What It Will Take for Healthcare Organizations to Move into the Digital Age

By Robert Hoyle Brown & Patricia Birch

The Center for the Future of Work
The Work Ahead is a research series providing insight and guidance on how businesses - and jobs - will evolve in the digital economy.

In this installment, we compare and contrast the viewpoints of healthcare payers and providers; identify ways in which new digital technologies will enable workplace (and work process) innovation; and analyze the magnitude of the impact that emerging digital technologies will have on the industry by 2020 or 2025.

For healthcare payers and providers, the digital revolution offers a powerful prescription for transforming an industry value chain in need of drastic modernization. Our latest study shows the way forward to the future of work for healthcare.
THE WORK AHEAD IN HEALTHCARE

The healthcare industry is on the brink of major - and ultimately overdue - reinvention.

Healthcare organizations must face new and necessary business-technology change to capitalize on the promise of the digital era. From unlocking the value of data and placing greater reliance on bots, to addressing security concerns and connecting a fragmented industry, there is hard work ahead for digital mastery in an industry that represents nearly one-fifth of the U.S. gross domestic product (GDP).

Given these weighty challenges, healthcare payers and providers are deep in thought about how to get from “here” to “there.” Merely dabbling in digital won’t cut it. Much as we’ve already seen with fin-tech, ride-sharing and binge-viewing entertainment providers in the last few years, delayed action by the industry establishment favors the rise of new entrants and threatens the survival of traditional organizations. Urgency is required for people, processes and platforms in healthcare to catch up with other industries that are well along the way in their digital transformations.

If the industry successfully prepares for the work ahead, healthcare consumers can finally look forward to the convenience and service they regularly experience in other parts of their lives. If not, healthcare organizations will suffer the consequences.

In order to understand the changing nature of work, the changing nature of commerce and the changing characteristics of success for healthcare payers and providers, Cognizant’s Center for the Future of Work – in conjunction with the renowned economist Nouriel Roubini – surveyed top executives at leading companies around the world to gain insight into how the future of work is coming to life today. We surveyed 348 healthcare payers and providers worldwide, hailing from the ranks of senior executives (see Methodology, page 21).

Our study reveals that healthcare players foresee a huge amount of work ahead in their digital strategies, with only one in 10 executives saying they are even moderately ahead of their peers in other industries today.

Even more alarming: Three-quarters of payers and providers that we studied haven’t saved one dime on operational costs by using digital technologies. We also routinely hear in our work with healthcare clients about the high level of dissatisfaction among physicians and other caregivers with existing digital transformation attempts.

Executives we surveyed know that big changes are coming by the end of the decade, but it’s unclear exactly how the industry will harness digital to get from now to 2020. New approaches like telemedicine, robotic-assisted surgery and AI-augmented diagnosis and prevention will be required to drive the nearly 30% boost in digitally-driven revenue growth envisioned by industry executives. While mastering digital will be beneficial for payers and providers, it will also drive a renaissance in how we and future generations stay healthy and thrive in the 21st century.
Major findings & unanswered questions include the following:

01

Huge improvement in cost savings from digital are needed – now! Seventy-six percent of both payers and providers have not experienced any cost improvements due to digital.

02

Doubling dollars through digital channel – but how? By 2018, digital will yield an 11% top- and bottom-line improvement for healthcare players, which essentially represents a doubling from today’s revenue impact of 5.2%.

03

Expectations for healthcare are huge by 2020 – or is it a “digital delusion”? Roughly 10% of healthcare executives think they’re digitally “far ahead” (or even “moderately ahead”) of their peers. By 2018, 60% optimistically believe they’ll be ahead of their peers.

04

Automation and artificial intelligence (AI) will be key drivers in the transformation of healthcare work – but how will these changes be operationalized? Our respondents firmly believe that “as tasks are automated, work will become more strategic.” By 2020, AI and analytics top the new investment agenda, with an expected significant impact from physical and software robots too.

Whether your company is a healthcare payer or provider, the time to act is now. Leaders need to make some critical choices regarding initiatives that will quickly allow the benefits of digital to help their businesses navigate the digital shift. Despite the aforementioned challenges and unresolved questions, the scale of the opportunity is massive and – in our view – ultimately achievable.
While it may sound counter-intuitive, fixating on cost savings won’t be enough; if digital change is properly handled, healthcare companies will also reap unprecedented value from the next generation of services and offerings.

Currently, healthcare companies are spending (a bit of) money to make (a lot of) money. That may sound like a mixed bag, but what are companies potentially missing? What are their future expectations for operating more effectively and efficiently to simultaneously innovate and reduce costs?
But first, some bad news: Digital initiatives, according to our respondents, have actually increased healthcare costs – 0.7%, to be exact – during the last year. Said another way, only 25% of respondents have actually saved any money as a result of their digital initiatives (see Figure 1). At first blush, that might be rather shocking. But a more sobering, realistic view is that healthcare players know they need to act – fast – and invest in new digital technologies, modernize aging IT infrastructure and update business processes to take advantage of new digital thinking. As the saying goes, “no pain, no…” well, you know the rest.

Cost Savings from Digital in 2015: Healthcare Payers and Providers
Only 24% of either healthcare payer or provider respondents actually saved any money as a result of their 2015 digital initiatives.

Now for (a bit of) better news: Digital has improved organizations’ revenues by 5.7% during the same period, according to respondents (see Figure 2). That’s a 5% capital gain directly attributable to digital.

But you can’t just take a scalpel to labor costs by cutting staff, nurses and doctors. Radically reducing healthcare talent will cause significant market disruption, since health plans and hospitals are usually some of the largest employers in the cities in which they reside. Even more important, skilled healthcare practitioners are not dispensable; rather than making “widgets,” these individuals are trained to provide good, empathic bedside care to their patients. Increasingly sophisticated digital technologies are helping to drive down some of healthcare’s highest cost categories – without sacrificing critical healthcare staff. That’s a great development for all participants, as patients are empowered to concentrate on their personal wellness while permitting caregivers to focus on… well, caregiving!

Through 2018, the cost picture for healthcare respondents does improve. Costs are expected to decrease by 2.4% – one of the largest decreases of any industry included in the study. But we think that’s a conservative estimate, and that there is a far larger, untapped opportunity in cost reduction due to digital. Companies such as TriZetto (a Cognizant healthcare software subsidiary) are using software robots to decrease healthcare payer costs by as much as 90% for some middle-office business processes.
What’s more, respondents expect to directly boost their 2018 top-line revenues using digital by 8.6%. Adding the aforementioned cost reduction estimates, that’s an 11% improvement to the top and bottom lines by 2018 — essentially a doubling from today’s revenue impact of 5.7%.

What’s the chief mechanism driving the most significant gains? Today, 17% of payers and 22% of providers see digital’s revenue impact chiefly stemming from sales, marketing and customer service processes. Going forward, the impact of these processes will remain strong, with 16% and 20% of payer and provider respondents, respectively, believing these areas will be the primary drivers for lower costs by 2018. (Both groups of respondents rated digital’s impact on revenues as a secondary driver.)

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We’re now in an era when traditional players are threatened by new entrants that have been “born digital.” Recently, it looked as if the future would belong to upstarts like Oscar Health, a health insurance start-up in New York that sells individual health insurance plans, both directly and through health insurance marketplaces. Out of the gate, the company’s look-and-feel attracted a cohort of millennial customers (most of whom, being younger, are healthier, get sick less - and are, therefore, more profitable). But even Oscar has come to realize how grueling it can be to succeed in the broader conditions of today’s healthcare marketplace.1 Clearly, continuous and rapid evolution is required for all health ecosystem participants to stave off incumbent and new entrant threats, whether they are simply moving legacy systems to the cloud, or pursuing more complex goals, such as instrumenting processes or consumers to converge the digital and physical worlds.

Cost and Revenue Impact of Digital in Healthcare

Average costs rose in 2015 due to digital, but revenues increased. Companies think potential positive cost impact is eminently (and potentially) achievable today. Cost improvements are expected to complement outsized revenue gain by 2018.

*2015-Potential represents the potential cost and revenue that leaders estimate they’d have seen in 2015 if they had immediately implemented all currently available digital technologies

Figure 2

Response base: 348 senior healthcare executives. Source: Cognizant Center for the Future of Work
A ‘MAGICAL’ FIVE YEARS: HIGH EXPECTATIONS FOR HEALTHCARE’S DIGITAL TRANSFORMATION

Respondents voiced high expectations for digital’s impact on revenue by 2020. In some respects, it’s almost as if they believe a digital “magic wand” will be waved to reap outsized gains. We know that in reality, the work ahead demands that business and IT executives in healthcare apply real investments to ground-breaking digital initiatives that undo the “tyranny of the status quo.”

What’s a “digital revenue channel” in the context of healthcare? In book retailing, it’s fairly easy to follow the developments of digital revenue channels – just look at the rise of Amazon and a host of other e-commerce examples. Meanwhile, in healthcare, it seems a foregone conclusion that patients still need to physically see doctors. Consider, though, the revenue opportunities that open up when new digital channels emerge, such as greater access to preventative monitoring, virtual house calls and remote reading of a fitness tracker by nurses from hundreds of miles away – all while never having to physically set foot inside a doctor’s office.

While the future may be bright for digital doctors, recent history suggests some caution. It may seem jaded, but many healthcare practitioners feel they’ve “seen this movie before”: The headlong rush to require electronic medical records (EMRs) in every hospital and physician’s office has not won a lot of fans among clinicians. Indeed, as the CEO of Athenahealth recently commented, “Healthcare is the only industry where digital has had a negative productivity impact.” Therefore, the time has come for a new approach to drive, guide, sustain and quantify the gains to be realized from rapid digital evolution in healthcare.

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Our research reveals some interesting clues:

01 Digital as a revenue channel will essentially double between now and 2020. About one-third of both providers (28%) and payers (34%) in the study think that 20% or more of their revenues originated from digital channels as of 2015. By 2020, however, the “doubling” shows up, with 69% of providers believing that 20% or more of revenues will come through digital channels, and 73% of payers thinking it will be 20% or more (see Figures 3a and 3b, next page).

02 Evidence suggests symptoms of “magical thinking”: Only about one in 10 payers and providers feel their organizations are either “far ahead” (or even “moderately ahead”) of peers in other industries in applying digital technologies; in other words, a strong majority (70%) feel they’re mediocre and just on par with peers. By 2018, however, the outlook is radically changed, with approximately 60% of respondents wondrously believing they’ll be ahead of their peers at that time.

The idea of hiding behind the fig leaf of “not wanting to get ahead of our membership” quickly evaporates in light of these disruptive - and consumer-centric - upstarts.

For results to match those high expectations, a good deal of work will need to occur over the next few years. Payers will need to place big bets on digital, automation and platform strategies to better compete with new, “born-digital” entrants. Examples include the aforementioned Oscar Health, nationwide provider network OneMedical, the Kaiser network (which couples the payer/provider function in one group) and Zoom, which targets young adults in Oregon and Washington with quick, accessible care. Some stalwarts may want to cling to “the old ways of doing things,” convinced their customers somehow are not ready for these types of changes. On the contrary, in a world of robo-banking, streaming TV shows and Skyping with grandchildren, they’re clamoring for it. The idea of hiding behind the fig leaf of “not wanting to get ahead of our membership” quickly evaporates in light of these disruptive - and consumer-centric - upstarts. Deluded or not, payers that want to thrive - let alone survive - will need to aggressively embrace new digital business models.
About a third of payers and providers think more than 20% of their revenues were digital in 2015 - that estimate doubles by 2020.

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Only 10% of providers think more than 30% of revenues were digital in 2015 - that percentage quadruples by 2020.

What percentage of your company’s revenue now comes through digital channels, and what percentage do you expect to come from digital channels in 2020?
THE DOCTOR AND THE BOT: KEY DIGITAL FORCES TRANSFORM THE WORK AHEAD

When it comes to the top ways in which work will be transformed between now and 2020, healthcare payers and providers alike named automation, bots and artificial intelligence as top influencers driving change. All of these technologies, respondents believe, will force their employees (and themselves) to make greater strategic contributions to work and amplify their ability to collaborate with others.
More than half of providers (52%) and payers (59%) said automation would be the leading digital force transforming work, as it would make work more strategic as tasks are automated. Providers also emphasized that automation would require greater technical expertise (47%) and greater collaboration with other workers (45%). Nearly half of payers (48%), meanwhile, believe workers will collaborate with smart machines to augment job effectiveness, clearly paving the way for the interplay of smart machines and humans to an ever-greater degree (see Figure 4).

**More than half of providers and payers said automation would be the leading digital force transforming work.**

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**How Digital Will Transform Healthcare Work**

The vast majority of respondents think automation will drive change, resulting in work that’s more strategic. The need to better collaborate with smart machines – and fellow workers – is another outcome of digital.

![Figure 4: The Top 6 Digital Forces Transforming the Work Ahead](source: Cognizant Center for the Future of Work, 2016)

The vast majority of respondents think automation will drive change, resulting in work that’s more strategic. The need to better collaborate with smart machines – and fellow workers – is another outcome of digital.

- **As tasks are automated, work will become more strategic.
- **Jobs and the required skills will change significantly.
- **We will work faster.
- **We will collaborate with smart machines that augment job effectiveness.
- **We will collaborate more with other workers.
- **Work will require greater technical expertise.

**How are digital technologies likely to transform work by 2020.**

**Providers**

- 95%
- 100%

**Payers**

- 95%
- 90%
- 85%

Response base: 348 senior healthcare executives. Source: Cognizant Center for the Future of Work

In short, the era of “the doctor and the bot” is at our doorstep.

Robotics have already been augmenting doctors’ “black bags” for at least a decade. According to the Mayo Clinic, innovative robotic surgery techniques such as da Vinci “allow doctors to perform many types of complex procedures with more precision, flexibility and control than is possible with conventional techniques.” San Francisco start-up Augmedix has partnered with Google to use Google Glass coupled with AI to do in-the-moment, automated note-taking, compare patient symptoms and suggest the proper remedy. The solution addresses key burnout variables for doctors: note-taking, transcription and “double-data entry” in electronic medical records. Another example is remote presence robots in the ICU; at UCLA Medical Center, such technology allows doctors to “virtually” consult with patients, family members and healthcare staff at a moment’s notice, even if miles away from the hospital.
The future impact of automation on healthcare is clear. But so is a corollary belief in the power of smart data, because by 2020, the evidence shows that increasing levels of AI will feed a greater need for analytics. As Figure 5 illustrates, analytics and AI are the top two digital forces that respondents say will have either moderate or strong impact on the work of healthcare by 2020. Software for process automation rounds out the top five.

So-called robotic process automation - in which software tools have emerged as the “robots” for knowledge work - has been gaining traction. (For more insights, read our report “The Robot & I: How Digital Technologies Are Making Smart People and Processes Smarter by Automating Rote Work.”) For example, one of the major “Blues” in the southeastern portion of the U.S. used TriZetto’s HPA robots to process 70,000 claims in nine business days without overtime or increased staffing for Medicare sequestration rate changes. Automating the claims pricing process for another health plan has resulted in savings of over $3 million per year. Intelligent automation also helped reduce the time to credential/re-credential a provider from six weeks to one.

What about physical tasks? In our study, 94% of providers believe that physical work robots will have a moderate to strong impact on work. This could include everything from assistive lifting robots for physical therapists, to microbots that scrape plaque from arteries, to personal assistant robots that help care for elderly patients.6

### Analytics and AI Lead Digital Forces That Will Impact Healthcare by 2020

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*Figure 5* Response base: 348 senior healthcare executives. Source: Cognizant Center for the Future of Work
HEALTHCARE DATA PRIVACY: IT’S NOT JUST BUSINESS, IT’S PERSONAL

The security of healthcare data is a big deal for all industry executives today and into the foreseeable future - both for their organizations and themselves, personally. While healthcare chiefs must break with the business status quo - and harness digital change - their responses suggest they’re worried sick about the age of AI and algorithms, especially about oversharing, government snooping and digital terrorism.

This concern is pronounced in our study, and especially when we asked healthcare executives about specific new technologies they believe will have maximum impact on their business between now and 2025 (see Figure 16).
Following are some of the key impacts of digital technologies in healthcare:

01

Data security is a pre-eminent theme among payers and providers alike. Payers’ biggest areas of concern include cybersecurity (30%), big data (25%), cloud (17%), mobile (16%) and sensors/IoT (11%). Technologies with the biggest impact for providers today are biotech (38%), cybersecurity (36%), big data (34%), nanotech (25%) and mobile tech (22%).

02

As technology wraps itself around healthcare “things,” the more (potentially vulnerable data will proliferate. By 2025, executives anticipate a strong surge in the growth of sensors and IoT as key digital technologies; about one-quarter of payers (26%) and one-third of providers (34%) think sensors/IoT will see the most dynamic growth in impact in that timeframe.

03

Keeping data safe in a “Hippocratic schematic” is paramount for provider executives. Providers are personally very uneasy about the possibility of oversharining personal data, with 93% voicing this concern (see Figure 7). The Hippocratic Oath compels doctors to take data security very seriously in the digital age. In a similar vein, “government snooping” is the third biggest “significant” concern, at 30% for providers.

04

The top personal concern among 90% of payers is digital terrorism. For payers, the disruption that could be unleashed by cybertheft and other digital threats translates directly into financial loss for them. If systems and organizations aren’t properly secured, they know they’ll have to pay – big – if something goes wrong. There’s also the security of the extended value chain of data to worry about (payer, provider, life sciences). Payers (87%) agree with providers that oversharining of personal data is a big deal.

05

As robots/AI proliferate, more medical data will be generated – and with it, concerns abound. Roughly 33% of providers are worried about automated technologies taking jobs away, including their own. This is also of “significant concern” to 29% of payers, who also worry that “technology will separate us from the natural world” (25%).
Projected Growth in Significant Impact of Digital Technologies

Between now and 2025, digital technologies focused on data – and its analysis and security – are projected to have maximum impact on healthcare companies.

Figure 6
Response base: 348 senior healthcare executives. Source: Cognizant Center for the Future of Work

Keeping data safe in a “Hippocratic schematic” is paramount for provider executives.

Top 10 Personal Concerns Regarding The Proliferation of Digital

Digital terrorism, oversharing of personal information are top concerns for healthcare execs.

Figure 7
Response base: 348 senior healthcare executives. Source: Cognizant Center for the Future of Work
So, how can healthcare companies – and professionals – get from "here to there," and really move the digital needle? After all, the industry’s endgame is all about the so-called “triple aim”: improving quality and outcomes while decreasing costs.

By 2020, the whole concept of healthcare will be quite different from today. For one, the notion of a “digital house call” will be more mainstream. Already, the number of virtual physician visits is growing as rapidly as reimbursement and state regulations will allow. “High-tech, high-touch” processes will enable physicians and other clinicians to do what they do best.

As such, we asked payers and providers what healthcare work will look like in 2020. The top response – among 78% of providers and 74% of payers – was the ability to use digital to “contribute more meaningfully,” be it making patients feel better, knowing critical coverage did not slip through the cracks of a bad process handoff, or saving the lives of at-risk individuals through better digital information. Significantly, nearly three-fifths of providers (59%) feel it is urgent for their organizations to use digital to improve communication with colleagues (re-watch any gritty episode of ER’s cast shouting medical lingo at each other, and you’ll get the idea), as well as enhance work satisfaction (58%). Both of these presumably operate in tandem to buttress and support the leading objective of contributing more meaningfully.

At the same time, trends such as healthcare consumerism and personalization of care are driving the industry to master digital, in order to reshape and transform with the customer at the center. By 2020, both payers and providers seem to be striving to see work as less of a “process,” and more of a mission to prevent illness and provide chronic care management.
Digital duos like “the doctor and the bot” and others like them are changing the game for the future of work for healthcare providers. A major promise of digital on the care delivery side is its ability to put preventive health in the hands of the consumer. In fact, it’s becoming increasingly the case that plugging diagnostic tools into a smartphone is the digital equivalent of “the doctor is in.”

To move themselves in a digital direction, healthcare executives will need to more tightly align their leadership skills of today with the analytics skills of tomorrow. These are the types of skills that executives rated as the most relevant and essential talent mix to chart the way forward for the industry (see Figure 8).

### Skills Healthcare Companies Will Need to Improve for Future Relevance

To move themselves – and their businesses – forward in a digital world, healthcare executives will need tight alignment of their leadership skills of today with the analytics skills of tomorrow. These are the types of skills that executives rated as the most relevant and essential talent mix to chart the way forward for the industry (see Figure 8).

**Figure 8** Response base: 348 senior healthcare executives. Source: Cognizant Center for the Future of Work

Demand for analytical skills will see dynamic, outsized growth, as payers leverage their datasets with algorithms to get better payment terms, encourage their members to engage in preventative healthcare, avoid risk, and reduce their loss ratios.

For providers, leadership is the most important skill (64%) today. But by 2020, leadership is outrun by analytical (82%) and customer care skills (aka “medical bedside manner”), at 74%.

For payers, leadership is also the most important skill (68%) today, and by 2020, it remains pre-eminent with the exception of – you guessed it – analytical skills, at 74%.
To reshape and transform the healthcare industry, all participants in the value chain - patients, providers, payers, and even pharmaceuticals and medical equipment companies - have a vested interest to hasten digital business change.

While there is no single playbook for being digital, there is a growing set of lessons learned and best practices that organizations can leverage to navigate the digital shift. Your organization can take a few steps immediately to ensure it gains the momentum needed to move from simply understanding that "something big is happening" to capitalizing on the massive shift in expectations that comes with it. While it is crucial to define a roadmap based on an enterprise-wide digital strategy and prioritized investments, that is not all it takes; "being digital" also requires a deep understanding of how digital initiatives will affect business operations. Additional critical factors for healthcare payers and providers include:
We know that change is coming – it has to, and government goals are already shaping the strategies of many in the healthcare space. Whether your company is a healthcare payer or provider, by 2020, digital will connect the dots, close gaps and improve the satisfaction and outcomes for consumers and physicians. The work ahead requires a strong vision balanced with practical execution and above all, the ability to predict, prevent and – when needed – pay for healthcare services. The need for good health has one remedy, and its name is “digital.” Is your organization ready?

**Institute strong digital governance.** Your organization doesn’t want to wind up with a big pile of unintegrated “experiments” that don’t really improve operations or outcomes. To ensure strong digital governance, we recommend naming a chief digital officer, with a real mandate (including real budgets and executive staff) to drive real and lasting change, optimize digital investments, ensure organizational alignment and deliver a seamless user experience. Be careful with the mix of “top-down” mandates – you’ll need buy-in from leaders in the operational trenches, as well (e.g., claims, membership). Otherwise, you risk dampening the power of your digital initiatives. It’s also critical to foster a shared vision and keep stakeholders close while executing on the initiative.

**Create a culture of innovation.** “Being digital” is not a one-time investment. Embedding innovation into the business culture – quickly – as well as rewarding innovators, is key to succeeding in the new digital economy. Fostering vastly improved health at significantly improved prices in an economically sound way for all parties can seem really difficult. But it’s doable, and creating the right culture is crucial. Shake things up, because committing to truly being digital requires a different way of doing things; consider in-house innovation labs, “shark tanks” and hackathons, and leaning on new approaches from the external community of healthcare application developers.

**Increase IT responsiveness.** Digital initiatives require new IT leadership and skills. Investing in training and/or hiring new categories of talent, such as data scientists or human-centered experience designers, must be part of the roadmap from day one. Agile software delivery and new approaches such as DevOps, which foster cross-departmental integration and iterative collaboration between development teams and business operations, will advance digital’s contribution to business value. (For more on new work styles and mindsets required of digital healthcare CIOs, see our white paper “Prescriptions for Healthcare’s Digital CIOs.”)

**The platform becomes the process.** From stalwarts like General Electric Co., Cedars-Sinai Medical Center and Dignity Health, to Silicon Valley behemoths like Google, the explosion of healthcare venture capital investment is creating a host of innovative solutions. With this level of activity, it is difficult for any organization to “out-innovate” the market, so harnessing leading-edge, best-of-breed solutions to optimize the end-to-end consumer experience is a must. A platform-based approach to digitization is, therefore, a critical underpinning. Examples like the New England Healthcare Exchange Network simplify and speed administrative transactions between payers and providers, facilitate the sharing of clinical information, and enable e-prescribing, regulatory compliance and reporting. (For more on the NEHEN, see our Cognizanti article “Foundational Technologies: Laying the Groundwork for a Platform Business.”)
Methodology and Demographics

We conducted a worldwide survey between December 15, 2015, and January 28, 2016, with 348 executives across the healthcare payer and provider industries. The executive survey was run in 18 countries in English, Arabic, French, German, Japanese and Chinese. We used telephone interviews for executives. The study was conducted with research and economic support from Roubini ThoughtLab, an independent thought leadership consultancy.

Region

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Payers/Providers

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Robert Hoyle Brown is an Associate Vice-President in Cognizant’s Center for the Future of Work and drives strategy and market outreach for Cognizant’s Business Process Services business unit. He is also a regular contributor to the blog www.Futureofwork.com.

Prior to joining Cognizant, he was Managing Vice-President of the Business and Applications Services team at Gartner, and as a research analyst, he was a recognized subject matter expert in BPO, cloud services/BPaaS and HR services. He also held roles at Hewlett-Packard and G2 Research, a boutique outsourcing research firm in Silicon Valley.

He holds a bachelor’s degree from the University of California at Berkeley and, prior to his graduation, attended the London School of Economics as a Hansard Scholar. He can be reached at Robert.H.Brown@cognizant.com.

Patricia (Trish) Birch is a Cognizant Vice-President and leads the company’s Healthcare and Life Science Practice within Cognizant Business Consulting. Trish has over 25 years of experience in operations and management consulting and is a published author and speaker on issues facing the industry. She has years of hands-on experience managing and executing complex business and technology programs, and has served many of the largest organizations across the industry.

Trish has worked internationally, serving clients in Europe and China, and led practices at other leading consultancies. She was named to the 2015 Women Leaders in Consulting list by Consulting Magazine and honored with the Excellence in Client Service award. Trish graduated from Boston University and has an MBA from Jacksonville University. She can be reached at Patricia.Birch@cognizant.com.

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