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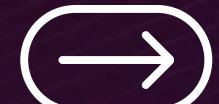
OTHERS



CYBERSECURITY IN HEALTHCARE

PROTECTING PATIENT
DATA AND TRUST

BY: YARA JAMHOUR



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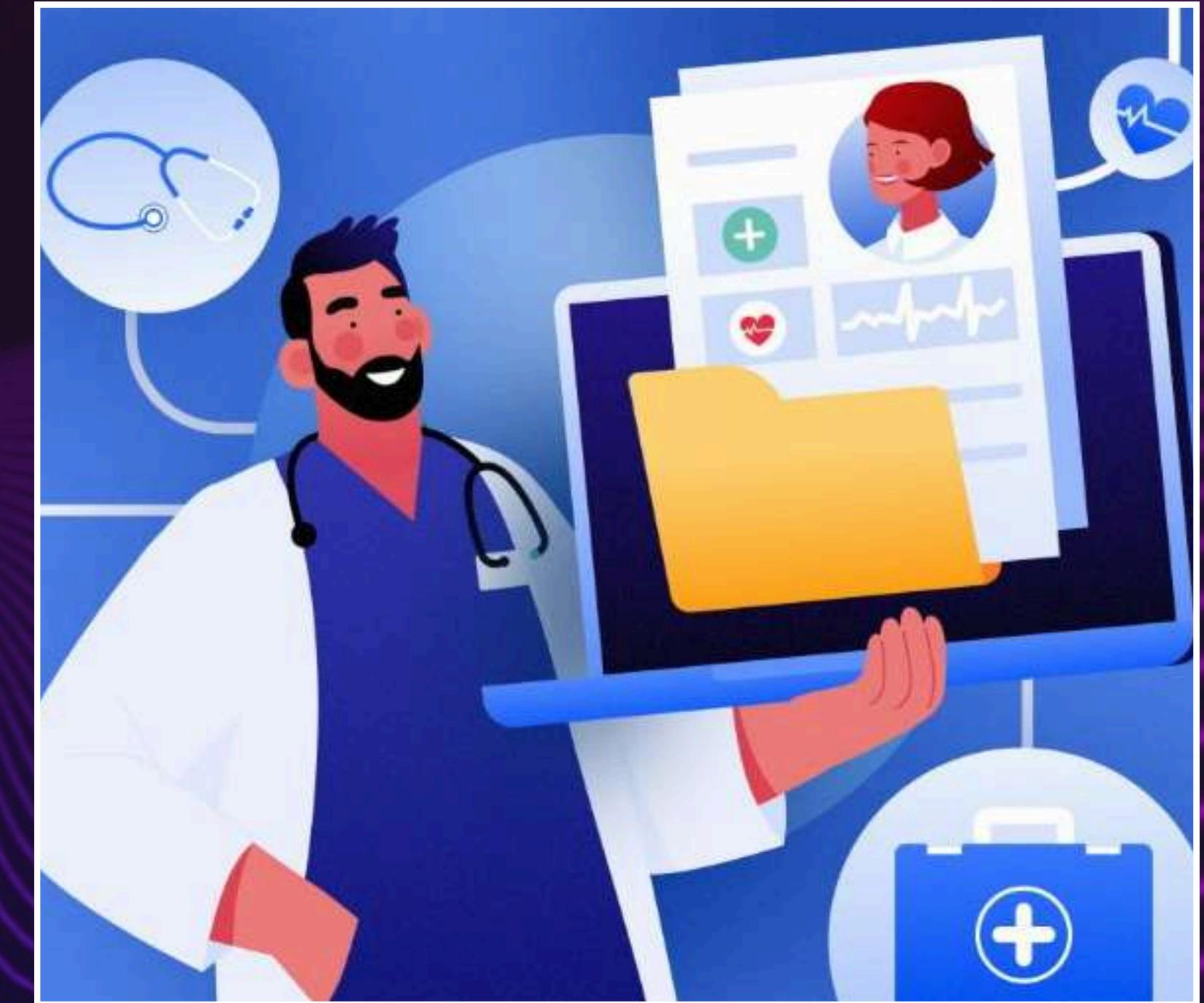
HEALTHCARE GOES DIGITAL

ELECTRONIC
HEALTH RECORDS

TELEHEALTH
COMMUNICATION

CLOUD STORAGE AND
NETWORKED DEVICES

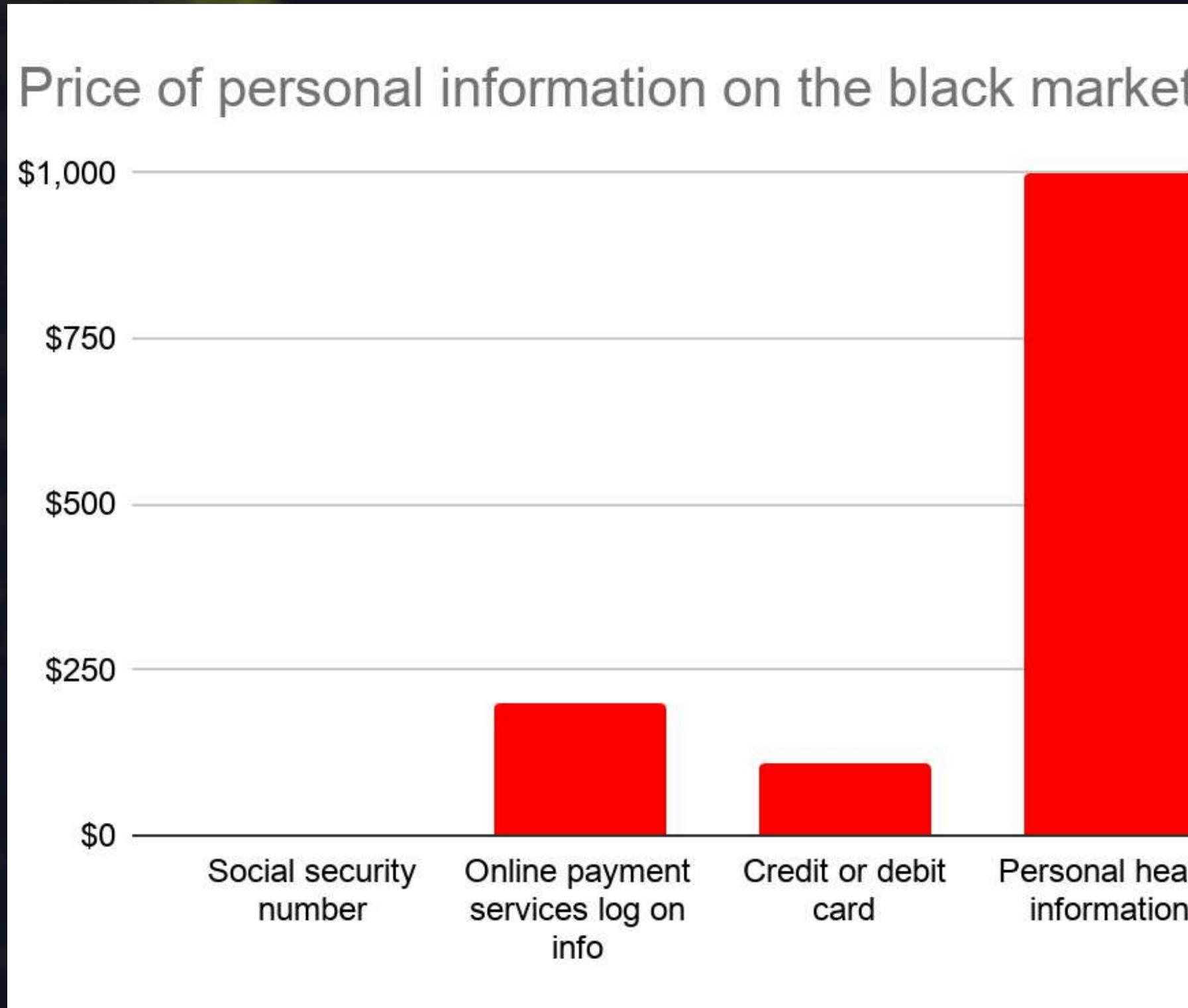
CONVENIENT.. BUT RISKY!!!



WHY CYBERSECURITY MATTERS

- Databreaches affect patient health & safety
- Care delays & medical decision interruptions
- Not just financial, but life impacting consequences





WHY TARGET HEALTHCARE?

- Highest value on black market
- Contains full identity + insurance data
- Information cannot be easily replaced

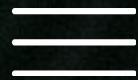


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LAWS & ETHICAL RESPONSIBILITY

- HIPAA requires strong data protection
- Confidentiality is a core medical value
- Trust must extend to digital systems



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COMMON CYBER THREATS

RANSOMWARE

PHISHING AND CREDENTIAL THEFT

UNAUTHORIZED ACCESS / DATA MANIPULATION

 Bank of America

Dear account holder,

There has been a recent login to your bank account from a new device:

IP address: 192.168.0.1

Location: Miami, Florida

4 new transactions have been made with this account since your last login.

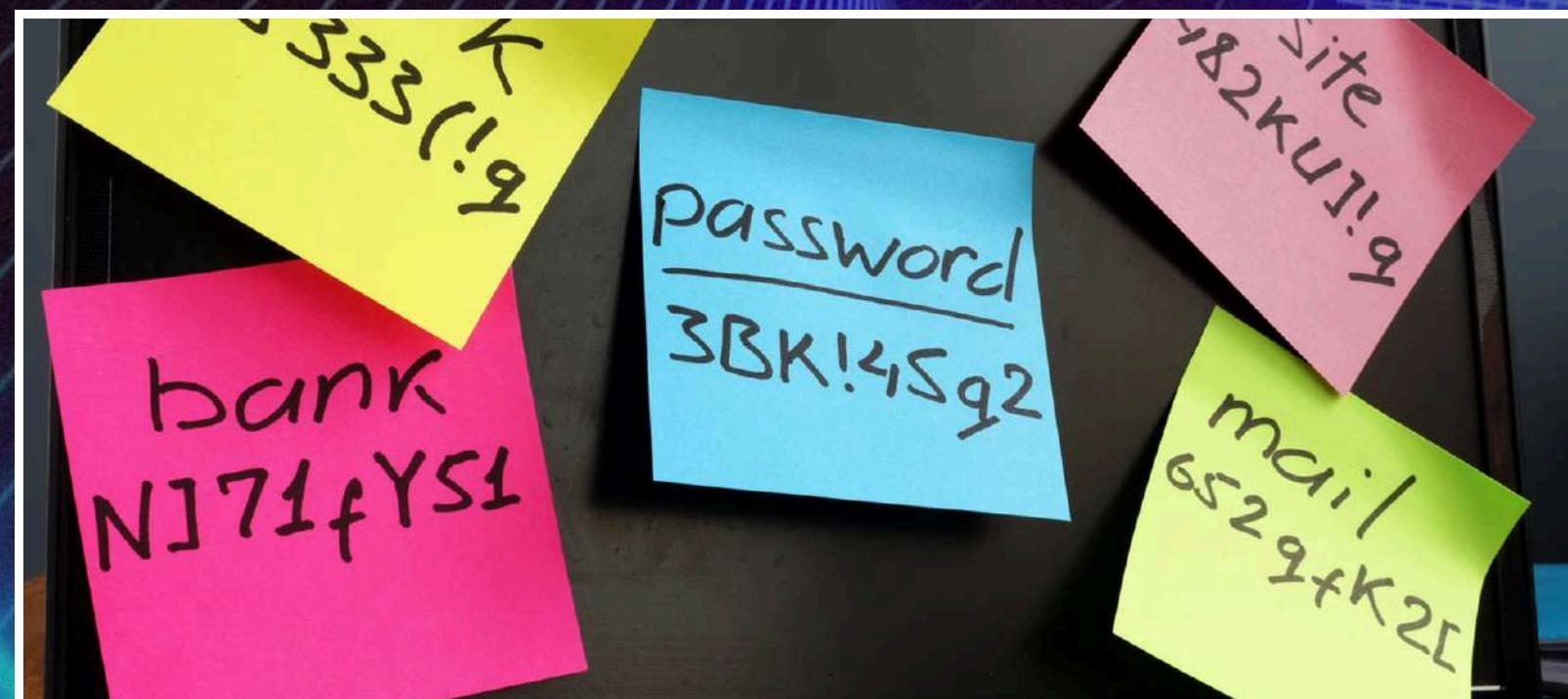
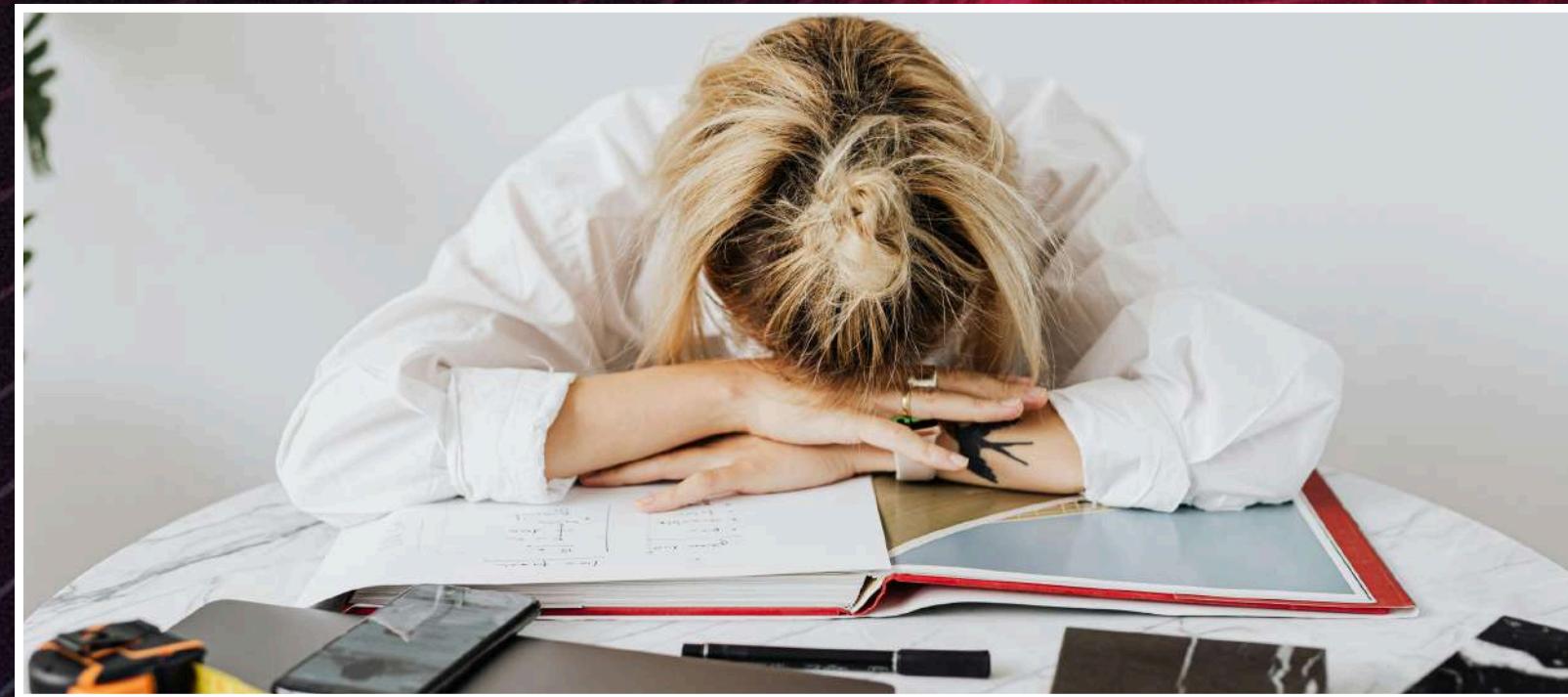
If this was not you, please reset your password immediately with this link:

<https://trust.ameribank7.com/reset-password>



HUMAN ERROR

- Overworked staff → Risky shortcuts
- Weak passwords or clicking malicious links
- Training is essential & required



TELEHEALTH VULNERABILITIES

- Unsecured apps
- Personal devices
- Cloud exposure



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CLOUD & THIRD PARTY RISK



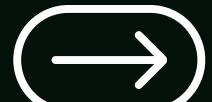
Vendor Dependency



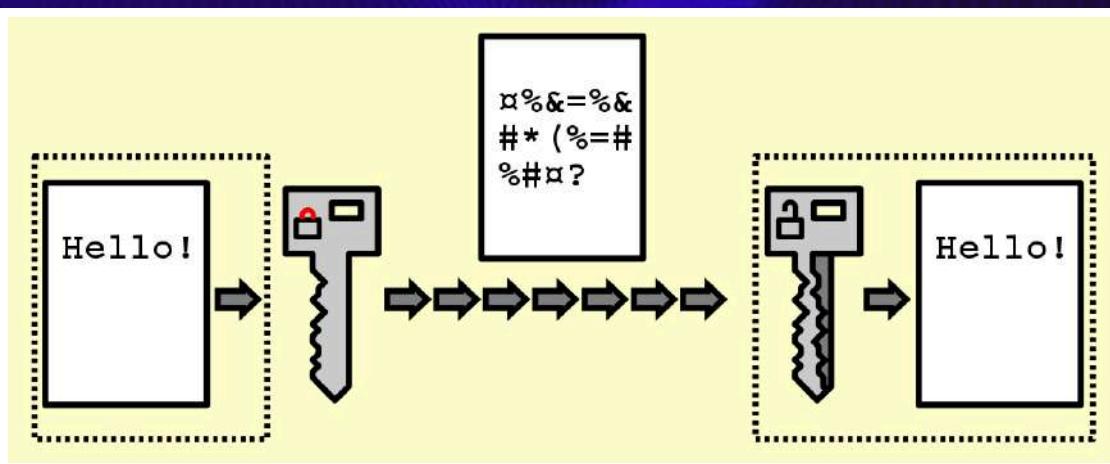
Shared responsibility



Attack surface increases



TECHNICAL SAFEGUARDS



ENCRYPTION



ACCESS CONTROL



MULTI-FACTOR AUTHENTICATION



EHR VULNERABILITIES



STORE EVERYTHING



POSSIBLE DATA ALTERATIONS



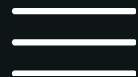
OUTDATED SOFTWARE



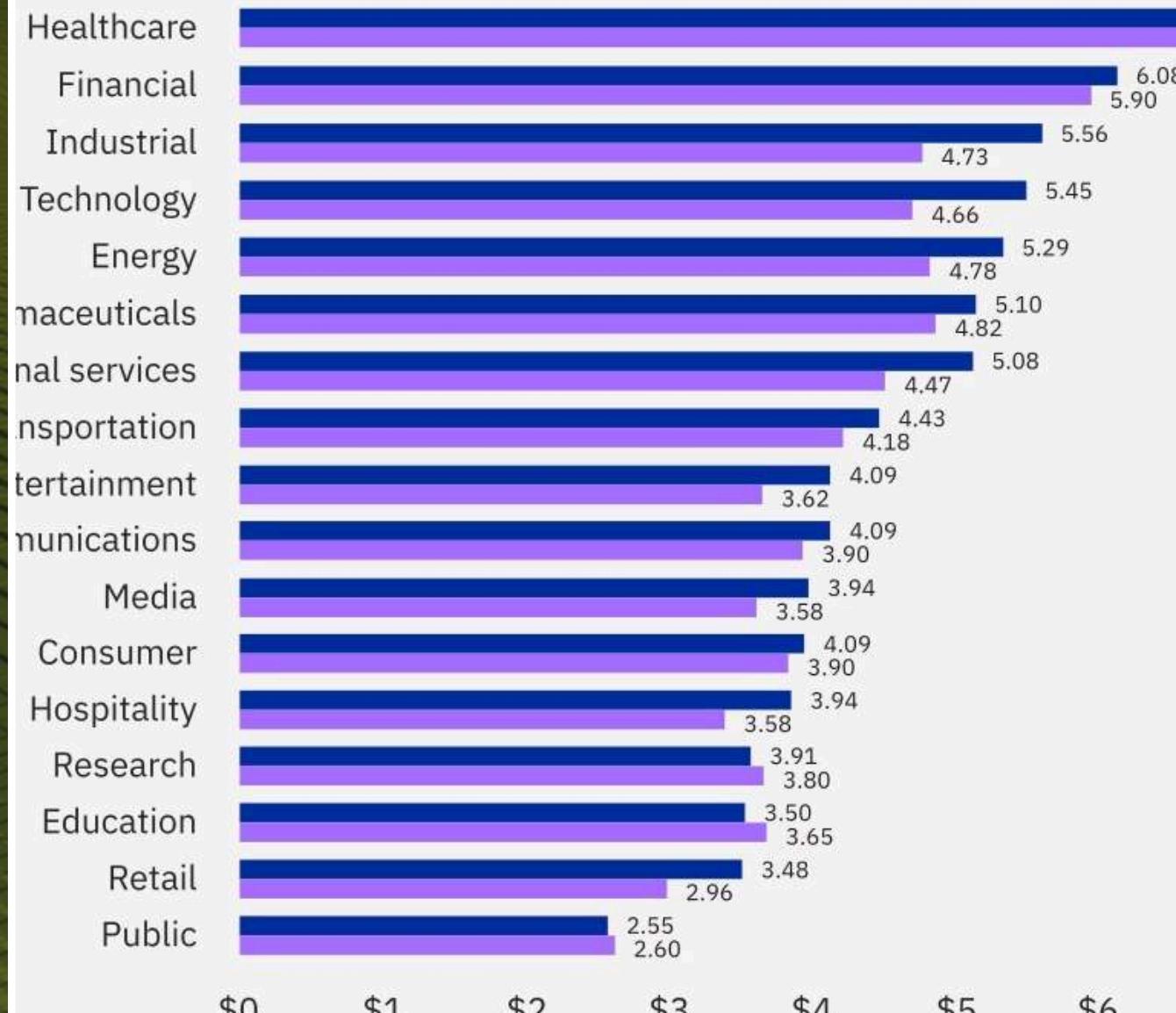
VULNERABLE MEDICAL DEVICES

- Older devices lack protection
- FDA warns of cyber risk
- Difficult to upgrade





data breach by industry



■ 2023

*ed in USD millions

REAL-WORLD IMPACT

\$10M AVG BREACH COST
(HIGHEST INDUSTRY)

SURGERIES MAY BE
DELAYED

LOSS OF TRUST



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BARRIERS TO ADOPTION



**BUDGET LIMITS & TECHNOLOGY
GAPS**



TIME PRESSURE





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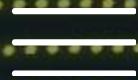
ROLE OF PATIENTS

SECURE
PASSWORDS!!

DEVICE
RESPONSIBILITY

AWARENESS
MATTERS



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FUTURE SOLUTIONS



BLOCKCHAIN



AI THREAT DETECTION



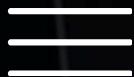
BETTER TRAINING POLICIES



CONCLUSION

- CYBERSECURITY = PATIENT SAFETY
- SHARED RESPONSIBILITY
- CONTINOUS IMPROVEMENT



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THANK YOU