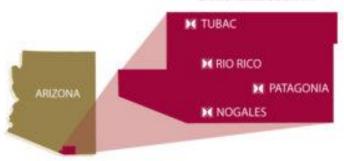


Cyber Security Experience & Risk Mitigation

Dan Prevost

Location: Santa Cruz County, Arizona

- ~30,000 patients served
- ~\$47 million budget
- ~400 employees
- Southernmost central part of the state, bordering Mexico
- Largest single border crossing for Mexican fresh produce
- Approximately \$2.5 billion of fresh produce comes thought the Nogales port of entry annually
- This accounts for about 37% of the produce imported into the US from Mexico





DataWhy care about cybersecurity?

Context:

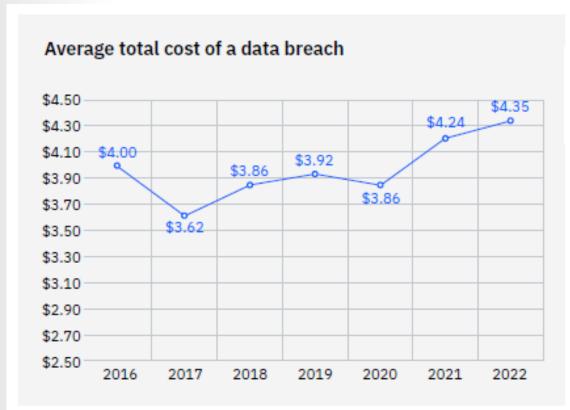
- The following data is based on a 2022 study published by IBM
- Data was was collected on 550 companies from 17 countries around the world...
- The United States had the most companies in this study (64)

IBM Cost of Breech Report 2022

Average Cost of Breech

Trend 2016 – 2022 in Millions of Dollars

Cost of a data breech reached an all time high in 2022



USD 4.35 million

Global average total cost of a data breach

USD 9.44 million

Average cost of a breach in the United States, the highest of any country

Figure 1: Measured in USD millions

Average cost of a data breach by country or region #15 #9 #3 Scandinavia #4 South Korea 2022 \$2.08 Canada 2022 \$3.57 United Kingdom 2021 \$2.67 2022 \$5.64 2021 \$3.68 2022 \$5.05 2021 \$5.40 2021 \$4.67 Turkey #6 2022 \$1.11 Japan #5 #14 2021 \$1.91 2022 \$4.57 India Germany 2021 \$4.69 #7 2022 \$2.32 2022 \$4.85 2021 \$2.21 2021 \$4.89 France 2022 \$4.34 2021 \$4.57 #1 #8 United States Italy 2022 \$9.44 2022 \$3.74 #2 2021 \$9.05 2021 \$3.61 Middle East #11 2022 \$7.46 2021 \$6.93 Australia #13 #16 2022 \$2.92 #12 Latin America Brazil 2021 \$2.82 2022 \$2.80 #10

U.S. has the highest costs for data breeches

South Africa

2022 \$3.36 2021 \$3.21 ASEAN

2022 \$2.87

2021 \$2.71

2022 \$1.38

2021 \$1.08

2021 \$2.56

Figure 3: Measured in USD millions

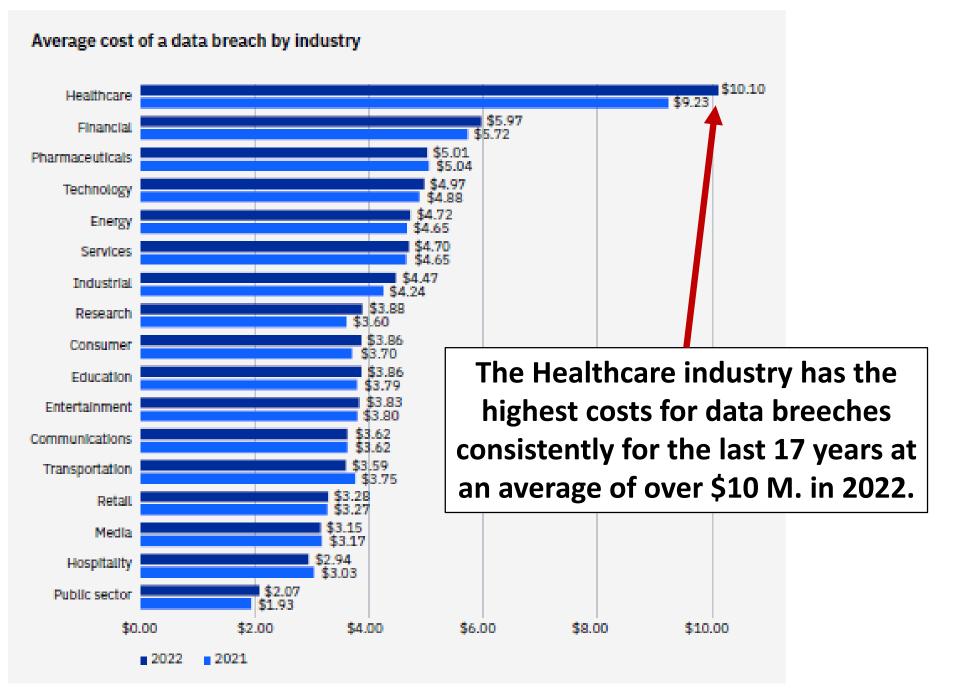


Figure 4: Measured in USD millions

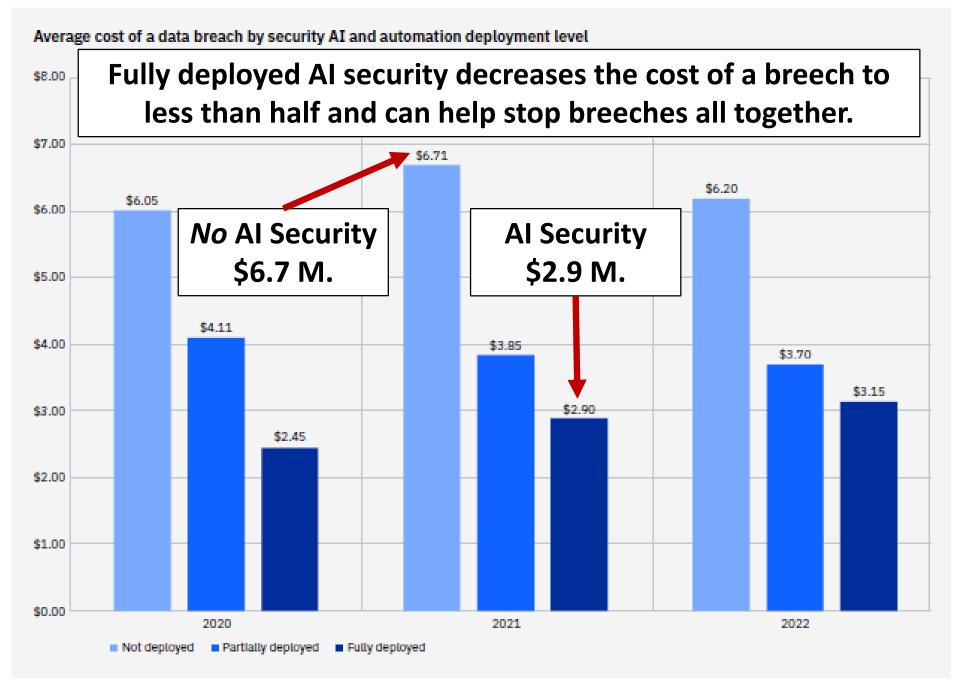
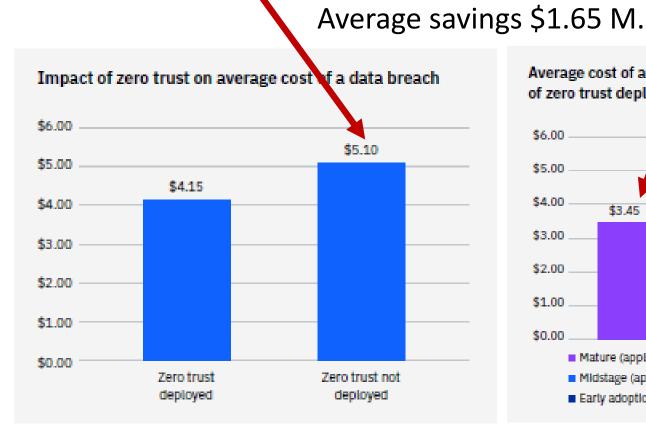


Figure 17: Measured in USD millions

Zero Trust Impact

Will Help prevent some breeches all together

Average cost of a breech with no Average cost of a breech with full Zero Trust deployed \$5.1 M. Zero Trust deployed \$3.45 M.



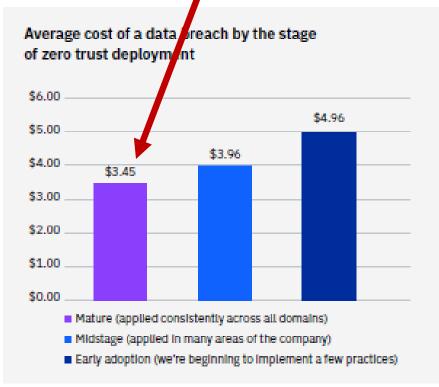


Figure 27: Measured in USD millions

Figure 28: Measured in USD millions

Fellow FQHC Case Study

Cyber Attack, consequences and outcome.

- Nevada FQHC was under attack
 - Phishing attack gave employee credentials to a hacker.
 - Those credentials were leveraged to gain Admin credentials.
 - The intruder was then able to encrypt the FQ's data.
 - Ransomware demands began showing up throughout the organization.
- The Response
 - Locked everything down.
 - Contact cyber liability insurance company.
 - Notify leadership & great a game plan.
- The Solution
 - Wipe and reimage everything & rebuilt domain.
 - Restore from cold air gap storage.
 - Further staff training.
 - Further system monitoring.

Because of cold air gap storage no ransom was paid!

Some Mariposa History

IT Vendor Transition

- Our initial IT vendor had several base layers of security:
 - Multi Factor Authentication (MFA) for off site access
 - Laptop drive encryption
 - Virtual Private Networks (VPNs) for off-site use
- When moving to our new IT vendor
 - The vendor claimed to have all these base security tools ready to deploy
 - However, it took nearly two years for them to deploy
 - We had extended periods of time where we bore a substantial amount of risk
- Have had \$1 M. in cyber liability insurance



Mariposa Current State

- Multi Factor Authentication(MFA) for mobile and off-site access.
- All workstation drive encryption.
- Virtual Private Networks (VPNs) for off-site use.
- Cyber Security/Phishing training for all staff.
- Threat detection and immediate IT response (manual).
- All staff warnings when we are under phishing attacks.
- Blacklisting potential intruders.
- Microsoft E365, Exchange ATP & Critical Security Controls (CIS).
- Privilege Identity Management (PIM).
- Mobile Application Management (MAM).
- Annual tabletop disaster and recovery exercises.
- Increased to \$3 M. in cyber liability insurance.



Future Roadmap

- Deploy artificial Intelligence automated monitoring tools.
- Develop a mature Zero Trust network.
- Always on VPN for all external Access for remote access.
- Roll out advanced biometric authentication.
- Deploy cold air gap storage for critical systems.
- Enhancing our new hire/annual Cyber Security Continued Education programs.
- Rollout automated process for simulated phishing email attacks/network intrusion, and continuing staff threat education.
- Have regular touchpoints with security experts to keep on top of changes in the industry to drive needed infrastructure growth.
- Stricter internal access controls for Servers/Network hardware.
- Increase cyber liability to \$4 M. and potentially more in the future.



Questions?

