INFORMATION SECURITY
AND RISK MANAGEMENT
TAKE CONTROL. DEFEND YOUR DATA.

Omar Khawaja

03.28.2022

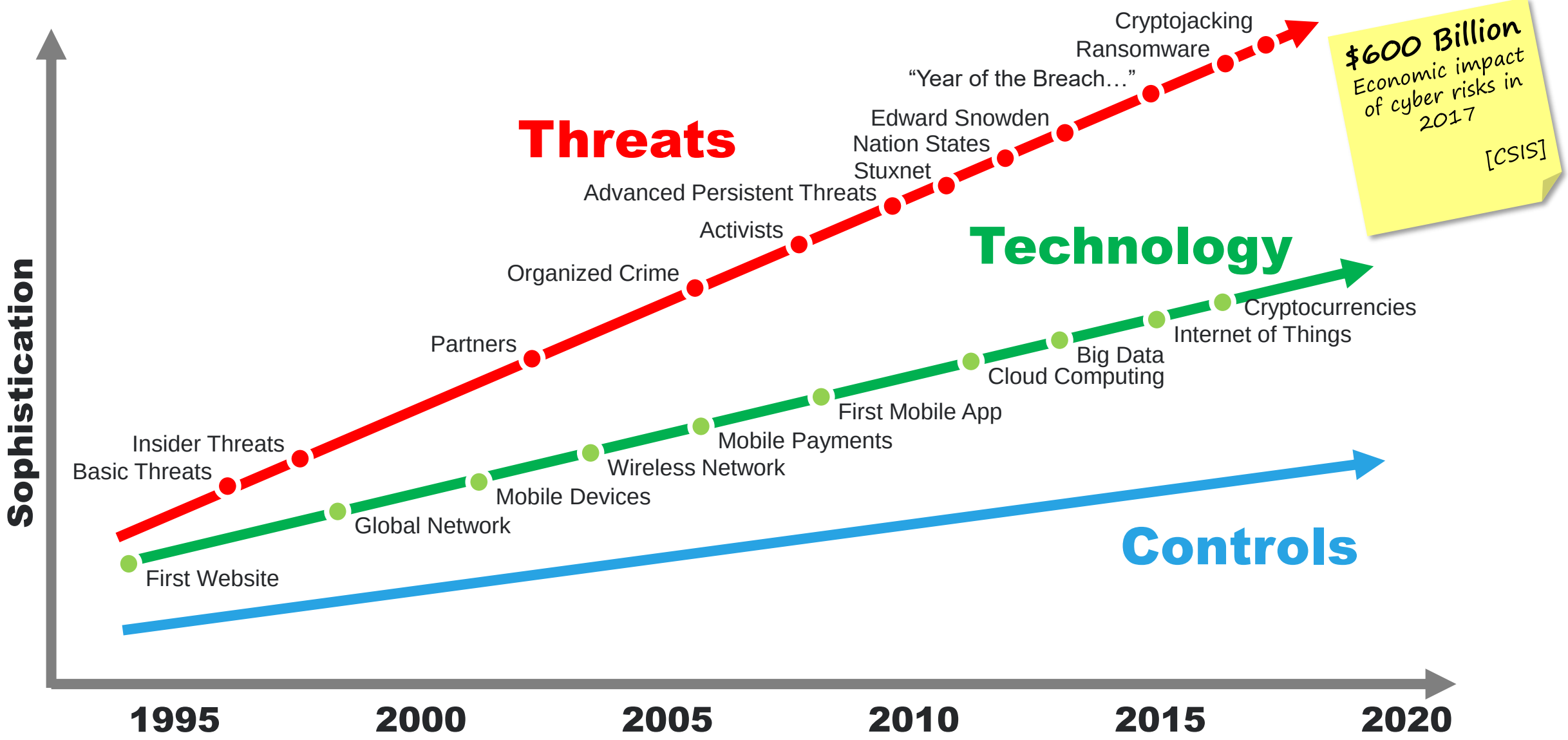
Cyber Risk

Briefing for

PA House Majority Policy Committee

HIGHMARK HEALTH

Why are cyber risks growing?



Adapted from: Frank Kim, SANS Institute

What is the impact of evolving cyber risks?

The frequency and impact of cybersecurity incidents is on the rise as data becomes more valuable and easier to monetize.

851m Ransomware infections in 2018 [Phoenix NAP]

>50% Ransomware incidents reported in 2018 that involved healthcare companies (Beazley)

34% Businesses hit with malware that took a week or more to regain access to their data [Kaspersky]

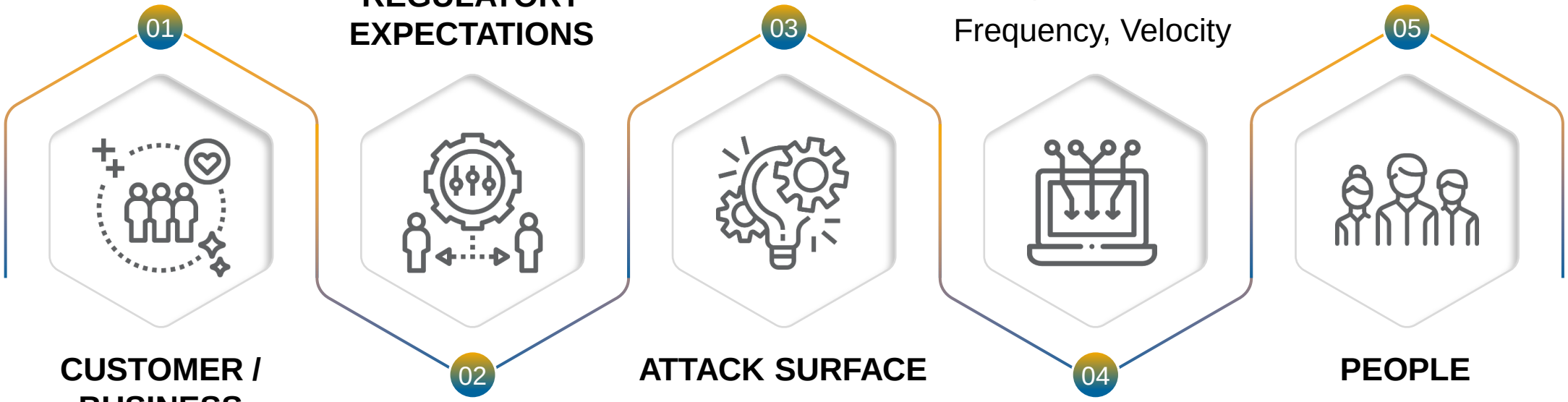
$4.24m Average cost of data breach to any organization in 2021 (↑10%) [Ponemon / IBM]

$9.23m Average cost of data breach to healthcare organization in 2021 (↑29.5%) [Ponemon / IBM]

18% Healthcare devices that have been the target of malware [Healthcare IT News]`

Forces increasing Highmark's Health's cyber risks

Several forces are acting to increase our inherent cyber risk.



Highmark Health ISRM Program Architecture

There are several programs in place to operationalize these functions across various stakeholders. The D-RISKT audience-centric metrics dashboards are used to measure various aspects of ISRM to enable purposeful execution

1. IDENTIFY / MEASURE CYBER RISK

Business Risk

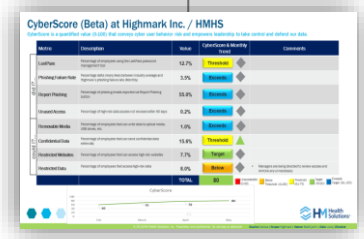
R **Cyber Risk Dashboard**
Manage overall cyber risk as business needs and cyber threat landscape evolve

Technology Risk

S **SECURE Index**
Govern optimal level of security controls across IT systems

People Risk

C **CyberScore**
Improve behavior so users are an effective cyber control

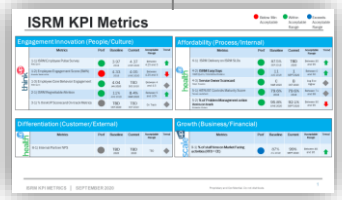


2. MITIGATE CYBER RISK

10 ISRM Domains

Run the Business (RTB)

I **ISRM Balance Score Card**
Manage and measure key business factors to increase quality and maturity of ISRM



D **Domain Area Scorecard**
Manage and measure key business factors to increase quality and maturity of domains

Transform the Business (TTB)

SECURE Portfolio
Implement new preventive, detective and responsive security controls to reduce risk, increase CyberScore and increase SECURE index

scaleUP
Enable Merger and Acquisition activity by securely integrating blended health partners.

secureUP
Enable business to securely and swiftly leverage new technologies, e.g.: IaaS, SaaS, IoMT, etc.

BOSITE Framework
Framework to define business outcomes, service improvements and technical enhancements

SURGE Program Playbook
Playbook to define and document key deliverables to mature service capabilities

3. IMPROVE THE BUSINESS (ITB)

T thinkUP Program structured to drive effectiveness and efficiency

Secure Talent
Develop, retain and attract top talent in ISRM

How are Cyber threats in healthcare evolving?

Impact

Time

Integrity

Attackers alter the data / configuration of systems to cause direct (e.g.: physical) harm to victim.

Kinetic Attacks

Uniquely Connected. For Life.℠
HERITAGE VALLEY HEALTH SYSTEM

Availability

Attackers hold victim's data hostage and "sell" it back to the victim.

Ransomware

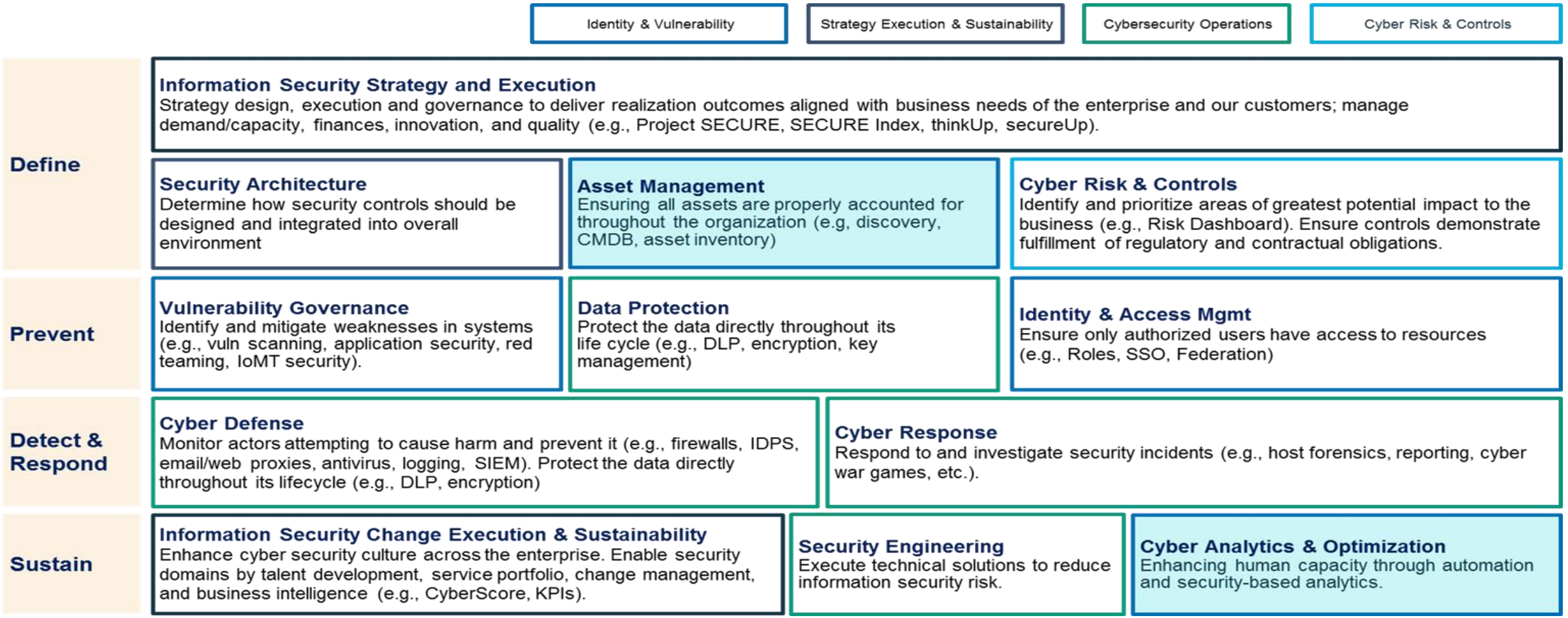
Anthem

Confidentiality

Attackers steal victim's data and sell to someone else.

Data Breaches

ISRM Functional Areas



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