



# Countering Cybersecurity Risks Across Your Organization

Presented by:  
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# What You See Is What You Get.

Bachelors of Business Management

Director of IT

Software Engineer

Masters Degree in Cybersecurity

Information Security

# DATA BREACH INVESTIGATIONS REPORT

## BREACHES

82% of all breaches are because of the human element

Stolen Credentials

Phishing

Misuse

Error - Misconfiguration

## RANSOMWARE

Up 13% in 2021 Alone

40% through Desktop Sharing Software

35% through Email

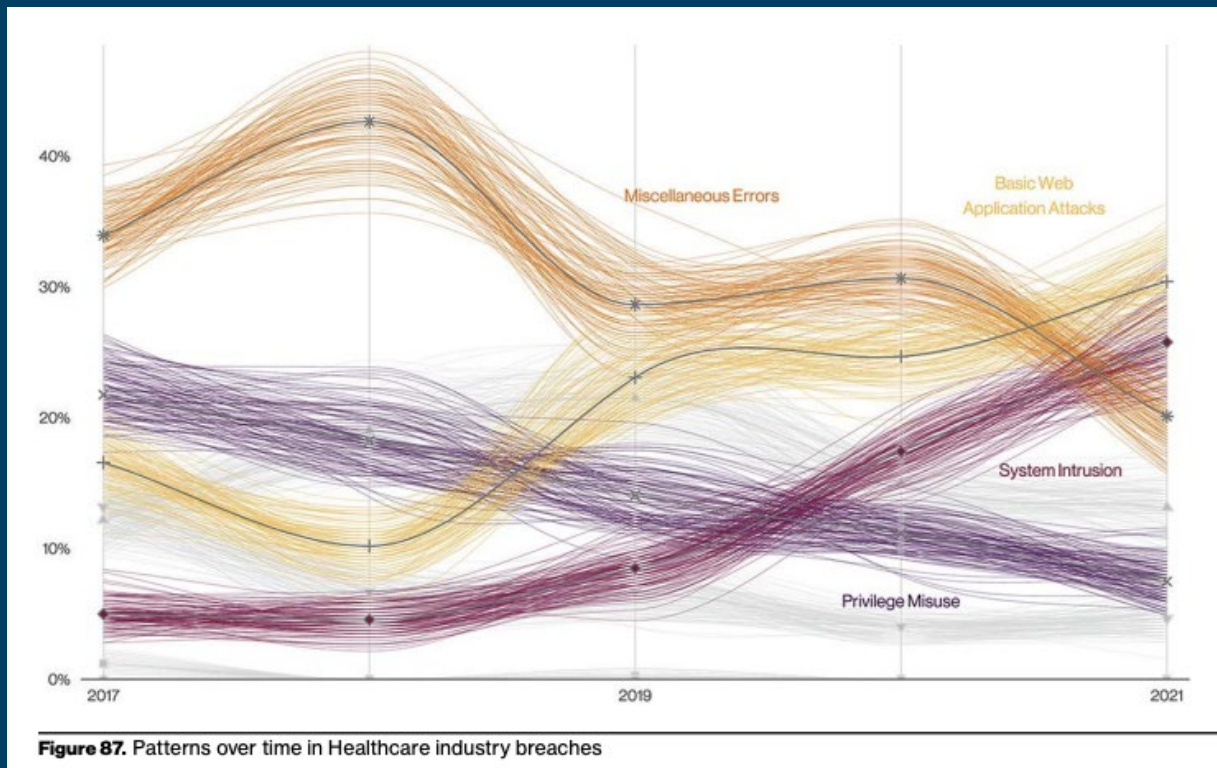
## SUPPLY CHAINS

3<sup>RD</sup> PARTIES

PARTNERS

# DBIR - HEALTHCARE

2021 849 Incidents, 571 Confirmed Data Disclosure



# CYBERSECURITY LANDSCAPE FOR HEALTHCARE

Health-ISAC Report

## TOP 5 THREATS

1. Ransomware Deployment
2. Phishing/Spear-Phishing Attacks
3. Third Party/Partner Breach
4. Data Breach
5. Insider Threats

## POTENTIAL COSTS

\$1 per SSN

\$50 per partial health record

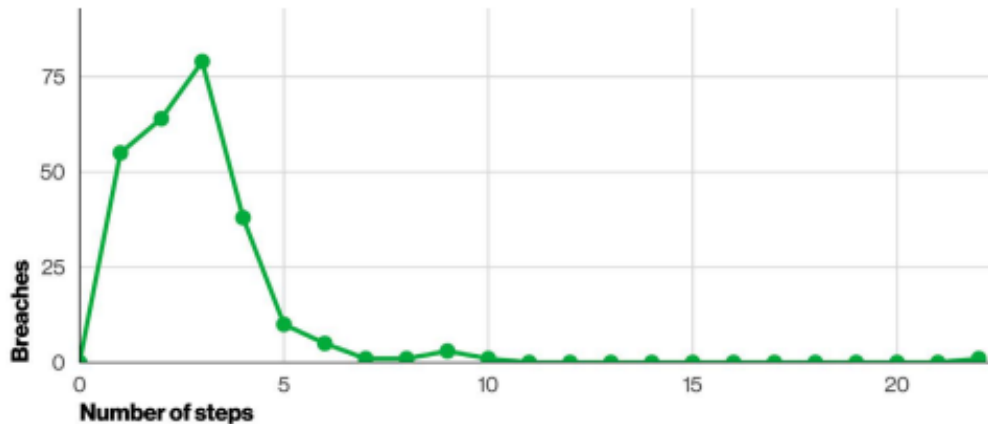


# REDUCE YOUR RISK

It's Not If, But When

## Event Chains

Rather than simply analyze how long an attack took in time, we can also analyze how long it took with regard to Actions in Figure 30. We can view this timeline of Actions in our Event Chain data. Event Chains capture the path an attack followed.<sup>6</sup> Figure 30 shows that the vast majority of breaches include only a handful of steps. Three Actions (Phishing, Downloader, and Ransomware) are the most common, while very few breaches utilize five or more Actions. Our job as defenders is to lengthen that attack path. Attackers tend to avoid longer attack chains because every additional step is a chance for the defender to prevent, detect, respond to and recover from the breach.



**Figure 30.** Number of steps per breach in non-Error breaches (n=258)

# REDUCE YOUR RISK

- Encrypt your data
- Backup your data
- Conduct regular employee training
- Keep your systems/software updated
- Use strong passwords
- Assess and monitor your vendors
- Reduce your attack surfaces
- Pay attention to physical security
- Install firewalls
- Create a secure cybersecurity policy



# REDUCE YOUR RISK

## TIME IT TAKES A HACKER TO BRUTE FORCE YOUR PASSWORD IN 2022

Number of Characters	Numbers Only	Lowercase Letters	Upper and Lowercase Letters	Numbers, Upper and Lowercase Letters	Numbers, Upper and Lowercase Letters, Symbols
4	Instantly	Instantly	Instantly	Instantly	Instantly
5	Instantly	Instantly	Instantly	Instantly	Instantly
6	Instantly	Instantly	Instantly	Instantly	Instantly
7	Instantly	Instantly	2 secs	7 secs	31 secs
8	Instantly	Instantly	2 mins	7 mins	39 mins
9	Instantly	10 secs	1 hour	7 hours	2 days
10	Instantly	4 mins	3 days	3 weeks	5 months
11	Instantly	2 hours	5 months	3 years	34 years
12	2 secs	2 days	24 years	200 years	3k years
13	19 secs	2 months	1k years	12k years	202k years
14	3 mins	4 years	64k years	750k years	16m years
15	32 mins	100 years	3m years	46m years	1bn years
16	5 hours	3k years	173m years	3bn years	92bn years
17	2 days	69k years	9bn years	179bn years	7tn years
18	3 weeks	2m years	467bn years	11tn years	438tn years



> Learn about our methodology at [hivesystems.io/password](https://hivesystems.io/password)



# References



1. <https://www.verizon.com/business/resources/reports/2022/dbir/2022-data-breach-investigations-report-dbir.pdf>
2. <https://h-isac.org/wp-content/uploads/2022/03/H-ISAC-and-BAH-2021-2022-Annual-Cyber-Threat-Landscape-Report-TLP-WHITE.pdf>
3. <https://www.upguard.com/blog/reduce-cybersecurity-risk>



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# THANK YOU FOR LISTENING

DO YOU HAVE ANY QUESTIONS?

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