
The Ethical Considerations of Electronic Health Records

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What are Electronic Health Records?

- A patient's information is recorded online, sometimes in addition to a physical chart.
- Each visit is recorded and can be updated through the shared system with other health care providers
- Patients have access to this information with login credentials
- Electronic Medical Records (limited, one medical chart) vs Electronic Health Records (comprehensive, from multiple doctors over a patient's lifespan)



Origins in USA

Health Information Technology for Economic and Clinical Health Act (HITECH)- 2009: provided incentives for some hospitals to begin using Electronic Health Records (EHRs)

- There is inconclusive evidence that the program has achieved its goals of increasing efficiency, reducing costs, and improving the quality of care. [Source](#)

The Health Information Technology for Economic and Clinical Health (HITECH) Act

C. Stephen Redhead
Specialist in Health Policy

April 27, 2009

Connections with HIPAA

Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule- **ensures you have rights over your own health information**, no matter what form it is. A few possible measures that can be built in to EHR systems may include:

- **“Access control”** tools like passwords and PIN number
 - That means your health information cannot be read or understood except by those using a system that can “decrypt” it with a “key.”
 - An **“audit trail”** feature, which records who accessed your information, what changes were made and when.
 - You must be notified of a **breach**
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State of Play Today



“To address these needs, the electronic health record must transition from an emphasis on a person’s medical record to an emphasis on a person’s plan for health and from a focus on supporting clinical transactions to a focus on delivering information to the provider and the patient.” -HBR

Percent of office-based physicians using any EMR/EHR system: 89.9%

Percent of office-based physicians with a certified EMR/EHR system: 72.3%

Source: 2019 National Electronic Health Records Survey Public Use File National Weighted Estimates pdf icon[PDF – 405 KB]

[Country by country](#)

Harvard Business Review calls for a [change](#)

Electronic Health Records: Benefits

- Increase access to health care
- Improve the quality of care and health
- Decrease costs
- Increases legibility of records, reducing incorrect prescriptions
- Potential to efficiently check for drug complications by connecting EHRs to Drug Banks / Pharmacies
- Easy access- anywhere, any time, by both patient and doctor(s)
- Less storage space since it's a cloud-based system, reduce lost records, efficiently shared



Electronic Health Records: Concerns

- Accuracy, efficiency, and cost-reduction have not been proven
- Autonomy/ HIPAA is jeopardized when health data is shared without patients' permission
- Potential exposure of thousands of patients' health data through mistakes or theft.
- Lack of confidence in the security of health data may induce patients to conceal information that could affect treatment
- Socioeconomic class or age can limit equal access to health information resources and public health services
- Too many systems exist, not every health care provider has access to each system



According to the office of the National Coordinator for Health Information Technology

The health record is “not just a collection of data that you are guarding, it is life.” (source 2)

The patient owns the information in the record. The physician and the organization is the owner of the physical medical record.

There are four major **ethical priorities**:

- Privacy and confidentiality,
- Security breaches
- System implementation
- Data inaccuracies.

Privacy and Confidentiality

- With EHR, records can be accessed anytime anywhere... by anybody
- How do we ensure patients can choose which information is more safeguarded than others?
- How can patients give consent to what is included in their EHR?



“The Health Insurance Portability and Accountability Act of 1996 (HIPAA) is a federal law that required the creation of national standards to protect sensitive patient health information from being disclosed without the patient’s consent or knowledge.”
-CDC website















Security Breaches

- Millions of breaches every year (increasing every year as well)
 - Person affected must be notified of breach
 - Breaches can happen through hacking, phishing, malware/ransomware, device theft, or even password cracking
 - HIPAA laws stipulate that companies receive penalties depending on the incident, per incident (with a max of \$1.5 million per incident). Some compensation available to affected parties.
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Top 10 Biggest Healthcare Data Breaches of All Time

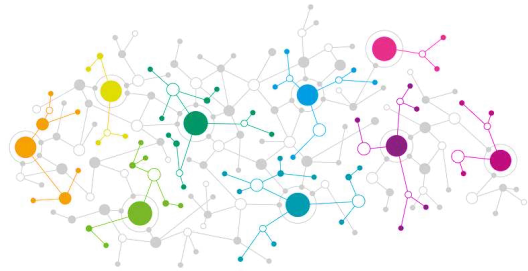
- 10. NewKirk Products: 3.47 Million Affected (August 2016)
- 9. Banner Health: 3.62 Million Affected (August 2016)
- 8. Medical Informatics Engineering: 3.9 Million Affected (July 2015)
- 7. Advocate Health Care: 4.03 Million Affected (August 2013)
- 6. Community Health Systems: 4.5 Million Affected (April-June 2014)
- 5. University of California, Los Angeles Health: 4.5 Million (July 2015)
- 4. TRICARE: 4.9 Million Affected (September 2011)
- 3. Excellus BlueCross BlueShield: 10+ Million Affected (September 2015)
- 2. Premera Blue Cross: 11+ Million Affected (January 2015)
- 1. Anthem Blue Cross: 78.8 Million Affected (January 2015)

Let's take a closer look at the circumstances surrounding each of these major healthcare data

Breach Report Results							
Expand All	Name of Covered Entity 	State 	Covered Entity Type 	Individuals Affected 	Breach Submission Date 	Type of Breach	Location of Breached Information
	American Anesthesiology, Inc.	NY	Healthcare Provider	1269074	01/08/2021	Hacking/IT Incident	Email
	Professional Business Systems, Inc., d/b/a Practicefirst Medical Management Solutions and PBS Medcode Corp., ("Practicefirst")	NY	Business Associate	1210688	07/01/2021	Hacking/IT Incident	Network Server
	Personal Touch Holding Corp.	NY	Business Associate	753107	03/26/2021	Hacking/IT Incident	Network Server
	Orthopedic Associates of Dutchess County	NY	Healthcare Provider	331376	05/04/2021	Hacking/IT Incident	Network Server
	Northeast Radiology	NY	Healthcare Provider	298532	03/11/2020	Hacking/IT Incident	Network Server
	MultiPlan	NY	Business Associate	214956	06/24/2021	Hacking/IT Incident	Email
	BST & Co. CPAs, LLP	NY	Business Associate	170000	02/16/2020	Hacking/IT Incident	Network Server
	Roswell Park Comprehensive Cancer Center	NY	Healthcare Provider	141669	09/14/2020	Hacking/IT Incident	Network Server
	Ivy Rehab Network, Inc. and its affiliated companies	NY	Healthcare Provider	125000	11/26/2019	Hacking/IT Incident	Email
	Assistcare Home Health Services LLC dba Preferred Home Care of NY/Preferred Gold	NY	Healthcare Provider	57345	03/10/2021	Hacking/IT Incident	Network Server

System Implementation

- Getting one system to speak to another could be a challenge- **interoperability**
- Confusing user interface can cause user error and negatively impact quality of care... the use of one system does not translate to being able to use a different one
- Inconsistency in workflow and use of electronic medical records... system incentives reward billing and procedures and de-emphasize importance of information sharing and health plan



Data Inaccuracies

- Mitigated by linking biometric data (avoid corruption due to misspelled names, etc)
- The above measure gives even more personal data/ info to companies
- Some countries have cards with health records stored electronically on them
 - Replacing physical copies of health records in folder from birth, decorate it with stickers
 - These were cumbersome, hard to share but easier to safeguard

what are other
words for
inaccuracies?

faults, errors, blunders,
defects, mistakes, slips,
deception, defect, exaggeration,
blunder



How do we fix this?

- Stricter and less vague laws
 - HIPAA laws help keep companies in check, but even these laws haven't helped slow down the data breaches that continue to happen.
- Companies need to do more security and vulnerability checks (like better encryption or stronger passwords) and do updates more often
- Lock up computers when out of the office
- Check access logs MORE regularly (not just once every 6 months)



Sources

- ★ [Source 1](#)
 - ★ [Source 2](#)
 - ★ [US Department of HHS- Data breaches](#)
 - ★ [Massive data breaches have affected half of Americans since 2009](#)
 - ★ [\[https://en.wikipedia.org/wiki/Health Information Technology for Economic and Clinical Health Act\]\(https://en.wikipedia.org/wiki/Health_Information_Technology_for_Economic_and_Clinical_Health_Act\)](#)
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