

RSA® Conference 2015

San Francisco | April 20-24 | Moscone Center

SESSION ID: ECO-F01

Next Generation Healthcare Security

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@secleadership

CHANGE

Challenge today's security thinking



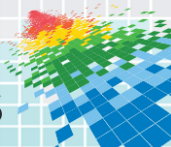


Chinese State-Sponsored Hackers Suspected in Anthem Attack

“The attack appears to follow a pattern of thefts of medical data by foreigners seeking a pathway into the personal lives and computers of a select group - defense contractors, government workers and others.”



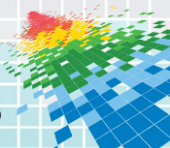
Anthem Hack Includes Birthdays, SS Numbers, Emails



Ponemon Cost of Data Breach Study

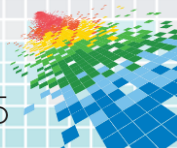
- ◆ Average cost of data breach per 2014 study
 - ◆ \$3.5 million (up 15%)
 - ◆ \$145 per lost or stolen record (up 9%)
- ◆ Cost per record by industry

Healthcare	\$359
Education	\$294
Pharmaceutical	\$227
Financial	\$206
Energy	\$141
Technology	\$138
Retail	\$105
Public	\$100



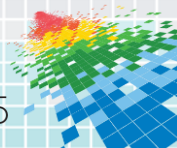
Security Obstacles

- ◆ Security teams struggle with:
 - ◆ Getting buy-in
 - ◆ Justifying our costs
 - ◆ Knowing how to spend effectively
 - ◆ Shifting from reactive to proactive
 - ◆ Not understanding how the business works



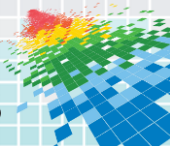
What percent of CISOs report directly to their CEO?

- A) 15%
- B) 20%
- C) 25%



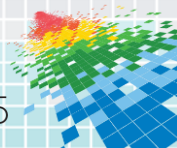
Answer

15%



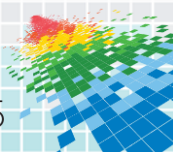
Next Generation Security Leadership

- ◆ How can we overcome these obstacles?
- ◆ Must learn how to innovate with the business
 - ◆ Understand healthcare business drivers
 - ◆ Focus on how we invest
 - ◆ Don't spend your resources but invest them
 - ◆ What do our stakeholders value?



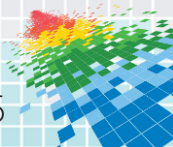
How can we innovate with the business?

- ◆ Three forces driving healthcare innovation in the US
 - ◆ Legislation
 - ◆ Mobility
 - ◆ Personalization



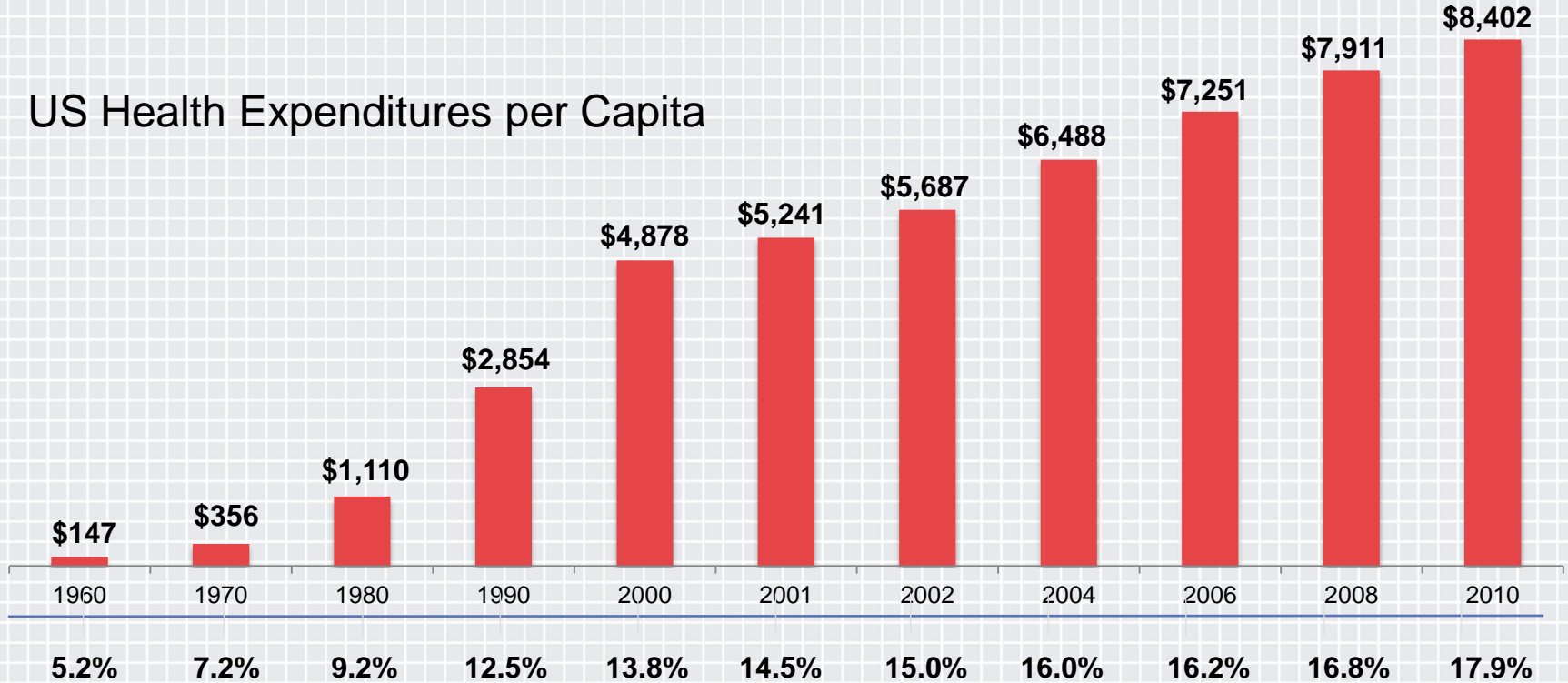
Legislation - Affordable Care Act (ACA)

- ◆ Not just about short-term affordability
 - ◆ Created incentives to focus on being healthy
 - ◆ Fee-for-performance vs fee-for-service
- ◆ Many companies working to drive long-term affordability
- ◆ Aligned with the vision of Kaiser Permanente
 - ◆ Improve the total health of our members and the communities we serve

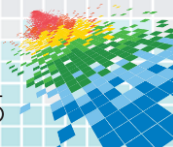


Healthcare Affordability

US Health Expenditures per Capita

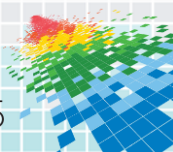


US Health Expenditures as % of GDP



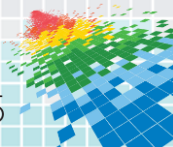
Security & Legislation

- ◆ New ways of doing business expose organizations to new risks
 - ◆ Meaningful Use
 - ◆ Created the need to secure electronic health records
 - ◆ Affordable Care Act
 - ◆ Requires us to secure new ways of delivering care
 - ◆ Maintain trust of our members
 - ◆ While supporting business innovation



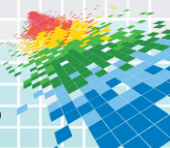
Percent of healthcare costs saved by using mobile health solutions?

- A) 5%
- B) 20%
- C) 35%



Answer

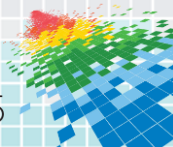
35%



Mobility

Meet members where they are

Shift from facility to home

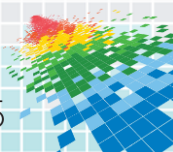


Telehealth



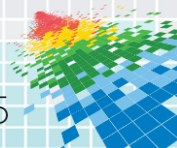
The Future of
Healthcare is Here

See a doctor or therapist
anytime, anywhere.



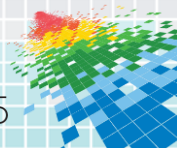
Teleconsult

"By deploying teleconsult security enabled us to perform a remote consultation that allowed rapid diagnosis and appropriate treatment to a stroke. This quick treatment saved the patient from potential disability and even death. You understand and act on the knowledge that you are full members of the patient care team."



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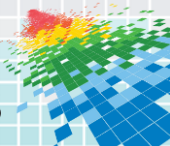


Man Hacks Monitor, Screams at Baby Girl

BY KEITH WAGSTAFF

Welcome to the Internet of things. Creepy things.

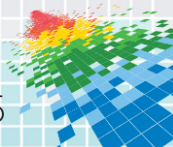
Last week, [Fox 19 reported](#) that a man hacked into an Internet-enabled baby monitor in a home in Cincinnati, Ohio, and started screaming “Wake up baby!” at a 10-month-old girl.



Micro-Clinics

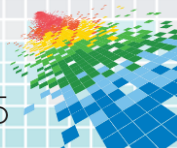
- ◆ Meet members where they are

Kaiser Permanente joins forces with Target Corp. on in-store clinics



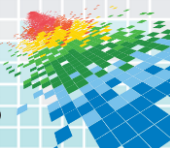
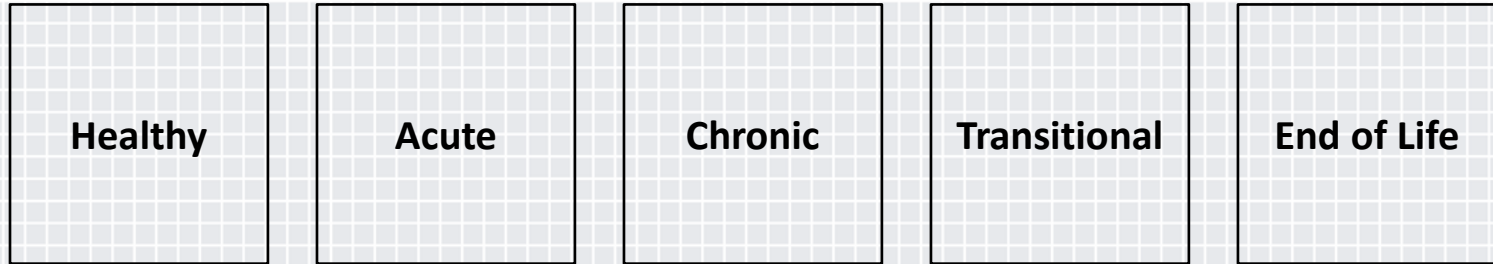
Securing Remote Care

- ◆ Perimeter does not exist
 - ◆ To meet members where they are
 - ◆ We have go to where the customer is located
- ◆ “Prevention is ideal, but detection is a must”
 - ◆ In addition to network, endpoint, and application security controls
 - ◆ Perform regular assessments
 - ◆ Implement additional monitoring of remote systems



Personalization

◆ Populations of Care

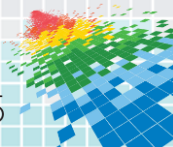


Social

◆ MediSafe



Cloud-synced mobile medication management system



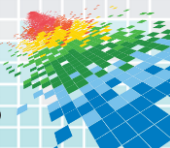
Member Generated Data

◆ Spire



Activity tracking for body
and mind.

Spire tracks your breathing patterns and activity for real time insights into your state of mind.





New Threats Drive Improved Practices: State of Cybersecurity in Health Care Organizations



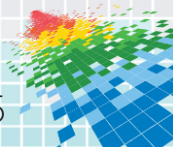
A SANS Survey

Written by Barbara Filkins

December 2014

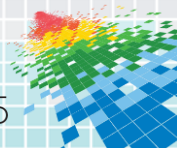
“The survey indicates that new methods of accessing and transferring medical data are putting sensitive protected data at risk.”

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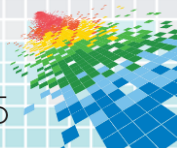
Securing Personalized Care

- ◆ Vast amounts of new information about patients
- ◆ How do you decide what data to trust?
 - ◆ Traditional data classification is not as useful
 - ◆ Consider the source of data when making decisions
- ◆ Leverage mobile and cloud security protections



In Summary

- ◆ Three forces driving health care innovation
 - ◆ Legislation
 - ◆ Mobility
 - ◆ Personalization
- ◆ Learn to innovate with the business
 - ◆ Become “full members of the patient care team”
 - ◆ Understand the business of health care
 - ◆ Risk-based approach to securing data at any location



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