

Failure to Adhere to Informatics: Case Study of the Portland Metropolitan Health Information Exchange

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Acknowledgements

- Laverne Snow, University of Utah Biomedical Informatics program
- Jody Pettit, MD and Richard Gibson, MD, PhD
- The students of the Fall, 2007 AMIA-OHSU 10x10 course, who discussed this case in class



Overview

- Introduction
- Case
- Discussion
- Recommendations



Introduction: Success of HIE efforts has been mixed

- Successful
 - Indiana Health Information Exchange (Overhage, 2007)
 - Massachusetts eShare Collaborative (Halamka, 2005)
- Disbanded or not pursued
 - Santa Barbara County Health Exchange (Miller, 2007; Brailer, 2007)
 - Northeastern Pennsylvania (Robinson, 2007)
 - Metropolitan Portland Health Information Exchange (Moody, 2007; Korn, 2007; Conn, 2007)



Informatics research has identified best practices

- AHRQ/Avalere (Rosenfeld, 2006)
 - Strong state leadership and political support
 - Broad stakeholder involvement and early engagement of physicians
 - Short-term “wins” to demonstrate the HIE value proposition
- eHealth Initiative Blueprint (eHI, 2007)
 - Engaging consumers
 - Transforming care delivery
 - Improving population health
 - Aligning financial and other incentives
 - Managing privacy, security, and confidentiality



Case: Metropolitan Portland Health Information Exchange

- **NOTE:** Told from vantage point of an outsider; reconstructed from personal interviews and news media reports
 - Although I had been promoting HIE in Oregon for several years... (Hersh, 2004; Hersh, 2004)



Chronology of case

- In 2006, the Health Data Exchange Leadership Group was formed under the aegis of the Oregon Business Council
 - Tasked with developing a plan for Metropolitan Portland HIE that would then be funded by the health systems and insurers (Moody, 2006)
 - About a half-million dollars was raised to fund the effort
- Mobilization Plan was presented to health systems in May, 2007 but funding declined (Moody, 2007; Korn, 2007; Conn, 2007)
- Plan was released to the public in Nov. 2007 (Davidson, 2007; Moody, 2007)
 - <http://www.q-corp.org/q-corp/default.asp?id=13>



Summary of Mobilization Plan

- Based on economic analysis showing \$3.4 million of investment would yield \$12-20 million per year in savings to health care system (Witter, 2007)
- Plan produced by “tiger team” of four leaders/experts
- One payor (Regence Blue Cross Blue Shield) offered to fund substantial portion, with health systems asked to contribute \$150,000 each



Where did the Mobilization Plan go wrong?

- Closed process without input from other stakeholders and that exacerbated other problems
- Flawed business plan
 - Other payors should have been included
 - Health systems should not be major funders
 - No government or other funding sought



Despite the missteps, there is good that came from this effort

- Detailed financial analysis of benefit from health IT investment in Oregon (Witter, 2007)
 - In \$22B Oregon health sector, investment of \$0.5B in health IT could yield \$1-\$1.3B in savings to system, representing 4.3-5.9% of all expenditures (Moody, 2007)
- Another analysis (unpublished) showing substantial EHR adoption in Oregon (59% of all physicians)
- A plan for action (Davidson, 2007)



Discussion

- Was part of their problem, “failure to adhere to informatics?”
 - Despite paucity of research “results” with HIE, there are best practices associated with efforts that have succeeded (Rosenfeld, 2006; eHI, 2007)
- Could there have been more success with
 - A more open process that included other stakeholders?
 - A business plan that had costs paid by those who would benefit?



This is not the first example of “failure to adhere to informatics”

- Another well-known case study: Increased mortality after CPOE implementation at Children’s Hospital of Pittsburgh (Han, 2005)
 - Mortality rate increased from 2.8% to 6.6%
- Increased mortality not seen at other academic centers (Del Baccaro, 2006; Jacobs, 2006)
- Implementation was flawed; adverse outcome may have been avoided with known “best practices” in informatics (Phibbs, 2005; Sittig, 2006)
 - Orders could not be entered before patient arrival
 - Non-use of order sets
 - Centralization of pharmacy
 - Inadequate wireless network



Implications of “failure to adhere”

- Children’s Hospital of Pittsburgh CPOE problems were not “technical,” but due to inadequate attention to clinical environment and its workflow
- Success of CPOE and other applications is also known to be dependent upon “special people” in organizations (Ash, 2007); can be compromised by “unintended consequences” (Campbell, 2006)
- A related challenge is health care system leaders are not always aware of the benefits of informatics and/or its professional workforce (Hersh, 2006)
 - Human resources (HR) personnel are also often unaware of the benefits of informatics



Recommendations for the future

- The major challenges and barriers to HIT and HIE are usually not technical
- The informatics profession, with its leadership and understanding of technology, health care, and sociotechnical issues is well-qualified to play a leadership role in planning and implementation of HIE
- Our research and educational agendas must reflect the value of informatics that its qualified practitioners can bring
- HIE in Oregon can yet succeed but will need to adhere to best practices demonstrated in places like Indianapolis and Massachusetts

