Models of collaborative clinical research: A state-wide story
Adelaide, South Australia

- Capital city of South Australia
- Population of over 1.2 million
- Attractive well-planned, ‘clean and green’ city
- Friendly and safe city
- Multicultural
- Mediterranean climate
North Terrace Campus
Outline of presentation

A State wide approach to whole system improvement
- The ‘burning platform’
- The clinical champions
- The implementation
- The evaluation

Generating and Testing a KT/Translational Science Model
- The theoretical development and testing

One emerging example of a Transdisciplinary Research Program
- The CRE in Frailty and Healthy Ageing
South Australian Health and Medical Research Institute (SAHMRI)
Adelaide Health and Medical Sciences Building
Transforming Health Evaluation
Transforming Health Evaluation Pathways

Business Case
- Triple aim
  - Patient-centred
  - Better health
  - Better value
- Issues
  - Too many transfers
  - Insufficient training
  - Staff retention
  - Long wait for discharge
  - High level cancellations for elective surgery
  - Unavailable senior clinicians
  - Unable to meet standards & health roundtable
  - Too many mortalities
  - Too many procedures
  - Financially unsustainable

Strategic Inputs
- Consumers, carers, patients & family
- Health service organisations & stakeholders
- SA Health Staff - DHA & LHGs
- South Australian community
- 284 Clinical Standards of care & 6 Quality Principles
- Clinical leadership
- International & National benchmarks:
  - Safety & quality
  - Financial expenditure
  - Clinical variation
  - Population health needs
- Electronic patient administration system (EPAS)
- Financial investment & capital works

Activities
- Consumer and Stakeholder Engagement
- Workforce development, capacity & allocation
- Teaching, Training and Research
- Internal and External Communications
- Statewide Models of Care
- Metro Hospital activity reconfiguration
- Metro Hospital redevelopment & upgrades
- Integrated data systems
- Operational system improvements
- Government frameworks

Outputs
- Patients and Families actively involved in care
- Staff Engagement
  - Health system mindset & behaviour change
  - Staff movements & retraining
  - Statewide leadership program
- Clinical Pathways
  - Stroke
  - Rehabilitation Services
  - Acute Coronary Syndrome
  - Orthopedics acute management hip fractures
- Service Movement and Activity Reconfiguration
  - Intra-LHN activity transfers
  - Intra-LHN activity transfers
  - Demand management strategies
  - Effective surgery Improvement strategy
  - Improved mental health services
  - 7 day access to allied health services
  - Operational policy work to improve patient flow
  - 24/7 access to diagnostics & imaging at required sites
- System Change
  - Leadership
  - Governance networks & strategies
  - Policies and policy framework

Short & Medium-term Outcomes
- Improved Patient Experience
  - Patient-centred, safe, accessible, efficient, timely, effective & equitable provision of Adelaide public hospital care
- Staff Engagement
  - A workforce that is fit for purpose, agile, motivated and mobile
  - Leadership behaviour that enhances opportunity for cross-unit and inter-disciplinary collaboration
- Clinical Improvement
  - Standardised hospital mortality rates
  - Standardised hospital length of stay
  - Standardised hospital capacity
  - Improved efficiency
  - Less safety incidents
- System Improvement
  - Evidence based practice
  - Knowledge translation
  - Compliance with care pathways
  - Integrated System (public, private, primary and acute care)

Long-term Outcomes
- I. Improved Population Health Outcomes
  - Getting better health outcomes for all patients including Closing the Gap for Aboriginal health outcomes
- II. Meeting National Standards
  - Meeting clinical standards of care
  - Meeting International and National Benchmarks
  - National alignment for procedure numbers
- III. Improved Staff Engagement
  - Strong partnership between government and university sectors in relation to workforce planning and development, training, knowledge generation and implementation
  - Innovation and inquiry are embedded in workplace culture fostering continuous quality improvement
- IV. Financially sustainable healthcare system
  - Better value
  - Decreased cost to State budget

Assumptions: 1. Data is used to improve practice: people know how to access and implement/apply data to improve practice. 2. People have the power and authority to act based on information and timely communication. 3. There is term-based collaborative behaviour. 4. Metropolitan and country hospitals have interdependencies. 5. The hospital system has interdependencies with public health/nursing terms of health promotion, protection and prevention.

Scope: The TH Evaluation Working Group will prioritise and select key areas for evaluation in the first 12 months of operation. Version: 3 March 2017
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The KT Map for managing obesity: from K to P
KT Complexity Network

PI  Problem Identification
KC  Knowledge Creation
KS  Knowledge Synthesis
I   Implementation
E   Evaluation

- Community
- Health
- Government
- Education
- Research

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South Australia Population Projections (medium scenario)

- 2011:
  - 0 - 14 yrs: 262k, +16% (+48,000)
  - 15 - 64 yrs: 291k
  - 65+ yrs: 1,087k

- 2041:
  - 0 - 14 yrs: 473k
  - 15 - 64 yrs: 338k, +15% (+162,000)
  - 65+ yrs: 1,249k, +81% (+211,000)
Co-creating KT (Co-KT) Framework

**STEP 1**
INITIAL CONTACT AND REFINING THE ISSUE

**STEP 2**
KNOWLEDGEREFINING AND TESTING

**STEP 3**
KNOWLEDGE INTERPRETING, CONTEXTUALISING AND ADAPTING

**STEP 4**
IMPLEMENTATION AND EVALUATION

**STEP 5**
EMBEDDING IN CONTEXT, TRANSLATING TO OTHER CONTEXTS

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**STUDY CONTEXT**
This context may be defined by its geography, by organisation, population group, profession, or service type.

This context is the site and source of local information that is the basis for local evidence for service and healthcare improvements.

This context is engaged and involved in each stage of the knowledge creation journey.

**RESEARCHER CONTEXT**
This context is the site of information synthesis and refinement leading to knowledge generation, testing, and formalisation.

This context designs, facilitates and structures exchange processes.

This context ensures consistency and transparency between theory, methodology and method.

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**Identify & map frailty burden**

**Develop new economic model**

**Identify risk earlier in community**

**Model for frailty interventions**

*Powell et al., 2013*
Perceptions of Frailty & Screening

**Consumer Groups**
- 7 focus groups
- Well, pre-frail, frail older adults

**Orthopedic Surgeons**
- 15 in-person & telephone interviews

**ED Physicians**
- 15-20 individual interviews

**General Practitioners**
- 3 focus groups
- Junior, senior, urban/rural

**Practice Nurses**
- 15-20 individual interviews

Cross-study** comparison
## Interventions, Syntheses & Acceptability

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<th>Experiences of Frailty</th>
<th>Data interpretation &amp; Intervention identification &amp; Implementation</th>
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<td>• Systematic Review &amp; Metasynthesis</td>
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<td>• Interpretive integration with f/g data</td>
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<tr>
<th>Scoping Review of Creative Engagement and Exchange Activities</th>
<th>Guide dissemination &amp; future knowledge exchange activities</th>
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<td>• How is art used to communicate about, and engage frail older adults about research?</td>
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<th>Ongoing SR’s within CRE</th>
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<th>Exercise Interventions</th>
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Public Awareness & Engagement: Arts-Based Data Collection & Knowledge Translation

Stream 1: Artist Based Interpretations of Research Data (Dr. Mandy Archibald & John Blines)

Stream 2: Arts-based data collection (consumer groups, CRE researchers)

Stream 3: Arts-based Dissemination Project
  e.g., Communicating trajectories of frailty: A performance & visual arts collaborative
  e.g., Dual artist in residency program
Transdisciplinary Research Program embedded in CRE methodology.
Archibald, Harvey & Kitson (in progress). A Realist Evaluation of Transdisciplinary Research Collaboration on Knowledge Translation Understandings and Behaviors: Study Protocol
Conclusion: we’re all in this together....