Population Health and Care Management
Business Services for Healthcare Providers and Payers
Excerpt for Conduent
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Executive Summary

Introduction to the 2016 HfS Blueprint Report: Population Health and Care Management Business Process Services

- The Population Health and Care Management Business Process Services Blueprint 2016 looks at this slice of the Healthcare business services market with a focus on business process outsourcing and business process as a service. All of these service providers have consulting capability as well, and it's relevant, but the study is focused on how it plays a role with the on-going delivery of BPO/BPaaS. In this Blueprint, we review the market and service provider adoption of the Eight Ideals of the As-a-Service Economy for redefining the value of sourcing engagements, building on the initial report published in April 2015. (Link)

- While the market may have started with business process outsourcing in FTE models and staff augmentation engagements run on the core systems of payers, we see the demand taking shape in the market coming from payers, and also healthcare providers, Accountable Care Organizations, and even life sciences companies looking for combined technology and process services in this area. These "as-a-service" solutions in healthcare include new commercial models, new technology capabilities and an increased role for both intelligent automation and analytics in the delivery of the outcomes.

- This Blueprint covers market trends and direction as well as the analysis of 10 service providers: Accenture, Cognizant, Conduent, Dell, EXL, HCL, Hinduja Global Services (HGS), Shearwater Health, Sutherland Global Services, and Wipro.

For more on how we define Business Process As-a-Service vs. BPO, refer to Defining the Seismic Shift from Legacy BPO to BPaaS (free download with registration).

Introduction to the 2016 HfS Blueprint Report: Population Health and Care Management Business Process Services, Continued

- Unlike other quadrants and matrices, the HfS Blueprint identifies relevant differentials between service providers across a number of facets under two main categories: Innovation and Execution.

- For this 2016 report, HfS has increased the attention paid to innovation criteria in particular and adopted the new 2016 Blueprint Grid layout to assess service providers. This Grid now recognizes up-and-coming service providers (High Potentials) that are scoring higher on innovation criteria than on execution criteria as the providers invest and collaborate with clients and in services that move to a more business outcome-focused, flexible, and talent + technology enabled service.

- The Grid includes a new grouping, that of established, high-execution service providers (Execution Powerhouses) that have maintained effective delivery operations but need to innovate further on their capabilities and offerings. They are in addition to the pre-existing rankings for highest overall performance (Winner's Circle) and strong combined innovation and execution performance (High Performers).
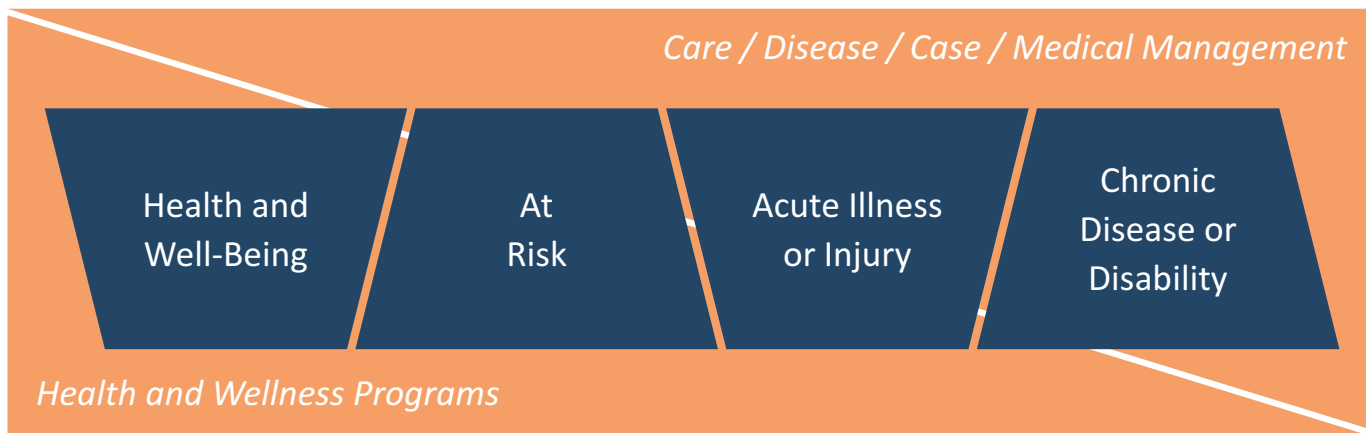
Managing Health and Care In the Digital Age

Why Population Health and Care Management?

A comprehensive view of engaging and managing consumers and patients in a proactive and more personalized way across the care continuum – where health and wellness management meets care and disease management – is the intersection of Population Health and Care Management.

For purposes of this study, HfS uses the following definitions:

- Population Health Management: targeting and engaging people who are currently free from illness or injury, with the intent to keep people healthy or intervene early

- Care Management: coordinating care for helping people manage chronic conditions and achieve better health, with the goal of reducing expensive acute care episodes

Population Health and Care Management On the Care Continuum

Care / Disease / Case / Medical Management

| Health and Well-Being | At Risk | Acute Illness or Injury | Chronic Disease or Disability |

Health and Wellness Programs

Note: Based on Population Health Alliance (http://populationhealthalliance.org)

Managing Health and Care in the Digital Age

Population Health and Care Management Business Services Value Chain

This HfS Blueprint takes a look at how service providers are partnering with health payers, healthcare providers, and new emerging entities, helping these organizations to identify patient and consumer most relevant needs, engage them proactively where the propensity to respond is highest, support them through acute and chronic disease, and do so with financial acuity.

POPULATION DATA MANAGEMENT & ANALYTICS	CONSUMER ENGAGEMENT and INTERACTION	UTILIZATION MANAGEMENT	CARE COORDINATION	PERFORMANCE MANAGEMENT & OPERATIONAL ANALYTICS
• Aggregate data: population, patient, member, consumer • Patient registry support • Stratify population and assess risk • Identify interventions	• Outreach and educate • Wellness program support • Telehealth support • Remote patient monitoring	• Prior authorization • Prospective review • Concurrent review / In-stay review • Retrospective review • Manage appeals and grievances	• Program enrollment and referral • Patient navigation • Discharge planning • Discharge admin / documentation	• Care management program evaluation and assessment • Utilization management fraud, waste and abuse • Quality and compliance (e.g., care gap reporting and analysis, STARS, HEDIS)
Identifying whom to target with what intervention	Reaching out, engaging consumers, members, patients in health & care	Processing authorizations, reviews, appeals, and grievances.	Coordinating care with and for the patient/member.	Measuring outcomes, analyzing, reporting.

Key Highlights: Population Health and Care Management Business Process Operations

■ In healthcare it often feels as though we are in the classic children's book in which you can "Choose Your Own Adventure." Given a situation, there are many options, and each one leads down an unknown path. There is much yet to discover in Healthcare…and Healthcare Operations. At least in real life, unlike the books, we can partner for the journey. The healthcare journey requires resources, and that's what we hear as an increasingly common driver for business process outsourcing and business process as a service—partnering for resources.

■ HfS hears first and foremost that the driver for partnering for business process services in population health and care management is about resources—allowing skilled clinicians to focus on face-to-face interactions by rethinking supporting activity that can be done remotely, or, increasingly, automated, such as medical and utilization review, care coordination, telehealth support, coding, and outreach.

■ The industry conversation is changing from "take this on and reduce the cost" to "how can I better use services, IT and data to understand and meet member, patient, and healthcare provider needs in a way that will increase satisfaction and quality and decrease cost, thereby creating a better experience for all"? We also hear service providers exploring ways to help healthcare organizations address the populations of "rising risk," and how to prevent or delay the onset of disease. In other words, acting as a knowledgeable and integral part of changing the industry by focusing on healthcare outcomes.

Key Highlights: Population Health and Care Management Business Process Operations, Continued

- The business process services market for Population Health and Care Management has continued to evolve and develop over the past year, for example:

  - **Zeroing In On Business and Healthcare Outcomes:** What does the service buyer want to achieve? What outcomes matter and how to measure it? What inputs can we use from publicly available data or anonymized data sources? A number of service providers such as Accenture, Cognizant, Dell, EXL, and Conduent are focusing in on doing upfront analysis to bring to a discussion with service buyers on how to impact health and medical outcomes— risk adjustment, reimbursements, patient propensity to engage, "rising risk" populations, etc.– that are relevant to revenue impact as well as cost savings.

  - **Accessible and Actionable Data:** Simply stated: Collecting data and managing it effectively is core to changing the healthcare industry. Increased capability and focus on creating a better understanding of the realities of a patient in order to better support health and care management by combining socio economic, claims, and medical data for analytics leading to actions plans for outreach, interventions, and financial support. Examples from Cognizant, EXL, Conduent.

  - **Infusing Healthcare and Medical Know-How:** More service providers are hiring Chief Medical Officers and industry leaders to participate in client discussions and help shape relevant patient centric solutions and delivery, such as at Sutherland and EXL.

Key Highlights: Population Health and Care Management Business Process Operations, Continued

- **Momentum for Platform-Based Support:** Solutions that include people and technology such as automation software, care management and communications platforms, and analytics tools. An example is the work to define and develop patient registries from multiple sources that will become the foundation of population management analytics and actions like the work Sutherland is doing; and predictive models being built into software platforms by Cognizant and EXL. Additionally we see service providers like Dell, HCL, and Conduent increasingly addressing mobility and telehealth in BPO/BPaaS.

- **Unique Education and Training:** Sutherland is providing opportunities to cross skill and learn from best practices in other industries, such as retail. Cognizant is building an ecosystem for nurses, including additions to curriculums at school regarding coding and advances in evidence-based medicine, and part-time work in hospitals and field outreach programs. HCCA ensures its employees are trained and certified on HIPAA compliance and PHI, and is adding HITRUST certification. We see an increase in training and education around data security.

- **Expanding Ecosystems:** Activity in the last year has included data, platform, and service acquisitions such as RSA Medical and HCI by Conduent, Health Plan Services by Wipro. Unique partnerships in the industry include Dell's collaboration with Baystate Health's Techspring, an innovation center for a hospital system, and Wipro's with Glooko as part of a diabetes management BPaaS. Also, the delivery network is expanding with Cognizant opening a delivery center for healthcare in India; and EXL in Colombia; and increased stateside resources at many service providers.

State of the Market: Service Providers

- **As-a-Service Winners** are service providers that are in collaborative engagements with clients, and making recognizable investments in future capabilities in talent and technology to continue to increase the value over time. These providers are also leading in incorporating analytics and/or BPaaS to deliver insight driven services.
  - **Accenture, Cognizant, EXL, Conduent (formerly Xerox)**

- The **High Performers** all execute well, are investing in future capabilities, but need to gain more consistency and traction among clients in defining and delivering against business outcomes, and using analytics in ongoing services:
  - **HGS, Sutherland, Wipro**

- A new addition to the Blueprint this year, **Shearwater Health (formerly HCCA Health Connections)** is not, however, new to the industry, and is gaining speed as an **Execution Powerhouse** with strength in operational excellence and increasingly combining talent and technology effectively.

- **Dell** has **High Potential** for increasing momentum for BPO/BPaaS for analytics in particular as it moves toward executing its vision with clients.

- **HCL** also participated in this study and while being innovative in healthcare consumer engagement support in pharma, has yet to gain momentum in healthcare.

AS-A-SERVICE ECONOMY

Use of operating models, enabling technologies and talent to drive business outcomes through outsourcing. The focus is on what matters to the end consumer.

HfS uses the word "economy" to describe the next phase of outsourcing as a new way of engaging and managing resources to deliver services.

The 8 Ideals of the As-a-Service Economy:

1. Write Off Legacy
2. Design Thinking
3. Collaborative Engagement
4. Brokers of Capability
5. Intelligent Automation
6. Accessible and Actionable Data
7. Holistic Security
8. Plug-and-Play Digital Services

Source: Beware of the Smoke: Your Platform Is Burning by HfS Research, 2015

Key Market Dynamics

State of the Health Care Market: "Triple Aim" + 1

The Health Care Industry is looking to achieve the Triple Aim by putting people at the heart of healthcare: promoting general health and wellness, creating a better care experience for those who require treatment, and lowering the cost of doing so.

And, the industry needs to do it with economically viable businesses. Corporate operations play a key role in achieving this end state.

As the industry shifts towards value-based care, with a focus on the consumer and the "lifetime value of healthcare," key themes for health care operations supporting organization and industry transformation, are:

- It's about individuals as consumers, members, patients, caregivers

- As people take on more responsibility for health care, they value: access, quality, and affordability

- While all players in the ecosystem are critical participants, the key relationship is between the health care consumer and the health care professional; the *Health Care Professional* is the "tip of the spear," the most common link between the consumers and all the other players in the ecosystem
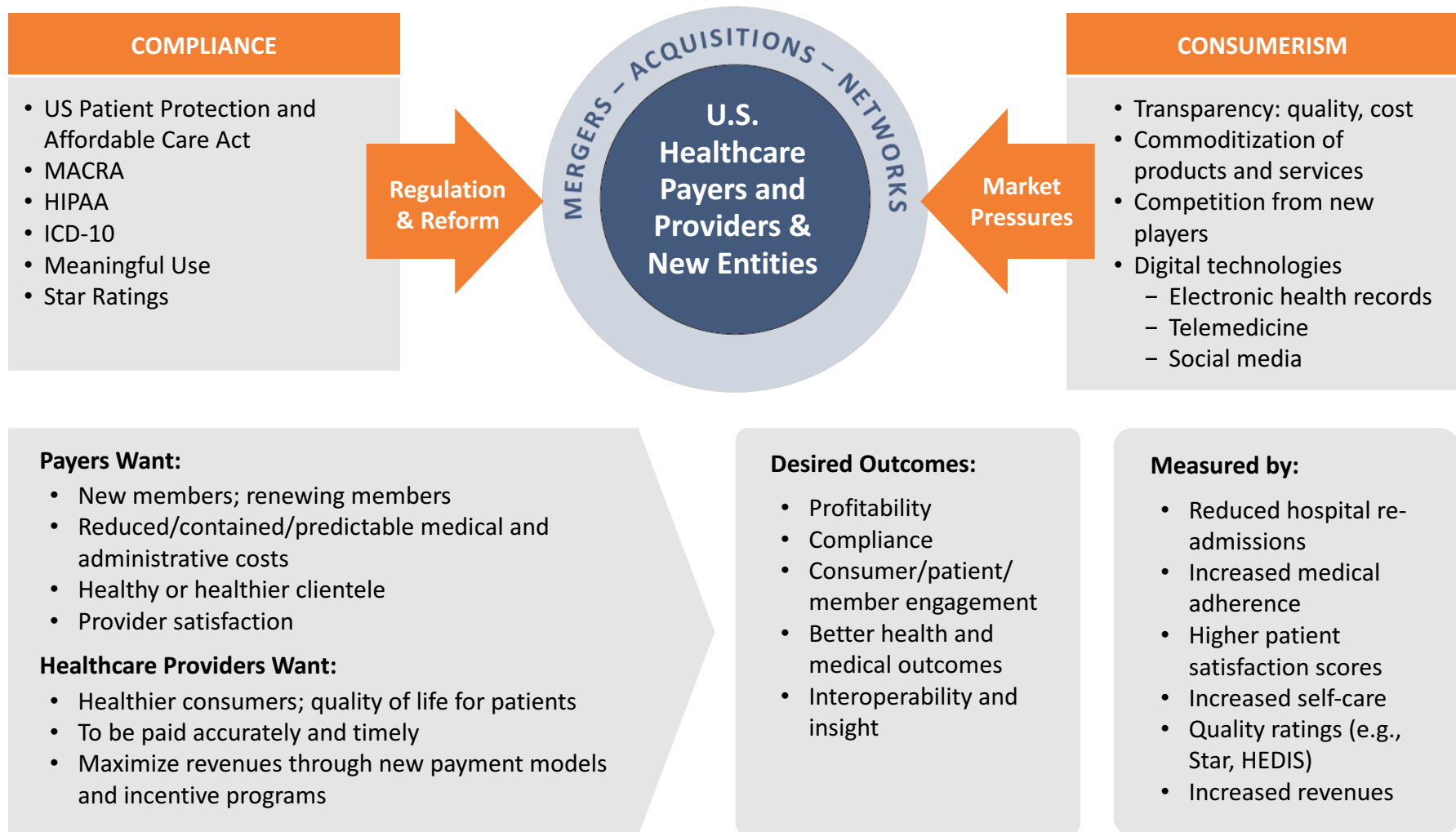
Healthcare Industry Ecosystem

Source: HfS Research, 2016

Compliance and Consumerism Driving Complexity and Change for U.S. Healthcare Payers and Providers

Representative

COMPLIANCE

- US Patient Protection and Affordable Care Act
- MACRA
- HIPAA
- ICD-10
- Meaningful Use
- Star Ratings

Regulation & Reform →

MERGERS – ACQUISITIONS – NETWORKS

U.S. Healthcare Payers and Providers & New Entities

← Market Pressures

CONSUMERISM

- Transparency: quality, cost
- Commoditization of products and services
- Competition from new players
- Digital technologies
  - Electronic health records
  - Telemedicine
  - Social media

Payers Want:
- New members; renewing members
- Reduced/contained/predictable medical and administrative costs
- Healthy or healthier clientele
- Provider satisfaction

Healthcare Providers Want:
- Healthier consumers; quality of life for patients
- To be paid accurately and timely
- Maximize revenues through new payment models and incentive programs

Desired Outcomes:
- Profitability
- Compliance
- Consumer/patient/ member engagement
- Better health and medical outcomes
- Interoperability and insight

Measured by:
- Reduced hospital re-admissions
- Increased medical adherence
- Higher patient satisfaction scores
- Increased self-care
- Quality ratings (e.g., Star, HEDIS)
- Increased revenues

Source: HfS Research, 2016

The World We Live In: A View of What's New and Emerging as Challenges for Consumers, Providers, and Payers

Consumer/Patient/Member

- Increasingly responsible for financing healthcare
- Buying and managing health insurance outside of the employer
- Understanding and choosing the right option from multiple products and plans, and then following the policies and rules of the networks
- Managing care from multiple sources (e.g., primary care, specialists, wellness coaches, etc.)
- Use of remote and mobile technology for self-care, self health management
- Expecting guidance, tools, and choices for plans, interactions, medications, etc.

Healthcare Provider

- Transition from managing episodes of care to proactively identifying who and when to target for intervention
- Assuming financial accountability for medical risk
- Increasing numbers of patients and decreasing numbers of primary care physicians
- Payment models and reimbursements based on medical outcomes
- Competition from new market entrants, such as retail outlets
- Use of digital technology as an integral part of communication and care (e.g., electronic records, telemonitoring, etc.); meaningful use requirements

Health Plan/Payer

- Increasingly responsible for financing healthcare
- Product development for new categories; differentiation in increasingly commodity market
- Needing to extend from B2B to B2C model—attract and retain the "right" members
- Increase in members leading to increases in demands on customer support, processing, etc.
- Expansion of Medicaid and Medicare and associated government regulation and reporting
- Ratings and reviews (e.g., 5-Star and HEDIS)
- Use of digital technology to create effective care management channels and communities
- Analytics for fraud, waste and abuse

Operations in Partnership with Service Providers Can Play a Strategic Role in Healthcare Industry Transformation

To truly impact a member, patient, or clinician experience, this shift to value based care requires businesses and service providers to do away with the distinctions of "front office" and "back office" and focus on outcomes, such as healthier populations proactively managing their health, increased medical and therapy adherence, and reduced hospital readmissions.

Challenges for Healthcare Industry Ecosystem participants include:

- Creating a personalized and engaging experience for better health and medical outcomes
- Defining the outcomes, measuring, and reporting on them
- Managing risk and compliance
- Identifying and building new revenue streams and business models
- Developing networks and interoperability
- Incorporating effective use of digital technologies
- Establishing holistic security and digital trust

We see service providers taking a proactive approach to working with clients to identify at-risk and rising risk patients and personalize outreach and support efforts, streamline and automate care and utilization management processes, aggregate and analyze data to identify actions that lead to better revenue reimbursement, just as a few examples.

As service buyers look to enter or renew outsourcing contracts, in addition to the ever-present need to reduce costs, we increasingly hear drivers focused on increasing quality, tapping into clinical, non-clinical and analytical skills, solutions that aggregate various data sources and support engagement, and an increased focus on cultural match and ability to communicate clearly and effectively.
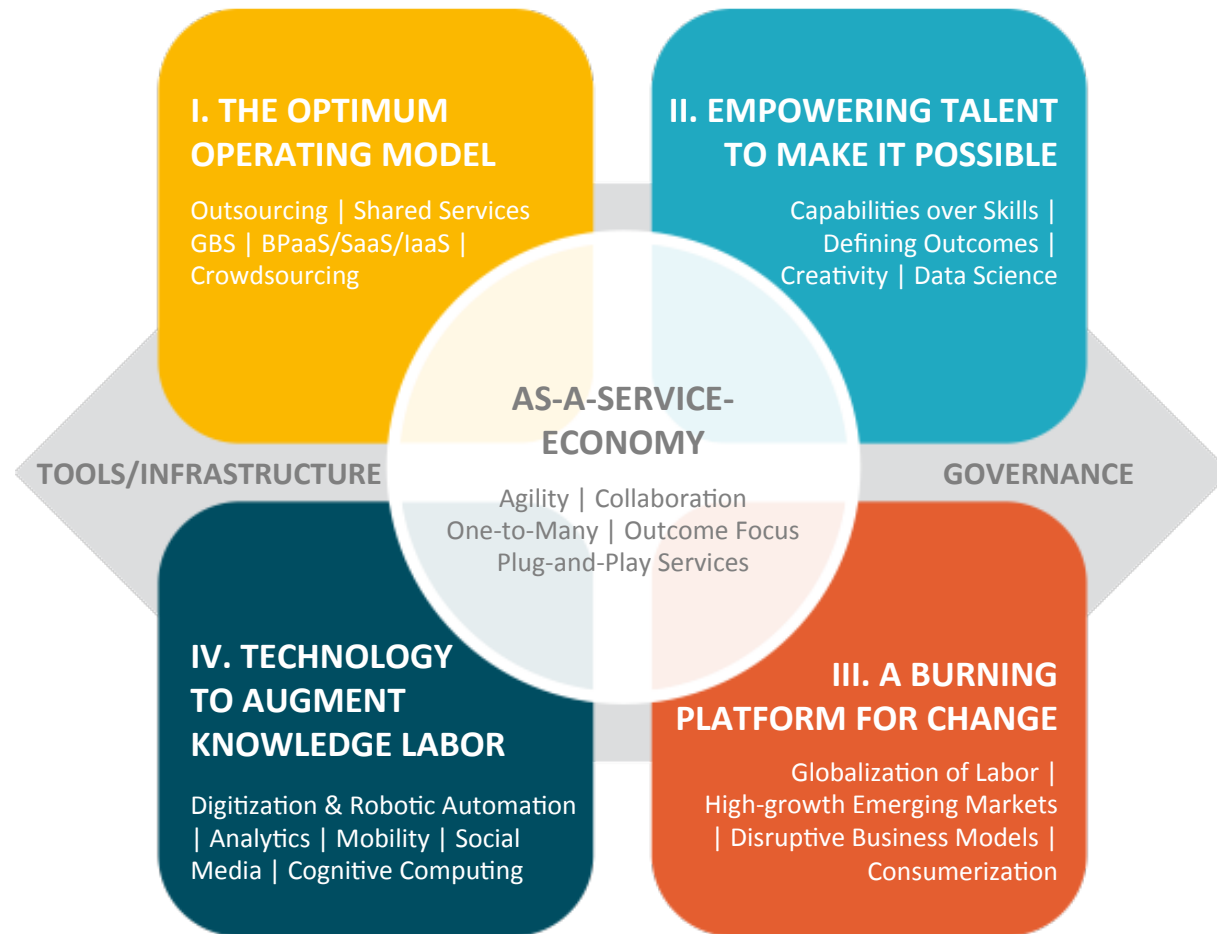
Entering the Era of the As-a-Service Economy

From BPO to As-a-Service:

- Driven by consumerism, competition, and regulation

- Increasing interest and capability for use of automation, cognitive computing, mobility, and analytics

- Moving beyond lift and shift and FTE-only-based models to per member per month, transaction-based and other new commercial models

- Challenging the "status quo" with real talk and investments in talent development, innovation, proofs of concept, end to end services, and more
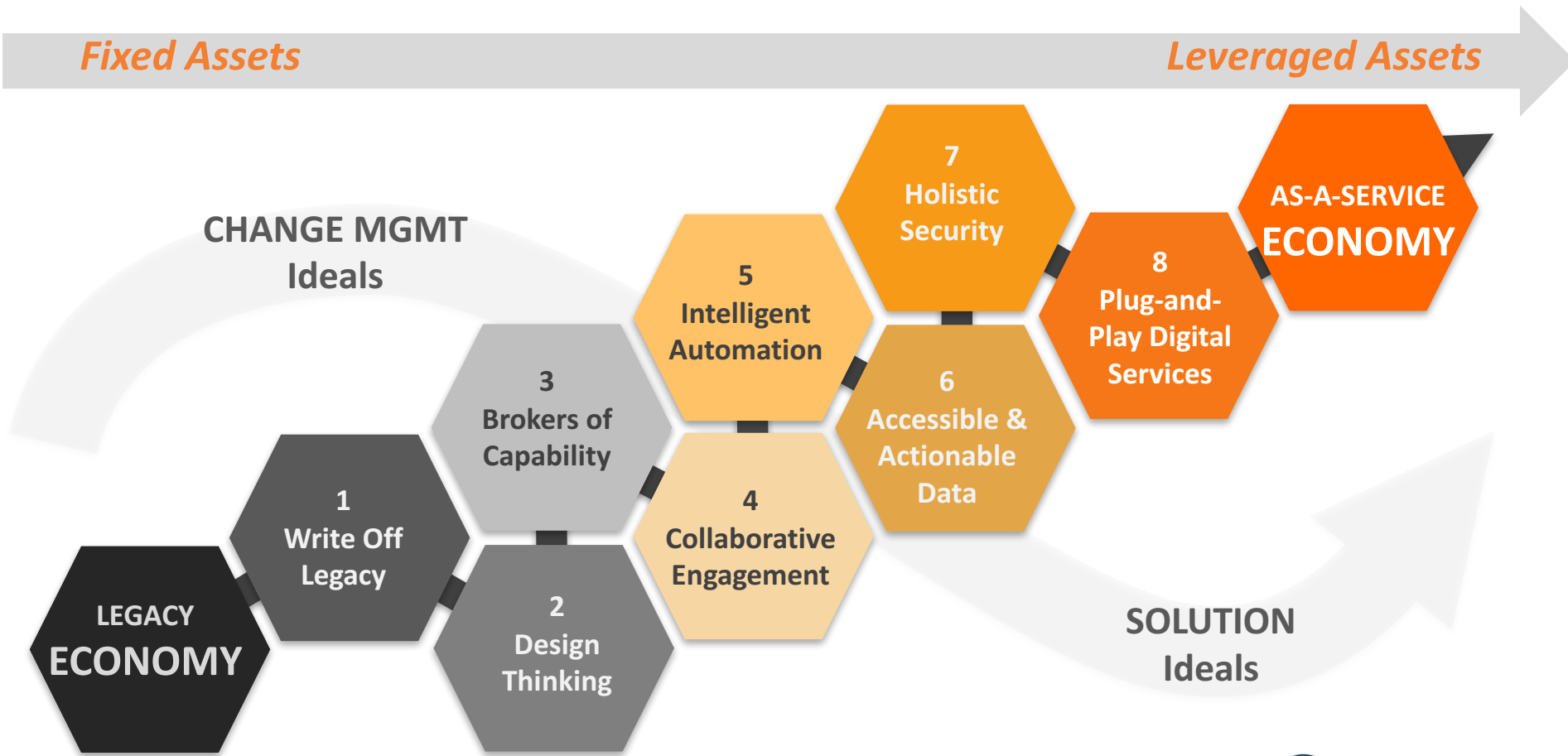
Leading to "operating" in the As-a-Service Economy

I. THE OPTIMUM OPERATING MODEL
Outsourcing | Shared Services GBS | BPaaS/SaaS/IaaS | Crowdsourcing

II. EMPOWERING TALENT TO MAKE IT POSSIBLE
Capabilities over Skills | Defining Outcomes | Creativity | Data Science

AS-A-SERVICE-ECONOMY
Agility | Collaboration One-to-Many | Outcome Focus Plug-and-Play Services

TOOLS/INFRASTRUCTURE

GOVERNANCE

IV. TECHNOLOGY TO AUGMENT KNOWLEDGE LABOR
Digitization & Robotic Automation | Analytics | Mobility | Social Media | Cognitive Computing

III. A BURNING PLATFORM FOR CHANGE
Globalization of Labor | High-growth Emerging Markets | Disruptive Business Models | Consumerization

Source: HfS Research, 2016
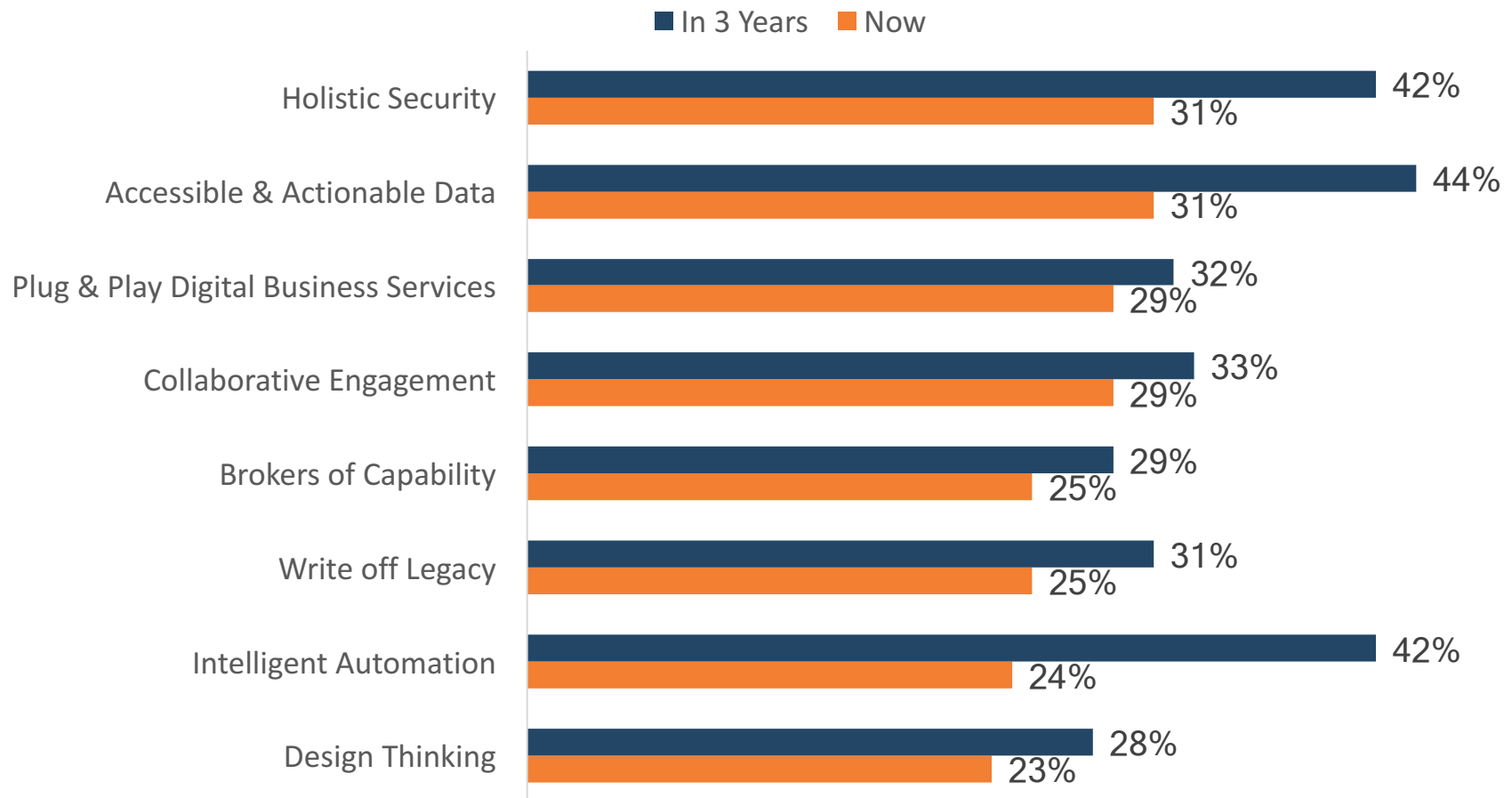
Journey to the As-a-Service Economy

- Moving into the As-a-Service Economy means changing the nature and focus of engagement among enterprise buyers, service providers, and advisors

- "As-a-Service" unleashes people talent to drive new value through smarter combinations of talent and technology focused on business results beyond cost reduction

Fixed Assets → **Leveraged Assets**

CHANGE MGMT Ideals

LEGACY ECONOMY

1 Write Off Legacy

2 Design Thinking

3 Brokers of Capability

4 Collaborative Engagement

5 Intelligent Automation

6 Accessible & Actionable Data

7 Holistic Security

8 Plug-and-Play Digital Services

AS-A-SERVICE ECONOMY

SOLUTION Ideals

Healthcare Service Buyer Perspective on As-a-Service in Healthcare Operations Today vs 3 Years Out

Considerable jumps in progress expected in automation, analytics, and security.

How much progress has your enterprise made achieving each "Intelligent Operations" end-state today, and where do you expect to be in 3 Years' time, based on current investment plans and operational maturity?

Legend: ■ In 3 Years ■ Now

Category	In 3 Years	Now
Holistic Security	42%	31%
Accessible & Actionable Data	44%	31%
Plug & Play Digital Business Services	32%	29%
Collaborative Engagement	33%	29%
Brokers of Capability	29%	25%
Write off Legacy	31%	25%
Intelligent Automation	42%	24%
Design Thinking	28%	23%

HfS BLUEPRINT REPORTS

Healthcare Operations Market Adopting As-a-Service Ideals

How Ideals Will Progress Between Service Buyers and Service Providers

IDEAL	AS-A-SERVICE IDEAL DEFINITION	NON EXISTENT	INITIAL	EXPANSIVE	EXTENSIVE	ALL PERVASIVE
Write Off Legacy	Using platform based solutions, DevOps, and API ecosystems for more agile, less exception oriented systems and processes		2016		2020	
Design Thinking	Understanding the business context to reimagine processes aligned with meeting client needs		2016	2020		
Brokers of Capability	Orienting governance to source expertise from all available sources, both internally and externally, to address capability gaps		2016		2020	
Collaborative Engagement	Ensuring relationships are contracted to drive sustained expertise and defined outcomes		2016		2020	
Intelligent Automation	Using of automation and cognitive computing to blend analytics, talent, and technology			2016		2020
Accessible & Actionable Data	Applying analytics models, techniques and insights from big data, real-time			2016		2020
Holistic Security	Proactively managing digital data across service chain of people, systems & processes			2016		2020
Plug and Play Digital Business Services	Plugging into "ready to go" business-outcome focused, people / process / technology solutions with security measures		2016		2020	

How As-a-Service Is Taking Shape in Population Health & Care Management Business Services: Writing Off Legacy

Legacy technology investments that limit agility and create exceptions addressed by adding internal and external FTEs

→ Using platform-based solutions, DevOps, and API ecosystems for more agile, less-exception-oriented systems

1 Write Off Legacy

- Interoperability and cooperation will be critical to effective patient-centric care, which nicely puts "Writing Off Legacy" into context. There are many silos in healthcare—healthcare payers, providers, and life sciences companies and IT systems, processes, and people. Writing Off Legacy in healthcare is about focusing on what will impact a patient's health, care, and cost, and coordinating and integrating—or replacing—these components to create more interaction and less overlap and redundancy. Consumerism and compliance is forcing organizations to be more nimble, digital, and competitive. As a result, we see the horizon opening to new possibilities of "Writing off Legacy."

Examples:

- Cognizant is once again taking a lead in this area, this time with its Health TranZform platform which is designed to be system agnostic with published APIs and will be delivered with an "App Store" concept. The platform and data is accessible to Cognizant clients and vetted partners to drive collaborative solutions for value based care models, network management, care insights, and member and patient engagement. Users can subscribe to services, such as to Utilization Management As-a-Service, Wellness As-a-Service, Quality As-a-Service.

- As one client stated, "in the market we are in, we have a particularly difficult ability to get data from other providers (e.g., hospitals); frequently when our patients get admitted we don't find out for weeks." Sutherland is focusing on creating data stores and patient registries that enable interoperability and communications (SmartHealthConnect).

How As-a-Service Is Taking Shape in Population Health & Care Management Business Services: Design Thinking

Resolving problems by looking first at the process as the source of the solution

→ Understanding the business context to reimagine processes aligned with meeting client needs

2 Design Thinking
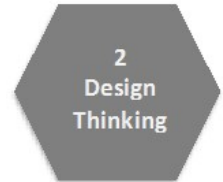
- Every service provider we talk to is very focused on ensuring it has a capable workforce that understands healthcare industry policy and security. What sets apart a few is the ability and willingness to consider how operations—the front, middle, and back office support—can impact health and care patients. Design Thinking provides a new way to develop and operate solutions as partners. It helps shift the focus of work and engagement from "internal" to "external": what matters to the end consumer. However, both the service buyer and service provider have to be interested in engaging this way. When we asked in our research about Design Thinking, one client said, "It is not what we engaged them to do." We would argue that it doesn't need to be—it doesn't have to be a standalone project; the principles of Design Thinking, a human-centered, questioning, and prototyping approach to finding and solving problems can be integrated into everyday work.

Examples:

- For one project for a medical device company, HCL noted that the if patients don't care if their health improves or not, they won't use a particular product; physicians have to believe the potential for health outcomes to be impacted in order to prescribe a product; and the sales force that has to interact with the physicians also have to believe in it. HCL managed the program that formed a board of representative patients, physicians, and sales teams, through the client, to design a services based solution that positions a particular medical device product.

- Accenture tapped into its Fjord design thinking capability with a client to explore ways to manage chronic conditions more effectively. They talked through what a person with diabetes really needs, when, and how; what is the expectation of the consumer regarding the role and payment responsibility of the healthcare provider, the health plan and themselves. From this workshop, Accenture and the client developed an engagement model that is being put into place.

How As-a-Service Is Taking Shape in Population Health & Care Management Business Services: Brokers of Capability

Focusing governance and operations staff on managing to the letter of the contract and the decimal points of service levels ➡️ Orienting governance to source expertise from all available sources, both internally and externally, to address capability gaps

3 Brokers of Capability

- Being a broker of capability is about articulating a business problem or opportunity, the desired outcomes, and then coordinating and facilitating across internal and external entities to reach those results. In healthcare, we see brokering going on to create networks leading to data stores and networks to better manage a patient's health and care, end to end, covering socio economic and medical and clinical needs.

Examples:

- "Wipro will sit down and fine tune with our stakeholders… and if they don't have what we need, they look outside… I'm impressed by the ability to deliver a highly finished product with inclusivity," said one client.

- Dell has partnered with TechSpring, a technology innovation center founded by Baystate Health in Massachusetts, to bring innovation to healthcare operations. They explore challenges and tap into their partner ecosystem and the hospital network to test ideas on how to improve care and outcomes for patients with chronic diseases. The basis for the work is Design Thinking, the partnership is a Collaborative Engagement, and they are working to Write of Legacy. This one is a good example of how a service provider can partner with a hospital system to solution in the As-a-Service Economy.

- An Accenture client shared how the service provider's consulting team assess and analyze a business problem for his organization, bringing in a perspective that provided new analysis on the data, and subsequently, a new the direction, and a third party partner with the right capability to fill a gap.

- "Our department works across department lines to combine member outreach activity," described one Conduent client, who brings network, clinical, and quality partners and Conduent together on initiatives.

How As-a-Service Is Taking Shape in Population Health & Care Management Business Services: Collaborative Engagement

Evaluating relationships on baselines of cost, effort, and labor

Ensuring relationships are contracted to drive sustained expertise and outcomes

4 Collaborative Engagement

- At the core of the As-a-Service Economy—linking the solution ideals to the change management ideals that make a solution effective over the long term—is collaborative engagement. As such, the service providers that are considered "partners" by service buyers are typically leaders in moving the industry toward more Intelligent Operations. Traditionally, business process outsourcing work has been directive from service buyers to service providers and managed strictly by procurement organizations. As more business units and global shared services centers take responsibility for relationships, HfS is seeing a move over time to more collaboration where trust and experience are in place, often through shared outcomes and results.

Examples:

- EXL clients consistently describe the service provider as collaborative, and appreciate the service provider's ability to be flexible and proactive. "I have peers asking me to broker conversations," said one client.

- Sutherland has been a good partner for the ACOs it has developed as its client base for population health business services, per its clients. The service provider seems to do a good job of finding a fit with its client base. This kind of cultural alignment bodes well for long-term relationships and increasing value over time in the engagement. One client shared an appreciation for the approach of "we understand the advantage of the outcome" for the work, and will figure out with you how to get it done.

- A Conduent client described how RSA Medical had to reinvent themselves due to changes in Obamacare making previous services less relevant.. "they were a great partner so we were able to work with them and repurpose for new services." This collaboration is continuing since the Conduent acquisition.

How As-a-Service Is Taking Shape in Population Health & Care Management Business Services: Intelligent Automation

Operating fragmented processes across multiple technologies with significant manual interventions

Using automation and cognitive computing to blend analytics, talent, and technology

5 Intelligent Automation

- As a market, we would classify the use of automation as nascent if we based the evaluation solely on client interviews. Few of them are using or are aware of automation for the services in the scope of this report. However, the use of automation for workflow management is pretty common among service providers. We also did hear examples from the service providers of where they are using or experimenting with what we call Intelligent Automation—using software and technology to build on routine tasks, enhancing it through machine learning and natural language processing, and moving up the curve with artificial intelligence.

- Stepping outside of this scope to look at Healthcare Operations more broadly, we see increased take up of Intelligent Automation in this industry, particularly in claims processing, provider data management, and eligibility and intake. All service providers have been using macros and "mini-bots" on what they can manage without touching the client IT environment for years, especially for workflow and routine data input and movement tasks; and are increasingly applying it more aggressively across activities for standardized processes to increase predictability, speed, and quality. As they do so, staff are often being retrained or shifted to new engagements.

Examples:

- Cognizant's Healthcare Process Automation (HPA) is a robot-to-robot management structure integrated with domain centric process knowledge used to delegate work actions to myriad individual robots; Cognizant is experimenting with "Smart UM" to apply automation to data entry, authorization case creation, and reviews to move towards "real-time authorization."

How As-a-Service Is Taking Shape in Population Health & Care Management Business Services: Intelligent Automation, Cont'd

Operating fragmented processes across multiple technologies with significant manual interventions ➡ Using automation and cognitive computing to blend analytics, talent, and technology
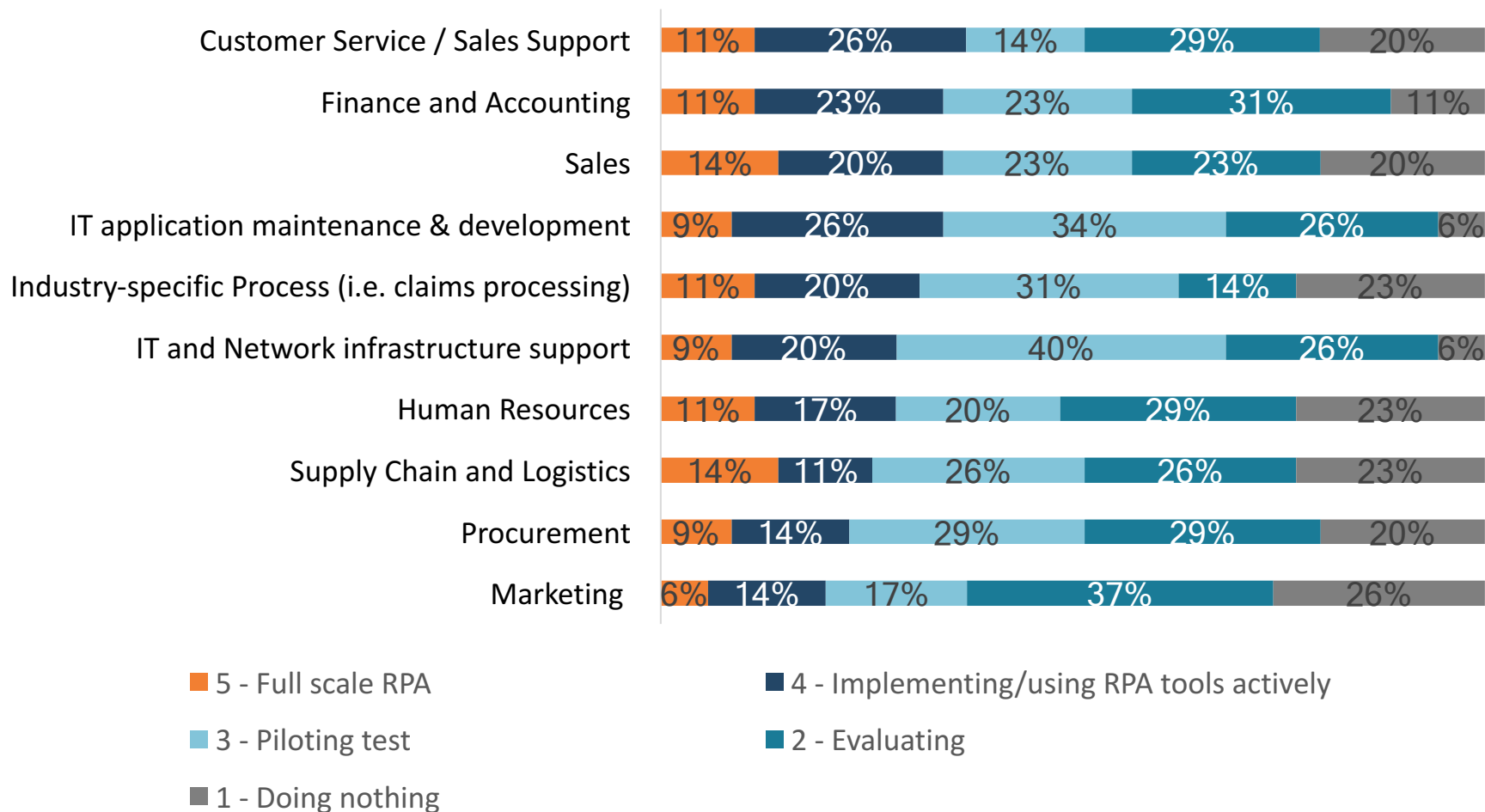
5 Intelligent Automation

Examples:

- The Shearwater Health Work Allocation System automates work distribution and productivity tracking, and used on a targeted line of business, drove a 75% reduction in average handling time per case and $2.5 million in direct savings over the current contract term.

- HGS has integrated automation into the architecture designed for an omnichannel experience through its "DigiCX" initiative. Intelligent Automation is used to enable self-service online and with call center/customer service agents to provide integrated views of members, for example, that call with questions, and text and voice analytics are used to automatically identify and route feedback.

- EXL is building a bot for automating prior authorization activity that will interface to CareRadius or other platforms.

- Dell's Business Process Management Suite (DBPMS) with Automated FTEs (AFTEs) automate medical coding as well as claims adjudication and accounts receivable activities.

- Accenture is experimenting with artificial intelligence to do text mining for medical chart review. Also, Accenture is collaborating with Automation Anywhere to adopt its AppIP technology that will be used to drive enterprise continuity with automation adapters that can update hundreds of automated tasks simultaneously.

- Conduent is working on how to better incorporate automation into outreach and communications.

Use of Automation in Healthcare Across Service Buyers Is Still Mostly in Pilot Stage, If Being Used at All

Thinking about the use of RPA within the following business functions, what stage of maturity have you reached? (Healthcare Service Buyers only)

Function	5 - Full scale RPA	4 - Implementing/using RPA tools actively	3 - Piloting test	2 - Evaluating	1 - Doing nothing
Customer Service / Sales Support	11%	26%	14%	29%	20%
Finance and Accounting	11%	23%	23%	31%	11%
Sales	14%	20%	23%	23%	20%
IT application maintenance & development	9%	26%	34%	26%	6%
Industry-specific Process (i.e. claims processing)	11%	20%	31%	14%	23%
IT and Network infrastructure support	9%	20%	40%	26%	6%
Human Resources	11%	17%	20%	29%	23%
Supply Chain and Logistics	14%	11%	26%	26%	23%
Procurement	9%	14%	29%	29%	20%
Marketing	6%	14%	17%	37%	26%

Legend:
- 5 - Full scale RPA
- 4 - Implementing/using RPA tools actively
- 3 - Piloting test
- 2 - Evaluating
- 1 - Doing nothing

How As-a-Service Is Taking Shape in Population Health & Care Management Business Services: Accessible and Actionable Data

Performing ad-hoc analysis of unstructured data with little integration or business context → Applying analytics models, techniques, and insights from big data in real-time

6
Accessible & Actionable Data

- The most effective analytics – analysis of data for insight that leads then to plan and action – starts with aggregated, cleansed, and standardized processes and data. It typically builds on where a service provider has established a level of trust, operational stability, and depth of industry or functional expertise. The greatest take up of analytics in this way in population health and care management has been in risk adjustment/risk score accuracy; Stars ratings; population stratification and identification for care interventions; and care and utilization management. Along these lines, service providers are looking to partner with service buyers to impact health, care, and financial outcomes such as greater patient adherence to therapy and medication, better patient/member experience, fewer costs due to overlaps, repeats, and errors, minimal unnecessary admissions, and better control over administrative costs.

- A strong theme this year in healthcare regarding data and analytics is the combination of data sources—clinical, claims, and socio-economic in particular—to get a better understanding of patients for more comprehensive "humanized" approaches to health and care. For example, care plans that are not just of follow up visits, therapy, and medications, but also patient navigators or care managers who help ensure that patients have the transportation, child care, and financial support needed to follow through on the plans.

- Service providers are engaged in all levels of the spectrum, including data aggregation and cleansing, stratification, analytics, and action. Some are engaged at a certain point, and others, across the board. We've seen an increase over the past year in the engagement of service providers in on-going analytics support versus point projects/consulting engagements, such as "analytics as-a-service." With the focus in healthcare overall on impacting health outcomes and the associated challenge in healthcare organizations to find and keep the resources who define and execute this work, we expect this type of engagement to grow.

HfS BLUEPRINT REPORTS

How As-a-Service Is Taking Shape in Population Health & Care Management Business Services: Accessible & Actionable Data, Cont'd

Performing ad-hoc analysis of unstructured data with little integration or business context ➡ Applying analytics models, techniques, and insights from big data in real-time

6 Accessible & Actionable Data

Examples:

▪ For one health plan client, Conduent's acquisition, RSA Medical, used MedGine to help stratify, prioritize, recommend and action plans to improve health risk assessment completion and member integration into clinical and support programs to meet state requirements. For another, a review of readmission rates identified that a particular diagnosis was leading to more than typical readmission rates and was tied to specific geographic areas. Conduent implemented outreach and education initiatives, engaged public health and providers, and addressed reimbursement issues, among activities that ultimately led to reduced readmissions. According to a client, "they have the ability to touch a portion of the population we do not have the resources to reach."

▪ Cognizant worked with a client and their patient population to focus on targeting the "right" programs to the "right" members to increase medical and therapy adherence. The service provider built models to apply weekly to identify low adherence members based on behaviors and reach out proactively.

▪ Dell is focusing a current effort with a partner/client on aggregating clinical data from physician and hospital EHRs (such as vital signs, labs, medications, procedures) as well as socio-economic data to identify patients with "rising risk." These are the patients with clinical markers and socioeconomic risk factors that indicate a high probability of developing a chronic disease and who need medical intervention. Because these patients have not yet needed frequent or expensive services, claims data alone won't identify them as having high risk and they might not receive the preventive services they need. The work is not at this time being provided as an ongoing service; it's still a work in progress and is actually a good example also of design thinking in action as they iterate on the models and results to put together an actionable plan.

How As-a-Service Is Taking Shape in Population Health & Care Management Business Services: Accessible & Actionable Data, Cont'd

Performing ad-hoc analysis of unstructured data with little integration or business context

→

Applying analytics models, techniques, and insights from big data in real-time

6
Accessible & Actionable Data

Examples:

▪ From a platform perspective, EXL is working through updates to CareRadius to increase the capability for data aggregation and analysis. One client we spoke to mentioned that algorithms that have already been tested for predictive analytics regarding in-patient admissions are being developed into the software. The intent is to move it from being a tool for storing and reading data to reaching out to pull in data from multiple sources for analysis and actions for population health management. EXL is also piloting the use of the RPM Direct capability it acquired as a key part of the foundation for doing risk score analysis and adjustments on populations. RPM brought into EXL capability for analyzing large consumer data sets to segment populations, predict response rates, forecast customer lifetime value, and design and execute targeted, multi-channel marketing campaigns, as well as a database of 250 million consumers and 120 million U.S. households.
([EXL Acquires RPM Direct for Insurance Marketing Secret Sauce](#))

▪ As Accenture works with cuts of clinical data it manages over a period of time, high volume cases for example, by procedure, code, and impact, it identifies suggested process and procedure changes. Considerations include focusing audits to help clients refine the medical review approach and escalation, refine call questions and templates, for changes to what nurses are doing, case loads and complexity to make case processing more timely. Also, Accenture is working with clients that have multiple legacy systems related to risk score accuracy, and analytics plays a role in determining where and how to shave time off the process for chart reviews that get risk adjustment information to CMS faster for closing the loop for revenue impact.

How As-a-Service Is Taking Shape in Population Health & Care Management Business Services: Holistic Security

Responding reactively with post-event fixes; little focus on end-to-end process value chains

→

Proactively managing digital data across a service chain of people, systems, and processes
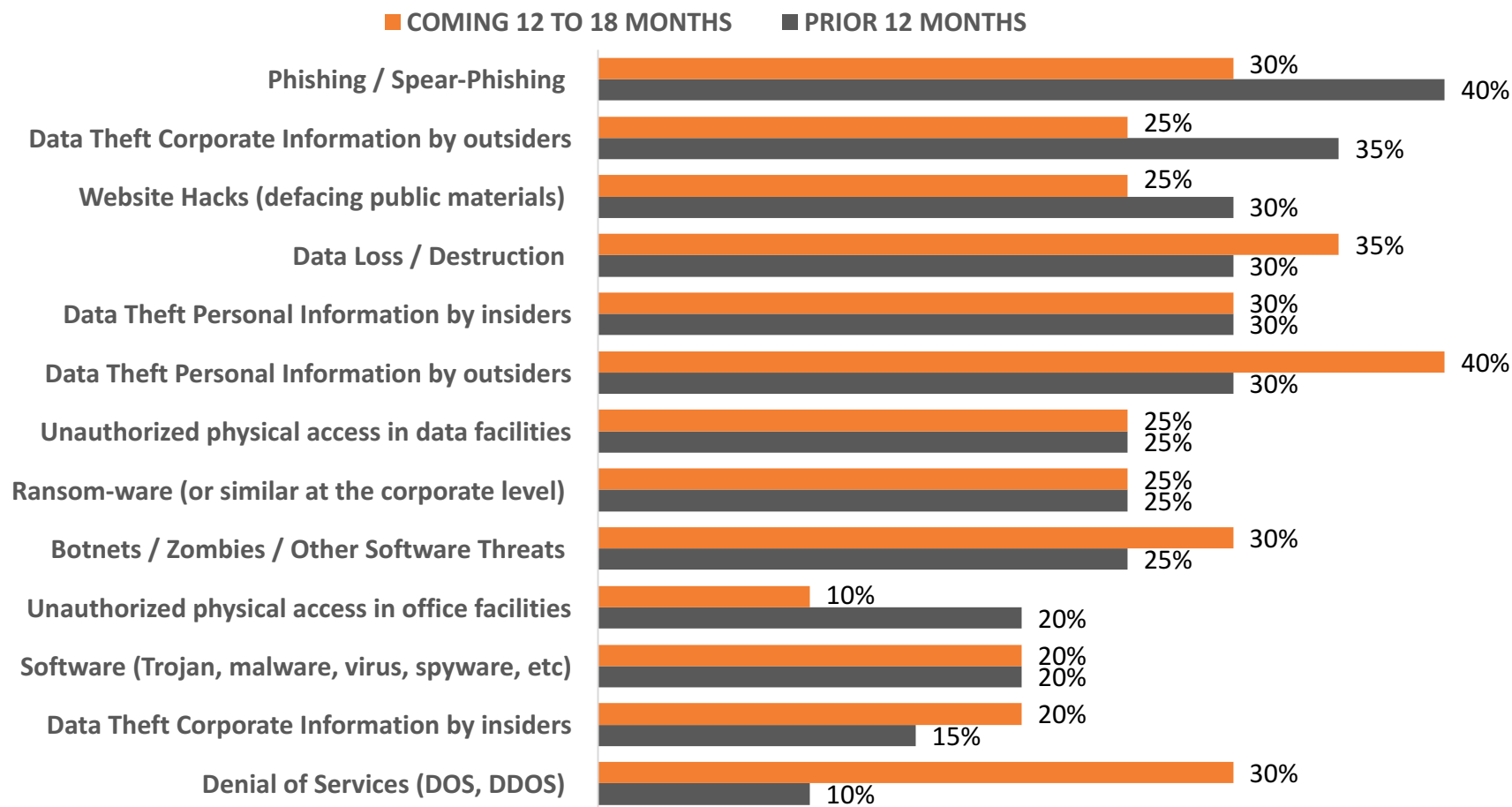
7 Holistic Security

- Healthcare data has become even more valuable on the black market (>$300/record) than credit card data, and no wonder as it has a combination of clinical, financial, and personal information that is difficult to trace or replace (e.g., U.S. social security number). Security breaches cost the healthcare industry over $6 billion in the past two years, according to the Ponemon Institute's annual survey, as a result of criminal and employee issues. As the healthcare industry is in the throes of change that includes mergers and acquisitions and partnerships and new networks, and at the same time, hackers and criminals get more tech-savvy and bold, security becomes increasingly complex—with lots of moving parts.

- In an outsourcing relationship, Holistic Security is the proactive management across internal and external people, process, and technology. Often the focus is on the systems, but in business process outsourcing engagements, people and process become a significant factor in managing and securing data. Healthcare is a highly regulated and protective industry, and service providers are increasingly proactive and thoughtful in their approach to monitor, manage and train their workforce. However, there is a shortage of skills and coordination in this area.

- We consider Population Health and Care Management at the Expansive stage of Holistic Security. We see potential for greater impact in healthcare BPO when healthcare service buyers and service providers use data for insight driven services. Secure, accessible data is at the heart of increasing the value over time that service providers can bring to an outsourcing engagement, and with advances in industry practices and technology, we expect this area to mature over the next few years. All service providers are addressing security and digital trust in order to move into providing insight-based and analytics-as-a-service.

Cybersecurity and Digital Trust: "Technology is outpacing ability but not the threat"

Rising concerns among service buyers in healthcare for external threats that interfere with ability to support health and care

(HC/Pharma: Major or Critical Threat Responses Only)

■ COMING 12 TO 18 MONTHS ■ PRIOR 12 MONTHS

Threat	Coming 12 to 18 Months	Prior 12 Months
Phishing / Spear-Phishing	30%	40%
Data Theft Corporate Information by outsiders	25%	35%
Website Hacks (defacing public materials)	25%	30%
Data Loss / Destruction	35%	30%
Data Theft Personal Information by insiders	30%	30%
Data Theft Personal Information by outsiders	40%	30%
Unauthorized physical access in data facilities	25%	25%
Ransom-ware (or similar at the corporate level)	25%	25%
Botnets / Zombies / Other Software Threats	30%	25%
Unauthorized physical access in office facilities	10%	20%
Software (Trojan, malware, virus, spyware, etc)	20%	20%
Data Theft Corporate Information by insiders	20%	15%
Denial of Services (DOS, DDOS)	30%	10%

Source: The State of Cybersecurity and Digital Trust, HfS Research; 20 Enterprise Security Professionals in Healthcare and Life Sciences

How As-a-Service Is Taking Shape in Population Health & Care Management Business Services: Holistic Security

Responding reactively with post-event fixes; little focus on end-to-end process value chains

→ Proactively managing digital data across a service chain of people, systems, and processes

7 Holistic Security

Examples:

- EXL shared a simple, comprehensive approach to information and data privacy that serves as a good example for what we mean by holistic security, covering governance, policies and processes, training and awareness, tools and technology, and compliance and monitoring controls with certification on ISO27001. The service provider manages an "intelligent Security Operation Center" (iSOC) to centralize the management.

- In order to work with the data that needs to be protected but is also critical for research and analysis, EXL has the Data Masq tool. We have also seen the capability to de-identify data, and determine the risk of re-identification, in third party providers like Privacy Analytics which was recently acquired by IMS Health. (More: Assessing and Anonymizing Personal Health Data for the "Greater Good")

- Cognizant's solutions allow for processes to create "bread crumbs" so clients can track each process step and ensure compliance to regulatory standards and adherence to standard operating procedures. Process flows can be customized and changes in standard operating procedures rolled out efficiently to support Population Health Management related compliance work and wellness programs.

- Shearwater Health trains and certifies employees on HIPAA compliance and PHI. The service provider has a HITRUST-certified IT lead and will become HITRUST certified by 2017. It's a forward looking move to help lay the groundwork for security standards across the industry, and then into enabling the interoperability that is so needed to move healthcare into a new way of partnering and delivering results for healthcare consumers and patients. (Health Information Trust Alliance [HITRUST])

How As-a-Service Is Taking Shape in Population Health & Care Management Business Services: Plug-and-Play Services

Undertaking complex and often painful technology transitions to reach a steady state

→

Plugging into "ready to go" business outcome–focused, people, process, and technology with security measures

8 Plug & Play Digital Services

- With the proliferation of legacy IT systems and even the newer ones like EMR and HIX that have plenty of data but aren't necessarily "user friendly" or interoperable, the Population Health and Care Management is a ripe market for Plug and Play Digital Business Services that combine talent and technology to solve a particular problem or opportunity. What really stands in the way of take up is trust. Even when service providers have proven the capability to deliver results, the sensitivity around patient interaction and data security is a significant barrier to taking advantage and realizing the potential. As the market gains energy and momentum around the shift from fee for service to fee for value, and the need to really change operations becomes a burning platform, we are seeing some BPaaS take off, such as Cognizant OnVida, and still others start to gain attention, such as Wipro's partnership with Glooko for diabetes management.

Examples:

- A network of hospitals on the East Coast had Cognizant's OnVida up and running as its care communication solution within 45 days including the technology platform and global clinical services. Less than a year later, the Cognizant solution is supporting more than 4,000 patients and provider touches a week, has increased transfers by more than 60%, improved the Star rating on patient satisfaction, and is supporting post discharge coordination for CHF, diabetes, and COPD patients.

- Wipro has partnered with Glooko, an FDA-approved platform that enables population level diabetes management. The MeterSync and Mobile App send data to a Clinical "Kiosk" where care managers can use a Population Health Tracker big data, web-based population health tool co-designed with the Joslin Diabetes Center for predictive analytics and to refine care plans. Wipro brings together platform, apps, technology configuration, support services and telephonic outreach as well as reporting and analytics based on a starting point patient/clinician journey.

Research Methodology

Research Methodology

Data Summary

- Data was collected in Q2 2016, covering buyers, providers and advisors/influencers of Population Health and Care Management Business Process Outsourcing Services.

- At the time of original publication, July 2016, Conduent was known as Xerox and Shearwater Health was known as HCC Health Connections

Participating Service Providers

This Report is Based On:

- **Tales from the Trenches:** Interviews with buyers who have evaluated service providers and experienced their services. Some contacts were provided by service providers, and others were interviews conducted with HfS Executive Council members and participants in our extensive market research.

- **Sell-Side Executive Briefings:** Structured discussions with service providers regarding their vision, strategy, capability, and examples of innovation and execution.

- **Publicly Available Information:** Thought leadership, investor analyst materials, website information, presentations given by senior executives, industry events, etc.

HfS Blueprint Scoring: Population Health and Care Management Business Process Services (BPO, BPaaS)

EXECUTION	100%
Quality of Account Management Team	15%
Integration of Customer Feedback and Collaborative Models of Engagement	10%
Flexibility to Deliver Point and End to End Solutions	10%
Quality of Service Delivery	20%
Ability to Attract and Retain Key Skills	20%
Continuous Improvement	15%
Strategy/Use of Intelligent Automation	10%

INNOVATION	100%
Vision for Population Health and Care Management Industry and Services	5%
Investing in Future Talent and Technology (staff, skills, tools)	15%
Usefulness & Quality of Technology to Support Business Processes	15%
Use of Analytics to Drive Insights and Actionable Data	20%
Innovation	15%
Use of Partnerships, Alliances, Acquisitions, and Joint Ventures	15%
Commercial Models (Variable) and Investment in Clients / Accounts	15%

Execution Definitions

EXECUTION	How well does the service provider execute on its contractual agreement, and how well does the provider manage the client/provider relationship?
Quality of Account Management Team	How engaged is the executive and management team in defining and managing the delivery of business services?
Incorporate Feedback and Collaborative Models of Engagement	How has the service provider taken feedback and incorporated it into the solution and delivery? Are engagements more directive or collaborative?
Flexibility to Delivery Point and End to End Solutions	Capabiity for providing the services in and across the value chain.
Quality of Service Delivery	What is the clients' overall impression of the quality of service?
Ability to Attract & Retain Key Skills	Do service buyers have access to the skills and capability needed to deliver relevant, continuous, quality work? The workforce management and development capability of the service provider.
Continuous Improvement	How effective is the continuous improvement methdology of the service provider? Do clients see ongoing change and improvement?
Use of Intelligent Automation	Is the service provider using automation, machine learning, cognitive computing, etc.?

Innovation Definitions

| INNOVATION	Innovation is the combination of improving services and business outcomes.
Vision for Population Health and Care Management Industry and Services	Is Does the service provider have, share, and engage in dialogue regarding a vision for Healthcare and BPO/BPM/BPaaS?
Investing in Future Talent and Technology	Is the service provider investing in developing talent with an eye toward capabilities that will impact value in the future? Is the service provider investing in the use of digital technologies in solutions? And the talent to use it?
Usefulness & Quality of Technology to Support Business Processes	How effectively does the service provider use the digital technologies social, mobile, automation, and cloud to deliver solutions and results?
Use of Analytics to Drive Insights and Actionable Data	How effectively does the service provider identify and articulate problems and issues, and provide suggestions or partner to explore solutions? Is the service provider offering or providing analytics?
Innovation	Has the service provider shared or recommended ideas or initiatives that have resulted in step change? Is design thinking in use?
Use of Alliances, Acquisitions	Does the service provider have a relevant partner ecosystem? Does it effectively integrate and use its acquisitions?
Commercial Models and Investments in Clients and Accounts	Does the service provider have flexible or variable contracting approaches? Do service buyers feel they get a return on investment? Does the service provider invest in accounts and clients?

Service Provider Analysis

Guide to the Blueprint Grid

To distinguish service providers that show competitive differentiation in a particular line of delivery with progress in realizing the "As-a-Service Economy" of business outcome–oriented, on-demand talent and technology services, HfS awards these providers the "As-a-Service Winner's Circle" designation.

		EXECUTION	INNOVATION
●	**As-a-Service Winner's Circle** show excellence recognized by clients in the 8 Ideals in execution and innovation	Collaborative relationships with clients, services executed with a combination of talent and technology as appropriate, and flexible arrangements.	Articulate vision and a "new way of thinking," have recognizable investments in future capabilities, strong client feedback, and are driving new insights and models.
●	**High Performers** demonstrate strong capabilities but lack an innovative vision or momentum in execution of the vision	Execute some of the following areas with excellence: worthwhile relationships with clients, services executed with "green lights," and flexibility when meeting clients' needs.	Typically, describe a vision and plans to invest in future capabilities and partnerships for As-a-Service, and illustrate an ability to leverage digital technologies and/or develop new insights with clients.
●	**High Potentials** demonstrate vision and strategy but have yet to gain momentum in execution of it	Early results and proof points from examples in new service areas or innovative service models, but lack scale, broad impact, and momentum in the capability under review.	Well-plotted strategy and thought leadership, showcased use of newer technologies and/or roadmap, and talent development plans.
●	**Execution Powerhouses** demonstrate solid, reliable execution but have yet to show significant innovation or vision	Evidence of operational excellence; however, still more of a directive engagement between a service provider and its clients.	Less evident vision and investment in future-oriented capability, such as skills development, "intelligent operations," or digital technologies.

HfS Blueprint Grid: Population Health and Care Management Business Process Services
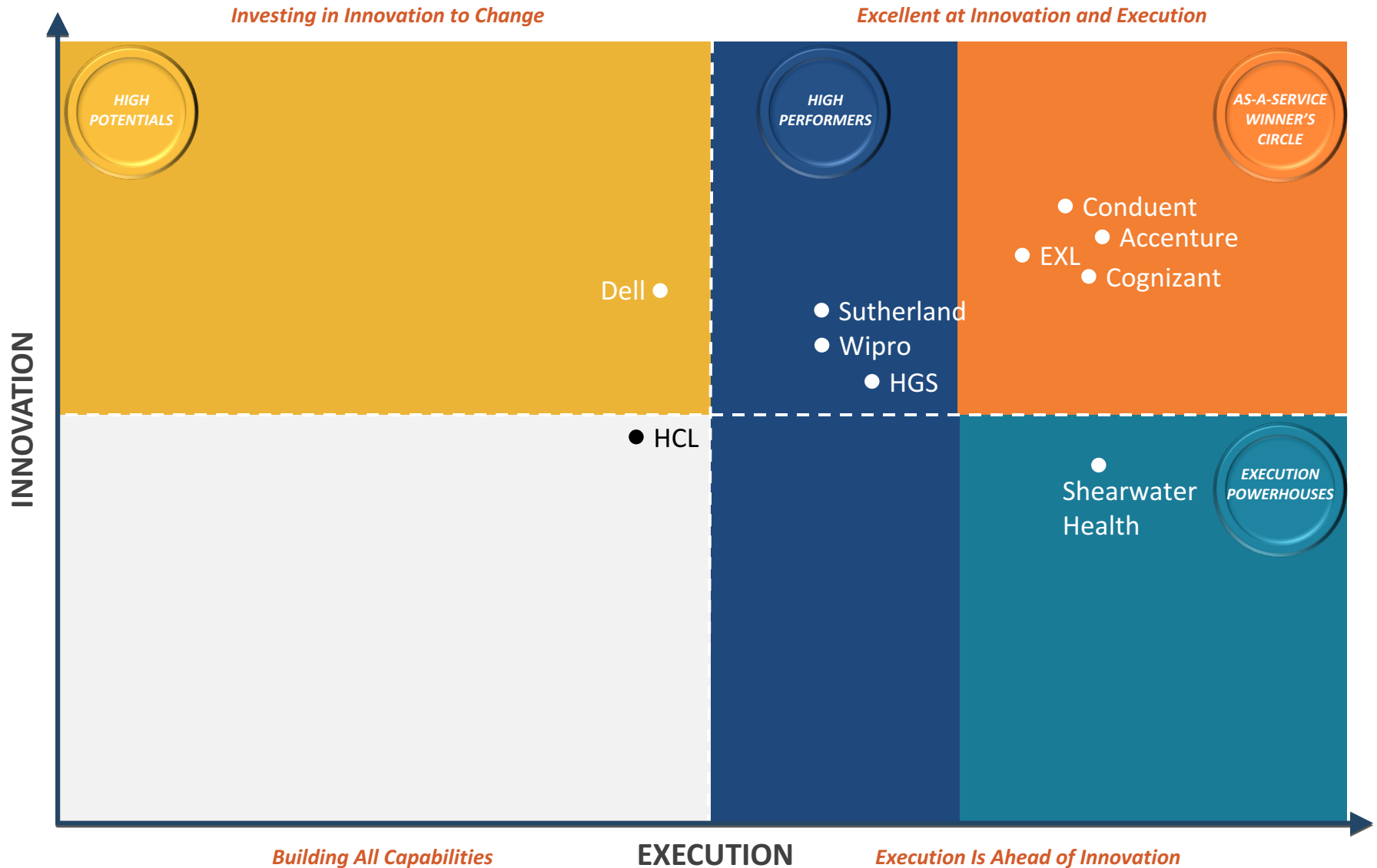
Major Service Provider Dynamics – Highlights

EXECUTION

- **Quality of Account Management:** This role is increasingly critical to working closely with clients to define problems clearly and collaborate on solutions that are flexible over time. We hear strong feedback in particular for the leadership, knowledge, and discipline of **Accenture**, and comments on **Xerox** for "really listening." **EXL** is gaining ground in both of these areas.

- **"Real World" Delivery of Solutions:** There is a well established set of credible point solutions and delivery capability in this market. Clients appreciate the ability of **Shearwater Health** to maintain quality through its growth and expansion, the flexibility of **Cognizant**, the responsiveness and analysis of **EXL**, and the increasing support for complex clinical processing by **Accenture**. **HGS** clients say they consistently "outperform."

- **Ability to Attract and Retain Key Skills:** We hear from clients the value of their service provider partners hiring and developing the "right" skills; **Cognizant** identified "the right type of talent" for one client's quick ramp, for example. **HCCA** has an industry low attrition rate. **HGS**'s specialists engage in peer training. Offering U.S. licensing, and continuing education is a critical part of any service provider's ability to attract and its workforce: **Accenture, EXL**, and **Sutherland** all offer such programs.

- **Use of Intelligent Automation:** Automation is already an integral part of an effective workflow management and data population and movement at all of these service providers to increase accuracy and turnaround time. For example, **Accenture** has a library of automation tools to support intake, authorization, and post service clinical review. An example of going into the next phase with "intelligent" automation is **Cognizant** moving to "real-time" authorization, combining analytics and automation.

INNOVATION

- **Vision for Population Health and Care Management Operation:** The As-a-Service Winners are those service providers that are effectively "changing the game" by combining services with thought leadership, effectively articulating a healthcare consumer-centric vision for the work they do in operations: **Accenture, Cognizant, EXL,** and **Condent**.

- **Use of Digital Technology to Support Business Process Delivery:** **Sutherland**, not as known in the past for technology capability, has been building momentum with its SmartHealthConnect data management solution; **HGS** is moving along these lines with "DigiCX" for "smart" interaction. **Cognizant** continues to lead the pack with its BPaaS offerings and capability; and **EXL** is developing CareRadius into a more interactive and predictive tool. **Wipro** and **HCL** have IT heritage and ready to go health management solutions that have yet to gain traction with BPO services.

- **Use of Analytics to Drive Insights & Actionable Data:** There is a lot of potential for service buyers to partner more strategically in this area for impact on healthcare consumer engagement and risk and revenue management. Examples: **Accenture** with its risk score accuracy analytics as a service, **EXL** advancing the analytics embedded in its services and platform, and **Wipro**'s Data Discovery Platform and Opera partnership.

- **Use of Partnerships, Alliances and Acquisitions:** Examples of investments in this area include: **Dell**'s strategic partnership with the innovation center at a hospital system and **Conduent** quickly building its value proposition and integrating relevant acquisitions of RSA Medical and HCI to impact health and financial outcomes with clients.

Population Health and Care Management Business Process Services Coverage

The service providers in this study all provide business process services, ranging from strategy and consulting to business process outsourcing and business process as-a-service (BPaaS). BPaaS is the combination of people/process/technology packaged and contracted for outcomes with transaction pricing to address specific business issue or opportunity.

Full Coverage | **Partial Coverage**

	Population Data Management	Consumer Engagement & Interaction	Utilization Management	Care Coordination	Performance Management & Operational Analytics
Accenture	Full	Full	2011 *Date and point of entry*	Full	Full
Cognizant	Full	Full	2009	Full	Full
Dell	Partial	2014			Partial
EXL	Full	Full	2012	Full	Full
Shearwater Health	Partial	Partial	Full		
HCL	Partial	Full	2010	Partial	Partial
Hinduja Global Solutions	Partial	2009	Full	Partial	
Sutherland Global Services	2014	Partial	Partial	Full	Partial
Wipro	Full	2013	Partial		Partial
Conduent	Full	Full	Full	Full	Full

Coverage is based on service provider responses and contract reviews.

Conduent

Winner's Circle

Coming out strong with refreshed focus on research-based population health that taps into healthcare heritage and recent acquisitions
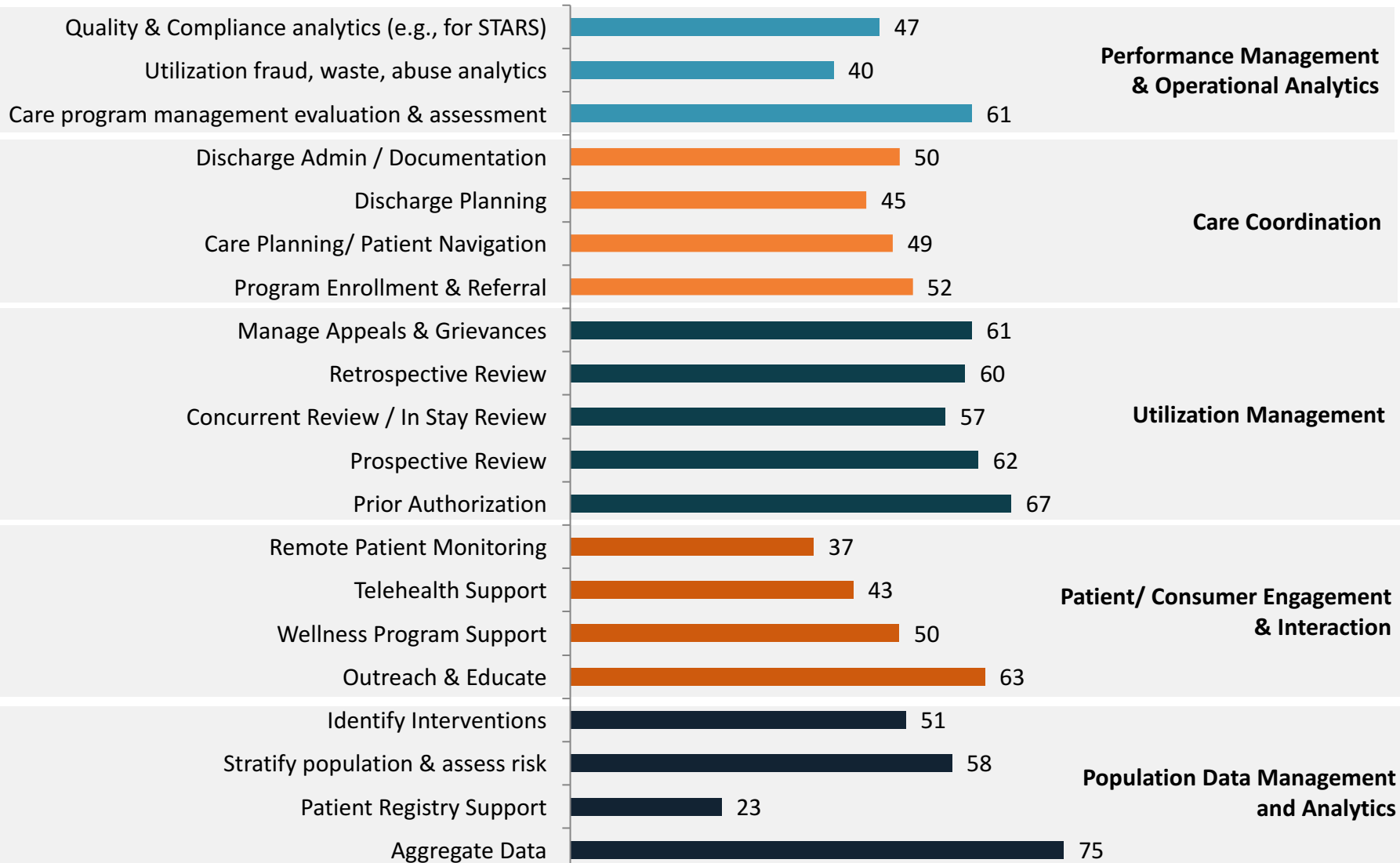
CONDUENT

Blueprint Leading Highlights

- Incorporates Feedback Effectively
- Collaborative Engagement
- Use of Analytics to Drive Insights
- Investing in Future Talent and Technology
- Use of Partnerships and Acquisitions

Value Chain Coverage:

- Population Data Mgmt / Analytics
- Consumer Engagement
- Utilization Management
- Care Coordination
- Performance Mgmt & Operational Analytics

Strengths

- **Modernizing Health Management Capability:** Conduent (formerly Xeros) is orienting tools, consulting and on-going services to help healthcare firms address and manage populations through better data insight and action. A client described the increasing use of automation in the prior authorization process for pharmacy and clinical services. Another described how Xerox (RSA) analyzes profiles, identifying patients for outreach and intervention.
- **Accessible Client Team:** Clients tell us their account teams are very interactive and focused on program success, that Conduent is timely and straightforward when it comes to finding and addressing issues.
- **Thoughtful Acquisitions and Offerings:** Recent offerings like Health Outcomes Solutions and acquisitions are very targeted and well defined to address current issues. Examples: RSA Medical connecting with a population, clients do not have the resources to cover themselves through personal engagement, e.g., appointment management and medical data management; HCI socio economic data and evidence based programs, providing increased context on patients and members.
- **Thought Leadership and Social Engagement:** Conduent is increasingly visible as industry thought leaders through social media, interviews, and survey-based research and publication. This outreach is creating more of the community-based dialogue so critical to changing healthcare.
- **Corporate Split Creates Opportunity For Impact:** Under the new leadership of Ashok Vemuri, HfS believes the Conduentsplit (link) will allow the services business to better focus and prioritize automation for service delivery, analytics platforms, and strategic offerings. We are already seeing better collaboration across the business to address targeted outcomes.

Challenges

- **Coordination Within Xerox and Across Its Ecosystem:** Conduent needs to continue to hire and develop brokers of capability – people with healthcare industry depth and credibility who can work closely with clients to define and deliver health and business-outcomes based solutions that tap into and deliver the capability that Xerox has acquired and developed.
- **Talent Development:** Like many service providers in the industry, Conduent has its share of turnover, but at a rate that clients find worth mentioning. Xerox needs to have its program of what will not just attract but develop and retain or smoothly transition professionals as the industry and company goes through significant change.
- **Momentum With Clients:** With new leadership and acquisitions, Conduent is at a critical time to focus and deliver results that can then also be used in reference for further work. HfS is interested to see how the Conduent healthcare team builds new client relationships, and refreshes others, all within the current changes in corporate structure.
- **Be Bold With Patient/Physician Centricity:** Current messaging from Conduent is more engaging and friendlier than its past stiff and staid image. Healthcare is about personal touch; and Xerox is one of many service providers that is / needs to rethink its image into one that is easier to work with to deliver results. The content and people are there but the messaging can still be locked into formalities.
- **Cluttered Portfolio of Platforms and Assets:** Conduent has a very long list of platforms that seem to overlap, and which could quickly be fighting for investment priority and resources.

Acquisitions / Partnerships

Acquisitions:
- 2015: Healthy Community Institute, RSA Medical, Inventiv Patient Access Solutions

Partnerships include:
- HealthHelp: fradiology/imaging UR
- Sirona Health: 24/7 nurse advice Wildflower Health: pregnancy management and Wiser Together: on-line decision support
- Physician peer review companies and field case management companies

Client Profile

Population Health and Care Management Clients:
- Commercial and Government, including Medicaid, national commercial plans and local MCOs, ACOs, employer self-funded health plans, community health organizations, providers
- Midas+ (software): >500; Care & Quality Tool: < 20+
- Community Health Solutions: 180; Services:15
- Bunch CareSolutions (Workers Comp Care Mgmt): > 10
- Care Integration Services (CIS) (BPO): <10

Service Delivery Operations

- Population Health and Care Management offerings since 2001
- Accreditation: URAC for Workers Compensation, Case Management, Disease Management, Health Utilization Management; CMS-QIO, NCQA in process
- Healthcare Headcount: 25,000+
- Specialties: Doctors, Nurses, Pharmacists, Pharm Techs, Wellness Coaches, Medical Specialists, Medical Billing Specialists, Benefits Specialists
- Center locations: (>100) N. America /Work From Home (75%); Latin America (8%); India (11%), Philippines (5%)

Proprietary Technologies

- *Conduent Care and Quality Solutions:* for population health data management, consumer engagement, care coordination, risk management
- *Midas+ / Juvo:* for population data management, care coordination, performance management
- *MedGine:* rules, workflow, decision engine
- *Xerox Health Informatics Link:* for omni-channel communications
- *Community Health Solutions:* for needs assessment, mapping and data visualization
- *Bunch CareSolutions:* clinical case management platform with predictive analytics applications: SCORE, SCORE Rx and CONNECT
- *TMS Health:* RxMaps™ CRM platform

HfS BLUEPRINT REPORTS

Contract Data Analysis

Number of BPO and Bundled BPO Contracts by Service Type

Bundled BPO means BPO contract includes business consulting and/ or IT services or software.

Performance Management & Operational Analytics

Service	Number
Quality & Compliance analytics (e.g., for STARS)	47
Utilization fraud, waste, abuse analytics	40
Care program management evaluation & assessment	61

Care Coordination

Service	Number
Discharge Admin / Documentation	50
Discharge Planning	45
Care Planning/ Patient Navigation	49
Program Enrollment & Referral	52

Utilization Management

Service	Number
Manage Appeals & Grievances	61
Retrospective Review	60
Concurrent Review / In Stay Review	57
Prospective Review	62
Prior Authorization	67

Patient/ Consumer Engagement & Interaction

Service	Number
Remote Patient Monitoring	37
Telehealth Support	43
Wellness Program Support	50
Outreach & Educate	63

Population Data Management and Analytics

Service	Number
Identify Interventions	51
Stratify population & assess risk	58
Patient Registry Support	23
Aggregate Data	75

Source: Contract data provided by the service providers in this study. Contracts are BPO / Bundled BPO (with consulting and IT services) and does not include consulting only contracts.

More than 50% of Population Health and Care Management BPO Engagements Include the Use of Business Platforms Proprietary to the Service Provider or Third Party Software Vendor

Cannot be disclosed 3%
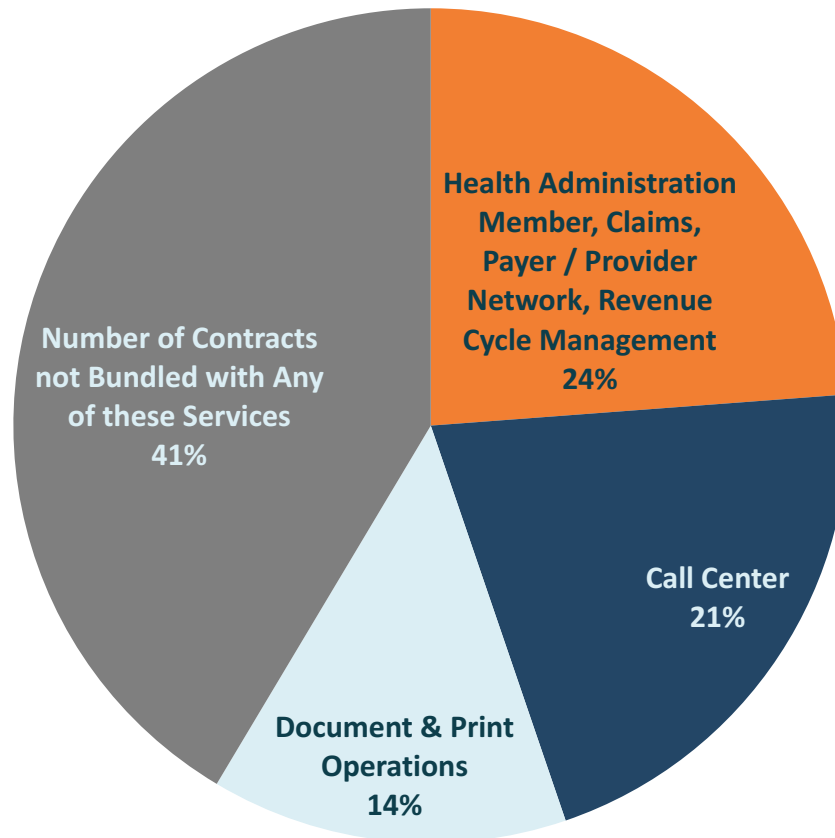
No 46%

Yes 51%
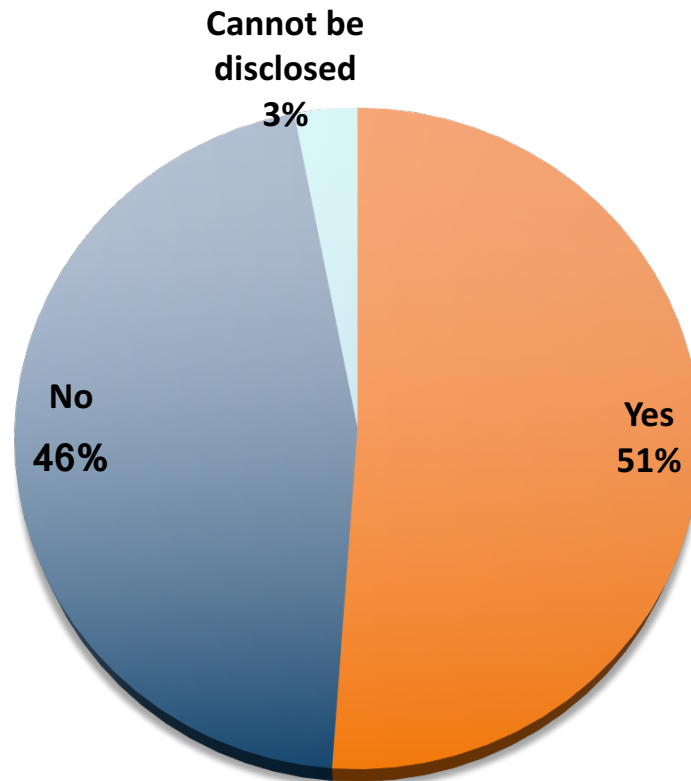
- Cognizant StarSERV Star rating platform
- Cognizant OnVida - Multi Channel Contact Center
- Accenture Health Analytics for Payer Operations (HAPO)
- EXL Quality and Audit tool (B-ProMPT)
- HCL Mirth Connect
- Sutherland SmartHealthConnect
- Xerox (RSA Medical) MedGine, TeleMed; BunchCare, MedNet, and ProviderNet

Source: Contract data provided by the service providers in this study. Contracts are BPO/BPaaS/Bundled BPO (with consulting and IT services) and does not include consulting only contracts.

About 60% of Contracts for Population Health and Care Management BPO Include Other Related Services

Service Provider Contracts That Have Other Services Bundled with the Population Health and Care Management Services

Number of Contracts not Bundled with Any of these Services
41%

Health Administration Member, Claims, Payer / Provider Network, Revenue Cycle Management
24%

Call Center
21%

Document & Print Operations
14%

Source: Contract data provided by the service providers in this study. Contracts are BPO / BPaaS / Bundled BPO (with consulting and IT services) and does not include consulting only contracts.

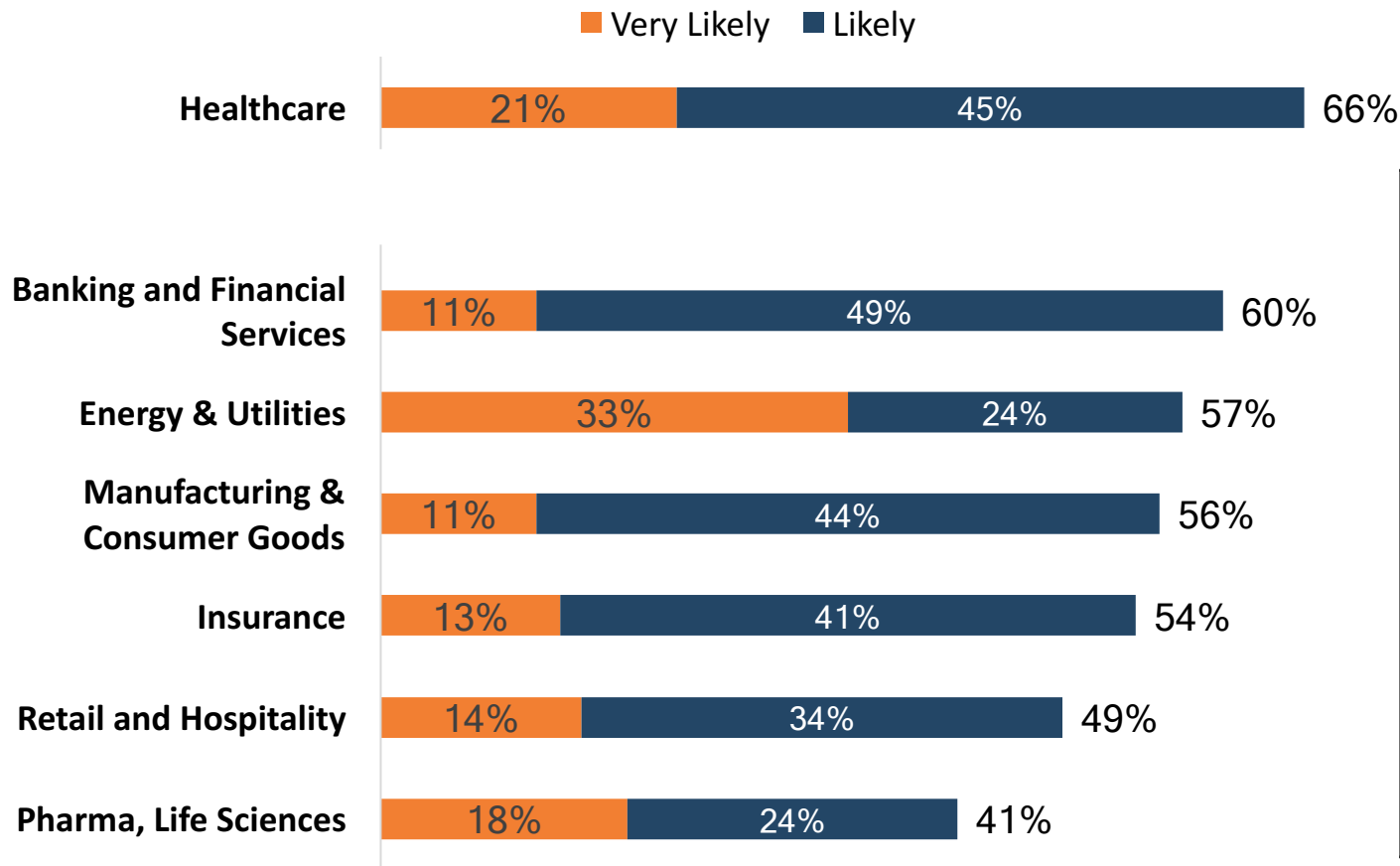# Market Direction and Recommendations

It's Prime Time for Partnerships That Help Move Healthcare Organizations to More Intelligent Operations

- In the Healthcare industry, more so than in others, service buyers are ready to switch out primary service providers that fail to help them evolve to a more flexible, automated and insight driven operation: 66% say it's likely they would opt for a different partner.[1]

- Why is that? Many of the healthcare organizations that are already using outsourcing in their operating model, entered into the engagements years ago, when cost reduction and labor arbitrage were the value proposition, and rate cards and KPIs formed the basis of the contracts. In the past few years, the work that can be offshored has been, and to Tier 1 and Tier 2 cities, with balancing to create the greatest level of arbitrage possible without affecting quality and compliance. The cost value proposition for much of this work, like claims processing, eligibility and enrollment processing, revenue cycle management and billing and collections, has been maximized by players in the market.

- Healthcare organizations entering the sourcing market now—mid-sized health plans in the U.S., new risk-bearing organizations like ACOs, and healthcare providers around the world—are looking for a balance of on and offshore resourcing. They are also focused on quality and compliance, and ways to address new business problems and opportunities like growth in new market segments and meeting new compliance regulations driven by the ACA in the U.S., for example. At the same time, many want to maintain a local presence because of data privacy, unions, and a desire to maintain integration with the community.

- New market opportunities are also driving an uptick in interest in support for analytics and health and care management, requiring deeper knowledge, experience, and context.

Service Providers That Fail to Evolve Will See Churn

How likely is it that you are going to switch out primary service providers that fail to evolve legacy service delivery to Intelligent Operations when you renew your next phase of ITO and/or BPO contracts?

Legend: ■ Very Likely ■ Likely

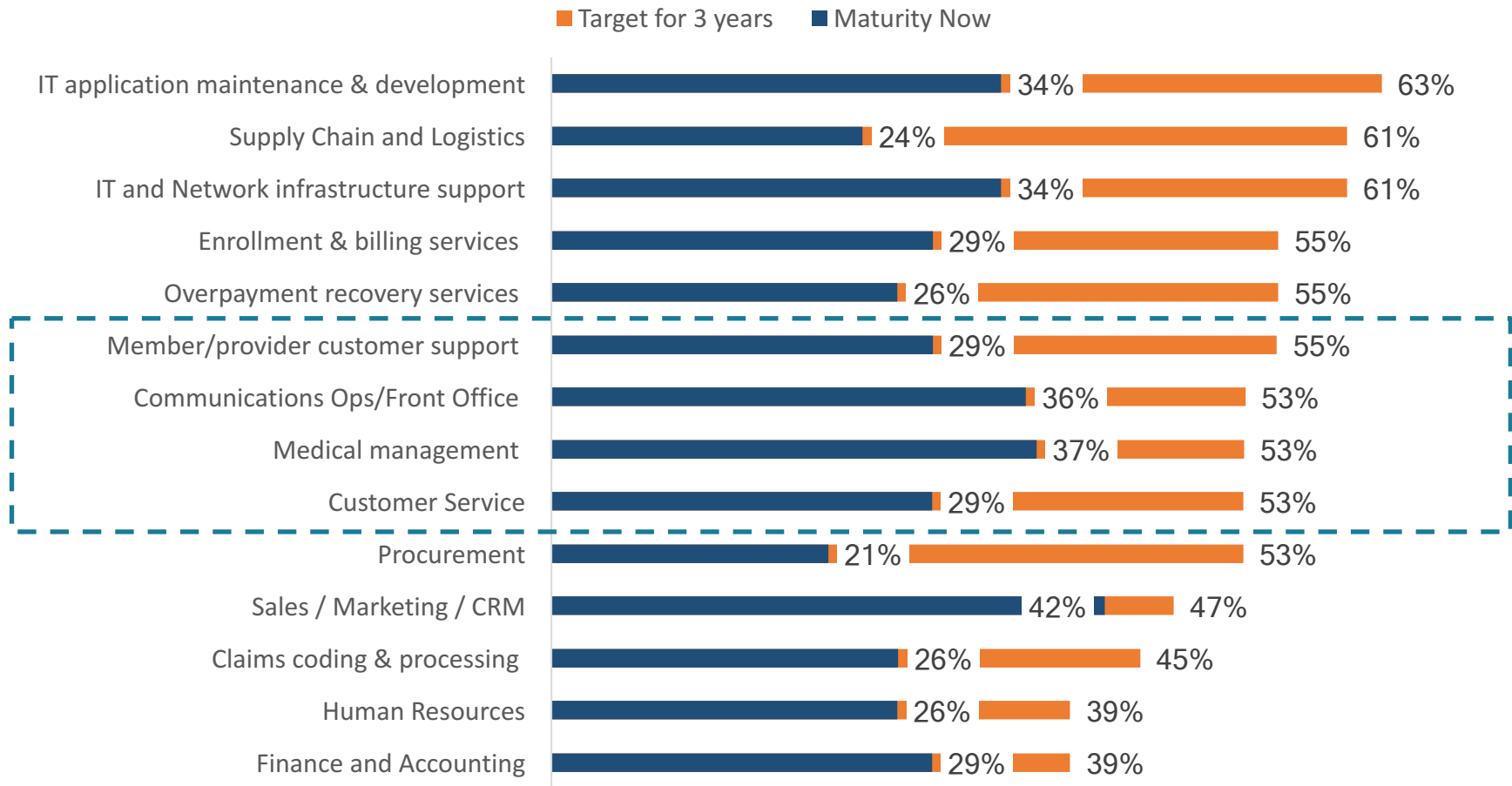| Industry	Very Likely	Likely	Total
Healthcare	21%	45%	66%
Banking and Financial Services	11%	49%	60%
Energy & Utilities	33%	24%	57%
Manufacturing & Consumer Goods	11%	44%	56%
Insurance	13%	41%	54%
Retail and Hospitality	14%	34%	49%
Pharma, Life Sciences	18%	24%	41%

> In Healthcare, more so than in other industries, service buyers are increasingly ready to switch out primary service providers that fail to help them evolve to a more flexible, automated, and insight driven operation.

Source: "Intelligent Operations" Study, HfS Research 2016; n = 45 Healthcare Operations Services Buyers

Healthcare Organizations Have Ambitious Targets for More Intelligent Operations
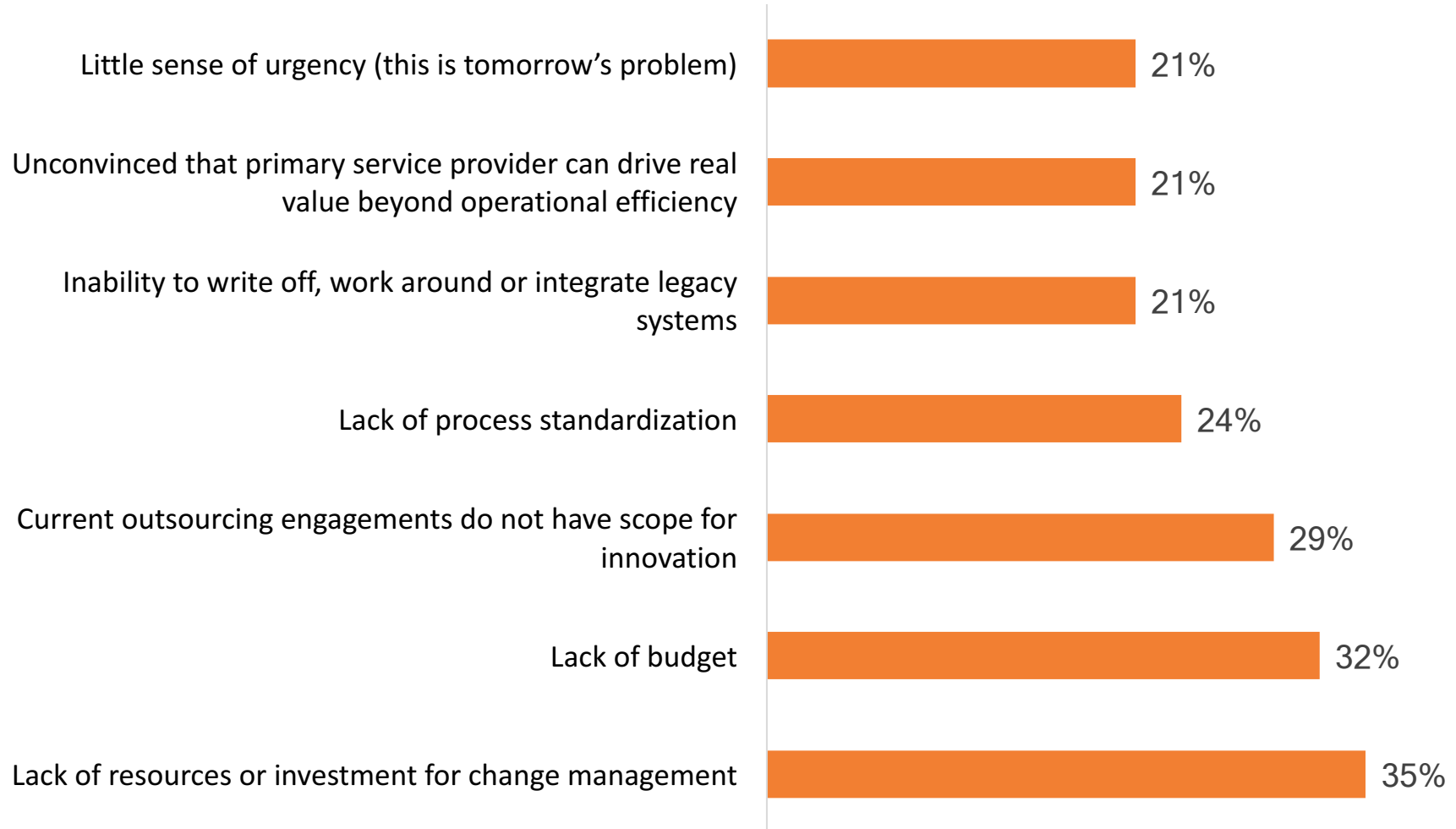
Which of your business functions are the most mature in terms of intelligent operations now? Where would you like them to be in 3 years? (Scale 1-5, just 4&5)

■ Target for 3 years   ■ Maturity Now

Business Function	Maturity Now	Target for 3 years
IT application maintenance & development	34%	63%
Supply Chain and Logistics	24%	61%
IT and Network infrastructure support	34%	61%
Enrollment & billing services	29%	55%
Overpayment recovery services	26%	55%
Member/provider customer support	29%	55%
Communications Ops/Front Office	36%	53%
Medical management	37%	53%
Customer Service	29%	53%
Procurement	21%	53%
Sales / Marketing / CRM	42%	47%
Claims coding & processing	26%	45%
Human Resources	26%	39%
Finance and Accounting	29%	39%

Source: "Intelligent Operations" Study, HfS Research 2016; n = 45 Healthcare Operations Services Buyers

HfS BLUEPRINT REPORTS

Obstacles to Achieving "Intelligent" Healthcare Operations

What are the top 3 obstacles to your enterprise / organization achieving more intelligent operations?

Obstacle	Percentage
Little sense of urgency (this is tomorrow's problem)	21%
Unconvinced that primary service provider can drive real value beyond operational efficiency	21%
Inability to write off, work around or integrate legacy systems	21%
Lack of process standardization	24%
Current outsourcing engagements do not have scope for innovation	29%
Lack of budget	32%
Lack of resources or investment for change management	35%

2016-17 Recommendations: Enterprise Buyers

- **Expect More and Partner Accordingly:** In the course of this study, we learned about strategic investments that service providers are making to take better advantage of the health IT that is in use, or could be leveraged in a business process as a service way. We encourage service buyers to stratify your service provider portfolio in a similar way that you do the population for health and care management—what is it that you want to accomplish, and with whom and how will you do it. How will your partners help you overcome the obstacles around change management and budget, for example? Diversify your portfolio, or narrow it down, but challenge your service provider to help you with the business case, and to always be a step ahead and give you a perspective on the market, potential, and what is happening in other industries like retail, ecommerce, and banking, where consumer centric practices are also in play.

- **Look for the As-a-Service Opportunity:** Challenge your service provider(s) to move to an As-a-Service model that goes beyond labor arbitrage to include and offer you a broader set of choices for what solutions you adopt and how they interact with your own retained organization. Don't settle for a long-term fixed model of solution, but push your service provider(s) to be flexible and agile so that future services offerings better align to your own potential future needs.

- **Adopt Design Thinking:** Given the importance of patient centricity for successful value based care, Design Thinking principles or workshops, or combination or both, can play an essential role in really understanding the environment. We've seen the success, and will continue to share the stories we uncover. Don't dismiss design thinking as something that is a fad with little benefit for your own operations. The opportunities to sit down with your service provider(s) to better understand the business context in which your current processes operate and what can be done to realign or reimagine these processes to achieve different and/or better results is always an exercise worth undertaking.

2016-17 Recommendations: Service Providers

■ **Be Brokers of Capability:** At HfS, we are strong believers in the role of collaboration to enable a more rapid move of BPO away from legacy "lift and shift" models toward an As-a-Service solution design and delivery world. To help pick up the pace of change and impact in the healthcare market, work with your clients and partners together to clearly define problems to solve, keep it simple and small to begin, and broker combinations of talent and technology—internal and through partnerships—to drive business results.

■ **Be Focused; Have A Unique Value Proposition:** This slice of the Healthcare Business Process Services Market—BPO and BPaaS addressing health and care management– is one that has a lot going on "behind the scenes" at service providers than is immediately evident. It is "poised to pop;" we expect activity in this landscape to pick up speed and activity over the next couple of years. We've seen acquisitions and investments to get a handle on structured and unstructured data, change the mix in the workforce towards more use of automation and greater healthcare experience and analytics expertise, drive advancements in one-to-many models and applications, and momentum with BPaaS. Now is the time to be clear on what problems in population health and care management you want to solve and which health, medical, and administrative outcomes to target. And, to experiment with partners, contract and pricing models. We are hearing a higher interest in it from service buyers than a year ago. It's also critical to evaluate which clients today and in the future you believe will partner with you collaboratively, and how you want to execute on it.

■ **Shake Up Your Workforce:** While technology plays a critical role in helping to achieve the better health outcomes, improved care experience, lower administrative and medical cost, and viable businesses we target for the industry, it is the people who make a difference, who can make your company unique. Give Millennials not just a seat at the table, but a voice and a budget; continue to create unique opportunities for learning technology and industry nuances; and bring in people from other industries to shake it up.

Healthcare Operations: Blogs, Webinars, and Research

BLOG and SOUNDBITES

Short Read Online:

- The Author's Blog
- Reali-Time Analysis at the Point of Care in the ICU
- How Sourcing Can Change What Engagement Means
- Healthcare Analytics Heats Up
- Can BPO Providers Make "Business Cloud" More Than A Dream In Healthcare?
- Creating Connections: Changing the Profile of the Healthcare Professional in BPO
- There is Energy in the U.S. On-Shore Sourcing Market

RESEARCH PAPERS

Download With Registered Access:

- State of Cybersecurity and Digital Trust (free)
- Beware of the Smoke: Your Platform is Burning: *The Evolution to the As-a-Service Economy (free)*The BPO Profession in 2015: Today's Accidental Career Path, Tomorrow's Capability Broker (free)
- HfS Blueprint: 2016 Healthcare Payer Operations
- HfS Blueprint: 2015 Population Health and Care Management

POV (POINT OF VIEW)

Download With Free Registered Access:

- Defining the Seismic Shift from Legacy BPO to BPaaS
- Managing Health and Care in the Digital Age
- Breaking New Ground in Analytics as a Service
- Pivoting Population Health for Patient Centricity (PCP Perspective)
- The Road Less Traveled: Getting on the Path to As-a-Service
- Insights From Early BPO Adopters of Robotic Process Automation

WEBINAR REPLAY

- State of Cybersecurity and Digital Trust

- Where is the Action Today in Intelligent Automation?

- Why Design Thinking Can Save the Service Industry From Obsolescence

Note: More than 75% of our published research is accessible for free and requires just a few check boxes in our simple registration to download

About the Author

Barbra Sheridan McGann

Executive Vice President, HfS Research

Barbra Sheridan McGann is Executive Vice President, Business Operations Research, at HfS Research. Barbra's scope of work covers the business process outsourcing and emerging "As-a-Service Economy," as well diving into themes such as talent and design thinking, and industry and functional areas of Healthcare, Life Sciences, and Public Sector.

Barbra's experience in this industry includes:

- Researching, analyzing and advising on market and competitive moves and meaning

- Developing organic and inorganic strategies to drive growth of new and mature offerings with business process services

- Building partnerships and strategies for joint success

Her work history includes 20 years at Accenture; and prior years in marketing and not-for-profit management.

Barbra earned a Bachelor of Arts degree in English with Honors, and was recognized for outstanding leadership in Volunteerism with the Chet Pagni Service Award, from the University of San Diego. She's also completed post-graduate executive leadership work at Northwestern University and Smith College.

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About HfS Research

HfS Research is The Services Research Company™—the leading analyst authority and global community for business operations and IT services. The firm helps enterprises validate their global operating models with world-class research and peer networking.

HfS Research coined the term The As-a-Service Economy to illustrate the challenges and opportunities facing enterprises needing to re-architect their operations to thrive in an age of digital disruption, while grappling with an increasingly complex global business environment. HfS created the Eight Ideals of Being As-a-Service as a guiding framework to help service buyers and providers address these challenges and seize the initiative.

With specific focus on the digitization of business processes, intelligent automation and outsourcing, HfS has deep industry expertise in healthcare, life sciences, retail, manufacturing, energy, utilities, telecommunications and financial services. HfS uses its groundbreaking Blueprint Methodology™ to evaluate the ability of service and technology providers to innovate and execute the Eight Ideals.

HfS facilitates a thriving and dynamic global community of more than 100,000 active subscribers, which adds richness to its research. In addition, HfS holds several Service Leaders Summits every year, bringing together senior service buyers, providers and technology suppliers in an intimate forum to develop collective recommendations—for the industry and add depth to the firm's research publications and analyst offerings.

Now in its tenth year of publication, HfS Research's acclaimed blog Horses for Sources is the most widely read and trusted destination for unfettered collective insight, research and open debate about sourcing industry issues and developments. Horses for Sources and the HfS network of sites receive more than a million web visits a year.

HfS was named Analyst Firm of the Year for 2016, alongside Gartner and Forrester, by leading analyst observer InfluencerRelations.