Background & Objective

- Clinical Decision Support Systems (CDSS) are part of Meaningful Use incentives because of their potential to improve quality [2]
- CDSS have improved clinical processes [3-6], but their use has not resulted in improvements in primary care [7-12]
- CDSS have not improved primary care appreciably due to:
  - Poor integration to primary care workflow, specifically variability and time constraints [15 - 18]
  - Lack required functionality in [19], focus on specialty care [20-23]
  - CDSS for primary care focused on physicians [4,7,11,25,26]

Objective: Develop theoretical framework to address primary care information interaction to better support CDSS design and development for primary care.

Research Questions
1. How do primary care clinicians interact with information as they make decisions at the point-of-care?
2. What factors influence primary care clinicians’ point-of-care information interactions?

Methods

- Use “best fit” framework synthesis method [36,37] to construct model based on empirical findings [38-40]
- Theoretical Literature: “BEHMoTh” (Behavior of Interest, Health Context, Exclusions and Models or Theories) [38]
- Empirical Literature: “SPIDER” (Sample, Phenomenon of Interest, Design, Evaluation, and Research) [38]

Analysis
1. Terms concerning: 1) information interaction and 2) primary care providers (e.g., PCPs, NPs, and PAs) or settings
2. Two authors (TV, CS) reviewed articles according to inclusion and exclusion criteria.
3. Data abstraction and content analysis of published papers was used to create a model in which every element was supported by empirical research

Results: Comprehensive Model – CIIM

- Complete process of information interaction in Primary Care

Three Parts
1. Context
2. Activity (usual and contingent)
   - For parts 1 & 2 shaded boxes are usual parts, non-shaded boxes are contingent components (i.e. circumstantial)
   - Boxes numbered sequentially
3. Influence - Line #s link relationships to sources of influence

Implications
1. CIIM depicts information interactions previously difficult to discern
2. CIIM suggests helpful functionality for CDSS to support primary care – enabling enhanced focus on information processing and use.
3. The CIIM also documents the role of influence in clinical information interaction, which may affect the success of CDSS implementations

References in Paper:

Tiffany Veinot1, PhD    Charles Senteio2, PhD    David Hanauer3, MD    Julie C. Lowery4, PhD
1University of Michigan School of Information, 2Rutgers University School of Communication and Information, 3University of Michigan Medical School, 4VA Center for Clinical Management Research