

It's time
to **rethink**
health care

A 4-point guide to
rethinking your digital
health care strategy



Leveraging advanced technologies to drive growth and resiliency

The worldwide pandemic is causing the health care industry to make a dramatic and swift shift to advanced cloud technologies and artificial intelligent (AI) powered solutions.

These technologies are critical in ensuring the industry is ready for whatever comes next. This guide will help you take advantage of this opportunity.

Every individual, industry and organization has been affected by the current global disruption. COVID-19 has spread to more than [185 countries and regions globally](#).

Worldwide, we've seen increased demand for health care services, increased patient acuity and higher demand for medical devices and supplies. As demand has grown, the pandemic has revealed vulnerabilities in our health care systems, including:

- Strain on health care capacity worldwide, from hospitals and providers to health organizations
- Risk of infection in our workforce, especially among front-line hospital workers
- Inability to forecast care volume within/across network and local community
- Lack of spare cycles for health workers and administrators to plan/adjust properly
- Insufficient inventory levels by item to meet specific care needs

Health care should never be this unprepared again.

Health care leaders worldwide continue to respond to the consequences of unanticipated high demand and the subsequent operational and clinical challenges. A clear path to recovery requires putting aside ad hoc, manual or workaround processes.

With cloud technologies and AI-enabled models, organizations can achieve the highest impact and reset how health care works, automate more efficient business processes, design safer workplaces and better manage and predict supplies where needed most.

Most impactful technical innovations anticipated in health and medicine

Majority of 100 technical experts in a [global survey](#) believe the pandemic will propel the most impactful tech innovations over the next two to five years in three areas – the future of work, data and AI, and health and medicine.

Building a sustainable digital transformation

Creating a sustainable digital transformation requires a well-designed strategic digital plan tied to advanced technology-enabled models and solutions.

In this guide we focus on key virtual technologies and AI-powered intelligence to help health care organizations respond, reset and renew while continuing to make a human impact.

1. Virtual health
2. Smart inventory
3. AI-powered virtual agents
4. Rapid response and tracing

Be ready for whatever comes next

“If one looks at the history of infectious disease pandemics globally, on average they appear every decade but now, worryingly, the frequency between pandemics seems to be disturbingly shorter.”

International Journal of Infectious Diseases



Four top digital health care strategies

1. Virtual health delivers safe access to quality care

Health care professionals play a critical role in supporting the health, safety and wellness of people around the world. Working in a complex care environment, doctors, nurses and other health care staff need access to tools that enable collaborative workflows and help keep doctors, staff and patients safer from the spread of infectious diseases.

Doctors can conduct virtual hospital rounds, inpatient visits and consult with colleagues using digital boards and other communication platforms. However, these types of commercial messaging products are not always designed to ensure the security of protected patient information being shared.

Organizations can either build and sustain technical security protections in house or look for a partner able to provide it for them.

As a [leading digital innovator](#) on the Microsoft ecosystem, Avanade works to ensure the right security level is in place to protect information and meet any required regulations.

Providers and health care workers can also use virtual health capabilities to rebalance the workforce across the country – specialists in low-demand areas providing virtual consultations and support to colleagues in higher-demand areas. Or patients in more rural areas with limited access to health care providers can receive virtual consults from specialists no matter where they're located.

TECH TIP

In health care, it's vital to keep protected health information secure. Microsoft processes more than 8 trillion security signals daily and encrypts data in transit and at rest using Secure Real-time Transport Protocol for video, audio and desktop sharing.

2. Smart inventory improves visibility into critical resources

The health care industry has been hard hit with shortages in personal protective equipment, ventilators and other medical equipment. Clinical continuity has been disrupted and in some cases care delayed.

Most health care organizations need the tools to better track and gain visibility over critical resources like available beds and scarce supplies, including ventilators and masks.

Moving forward, technology capable of collecting, analysing and predicting supply and demand will be essential to ensure personal protective equipment and other supplies are available.

Leveraging the latest sensor hardware [technologies](#) and [advanced analytics](#), health care organizations can quickly capture needed data with near-time visibility into physical assets and necessary supplies.

At Avanade, our Smart Inventory accelerator can improve the availability and accuracy of supply chain metrics, including inventory, on-shelf availability, over and understock, shrinkage, labor hours and customer satisfaction across store locations.

TECH TIP

Strong data and analytics capabilities are crucial in understanding supply chain complexity, anticipating potential disruption and quickly developing a response.

[Supply chains are being disrupted](#) on a global scale, creating a humanitarian and societal emergency.

94%

of Fortune 1000 companies are seeing supply chain disruptions from COVID-19.

75%

of companies have had negative or strongly negative impacts on their businesses.

55%

of companies plan to downgrade their growth outlooks.

COVID-19: What to do Now, what to do Next, Accenture, March 2020

3. AI-powered virtual agents deliver timely interactions

AI-powered virtual agents help health care providers and staff manage fluctuations in demand, and can quickly respond with consistent, clear direction for a better health care experience.

[AI-powered virtual agents](#) perform multiple tasks such as check symptoms or help call centers respond to simple immediate needs. Moving forward, virtual agents can also make information legible and analysable, so clinicians and front-line workers are able to rapidly focus on the highest areas of concern.

Data generated from each interaction can be harmonized into robust predictive analytics to help inform staff and health care professionals on recommended next best actions for patients.

With the use of automatic speech recognition, virtual agents help break down language barriers by conversing in the language of choice so individuals can understand, make the best health choices and take appropriate actions.

Health care organizations should also use virtual assistants to help reduce workload for care providers and staff. With [robotic process automation \(RPA\)](#), a form of business process automation technology, virtual assistants automate multiple routine repetitive functions so providers and workers can focus on patients and more high priority tasks.

TECH TIP

Able to follow compliance guidelines, AI-powered virtual agents are particularly useful for highly regulated industries like health care to reduce the risk of fines or damages for noncompliance.

4. Rapid response and tracing help in prevention

With advanced technology, health care institutions, public agencies and even front-line workers can [monitor databases](#) to understand where COVID-19 cases have been confirmed and model the spread over time to understand how the progression of the disease may impact operational abilities.

By understanding where cases exist and where more will likely spread and/or be contained, health care organizations as well as businesses and retail services will be able to better prepare for spikes and predict the potential impact. With this information, virtual agents help communicate response protocols keeping citizens and patients up to date with answers.

It is also extremely important to ensure personal information that is collected meets security and accessibility standards in order to meet regulatory guidelines. With secure data, health care organizations can protect individual identities and still prevent the spread of COVID-19 throughout the community as well as other communicable diseases in the future.

No other generation in the past has had access to the technology available today to track data related to COVID-19 and map assets, logistics, locations and customers for risk analysis.

TECH TIP

Using leading public and educational data sources, advanced analytics have helped improve the precision of scenario modeling to better prepare providers for spikes and predict potential impact.



Case Study

Keeping 1.2 million health and social care workers connected

Challenge: [NHSmail](#) is the national collaboration platform for the NHS and social care system in England. The COVID-19 crisis placed significant demands on operational service delivery within the NHS and on keeping care teams connected from remote locations.

Solution: NHS Digital and the Accenture team, supported by key engineering resources from Avanade, worked closely with Microsoft and NHS to rapidly implement [Microsoft Teams](#) for all 1.2 million users of NHSmail.

Results: Within a period of seven days, the joint team built and tested the Microsoft Teams integration, including the implementation of a full support model for all 1.2 million users. Professionals and others are now able to use the platform to securely send instant messages, complete audio and video calls, and host virtual meetings between users across England.



Case Study

Responding to the COVID-19 outbreak with **intelligent virtual agents** to support citizen health

Challenge: Many health care organizations have been overwhelmed with citizens calling for information due to the COVID-19 virus. Creating a communication channel to help citizens track symptoms and get recommendations during the COVID-19 outbreak is an ideal task for intelligent virtual agents.

Solution: Avanade created an intelligent virtual agent based on a diagnostic algorithm to reflect growing knowledge about the virus and help communicate appropriate responses.

Results:

- Detected severe cases of COVID-19 over 4,000 conversations
- Delivered a mobile-first design that also works on desktop devices
- Enabled tracking of viral diseases storage

Why **Avanade**?

Rethinking your health care strategy requires a partner that understands the industry and how to make the most of advanced technologies.

Avanade brings human-centered business strategy and industry insights, agile innovation capabilities, and deep technology expertise to help you rethink your way forward.

We have the skills and solutions to deliver an AI-powered health care experience and provide sustainable digital transformation for growth and resiliency.

- Digital innovation studios with multidisciplinary teams worldwide
- 1,000+ artificial intelligence/machine learning solutions delivered
- Over 300 cognitive service experts
- 4,200-plus automation experts
- Deep connection with Microsoft Azure engineering teams
- Leading digital innovator and integrator of Microsoft data and analytics solutions



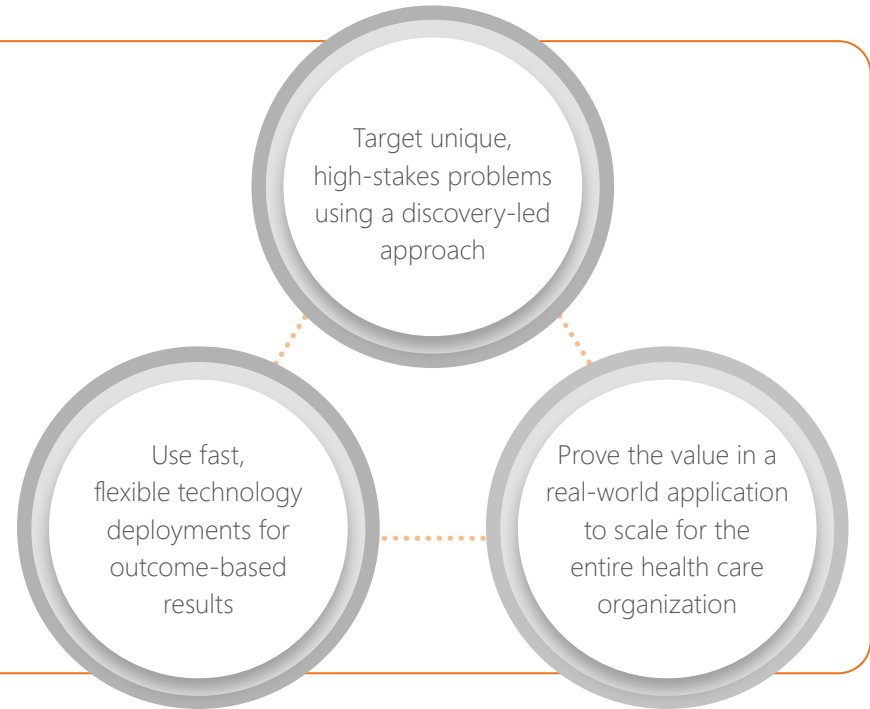
Get started **today**

We're here to help make sure your digital health care strategy is stronger and more resilient than ever before.

The health care workplace is in a state of digital acceleration. Recent months have proven that health care professionals and business leaders can adapt fast; however, the pathway ahead will not be linear. A focused digital strategy and the agility to rapidly test, learn and pivot will help providers and health care organizations rethink whatever comes next.

Our **Insight Discovery Workshops** help you uncover high-value opportunities to address the vulnerabilities in our health care systems and be better prepared to face the future.

Contact us to learn about this workshop.



North America
Seattle
Phone +1 206 239 5600
America@avanade.com

South America
Sao Paulo
AvanadeBrasil@avanade.com

Asia-Pacific
Australia
Phone +61 2 9005 5900
AsiaPac@avanade.com

Europe
London
Phone +44 0 20 7025 1000
Europe@avanade.com

About Avanade

Avanade is the leading provider of innovative digital and cloud services, business solutions and design-led experiences on the Microsoft ecosystem. With 38,000 professionals in 25 countries, we are the power behind the Accenture Microsoft Business Group, helping companies to engage customers, empower employees, optimize operations and transform products, leveraging the Microsoft platform. Majority owned by Accenture, Avanade was founded in 2000 by Accenture LLP and Microsoft Corporation. Learn more at www.avanade.com

© 2020 Avanade Inc. All rights reserved. The Avanade name and logo are registered trademarks in the U.S. and other countries. Other brand and product names are trademarks of their respective owners.

