

# HDO Customer Needs

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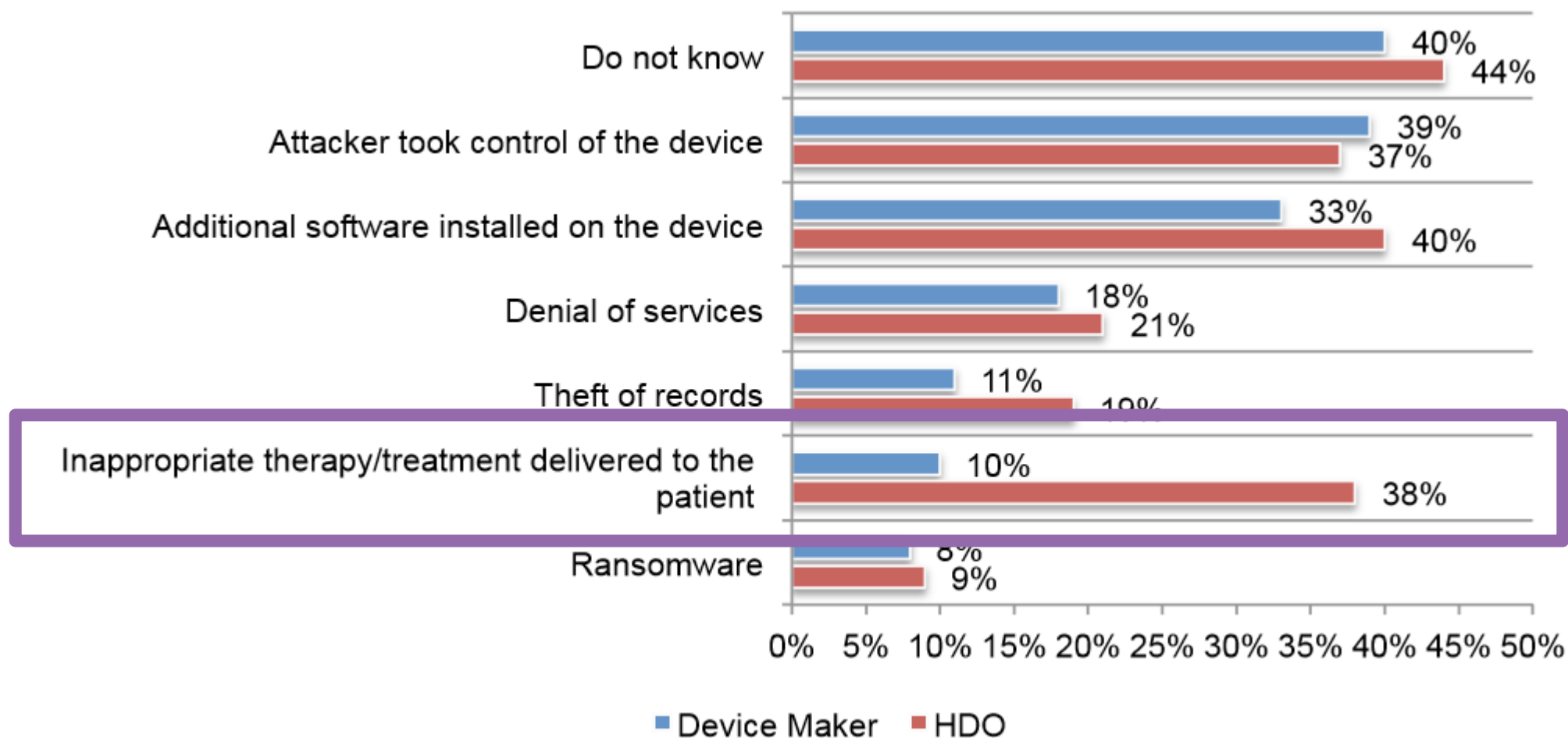
# Current State - Cybersecurity

- 1 M unfilled positions – 2016
  - Dice.com: 32,000
- Average Spend:
  - Healthcare IT 6%
  - Other sectors 12-16%
- Ponemon Medical Device Security Report
  - 40% of orgs take no steps to secure medical devices



**Medical Device Security: An Industry Under Attack and Unprepared to Defend**

# Cause of Adverse Event or Harm



Source: Ponemon Institute, *Medical Device Security: An Industry Under Attack and Unprepared to Defend*

# Trends from Medical Device customers

- HDOs increasingly requesting more security information
- Purchasing decisions now including security
- Mayo Clinic
  - Purchasing process requires security information
  - Specific forms, reporting requirements
  - Security Risk profile used as input in procurement
  - Example: Windows XP devices
  - Contract requires support



# Customer Needs

- FDA
  - Understand risk profile
  - Evidence of security risk management
  - Equal stakeholder with safety, effectiveness,
- If not met, no approval
- HDOs must **efficiently control** medical device risks
- Starting to Assess
  - Development Process
  - Security Architecture
  - Penetration Testing
  - Long term, rapid patch support
- If not met, no sale



# How to Meet Customer Needs

- MDS2 forms
- Secure Development Lifecycle
- Evidence of risk exposure
- Information for Use
  - Responsibility handoff
- Commitment of support for expected lifecycle
  - Monitor and respond to the threat landscape
  - Routine, timely updates for security patches
  - Expected lifecycle
- Requires “Secure by Design”

# Secure by Design

- All about risk
- Identify and reduce through risk assessments throughout lifecycle
  - AAMI TIR57, NIST 800-30, CWE/CVSS, OCTAVE Allegro
- Pick a methodology
- Cover the entire lifecycle

