How to implement Health and Human Services (HHS) recommended Cybersecurity practices

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Q&A and Networking

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Session Goals

1. Overview of Five Common Threats
2. How to Implement Ten Technical Best Practices
3. Protecting Our Remote Work Force

Information is Beautiful!¹

World's Biggest Data Breaches & Hacks

¹http://www.informationisbeautiful.net/visualizations/worlds-biggest-data-breaches-hacks/
Cybersecurity vs Coronavirus

Uptick in attacks? Or protection of Healthcare Cyber Attacks?

- Increase in aggressive phishing campaigns across the board
- Google has reported an average of 18 million targeted COVID-19 related phishing and malware threats
- Reported increase of "hack-for-hire" firms creating Gmail accounts spoofing World Health Organization (WHO)^2.
- Other organized cybercrime groups, such as DoppelPaymer, have specifically come out to say if a medical or healthcare organization is attacked by mistake, they will provide a free decrypter code^3.

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Criminals promising to be nice... why this is hard to enforce...

- Difficult to implement in the real world because of external facing IP addresses. These addresses do not identify a target as a healthcare organization.

![Diagram showing IP addresses and internet connection]

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Never forget the WannaCry 2017 Ransomware Attack

- Targeted Microsoft Windows operating systems that had not deployed security patch updates.
- Was not a targeted healthcare attack.
- WannaCry crippled the NHS, National Health Services hospitals in England and Scotland.
Types of COVID-19 Phishing Campaigns

- Fraudulent emails regarding capitalizing government stimulus packages
- Impersonating government organizations like the World Health Organization asking for donations or installing malware
- Impersonating SBA to gather personal information
- PPE and other medical supply chain emails

Do you stop washing your hands when you are not in the cold/flu season?
Health Industry Cybersecurity Practices (HICP)

A common set of voluntary, consensus-based, and industry-led guidelines, best practices, methodologies, procedures, and processes to achieve three core goals:

1. Cost-effectively reduce cybersecurity risks for a range of health care organizations;
2. Support the voluntary adoption and implementation of its recommendations; and
3. Ensure, on an ongoing basis that content is actionable, practical, and relevant to health care stakeholders of every size and resource level.

Threats, Vulnerabilities, Impact, and Practices

- Threat = COVID-19
- Vulnerabilities = weak immune system, don’t wash hands, age, in crowds
- Impact = patient gets the COVID-19
- Practices = social distance, wash hands, wear a mask
Five Common Threats

1. Email Phishing Attacks
2. Ransomware Attacks
3. Loss or Theft of Equipment or Data
4. Insider, accidental or intentional data loss
5. Attacks against connected medical devices that may affect patient safety

Ten Technical Best Practices* to Mitigate Threats

*Note: These best practices recommended are in alignment with the NIST Cybersecurity Framework which consists of five concurrent and continuous functions that constitute the cybersecurity lifecycle for an organization: Identify, Protect, Detect, Respond, and Recover

1. E-mail protection systems
2. Endpoint protection systems
3. Access management
4. Data protection and loss prevention
5. Asset management
6. Network management
7. Vulnerability Management
8. Incident Response
9. Medical Device Security
10. Cybersecurity policies
We are going to walk through the Technical Volume 1 which is Cybersecurity Practices for Small Organizations.

Practice: E-mail Protection Systems

1. E-mail System Configuration
2. Education
3. Phishing Simulation

Write down one key step you can implement today to improve your e-mail protection systems.
Practice: Endpoint Protection Systems

1. Basic Endpoint Protection

Write down one key step you can implement today to improve your e-mail protection systems.

Practice: Access Management

1. Basic Access Management

Write down one key step you can implement today to improve your e-mail protection systems.
Practice: Data Protection and Loss Prevention

1. Policy
2. Procedures

Write down one key step you can implement today to improve your e-mail protection systems.

Practice: Asset Management

1. Inventory
2. Procurement
3. Decommissioning

Write down one key step you can implement today to improve your e-mail protection systems.
Practice: Network Management

1. Network Segmentation
2. Physical Security and Guest Access
3. Intrusion Prevention

Write down one key step you can implement today to improve your e-mail protection systems.

Practice: Vulnerability Management

1. Vulnerability Management

Write down one key step you can implement today to improve your e-mail protection systems.
Practice: Incident Response

1. Incident Response
2. ISAC/ISAO Participation

Write down one key step you can implement today to improve your e-mail protection systems.

Practice: Medical Device Security

1. Medical Device Security

Write down one key step you can implement today to improve your e-mail protection systems.
Practice: Cybersecurity Policies

1. Policies

Write down one key step you can implement today to improve your e-mail protection systems.

Remote Work Force
Session Takeaways

1. There is never a good time to ease up on Cybersecurity
2. Five Common Threats for Healthcare Organizations
3. Ten Practices to protect your organization and steps for your practice to implement these practices.

References

http://www.informat.onisbeautiful.net/visualizat ions/worlds-biggest-data-breaches-hacs ks
(here’s a short link: https://bit.ly/2MpsF0e)

HCP:
https://www.phe.gov/Preparedness/planning/405d/Pages/hic-practices.aspx
(here’s a short link: https://bit.ly/36SkPWf)

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