DATA DEMOCRATIZATION

Realizing the full potential of data in the healthcare system.

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Table of Contents

The ever-changing landscape of data accessibility.

The COVID-19 pandemic dramatically accelerated digital transformation across the healthcare industry, for small practices, larger systems, pharmaceutical companies, device manufacturers and payers. Medicine has become more patient-centric than ever before, and will continue the sprint towards innovation and digitization for better access, greater equity and improved outcomes. A key to reaching these new heights of care will be the democratization of data.

What is data democratization?

Data democratization allows an organization to make data accessible to all stakeholders and educate them on how to work with data, regardless of their technical background. It expedites decision-making by breaking down data silos and creates opportunities to improve patient outcomes.

Healthcare data democratization is characterized by two major factors: the distribution of data and the ability to generate and apply insights at scale.

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Immediate access. Better outcomes.

Through data democratization, all parts of a health system are able to access the data they need to make informed decisions in a patient's care. This access to data includes both general and personal information. For example, general information may include access to wider databases of information, such as the more than 120 accredited tissue banks in the U.S. Personal information would include data unique to a specific patient, such as statistics collected from remote patient monitoring devices (RPM), mobile health apps or their electronic health record (EHR) .

Data access

General
–
WIDER DATABASES

Personal
–
RPM / EHR

Data access

The benefits of data democratization in healthcare far outweigh the negative aspects. However, it is important that each organization be aware of the potential pros and cons and how to address both in their unique environment.

The goal of data democratization is to rapidly increase the flow of data, allowing more people to access data than ever before.

▶ Learn more about the collection and sharing of patient data through technology such as remote patient monitoring, mobile apps and electronic health records.

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The pros and cons of data democratization.

Pros

Better collaboration — Rather than siloed data centers, specialists and practitioners can easily access data and collaborate for better diagnoses.

Data is more reliable and accurate — Everyone has access to the latest, most accurate data from a single source of truth.

Time saved — A reduction in manual sourcing, aggregating and sharing data means more time spent with patients.

Money saved — Though there is an upfront investment in systems, democratization ultimately saves money through efficiency.
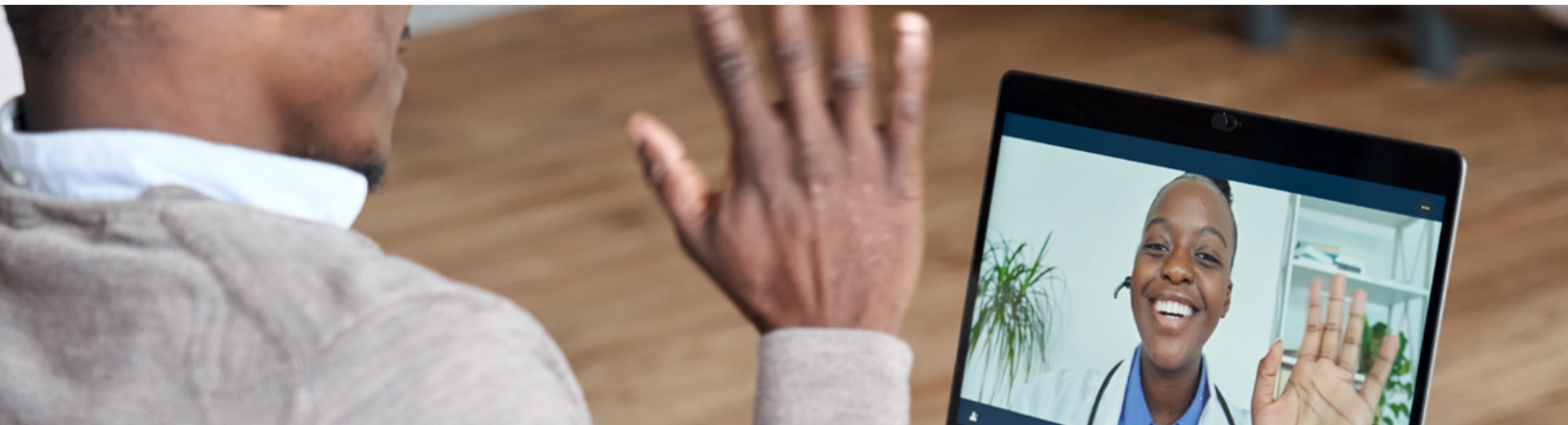
More data-driven decision making — Better diagnoses grounded in data and evidence-based care.

Cons

Potential misuse of data — Private data must be dealt with ethically. With universal access, misuse of data may come at the hands of staff less skilled at data management or those with bad intentions.

Data security concerns — Without a system of "checks and balances" in the access of data, security breaches become a concern.

Compliance challenges — There is a higher probability of someone using the data in a noncompliant manner, which can lead to regulatory fines and penalties.

▶ Explore how Spectrum Enterprise® addresses security concerns in healthcare.

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Data governance and interoperability.

For an organization to mitigate risk and defend against these "cons," it must first have a sound data governance strategy in place. Data governance Institute (DGI) describes data governance as a framework for understanding, managing and protecting data to identify and meet the information needs of the various parties in healthcare systems.

Data governance processes address these needs by establishing the infrastructure and technology, developing and maintaining data procedures and policies, identifying individuals or positions in an organization with both authority and responsibility for managing and safeguarding the data.

So, while data democratization improves access to information, data governance opens the door to better analytics, analysis, understanding, deep search and improved insights on the data; it can impact clinical decisions and drive population health initiatives. Ultimately, data governance provides the guardrails so that you can gain deeper insight into data.

Interoperability in healthcare refers to timely and secure access, integration and use of electronic health data so that it can be used to break down the barriers that currently divide the global healthcare ecosystem. When applications, devices, and systems can interact and exchange healthcare information in real time, healthcare providers can operate more efficiently, streamline the patient experience, and provide more personalized patient care.

Another important way to mitigate the risks associated with data democratization is to combine the access with an easy way for people to understand the data. This may include training across the organization on how to work with the data to maintain security, how to adhere to compliance standards, as well as how to uncover the insights held within the numbers.

The goal of keeping data secure while increasing access can be achieved with a SASE (secure access service edge) security framework. It is a layered, cloud-based security service coupled with SD-WAN which can help protect the entirety of an IT footprint across clouds and locations. Healthcare organizations also can use Zero Trust Network Access within the SASE framework to improve security. With Zero Trust, entry of a username and password are not enough for ongoing access. Whether inside or outside a network, devices are subject to continuous monitoring and verification by security systems that use different techniques to confirm their authenticity and privileges.

The rising focus on patient-centric care and enhanced engagement processes are major drivers contributing to the growth of the healthcare interoperability market, and the industry expects this market to grow to $3-4 billion by 2025.

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Steps to reaching the full potential of data.

While increased data access in healthcare improves patient outcomes, a healthcare system will only have achieved data democratization once it has completed all five of these steps.

Collection of data — More data than ever is being collected through the use of advanced technology such as wearables and remote patient monitoring devices.

Data storage — More and more, digital data storage is the norm. Digital storage capabilities, especially in the cloud, improve access to patient data system wide.

Data sharing — Collaboration ensures the best possible patient care. With improved collection, storage and a high-powered network, data can be easily shared by the care team.

Analysis of data — With more data being collected, the analysis of that data becomes a challenge. Time and resources can be saved by the use of AI and machine learning to aid in data analytics.

Actionable insights — With the help of AI and predictive analytics, insights can be derived from the data. The use of technology in each of these previous steps allows the care team to take action and implement the learnings to improve patient care.
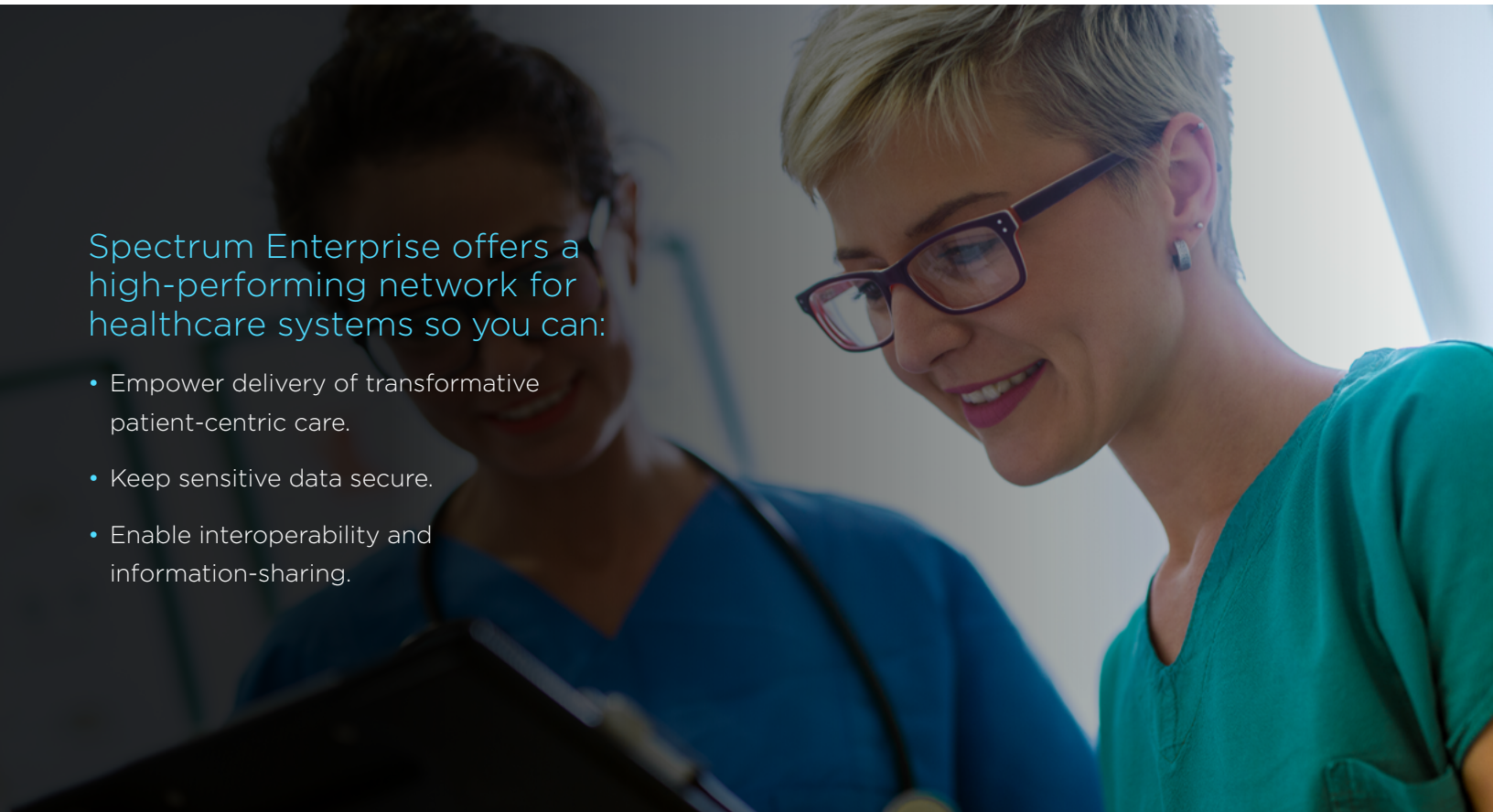
Learn more about interoperability, security and digital transformation with this infographic.

Democratization will help to make healthcare proactive, not reactive.

If you are looking to democratize data at scale while ensuring your data is secure and compliant, you need a high performing, reliable network. As a trusted partner, Spectrum Enterprise can help hospitals and health systems to evolve, becoming proactive and predictive rather than reactive. This means enabling the safe transmission of high volumes of data without interruption. Our network supports HIPAA compliance to help meet your security requirements. And because it's nationwide, we can rapidly bring new facilities onto your network.

One of the greatest challenges facing the healthcare world today is how to transform exponentially growing amounts of data into strategic data assets that inform the improvement of care delivery.

Spectrum Enterprise offers a high-performing network for healthcare systems so you can:

- Empower delivery of transformative patient-centric care.

- Keep sensitive data secure.

- Enable interoperability and information-sharing.

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Modernize your network with Spectrum Enterprise. Our suite of technology solutions support the swift and seamless transfer and retrieval of data, while keeping patient information secure with our new security services — Secure Access with Cisco Duo and Cloud Security with Cisco+ Secure Connect. This enables your "work anywhere" and cloud-based digital growth strategies to benefit significantly from the secure access that comes with the democratization of data.

To unlock the value of data for your hospital or healthcare system visit enterprise.spectrum.com/healthcare.

About Spectrum Enterprise

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