

Adoption of EHR Systems in Community Health Centers: Lessons Learned and Best Practices

**Oliver Droppers, M.P.H., Sherril Gelmon, Dr. P.H
Siobhan Maty, Ph.D., and Vickie Gates**

**Portland State University
APHA 135th Annual Meeting
November 2007**

Presentation Overview

- Framing the issue
- Research study
- Principal findings
- Benefits/challenges of using electronic health record systems (EHR) in community health centers (CHC)
- Unique aspects of EHR consideration process
- Challenges and promising practices for successful EHR implementation in CHCs

Framing the Issue

- Unique missions and challenging patient populations of safety net clinics
- Considerable resource constraints
- Turbulent and unstable environment
- EHRs in community health centers are new trend
- EHR long-term viability/sustainability uncertain

Potential of EHRs in CHCs

- Enhance coordination and integration of services
- Increase organizational efficiencies
- Improve quality of health care services
- Improve population health management
- Establish comprehensive data repositories for assessment, reporting and research purposes

Research Objectives

- Investigate and improve understanding of unique and complex organizational barriers and challenges to EHR adoption in CHCs
- Identify key factors, challenges and best practices for successful EHR implementation in CHCs
- Identify potential benefits and challenges of using an EHR in a CHC

Research Study Design

- Identified existing models/methods for evaluation and application
- Built knowledge among evaluation team
- Created evaluation framework based upon best or promising practices
- Developed community-responsive collaborative data collection strategies and dissemination methods

Population Studied

- Three federally qualified community-based health centers:
 - Two operated by county health department
 - One non-county affiliated stand alone health center
- Centers serve diverse medically uninsured and underserved populations in the metropolitan area of Portland, OR
- County health department sites adopted EHR
- Non-county CHC engaged in pre-EHR adoption decision-making stage

Principal Findings: Challenges

- EHR has significant impact on staff and providers
- Use among certain provider groups “problematic”
- Provider-patient interaction changes
- Need ongoing and continuous training and IT support
- Regular modifications required to respond to specific needs and patient populations at CHCs

Principal Findings: Benefits

- Improved quality of patient care
- Increased ease in accessibility and reliability of patients' medical records
- Improved legibility, decreased errors
- Improved processes for internal communications, patient follow-up, tracking events, patient referrals, ordering and accessibility of lab results
- Overall positive impact for patients, staff and providers

Principal Findings: Decision-Making Process

- Thoroughly consider organizational vision and mission
 - “Do we need an EHR; if so, why?”
- Engage and address staff concerns, expectations
 - Value staff feedback
- Develop capacity for vendor and product selection, negotiation, and assessment of ongoing vendor costs
- Create sound financial strategy
 - Initial and long-term costs
- Understand complexities of information exchange
 - Internally and with external stakeholders and community partners

Promising Practices for Successful EHR Adoption

- Strong organizational infrastructure
- Committed administrative and clinical leadership
- Existence of clear strategic implementation plan
- Carefully redesigned organizational processes and workflows
- Comprehensive training of staff prior to, during, and after implementation
- Adequate end-user IT support
- Ability to respond and adapt rapidly to barriers and changes – EHR adoption is a perpetual process

For Further Information

- Oliver Droppers, Graduate Research Assistant, Portland State University, odropper@pdx.edu
- Sherril Gelmon, Professor of Public Health, Portland State University, gelmons@pdx.edu

Supported by the Kaiser Permanente Community Fund
and the Northwest Health Foundation