Cognizant

Digital Operations

Applying Automation to What Ails Healthcare

Process automation could enable healthcare organizations to deliver streamlined but richer member and patient experiences while reducing costs. Yet our research shows payers may be approaching automation too conservatively and missing opportunities for substantial cost savings and more efficient operations.

May 2019

Executive Summary

Automation is often touted as an important solution the healthcare industry can use to standardize processes, reduce costs and improve the quality of care. Yet there may be a long distance between recognizing the potential of automation and practicing it. We wanted to know to what extent health plans are adopting automation, in what forms and to what ends. Our recent automation survey provides some answers to those questions.

We surveyed 200 respondents across 10 unique payer organizations with approximately 38 plan subsidiaries. The plans represented four membership tiers: fewer than one million members, between one and three million members, three to 10 million members and 10 million-plus members. Business executives composed 50% of the respondents and 50% were from IT operations. (See Appendix on page 22 for more details about respondents and our methodology.)

In short, we found health plans understand automation is important for improving processes and delivering better member service. However, our findings indicate health plans may be missing the impact of automation as a tool for reshaping business and operating models and enabling new products and services.

To wit: respondents told us that change management was their lowest obstacle to adopting automation. However, our work indicates most clients do not budget enough time or resources for managing the changes created by automation. Underestimating change management needs can lead to disconnects between stakeholders and automation tools so expected benefits don't materialize. In turn, that discourages other business areas from adopting automation.

Here's a summary of our key findings, many of which reveal similar disconnects:

I **Payers have high expectations for automation to generate cost savings and enhance consumer experience,** particularly in provider contracting, medical management and utilization management. Yet realizing the full potential of automation benefits is proving elusive.

I **Most respondents say they already have an automation strategy (46%), an automation champion (79%) and a clear change management strategy (65%).** Yet we often see many siloed efforts with little supervision.

I **Most respondents say their automation efforts are under way, but less than half have automation use cases in production.** Identifying and understanding potential use cases is still challenging.

I **Many payers say they have internal technical (67%) and business (57%) expertise to manage automation efforts.** But we see substantial automation talent shortages.

I **Respondents indicate a readiness to apply more advanced technologies** like artificial intelligence to their process automation efforts even though they have only scratched the surface of efficiency and process gains possible with mature robotic process automation (RPA) systems.

I **Blues plans credit themselves with being farther along the adoption curve** when it comes to addressing legal and compliance issues and process optimization.

I **Plans that have implemented actual automation projects — still a minority — are widening their efforts** to advance their business objectives with automation beyond pure cost reduction.

I **The industry has remarkably uniform views about what to automate and how to do so.**

Our findings indicate health plans may be missing the impact of automation as a tool for reshaping business and operating models and enabling new products and services.

Overall, what we see is an industry dabbling in automation vs. wholeheartedly embracing it. Most of the automation technologies in use are first-generation macros and script automation. Only 33% of respondents say they plan to employ RPA, while 76% say they plan to achieve automation through other means that take longer to implement, such as application programming interfaces (APIs) and microservices.

RPA software spend was expected to reach $680 million last year, driven primarily by banks, insurance companies, utilities and telecom, and is expected to hit $2.4 billion by 2022, according to Gartner.[1] Healthcare, then, seems to be lagging in adopting automation technology that could deliver immediate savings.
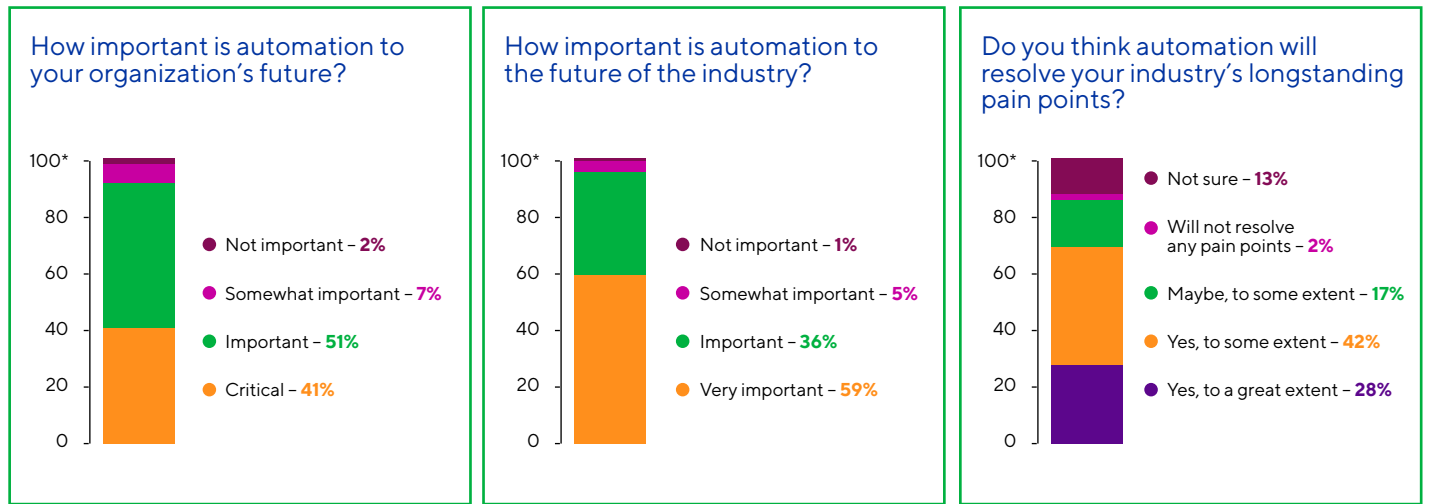
This report shares key findings from our primary research, as well as our experience and perspective, on how process automation is taking shape across the healthcare industry. Importantly, it points out practices that may be preventing automation's promise and potential from being fully realized and provides strategic vision on how automation can be approached with clarity and purpose. (For a definition of what we mean by automation, read the Quick Take on page 21.)

Overall, what we see is an industry dabbling in automation vs. wholeheartedly embracing it. Most of the automation technologies in use are first-generation macros and script automation.

Key Finding #1: Health plans have high hopes for automation ...

How important is automation to your organization's future?

- Not important – **2%**
- Somewhat important – **7%**
- Important – **51%**
- Critical – **41%**

How important is automation to the future of the industry?

- Not important – **1%**
- Somewhat important – **5%**
- Important – **36%**
- Very important – **59%**

Do you think automation will resolve your industry's longstanding pain points?

- Not sure – **13%**
- Will not resolve any pain points – **2%**
- Maybe, to some extent – **17%**
- Yes, to some extent – **42%**
- Yes, to a great extent – **28%**

*Percentages do not sum to 100% due to rounding.

Figure 1

Key Finding #2: ... But realizing benefits is proving elusive

- Understanding automation and use cases
- Culture and change management
- Integrating legacy systems with existing enterprise architecture
- Ensuring data security
- Securing budgets
- Gaining buy-in from organizational leaders and internal divisions
- Procuring talent and expertise
- **Evaluating cost-benefit of use cases**
- Communicating automation to key decision-makers
- Other technology investments are taking priority
- Uncertainty around time needed to start reaping benefits
- Reengineering business processes
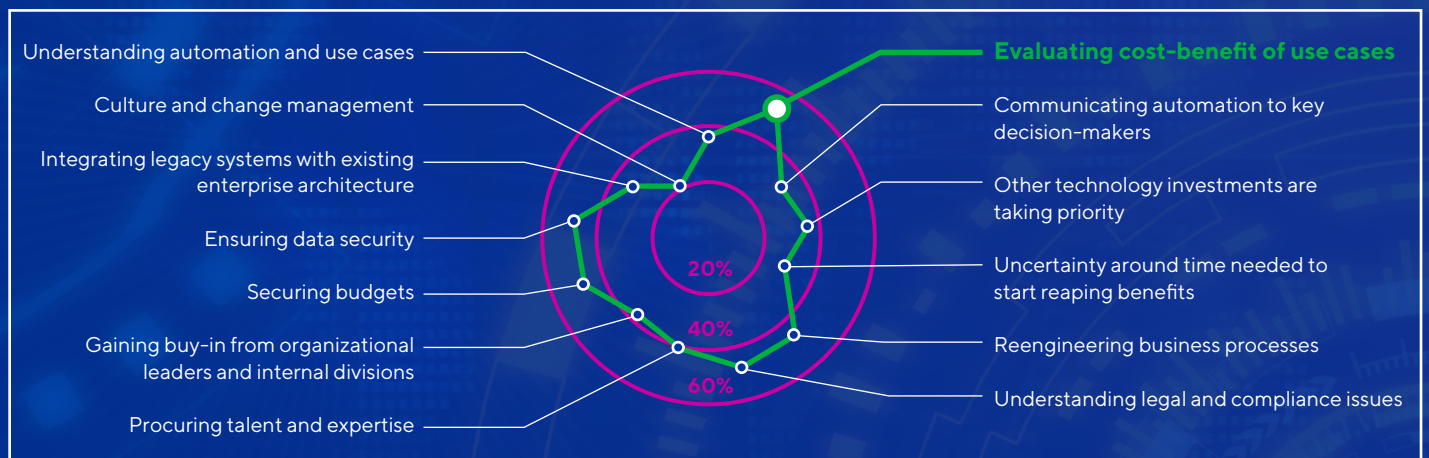- Understanding legal and compliance issues

20%
40%
60%

Figure 2

Our research shows that:

▮ More than 92% of health plan respondents think automation is either important or very important/critical to their organization and the future of the industry.

▮ Roughly 70% of respondents think automation will alleviate long-standing industry pain points to some extent.

▮ Over 74% of respondents expect cost savings from automation to be between 5% and 30%.

▮ Yet, more than 50% of payers cited "evaluating cost benefits of use cases" as their biggest internal barrier to automation.

▮ Of the 46% of payers who have automation use cases in production, 82% say they are having problems tracking business benefits from those efforts.

Our perspective

We agree with payers that automating healthcare processes is vital. Automation can help the industry become more efficient and adopt standard operating procedures to reduce costs, while improved speed and accuracy deliver better member experiences. Advanced automation, such as cognitive processing and machine learning (ML), can assist in decision-making at the point of care and improve patient and population health outcomes.
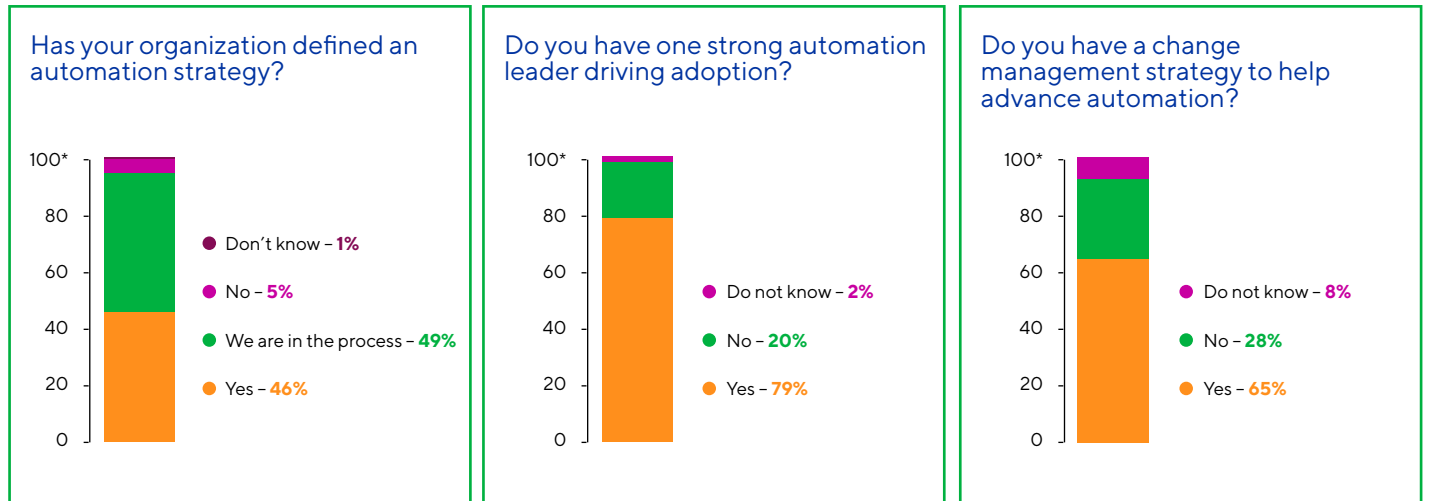
However, we routinely see payers encountering obstacles that prevent them from gaining the full cost and efficiency benefits of automation right now. One of the biggest barriers occurs when automation efforts are not aligned to corporate objectives. Most payers approach automation in silos, not as an enterprise strategy. Siloed automation efforts are expensive because they duplicate efforts and increase the number of automation vendors, tools and maintenance programs to manage. It's also hard to scale benefits created in a silo. Those factors undercut the business case for automation.

Executive champions can help ensure automation goals align with corporate objectives, by vetting automation initiatives and identifying commonalities among them that, if addressed, could yield greater savings and productivity. Payers also need to assess their IT landscape and operational strengths to identify areas that would benefit the most from automation.

Enterprise-level leadership also is important to support a clear, consistent and scalable framework to identify, validate and implement use cases. Automation criteria can include a minimum number of full-time equivalents (FTEs) working full time on the process; whether the work is highly manual, rules-based or structured; and how digitized. Additional criteria may be whether automating the process could generate revenue vs. pure cost-cutting and estimated time-to-automate. This framework can accelerate identification of automation candidates and become a template for cost/benefit analyses and tracking results.

Key Finding #3: Health plans have automation leaders — yet automation projects tend to go their own ways

Has your organization defined an automation strategy?

- Don't know – **1%**
- No – **5%**
- We are in the process – **49%**
- Yes – **46%**

Do you have one strong automation leader driving adoption?

- Do not know – **2%**
- No – **20%**
- Yes – **79%**

Do you have a change management strategy to help advance automation?

- Do not know – **8%**
- No – **28%**
- Yes – **65%**

*Percentages do not sum to 100% due to rounding.
Figure 3

Our research found that:

▊ Most organizations have identified an automation strategy (46%), automation champion (79%) and clear change-management strategy (65%) to execute identified automation initiatives.

Our perspective

While payers report having leaders and roadmaps, we often see four to six proof-of-concepts (PoCs) under way in the same organization, all using different technology and with no enterprise-level oversight.

Early adopters launch automation with a pilot or PoC. These may show early promise and savings, so the adopters get additional budget. However, the resources and benefits may not spread to other functions. Or a project requires unexpected and unbudgeted infrastructure capabilities and upgrades. That's how siloed projects can create friction between business units and/or business and IT. A joint governance model between business and IT leadership is critical to anticipating and avoiding these issues.

The term "joint" is key: we saw one instance where an IT department established rules for automation without consulting business users. The business units found the requirements too restrictive and worked around them. By contrast, in another organization, the CIO reached out to other C-suite executives to create an automation governance program. The program allowed siloed projects to continue. At the same time, it offered to pay for automation projects submitted to and vetted by its executives. This approach helped spread automation across the organization.

Executives must also emphasize change management as a discipline to head off unintended consequences from automation. In one case, a payer implemented an automation solution to review and deny pended claims based on historical denial decisions and claim attributes. The automation solution resulted in a higher denial rate and increased the payer's auto-adjudication rate. However, the payer had not explained its new process to its providers, who responded by appealing all the denied claims, assuming they were auto-denied in error. The payer had to hire several dozen FTEs to deal with the expanded appeals volume, negating the expected savings.

Executives must also emphasize change management as a discipline to head off unintended consequences from automation.

Key Finding #4: Most health plan automation journeys are under way — but the road is bumpy
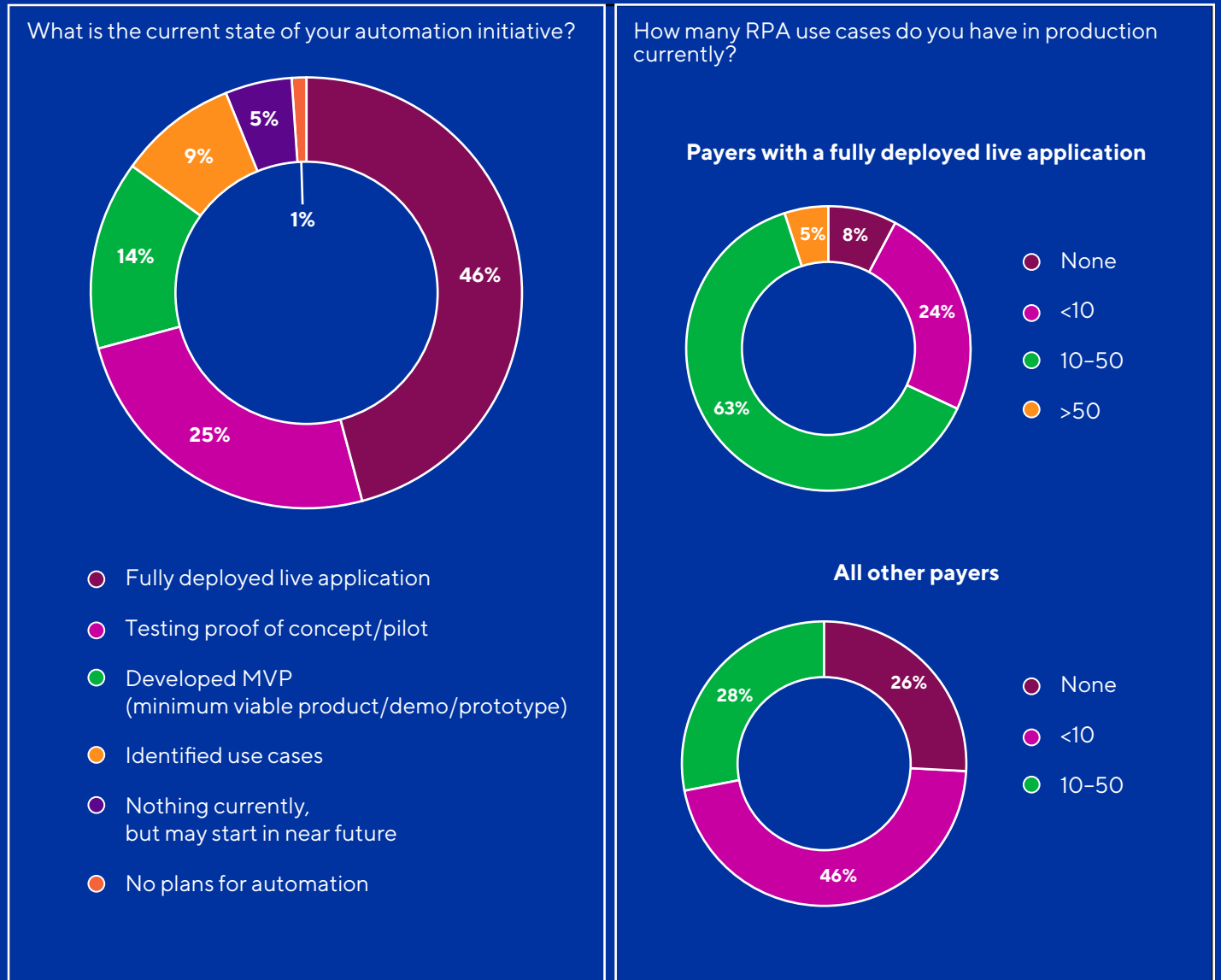
What is the current state of your automation initiative?

- Fully deployed live application
- Testing proof of concept/pilot
- Developed MVP
  (minimum viable product/demo/prototype)
- Identified use cases
- Nothing currently,
  but may start in near future
- No plans for automation

How many RPA use cases do you have in production currently?

Payers with a fully deployed live application

- None
- <10
- 10–50
- >50

All other payers

- None
- <10
- 10–50

Figure 4

Our research illustrates that:

▮ Less than 50% of organizations have a fully deployed live application.

▮ Top production use cases are in claims operations and provider management.

▮ Payers with a live application have substantially more (10-plus) RPA applications in production than other payers.

Our perspective

Payers should leverage their experience from PoCs and minimum viable products to accelerate and expand the reusability of use cases across the organization. This is more difficult to do when efforts are not aligned with the business and when there is no clear change management strategy.

Slow automation expansion is related to silo-based efforts. One area might automate a cash posting activity for commercial plans. The same activity also happens in another line of business, but without visibility across lines of business and knowledge-sharing, each unit may create its own automation solution. Automation is indeed under way, but it is difficult to connect, scale and accelerate.

Payers can accelerate enterprise automation by establishing a center of excellence (CoE). An automation CoE essentially becomes a clearinghouse and control center for automation projects. Business and tech leaders in the CoE can review automation ideas generated by business units and see which have commonalities so that one solution can be built and tailored as needed. The CoE can also help identify interdependencies, such as when deploying a tool will require an infrastructure upgrade. This approach improves governance and scalability while making automation cost-effective by reducing licensing costs, avoiding paying for the same automation in multiple areas and flattening the learning curve.

Business and tech leaders in the CoE can review automation ideas generated by business units and see which have commonalities so that one solution can be built and tailored as needed. The CoE can also help identify interdependencies, such as when deploying a tool will require an infrastructure upgrade.

Key Finding #5: Health plans may be overestimating their automation skills

Indicate your organization's level of automation expertise.

How is your organization addressing the potential skill-set gap?
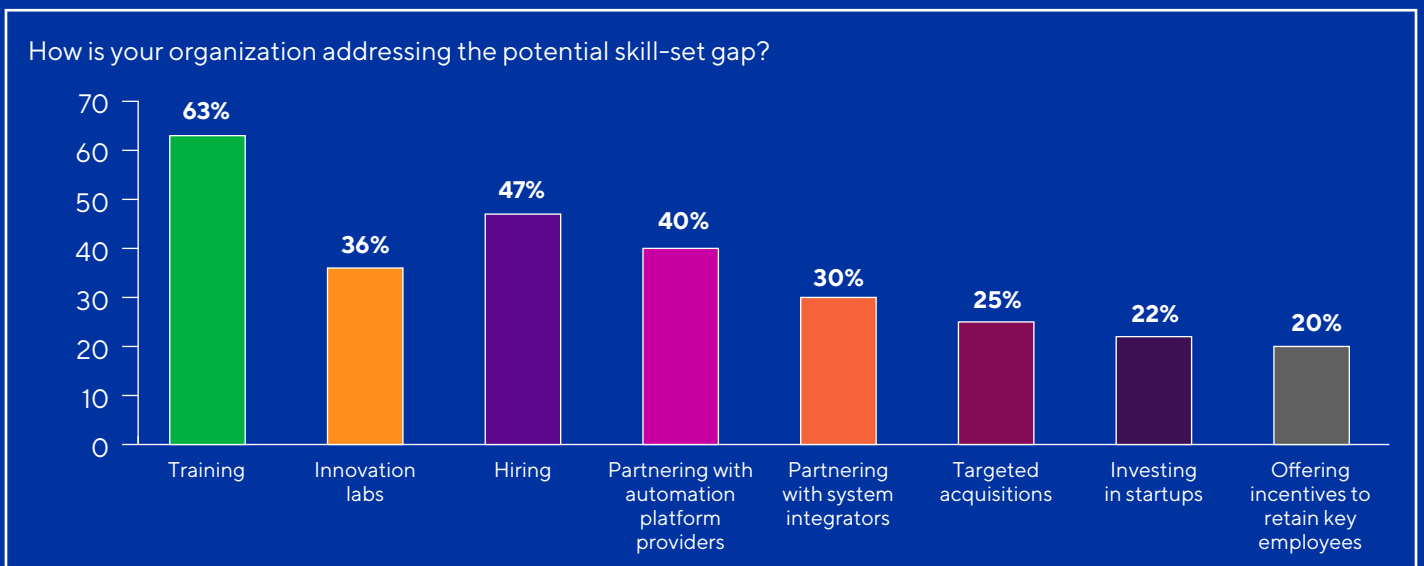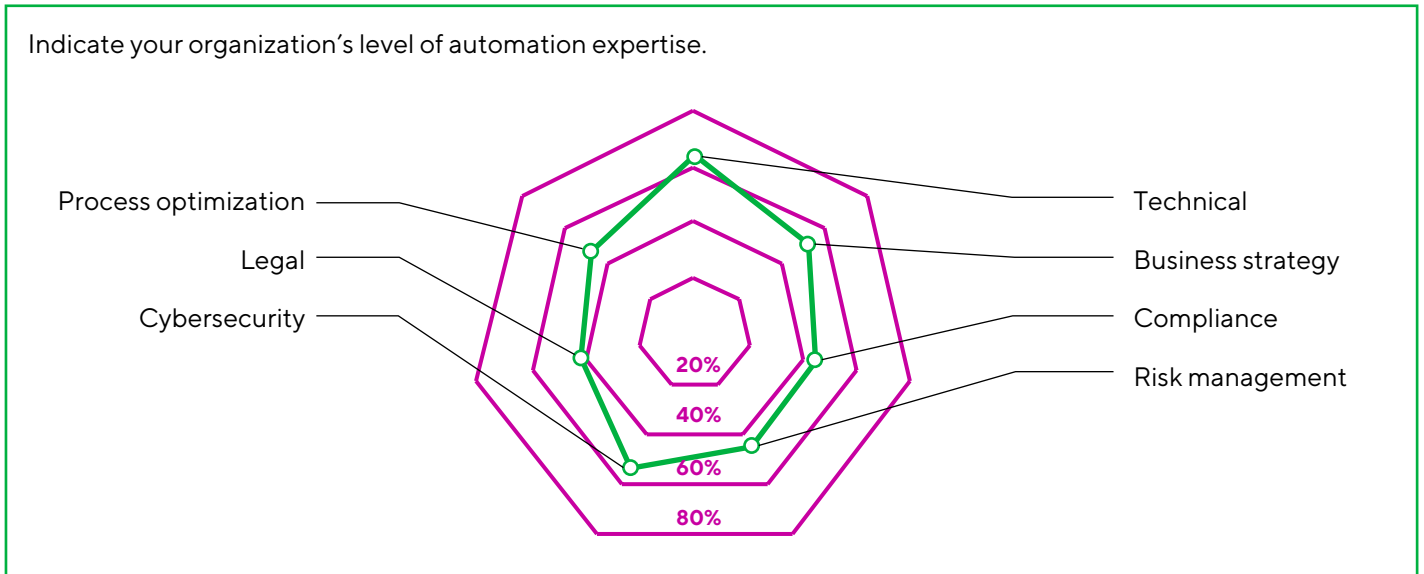
Note: Multiple responses permitted.

Figure 5

Our analysis revealed that:

▮ Respondents currently believe they have sufficient technical (67%) and business (57%) expertise inside of their organizations or have identified a strategy (training) to address these skills gaps.

Our perspective

Health plans have assessed their internal skills gaps but most have not fully encountered the challenges associated with obtaining or upskilling automation resources in a competitive marketplace. Our banking and financial services automation survey revealed a similar trend in that industry.[2] A significant majority of financial institutions claimed to have all the pieces needed to pursue automation, yet more pointed questions revealed expertise gaps across key areas, from process optimization to automation technology.

Most payers start with a vendor partner or two, and then try to bring the capability in house to lower long-term costs. However, the sheer demand for these resources makes them very expensive to hire. A lack of automation career paths within payer organizations also makes it difficult to retain talent.
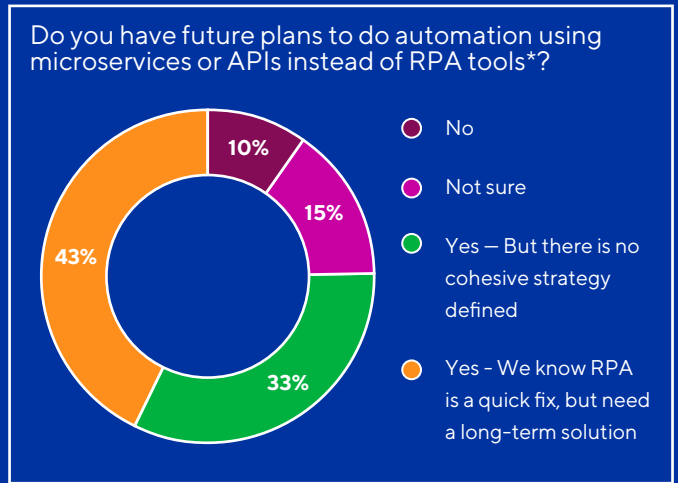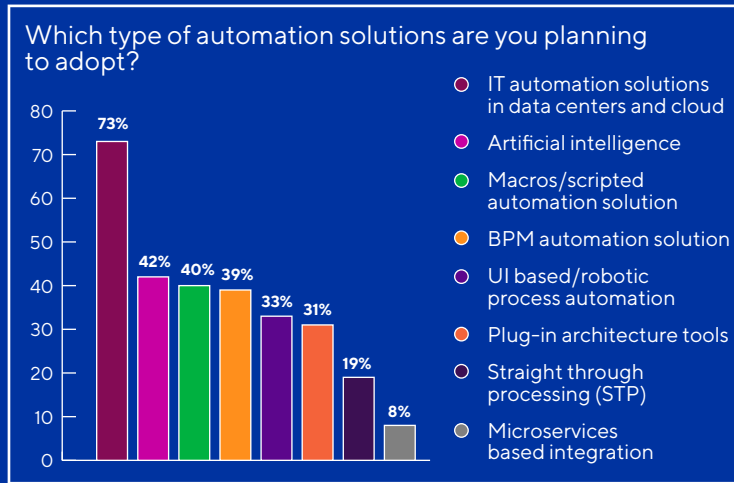
Key vendor partnerships can supplement or accelerate an organization's knowledge base for emerging or advanced technologies. Payers must catalog the strengths of their IT resources and landscape. Those factors will shape strategy, tool selection and whether a payer should partner with a vendor.

Poor change management can be a major impediment to long-term training or upskilling programs. Not all internal resources will become automation software developers. Yet automation will affect many employees' job functions. These changes must be anticipated and addressed through effective communication and training. Poor organizational change management causes friction, which ultimately may lower performance initially and reduce expected benefits.

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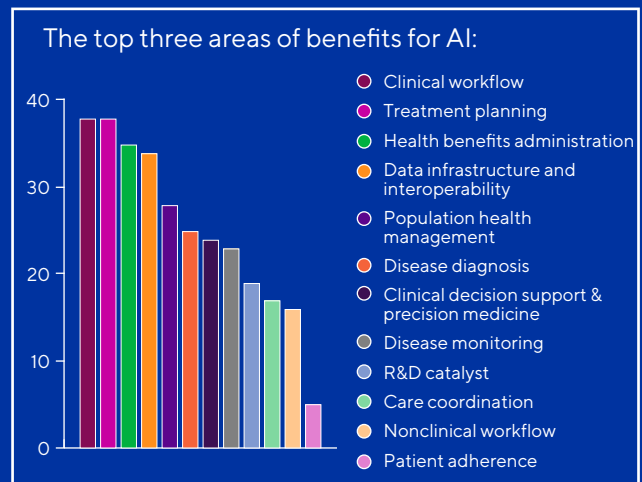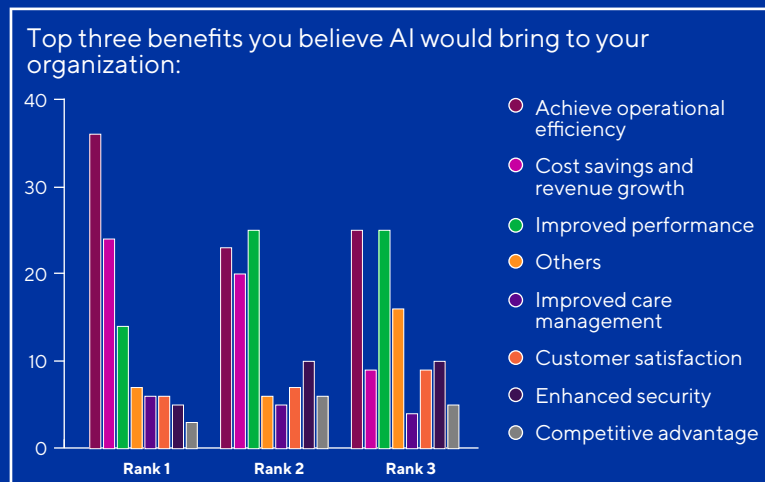# Key Finding #6: RPA adoption by medium & large payers lags other industries ...

Which type of automation solutions are you planning to adopt?

- IT automation solutions in data centers and cloud — 73%
- Artificial intelligence — 42%
- Macros/scripted automation solution — 40%
- BPM automation solution — 39%
- UI based/robotic process automation — 33%
- Plug-in architecture tools — 31%
- Straight through processing (STP) — 19%
- Microservices based integration — 8%

Note: Multiple responses permitted.
Figure 6

Do you have future plans to do automation using microservices or APIs instead of RPA tools*?

- No — 10%
- Not sure — 15%
- Yes — But there is no cohesive strategy defined — 33%
- Yes – We know RPA is a quick fix, but need a long-term solution — 43%

Note: Total does not sum to 100% due to rounding.

Key Finding #7: ... Yet payers are already looking ahead to AI-based and cognitive technologies

Top three benefits you believe AI would bring to your organization:

- Achieve operational efficiency
- Cost savings and revenue growth
- Improved performance
- Others
- Improved care management
- Customer satisfaction
- Enhanced security
- Competitive advantage

Note: Multiple responses permitted
Figure 7

The top three areas of benefits for AI:

- Clinical workflow
- Treatment planning
- Health benefits administration
- Data infrastructure and interoperability
- Population health management
- Disease diagnosis
- Clinical decision support & precision medicine
- Disease monitoring
- R&D catalyst
- Care coordination
- Nonclinical workflow
- Patient adherence

Our research found that:

▮ Fewer than 35% of payer organizations are planning to adopt RPA technologies and 76% of organizations intend to adopt alternate automation technologies such automation via microservices or APIs.

▮ Yet, healthcare continues to trail other industries. For instance, Gartner estimated that "60% of organizations with revenue over $1 billion would have deployed RPA tools by the end of 2018 ... By 2022, 85% ... will have deployed some form of RPA."[3]

▮ A large majority of payer respondents (67%) have already decided to invest in an advanced cognitive automation platform.

▮ Slightly less than half of respondents (46%) have multiple commercial AI or ML applications in place.

▮ On the operations side, achieving operations efficiency (38%) and improved performance (25%) are the top benefits payers expect from automation.

▮ On the clinical side, payers say clinical workflow (38%) and treatment planning (38%) are the top two areas that will benefit from AI.

Our perspective

Payers appear to be looking past RPA to next-generation tools. In doing so, they are missing opportunities to improve processes and reduce costs in the near term. RPA technology is entering its second generation of value realization. Payers can take a best-of-breed approach to combining "RPA 2.0" tools and technology to maximize automation across their value chain. This is a more flexible approach than investing all resources in a single platform that may have limited functionality for other use cases that percolate up to the CoE. With governance from an automation CoE, the best-of-breed solutions can be reused across the enterprise and help generate and scale cost savings.

Savings then can be applied to the core system modernization that's required to support higher-order automation. In the meantime, as core systems are digitized, many cognitive and AI-based automation tools can build on an RPA foundation and enhance existing rules-based use cases. An ML tool decides, and then an RPA layer executes that decision.

On the clinical side, we expect AI to help improve treatment planning and clinical performance to help payers deliver better member experience, improving their net promoter scores (NPS) while also achieving cost savings goals.

Key Finding

#8: Blues plans say they're out in front on the automation curve

Our research revealed that:

▮ Blues outperforms non-Blues in areas of compliance, legal and process optimization whereas non-Blues are ahead in business strategy and risk management.
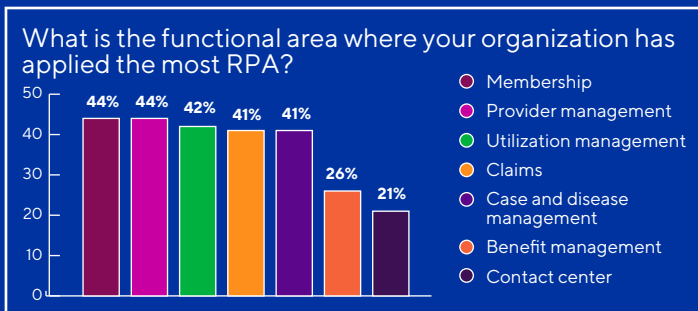
Our perspective

When it comes to the importance of automation, reasons for pursuing automation and business-readiness, Blues and non-Blues have shown similar priorities. However, reduced risk is nearly as important as cost savings for Blues while non-Blues consider cost savings as the major reason for pursuing automation.

Blues plans believe they are leading the industry in all production-related automation activities. Improving technical capabilities and change-management processes can help non-Blues plans improve their performance.

Key Finding

#9: Experienced health plans see automation's benefits beyond cost reduction

What is the functional area where your organization has applied the most RPA?

44%, 44%, 42%, 41%, 41%, 26%, 21%

- ○ Membership
- ○ Provider management
- ○ Utilization management
- ○ Claims
- ○ Case and disease management
- ○ Benefit management
- ○ Contact center

Note: Multiple responses permitted

What are the three areas where you see the maximum future potential for RPA?

56%, 49%, 47%, 45%, 40%, 36%, 28%

- ○ Case and disease management
- ○ Utilization management
- ○ Provider management
- ○ Membership
- ○ Claims
- ○ Contact center
- ○ Benefit management

Note: Multiple responses permitted

What is the most significant benefit you want to achieve through automation?

5% | 23% | 21% | 21% | 23% | 7%

- ○ Competition
- ○ Cost saving
- ○ Generating investment money from cost saving
- ○ Reduced risk
- ○ Seamless customer experience
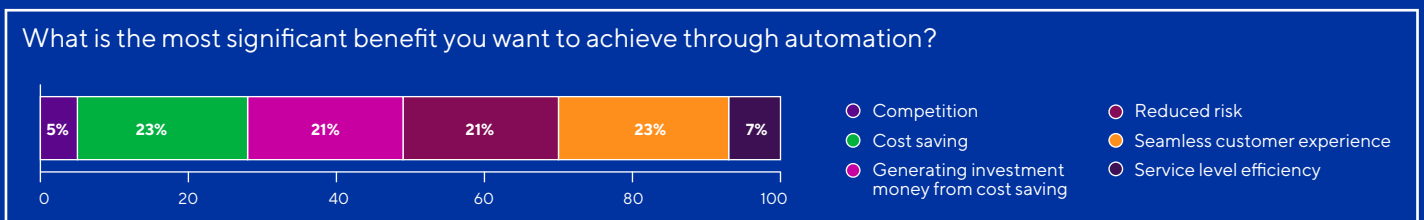- ○ Service level efficiency

Figure 8

Our research found that:

▮ Respondents further along the maturity curve are widening their automation focus from transactional cost savings to upstream and downstream impact areas.

Our perspective

Our experience confirms that payers with more automation experience are looking beyond transactional automation toward end-to-end value stream automation. They are asking for use cases and examples that improve member and provider experiences while simultaneously reducing administrative costs. Instead of automating only specific subsets of a process, these payers are trying to integrate multiple technologies to support end-to-end automation.

One example of this approach is found in utilization management functions such as pre-authorization of services. Optical character recognition (OCR) technology extracts data from a provider-submitted medical record. RPA enters this data into the case management system. ML can determine whether to approve that request automatically or route it to a physician or nurse for review. This approach reduces manual reviews and increases speed of pre-authorization processing so members and providers benefit.

Many end-to-end use cases will combine RPA 2.0 and cognitive processing. If payers have an automation CoE and a detailed automation roadmap, they may already know which processes can be augmented with AI-driven tools. Otherwise, payers should evaluate potential broader use cases against current and emerging technology capabilities to identify additional automation opportunities.

Many end-to-end use cases will combine RPA 2.0 and cognitive processing. If payers have an automation CoE and a detailed automation roadmap, they may already know which processes can be augmented with AI-driven tools.

Key Finding #10: "Group think" may be hindering adoption of innovative automation and emerging technologies
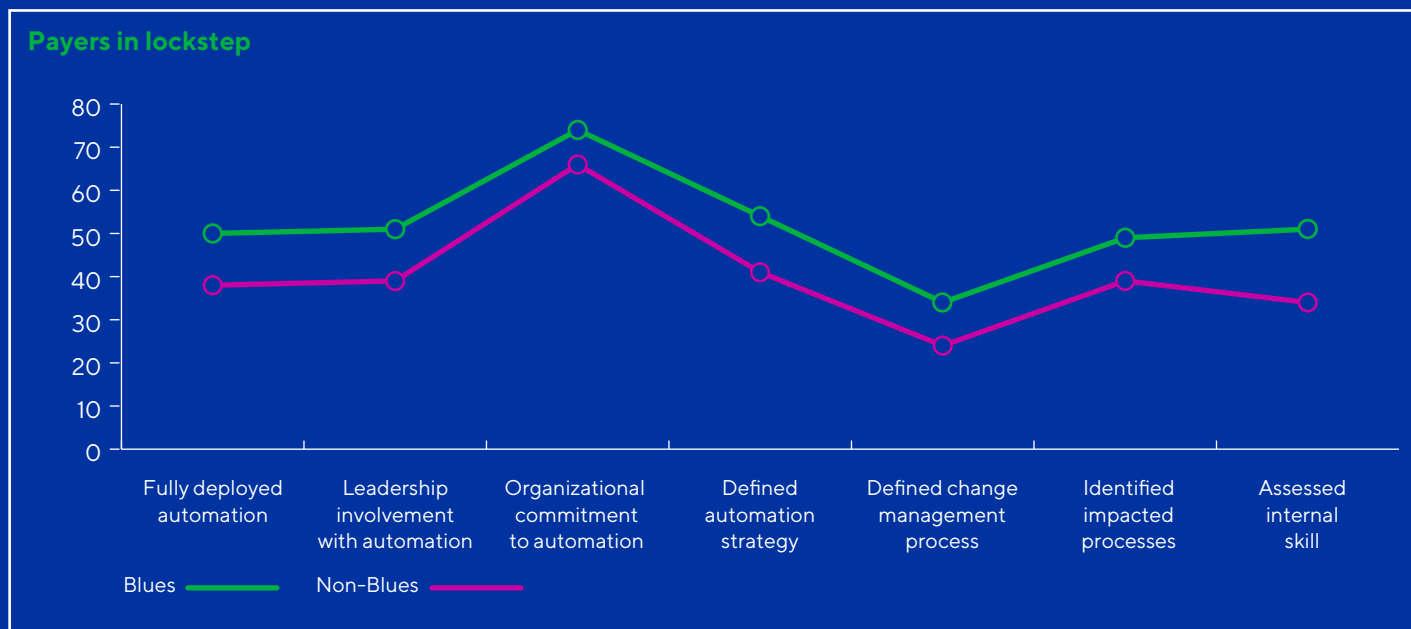
Payers in lockstep

Figure 9

Middle management respondents consistently demonstrate a somewhat skeptical "we'll see" attitude toward automation. Senior business and IT executives routinely are more optimistic about automation's business benefits.

Our research revealed:

▌ While Blues give themselves credit for more automation progress, what's striking is the uniformity of payer responses in virtually all areas.

▌ Across organizational roles in payers of different sizes, responses are very consistent about how important automation is to the future of individual payers and the industry. Respondents cite the efficiency, cost and member experience benefits they expect automation to deliver. Middle management respondents consistently demonstrate a somewhat skeptical "we'll see" attitude toward automation. Senior business and IT executives routinely are more optimistic about automation's business benefits.

▌ Further, most payers prefer to pursue automation internally and plan to adopt IT solutions on cloud and on-premises data centers. They consider IT operations as a potential area for cognitive-computing-based automation and are budgeting investments there.

Our perspective

Automation initiatives have delivered bloody noses to many healthcare payers, and as a result, they are playing it safe right now. Frankly, early enthusiastic investments in automation haven't netted the promised efficiency and cost benefits. Instead, we see payers with silos of automation, managing several automation vendors, duplicating automation efforts and sometimes seeing costs increase.

Further, some healthcare payers invested in bots, only to find industry vendors building those capabilities into their core platforms, rendering some of those early efforts obsolete.

After those experiences, it's natural for organizations to be cautious and look at peers for best practices and lessons learned. Yet payers will miss opportunities to turn automation into a competitive advantage by waiting for one of their peers — or a new industry competitor — to lead the way on enterprise-aligned automation.

We have clients in a variety of industries with automation CoEs that drive new operations models and products and services. RPA, implemented strategically, can net substantial savings, while CoEs can greatly speed up bot development and deployment.

Moreover, RPA is a necessary companion to AI-based tools, such as cognitive computing and ML. Layering cognitive approaches on top of or adjacent to RPA-based processes maximizes straight-through process automation – and its returns.

The bottom line is that mature RPA technology exists for payers to solve friction points and deliver new and simpler, streamlined experiences to members and providers in the very near term. Cost savings and improved member satisfaction are solid pillars on which to invest in modern systems and advanced capabilities. The payer that moves now to embrace this reality with a clear strategy will be well positioned to win new members and market share, even as new competitors enter the healthcare market.

What to do now

Based on our industry experience, we have identified a set of best practices to help payers accelerate or realign automation initiatives that may have stalled. While these best practices provide guidance, each organization should adjust and customize these steps based on the progress made in its automation journey to date.

❚ Reassess use case inventory to validate which cases are fit for automation.

❚ Ensure automation is a strategic priority with support and commitment from senior IT and business executives that cascades throughout the organization.

❚ Establish joint business and IT ownership of enterprise automation strategies and encourage cross-functional collaboration.

❚ Create a governance structure (CoE) that enables an enterprise approach to automation. Facilitate visibility and insight into all organizational automation activities and communication across functional areas including the IT ecosystem.

❚ Institute an organizational change management strategy from the inception of automation initiatives and communicate early and often.

❚ Utilize a metrics-driven methodology to identify, evaluate and baseline key processes to ensure the right processes are selected for automation.

❚ Design the structure, resource and support models necessary to begin implementation planning as early as possible to alleviate delays and increase speed-to-value.

❚ Define and agree on criteria for success at the enterprise and individual process levels before starting an automation initiative to ensure accurate benefit realization tracking.

❚ Ensure internal competencies and capabilities are scalable to support automation once it goes into production after a successful PoC or pilot.

❚ Continually evaluate emerging technologies, understanding that the tools landscape will continue to rapidly evolve and mature.

Quick Take

An automation primer

In the context of our survey, automation is a collective term for two types of technology: robotic process automation (RPA) and cognitive computing. RPA is software that mimics routine ways in which humans interact with data and IT systems.

For example, RPA can extract information from a claim, validate it and submit it for approval. From logging in to entering data and even scanning and sending email messages, RPA is aimed at speeding processing times — and, not incidentally, relieving people of some of the more mundane aspects of their work.

Cognitive computing applies to tasks that require simple decision-making. On top of RPA capabilities, cognitive computing can infer meaningful information from large amounts of data. That gives it the ability to automate tasks that require judgment and interaction with data sources and systems.

Overall, automation — both RPA and cognitive computing — involves software that learns what to do by observing human rules or activity. RPA is more appropriate for tasks that follow a finite set of instructions, while cognitive computing can handle more complicated scenarios where inference is required. Basic cognitive processing would help to determine whether an appeal should be a first level or second level based on identification of a set of words in an appeal letter. Another would be a utilization management review to determine whether the correct medical records were faxed back to the payer.

Appendix: Methodology

We conducted an online survey in the U.S. among 200 individuals familiar with automation in healthcare operations in late autumn 2018. When asked to describe their level of involvement in their respective automation projects, 44% described themselves as leading the project, 34% as core members, 16% as members of the advisory committee, 1% as beneficiaries of automation and 5% as not involved directly with automation.

Respondents have the following titles: 22% C-suite business (CEO, CFO and COO), 21% C-suite IT (CTO, CIO), 24% executive management and 33% middle management.

Respondents work in the following functional areas: 49% IT operations, 13% medical management, 8% sales and marketing, 10% provider contracting, 7% customer service/contact center; 7% enrollment and billing, 3% training, 2% claims and 1% product and rating.

Endnotes

[1] "Gartner Says Worldwide Spending on Robotic Process Automation Software to Reach $680 Million in 2018," Gartner Press Release, Nov. 13, 2018, www.gartner.com/en/newsroom/press-releases/2018-11-13-gartner-says-worldwide-spending-on-robotic-process-automation-software-to-reach-680-million-in-2018.

[2] Pande, Makarand, "Financial services automation: Taking off the training wheels," Cognizant, www.cognizant.com/whitepapers/financial-services-automation-taking-off-the-training-wheels-codex2873.pdf.

[3] Op. Cit. "Gartner Says …"

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Kekai Beyer is a Director within Cognizant Consulting's Healthcare Practice, where he leads the Automation Service Line for payers. Kekai has over 19 years of experience in management consulting and financial services, and has consulted for many of the largest organizations in the payer and provider market segments. He has years of direct hands-on experience in managing and executing complex business and technology programs, and specializes in leveraging technology solutions to create tangible ROI for his clients. Kekai can be reached at Kekai.Beyer@cognizant.com | www.linkedin.com/in/kekaibeyer/.

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Acknowledgments
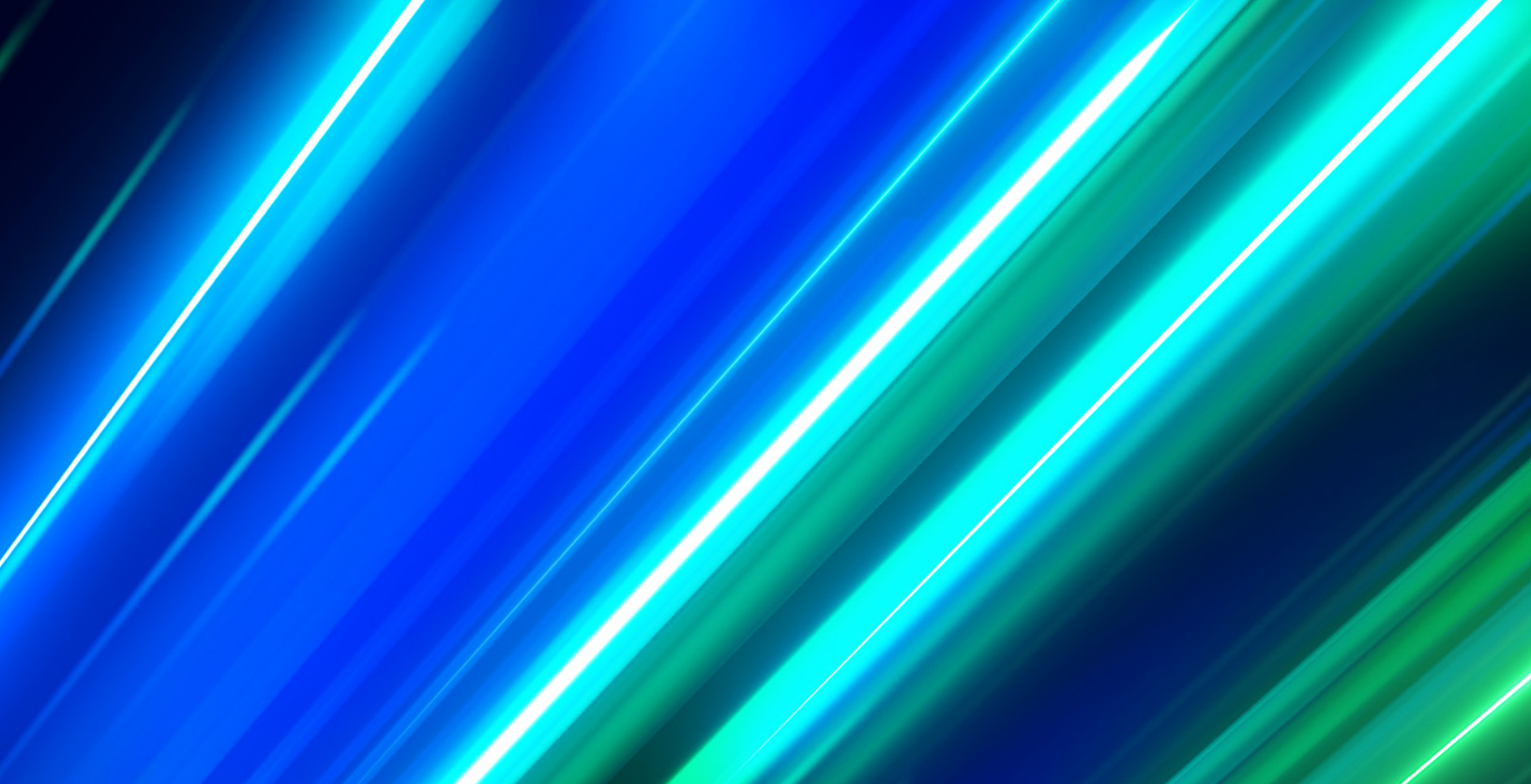
About Cognizant Healthcare

Cognizant's Healthcare Business Unit works with healthcare organizations to provide collaborative, innovative solutions that address the industry's most pressing IT and business challenges — from rethinking new business models to optimizing operations and enabling technology innovation. A global leader in healthcare, our industry-specific services and solutions support leading payers, providers and pharmacy benefit managers worldwide. For more information, visit www.cognizant.com/healthcare.

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Cognizant Digital Operations helps clients re-engineer, digitize, manage and operate their most essential business processes, lowering operating costs, improving user experiences, and delivering better outcomes and topline growth. Across the practice, we are creating automated, data-driven platforms and industry utilities. We help clients run better by applying traditional optimization levers, and we help them run differently by creating competitive advantage through making their processes digital-ready, which often leads to more effective operating models and corresponding topline revenue growth. Visit us at cognizant.com/cognizant-digital-operations.

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Cognizant (Nasdaq-100: CTSH) is one of the world's leading professional services companies, transforming clients' business, operating and technology models for the digital era. Our unique industry-based, consultative approach helps clients envision, build and run more innovative and efficient businesses. Headquartered in the U.S., Cognizant is ranked 195 on the Fortune 500 and is consistently listed among the most admired companies in the world. Learn how Cognizant helps clients lead with digital at www.cognizant.com or follow us @Cognizant.

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