aimed at nurturing innovation. Their investments include research and development of new treatments and cures, digital therapeutics directed at chronic disease management, and technology that can monitor surgical blood loss in real time (see Figure 6).

Figure 6: Top companies from all health sectors are investing overseas and in innovation



Source: PwC Health Research Institute analysis of 2018 SEC filings and public statements of the five largest organizations by revenue in each sector

All of this activity is occurring in an atmosphere of increased tax scrutiny by local and national governments. The Group of 20 and the Organisation for Economic Co-operation and Development (OECD), aiming to help member nations tax profits where business activity takes place, published

guidance—known as “BEPS 1.0”—around base erosion and profit shifting.<sup>75</sup> BEPS guidance is being adopted unevenly across nations, but it addresses issues including treaty abuse, transfer pricing and mobile workforces.<sup>76</sup>

Bigger changes to international taxation could be on the way as well. In October 2019, the Secretariat of the OECD published a bold proposal for taxing the digital economy.<sup>77</sup> The so-called Pillar 1 Unified Approach proposes allocating taxing rights to nations where digital consumers are located rather than focusing on the location of the business.<sup>78</sup>

In November 2019, the Secretariat of the OECD requested comments on its “Global Anti-Base Erosion” proposal, or “GLoBE,” proposing common global minimum tax rules for nations partaking in the OECD framework.<sup>79</sup> The proposal lays out tax rules that would affect large international businesses with the possibility of increasing tax and compliance obligations for enterprises across industries.<sup>80</sup>

The US health industry’s activity overseas is, meanwhile, growing along with its appetite for innovation. Take Centene Corp., which was started in the basement of a Milwaukee hospital 35 years ago and now operates in 32 states and four international markets.<sup>81</sup> That includes Spain, where Centene owns stakes in the concessionaire of the University Hospital of Torrejón de Ardoz in Madrid and the company that manages the hospital, Ribera Salud Group.<sup>82</sup> Centene also is funding innovation—up to \$100 million in research in precision medicine at Washington University School of Medicine in St. Louis, where the company is now based.<sup>83</sup>

Or take Seattle-based Providence Health & Services, one of the country’s largest tax-exempt providers. The organization, which operates 51 hospitals and more than 800 clinics in seven states and has partnerships in Guatemala and Mexico, was established by the Sisters of Providence in the 1850s in Vancouver.<sup>84</sup>

Founded in 2014, the nonprofit’s Providence Ventures manages \$300 million in venture capital, with \$5 million to \$15 million investments in enterprises such as San Francisco digital therapeutics company Omada Health; Kyruus, a provider search and scheduling company based in Boston; and Sqord, a Seattle-based children’s platform for wearables.<sup>85</sup>

Some of these healthcare companies and organizations are exporting innovation, whether it be information technology, B2B solutions or digital therapeutics.

**85%** of the top US-based for-profit provider companies, tax-exempt provider organizations, payers, and life sciences companies are operating overseas.

**PwC Health Research Institute analysis of the holdings and activities of the five largest US-based companies and organizations in each health sector by 2018 revenue, September 2019.**



“It’s not just bricks-and-mortar presence. It’s also products and services like data infrastructure,” Christopher Khoury of the American Medical Association told HRI. “There’s a leapfrog opportunity where innovation is exported and new global entities have a chance to incorporate without the baggage of legacy systems.”<sup>86</sup>

Such investments in global businesses and innovation can come with significant tax implications. They mean swelling overseas workforces and business travelers crossing borders, raising critical questions about taxation for employees and their employers. Nations seeking to maximize tax collections may view large numbers of business travelers as evidence that a company has a permanent establishment. Or they may seek to collect additional taxes from those travelers, classifying them as temporary workers instead.

These expansions also mean considerations around transfer pricing, as health products, services and intellectual property are delivered to people and enterprises in other countries. They mean tax strategies around mergers and acquisitions, particularly for tax-exempt organizations involved in innovation that wish to avoid challenges to their tax status or reputations.

These issues mean extra planning by tax departments, human resources and C-suite executives. They could mean investments in expertise and technology to monitor and document the flow of workers traveling abroad, heightened awareness of changes around transfer pricing, and planning for deals that don’t result in adverse tax scenarios.

A significant emerging international tax development is revision of the rules on cross-border taxation, prompted by increasing digitalization and globalization of business.



## Implications

### **Global interests mean mobile workforces and more complicated tax obligations.**

On the corporate level, mobile workforces can affect tax obligations and cross-border employment structures, withholding and payroll compliance, deductions for stock-based compensation and whether a company will have a permanent establishment.<sup>87</sup>

Even employees who frequently travel overseas may have to pay individual income and employment taxes in the host countries, and the corporation also may be subject to income and value-added taxes. A host country also may seek to classify the company as a permanent establishment, subject to a range of new taxes, because of the mobile workforce.

The key to effectively managing these scenarios is to plan ahead, monitor business travel and mobile workers, ensure that documentation is complete, and do regular risk assessments. Treaties offering relief from personal income taxes for workers on short business trips may be complex, and require complicated and costly documentation for compliance.

**Prepare for increased scrutiny of the digital economy.** A significant emerging international tax development is revision of the rules on cross-border taxation, prompted

by increasing digitalization and globalization of business. In February 2019, the OECD Inclusive Framework, a group of more than 130 countries assembled to consider global tax changes, released a consultation document addressing the tax challenges of the digitalization of the economy. The consultation document details potential options for changing international tax rules under two main “pillars”: profit reallocation and nexus issues; and global anti-base-erosion rules.

In October, the OECD published a Pillar 1 proposal to rewrite international profit allocation rules in ways that, if ultimately implemented, would fundamentally alter the current international tax system. In November 2019, the OECD released a Pillar 2 proposal for a global minimum tax as well.

US-based healthcare organizations with operations abroad may find themselves in the middle of shifting regulations and laws around taxation as nations grapple with the question. Unilateral measures, which some countries have adopted or are considering, would subject many companies to double taxation, with a chilling effect on global investment and economic growth. The goal of the OECD project is to prevent, or ultimately roll back, such unilateral actions.



## A whole new you: Deals as makeovers



In 2020, organizations will make strategic deals not to just grow larger but instead to expand into new identities with platforms anchored in value, innovation, customer experience and population health. As they weigh their options, health companies will need to ensure that the deals they pursue pass the sniff test of employers and consumers seeking more affordable care.

The megadeals of the past few years have created some “quiet giants,” whose breadth and depth of healthcare products and services continue to expand. Now traditional players face a more converged landscape peppered with new entrants that have made healthcare their business.

These seismic changes in the US health industry are forcing healthcare organizations to rethink their strategic identities as they struggle to compete and survive in business models that are becoming obsolete. Old business models favored control of geography, bricks and mortar, and narrow industry silos.

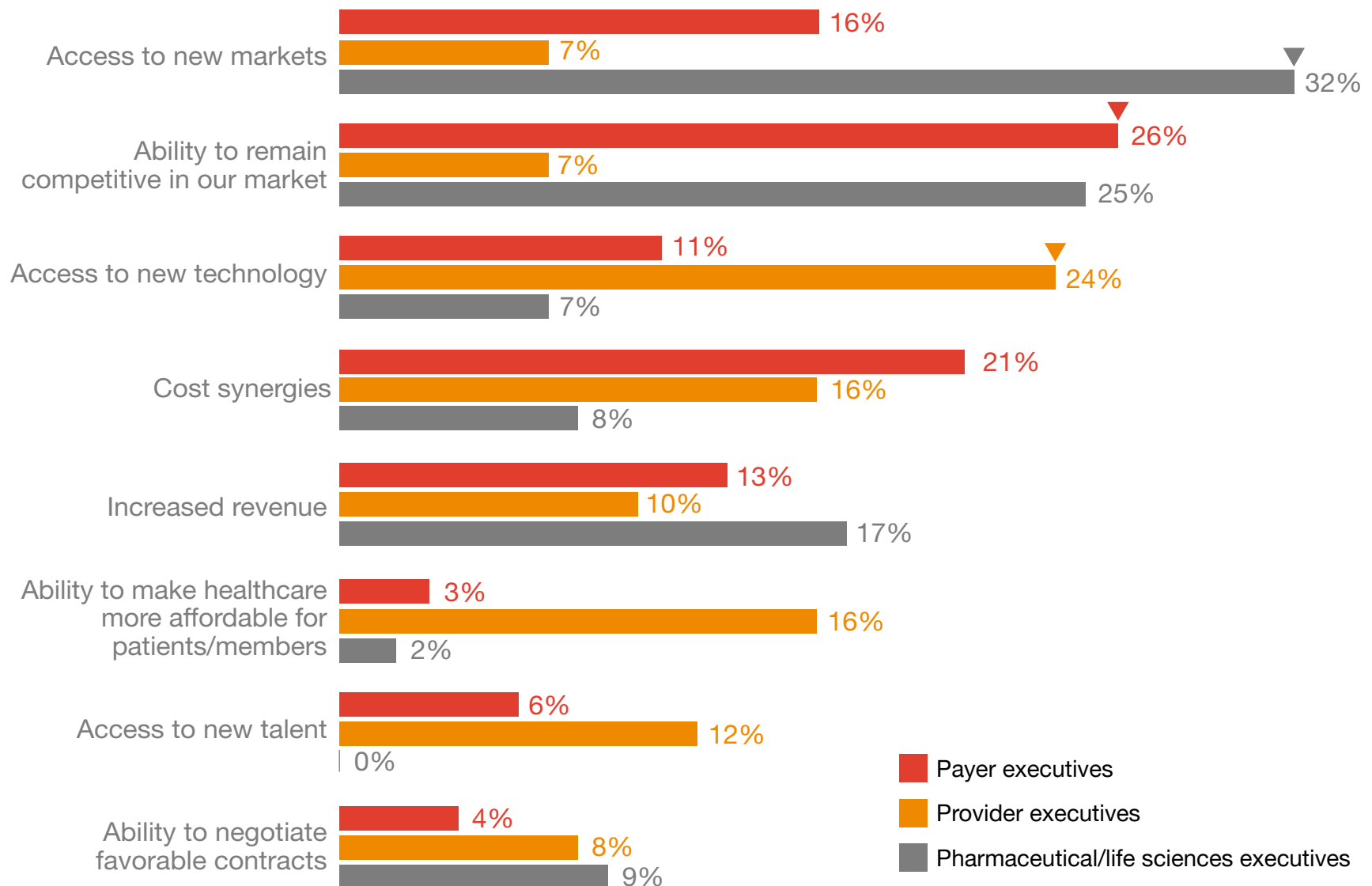
Forty percent of healthcare executives surveyed by HRI said their companies are somewhat or very likely to acquire, partner or collaborate across healthcare sectors in 2020.<sup>88</sup> Health executives most frequently cited access to technology as a reason their companies would pursue a deal. They differed, however, on their top deal priority: While providers valued access to new technology, most health plans valued the ability to remain competitive in the market, and pharmaceutical life sciences executives valued gaining access to new markets (see Figure 7).

The megadeals of the past few years have created some “quiet giants,” whose breadth and depth of healthcare products and services continue to expand.



Figure 7: Deal priorities differ among healthcare executives: Health plan and pharma executives are most concerned with remaining competitive and accessing new markets; providers want access to new technology

## Which outcome represents the highest priority for a deal?



Source: PwC Health Research Institute executive survey, September 2019

These priorities may shift as deal decisions become more influenced by the strategic identity or identities companies choose over the next several years (see Figure 8). Depending on the identities

chosen, companies will consider deals to expand their footprint, innovate into new revenue streams, protect market share or collaborate with others.

Figure 8: Healthcare organizations are considering new strategic identities that require deals to match



Sources: Provider systems of the future: What happens when the hospital is no longer the center of the health universe?, PwC Health Research Institute, 2018; The health insurer of the future: Consumers' advocate, providers' partner, PwC Health Research Institute, 2017; Beyond 2020: Building Strategic Coherence in the New Health Economy, PwC.

Companies identifying as Product and Innovation Leaders will produce the most advanced care and scientific discoveries by acquiring the best and brightest doctors, scientists and researchers to preserve the brand. For providers, this could mean aspiring to gain international prominence like the Cleveland Clinic, which announced that it will open facilities in London starting in 2020, expanding a global presence that already includes locations or partnerships in Canada, China and the United Arab Emirates.<sup>89</sup>

Cutting-edge technologies are another way to lead and innovate into new revenue streams. “At Intermountain, we’re spending a significant amount of time testing new artificial intelligence tools,” said Marc Probst, chief information officer of Salt Lake City-based Intermountain Healthcare, during a panel at the Cleveland Clinic’s 2019 Medical Innovation Summit. “It takes us months or years to create best practice care protocols for our physicians, but we recently partnered with an AI firm that was able to create better care protocols almost immediately.”<sup>90</sup>

Some health plans may pursue deals that position them as Product and Innovation Leaders in financing and expanding access to high-cost care. Just 10 months after Cigna and St. Louis-based pharmacy benefits manager Express Scripts sealed a \$67 billion merger, the combined company announced a program that would cover the costs of gene therapies.<sup>91</sup>

Population Health and Outcomes Leaders will chase deals that help them improve communication channels between providers and patients, collaborate with patient and disease advocacy groups, and offer new services aimed at improving community health and access to care.

Pharmaceutical and life sciences companies choosing this identity may look to acquire smaller organizations focused on key patient segments as they focus product portfolios and develop patient engagement services to ensure optimal outcomes. In 2019, Boston-based Vertex announced a \$950 million deal to purchase a biotech company with a burgeoning stem-cell therapy for type 1 diabetes.<sup>92</sup>

In July 2019, San Francisco-based Medicare Advantage insurer Clover Health announced the launch of Clover Therapeutics, a research arm dedicated to developing medicines for older adults. In a partnership with South San Francisco-based biopharmaceutical firm Genentech, Clover Therapeutics is investigating genomic factors that can lead to ocular diseases.<sup>93</sup>

**40%** of healthcare executives surveyed by HRI said their companies are somewhat or very likely to acquire, partner or collaborate across healthcare sectors in 2020.



Dallas-based Signify Health, an in-home care provider offering technology solutions and complex care management services through a network of 4,000 doctors and nurse practitioners, announced in March 2019 that it had acquired San Antonio, Texas, startup TAVHealth, a technology platform and network for connecting with community-based organizations. The acquisition is intended to help Signify Health address social determinants of health, such as food insecurity and transportation issues, for its patients.<sup>94</sup>

Experience and Consumer Advocacy Leaders will compete for the lifetime value of the patient, be recognized chiefly for the unparalleled patient experience they deliver, and retain customers through excellent access, convenience and service.

Paladina Healthcare, a direct primary care services company based in Denver, acquired Activate Healthcare, an Indianapolis company that partners with employers to set up and manage primary care clinics on the job site or nearby.<sup>95</sup> The combined organization will serve over 170,000 employees across nearly 100 clinics in 18 states, intending to provide more convenient and affordable healthcare.

For its Study Connect online platform, New York City-based Bristol-Myers Squibb has partnered with Inspire, an online umbrella

group based in Arlington, Virginia, that manages patient communities for over 100 nonprofit organizations.<sup>96</sup> The partnership helps BMS work toward the goal of designing clinical trials closely aligned with patient needs and expectations.

Value Leaders will rely on deals that help them to achieve the greatest scale and scope and to integrate vertically to cut out middlemen, align incentives, improve care coordination and translate efficiencies into savings for patients. Perhaps most publicized are Minnesota-based UnitedHealth Group subsidiary Optum's completed acquisition of Denver provider DaVita Medical Group in June 2019, and CVS Health's acquisition of Hartford, Connecticut-based Aetna in 2018.<sup>97,98</sup>

Yet other Value Leaders are emerging. In July 2019, Canonsburg, Pennsylvania-based Mylan announced plans to merge with New York City-based Pfizer's Upjohn division, which focuses on off-patent branded and generic drugs, to expand the geographic reach of Mylan's product portfolio and leverage Upjohn's infrastructure and local market knowledge.<sup>99</sup>

Think big, above all: That's what Dr. Peter Diamandis, executive chairman of the XPRIZE Foundation, told an audience of healthcare executives at PwC's 180 Health Forum. "There is more capital today than any time ever in human history, and it's easier than ever to start a company," Diamandis said. "Now, these companies are not smarter than any of us; they're just willing to take a lot more risk. Risk is their friend because risk is your foe. Risk and being a public company just shackles you from experimentation."<sup>100</sup>



There is more capital today than any time ever in human history."

**Dr. Peter Diamandis, executive chairman of the XPRIZE Foundation**



## Implications

**A hybrid play may be the way.** Some companies may find they will need to become hybrids of two strategic identities to fulfill their missions and remain competitive. “The Product Leader in the future will be a much harder sell,” said Dr. King Li, dean of the Carle Illinois College of Medicine and chief academic officer of the Carle Health System, in an interview with HRI. “It’s hard to say you are a Product Leader when people make decisions based on the same AI support. In this case, patient experience will become much more important in achieving a positive outcome.”<sup>101</sup>

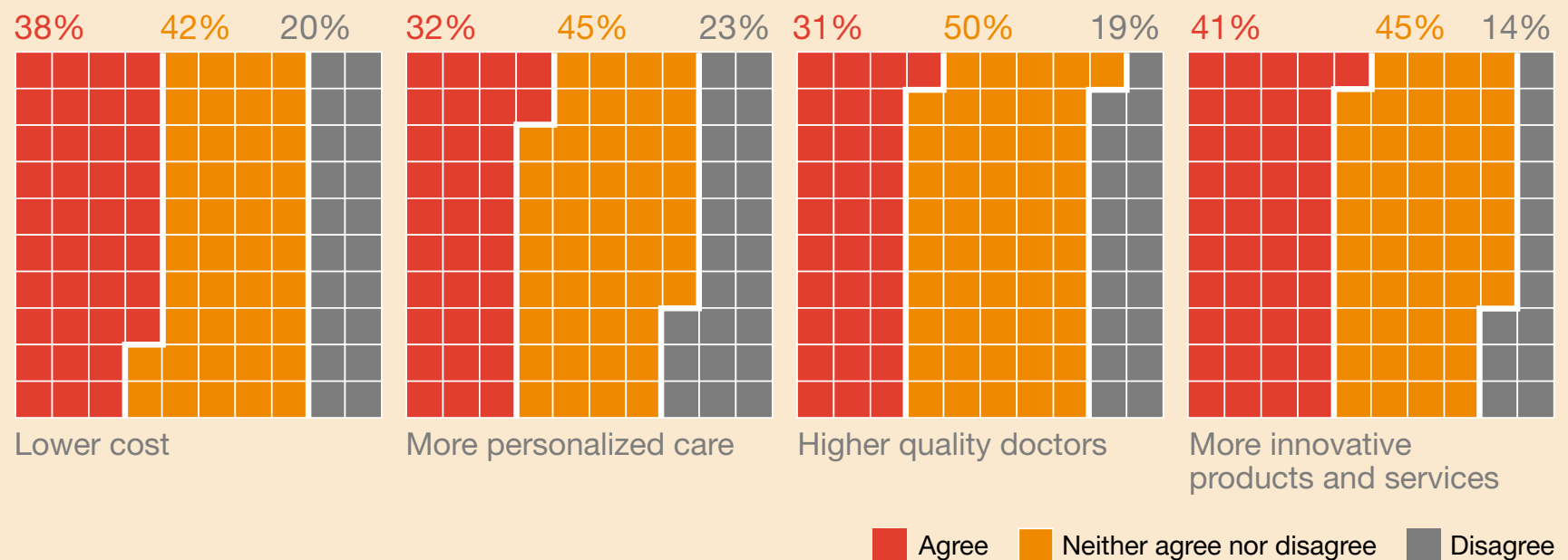
For example, one academic medical center (AMC) may choose to be a Product Leader but decide that a community hospital in its system should be an Experience Leader that creates lifelong relationships with patients and directs them to the AMC when they need higher-acuity care. New digital technology that leverages advanced analytics and automation can help companies more quickly identify acquisition targets that match with strategic, operational and financial goals.

**Beware consumer and employer perceptions and expectations.** Consumers are not convinced that healthcare deals benefit them (see Figure 9). Health companies should pursue deal strategies with the patient in mind, communicate with patients starting when a deal is underway, and make sure they can deliver an experience in line with customer expectations on day one post-close. Segmenting consumers to understand priority populations and their unmet needs, such as the social determinants affecting their health, may help determine which acquisition targets will bring the most value to them.

Employers have considered megadeals—of hospitals, in particular—to be inflators of medical cost trend, at least in the short term.<sup>102</sup> As they become more active in making healthcare more affordable, employers also will be looking for more value out of healthcare deals. Some are even pursuing their own, such as Haven Healthcare.<sup>103</sup>

Figure 9: Consumers are not convinced that healthcare deals benefit them

## How strongly do you agree or disagree that healthcare mergers result in you having access to the following?



Source: PwC Health Research Institute consumer survey, September 2019

**Consider private equity as a potential deals partner.** As private equity firms broaden their footprint in healthcare, they are eyeing customer experience and innovation. In 2018, Washington, DC-based The Carlyle Group invested \$350 million in One Medical, a consumer-focused, tech-enabled primary care practice based in San Francisco.<sup>104</sup> Executives at The Carlyle Group noted One Medical’s integrated technology and smooth, convenient access for patients as a remedy for an increasingly frustrating primary care environment.<sup>105</sup>

In July 2019, Swedish private equity firm EQT acquired a majority interest in Aldevron, a Fargo, North Dakota-based supplier of plasmid DNA to gene therapy developers.<sup>106</sup> “There continues to be a lot of excitement and deal-making in the gene and cell therapy space, but there will be winners and losers,” said Les Funtleyder, healthcare portfolio manager at E Squared Capital LLC, a New York City public and private investment fund, in an interview with HRI. “Most of the companies working in this area haven’t yet proven that they can navigate logistical and supply chain processes to successfully break into the market.”<sup>107</sup>





## Equity and inclusion, not just diversity, as a business imperative



In 2020, health companies will align diversity, equity and inclusion initiatives with business goals and identify blind spots that are compromising their abilities to achieve the mission of providing equitable access to lifesaving care. They will begin to apply an inclusive and equitable lens to their research, products and services, as they plan boards of directors, leadership teams and workforces that look like, think like and understand the diverse patients they serve.

The health industry largely has been ahead of the curve on workforce diversity because of historical conditions that attracted more women to healthcare roles. In fact, 23 health companies made Forbes' list of top 100 American firms for diversity in 2019.<sup>108</sup> Yet most diversity, equity and inclusion efforts have focused more on diverse representation than on equity and inclusion.

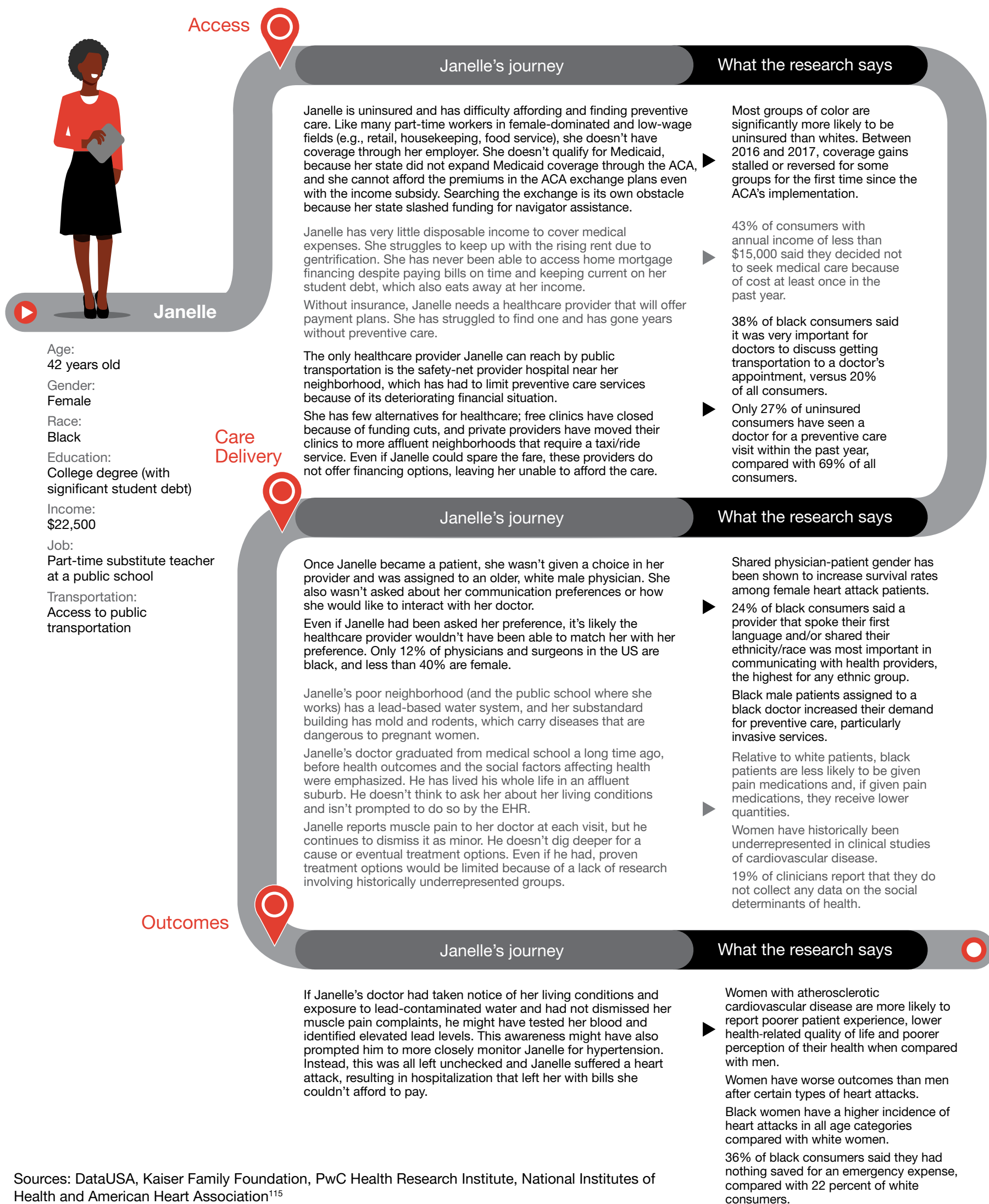
Research shows that the health of entire populations depends on the success of those efforts. Women have been

underrepresented in clinical trials of cardiovascular disease.<sup>109</sup> Men are less likely than women to seek mental health services.<sup>110</sup> Breast cancer mortality is about 40 percent higher among black women than white women.<sup>111</sup> Women, particularly black women, are taken less seriously by doctors when they say they are experiencing pain.<sup>112</sup>

The story of Janelle in Figure 10 illustrates the extent to which race, gender, age and background can affect a person's health. Contrast Janelle's experience as a low-income black woman with that of tennis pro Serena Williams after suffering severe complications in the days after the birth of her daughter, Olympia, in 2017.<sup>113</sup> Williams' story ignited a public conversation about how racial health disparities exist no matter how much money you have in the bank; black women in the US are still over three times more likely to die from pregnancy- or childbirth-related causes than white women.<sup>114</sup>

Figure 10: Janelle's health journey

## An all too familiar story for Americans facing health disparities related to race, gender, age and background



Only 8 percent of healthcare organizations responding to a 2019 global PwC survey said the primary objective of their diversity, equity and inclusion initiatives is to respond to customer expectations and needs.<sup>116</sup> But that's exactly what healthcare companies need to do as they compete harder to gain patient loyalty and trust—either directly or through employers and other partners seeking more value—on the road to improving population health. Organizations that figure out how to fulfill their mission in a more inclusive and equitable way are more likely to win growth opportunities in underserved populations and communities.<sup>117</sup>

A 2019 HRI consumer survey found that 68 percent of consumers employed in the health industry at least somewhat agree that the mix of people at their company is diverse enough to reflect the cultural, ethnic and generational composition of the patients or customers they serve.<sup>118</sup>

The sentiment was shared across races and genders. They also agree that their employers have more to do. The median ethnically diverse headcount share in 2018 was 10.8 percent for hospitals and health systems, and 12.5 percent for health insurers, making it hard for the industry to uncover and meet the unique needs and preferences of specific populations.<sup>119</sup>

And while women make up 65 percent of the healthcare workforce, only 30 percent are in senior leadership positions.<sup>120</sup> In fact, the first and only female CEO of a major pharmaceutical company is Emma Walmsley, who took the post at London-based GlaxoSmithKline in 2017.<sup>121</sup>

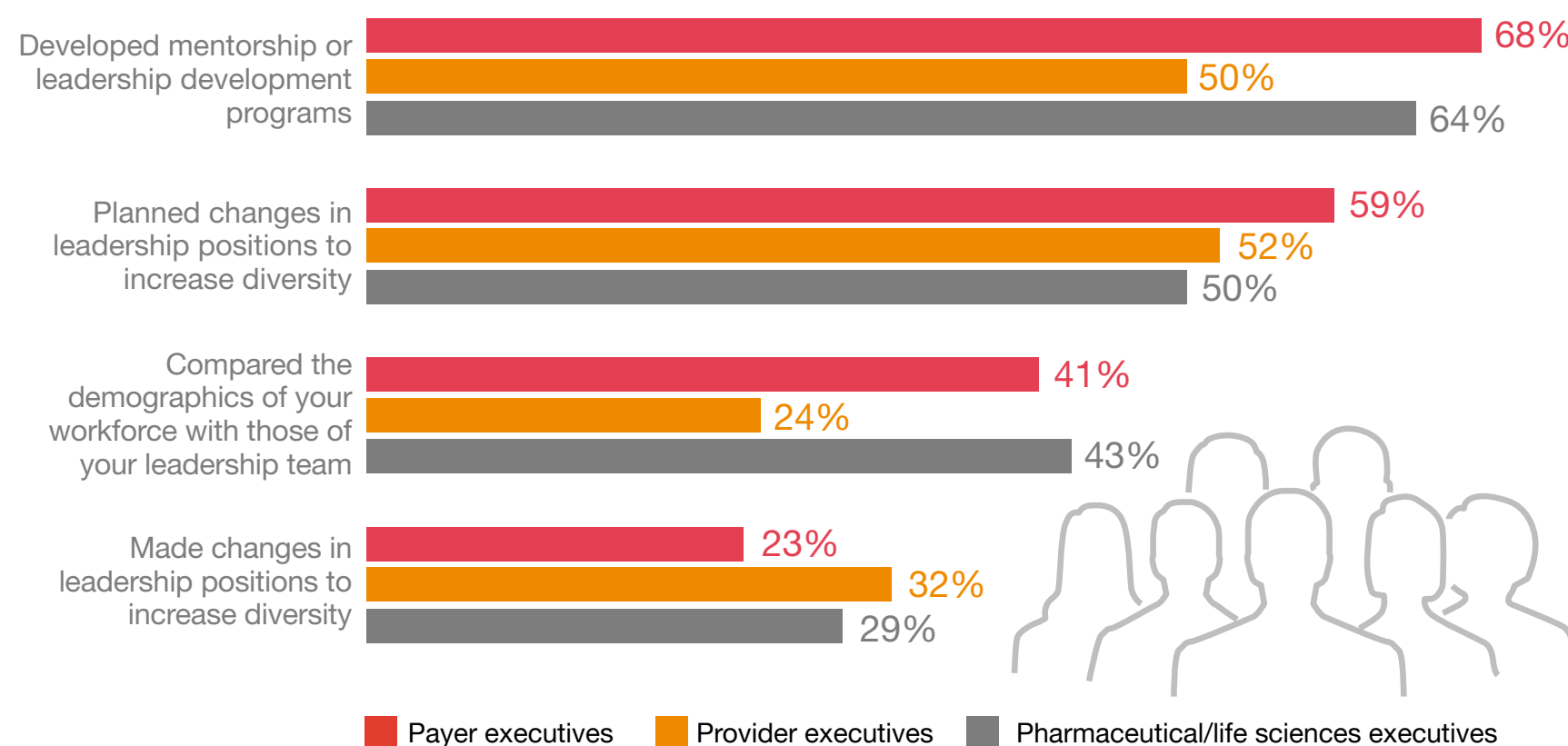
Forty-one percent of health industry executives surveyed by HRI said they would prioritize promoting diversity, equity and inclusion in the workforce in 2020.<sup>122</sup> But promoting leadership diversity ranked last on the list of workforce priorities; only 18 percent of executives expressed it as a priority for next year.<sup>123</sup> The companies these executives lead have developed mentorship or leadership development programs aimed at diversifying leadership; far fewer have looked at the demographics of their workforce in comparison to the leadership team (see Figure 11).

Only **8%** of healthcare organizations said the primary objective of their diversity, equity and inclusion initiatives is to respond to customer expectations and needs.

PwC, "Diversity & Inclusion Benchmarking Survey," Healthcare Data Sheet, 2019, <https://www.pwc.com/gx/en/services/people-organisation/global-diversity-and-inclusion-survey/healthcare-report.pdf>.

Figure 11: Some leading healthcare companies have taken action to promote diversity in leadership

## Has your organization taken the following actions to promote diversity in leadership?



Source: PwC Health Research Institute executive survey, September 2019. Based on the 90 executives that said their companies have made promoting diversity in leadership a workforce strategy in 2020. Top four results are displayed.

Meeting customer needs starts with a diverse leadership team that sets the tone and is held accountable for the organization's diversity initiatives. Less than one-third of healthcare leaders are held accountable for them.<sup>124</sup>

According to a case study published by Modern Healthcare, Robert Wood Johnson University Hospital implemented a three-year plan to develop junior employees into future leaders who would better reflect its multicultural patients, created a mentoring program and established "business resource groups" for workers with similar interests or cultural backgrounds.

The New Brunswick, New Jersey, organization collected data through its annual leadership and talent review to learn what ethnicities and genders were underrepresented across its management and pinpoint opportunities to promote them. It also analyzed its succession planning program, embedded diversity and inclusion in its operating strategy, and tied executive compensation to meeting diversity goals. The strategy increased the percentage of minorities on Robert Wood Johnson University Hospital's leadership team to 32 percent in 2015 from 4 percent in 2012. Minority representation on its board grew to 22 percent in 2015 from 17 percent in 2011.<sup>125</sup>



Gender equality is one of Basel, Switzerland-based drug company Roche Holding AG's corporate goals for sustainable development. In 2018, the company achieved a five-year goal of increasing the number of women in leadership roles by 30 percent through promoting flexibility for balancing work and home life, and fostering equal opportunities for women.<sup>126</sup>

Many organizations have conflated diversity with being inclusive health organizations. Fewer have specific equity and inclusion objectives that could change how they achieve core aspects of their missions. Leading health organizations are moving beyond the quotas and tying diversity, equity and inclusion to business goals.

In 2016, Dr. Derek J. Robinson, vice president and chief medical officer at Blue Cross Blue Shield of Illinois, developed the health equity

steering committee and strategy for HCSC, which operates Blue Cross Blue Shield plans in five states. The committee of leaders from various parts of the company identifies where poor health outcomes related to disparities are affecting the business and develops the business case for addressing disparities.<sup>127</sup>

“Equity is one of those core priorities for healthcare in the US,” Robinson told HRI. “But the equitable piece falls off when there's no integration with the business when addressing things like the social determinants of health and making investments in the community.” The health plan is including requirements for diversity, equity and inclusion in its value-based contracts with providers.<sup>128</sup>

The Cleveland Clinic has embedded inclusivity into care delivery by implementing service line offerings such as its Hispanic and LGBT clinics.<sup>129</sup> Companies such as Science 37 in Los Angeles are working to increase representation of minority groups in clinical trials by removing barriers to participation such as trial location, time constraints and expense by bringing trials to patients in their homes.<sup>130</sup>

Virtual doctor visits are connecting patients in low-income neighborhoods with specialists they otherwise would not have access to, or LGBTQ patients in rural communities with physicians experienced in caring for these patients. “This really is a lifeline to those communities,” said Travis Singleton, executive vice president at Merritt Hawkins, a Dallas-based physician search firm.<sup>131</sup>

“

Equity is one of those core priorities for healthcare in the US. But the equitable piece falls off when there's no integration with the business when addressing things like the social determinants of health and making investments in the community.”

**Dr. Derek J. Robinson, vice president and chief medical officer, Blue Cross Blue Shield of Illinois**



## Implications

**Expand the focus from diversity to inclusion and equity.** Health companies should seek to expand their programs beyond a focus on representation to include specific inclusion and equity objectives that change how their mission is carried out. They should start with an assessment that covers all key aspects of the mission. For example, an academic medical center may look for inclusion and equity gaps that result in an inequitable focus across its research, teaching and care delivery activities.

Developing patient journeys such as Janelle's in Figure 10 will help companies look at the experience through the patient's eyes. From there, they should apply workforce, population, customer relationship management and clinical analytics to establish fact-based priorities and allocate resources for addressing blind spots in diversity, inclusion and health equity. They should create predictive measures of inclusion and equity failures alongside their diversity metrics and measure patient experience with an equity lens.

**Raise awareness to lay the groundwork.**

In 2015, Mayo Clinic conducted a comprehensive organization climate assessment, the results of which caught

leadership's attention and were critical for spurring investment in the organization's efforts to address equity and inclusion among our staff as well as health disparities research, according to Dr. Sharonne Hayes, professor of cardiovascular medicine and director of diversity and inclusion. "There were lots of national data about biases and inequity in the workforce, and at the time, it was really easy for a place like Mayo Clinic to think that we're doing better on diversity and inclusion," Hayes told HRI. "But to get our own data and to find out that there were people sitting in the same work area and having a vastly different experience? Leadership said, 'We've got to do something about this.'"<sup>132</sup>

Many healthcare organizations have programs geared toward raising awareness and empathy for diversity, inclusion and equity considerations. They are deploying educational programs on implicit biases and their impact on decision-making and the patient experience into curricula for healthcare professionals. For example, after developing resources for the admissions committee about implicit biases, The Ohio State University College of Medicine increased enrollment from historically underrepresented groups.<sup>133</sup>

“There’s been an inflexible model of medical education for over 100 years, which has led to some maladapted behaviors,” Dr. John Andrews, vice president of graduate medical education innovations at the American Medical Association, told HRI. Added Dr. Kimberly Lomis, vice president for undergraduate medical education innovations at the American Medical Association, also in an interview with HRI: “For example, people training in medicine are often legacies, so we have a disproportionate share of them. There hasn’t been a concerted effort to go outside of that.”<sup>134</sup>

**Develop explicit behaviors and metrics of inclusion.** Sixty-nine percent of consumers HRI surveyed who work in healthcare said that diversity in the leadership team

and workforce is important to them when considering a new employer.<sup>135</sup>

Hiring should go beyond meeting quotas. “It is more than posting jobs,” said Singleton. “It’s how do you represent your healthcare organization, your culture, and how you will be flexible for that role? One area we see that in is work schedules. If the recruiting organization is very specific about schedule requirements, this disengages female physician candidates and they will seek other organizations for employment.”<sup>136</sup>

Diversity will continue to be an elusive goal if diverse talent is not actively included in an equitable way once it is part of the organization. Lack of inclusion is a driver of minority attrition.







## Fast-forwarding from data to decisions

The industry's investments in data and analytics are finally beginning to pay off, albeit mostly in pockets. As they enter 2020, healthcare organizations will need to apply workforce, population, customer and clinical analytics to address blind spots in diversity, inclusion and health equity. They will need to employ advanced analytics and automation to more quickly identify acquisition or partnership targets.

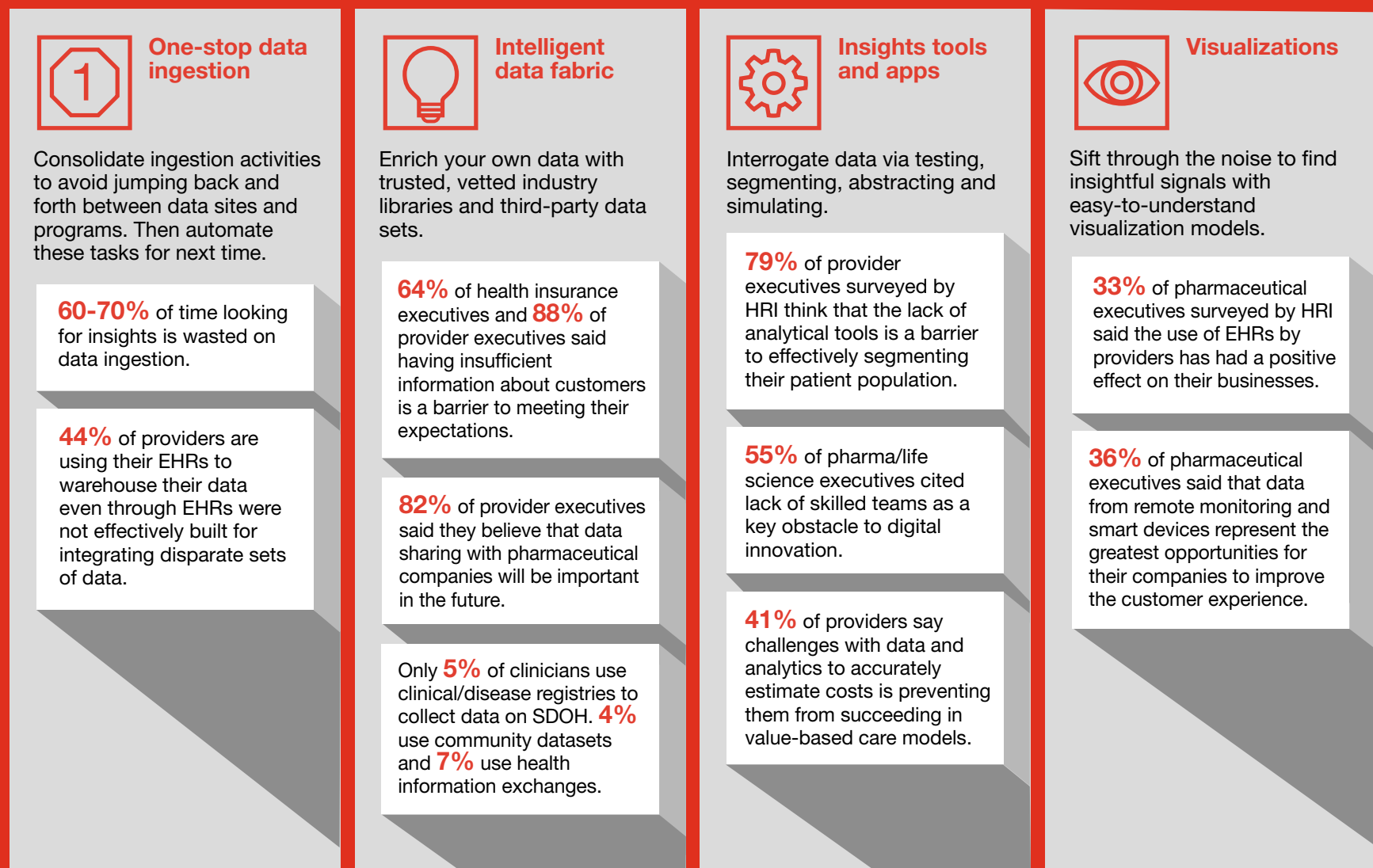
Health organizations seeking to sell digital services abroad will need to assess and monitor shifting regulations and laws around taxation. Data, along with consumer segmentation, can help determine what sorts of financing tools patients might need, or be most likely to use, and create positive experiences long after discharge.

Yet only 34 percent of provider and payer organizations and 43 percent of pharmaceutical and life sciences companies say they effectively use their data.<sup>137</sup> The healthcare companies best poised to succeed in the future New Health Economy are ones that will have data at the center of their organizations generating key insights into how to improve their customer experience, allocate resources, assess and monitor risk, and create new and better products and business models.

In 2020 and beyond, all health companies will need to get to insights faster. They'll need to develop an engine, a platform, that can synthesize data, generate insights and turn those insights into decisions in rapid form. Here is the chassis that engine should run on (see Figure 12).



Figure 12: Here's how health companies can get to insights faster



Source: PwC and PwC Health Research Institute executive surveys

Health companies will need to solve problems holistically, either by themselves or, more likely, with partners. They will need integrated products and services that can drive an intended business outcome and promote continuous improvement. For example, a provider app that connects systems from the

front office with customer data from the marketing department can give the front office visibility into patient preferences and aggravations so that they can redesign processes allowing them to better anticipate and meet patient needs and expectations even before they arrive for an appointment.



## Final thoughts



2020 will be marked by some wild cards. The presidential election, which features once again a debate over healthcare, will be a decision between two starkly different viewpoints on the role of the federal government in the industry. A recession likely would hit consumers' wallets before healthcare organizations' P&Ls, but a downturn still could shape the year's priorities for organizations large and small. The percentage of uninsured Americans is creeping up once again. Many insured Americans say they are having trouble affording healthcare, despite coverage. The industry has the opportunity, with its vast investments in technology and data, to address these issues, creating a more sustainable, efficient and affordable system for all.

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## About this research

This annual report discusses the top issues for healthcare providers, health insurers, pharmaceutical and life sciences companies, new entrants and employers. In 2019, PwC's Health Research Institute commissioned an online survey of 3,563 US adults representing a cross section of the population in terms of insurance status, age, gender, income and geography. HRI also oversampled to obtain data on specific market segments. The survey collected data on consumers' perspectives on the healthcare landscape and preferences related to healthcare usage. HRI also surveyed 300 provider executives, 100 payer executives and 100 pharmaceutical and life sciences executives. The survey collected data on executives' perspectives on opportunities and obstacles in the healthcare industry and strategies for moving forward.

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

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