

# Navigating *The Playbook*: Digital Healthcare Edition

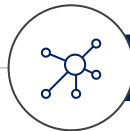
- Your user guide to *The Playbook*: Digital Healthcare Edition
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- The **opportunities** digital health solutions bring to deliver high-value healthcare.
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- **Industry definitions, classification and regulation** of digital health solutions.
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- 



Your micro-playbooks to digital health solutions



AI/ML



AR/VR/MR



Connected  
Sensor  
Technology



Digital  
Therapeutics



Electronic  
health  
records



Mobile  
health  
applications



Engagement  
and Social  
Media



Virtual care



## PRO TIP

Throughout the slides you will see *'TL;DR'*. This is a common acronym for *'Too Long; Didn't Read.'*

We are acknowledging how busy you are and that a **small chunk of text is easier to digest** than a large portion of text on a slide.

# Electronic Health Records



## TL;DR

**Electronic Health Records (EHRs)** contain individual health records for patients and are used in care delivery.

### What are EHR and its tools?

- ▶ An **Electronic Health Record (EHR)** is an electronic version of a patient's medical history, that is maintained by the provider over time, and may include all of the key administrative clinical data relevant to that persons care under a particular provider, including demographics, progress notes, problems, medications, vital signs, past medical history, immunizations, laboratory data and radiology reports
- ▶ EHR tools are traditionally an extension of the an EHR or hospital system. Some of them may include:
  - **Patient portals**
  - **Personal health records**
  - **Provider data management tools**

### Applications



# From patient portals, personal health records to data systems: EHR tools offer value to many

*Opportunities to create value for patients, providers and healthcare systems*



**Improved care coordination** between provider-provider, patient-provider, and provider-system



**Multi-device** access to providers helps seamless **navigation** for decision-making



Identify and **reduce medical error** by improving accuracy and clarity of medical records



**Faster, inclusive,** and efficient **communication** system



**Maximize patient engagement** with patient having access to personal health information



Improved **all-time access to patients** health information



Support **large information storage** and data operations from multiple sources

# Collaboration between clinical teams, health IT professionals and EHR Vendors is critical

EHRs function as a system required in health care and less of a tool to aid in organization and communication of high-quality, patient centric care. **By design, they do not align with the cognitive and/or workflow requirements of clinicians or patients** using the portals. In order to advance the delivery of high-value quality care:

1. **Collaborative partnerships** are needed that work to **understand clinicians' EHR needs** related to usability and efficiency, while working to nimbly make changes
2. EHR's need to **pivot and re-design system** elements to **support** the practice patient-centered care
3. Better support digital health solutions which expand care delivery for clinicians beyond the hospital or exam room

## Health System, Vendor Collaboration Needed to Improve EHR Functionality

Industry collaboration is needed to improve EHR functionality and protect the cognitive attention of clinical teams, according to a JAMA Network Open viewpoint.





# In 2021, HHS reported data breaches from 578 healthcare organizations, impacting 41.5+ million individuals

Despite the growing benefits of various EHR tools and functionalities, there are potential disadvantages associated with this technology. One of the is the risk of patient privacy violations, which is an increasing concern for patients due to the increasing amount of health information exchanged electronically. Even with HIPAA and security policies in place, this still does not deter entities with malicious intent, from trying to obtain sensitive patient information.

## *Risk*

Easily prone to **phishing attacks** via email to reveal login credentials or installing malicious software

## *Risk*

With **cloud tools**, scale of attack is larger to compromise EHR

## *Challenge*

**Interoperability** challenges makes systems **inefficient, costly, and ineffective**

## *Risk*

EHR tools can have an attached Malware that can impact **data leak, steal, loss**, etc

## *Risk*

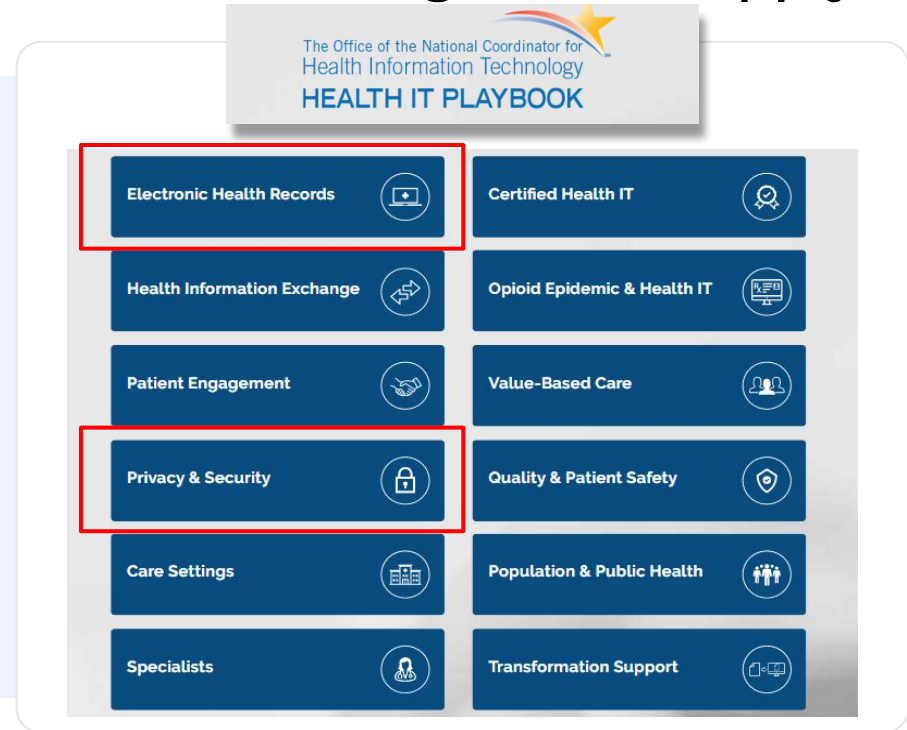
**Usability and navigation issues** that can lead to safety concerns

## *Risk*

**Insufficient encryption** of tools make data in transit vulnerable to exploitive attack

# As EHRs are not medical products, they are not regulated by FDA. However, other critical regulations apply

- In 2020, the [Department of Health and Human Services \(HHS\)](#) issued two final rules aimed at improving patient access to electronic health information (EHI), as well as the standardization of modes of exchange for EHI.
  - The rules, implement provisions of the 21st Century Cures Act and introduce new requirements for increasing interoperability and also make it possible for patients to access their records digitally from any provider, organize the information in smartphone apps, and share their health data with other providers.
- Agencies like FDA, CMS and other direct stakeholders to the **Office of the National Coordinator (ONC)** within the U.S. Department of Health and Human Services (HHS)'s [Health IT Playbook](#) for **strategies, recommendations, and best practices to implement** in the clinical settings.





# Digital health depends on interoperability

## Interoperability

The ability for two EHR systems to exchange and use data.

Improving interoperability remains a top priority for health systems. Fundamentally, high value digital health runs on flows off of **high quality data**.

- Improved care coordination
- Better performance
- Improved experiences (patient and provider)
- Improved research capabilities
- Cross-functional use of AI and big data
- Improved communication

**Barriers need to be addressed** such as physician dissatisfaction with EHRs, overregulation, hidden isolated data silos and incompatible systems, and cost. The government will need to consider stronger incentives for both providers and EHR vendors to promote interoperability.



# Case study: Mercy health network's success with healthcare data platform



## The Challenge:

MercyOne, is a large Accountable Care Organizations (ACO) in the US with **400+ service locations**, managing **310,000+ patients** and has over **3,500+ providers** under 20+ value-based agreements. With such enormous stature of the ACO, **designing engaged and patient-centric care** across the care continuum was **challenging** along with having with multiple practice sites. The organization had data sources lacking a common standard.



## The Approach:

Mercy health network and Innovaccer **co-developed data activation platform** to **identify patient risk** and stratify to align services provided by MercyOne and to provide:

- **Health coaching**
- **Community-based patient engagement** resources
- **Seamless data integration** and information exchange



## The Result:

- **7.14% reduction** in the 30-day readmission rate.
- **14.26% increase** in the **primary provider services** per 1,000.
- **300% increase in health coach** interventions to 95.7 new engagements per health coach per month.



Mercy ACO

INNOVACCER



# Case study: Nebraska Medicine combines voice technology with Epic EHR to boost provider efficiency



## The Challenge:

Nebraska Medicine's 2 hospitals have **1,000+ physicians** and **uses EPIC's EHR** since 2009. With providers dissatisfaction of **inefficient approaches to clinical documentation**, spending great amount of time and effort to manually document patient notes into the EHR, the organization aimed to increase physician satisfaction by making documentation faster and more efficient.



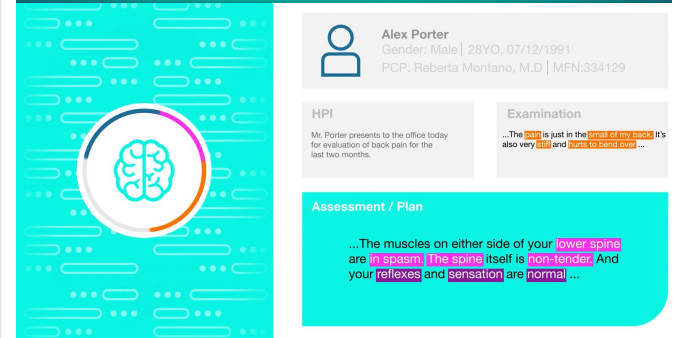
## The Approach:

In 2016, Nebraska Medicine introduced Nuance Communications' Dragon Medical One, an enterprise-wide, cloud-enabled, voice recognition platform with PowerMic Mobile, enabling **physicians to use their mobile devices to dictate notes** from anywhere.



## The Result:

- **23% reduction in transcription costs**
- **94%** users report software enables them **to do their jobs better**
- **71%** users report the **quality** of their **documentation** improved significantly
- **50%** users report software **saves** time (>**30mins/day**).



**Alex Porter**  
Gender: Male | 28YO, 07/12/1991  
PCP: Reberta Montano, M.D | MFN:334129

**HPI**  
Mr. Porter presents to the office today for evaluation of back pain for the last two months.

**Examination**  
...The **exam** is just in the **small of my back**. It's also very **stiff** and **tender to touch** ...

**Assessment / Plan**  
...The muscles on either side of your **lower spine** are **in spasm**. The spine itself is **non-tender**. And your **reflexes** and **sensation** are **normal** ...



## LEARN FROM THE EXPERTS

Click on the image below to launch

**21st Century Cures Act:  
Interoperability, Information Blocking,  
and the ONC Health IT Certification  
Program Final Rule**

Overview

Presented by ONC Leadership

The Office of the National Coordinator for Health Information Technology