Opportunities to Improve the Safety and Use of EHRs

Presentation at the ONC Annual Meeting

Ben Moscovitch, Project Director, Health Information Technology, The Pew Charitable Trusts

The Office of the National Coordinator for
Health Information Technology

The Puzzle— and the Promise— of Electronic Health Records

Computerized patient information can revolutionize healthcare, but the revolution won't come without first solving some big concerns.
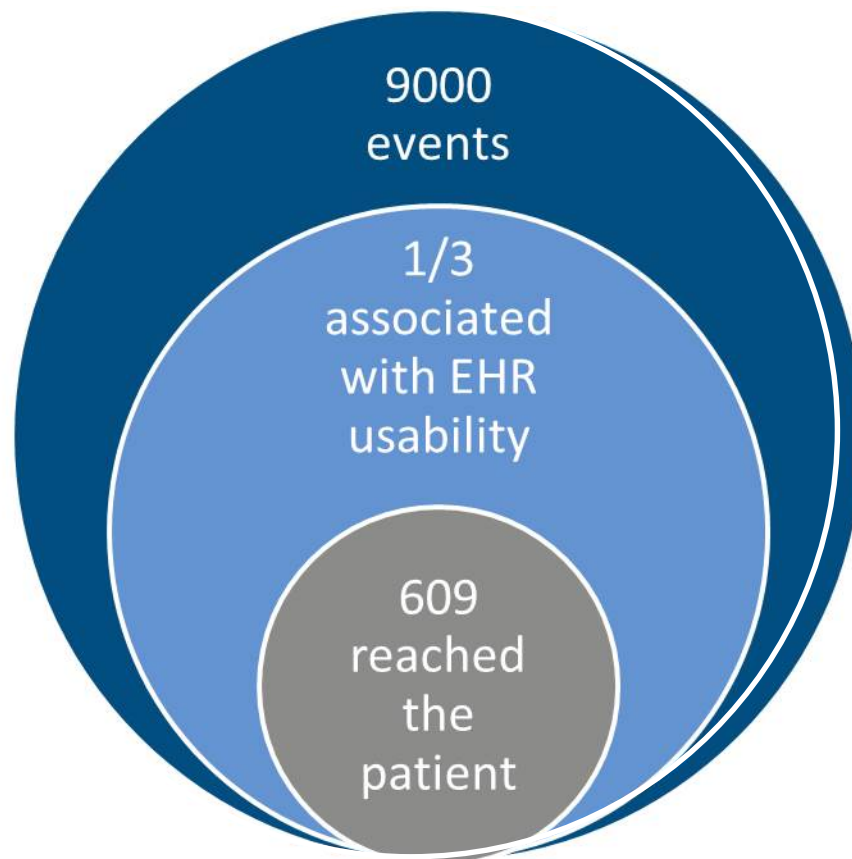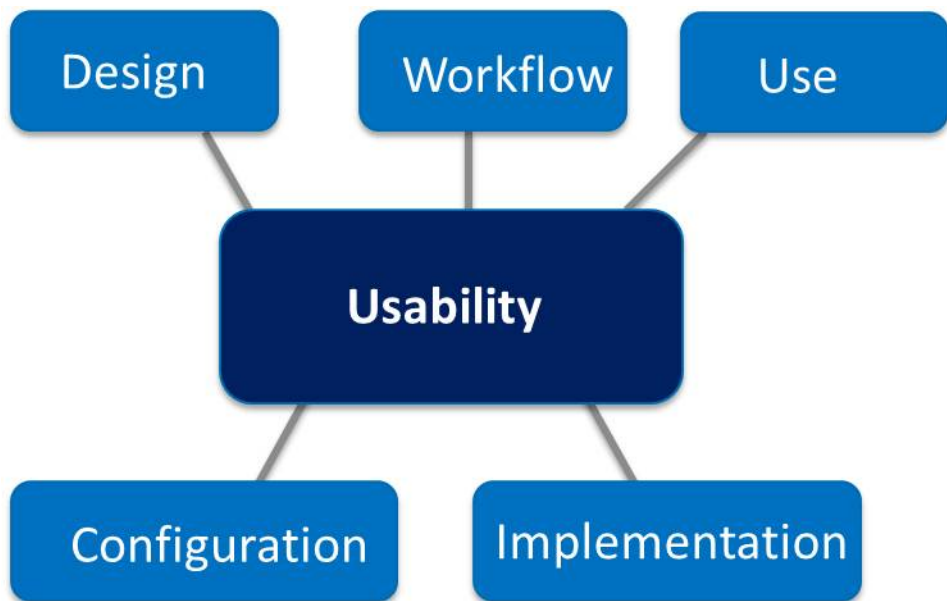
BY ROB WATERS

Ann Cutting for The Pew Charitable Trusts

Multiple facets of usability

Example: Pediatric patient safety

9000 events

1/3 associated with EHR usability

609 reached the patient

Health Affairs:
https://www.healthaffairs.org/doi/abs/10.1377/hlthaff.2018.0699

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- Pew, American Medical Association & MedStar convenings

- Developed 14 rigorous, safety-based test cases

  » Principles for rigor

  » 7 high-priority areas

  » Basic & advanced cases

- Developed safety-focused best practices for providers & vendors

A report from The Pew Charitable Trusts, American Medical Association, & Medstar Health | Aug 2018

Lab Order	Value
MCH	31.2
WBC	7.2
Bands	?
MCHC	33.3

Warning
⚠ Potential drug inter
Revise Rx

Ways to Improve Electronic Health Record Safety

Rigorous testing and establishment of voluntary criteria can protect patients

Practices for EHR developers

Life-cycle stage	Example Practices
Culture of safety	• Enable methods for employees, clinicians to report events • Have dedicated personnel with patient safety credentials
Design and development	• Conduct rigorous testing of high-risk functions • Incorporate user-centered design principles
Acquisition	• Provide clear documentation on EHR features, including safety
Customization and configuration	• Describe configuration-related risks • Document and share known high-risk customizations
Implementation and upgrades	• Assist with safety testing • Commit to providing safety-based maintenance
Training	• Conduct training within the actual setting of use • Offer refresher training after all major system changes

Practices for health care providers

Life-cycle stage	Example Practices
Culture of safety	• Create structure to collect and address safety reports • Enable auto-surveillance
Design and development	• Provide developers opportunity to observe workflows • Allow clinicians to inform safety testing
Acquisition	• Assess and detail clinician needs for developers
Customization and configuration	• Document clear justification for customizations • Develop risk mitigation places
Implementation and upgrades	• Conduct rigorous safety testing on implemented products • Implement upgrades in a timely manner
Training	• Prioritize training • Tailor training to user needs (e.g. simulations)

- Use of best practices and test case scenarios

  » Can be adopted and implemented today

  » Joint Commission can incorporate into its accreditation program

- Incorporation of safety into voluntary criteria for EHRs used in pediatric care

JAMA Pediatrics

VIEWPOINT

Improving Pediatric Electronic Health Record
Usability and Safety Through Certification
Seize the Day

- EHR reporting program

  » ONC's CHPL

  » SAFER Guides

  » Leapfrog test

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For additional questions or information:

Ben Moscovitch
Project Director, Health Information Technology
The Pew Charitable Trusts
bmoscovitch@pewtrusts.org
202.540.6333
@benmoscovitch

@ONC_HealthIT   @HHSONC   HealthIT.gov