Building an Education Program to Support the Demand for Qualified Health I.T. Professionals

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Introduction
The rapid adoption of standardized electronic medical records in clinical settings has created a demand for individuals with expertise in clinical health practices and Information Technology. High demand, high wage job opportunities are available for individuals entering the field with these interdisciplinary skills. Faculty members from the Applied Computing & Electronics and Health Professions Departments at UM have partnered with clinicians from regional health facilities and faculty members from the Department of Healthcare Informatics at Montana Tech in designing a cross-curricular program for educating individuals to support IT in clinical settings. This poster session will describe our progress in creating a new program of study and describe our successes and challenges at UM in educating individuals for careers in Health Information Technology.

What is Health IT?
- Devices – ergonomics and information
- Electronic Medical Record (EMR) and Electronic Health Record (EHR)
- Database - Security/Access/Maintenance
- Patient Care - Safety, Quality, Access
- Healthcare Workers: Physicians, Nurses, Pharmacists, Radiologists, etc.
- Research – Improve patient care, patient outcomes, use qualitative data

Benefits of Health IT
- Improve health care quality
- Continuity of care across the healthcare continuum
- Prevent medical errors
- Reduce health care costs
- Increase administrative efficiencies
- Decrease paperwork
- Expand access to affordable care.

Figure 1. Categorization of Healthcare Information Systems

Issue: Healthcare Worker – Limited Computer Skills

Figure 4. MUS Comparison: Two-Year Health Professions degrees requiring at least one computing course

Issue: IT/CS Technician – Understanding Healthcare

Opportunity: Montana Jobs
91% of Montana Hospitals report having hired or will be hiring 1-4 new employees in Health IT over the next two years (n=22 participants)

Opportunity: Department of Labor Employment Projections
2013 Projected Job National Openings

Figure 2. DOL Job Opportunities

Progress Report: Hospital Self-Assessment
77% of Montana Hospitals report being on-track or ahead in meeting 2015 HITechnology deadline (n=22 participants)

Figure 3. Percent of Hospitals on-track or ahead in meeting 2015 HITechnology deadline

The Office of the National Coordinator (ONC) for Health IT is the principal Federal entity charged with coordination of nationwide efforts to implement and use the most advanced health information technology and the electronic exchange of health information.

ONC Workforce Roles
(for community college training and education programs)
1. Practice workflow and information management redesign specialist
   Workers in this role assist in reorganizing the work of a provider to take full advantage of the features of IT in pursuit of meaningful use of health IT to improve health and care. Individuals in this role may have backgrounds in health care (for example, as a practice administrator) or in information technology, but are not licensed clinical professionals.

2. Clinician/practitioner consultant
   This role is similar to the "redesign specialist" role listed above but brings to bear the background and experience of a licensed clinical and professional or public health professional.

3. Implementation support specialist
   Workers in this role provide on-site user support for the period of time before and during implementation of health IT systems in clinical and public health settings. The previous background of workers in this role includes information technology or information management.

4. Implementation manager
   Workers in this role maintain systems in clinical and public health settings, including patching and upgrading of software. The previous background of workers in this role includes information technology or information management.

5. Technical/software support staff
   Workers in this role maintain systems in clinical and public health settings, including patching and upgrading of software. The previous background of workers in this role includes information technology or information management.

6. Trainer
   Workers in this role design and deliver training programs, using adult learning principles, to employees in clinical and public health settings. The previous background of workers in this role includes experience as a health professional or health information management specialist. Experience as a trainer in the classroom is also desired.

Flexible Education and Training

Partnerships
- Community Medical Center
- Local Advisory Board
- Office for the National Coordinator for Health IT (ONC)
- UM – Department of Applied Computing & Electronics
- UM – Department of Health Professions
- UM - Montana Tech Department of Healthcare Informatics

Literature Cited