

Innovations in Information Technology:

Achieving increased cancer incidence reporting through use of electronic health records (EHRs)

Alena Headd, MSIT, Software Support Analyst
Missouri Cancer Registry and Research Center (MCR-ARC)
Department of Health Management & Informatics, School of Medicine
University of Missouri – Columbia

Presenter Disclosure

The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

No relationships to disclose

Co-authors

- Jeannette Jackson-Thompson, MSPH, PhD
- Iris Zachary, Doctoral Candidate Health Informatics, MS, CTR

Acknowledgments

- This project was funded as part of American Recovery and Reinvestment Act (ARRA) Comparative Effectiveness Research activities through the Centers for Disease Control and Prevention (CDC)
- MCR data collection activities are supported by a Cooperative Agreement between the Missouri Department of Health and Senior Services (DHSS) and the CDC and a Surveillance Contract between DHSS and the University of Missouri (#U58/DP003924-01)

Background

- Cancer not in Stage 1 of MU, but we were hopeful that it would be included in Stage 2 of MU
- Now, cancer is included as one of six options a physician can choose in Stage 2 of MU.

Objectives of Presentation

- Describe steps taken by one CCR to obtain data from physician office EHRs.
- Discuss why use of EHRs can improve reporting of cancer cases to CCR
- Describe two or more challenges facing CCRs as they strive to implement EHR reporting

Methods

- To increase case completeness by obtaining previously unreported cases and treatment information from EHRs, we:
 - Partnered with the Missouri Health Information Technology (MO HIT) Assistance Center

Methods - Continued

- Original Focus
 - non-reporting oncology practices
 - small critical access hospitals (CAH) that report by submitting paper copies of medical records

Methods - Continued

- Work with other state and national organizations
 - to identify and assess options for software that allows secure transfer of encrypted data via the internet

Methods - Continued

- Collaborate with facilities' EHR vendors and CDC software developers to:
 - Export files
 - Develop interfaces and
 - Import, store and process data

Results: Project Participation

- Six clinic/physician offices (C/POs)
 - 3 – completed EHR implementation
 - One has sent test data to CCR
 - 2 – EHR selected but not implemented
 - 1 – EHR implemented but degree unknown

Results: Project Participation

- Three CAHs
 - All have selected EHRs but have not implemented
- Urologist
 - Completed EHR implementation
 - Test data sent to CCR

Results: Project Status

- Story #1:
 - Received test data and subsequent live data from fully-electronic clinic EHR
 - Working with Vendor to update from CCD to a CDA formatted report to ensure full cancer data capture

Results: Project Status

- Story #2:
 - Urologist who had created his own certified EHR
 - Received test data and finalized data elements to be captured in the report
 - Vendor willing to change report formatting to CDA before Stage 2 of MU; expect next testing round in Nov 2012

Challenges - CCR

- Interoperability between software
- EHR vendors to change programming
- Funding cuts resulting in staff deficits and resource availability

Challenges – CCR Continued

- Processing data and internal workflow
 - Storage
 - Consolidation of reports
- Sustainability
 - Convincing C/POs to choose cancer reporting as one of three in Stage 2

Challenges – C/POs

- Required cancer data elements in EHR report
- EHR vendor cooperation
- Cost??

Challenges – EHR Vendors

- Adapting EHR formatting before required for Stage 2 of MU
- Cost of changes to EHR reporting
- EHR Certification and recertification after any update/change

Challenges – EHR Vendors Continued

- Secure transmission and automated triggering of EHR reports
- Similar challenge as CCR in convincing C/PO to choose cancer reporting in Stage 2

Overall Conclusion

- Obtaining C/PO cases through EHR transmissions will reduce potential bias brought about by missed cases (melanoma, prostate, etc.) and offers a feasible **yet challenging** means of obtaining these cases

Overall Conclusion - Continued

- Trying two options:
 - Pros

Trigger Event	Physician Driven
Automated	Physician decides when to send
More data	CCR gets critical data
	Easier to process at CCR

Overall Conclusion - Continued

- Cons

Trigger Event	Physician Driven
May overwhelm CCR	Some detailed data won't be sent

Questions?

- Contact info:
 - Alena Headd, MSIT Software Support Analyst, Missouri Cancer Registry and Research Center, Health Management & Informatics, School of Medicine, University of Missouri Columbia, MO 65211 573-882-7775
headda@health.missouri.edu
<http://mcr.umh.edu>
