Actionable Cybersecurity Insights

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Learning Objectives

- gain an understanding of the anatomy of a cyber exploits
- explain administrative concepts including risk analysis, controls and closed-loop processes in the context of managing cyber threats and
- define and explain how to implement administrative countermeasures for cyber threats

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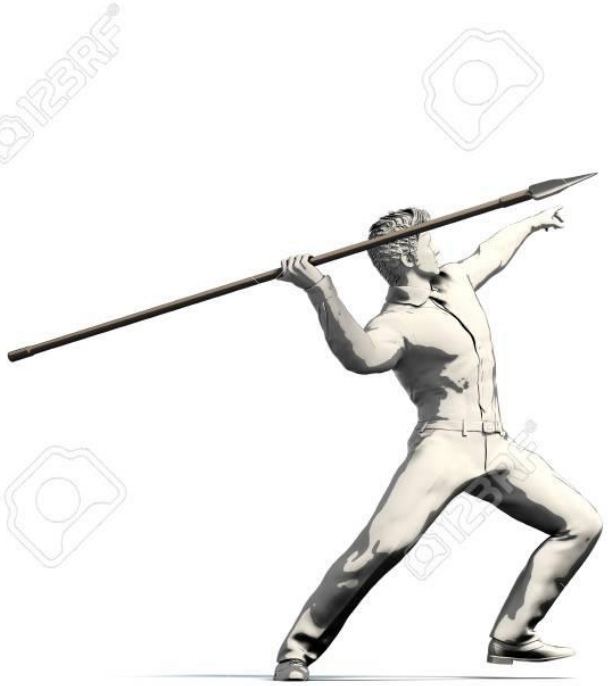
Healthcare is a target



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We're not doing enough

Port City Operating Company doing business as St. Joseph's Medical Center	CA	Healthcare Provider	4984	08/31/2018
Carpenters Benefit Funds of Philadelphia	PA	Health Plan	20015	08/31/2018
Hopebridge	IN	Healthcare Provider	1411	08/31/2018
United Methodist Homes	NY	Healthcare Provider	843	08/31/2018
David G. Simon, DMD, PA, d/b/a Simon Orthodontics	FL	Healthcare Provider	15129	08/31/2018
Greigh I. Hirata M.D. Inc, dba. Fetal Diagnostic Institute of the Pacific	HI	Healthcare Provider	40800	08/30/2018
South Alamo Medical Group P.A	TX	Healthcare Provider	2180	08/30/2018
First coast podiatric surgery and wound	FL	Business Associate	500	08/27/2018
Family Medical Group Northeast PC	OR	Healthcare Provider	2077	08/22/2018
Legacy Health	OR	Healthcare Provider	38000	08/20/2018
Acadiana Computer Systems, Inc.	LA	Business Associate	31151	08/17/2018
Chapman & Chapman, Inc.	OH	Business Associate	2032	08/17/2018
Monroe Operations, LLC d/b/a Newport Academy and Center for Families	TN	Healthcare Provider	1165	08/17/2018
Authentic Recovery Center, LLC	CA	Healthcare Provider	1790	08/17/2018
Wardell Orthopaedics, P.C.	VA	Healthcare Provider	552	08/16/2018
University Medical Center Physicians	TX	Healthcare Provider	18500	08/16/2018
AU Medical Center, INC	GA	Healthcare Provider	417000	08/16/2018
Gordon Schanzlin New Vision Institute	CA	Healthcare Provider	1130	08/10/2018
Wells Pharmacy Network	FL	Healthcare Provider	10000	08/10/2018
Anne Arundel Dermatology, P.A.	MD	Healthcare Provider	1310	08/09/2018
InterAct of Michigan, Inc.	MI	Healthcare Provider	1290	08/07/2018
CoreLink Administrative Solutions, LLC	ND	Business Associate	1813	08/06/2018
Central Colorado Dermatology, PC	CO	Healthcare Provider	4065	08/03/2018
CoreSource, Inc.	IL	Business Associate	769	08/03/2018
Don White, RN, DC, PC dba Canyon Rd Chiropractic and Massage	OR	Healthcare Provider	2900	08/03/2018
Kaiser Foundation Health Plan of Colorado	CO	Health Plan	900	08/03/2018

https://ocrportal.hhs.gov/ocr/breach/breach_report.jsf

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How are Cyber Threats Carried Out?

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How are Cyber Threats Carried Out?

- INTRUSION (failed control)

  Equifax breach
- DECEPTION (social engineering)

  USERS are the target
- phishing, spear-phishing,

  compromised credentials

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Why Are Organizations Vulnerable?

(and what can be done to prepare?)

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Making sense of the ENVIRONMENT

- Know your landscape
  - Security and data sprawl is a challenge
  - Too many vendors to manage
  - Complex security and data architecture models

- Security architecture and approach
  - Are you susceptible to an outside attack
  - Are effective controls in place
  - Can any internal systems be breached (are they already?)

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Making sense of TERMINOLOGY

- Ineffective CONTROLS
  - Single-factor authentication
    - Versus two
  - Vulnerability scanning and a patch management program not a closed-loop process
- Deficient risk awareness

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5 Crucial Questions

- How are we stopping phishing attempts?
- How are privileged accounts handled?
  - Doctrine of least privilege
- How are software patches applied?
- Are our third-party vendors secure?
- How do we control access?
  - Dual or multi-factor authentication

https://www.healthcareitnews.com/news/hows-your-cybersecurity-posture-answer-these-5-crucial-security-questions

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Related and Misunderstood

RISK ANALYSIS

Over the past 10 years 88% of the 42 organizations that have entered into monetary settlements or civil money penalties related to ePHI failed to conduct a sufficient risk analysis

Jon Moore, Chief Risk Officer, Clearwater Compliance

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What is Risk Analysis?

In April of this year OCR issues guidance entitled:

"**Risk Analyses vs. Gap Analyses – What is the difference?**"

OCR explains that Risk Analysis IS NOT

- Technical testing or
- Compliance gap assessment

https://www.hhs.gov/sites/default/files/cybersecurity-newsletter-april-2018.pdf

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The three E’s

- Evaluate
  - Appropriate risk analysis
- Educate
  - Total workforce/user base
- Exercise
  - Table top exercises – simulated cyber incidents allow for exploring the difficult questions under controlled conditions

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Risk Analysis

Risk Analysis documentation must include an inventory of all information assets used to create, maintain, retrieve, or transmit ePHI and the threats, vulnerabilities, likelihood, impacts and controls associated with each

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Controls

- Address barriers to adopting two-factor authentication
- Demand closed-loop, effective program for vulnerability and patch management
- Leverage purchased services versus “best effort”

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Training

- Ongoing workforce education. Build a culture of awareness.
- Implement an effective simulated phishing email training program which includes evaluating workforce reaction (incident response) to identified phishing emails
- Table-top exercises, built around simulated cyber incidents where your leaders and team can run through the difficult questions under controlled conditions.

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Questions or Comments?

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THANK YOU

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