

# Systems Interoperability in Healthcare

## Overview

Interoperability in healthcare means ensuring information technology systems and software solutions work together seamlessly to exchange, interpret, and use data. Interoperability ensures that health data collected in one system can be available for use in another. This can be achieved by adopting standards and using data exchange models.

When there is interoperability in healthcare, data can be shared internally with all people who need access to healthcare information and externally with other healthcare providers and authorized third parties, irrespective of the systems or software they use.

## Benefits of Interoperability

With fully interoperable systems, healthcare information can flow unimpeded and be exchanged with anyone authorized to receive the information without delay. When information flows quickly between systems, up-to-date information is always available, and clinicians can view a current snapshot of a patient's data to inform treatment decisions and patient care.

Interoperability is essential within a healthcare facility, but also between healthcare providers. Patients often receive medical services from several providers, such as doctor's surgery, clinic, and hospital. If accurate and up-to-date healthcare data is unavailable to all those providers, patient safety is put at risk, tests must be repeated, and the cost to the patient increases.

With data flowing freely internally and externally, patients can receive more timely care, fewer medical errors are made, patient outcomes will improve, patient satisfaction will increase, and efficient data transfer will help to reduce the cost of healthcare provision.

## Interoperability Improves Decision Making

- A seamless user experience across multiple healthcare systems creates a single source of data truth that supports decision-making and insight generation.
- Access to member healthcare data results in more accurate treatment and provides more holistic views of a member's medical history, including medications, allergies, previous treatments, or surgeries.
- When members have real-time access to their healthcare data, they can easily update and share their essential information (ex: immunization records, and lab results) across healthcare providers and be more self-sufficient by providing easy access to the outcomes of their care.

## Connected Systems Promote Efficiencies and Improved Outcomes

- Through interoperability, relevant member data can be accurately distributed across providers, thus avoiding duplicate treatments. It also allows providers to make better treatment decisions at the point of care because they can easily access the results of recent labs and other diagnostic tests, which optimizes member outcomes.

- Interoperability saves significant amounts of time. If a member is unable to communicate effectively, health or care professionals can fill in the gaps without needing to phone general practitioners (GP) practices or other services.
- Data transparency could prompt (earlier) interventions before a condition becomes life-threatening and significantly improve outcomes. This kind of data transparency enables physicians to make evidence-based judgments about treatment, which are the foundation of value-based care.
- Administrative staff can reduce the time spent on paperwork by electronically collecting and processing data that already exists in other systems.

## The Lack of Interoperable Healthcare Systems - Impact

- The lack of seamless data exchange in healthcare has historically detracted from patient care, leading to poor health outcomes and higher costs.
- The lack of interoperability applications/systems results in clinical and claims data being isolated and scattered across a members' healthcare continuum.

## Centers of Medicare and Medicaid Services (CMS)

### The 21<sup>st</sup> Century Cures Act

Advancing interoperability and patient access to their electronic health information (EHI)

“the CMS Interoperability and Patient Access final rule establishes policies that break down barriers in the nation’s health system to enable better patient access to their health information, improve interoperability and unleash innovation, while reducing burden on payers and providers.”



## Sources/Credits

Accessed February 2023

1. HIPAA Journal, “Interoperability in Healthcare”, 2014-2023, [HIPAA Journal - Interoperability in Healthcare](#)