Linking Informaticians and End Users - using the STARE-HI Evaluation Reporting Framework as a Unifying Design Approach

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Current Tensions

• Health Informaticians and End Users (healthcare professionals) have shared objectives
  – Improved care delivery
  – Better citizen health
• However, often there is strong tension
• Little opportunity to share values
• STARE-HI may provide this
STARE-HI Standards

- **Statement on Reporting of Evaluations of Health Informatics**
- Adopted by International Medical Informatics Association - 2008
- Published in International Journal of Medical Informatics – January 2009
- Published on EQUATOR Website, alongside
  - CONSORT: reporting of RCTs
  - QUOROM: reporting of meta-analyses
Ethics and Accountability

• Health Care Professionals (HCP)
  – Strong codes of ethics
  – Personal accountability; livelihood at risk

• Health Informaticians
  – IMIA has code; little awareness
  – Promotes accountability to patient, not HCP

• Health Organisations
  – Seldom have own ethical code
  – Legislative and business environment
Evidence and Stakes

• Health Care Professional
  – Must use sound evidence
  – Personal liability for sub-optimal outcome

• Health Informatician
  – Wants system to work

• Health Organisation
  – Wants efficiency, reliability, secondary data

• Evidence
  – Informatics is the only health intervention not requiring sound evidence before use
Rationale for Evaluation

- Healthcare should be Evidence-based
- New treatments must be evidence-based
- New prostheses and clinical technology must be evidence-based
- Health Informatics affects patients and professionals, and should use the same evidence standards.
- This would also bring ethical equity to informaticians and clinicians
STARE-HI Principles

1. Title
2. Abstract
3. Key Words
4. Introduction
5. Study Context
6. Methods
7. Results
8. Discussion
9. Conclusion
10. Authors’ Contribution
11. Competing Interests
12. Acknowledgements
13. References
14. Appendices
STARE-HI - A

1. Title
2. Abstract
3. Key Words
4. Introduction
   1. Scientific background
   2. Rationale for the study
   3. Objectives of study
5. Study Context
   1. Organizational setting
   2. System details and system in use

6. Methods
   1. Study design
   2. Theoretical background
   3. Participants
   4. Study flow
   5. Outcome measures or evaluation criteria
   6. Methods for data acquisition and measurement
   7. Methods for data analysis
STARE-HI - C

7. Results
   1. Baseline data
   2. Unexpected events during the study
   3. Study findings and outcome data
   4. Unexpected observations

8. Discussion
   1. Answers to study questions
   2. Strengths and weaknesses of the study
   3. Results in relation to other studies
   4. Meaning and generalisability of the study
   5. Unanswered and new questions
9. Conclusion
10. Authors’ Contribution
11. Competing Interests
12. Acknowledgements
13. References
14. Appendices
Key Attributes

• Identical to clinical intervention values
• Equally scientific approach
• Objective evidence, not policy hope or marketing claim
• Health Informatics matures to a scientific discipline
• Provides response to negative obstruction
Comparable Evidence Standards

- **EQUATOR Standards**, including
  - CONSORT: reporting of RCTs
  - QUOROM: reporting of meta-analyses
  - STARD: reporting of diagnostic studies
  - STARE-HI: Health Informatics evaluations

Health Informatics should offer no less
Inter-Professional Benefits

• Makes Health Informatics an ethical science
• HCPs can see objective evidence
• Claimed disadvantages proved and remedied, or disproved
• Puts evidence ahead of business gain
• Puts Health Informaticians and HCPs on equal footing – applying responsible, evidence-based interventions
Conclusion

• Health Informatics should apply health evidence standards
• Health Informaticians should accept accountability, and seek STARE-HI standards of evidence
• This would reassure patients
• It would put health informaticians on same standing as HCPs.
• Essential for maturity of Health Informatics