

Hacking made easy in Healthcare

BY

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Who am I

- ▶ Co-Founder & CIO at Frontline Cyber
 - ▶ <https://www.frontlinecyber.us>
- ▶ Exploit research and development
- ▶ Red Team and Blue Team
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What is Hacking?

- ▶ It all began in the 1960s at MIT, origin of the term “hacker”, where extremely skilled individuals practiced hardcore programming in FORTRAN and other older languages.
- ▶ Hacking generally refers to unauthorized intrusion into a computer or a network. The person engaged in hacking activities is known as a hacker. This hacker may alter system or security features to accomplish a goal that differs from the original purpose of the system.
- ▶ Hacking can also refer to non-malicious activities, usually involving unusual or improvised alterations to equipment or processes.

How is hacking made easy?

- ▶ Hacking in healthcare is made easy by people
 - ▶ Default username and passwords
 - ▶ Misconfigured devices on the network
 - ▶ Improper deployed devices
 - ▶ Users clicking on links, opening files and/or trusting without verification

Examples!

Why attackers target chiropractic and healthcare?

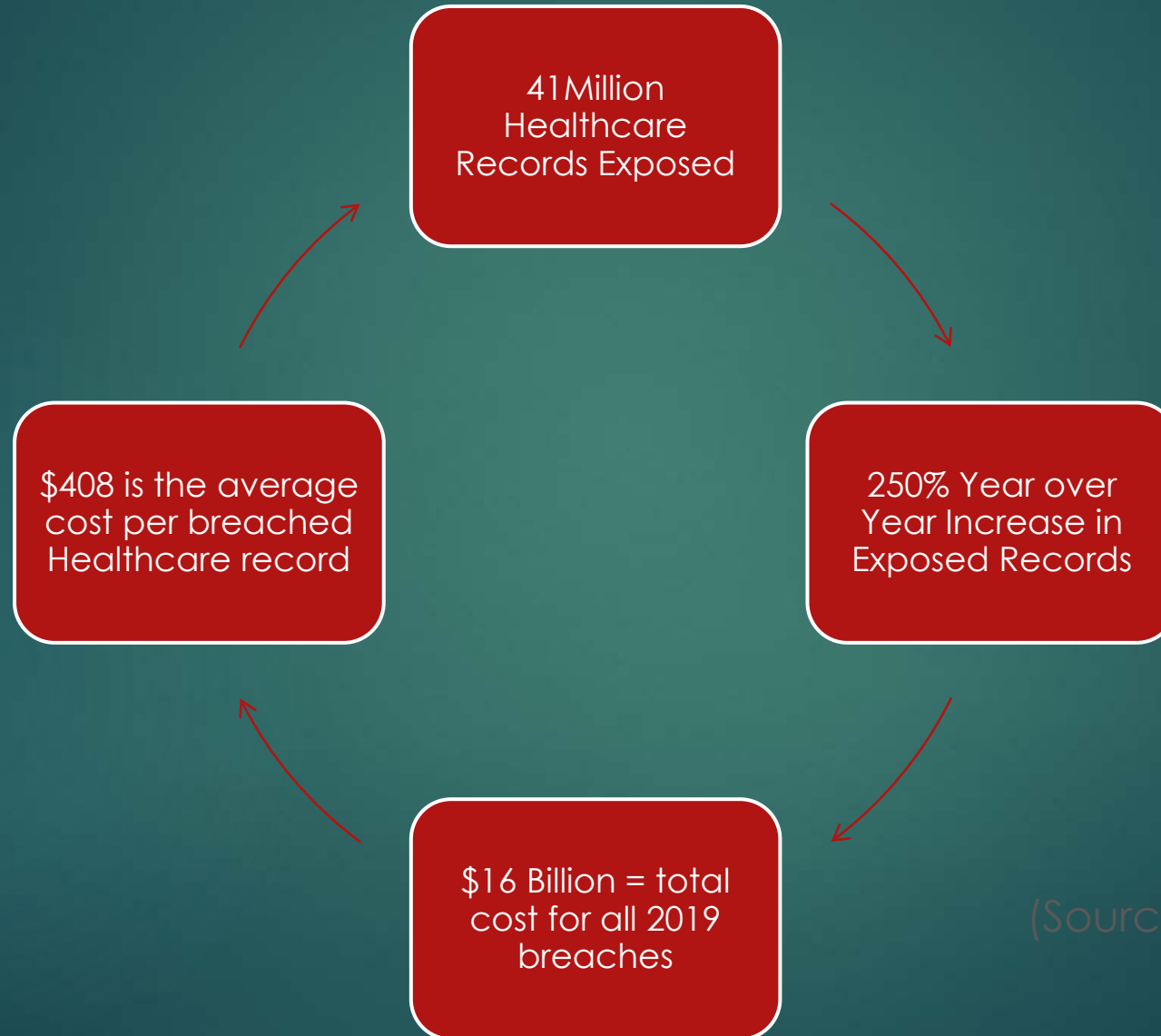
- ▶ Attackers specifically target small chiropractic and healthcare offices because a small practice may not have sophisticated security nor enforce employee security policies.
- ▶ Who are your clients?
- ▶ Why would you be a target for cyber criminals?
 - ▶ Your practice holds a vast amount of data, including the names, health history, addresses, birthdates, social security numbers, and even banking information of patients.

Healthcare Cyber Security in 2020

- ▶ 510 data breaches reported of 500 or more healthcare records
- ▶ 41,335,889 healthcare records exposed
 - ▶ That is up from 13,947,909 in 2019
- ▶ Total cost for 2019 breaches \$16,865,042,712
 - ▶ That is up from \$5,312,494,968.00 in 2018
 - ▶ IBM and the Ponemon Institute reported that healthcare data breach costs average \$408 per record
- ▶ 17 out of the Top 20 largest breaches in 2019 were caused by Hacking / IT Incidents

(Source Hipaa Journal)

Healthcare Cyber Security in 2020



(Source Hipaa Journal)

Healthcare Cyber Security in 2020

- ▶ Q1 of 2020 there have been 108 breaches reported
 - ▶ That is down from Q1 in 2019 with 142
- ▶ Roughly 2.8 Million healthcare records exposed in Q1
- ▶ On average 7 out of 10 breaches each month of Q1 were Hacking / IT Incidents
- ▶ In 2020 Florida Orthopedic was attacked and exposed 640,000 records of patients
 - ▶ They are now in a 99Million dollar class action lawsuit

(Source Hipaa Journal)

Healthcare Cyber Security in 2020

Hacking Incidents

- 142 breaches in Q1 2019
- 12 out of the 18 top attacks were from hacking
- 4 Million healthcare records already exposed in 2019

Ransomware

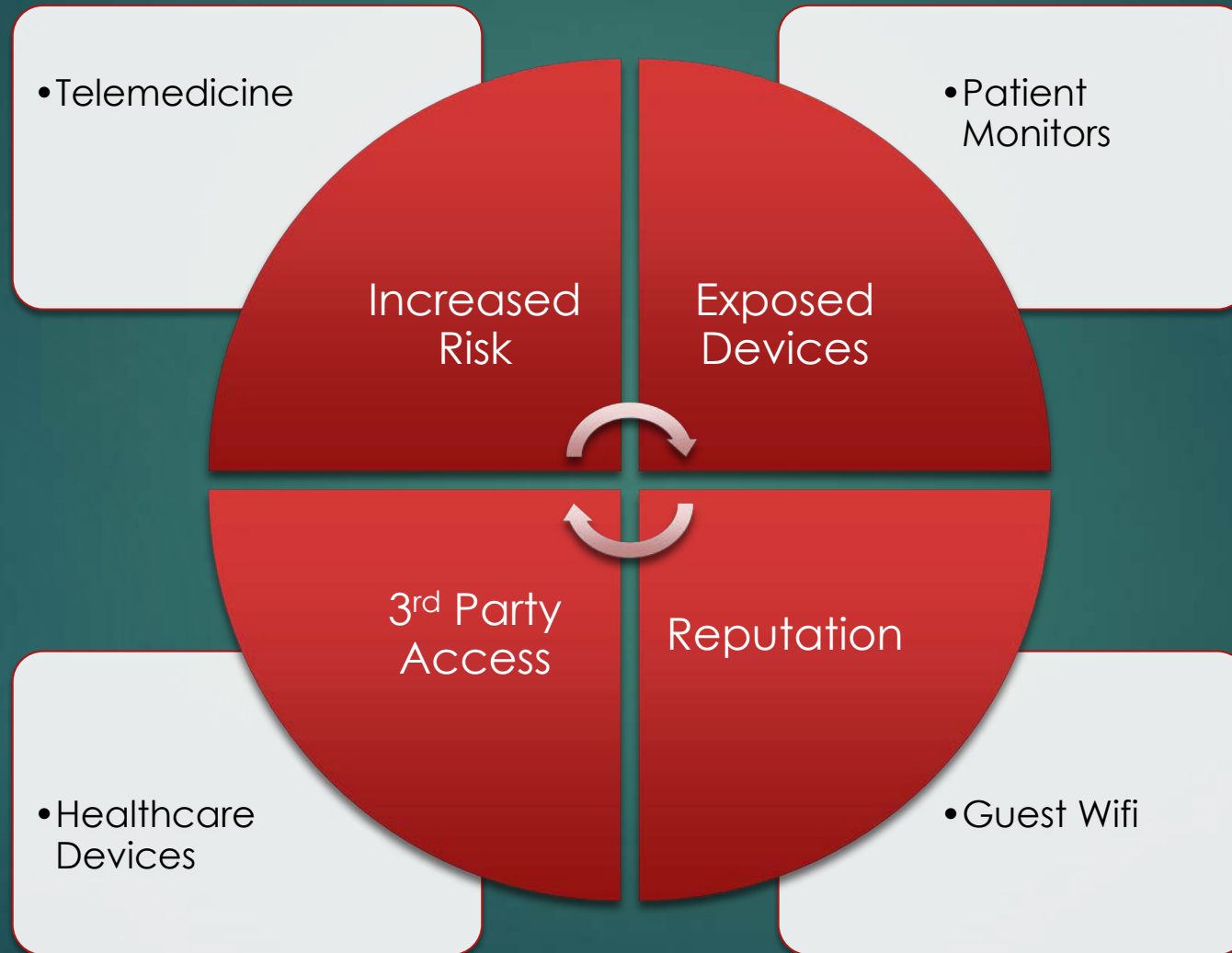
- Exposed over 205K patient records
- 195% increase over Q4 2018

Top four breaches of July 2020

Covered Entity	Entity Type	Records Exposed	Breach Type	Cost
Florida Orthopedic Institute	Healthcare Provider	640,000	Hacking/IT Incident	\$261,120,000
Behavioral Health Network, Inc.	Healthcare Provider	129,571	Hacking/IT Incident	\$52,864,968
NCP Healthcare Management Company	Business Associate	78,070	Hacking/IT Incident	\$31,852,560
Walgreen Co.	Healthcare Provider	72,143	Theft	\$29,434,344

(Source Hipaa Journal)

What does this mean for you?



Questions

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