Lessons Learned in Selection/Implementation of EHRs and Informatics Tools

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• School of Dentistry
• Medical School
• School of Nursing *
• College of Pharmacy
• School of Public Health *
• College of Veterinary Medicine

Institute for Health Informatics *
Informatics – School of Nursing

- Bachelor of Science in Nursing (BSN) Program
- Master of Nursing (MN) Program
- PhD Program
- Doctor of Nursing Practice Program
  - 13 Specialties – includes Nursing Informatics
- Leadership in Health Information Technology for Health Professionals Certificate
Interprofessional Informatics Education

• UMN - Coordinating Center for Interprofessional Education and Collaborative Practice
Adopt (Assess, Plan, Select)

• Key functions of EHR
• EHR use, documentation, communication, and professionalism skills for patient care
• EHR to support interprofessional patient care and teamwork
• Include the re-use of data for research
Needs Assessment

• Needs assessment of key faculty across programs & health system (using Epic)
• Learners – level, number
• Competencies – what is taught, when, specific competencies
• Classes – schedules, delivery method
• Existing resources (health system partner)
• Hardware, support, costs
• Competing priorities
Where to Begin
Plan

• Know the fit
  – Timing
  – Courses and competencies
  – Faculty/student training
    • Baby steps
  – Specific assignments

• Faculty champion

• Support team
Select

- Requirements
  - “Show me” – clear requirements

- Use by other academic centers
  - Patients, use cases, reset database (?)

- Negotiating and contracting
  - Purchase cost and process
Select

- NURS5115 Interprofessional Health Informatics
  - Nightingale Notes (EHR)
- Informatics specialty courses
  - NURS7108 Population Health Informatics
    - Nightingale Notes
  - NURS7113/NURS7114 Clinical Decision Support
    - Applied Pathways
    - Start up company’s EHR
- Goal is to pilot – then offer more widely
IMPLEMENT
Nightingale Notes

• Community-based EHR
  – Integration of standardized language (Omaha System) in a community-based EHR
  – Evaluation the usability of EHR software by conducting a small-scale usability study
  – Visualization and interpretation data

Generalist –
  – Design -> documentation -> secondary use of data

Informatics Specialist – Population Health Informatics
  – Design -> documentation -> secondary use of data
CDS applied pathways
Visual Care Pathways™ Editor
Precise list of operations performed in specific order

- Process designed in flowchart format
- Component icons are abstractions of XML based rules
- Each icon is defined as a unique, re-usable, extensible “asset”

Properties Editor
Define and embed component attributes:
- Content & format
- Concept & label
- Index & classify
- Industry codes
- References
- Embedded Media
- Version control
iCare Academic EHR (start-up)

• Clinical Decision Support Practicum
• Systems requirements for evidence-based practice guidelines linked to an interface and HIE terminology (CCC and SNOMED CT)
• Systems analysis & Design - Analyze current system, principles of system design, own experience, design workflow
• Evidence-based practice (knowledge source)
• Terminology mapping to EBP guidelines
• Usability testing
Summary

• Approach – big bang or incremental
• Requirements and all costs
• Champion and fit with learning objectives
• Next steps
  – Effective use
  – Exchange - future