

Overarching Aim: To develop and test new models for the use of ICT to support work practice innovation which produce improvements in the efficiency, effectiveness and sustainability of the health system

ICT interventions

A. Computerised provider order entry – implemented in some sites*

B. Electronic health record system – new system under design

C. Emergency medicine information system - implemented in many sites
(All sites within SSWAHS)

Methods

Study designs: Before and after, case studies, longitudinal studies

Assessment techniques: 1) Direct observations 2) Video observations 3) Interviews 4) Team Climate Inventory 5) Organisational Culture Inventory 6) Work Observation Method by Activity Timing 7) Document analyses 8) Productivity indicators 9) Effectiveness and safety indicators 10) Efficiency indicators 11) Cost indicators

Objective 1. Investigate, measure and analyse ICT-supported work innovation focusing on changes in:

- i) Professionals' roles & responsibilities
- ii) Integration of best practice into routine care
- iii) Safe care practices eg changes in error rates
- iv) Team-based care delivery
- v) Active involvement of consumers in care

Objective 2. Determine factors which enable or inhibit ICT-supported work innovation including roles of:

- vi) Team climate
- vii) Organisational culture
- viii) Social & information networks
- ix) Governance structures
- x) Technical system features

Objective 3. Measure impact of ICT-supported work innovation on indicators of:

- xi) Organisational productivity
- xii) Effectiveness and safety
- xiii) Efficiency
- xiv) Cost

Objective 4. Develop and test new models for the use of ICT to support innovative work practice change

Outcomes

1. Evidence from detailed studies of how three large-scale ICT systems support work-practice innovation
2. Identification of factors which enable or inhibit ICT-supported work innovation
3. Quantification of the effects of work practice change on a range of productivity, effectiveness, efficiency and cost indicators
4. Empirically tested models for the use of ICT to support work practice innovation applicable for multiple service types and settings
5. Extended multi-method ICT evaluation model for measuring ICT-supported work innovation applicable to both the health and other industry sectors.