Why, How, What, and “So What!”
Developing Clinical Informatics Tools for Determined Skeptics

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Overview

- **Why** – strengths and weaknesses of informatics
- **How** – role of implementation science methods
- **What** – demonstrate the template/modules
- **“So What!”** – how EHR provides value

Why informatics?

Versus traditional CME / in person education (for example)...
- Scalable
- Standardizable
- Low marginal cost
- Unique attributes
  - Aggregate prior information, use in point of care application, multi-platform flexibility, create ‘system memory’

Why not informatics?

- Clunky technical limitations
- System policy barriers
  - e.g., prohibition on wireless network interoperability (security and privacy)
- Clinicians lack required expertise
- Users ‘cultural distaste’ and bad prior experiences
- Implementation is not automatic

So forge ahead, if...

- Personal commitment and creativity
- Strong technical skills or allies
- Leadership and line enthusiasm
- Sufficient resources ($$$ but also TIME!) for the journey
- SKILLS! (in methods!)
  - Where can you acquire skills?

Types of informatics tools

- Documentation tools
  - Templates
- Decision aids
  - Reminders and order sets
- Provider education tools
  - Education libraries
- Patient education and activation
  - Outpatient kiosks
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Know your own system

- Why are you developing a tool?
- Can you envision a report your tool could provide?
- Who are your stakeholders?
- What are your resources?

How to facilitate success

- Many well-intentioned solutions fail to translate into clinical practice
- Informatics solutions are especially at risk
- Attention to context can facilitate adoption and use
  - Clinical setting and processes
  - Clinician needs and preferences
- Multidisciplinary participatory approach
- Make your business case

How NOT to facilitate success

- Top-down approach
- Off-the-shelf solutions
- Limited stakeholder involvement
- Research over operations
- Neglecting end-user needs
- Overlooking routine processes and workflow

Implementation Science Framework

- 5-step QUERI model
  - 4-phase pipeline
- Goals:
  - Rapid effective translation of research findings into clinical practice (i.e. improvement program)
  - Optimal implementation process and strategy
  - Widespread adoption and use

Implementation Science Methods

- Stakeholder panel
- End-user interviews and focus groups
- Site diagnosis
- Workflow observation
- Iterative evaluation
  - Formative
  - Process
  - Summative

SCREEN SHOT of PC-NCT
SCREEN SHOT of Symptom Module

SCREEN SHOT of PPS Module

SCREEN SHOT of PPS (Continued)

SCREEN SHOT of PPS (Continued)

SCREEN SHOT of Care Planning Module

SCREEN SHOT of Assessment & Recommendations Module
SCREEN SHOT of Workload Module

“So What!?“ How EHR Provides Value

- **Education**: Provides opportunity to teach housestaff and inexperienced staff what’s involved in consultation
- **Standardization**: Provides opportunity to encourage critical aspects of care and documentation of consultation
- **Program development & reporting**: Provides mechanism to capture and track basic descriptives and processes of care
- **Quality Improvement**: Gives facilities opportunity to improve quality at the bedside using the data collected from the PC-NCT

Future Projects:
Follow up progress note template

- Interviewed providers (SOAP)
- Reviewed templates currently in use
- Developed a prototype
- Circulated prototype
- Limited data capture to symptoms and ACP

Future Projects:
Family Meeting Template

- Based on robust VISN 3 example
- Literature review for existing tools
- Collaboration with proponents of EHR tools for capturing key data related to family meetings (Ethics committee, current template users)
- Interviews with providers
- Development of a prototype

Challenges: Lessons Learned

- Brevity versus completeness
- Inherent limitations of CPRS
- Academic versus non academic sites
- Training
- Data capture