



HPE FUTURE OF HEALTHCARE SURVEY

A RESEARCH REPORT FOR HPE BY VANSON BOURNE

SEPTEMBER 2021

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As global healthcare teams continue to adjust to a digital-first future for delivering patient care, **HPE's Future of Healthcare Survey** reveals how the healthcare industry is going through a rapid transformation, with a profound impact on the technologies and solutions required to meet the demands of **modern, scalable healthcare delivery**.

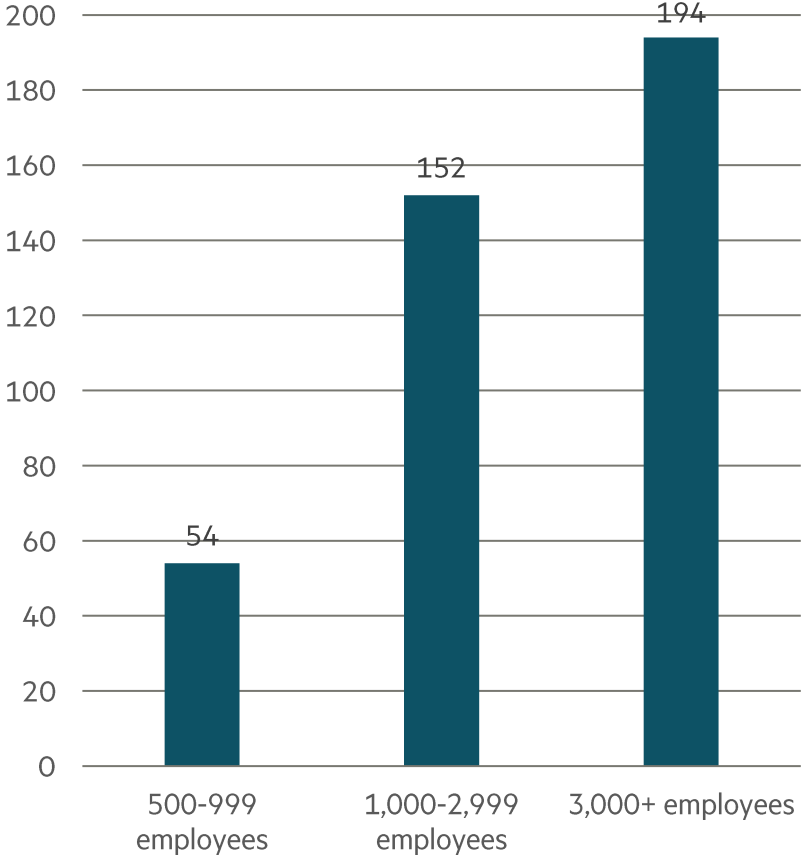
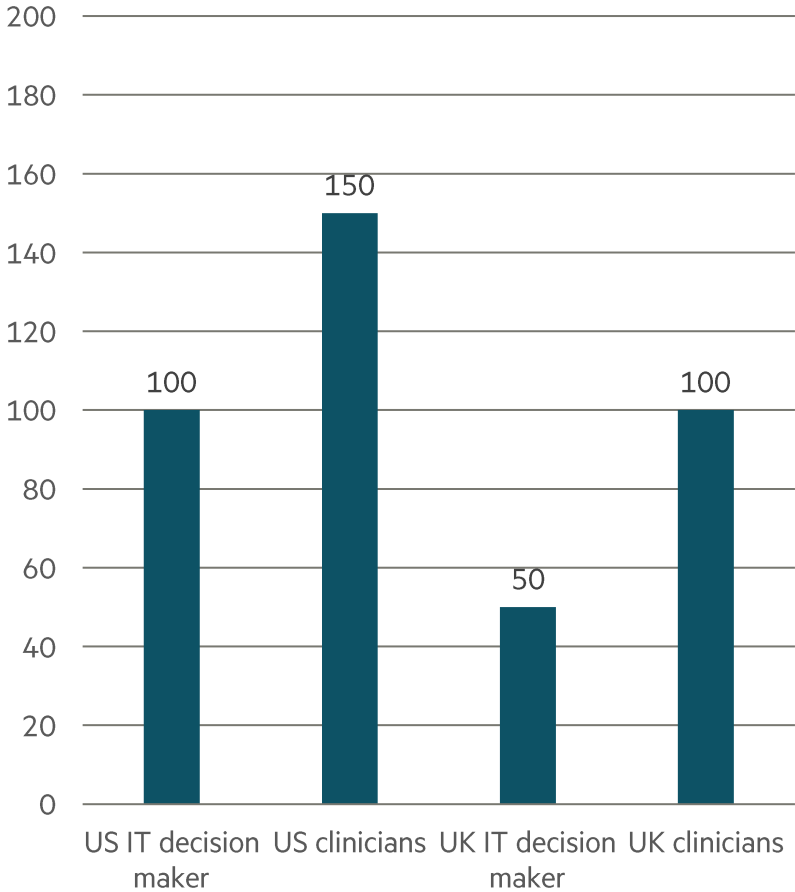


Market research firm Vanson Bourne conducted the HPE-sponsored survey to explore respondents' perceptions on how the pandemic has impacted technology in their healthcare organization, opportunities and challenges related to the COVID-19 pandemic, artificial intelligence (AI), edge technologies, hybrid cloud, machine learning (ML), and telehealth.

The findings point to an increased focus and investment in solutions that can help healthcare organizations **future-proof their edge-to-cloud IT environments** and ensure **agility and flexibility** in the ways they deliver **quality patient care at scale**, regardless of where the providers and patients may be located.



ABOUT THE RESEARCH



400 respondents were interviewed using online surveys in April-May 2021, split as shown.

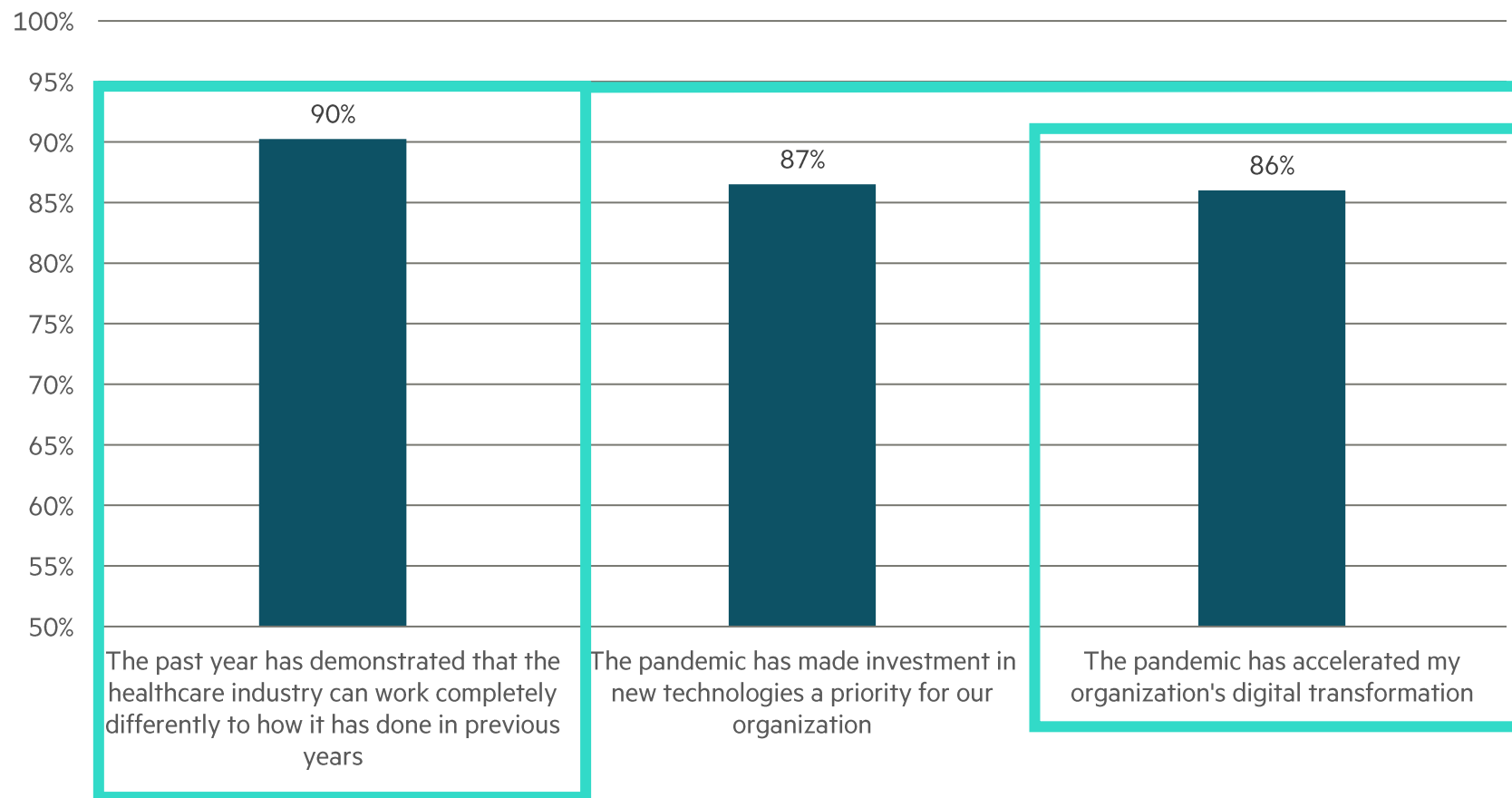
All respondents work in healthcare organizations with at least 500 employees, with IT decision makers ranging from senior manager to C-Level, and clinicians including nurses, doctors and specialists.





HEALTHCARE AND THE LAST 12 MONTHS

THE IMPACT OF THE COVID-19 PANDEMIC



IT decision makers and clinicians are broadly in alignment: by far the majority agree that the pandemic has had a big impact on healthcare.

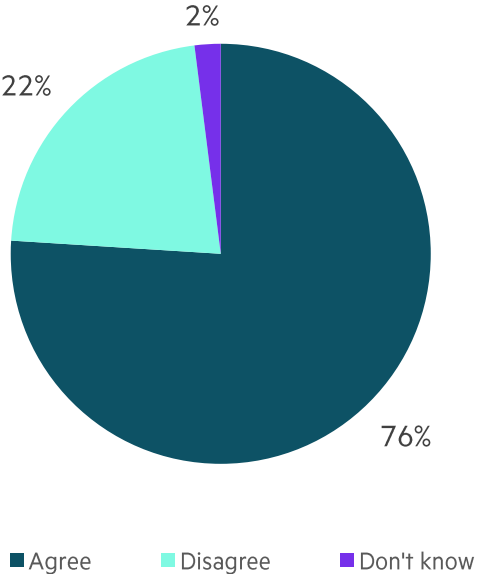
86% of those interviewed in the industry say that the pandemic has accelerated digital transformation in their organization.

An impact that will be felt for years to come.

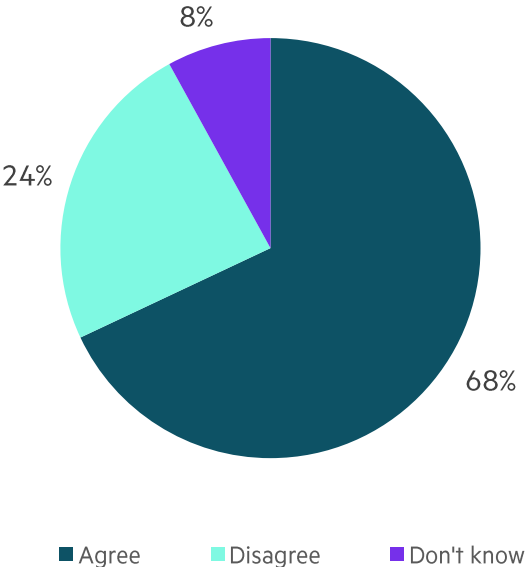
Only 5% of ITDM respondents said the pandemic has had no impact on their organization's digital transformation long-term

DELIVERING A NEW ERA OF VIRTUAL PATIENT CARE WITH TELEHEALTH

Telehealth will make up the majority of patient care in the near future



We frequently have issues in delivering telehealth



The majority (76%) of clinicians surveyed believe telehealth will make up a majority of patient care in the near future.

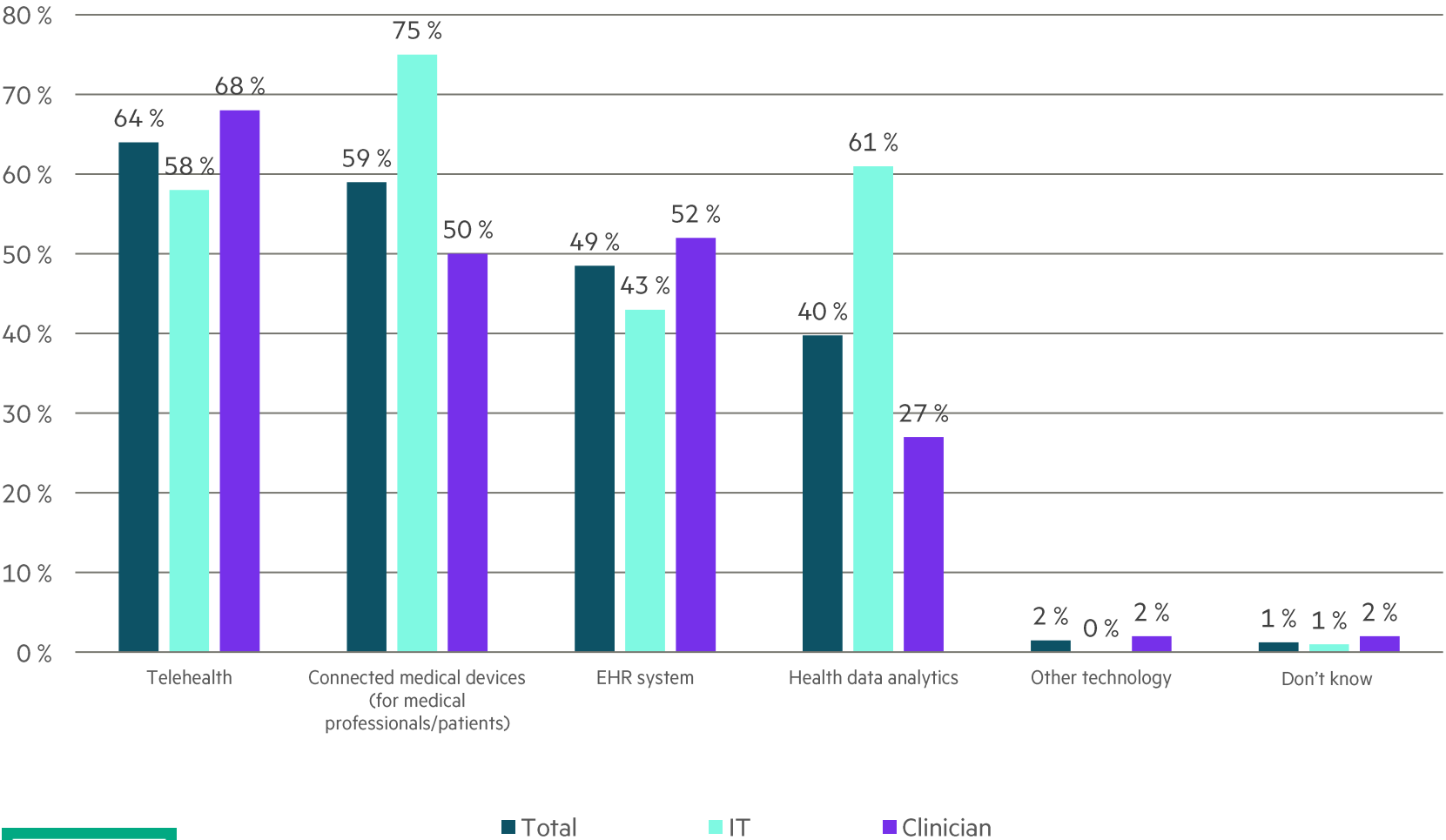
But challenges remain in the delivery of virtual care, as the [digital divide](#) prevents widespread access to wi-fi connectivity and technology around the world: 68% of clinicians agreed they “frequently have issues in delivering telehealth” to patients.





57% of ITDMs say that remote working has become more important to their organization's IT department in the last 12 months.

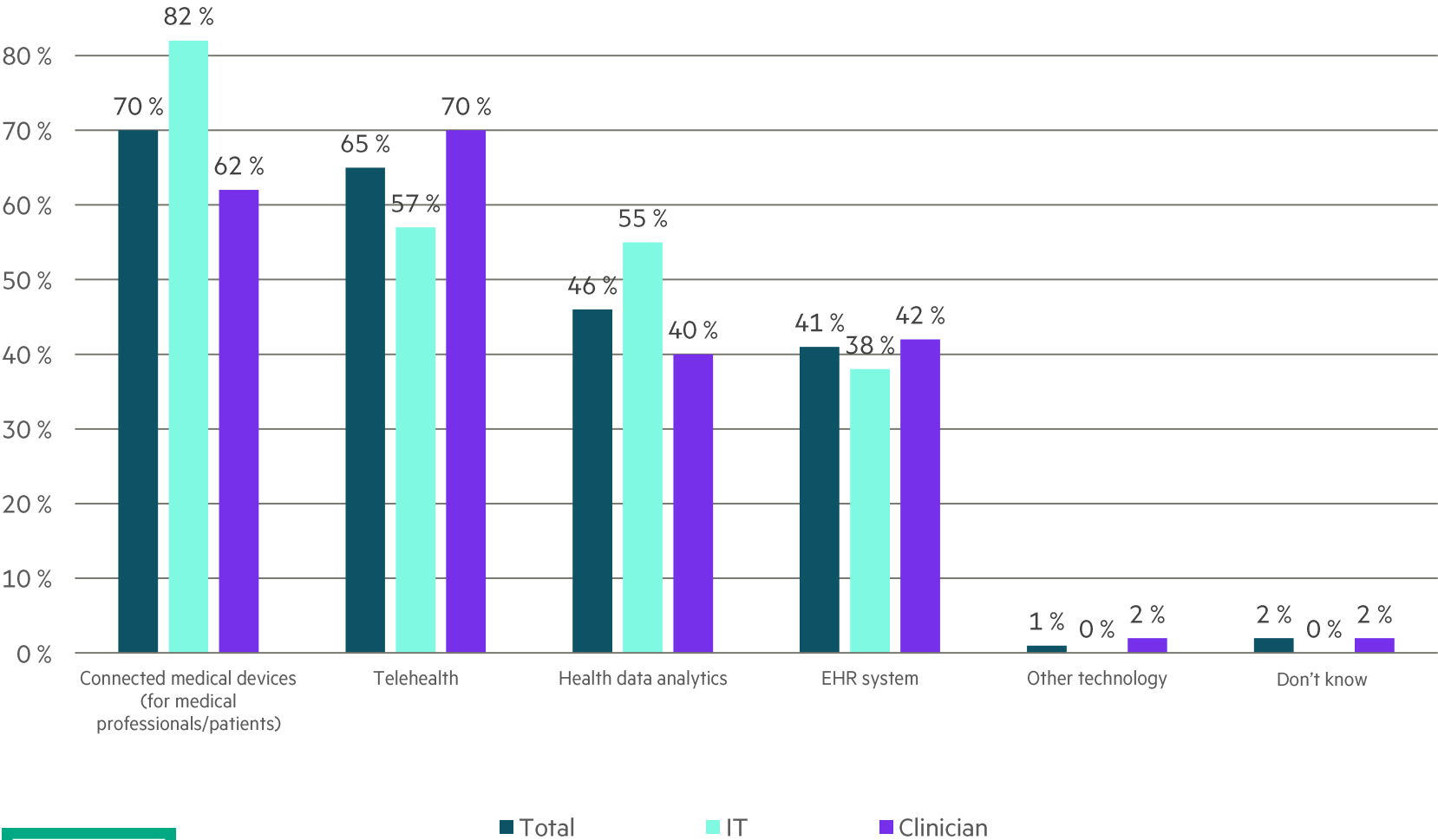
TECHNOLOGIES WITH THE BIGGEST IMPACT OVER THE LAST YEAR



Telehealth is marked out as important in particular by clinicians.

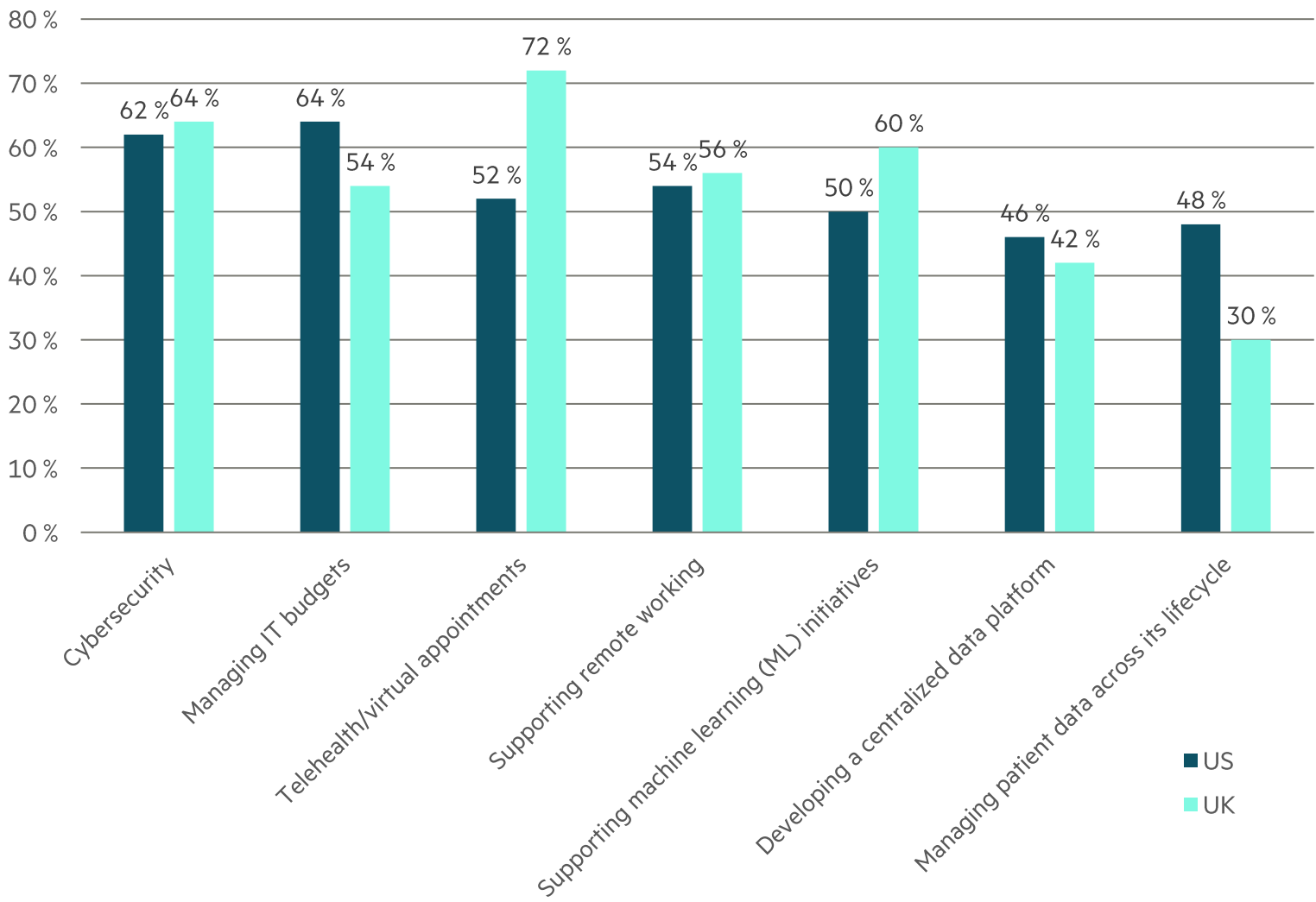
But IT decision makers are the most likely to highlight connected medical devices as having had the biggest impact, demonstrating the importance of using technology to support healthcare needs of patients and clinicians.

TECHNOLOGIES WITH THE BIGGEST IMPACT IN THE NEXT FIVE YEARS



Further demonstrating the value of breakthrough edge technologies in the past year, more than three quarters (82%) of ITDMs surveyed report that they feel connected medical devices will be one of the technologies to have the biggest impact on their organization in the next five years – although clinicians are more likely to think Telehealth will have the biggest impact.

IT DEPARTMENT'S BIGGEST PRIORITIES VARY BY COUNTRY



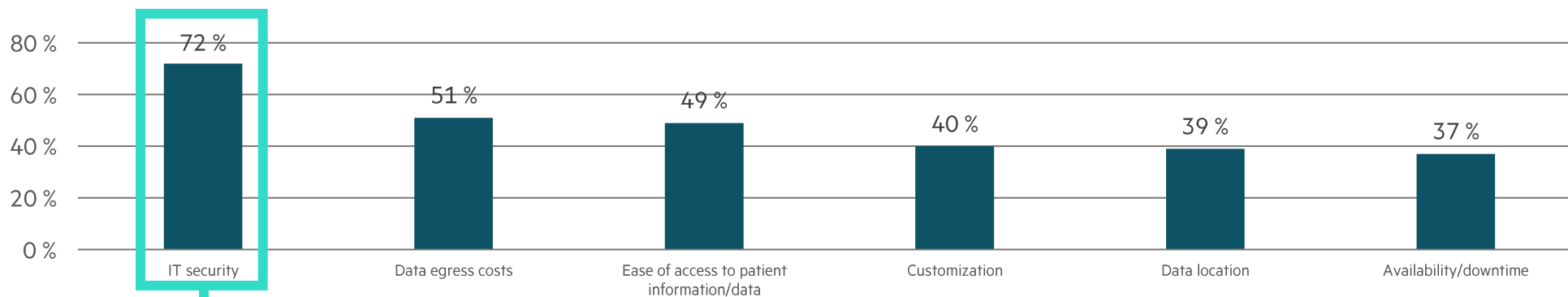
UK IT decision makers are more likely to prioritize telehealth over anything else, while US IT decision makers are most likely to prioritize managing budgets.

This shows that while broadly priorities are similar across both countries, a clear majority of UK IT departments feel they still have work to do when it comes to virtual appointments.



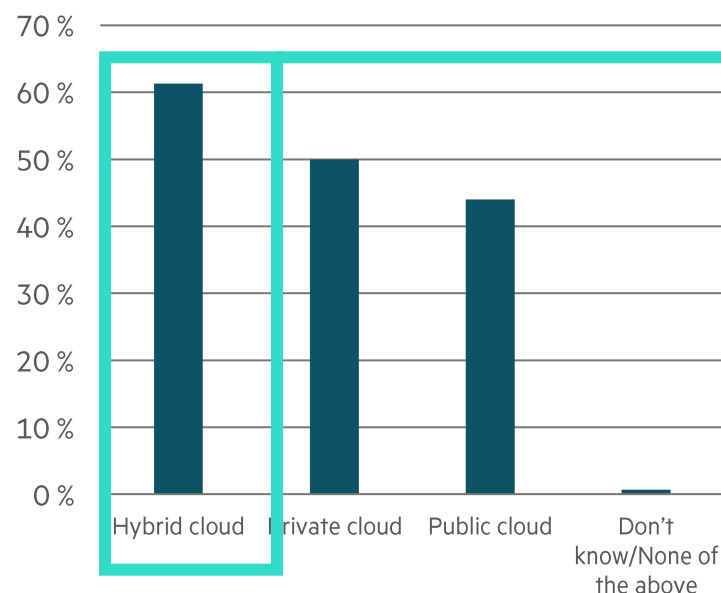
HEALTHCARE DELIVERY FROM EDGE TO CLOUD

CLOUD STRATEGY – A HYBRID, FUTURE-PROOF INFRASTRUCTURE



When it comes to putting their organization's data in the public cloud, 72% ITDMs cited IT security as a main concern...

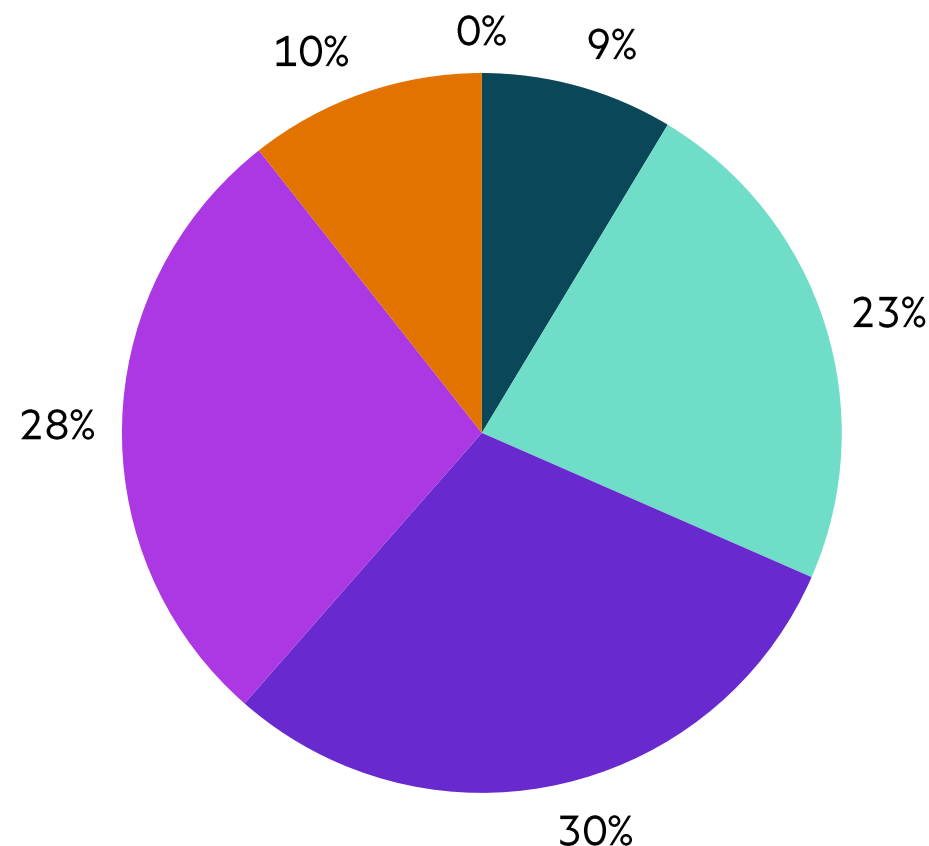
...and when thinking about where to store their organization's data, 58% of ITDMs said that data egress costs, the charges associated with moving data out of the cloud, were a significant factor in their decision...



...it's no surprise therefore that hybrid cloud is the most likely approach for healthcare organizations, according to ITDMs – although more than four in ten are using public cloud to some extent.

DATA STORAGE

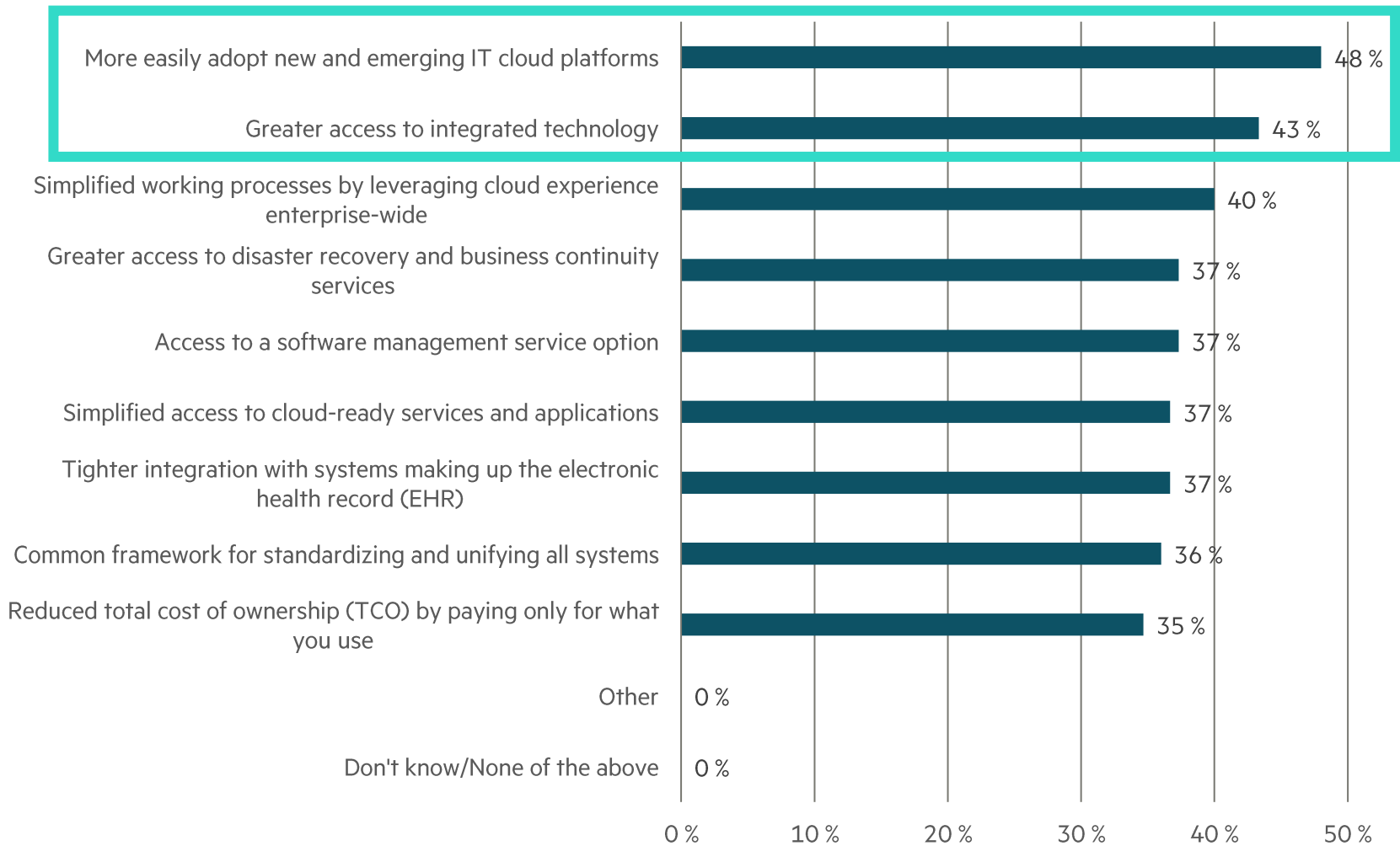
- All on-premises
- Majority on-premises, a little on the cloud
- Equally split between on-premises and the cloud
- Majority on the cloud, a little on-premises
- All on the cloud
- Don't know



This mixed approach to cloud is further reflected in the fact that 81% of IT decision makers in healthcare organizations are storing data at least partly on the cloud, and partly on-premises.

Only one-fifth of organizations therefore are relying solely on one approach to store their data.

INVESTING TO OPTIMIZE THE EDGE-TO-CLOUD IT ENVIRONMENT

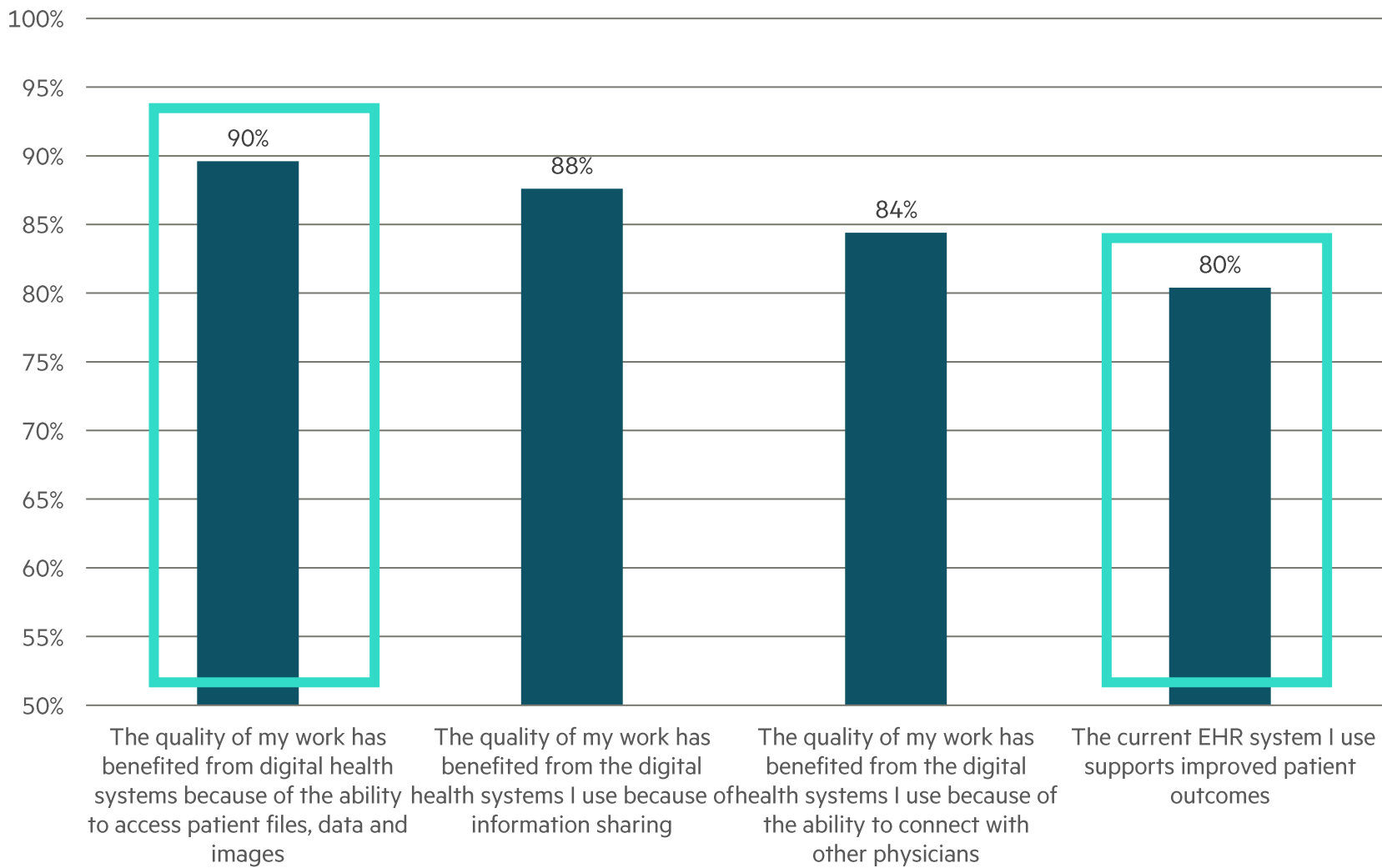


The cloud experience is a key driver of investment for nearly half of IT decision makers, and most likely to be reported as such.

But IT is also looking for access to integrated technology, reflecting that the healthcare sector must use a variety of technologies that can work together, in order to deliver a seamless service to patients.



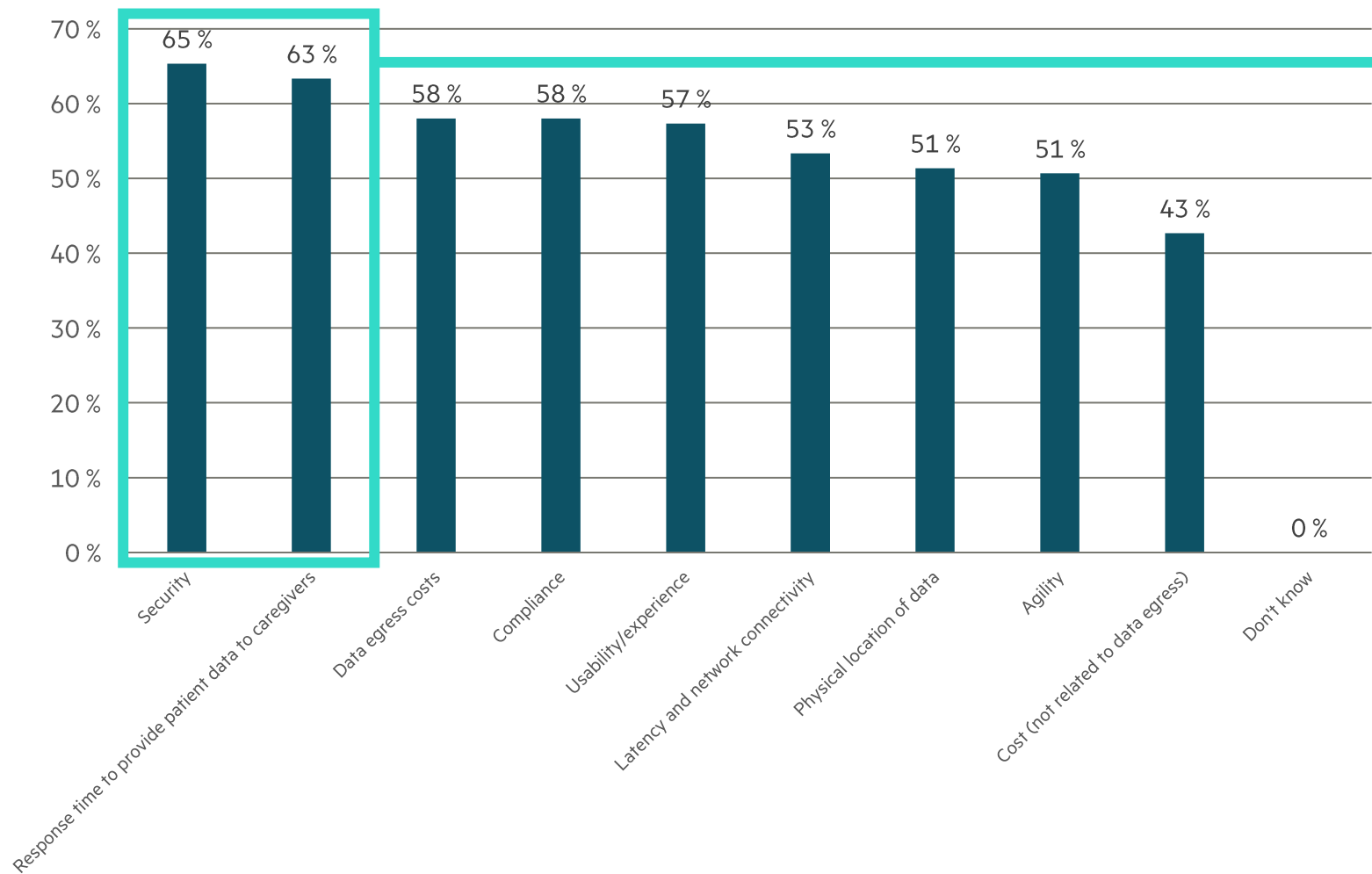
CONNECTING CLINICIANS AND DATA



Around nine in ten clinicians agree that the quality of their work is better through using various technologies – accessing patient data, information sharing, and connecting with peers.

Eight in ten also say that their EHR system supports improved patient outcomes, although that still leaves a significant minority who believe their EHR system could be improved in this way.

IMPORTANT FACTORS FOR DATA STORAGE




IT is most likely to consider security as an important factor for data storage.

But almost as many report response time for patient data, showing that high performance and less downtime are key outcomes for Electronic Health Record (EHR) systems.

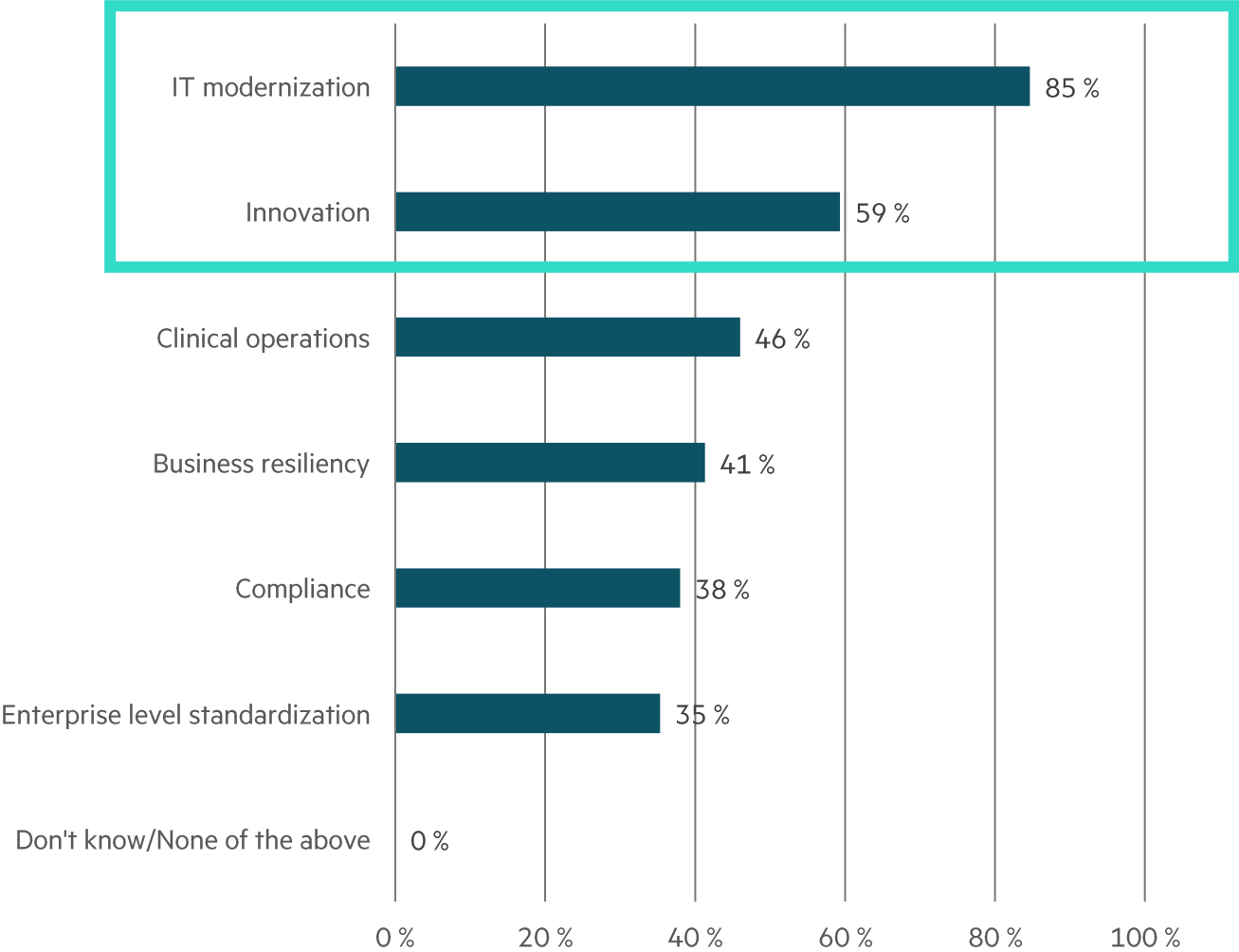


55% of ITDMs would like to see self-service IT across their environment.



ENABLING THE MODERN HEALTHCARE ORGANIZATION

MODERNIZATION AND INNOVATION DRIVING INVESTMENT

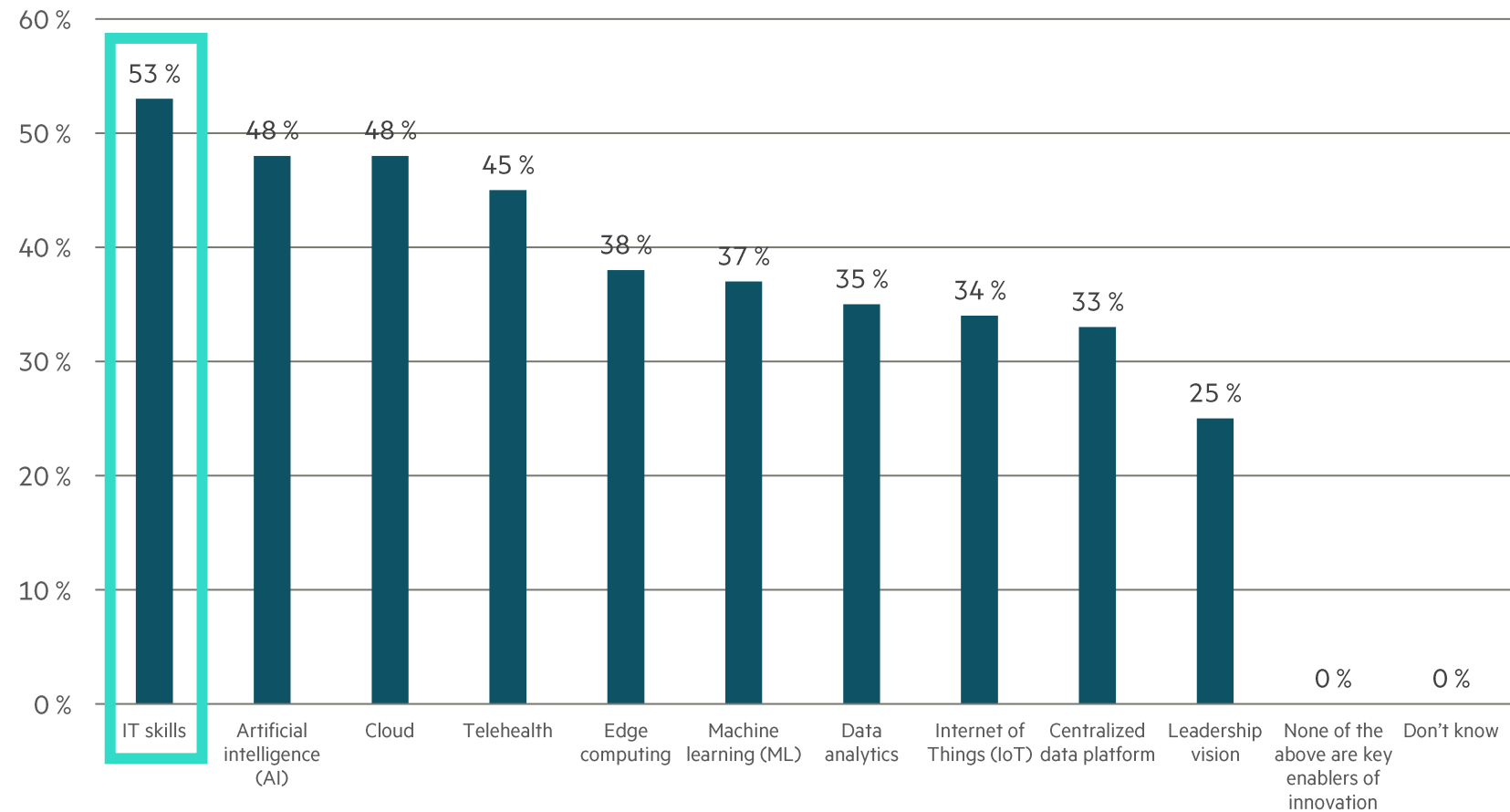


IT modernization is notably more likely to be seen as driving investment, although innovation is one of the biggest drivers for nearly six in ten respondents.

This demonstrates how critical adoption and deployment of new technology is for healthcare organizations.



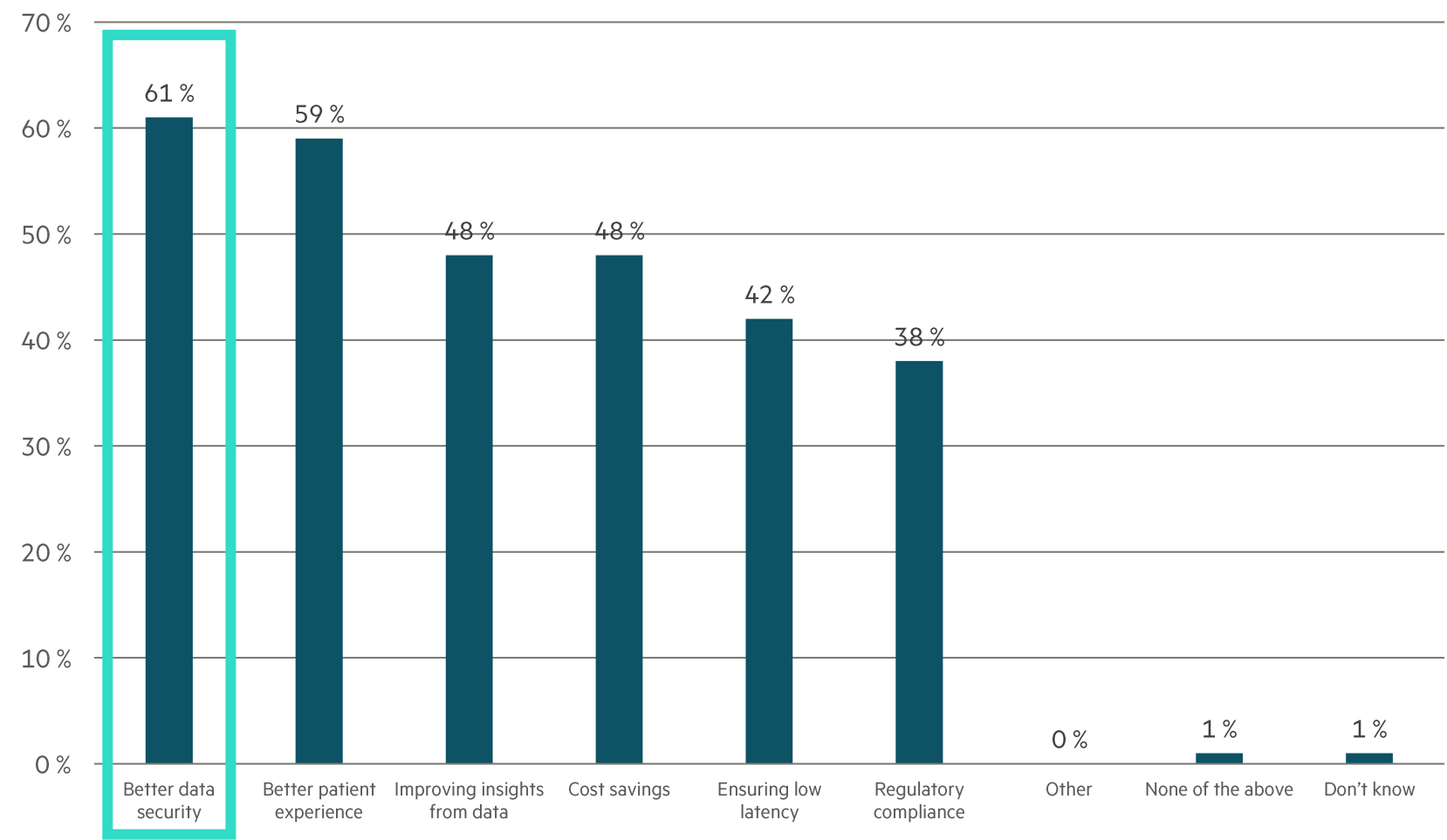
KEY ENABLERS OF INNOVATION



IT skills are most likely to be regarded as one of the key enablers of innovation in healthcare organizations, according to ITDMs.

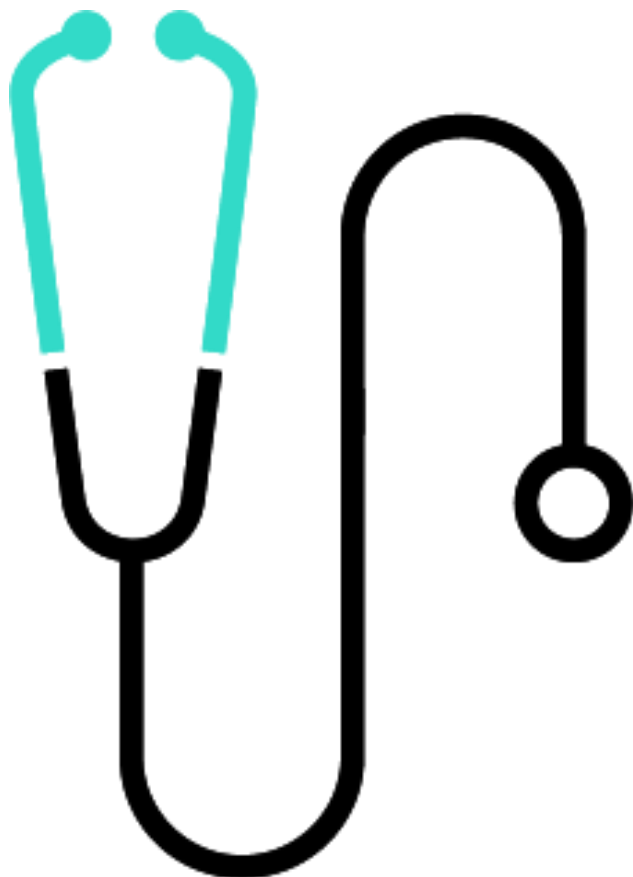
Innovation will power the pace and reach of modernization, but this can only happen with an IT department that is supported and has skills/remit that go beyond ‘keeping the lights on’.

HOW DOES INNOVATION SUPPORT HEALTHCARE ORGANIZATIONS?



ITDMs report many potential benefits from Edge – most likely of which being better data security (61%), with nearly as many reporting better patient experience (59%).

This shows how modernization within the healthcare organization can lead to improvements, both from an IT perspective, but also directly for the patients.



79% of ITDMs say that one of the most important outcomes of deploying AI/ML is to help delivering better clinical outcomes.

IN SUMMARY

“The healthcare industry has undergone tremendous change over the last 18 months, enabling providers to connect with their patients securely and effectively wherever they are, with virtual care at the forefront. In this new paradigm of modern healthcare, however, organizations face compounding pressures to quickly adapt while still making progress toward long-term business, data management, and patient care objectives. As a result, they are seeking out agile, scalable, secure, and cost-effective platforms that serve their entire edge-to-cloud environment, while still meeting the requirements of an increasing regulatory healthcare landscape.”

- Steve Cotham, Healthcare Chief Technologist at HPE

HPE serves thousands of healthcare organizations worldwide and has delivered solutions to healthcare and life sciences for decades, providing the right technologies and expertise to help deliver transformative outcomes. HPE aims to improve health and community well-being through technology and health information that is accessible whenever and wherever it matters most, including enabling secure and reliable access to patient records, protecting and mobilizing medical imaging data, and accelerating medical insight and scientific discovery.

<https://www.hpe.com/us/en/solutions/Healthcare.html>



The HPE GreenLake edge-to-cloud platform is uniquely suited to address the agility, compliance, and data requirements of the healthcare industry's rapid transformation. The HPE GreenLake cloud platform combines the simplicity and agility of the cloud with the governance, compliance, and visibility that comes with hybrid IT. HPE GreenLake platform offers a range of cloud services that accelerate innovation, including cloud services for Epic Inc. electronic medical records, and virtual desktop infrastructure (VDI) for remote workforces. With customers such as Carestream, Prisma Health, University Hospital of Bonn, and Tübingen University, HPE GreenLake is helping to redefine clinical experiences and accelerate the way providers deliver healthcare around the world.

<https://www.hpe.com/us/en/greenlake/healthcare.html>





APPENDIX - DEFINITIONS

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Machine learning/ML

- Machine learning (ML) is a type of artificial intelligence (AI) focused on building applications that learn from data and improve their accuracy over time without being programmed to do so. In healthcare, machine learning algorithms can detect patterns associated with diseases and health conditions by studying thousands of healthcare records and other patient data. Applications of machine learning in healthcare can also streamline healthcare tasks and optimize surgery planning, preparation and execution.

Artificial intelligence/AI

- Artificial intelligence refers to the use of machine-learning algorithms and software, or artificial intelligence (AI), to mimic human cognition in the analysis, presentation, and comprehension of complex medical and health care data.

Hybrid cloud

- Hybrid cloud refers to a cloud computing environment that uses a mix of on-premises, private cloud and third-party, public cloud services with orchestration between these platforms. This typically involves a connection from an on-premises data center to a public cloud. The connection also can involve other private assets, including edge devices or other clouds.



APPENDIX - DEFINITIONS

Data egress

- Data egress costs refers to charged fees when data is exported out of a cloud provider.

Telehealth/remote appointments

- The delivery of health care services, where patients and providers are separated by distance. Telehealth uses ICT for the exchange of information for the diagnosis and treatment of diseases and injuries, research and evaluation, and for the continuing education of health professionals. Telehealth can contribute to achieving universal health coverage by improving access for patients to quality, cost-effective, health services wherever they may be. It is particularly valuable for those in remote areas, vulnerable groups and ageing populations.

Edge computing

- Edge computing refers to the practice of bringing computation and data storage closer to the location where it is needed to improve response times and save bandwidth. In healthcare, edge computing can be leveraged for monitoring devices, physical security deployments, satellite offices, etc.

