A Data Laboratory for Health Services and Population Health Research

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What I Plan to Cover

Outline:

1. Background on the Research Centre for Clinical and Community Practice Innovation (RCCPI) at Griffith University

2. The Health Outcomes Laboratory for Data (HOLD) Project Objective

3. Underlying Standards Implemented for HOLD

4. Publication Outputs - Research Data Collections

5. Workflows for Data Capture in Different Online Environments

6. Collaborative Tools Implementation

7. Lessons Learned
About RCCCPI

The Research Centre for Clinical and Community Practice Innovation:

- Members consist of researchers from nursing, social work, human services, rehabilitation, psychology, physiotherapy, pharmacy and public health.

- RCCCPI’s aim is to transform health and community services via the development of collaborative, innovative and sustainable models of care and frameworks for practice among service providers and individuals, families and communities.

About RCCCPI Continued

- The Centre has over fifty researchers involved in Centre activities spread over three Griffith campuses (Nathan, Logan and the Gold Coast)

- There are ongoing external collaborators with staff from a number of other Universities in Australia and overseas as well as with staff in the QLD Department of Health

- Researchers are actively involved in the capture and collection of important research data assets consisting of survey data, interviews, GIS mapping data, biophysical resources (CTScans, blood samples) and health statistical data
RCCCPI Staff and Data Management

RCCCPI assigned data management roles to key staff that were currently involved in data organisation for research projects.

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The Health Outcomes Laboratory for Data (HOLD) Project

What jumpstarted the project initiative?

• The expansion of the Centre in 2008

• The realisation that better data management and online collaborative practices would improve their research efficiencies

• Researchers are spread across three campuses and the participation with external collaborators demanded more sophisticated solutions for working together, anytime and anywhere

• The Centre applied for a grant to establish an improved infrastructure and applications for data mgmt & online collaboration

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Grant details:

• An infrastructure grant was submitted in November 2008

• The grant was awarded by the Griffith University Research Infrastructure Program (GURIP)

• It was submitted by RCCCPI and Research Computing Services were involved in the process. RCS provided content for the technical and budgetary requirements.

• The grant application and project initiative had sound endorsement and participation from key RCCCPI stakeholders

Project objective in a nutshell...

• Link datasets in a meaningful and useable way to increase research capacity

• Provide quality assurance through feedback to data providers and researchers

• Provide a coordinated single point of access to health-related data

• Facilitate population and health services research based on sound data

• Facilitate collaboration between health, social and urban planning researchers and with partner investigators and policy-makers
The Health Outcomes Laboratory for Data (HOLD) Project - Standards Used

- An established taxonomy for research data collection
- A taxonomy that incorporated familiar research themes by categories known to RCCCPI researchers
- Controlled vocabulary established using the NHMRC Fields of Research
- Open standard formats are included for stored data formats
- Mandatory metadata capture for the most important fields (title, description, resource type and research theme) in RCCCPI research data mgmt collections

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The Health Outcomes Laboratory for Data (HOLD) Project - Standards Implementation

RCCCPI folder hierarchy including main categories for Population, Settings and Resource Categories.

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The Health Outcomes Laboratory for Data (HOLD) Project - Standards Implementation

Browse by sub-topic helps researchers locate relevant content when they don't have specific terms to search.

The Health Outcomes Laboratory for Data (HOLD) Project – Publication Outputs

EQUELLA – Research Data Management Centre at Griffith University
http://equella.rcs.griffith.edu.au/research/
Griffith users login using their staff registration number and central Griffith password.

Some of the Available Collections:

• RCCCPI Public Collection - “Clinical and Community Practice Innovation”
• RCCCPI Private Collection – “GARP Unit”
• RCCCPI Private Collection – “Acute and Critical Care Unit”
• RCCCPI Private Collection - Nutrition
• RCCCPI Private Collection - Women and Family
Data Management Policy:

• Only finalized research related data should be contributed to the RCCCPI collections

• Data management lifecycle includes all aspects of creating, housing, delivering, maintaining and retiring research data

• Specific users, groups and roles maintain data integrity and security of the collections
The Health Outcomes Laboratory for Data (HOLD) Project - Publication Outputs

Research Data Management Centre - Power Search Interface

Research Data Management Centre - Power Search Interface's Additional Fields

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Workflows for collaborative (pre-published) and final (published) publication outputs:

- Formal recommendations for facilitating the workflow of pre-published and published electronic content produced by RCCCPI and affiliated researchers were established by eResearch Specialist.

- The pre-published workflow enables researchers to collaborate more effectively, re-use research data and migrate their research data to a published domain environment.

- The workflow for published content includes a formal approval process for final research data.

Pre-published, collaborative environment:
The Health Outcomes Laboratory for Data (HOLD) Project - Workflows

Formal workflow and protocol for final, published content:

1. Researcher publishes content to the collaborative environment

Content is checked in and published.
The Health Outcomes Laboratory for Data (HOLD) Project - A Collaborative Workflow in Action

2. A notification is sent to members alerting them about the new content

3. A member reviews the content and publishes her revisions
4. A member notifies others about the content she modified.

5. Those notified review content and make modifications, where applicable.
The Health Outcomes Laboratory for Data (HOLD) Project - Collaboration Tools

•Whiteboards

•Polling Devices

•Videoconferencing

Video conferencing and interactive whiteboards:

• Video conference equipment and the EVO desktop solution were acquired to assist in cross campus and inter-University collaboration.

• Interactive whiteboards (Promethean) were acquired and set up with videoconferencing equipment to allow for more productive collaboration.

• ActivExpressions (polling devices) which can help researchers survey via the Activboards or out in the field via the ActivHub connected to their own laptop.

• Training on the effective use of the programs were held at all campuses and arranged by the HOLD Project Manager.
The Health Outcomes Laboratory for Data (HOLD) Project - Collaboration Tools

A researcher logging on EVO for a video conference.

Stephanie

Ready, set, go from Logan.

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The Health Outcomes Laboratory for Data (HOLD) Project - Collaboration Tools

Another researcher participating in the EVO video conference.

Sally

Via Interactive Whiteboard from the Gold Coast

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The polling devices help researchers survey via the Activboards or out in the field via the ActivHub connected to their own laptop.

The Health Outcomes Laboratory for Data (HOLD) Project - Lessons Learned

Successes:

Comments from RCCCPI stakeholders:

• Group communication was timely and informative

• Staff workshops were informative and relevant

• Uptake of Equella was effective - the workshops conducted were thorough and covered every aspect; the hands-on nature of the workshop was very effective
The Health Outcomes Laboratory for Data (HOLD) Project - Lessons Learned

Challenges for RCS Staff:
• Engaging very busy researchers to adapt to new technologies.
• RCCCPI staff had a low level of technological knowledge prior to the HOLD implementation.

Challenges for RCCCPI:
• Uptake of the collaboration tool, Quickr, was difficult as staff required a more in-depth understanding of the processes.
• Convincing our staff that Quickr was more efficient than using regular emailing and group meetings.
• Convincing our staff that Equella was safe and secure enough to store confidential information as opposed to the regular storage of data i.e., USB drive, external hard drive, network drives.

The Health Outcomes Laboratory for Data (HOLD) Project - Questions?

• Thank You!