



# 2020 Healthcare Digital Transformation Survey

SECURING THE FUTURE OF HEALTH

**IBDO**<sup>®</sup>

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# A New Digital Reality

The doctor has entered the chat.

In a pandemic and post-pandemic state, phrases like this one will be the norm as the response to COVID-19 changes healthcare forever.

Telehealth's rapid scale up has been critical in the public health response to the coronavirus pandemic. We've reached a tipping point, and patients are unlikely to revert to the previous reality once society recovers from today's outbreak, particularly as the likelihood of follow-on waves looms absent a vaccine.

Telehealth will be critical to **addressing access to care** and **helping to mitigate a clinician shortage** that the pandemic has no doubt exacerbated. But it must be done right.

To make the former imperative possible, a critical piece will be that providers plot out sustainable pricing and customer experience (CX) models that hold both clinicians and patients accountable in the way that poor patient satisfaction scores and copays and last-minute cancellation fees, respectively, have held them accountable for in-person visits. To support the latter imperative, providers must first determine which clinicians should deliver what types of care via telehealth and which ones should be elevated to higher levels of practice elsewhere on the continuum—which could include in patients' homes.

Beyond the need to get telehealth right, the pandemic has brought to light other very clear healthcare imperatives that providers, payers and retail clinics must address, including:

- ▶ **Remaining agile**, with clear plans for transforming existing infrastructure for other uses quickly, effectively and in a way that preserves patient safety
- ▶ **Ensuring better upstream and downstream care coordination** of services across the continuum
- ▶ **Reimagining—and then effectively monitoring and coordinating—drug and medical supply chains** across the country and internationally to avoid critical supply shortages seen during the U.S. outbreak

Digital transformation is a critical piece of the answer for how healthcare organizations can address these imperatives and navigate out of—and beyond—the pandemic state. In doing so, they can build a system that is not only better equipped to handle public health emergencies, but also to provide better coordinated routine patient care that provides a more holistic view of each patient's health.

Read on to see how your organization's digital transformation efforts stack up against peers and learn where you should prioritize investments to thrive in healthcare's new reality.

**TELEHEALTH WILL BE CRITICAL TO ADDRESSING ACCESS TO CARE AND HELPING TO MITIGATE A CLINICIAN SHORTAGE THAT THE PANDEMIC HAS NO DOUBT EXACERBATED. BUT IT MUST BE DONE RIGHT.**



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## Survey Methodology

BDO's *2020 Healthcare Digital Transformation Survey* polled 100 C-suite executives at healthcare organizations with annual revenues between \$250 million and \$3 billion. Rabin Research Company, an independent marketing research firm, conducted the survey in November 2019.

### WHO WE SURVEYED

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#### Types of Providers



Hospitals/academic  
medical centers



Physician  
groups



Outpatient/  
ambulatory  
surgery centers



Long-term/  
post-acute care

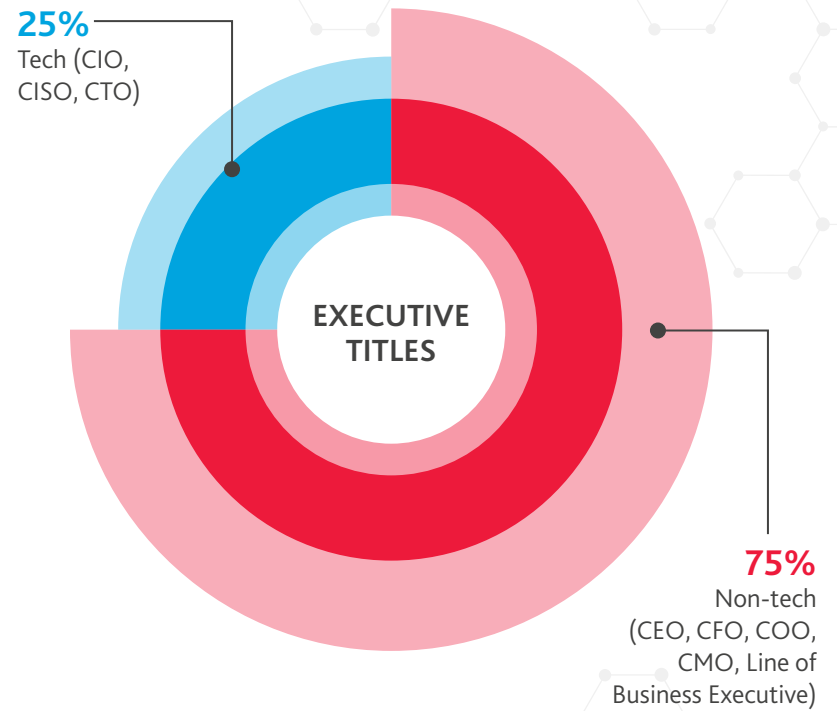
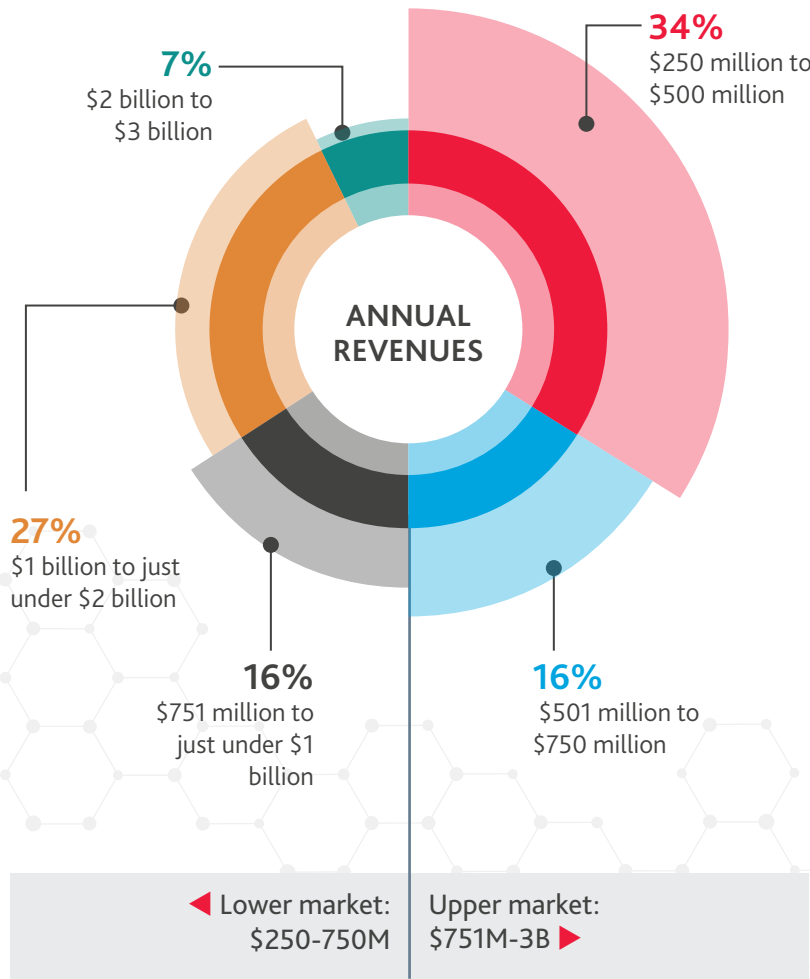


Home health



Hospice

HOW DO YOUR ORGANIZATION'S  
DIGITAL TRANSFORMATION  
EFFORTS STACK UP?

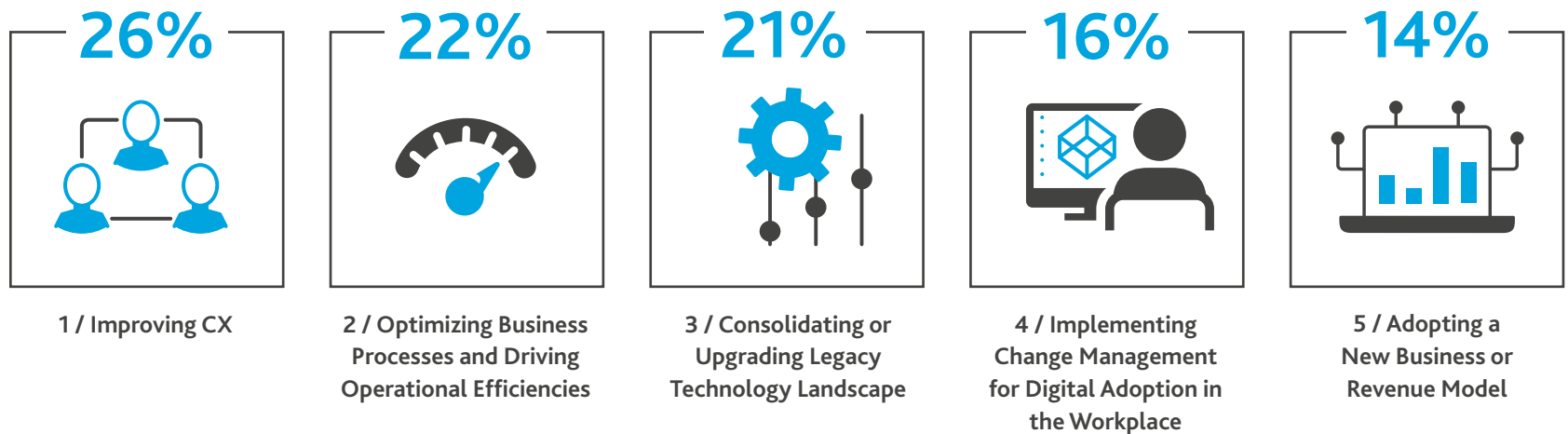


Results are grouped into two main breakouts

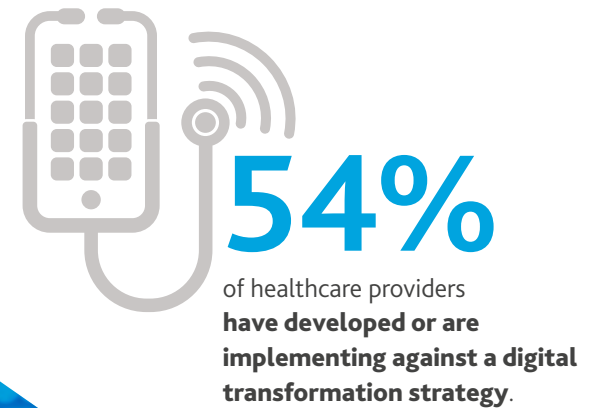
# Snapshot / Healthcare's 2020 Digital Outlook

A snapshot of how healthcare providers are already planning to transform digitally to drive better patient care outcomes:

## TOP DIGITAL PRIORITY – NEXT 12 MONTHS



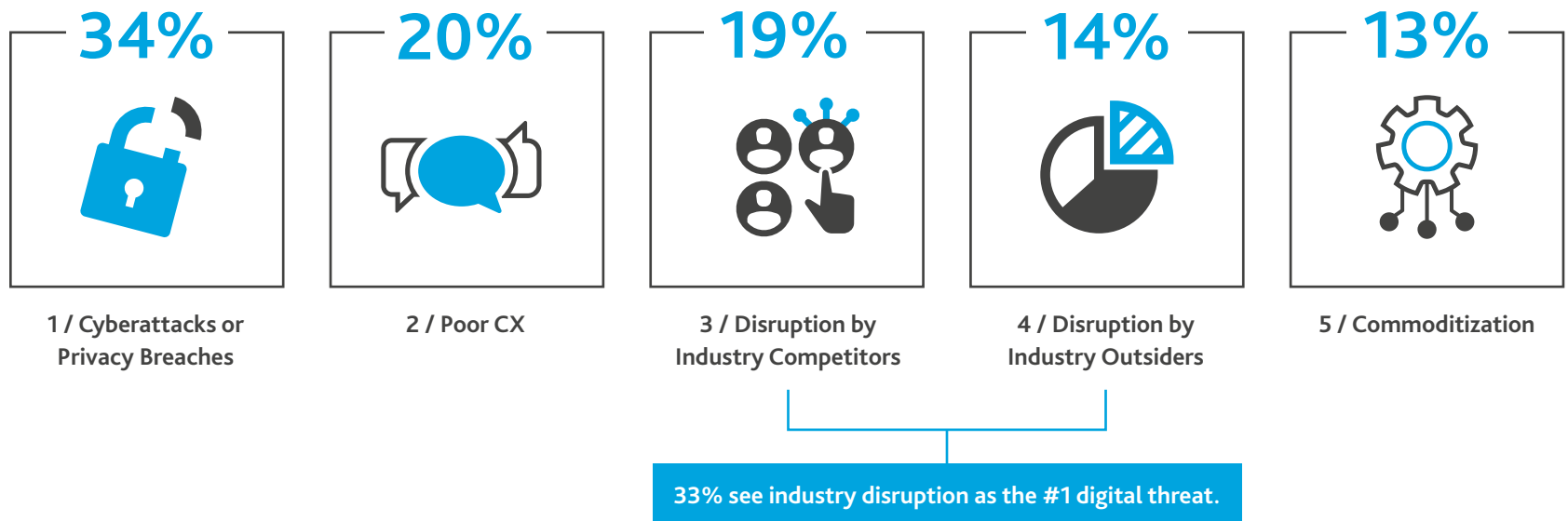
HEALTHCARE  
MUST BALANCE  
NUMEROUS DIGITAL  
PRIORITIES, BUT  
THEY ALL LEAD BACK  
TO DRIVING BETTER  
PATIENT OUTCOMES.



# DIGITAL TRANSFORMATION REMAINS A DOUBLE-EDGED SWORD.

For healthcare—an industry with a larger-than-average target on its back because of the valuable patient data and broader information it possesses—building and maintaining a strong [Digital Backbone](#) is paramount.

## TOP DIGITAL THREAT – NEXT 12 MONTHS



# TOP OVERALL BUSINESS OBJECTIVES

Business objectives and transformation focus areas center around market differentiation by providing better value to the patient and increasing operational efficiencies—a critical piece of accomplishing the former. COVID-19 is likely to cause organizations to focus even more on operational efficiencies and cost savings in the short term. Healthcare organizations that fail to optimize efficiencies in a way that breaks down organizational silos to truly prioritize CX in the long-term as well as the short-term will fall behind.

## Next 12-18 Months



**1.** Improving CX | **72%**



**2.** Increasing operational efficiencies | **56%**



**3.** Modernizing technology landscape | **54%**



**4.** Bolstering cybersecurity | **51%**



**5.** Diversifying revenues | **38%**



**6.** Increasing market differentiation | **37%**

## Next 18 months to 3 years



**1.** Increasing operational efficiencies | **40%**



**1.** Increasing market differentiation | **40%**



**3.** Modernizing technology landscape | **39%**



**3.** Bolstering cybersecurity | **39%**



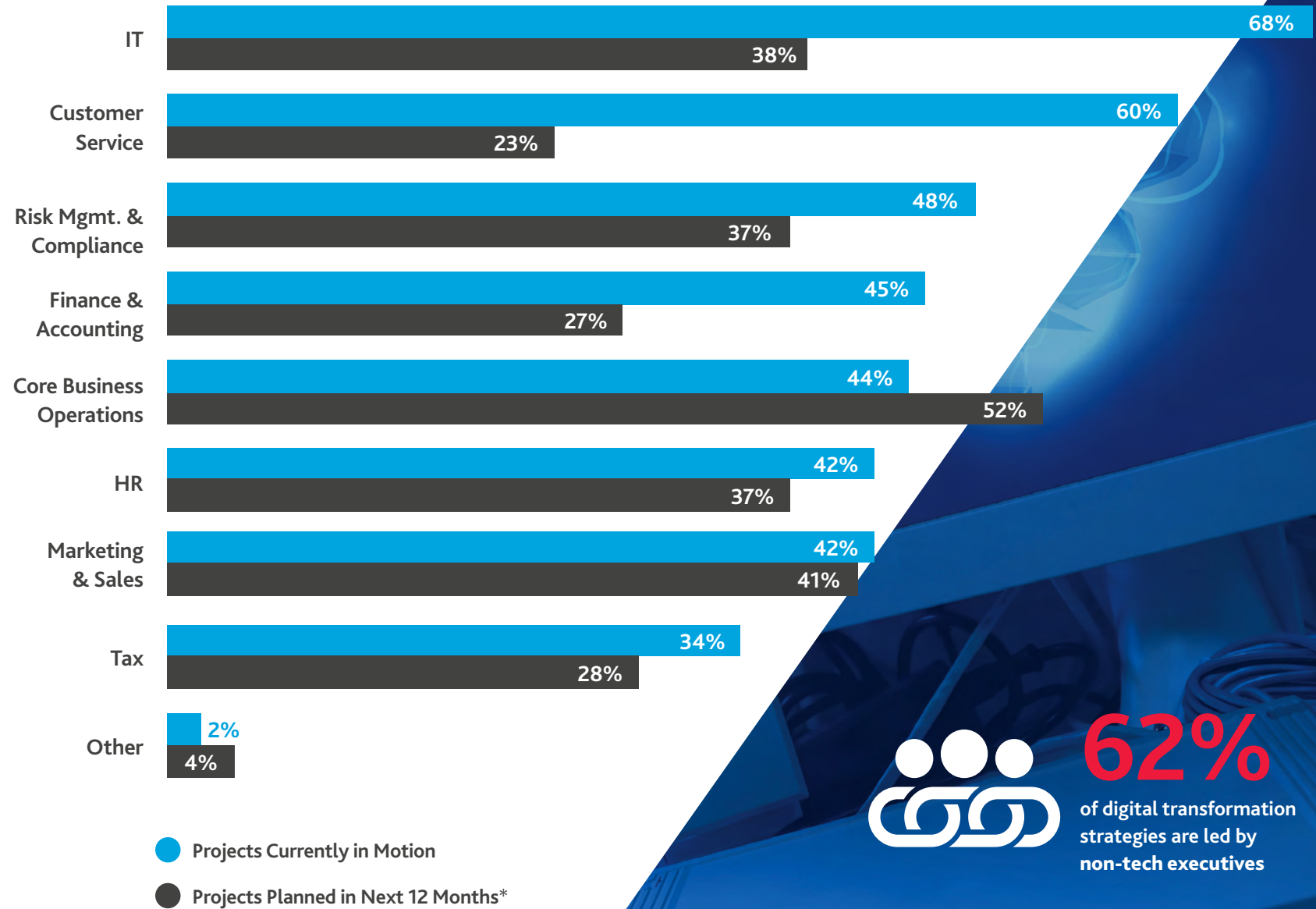
**5.** Diversifying revenues | **36%**



**6.** Improving CX | **31%**



## TRANSFORMATION FOCUS AREAS



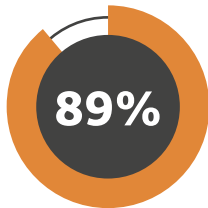
\*Projects for the next 12 months were planned prior to the COVID-19 outbreak, so some may have been de-prioritized or put on hold.

# Digital Transformation Value Drivers

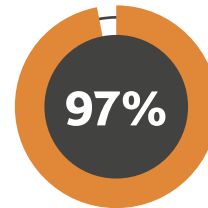


# 1 / Better Care for Patients

Providers are focusing their digital investments in the areas of population health management, greater personalization of care and improving secure communication with patients—and for good reason. A key piece of transitioning the U.S. healthcare system to the value-based one envisioned pre-pandemic, centered on **preventative versus reactive care**, will be improving primary care, an area that **51% of healthcare** CFOs plan to invest more in over the next three years. The three most-cited areas of digital investment are critical to improving primary care, especially for patients with access to care issues..

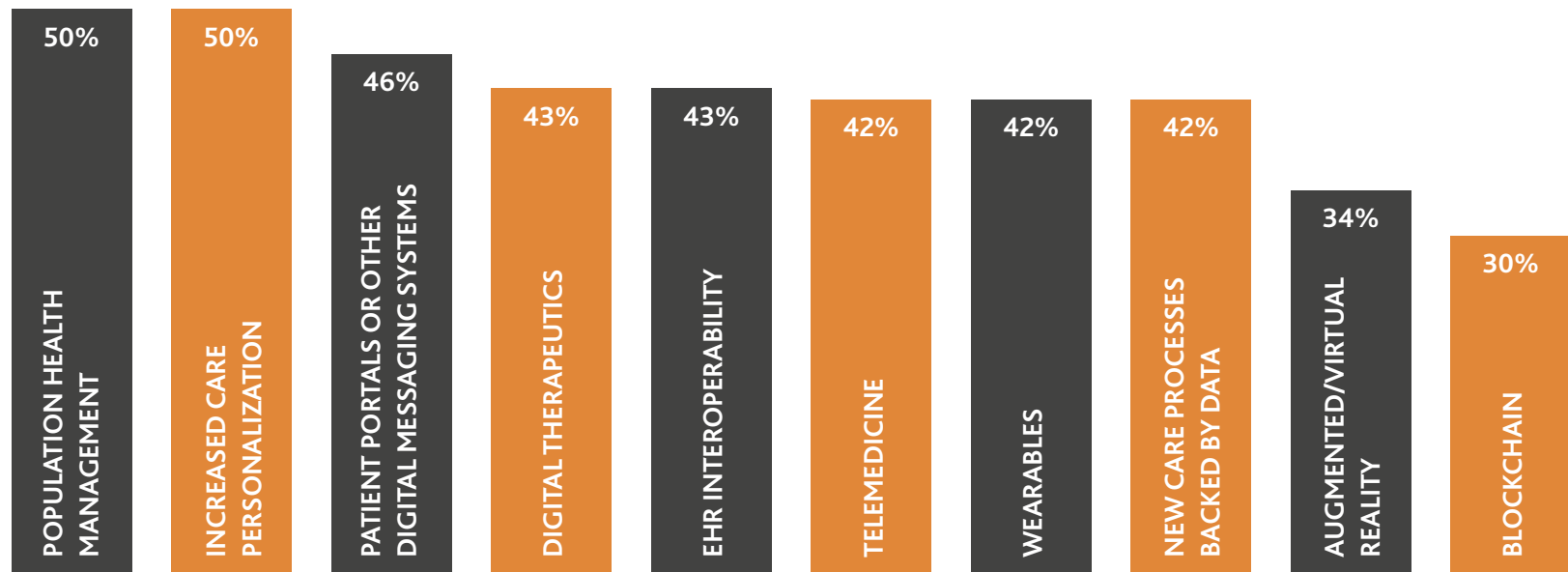


have revenue tied to value-based care—a model that actively incentivizes the use of integrated care processes supported by technology to lower care costs and improve quality of outcomes\*



are moderately or extremely confident in the quality and/or accuracy of the data their organization collects to record and track care outcomes

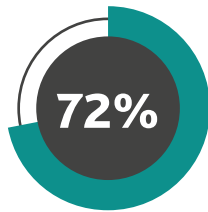
## DIGITAL AREAS OF INVESTMENT



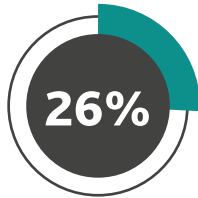
\*Revenue tied to value-based care was calculated prior to the COVID-19 outbreak, so some of these arrangements may have changed.

## 2 / Improved CX

Gone are the days when patients were comfortable with waiting hours in a doctor's office for an appointment that they had booked weeks earlier. Patient demands were changing long before coronavirus. Now, people demand more, and it's a public health imperative that providers listen—and they are: Improving CX is a top digital priority, and lagging CX is a clear digital threat. Successful CX that aligns patient experience, operations, technology and space will preserve both patient safety and care outcomes while helping put consumers at ease in a post-pandemic environment. In the process, it will empower providers to differentiate their brand.



cite it as a digital objective over the next 12-18 months

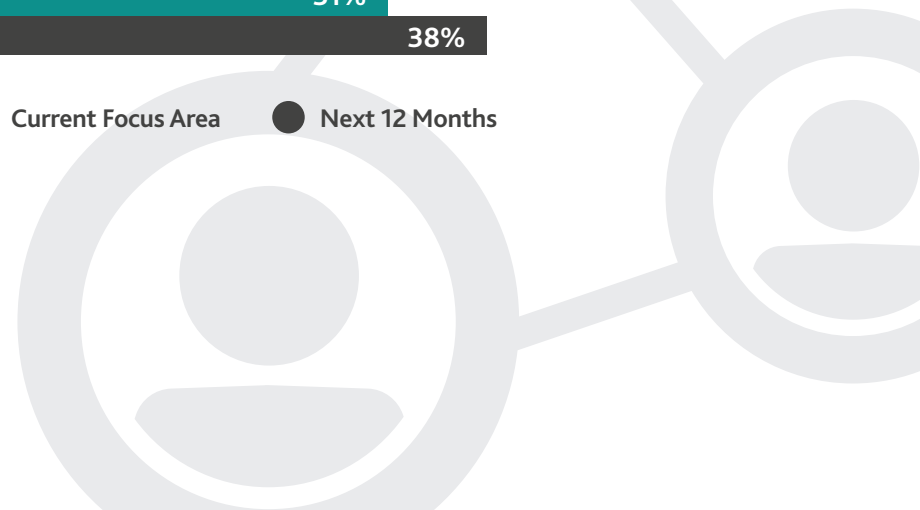
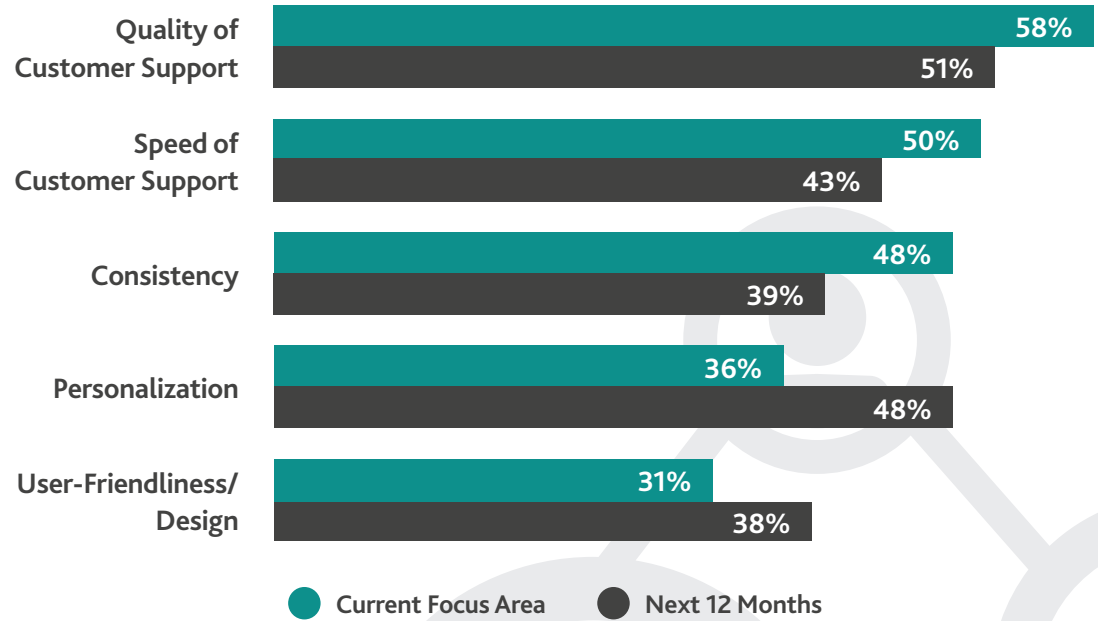


Most-cited digital priority



Second-biggest digital threat after cyberattacks or privacy breaches

### THE ELEMENTS OF CX



## CX-RELATED DIGITAL TRANSFORMATION PROJECTS UNDERWAY: \_\_\_\_\_



Customer Service

60%



Marketing &amp; Sales

42%

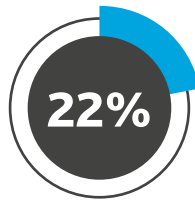
**BDO INSIGHT**

Often the starting point for digital transformation, CX is key not only to increasing patient satisfaction and provider loyalty, but also to creating regular touchpoints with patients when in-person visits are not possible or warranted, monitoring ongoing health issues and recommending proactive health interventions. When done right, it can also help ensure healthcare needs are being met for underserved patient populations according to what modality works best for them, which is even more critical during COVID-19 response and recovery. As an engine of health data insights, CX can also serve as a catalyst for much-needed product and service innovation as well as entirely new revenue models, which providers—especially those that have had to halt most of their services during the pandemic—will be prioritizing.

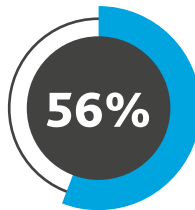


## 3 / Greater Efficiencies

For an industry that was already under mounting financial pressure before the pandemic, which has now been multiplied many times over, the [Digital Business](#) and [Digital Process](#) components of digital transformation are focal points. When executed successfully, both can help providers create operational efficiencies, improve financial reporting and transform entire operating models, all of which will not only be critical to securing federal, state and local relief funding and mitigating associated compliance risks, but also to addressing the industry's post-COVID imperatives. Under value-based arrangements, where revenue not only depends on an organization's own outcomes but also those of their partners on the continuum, optimizing Digital Business and Digital Process become lifelines.



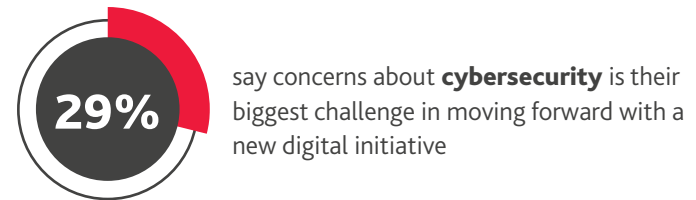
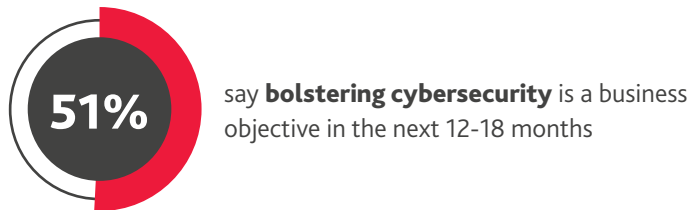
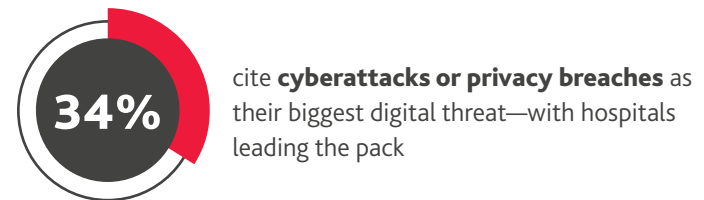
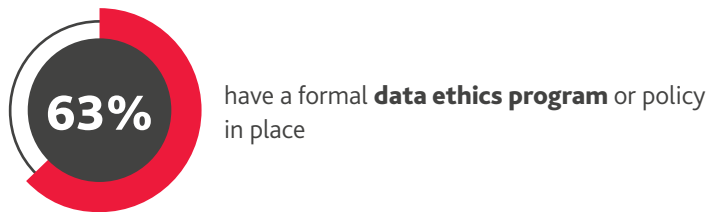
**Optimizing business processes and driving operational efficiencies** is second only to improving CX



say **increasing operational efficiencies** is a business objective of their DT strategy in the next 12-18 months

## 4 / Better Protection of Patient Data

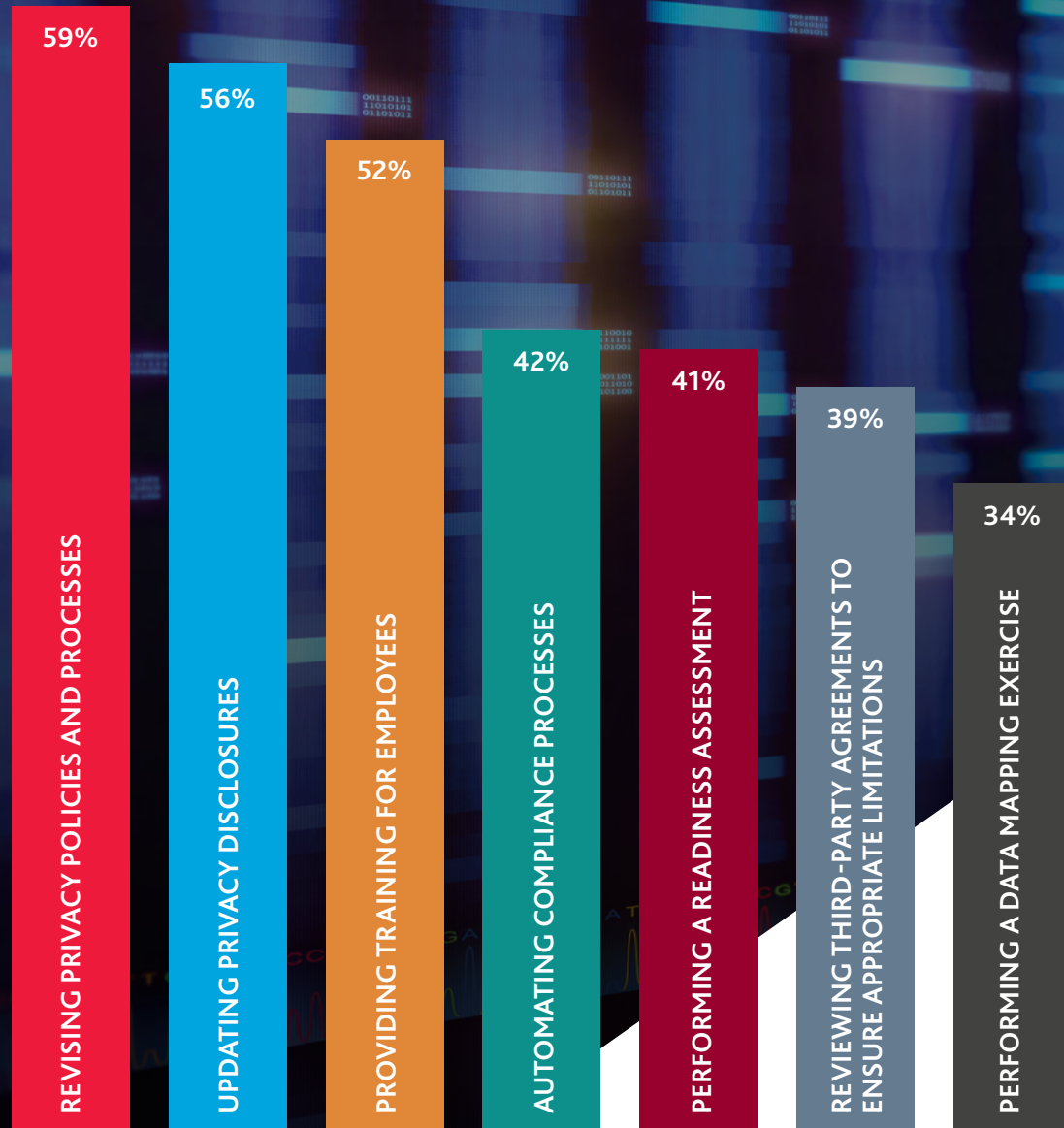
Nearly half of healthcare organizations have digital transformation projects underway in the areas of risk and compliance. Cyberattacks or privacy breaches, meanwhile, top the industry's most-cited digital threats, and cybersecurity is the biggest challenge in launching a new digital initiative. It's no wonder. The World Health Organization has seen cyberattacks against it double since the onset of the pandemic, with broader instances of ransomware campaigns targeting hospitals through their VPN capabilities and other network devices being reported. At the same time, organizations are being held to higher standards when it comes to the ethical use of patient data, after numerous reports of organizations using such data in ways of which people were unaware.



## CURRENT STEPS ORGANIZATIONS ARE TAKING TO COMPLY WITH DATA PRIVACY REGULATIONS

**48%**

have digital transformation projects underway in **risk management and compliance**





## Digital Transformation Challenges

WHAT CAN  
THREATEN OR  
DERAIL DIGITAL  
ADOPTION IN  
HEALTHCARE?

For much of healthcare, digital transformation is a Catch 22. On the one hand, providers' financial pressures could hinder digitization in the form of resource constraints, which could translate to underinvestment and under-prioritization of digital initiatives. On the other, providers' ability to provide health services to their patients, and in turn, their own financial health, will only deteriorate without renewed investment the right digital initiatives, as weary patients turn to providers who give them safe and effective virtual options.

The [COVID-19 Telehealth Program](#), which will provide \$200 million in funding under the Coronavirus Aid, Relief, and Economic Security (CARES) Act, is one source of funding healthcare providers can pursue to support their efforts to provide connected care services to patients at their homes or through mobile locations in response to COVID-19.

## TO HELP DIGITAL INITIATIVES SUCCEED AMID A GROWING WORKFORCE SHORTAGE, ORGANIZATIONAL LEADERS SHOULD FOCUS ON ADDRESSING THREE ISSUES:

**1**

### GENERATIONAL GAPS

Millennials, Gen Xers and Boomers are all active in today's healthcare workforce, with clinicians belonging to Gen Z joining the mix soon. Healthcare leaders must know how to communicate with and understand the learning styles of each generation. Strategies and tactics that may secure buy-in from the Boomer generation of clinicians may not work as well with the Millennial generation and vice versa.

**2**

### EDUCATION, TOOLS & ONGOING SUPPORT:

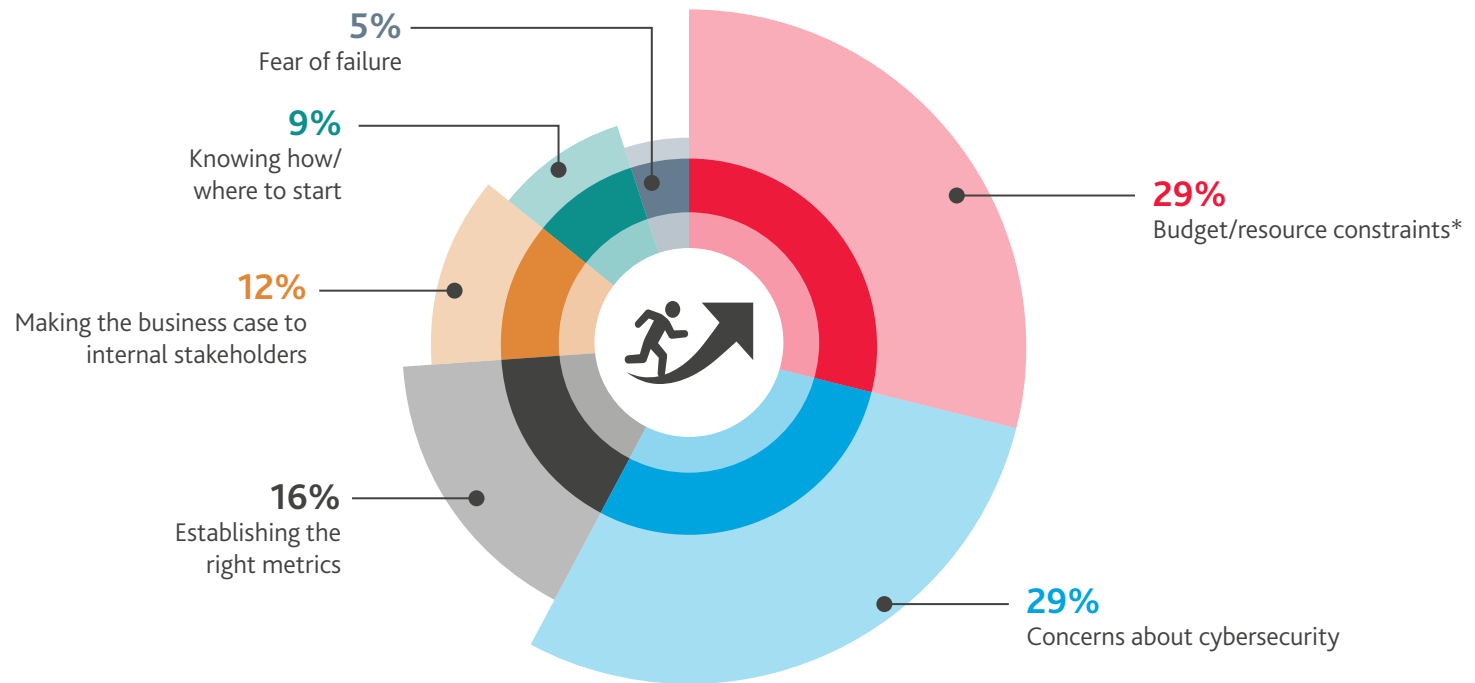
As organizations begin to introduce new digital systems and processes into the workforce, they must provide clinicians with the proper education and tools to understand how to use them with ease. Education and tools is not a one-and-done matter, however. Organizations must also provide continuous support to clinicians, so that they have confidence that when there is an issue, they're able to quickly get the support they need so that neither their productivity—or care provided to patients—are negatively impacted. If used to energize the workforce and update facilities lacking modern equipment and technology, healthcare organizations can use digital transformation to counteract physician burnout.

**3**

### CORRECTING MISCONCEPTIONS

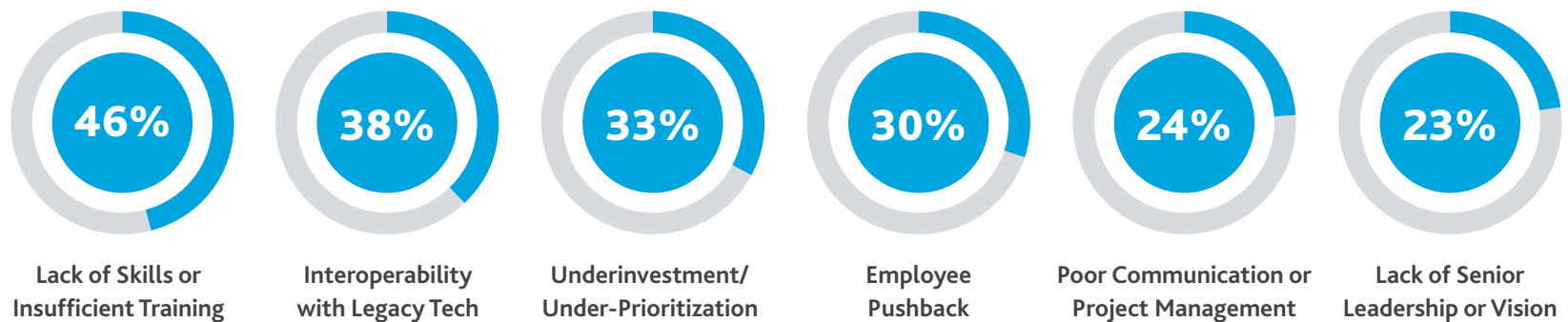
Instead of feeling like new technologies are taking away from their time and creating more administrative work, leaders should frame—and set up for success—digital transformation initiatives as opportunities to improve efficiency, spend more time with patients and innovate to create new products.

## TOP CHALLENGES TO STARTING ON THE ROAD TO TRANSFORMATION



*\*This has likely increased significantly since the time at which this survey was fielded.*

## PERCEIVED REASONS FOR FAILURE



# WHAT'S THE TOP-CITED REASON DIGITAL TRANSFORMATION FAILS IN HEALTHCARE?

Top reason cited by  
CEO/CFO/CMO/CTOs



Lack of skills or  
insufficient training

Top reason cited by  
Chief Medical Officers



Interoperability with  
legacy technology &  
processes

Top reason cited by  
COOs



Poor communication/  
project mgmt. and lack  
of senior leadership  
or vision (tie)

Top reason cited by  
CIO/CISOs



Underinvestment/  
under-prioritization

Top reason cited by  
Line of Business  
Executives

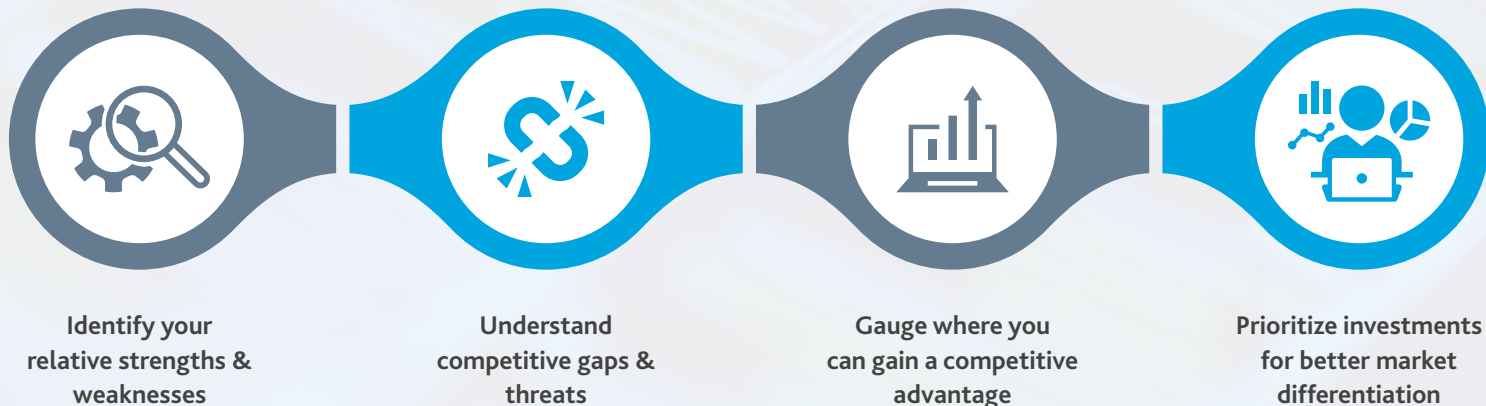


Interoperability with  
legacy technology &  
processes and employee  
pushback (tie)

# Benchmarking Your Digital Transformation Efforts

How do you stack up against your peers? While every healthcare organization is different—especially depending on location, patient population and leadership structure—benchmarking against those in your revenue range can help you determine where you might be falling behind and what areas you should prioritize looking ahead.

## HOW TO USE THIS BENCHMARKING DATA



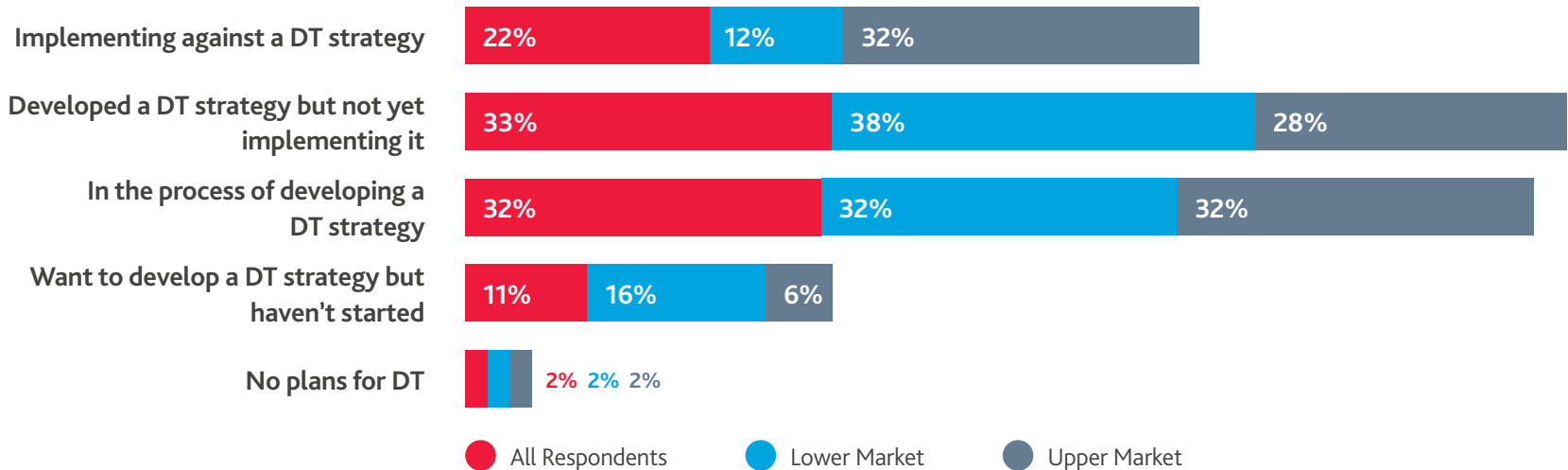
For the purposes of this section, organizations are categorized in two groups, according to their annual revenues:

- ▶ **Lower Market:** \$250M-\$750M
- ▶ **Upper Market:** \$751M-\$3B

# WHAT IS THE CURRENT STATUS OF YOUR DIGITAL TRANSFORMATION?

## Benchmarking / Plans for Digital Transformation

### STRATEGY STATUS\*



\*These numbers have likely shifted since this survey was fielded, as the federal government has earmarked funding to support providers' expansion of virtual health in light of COVID-19.

# WHICH DIGITAL ENABLERS ARE YOU ADOPTING?

## Benchmarking / Deployment of Advanced Technologies

Technologies	All Respondents		Lower Market		Upper Market	
	Currently Deploying	Considering Deploying	Currently Deploying	Currently Deploying	Considering Deploying	Considering Deploying
Advanced Analytics	60%	32%	56%	38%	64%	26%
	<b>92%</b>		<b>94%</b>		<b>90%</b>	
Artificial Intelligence/ Machine Learning	49%	42%	40%	52%	58%	32%
	<b>91%</b>		<b>92%</b>		<b>90%</b>	
Cloud Computing	47%	36%	46%	30%	48%	42%
	<b>83%</b>		<b>76%</b>		<b>90%</b>	
Internet of Things	55%	26%	50%	28%	60%	24%
	<b>81%</b>		<b>78%</b>		<b>84%</b>	
Virtual/Augmented Reality	33%	42%	30%	34%	36%	50%
	<b>75%</b>		<b>64%</b>		<b>86%</b>	
Robotic Process Automation	35%	31%	32%	24%	38%	38%
	<b>66%</b>		<b>56%</b>		<b>76%</b>	
3D Printing	34%	32%	20%	32%	48%	32%
	<b>66%</b>		<b>52%</b>		<b>80%</b>	
Blockchain/ Distributed Ledger Technology (DLT)	22%	38%	16%	34%	28%	42%
	<b>60%</b>		<b>50%</b>		<b>70%</b>	

## Digital Enablers Defined



### Cloud Computing

Cloud computing shifts the access, processing and storage of data and services to the Internet.



### Advanced Analytics

Advanced analytics go beyond historical data analysis to provide real-time and predictive business intelligence.



### Robotic Process Automation (RPA)

RPA is the use of software "bots" that automate repetitive manual tasks.



### Artificial Intelligence (AI)

Artificial Intelligence is a broad concept to describe machines trained to think like humans.



### Machine Learning

A subset of AI, machine learning aims to mirror human intelligence by equipping algorithms with the ability to "learn" on their own without human intervention based on experience and new inputs.



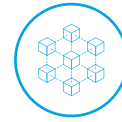
### Internet of Things (IoT)

IoT connects "smart" devices to the Internet and to each other.



### DLT

A database of information that is simultaneously shared and updated in real time and in multiple locations across a network.



### Blockchain

A type of distributed ledger technology, governed by a consensus protocol, used for sharing and storing validated and unchangeable information.



### 3D Printing

Also known as additive manufacturing, 3D printing builds three-dimensional objects from a digital model.



### Extended Reality (XR)

The extended reality realm encompasses virtual reality (VR), augmented reality (AR) and mixed reality (MR).



### Virtual Reality

VR is a full immersion into a computer-generated environment.



### Augmented Reality

AR overlays virtual elements, such as computer-generated graphics or simulations, on top of the real-world environment.



### Mixed Reality

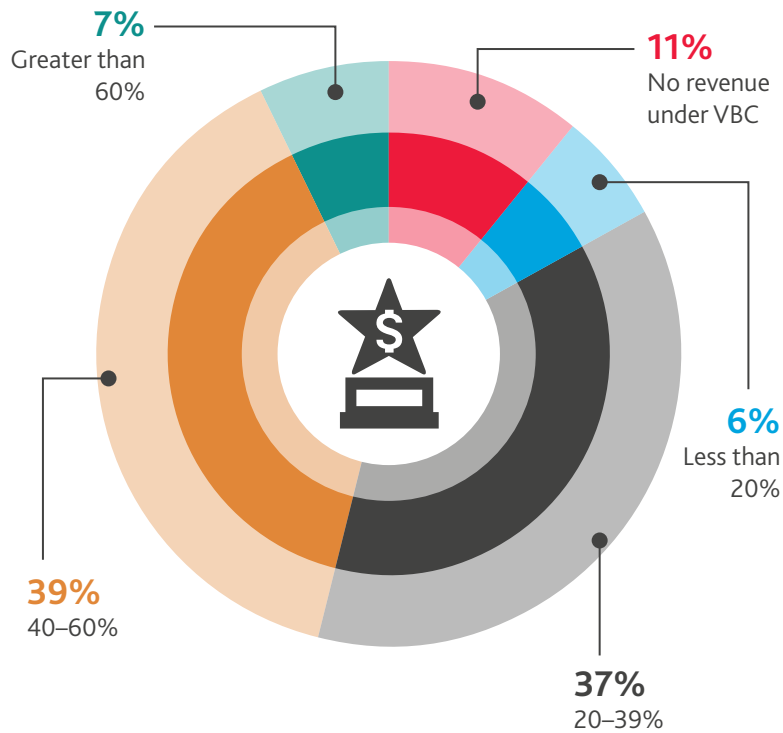
MR is an advanced form of augmented reality, integrating the virtual and physical worlds to create an immersive interface.



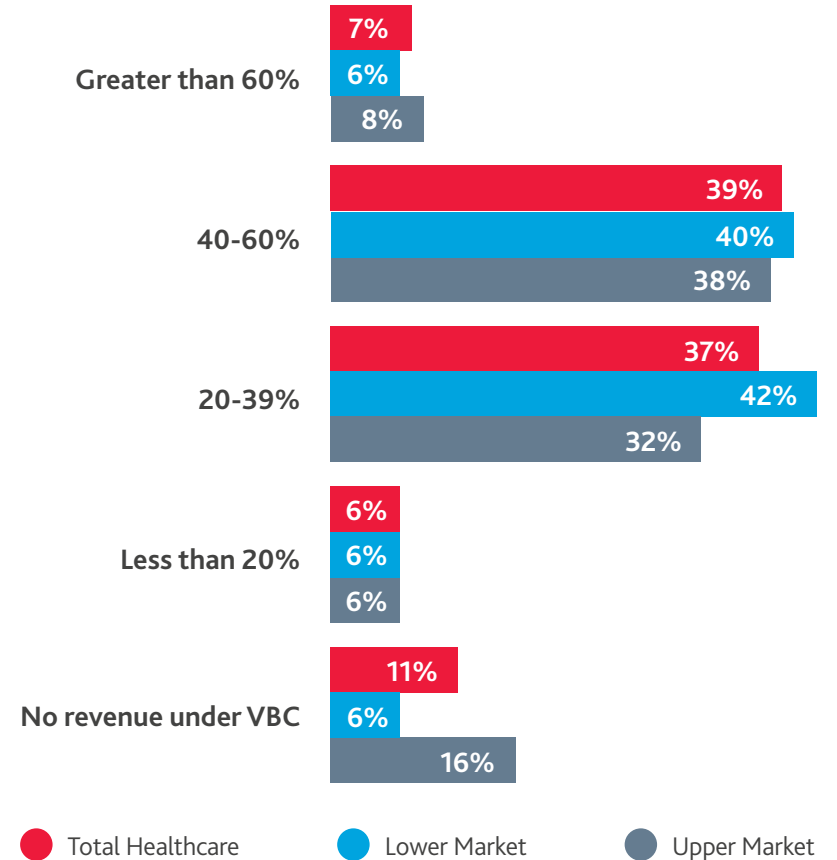
# HOW MUCH OF YOUR REVENUE IS TIED TO A VALUE-BASED CONTRACT/ARRANGEMENT?

## Benchmarking / Transition to Value-Based Care\*

HEALTHCARE'S OVERALL REVENUE TIED TO VALUE-BASED CARE



REVENUE TIED TO VALUE-BASED CARE BY SIZE

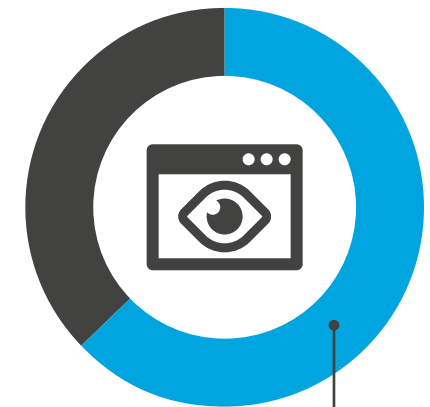


\*Revenue tied to value-based care was calculated prior to the COVID-19 outbreak, so some of these arrangements may have changed.

# WHAT STEPS ARE YOU TAKING TO COMPLY WITH DATA PRIVACY LAWS?

## Benchmarking / Data Privacy Compliance

Compliance Steps	Currently	Next 12 Months
Revising privacy policies and processes	59%	37%
Updating privacy disclosures	56%	28%
Providing training for employees	52%	28%
Automating compliance processes	42%	38%
Performing a readiness assessment	41%	35%
Reviewing third-party agreements to ensure appropriate limitations	39%	44%
Performing a data mapping exercise	34%	46%
None of the above	3%	3%



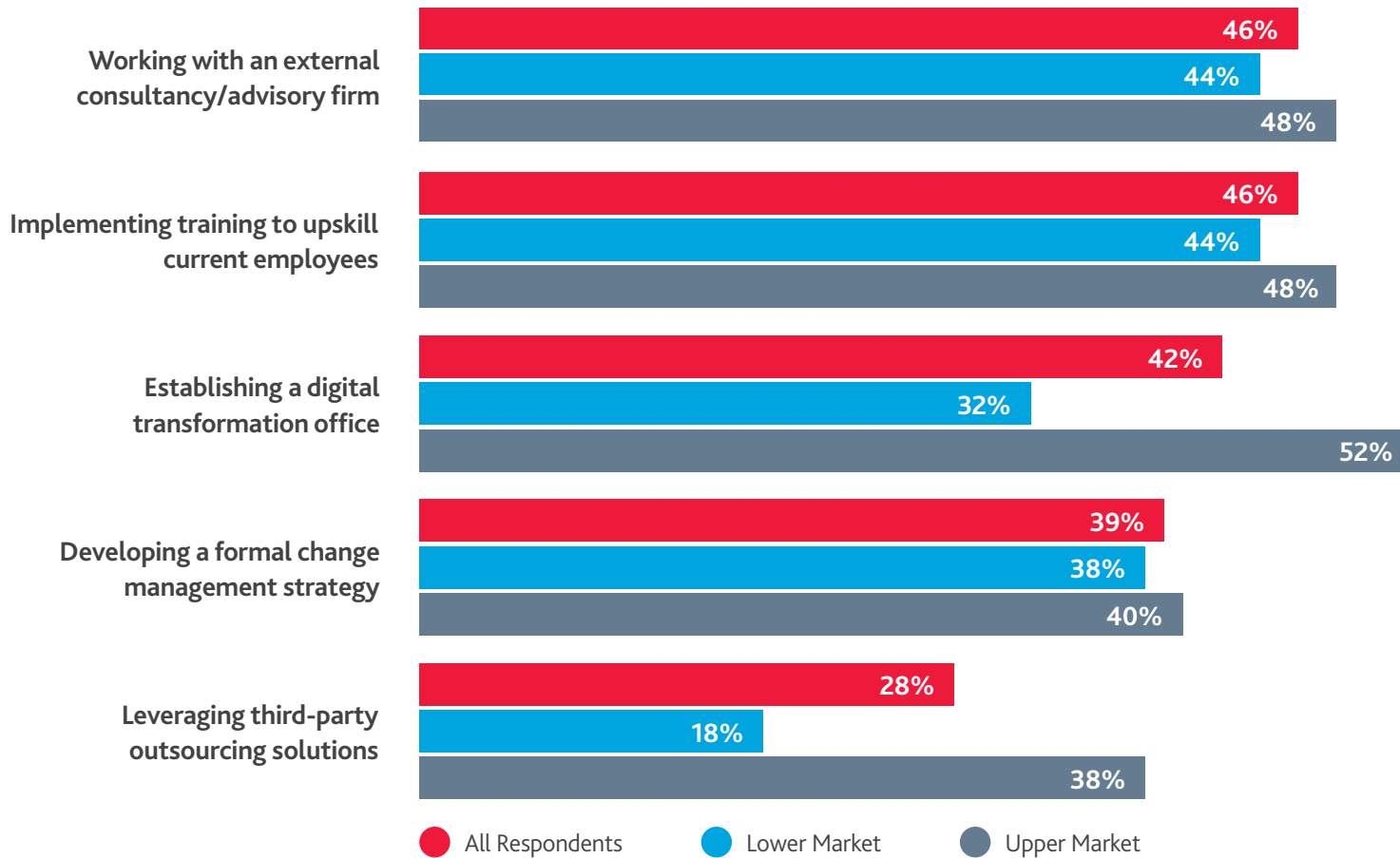
**63%**

have a **data ethics program or policy** in place while **37%** say they do not

# HOW ARE YOU PREPARING FOR DIGITAL TRANSFORMATION?

## Benchmarking / Digital Adoption & Enablement

### PLANS TO ENABLE EMPLOYEE ADOPTION



# Conclusion

Digital transformation is key in the post-pandemic health system to developing a more agile mindset, ensuring better upstream and downstream care coordination, and re-imagining the drug and supply inventory to better handle public health emergencies. But for many health organizations, they're stuck between a rock and a hard place. Many of them have been required to provide telehealth services largely overnight without a clear rule book or idea on how much they'd be reimbursed, while providing in-person care under battle-like conditions. Others have had to halt all of their procedures entirely because of patient safety concerns.

Now, they're being asked to adopt this virtual mindset for the long haul, while at the same time planning for how they'll get operations back up and running while continuing to brace for the next wave of the coronavirus. But if they don't invest in digital transformation, it will be to the detriment of their organization's future and the health outcomes of their patients.

“

*The pandemic recovery requires the continued digital transformation of the healthcare industry. To secure the health system and their own futures, providers need to not only digitize their operations, but also evolve the way they coordinate care and support consumers virtually as telehealth becomes the norm and not the exception. At the heart of it all is patient data—and the process of bringing disparate sources of it together to turn information into actionable insight and quicker patient recoveries. To preserve patient safety while helping bring us out of this pandemic, providers need to think critically about managing and protecting that data as an asset critical to public health.*



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## About The BDO Center for Healthcare Excellence & Innovation

The BDO Center for Healthcare Excellence & Innovation unites recognized industry thought leaders to provide sustainable solutions across the full spectrum of healthcare challenges facing organizations, stakeholders and communities. Leveraging deep healthcare experience in financial, clinical, data analytics and regulatory disciplines, we deliver research-based insights, innovative approaches and value-driven services to help guide efficient healthcare transformation to improve the quality and lower the cost of care.

## About BDO Digital

A subsidiary of BDO USA, BDO Digital, LLC, provides a holistic portfolio of technology and transformation services and solutions, tailored by industry and designed for the middle market. The collaborative, cross-disciplinary team is comprised of more than 400 professionals, including digital strategists, systems integrators, data scientists, software developers, change management professionals and industry-specific advisors, who work together to solve clients' immediate digital needs and unearth new opportunities to drive competitive advantage. Learn more at [bdo.com/digital](https://bdo.com/digital).

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**EXPLORE HOW BDO  
CAN HELP YOUR  
ORGANIZATION  
NAVIGATE A NEW DIGITAL  
REALITY. ►**

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