

# A Data Laboratory for Health Services and Population Health Research

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## What I Plan to Cover

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### **Outline:**

1. Background on the Research Centre for Clinical and Community Practice Innovation (RCCCPI) 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

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## About RCCCPI

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### **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.

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## About RCCCPI Continued

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- 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

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## RCCCPI Staff and Data Management

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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

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### **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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## The Health Outcomes Laboratory for Data (HOLD) Project

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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

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## The Health Outcomes Laboratory for Data (HOLD) Project

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### **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

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## The Health Outcomes Laboratory for Data (HOLD) Project – Standards Used

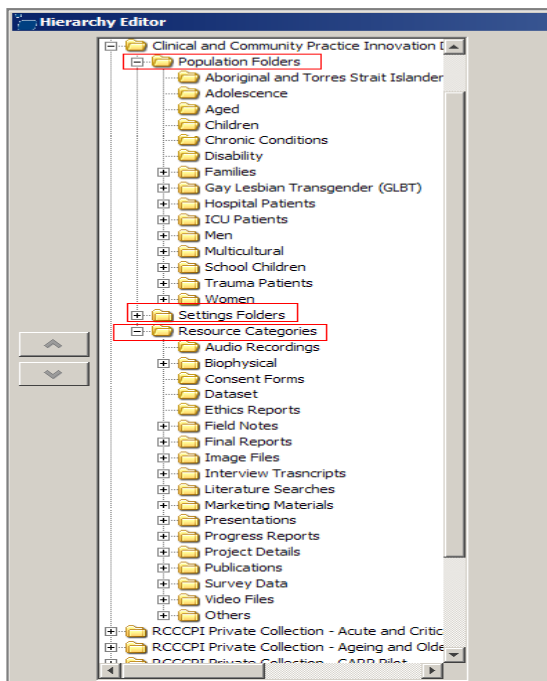
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- An established taxonomy for research data collection
- A taxonomy that incorporated familiar research themes by categories known to RCCCPI researchers
- Controlled vocabulary established using the [NHMRC Fields of Research](#)
- Open standard formats 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

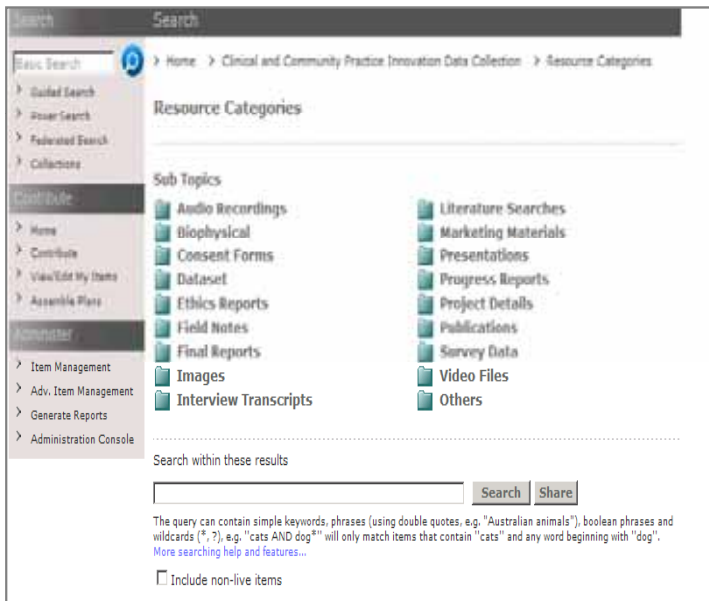
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RCCCPI folder hierarchy including main categories for *Population, Settings* and *Resource Categories*.

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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  

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

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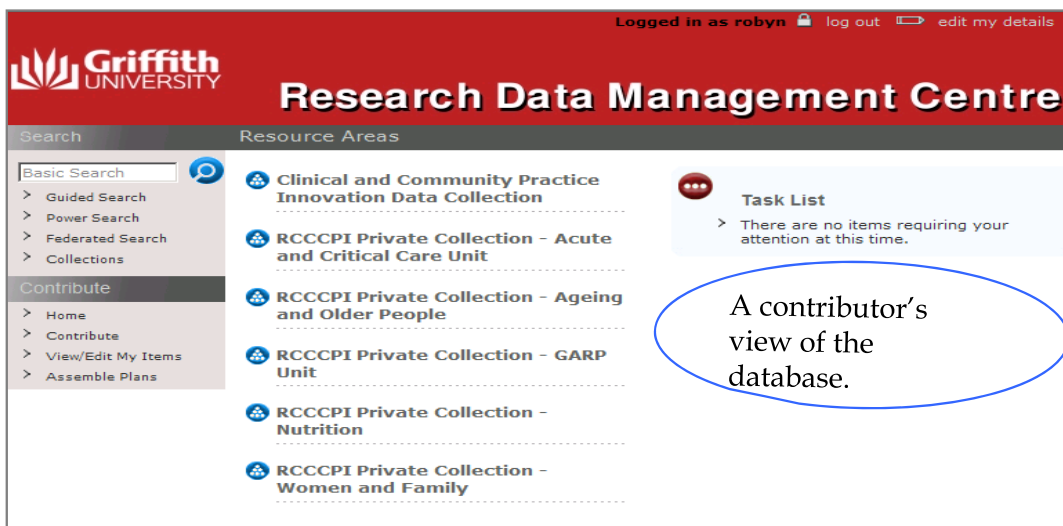
### Data Management Policy:

- 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

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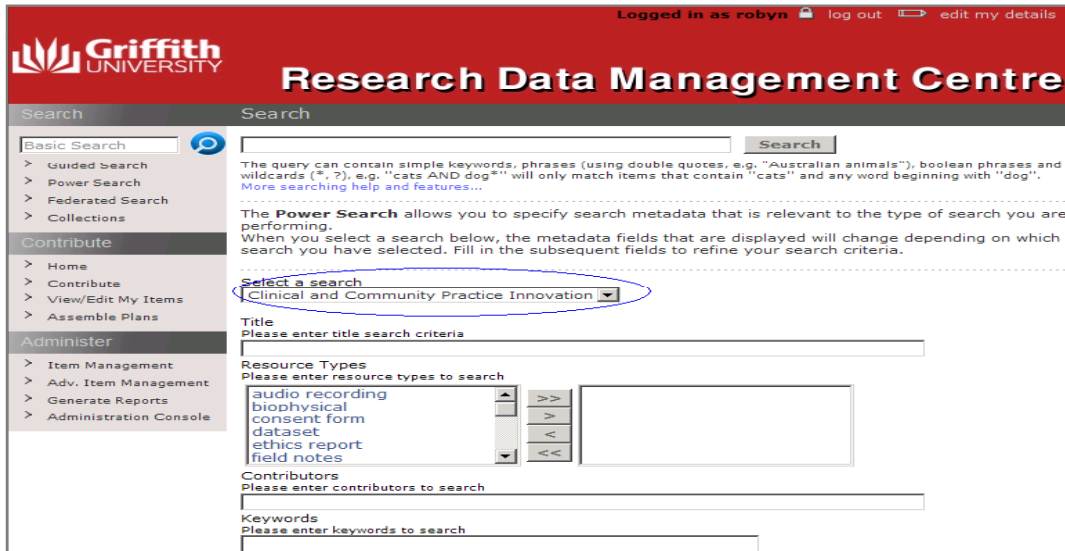
### A Review of the Research Data Management Centre Interface



The screenshot shows the Research Data Management Centre interface. At the top right, it says "Logged in as robyn" with "log out" and "edit my details" links. The main header is "Research Data Management Centre". Below this, there are two main sections: "Search" and "Resource Areas". The "Search" section includes a search bar and a menu with options: "Basic Search", "Guided Search", "Power Search", "Federated Search", and "Collections". The "Resource Areas" section lists several collections: "Clinical and Community Practice Innovation Data Collection", "RCCCPi Private Collection - Acute and Critical Care Unit", "RCCCPi Private Collection - Ageing and Older People", "RCCCPi Private Collection - GARP Unit", "RCCCPi Private Collection - Nutrition", and "RCCCPi Private Collection - Women and Family". On the right side, there is a "Task List" section with a message: "There are no items requiring your attention at this time." A blue oval highlights the "Resource Areas" section with the text "A contributor's view of the database."

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

## Research Data Management Centre – Power Search Interface



Griffith UNIVERSITY

Logged in as robyn log out edit my details

### Research Data Management Centre

Search Search

Basic Search Search

- > Guided Search
- > Power Search
- > Federated Search
- > Collections

Contribute

- > Home
- > Contribute
- > View/Edit My Items
- > Assemble Plans

Administer

- > Item Management
- > Adv. Item Management
- > Generate Reports
- > Administration Console

The query can contain simple keywords, phrases (using double quotes, e.g. "Australian animals"), boolean phrases and wildcards (\*, ?), e.g. "cats AND dog\*" will only match items that contain "cats" and any word beginning with "dog". [More searching help and features...](#)

The **Power Search** allows you to specify search metadata that is relevant to the type of search you are performing. When you select a search below, the metadata fields that are displayed will change depending on which search you have selected. Fill in the subsequent fields to refine your search criteria.

Select a search  
Clinical and Community Practice Innovation

Title  
Please enter title search criteria

Resource Types  
Please enter resource types to search

audio recording  
biophysical  
consent form  
dataset  
ethics report  
field notes

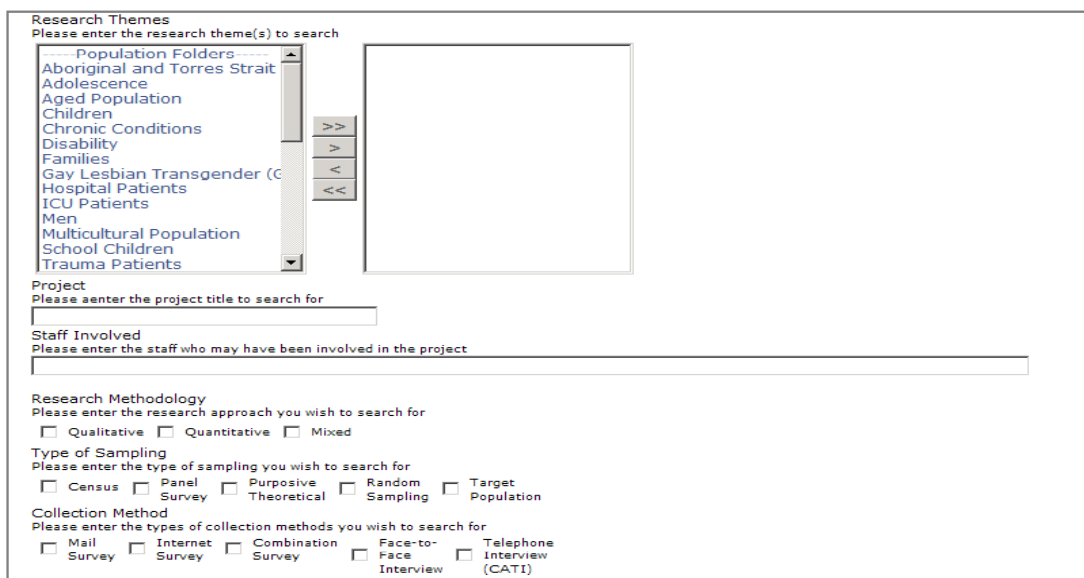
Contributors  
Please enter contributors to search

Keywords  
Please enter keywords to search

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

## Research Data Management Centre – Power Search Interface's Additional Fields



Research Themes  
Please enter the research theme(s) to search

Population Folders  
Aboriginal and Torres Strait  
Adolescence  
Aged Population  
Children  
Chronic Conditions  
Disability  
Families  
Gay Lesbian Transgender (C  
Hospital Patients  
ICU Patients  
Men  
Multicultural Population  
School Children  
Trauma Patients

Project  
Please enter the project title to search for

Staff Involved  
Please enter the staff who may have been involved in the project

Research Methodology  
Please enter the research approach you wish to search for

Qualitative  Quantitative  Mixed

Type of Sampling  
Please enter the type of sampling you wish to search for

Census  Panel Survey  Purposive Theoretical  Random Sampling  Target Population

Collection Method  
Please enter the types of collection methods you wish to search for

Mail Survey  Internet Survey  Combination Survey  Face-to-Face Interview  Telephone Interview (CATI)

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## The Health Outcomes Laboratory for Data (HOLD) Project - Workflows

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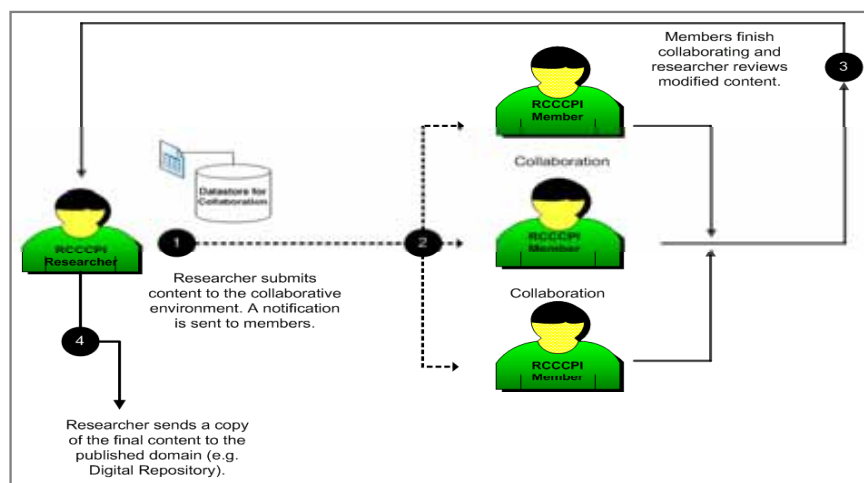
### Workflows for collaborative (pre-published) and final (published) publication outputs:

- 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

## The Health Outcomes Laboratory for Data (HOLD) Project - Workflows

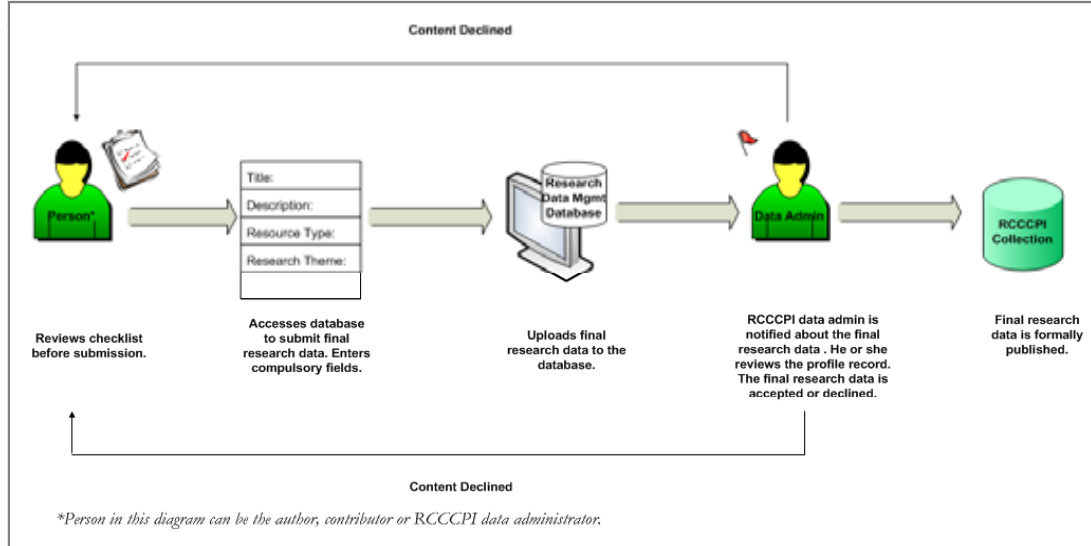
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### Pre-published, collaborative environment:



# The Health Outcomes Laboratory for Data (HOLD) Project - Workflows

## Formal workflow and protocol for final, published content:



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# The Health Outcomes Laboratory for Data (HOLD) Project - A Collaborative Workflow in Action

## 1. Researcher publishes content to the collaborative environment

Logged in: Sally Tullberg | Log Out

Check Out and Edit | More Actions

Team Goals | Team News

**ROLL OUT OF QuickR**

**Stage 1 (Sept - Dec 2009)**  
All grant applications will be posted on the site  
2010 Griffith University International Workshop Awards - closing 29th October  
2009 Griffith University Postdoctoral and Research Fellowship Scheme - closing 29th October

**Stage 2 (Jan - Mar 2010)**  
All committee Agendas, Minutes and Attachments will be posted on the site

**Stage 3 (April - June 2010)**  
A new protocol will be introduced to encourage members to use QuickR as their collaboration tool.

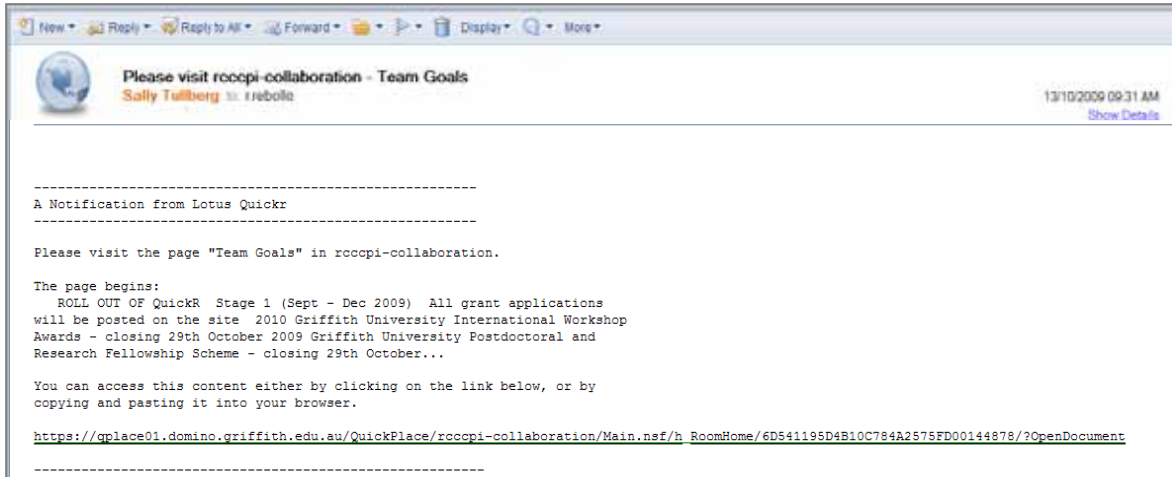
**Stage 4 (July - Sept 2010)**  
A new room will be created for each project receiving funding

Content is checked in and published.

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## The Health Outcomes Laboratory for Data (HOLD) Project – A Collaborative Workflow in Action

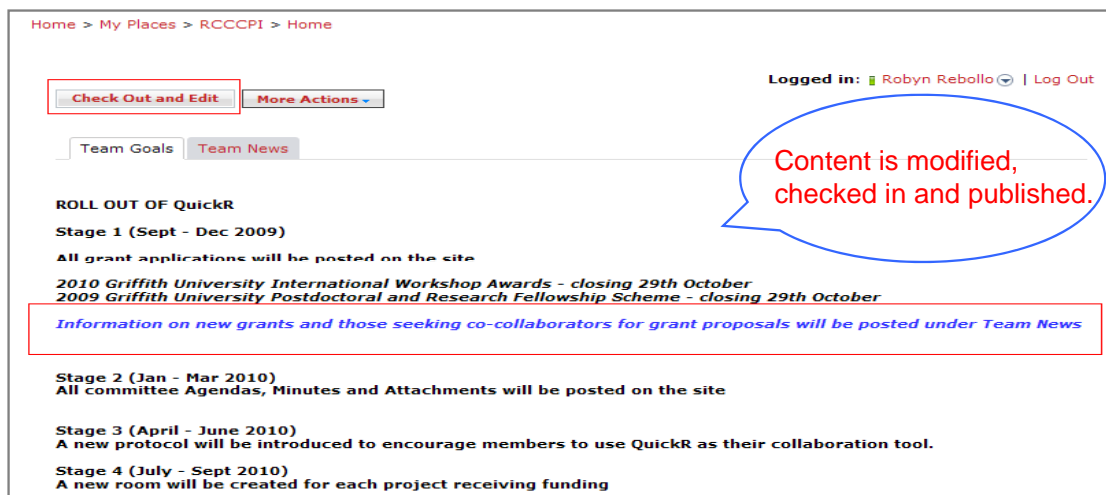
2. A notification is sent to members alerting them about the new content



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## The Health Outcomes Laboratory for Data (HOLD) Project – A Collaborative Workflow in Action

3. A member reviews the content and publishes her revisions



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## The Health Outcomes Laboratory for Data (HOLD) Project – A Collaborative Workflow in Action

### 4. A member notifies others about the content she modified

Back Next Logged in: Robyn Rebollo | Log Out

A message containing a link to this content will be sent to addresses listed in the To:, cc: and bcc: fields below. You also enter a comment in the space provided.

From: Robyn Rebollo  
To: s.tullberg@griffith.edu.au, steph.prout@griffith.edu.au  
cc:   
bcc:   
Subject: Please visit rcccpi-collaboration - Team Goals  
Comment: Hi Sally and Steph,  
I added information to the page under Stage One. The content was published in blue text.

Include the first 30 words of this content in your email message.

Title: Team Goals  
Address: https://qplace01.domino.griffith.edu.au/QuickPlace/rcccpi-collaboration/Main.nsf/h\_RoomHome/814596E7BB8C2F5D4A2575FD0014F339/?OpenDocument

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## The Health Outcomes Laboratory for Data (HOLD) Project – A Collaborative Workflow in Action

### 5. Those notified review content and make modifications, where applicable.

Home > My Places > RCCCPI > Home Logged in: Stephanie Prout | Log out

Check Out and Edit More Actions

Team Goals Team News

**ROLL OUT OF QuickR**  
**Stage 1 (Sept - Dec 2009)**  
All grant applications will be posted on the site  
**2010 Griffith University International Workshop Awards - closing 29th October**  
**2009 Griffith University Postdoctoral and Research Fellowship Scheme - closing 29th October**  
**Information on new grants and those seeking co-collaborators for grant proposals will be posted under Team News**

**Stage 2 (Jan - Mar 2010)**  
All committee Agendas, Minutes and Attachments will be posted on the site

**Stage 3 (April - June 2010)**  
A new protocol will be introduced to encourage members to use QuickR as their collaboration tool.

**Stage 4 (July - Sept 2010)**  
A new room will be created for each project receiving funding

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

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• Whiteboards



• Videoconferencing

• Polling Devices

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

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### **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

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

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A researcher logging on EVO for a video conference.

Ready, set, go from Logan.

Stephanie

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

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Another researcher participating in the EVO video conference.

Sally

Stephanie

Via Interactive Whiteboard from the Gold Coast

## The Health Outcomes Laboratory for Data (HOLD) Project – Collaboration Tools – Polling Devices

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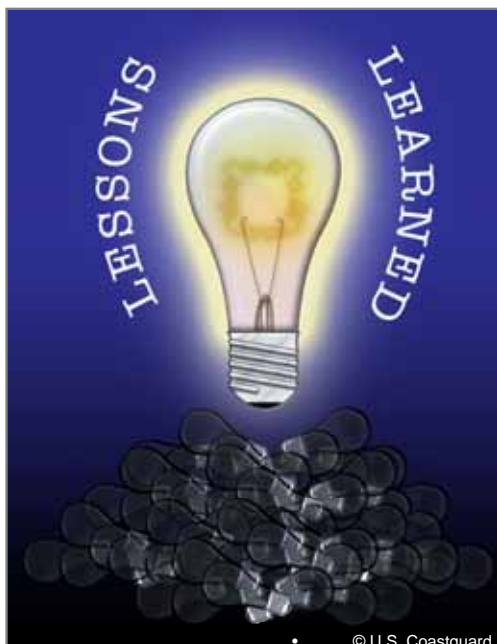


The polling devices help researchers survey via the Activboards or out in the field via the ActivHub connected to their own laptop.

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

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### Successes:

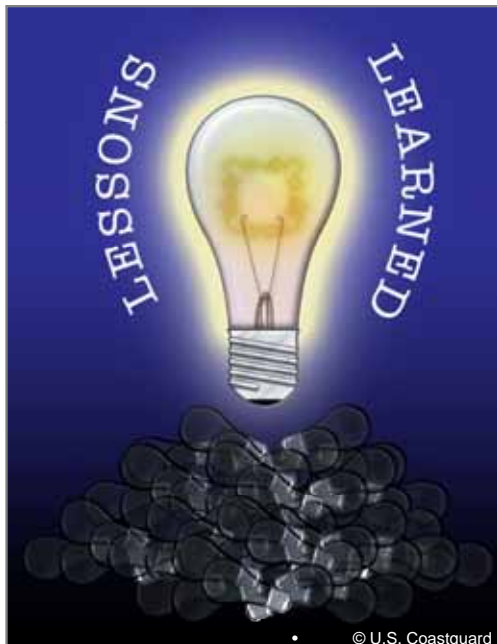
Comments from RCCCPI stakeholders:

- 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

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

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### 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?

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• Thank You!

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