Background

Ontology-based Research
- an emerging eHealth specialty
- enabled by structured data
- resulting from the rational codification and representation of healthcare knowledge.

Omaha System Partnership
- first practice-based research network that leverages the power of ontologically structured healthcare data

Ontology for Population Health

Omaha System Partnership For Knowledge Discovery and Health Care Quality
Karen A. Monsen, RN, PhD, FAAN¹, Kathryn H. Bowles, RN, PhD, FAAN, FACMI², Semra Erdoğan, PhD³, Karen S. Martin, RN, MSN, FAAN⁴
¹University of Minnesota, Minneapolis, Minnesota, USA; ²University of Pennsylvania, Philadelphia, Pennsylvania, USA; ³University of Istanbul, Istanbul, Turkey; ⁴Martin Associates, Omaha, Nebraska, USA

University of Minnesota - School of Nursing - Center for Nursing Informatics

Community of Practice

Multidisciplinary scientific teams of researchers with experience in advanced data analysis and data mining techniques
- University of Minnesota
- University of Pennsylvania
- University of Istanbul

Affiliate members from many countries and organizations who
- contribute clinical Omaha System data
- suggest important clinical questions and work together with the scientific team on research and evaluation projects

Studies are conducted using de-identified Omaha System data from primary care, acute care, and community settings including
- client problems
- signs/symptoms
- interventions
- knowledge, behavior, and status outcomes

Studies - Investigators - Methods

There are 54 studies completed or in-progress
Supported by our Universities, NIH, NSF, foundations, industry, and private donors

Ontology-based research using the Omaha System enables rational investigation of healthcare interventions and outcomes across settings and populations.

Results of Recent Projects

Factors Associated with Variation in Knowledge Benchmark Attainment Chatterjee, S., Monsen, K. A.

Frequency and Duration of Acute Care Nursing Interventions on a Postoperative Surgical Unit Fratzke, J., Motto-Meaux, G., & Monsen, K. A.

Visualization of Client Characteristics Kim, E., Monsen, K. A., & Peczekiewicz, D.

Conclusions

Practice-based research networks enable community participation in program evaluation and research.

Selected Publications