

A blue-tinted background image showing a close-up of hands typing on a laptop keyboard. A stethoscope is visible around the neck of the person in the background, suggesting a medical or healthcare context.

# TRANSFORMING HEALTH IT

## 5 TIPS FOR MODERNIZATION

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The COVID-19 pandemic has been a catalyst for change in health IT.

In March 2020, when much of the world shut down because of concerns about the spread of the virus, many providers and clinicians **transitioned to telehealth services**. The pandemic also underscored the need to move existing processes to the cloud.

Now that many Americans are vaccinated and life is returning to normal, health IT leaders are realizing the industry urgently needed IT modernization — and the pandemic accelerated that transformation.

At a recent executive roundtable, hosted by GovExec and underwritten by National Government Services, health IT leaders from government and industry came together to discuss what they have learned over the past year — and what still needs to change as they embark on future health initiatives. Here's what they had to say.



## **TIP 1** CULTURAL TRANSFORMATION IS KEY TO HEALTH IT

In the world of health IT, “digital transformation” is a term organizational leaders know all too well. Less discussed, however, is the need for cultural change. According to Jane Hite-Syed, Chief Information Officer for National Government Services, you can’t have a digital transformation without a cultural one. In fact, Hite-Syed and her team recently underwent a cultural transformation of their own.

“We shifted to an agile methodology across our workforce. We embarked on this cultural transformation and how we deliver, how we interact with our business partners and our customers, and how we seek to improve on that daily,” she explained at the event.

This willingness to experiment has opened the door for additional opportunities across the health care space. For example, National Government Services has leveraged new and emerging technologies like Robotic Process Automation (RPA) to streamline processes and drive efficiencies. And it certainly paid off: RPA helped reduce a task that normally takes 2.5 hours down to just 20 minutes.

## TIP 2 DATA SHARING IS INTEGRAL FOR IMPROVING PUBLIC HEALTH

However, even as organizations embark on cultural and digital transformations, health IT challenges remain. Data silos, for example, are still a pain point for public sector health organizations. Agencies and providers often lack visibility into what data is being used and how, slowing down processes and making it difficult for staff to work effectively. Moreover, developing and maintaining a central data repository will be key to improving health outcomes moving forward.

“There’s no shortage of data,” said Andrew Conn, Chief Operating Officer at National Government Services. “It’s really [about] taking data, being able to collaborate ... and reusing the data that’s out there, while making sure that the connections are made in different places within the government.”

Luckily, there’s a solution on the horizon. Raymond Wedgeworth, Director of the Data Analytics and Systems Group in the Center for Program Integrity at the Centers for Medicare and Medicaid Services, recently developed a tool that would allow for data exchange between systems and programs.

It’s an application programming interface gateway that brings together information from a provider, CMS claims systems, a fraud prevention system and an advanced provider screening system, so staff doing the work can see all these various parts and make informed decisions. Eventually, that information also informs policy, he explained. Others at the roundtable offered their support for API use to break through health data silos.



“APIs have fueled the life of our cellphones. [They’ve] transformed our lives pretty much everywhere but health care,” added Don Rucker, who served as the National Coordinator for Health Information Technology at the Department of Health and Human Services in the last administration.

Now, public sector organizations and their partners have a unique opportunity to “turn data into knowledge and serve the public in much greater ways,” Sheri Lewis, National Health Deputy Mission Area Executive at the Johns Hopkins University Applied Physics Laboratory, said at the roundtable.



## **TIP 3** LEVERAGE EMERGING TECH LIKE AI/ML TO MANAGE HEALTH DATA MORE EFFECTIVELY

Beyond leveraging APIs to mitigate data silos, Wedgeworth and his team also tapped machine learning (ML) to triangulate disparate data sources, such as medical records and health claims.

In some cases, these machines can outsmart their human counterparts. ML can also identify patterns and activities a human might overlook. These technologies are especially useful in fraud prevention and detection because they are fully based on data as opposed to emotional or anecdotal evidence, Wedgeworth said.

Like any new technology, ML poses some challenges, too. “You have got to be really careful about the introduction of bias,” Wedgeworth noted.

*“[Machine Learning Technologies] ... are especially useful in fraud prevention and detection because they are fully based on data as opposed to emotional or anecdotal evidence.”*

### **Raymond Wedgeworth**

*Director of the Data Analytics and Systems Group  
Center for Program Integrity at the Centers for  
Medicare and Medicaid Services*

## TIP 4 THE HEALTH CARE INDUSTRY MUST TAKE ENHANCED MEASURES TO IMPROVE SECURITY

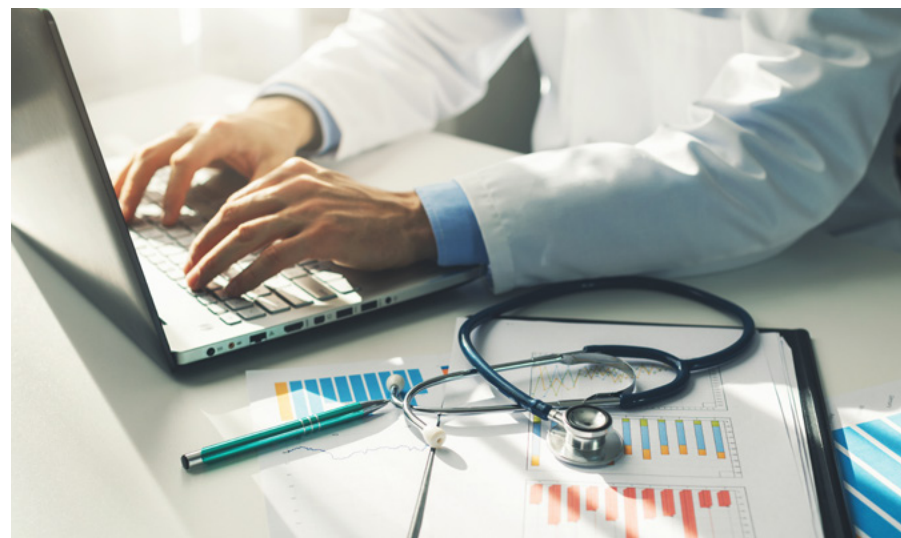
Of course, these new and emerging technologies are only effective if implemented securely. The challenge of security has become especially prevalent in recent months, with incidents like the SolarWinds breach and Colonial Pipeline ransomware attack, forcing many government agencies to rethink their security posture.

The health care industry is not immune to such threats. In fact, these organizations are perhaps the most vulnerable. In 2020, ransomware attacks **cost the health care industry** at least \$20.8 billion, up from \$8.46 billion the year before.

Sue Lin, Deputy Office Director of the Office of Quality Improvement Bureau of Primary Health Care at the Health Resources and Services Administration, has witnessed these security threats firsthand. “Some of our health centers have been hacked and have been ransomed,” she said at the roundtable. “These types of situations seem to be happening more and more, [and] we worry about it.”

Disinformation campaigns have also become a significant concern for health organizations. Over the past year, adversaries and malicious actors have intentionally spread false or misleading information aimed at deceiving the public.

“We’ve seen a ton of that throughout the pandemic,” Lewis said. “And so, if someone were to get in and do something to the underlying data that’s being reported on the number of cases or something like that, when you think about it at the global level or at the national level, that’s a challenge.”



Unfortunately, Wedgeworth added, the question isn’t if an attack will happen, but when. Therefore, it’s less about preventing an attack and more about knowing how to respond to one.

“In the meantime, we can help to inform our user communities on the proper use of technology,” he said.

Lewis also voiced several concerns around whether organizations have the necessary protections to secure large volumes of health data.

“Recently, there’s been a very large push towards greater genomic sequencing of our population, and from an IT standpoint, I do truly wonder about the capacity to be able to process that huge volume of data,” she said. “I ultimately worry about our ability to effectively collect and store that data, but also to protect it. We [can’t] lose sight of the vulnerabilities that we have from a cyber standpoint.”

## TIP 5 BRING PEOPLE INTO THE HEALTH IT PROCESS

While technology initiatives are poised to transform the health care industry moving forward, health IT starts and ends with people. Human-centered design is critical to deploying these IT efforts, Hite-Syed said.

“I call it getting to the humans. Who are the end users? Is it the physician? Is it the member? Is it the beneficiary? Human-centered design is so important to solving those issues,” she said. “And that’s where it starts ... with the human and then the data comes in behind it.”

There’s been a transformation in how the public expects to receive and interact with data, so it is imperative developers take those sentiments into account when designing and testing technology of the future.

“All the technology is wonderful and [it’s] what we’re trying to do,” Conn said. “But ... at the end of the day, it’s about people and getting tools to them so they can do their jobs effectively.”

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**Jane Hite-Syed**

Chief Information Officer  
National Government Services

