# Interoperability in healthcare

Creating seamless data exchange

Why interoperability matters

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Overview

## What is interoperability in healthcare?

Interoperability is the ability of electronic health records (EHRs) and other healthcare data management systems to communicate with one another and to exchange information seamlessly. An effective health information exchange (HIE) delivers data about the patient — regardless of where care or services have been delivered — to the clinician and the care team quickly and securely.

Creating a single source of truth is integral to semantic and structural interoperability. Instead of having sections of patient records scattered across several facilities and systems, all available patient information is gathered in a central hub so that care teams can easily access and view all of the same information.

By making this information centralized and accessible, providers can budget their available time accordingly. Instead of spending hours mining information from disjointed, complicated, and varying technologies and locations, they can focus on more meaningful patient care interactions, conversations and treatment plans.

Because providers are working with a more complete medical record, they are able to make faster treatment and care decisions – helping patients can feel more confident in their care. Redundancy and waste are also reduced, which makes the ultimate goal of connecting and protecting patients and their healthcare data achievable.

Manage and share images enterprise-wide with the IBM iConnect Suite

Benefits of healthcare interoperability

### Focus on the patient

Patients deserve to receive care from providers who have access to all relevant information needed to make the best decisions for their care.

### Value-based care delivery

Providers can work more efficiently and effectively when they have access to data, insights and tools. Interoperable data optimizes time and resources.

### Secure and protect data

A secure and central repository for health data prevents data leaks and vulnerabilities via unauthorized devices or individuals

Data exchange

## The interoperability exchange

Interoperable solutions are an invaluable asset to healthcare organizations, helping them to ingest, manage, store, view, share and exchange data. At their core, they create critical connections that lead to improved patient care.

### Images

Integrated health systems (IHS), have made it possible to securely exchange images, which makes the transfer of data faster, cheaper and more reliable.

Explore more about IHS

### People

The path to improving patient care can involve numerous opinions and plans. From physicians to specialists and nurses, care teams can stay connected.

Deliver better care

### Healthcare data

Interoperability allows sharing of electronic health records (EHR) and data exchange, which helps providers obtain a more complete picture of their patients.

Learn about EHR optimization (PDF, 7.1MB)

### Locations

Semantic and structural interoperability bridges the gaps between patients and their healthcare data, which means geographical barriers are irrelevant.

Connect with patients

Traditional EHR obstacles

## Integrating health systems for increased value

Electronic health records (EHRs) are the central point of documentation for any healthcare organization and integral to health information exchange. They include billing information, and the records of care for medical or legal purposes. EHRs are a key component for organizing the workflow of physicians and care teams.

When teams are striving to integrate data from multiple health systems to improve patient care, traditional electronic health records can be an issue. Conventional EHRs were not designed to act as an anchor for population health management. In fact, nearly eighty percent of EHRs are unstructured and often siloed.a They capture just a portion of a patient's complex health history and lack the robust registries needed for proper care management across a population.

Social, employment, and family histories are rarely captured; and when they are, it's often in free text. With no semantic interoperability, they are not visible within most systems. In many cases, traditional EHRs may not be useful behind the hospital walls where they are kept. One of the biggest keys to achieving interoperability in the healthcare system is to successfully integrate these antiquated health systems of the past.

Interoperability and the future of healthcare

## Interoperability and the future of healthcare

To rise to the challenge of traditional unstructured record-keeping and effectively improve patient care, a new approach is needed. Current systems must be capable of integrating data from traditional EHRs, collecting newer patient-generated health information, and incorporate environmental and genetic information. They must also bring together health information systems that connect care teams and achieve an efficient exchange of health data that can be implemented on a global scale.

Solutions

## Watson Health interoperability solutions

IBM Watson Health™ interoperability solutions provide healthcare organizations with advanced capabilities designed to help them seamlessly ingest, manage, store, view, share and exchange imaging-related healthcare data from health information systems.

From a true zero download web viewer that provides a full view of a patient's comprehensive exam history to an award-winning enterprise VNA solution for archiving all types of DICOM and non-DICOM imaging data, Watson Health is addressing the need for greater interoperability in healthcare information systems.

Interoperable healthcare solutions help paint a more complete picture of a patient's situation by helping healthcare professionals view, share and store of all types of imaging data.

Watson Health interoperability solutions offer a unique approach to addressing the challenges faced by imaging-intensive specialists. Whether you're an ambulatory imaging center looking for ways to increase your referrals or a large integrated delivery network managing imaging data across multiples sites, Watson Health can make it easier for you to integrate processes and systems for more efficient and effective operations.

### IBM iConnect® Access

This zero download viewer offers universal web viewing and an image exchange available in any browser as well as real-time collaboration capabilities.

Explore the product

### IBM iConnect® Enterprise Archive

This archive stores and lets you share images across your enterprise — from disparate PACS to specialties, service lines and sites – regardless of format.

See how it works

### IBM Clinical Development

This cloud-based data management platform features an electronic data capture system capable of bringing therapies to market faster.

Understand its value

Resources

### Interoperability improvements

The industry applauds the efforts of the National Coordinator for Health Information Technology and the Centers for Medicare and Medicaid Services.

### IBM FHIR® Server

IBM Watson Health is advancing health data interoperability with the IBM FHIR® Server to aid the developer community.

### Three guiding principles

These principles should drive the effort to end fragmentation and information blocks in healthcare as well as promote meaningful usability.

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