

Interactive Research Workshop 2019

Metro North Hospital and Health Service



Interactive Research Workshop via Teams

Research Project Management

12 July 2020

RBWH Education Centre

Facilitated by Prof Janet Davies

MNHHS Office of Research

MNHHS-Research@health.qld.gov.au



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Interactive Research Workshop 2020

Metro North Hospital and Health Service

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## Agenda

### Part 1 Workshopping Clinical Research Project Management (15 min)

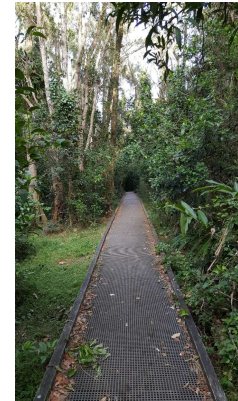
- Sign post research education resources
- Project Management Frameworks and Principles
- Applying program logic to clinical research
- Tracking Project Progress: Gantt charts



### Part 2 Exemplary Clinical Research Cases (15 min)

**Andrew Claus** (title)

**Deanne August** (title)



### Part 3 Program logic exercise (16 min)

### Part 4 Panel discussion and questions (12 min)

Please do not mention any confidential details of patients or research.

**Microsoft Teams meeting**  
Facilitated by Prof Janet Davies  
MNHHS Office of Research  
[MNHHS-Research@health.qld.gov.au](mailto:MNHHS-Research@health.qld.gov.au)

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## Professor Janet Davies

Assistant Director Research  
Metro North Hospital and Health Service  
Head, Allergy Research Group, QUT



- Multidisciplinary allergy research; molecular allergen characterisation, patient immunity, and environmental health.
- Lead investigator of the NHMRC AusPollen Partnership establishing national standardized pollen monitoring and forecast network.
- Research underpins more specific immunodiagnosis and treatment for subtropical grass pollen allergy.
- Supported by NHMRC, three ARC, NFMRI and other grants and industry engagements to enable both discovery and applied translational research to help people better manage allergic rhinitis and asthma.

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### Dr Andrew Claus

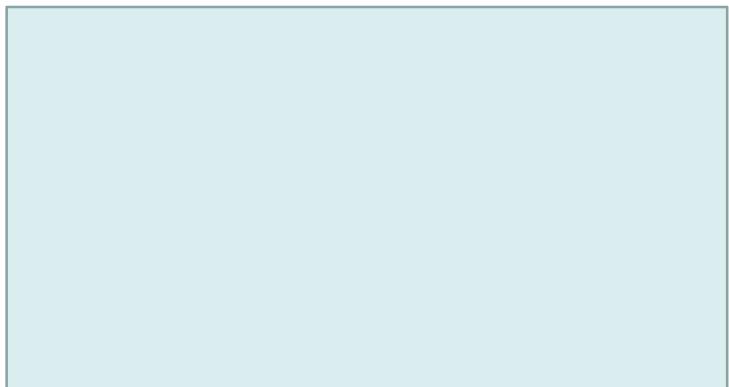
Research Development Officer,  
Tess Cramond Pain and Research Centre  
Royal Brisbane and Women's Hospital

- Current projects range from systematic reviews, a drug trial, implementation of telehealth to development of a multidisciplinary clinical programme.
- His PhD was a laboratory-based study of spinal muscle function and pain.
- He has 10 years in academic teaching and research,
- His research experience expanded to include multicentre clinical trials as well as advising research higher degree candidates in the field of rehabilitation, focused on movement disorders and pain.

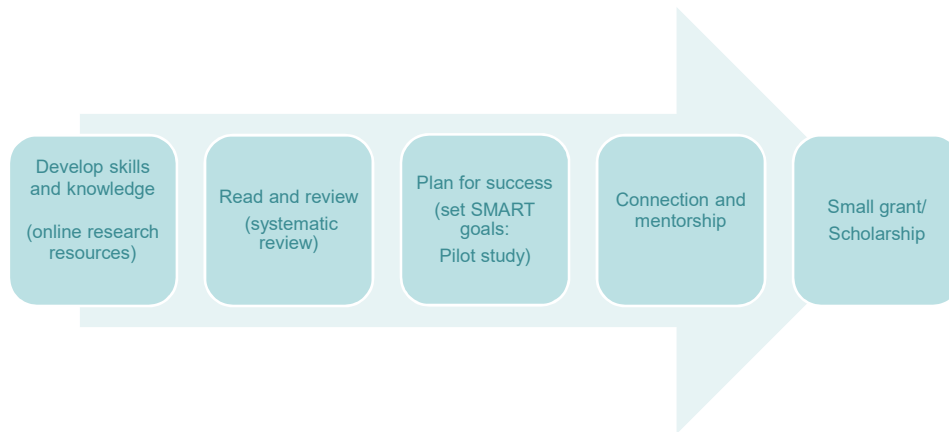
### Dr Deanne August

#### **Investigator and Research Coordinator**

Grantley Stable Neonatal Unit  
Royal Brisbane and Women's Hospital, QLD Australia  
Menzies Health Institute Queensland  
School of Nursing and Midwifery, Griffith University



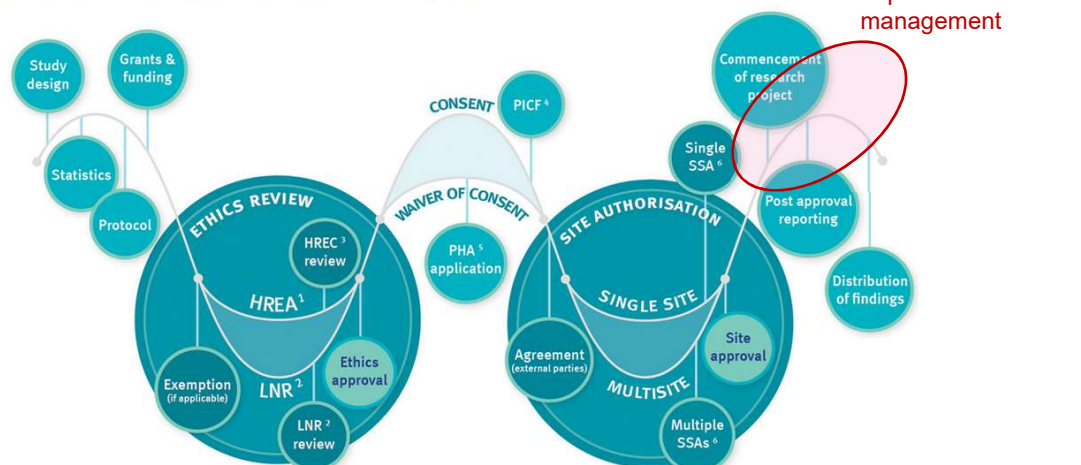
## Build your research experience and track record



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## Research process

Key steps in the research approval process are shown in the diagram below.



Note: the above diagram does not represent proportional time spent in each stage. <sup>1</sup> Human Research Ethics Application (HREA), <sup>2</sup> Low or negligible risk (LNR), <sup>3</sup> Human Research Ethics Committee (HREC), <sup>4</sup> Participant Information and Consent Form (PICF) - requires ethics review, <sup>5</sup> Public Health Act (PHA), <sup>6</sup> Site Specific Assessment (SSA).

<https://metronorth.health.qld.gov.au/research/ethics-and-governance>

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## Access to clinical research education resources and tools

<https://metronorth.health.qld.gov.au/research>

<https://qheps.health.qld.gov.au/metronorth/research/education-resources>

Metro North Hospital and Health Service • Clinical Streams • Research • Education resources

### Metro North Research Education Series

#### Digital Clinical Research Education Resources



This page has links to short videos of question and answer interviews on introductory topics related to core principles for clinical research.

[View the videos](#)



The MNHHS Research Education Webinar Series is a series of online educational videos focussing on practical educational topics for researchers

[View the videos](#)

#### Introduction to Clinical Research Principles

Files with presentation slides from sessions on topics related to basic principles and processes for undertaking clinical research.

[Read more](#)

#### Advanced Topics in Clinical Research

Files with presentation slides from sessions on advanced topics on undertaking and communicating clinical research outcomes and translation of research knowledge into practice.

[Read more](#)

#### Interactive Research Workshops

Files with presentation slides and template documents from facilitated and peer to peer interactive research workshops aimed at consolidating learning and embedding research principles into clinical settings.

[Read more](#)

#### Clinical research education videos

Short videos of question and answer interviews on introductory topics related to core principles for clinical research. After watching these videos please fill out our survey. Your feedback will help us improve the content and how the videos are delivered.

##### Designing Clinical Research Projects - Professor Patsy Yates



#### Planning Biostatistical Analysis - Dr Joel Duhamy



#### Accessing information from the academic literature - Mr Chris Parker



#### Critical appraisal of research evidence - Professor Joan Webster



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### Introduction to clinical research principles

Files with presentation slides from sessions on topics related to basic principles and processes for undertaking clinical research.

+ Designing Effective Questionnaires

+ Designing a clinical research project

+ Making grant applications appealing to reviewers

+ Planning analysis when designing research

+ Seeking approvals to undertake clinical research

+ Using literature to define knowledge gaps

#### MNHHS Research Education Webinar Series

The MNHHS Research Education Webinar Series is a series of online educational videos focusing on practical educational topics for researchers. Coordinated by the Metro North Office of Research Dr Joel Duhamy, Dr Tania Coughlin and Prof Janet Davies, MNHHS-Research@health.qld.gov.au

[More Research events](#)

#### How to Prepare an SSA Application in ERM - July 2019



#### Seeking Ethics Approval via ERM - May 2019



#### Differences between quality projects and research - 5 March 2019



## Tools to assist research planning

Metro North Hospital and Health Service • Policy people find  
MNHHS Office of Research

#### Tips!

Follow all format and style instructions provided by granting agency for the relevant scheme.

Adhere to length specified and order sections as instructed.

Define all acronyms and avoid over use of discipline specific terms and jargon. Your assessor may be outside your field.

Don't annoy a busy, over tired assessor with an overly long CV in tiny font that is hard to interpret - make it easy for the assessor to find the information about you that they need to know.

Include the sections that are relevant to the scheme you are applying for and use the headers and words asked for in their guidelines.

Align your CV to reflect what the grantor wants. Look at relevant successful examples if possible.

#### Curriculum vitae

##### Name

Full professional title:

Contact email and phone number:

##### Positions / Affiliations

(role title, % FTE, department):

Current and recent employment (role/positions):

Institution and its location:

##### Education Qualifications

Degrees, institute, year of award:

##### Career Interactions

Indicate any (un)able for the grant scheme career interactions (eg for maternity, career roles, health reasons) that have limited your clinical/research activity in the last 5 or 10 years. Indicate their duration and briefly outline their impact on your career and research productivity (see Metro North Procedure Research: Gender Equity PROC004420, NMHC and AKC policies).

Prof Janet Davies

MNHHS-research@health.qld.gov.au

MNHHS Office of Research



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### Moulding your first grant application

Use this template to brainstorm ideas for your application for research funding

#### 1) - The scheme

Considerations	Your notes
<b>The funding body</b>	
<b>Purpose of the funding body</b>	
<b>Who and what has been funded before?</b>	Homework - check funder website for previous successful application titles and awards
<b>Scheme and purpose</b>	(eg. scholarship, project, fellowship, priority grant)
<b>What can be supported?</b>	Budget items: salaries, lab research consumables, material services, travel, mentorship
<b>What will not be supported?</b>	Some grants exclude travel, investigator salary or equipment
<b>Application due date?</b>	
<b>Pre-approvals needed?</b>	Letter investigator, Head of Department, Director or Chief Executive, WREC application number or WREC approval

MNHHS Research Education: Moulding Your First Proposal - 10<sup>th</sup> July 2017



Metro North Hospital and Health Service • Policy people find  
MNHHS Office of Research

### Drafting a Clinical Research Abstract

Use this template to plan the outline of your research abstract

Background	Key points
<b>Introduce background to clinical problem to be addressed</b>	
<b>Specify the knowledge gap or research question that this research addresses</b>	
<b>Hypothesis statement</b>	
<b>What specific outcome do you expect to achieve (link to PICO statement)?</b>	
<b>State specific aims and objectives</b>	
<b>Link to hypothesis and the knowledge gap/question/aim</b>	
<b>Methods</b>	
<b>Indicate study design type, case control, cross over, randomised, clinical trial, observational, cohort</b>	
<b>Consider PICO, patient/population, intervention, comparison/group and observations measured</b>	
<b>Indicate how primary outcomes will be measured and statistical analysis</b>	
<b>Results</b>	
<b>What were the findings for primary outcome measured?</b>	
<b>Were there any additional research outcomes that need to be reported?</b>	
<b>Data reported should be consistent with the objectives and methods</b>	
<b>Conclusion</b>	
<b>Interpret the research outcomes from data presented (don't overstate)</b>	
<b>Acknowledge strengths and limitations</b>	
<b>Indicate significance and impact for clinical practice/knowledge</b>	

MNHHS Research Education: Publishing Primary Research Abstracts - 10<sup>th</sup> July 2018





<https://qheps.health.qld.gov.au/metronorth/allied-health/research/research-resource-map/protocol-proposal>

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Research protocol/proposal

By this stage, you will have written your literature review and started to think about your methodology; the next step in the research process is to complete a research protocol/proposal. Generally speaking, you will need to include a study protocol with ethics applications. For more information visit the [Ethics and governance page](#).

Depending on the type of research and methodology you will be using, different guidelines and protocols/proposals will need to be followed. It is useful to familiarise yourself with the protocol/proposal style that relates to your study. Whilst not mandatory, the protocols that you write can be redrafted into a publishable format and submitted for publication, in the case of systematic reviews and randomised controlled trials (as per best practice guidelines).

Useful resources

[BMJ Online](#) — Online courses on writing and publishing study protocols. Registration is required, however, this is a free and simple process.

[Equator Network](#) — Searchable library of reporting guidelines

Systemic review protocols

Randomised Control Trial (RCT) protocols

Observational study protocols

Templates

- [Metro Research Protocol Template](#)
- [Research Protocol Template - Townsville Hospital](#)

Proposal/protocol guidelines

[Guide to writing a research protocol](#) — Mater Research Institute

[Developing My Research Proposal](#) — Centre for Functioning and Health Research, Queensland Health

Contact

Allied Health Professions  
Office Queensland

Email: [HP-Research@health.qld.gov.au](mailto:HP-Research@health.qld.gov.au)

Useful resources

[How to Write a Research Proposal](#)  
Dr Claire Neal

[Research Proposal and Protocols](#)  
Allison Pigitts

<https://www.health.qld.gov.au/cfahr/html/proposal>

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<https://qheps.health.qld.gov.au/metronorth/research/education-resources/advanced-clin-research>

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Managing research project budget

Dr Trina Yeadon  
Principal Finance and Research Performance Analyst  
Metro North Hospital and Health Service  
Office of Research and Business and Corporate Business Services

- 25 years' experience in scientific research, project management and financial management of research funding grant applications and budgets.
- Joined Metro North team 1 year ago.
- to implement and monitor the financial and performance aspects of the MNHHS Research Strategy, by leading, supporting and championing effective financial and performance governance relevant to research activities across MNHHS.
- Research background with a unique understanding of the inherent challenges and opportunities that a researcher face.

Managing research data - Redcap

Dr Roxanne Machen  
Research Project Officer  
Metro North Hospital and Health Service  
Office of Research

- Role in development, implementation and ongoing evaluation of the Metro North Research Strategy and action plan
- Provides coordination for key functions:
  - Research Policy and Procedure framework
  - Metro North Snapshot of Research and annual reporting
- Metro North HHS REDCap System Administrator
  - coordinates user access and project approvals,
  - manages Metro North REDCap data governance framework and education/support materials.
- Bachelor of Human Movement Studies (QUT) and PhD (Development, implementation and evaluation of the Blue Care workplace wellness program)

Research project management

- [Presentation \(PDF 2086 KB\)](#)

If outside QH, available upon request [MNHHS-Research@health.qld.gov.au](mailto:MNHHS-Research@health.qld.gov.au)

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## Other sources of advice

### Managing a research project

Project management is an important skill for a principal investigator.

Having been successful in attracting funding for your project, you will now have to lead it from set-up to completion. The following pages take you through the key stages:

1. [Setting up a research project](#)
2. [Monitoring a research project](#)
3. [Reporting on your research project](#)
4. [Making the most of your research project](#)

and provide you with some [project management tools for researchers](#).



<https://www.vitae.ac.uk/doing-research/leadership-development-for-principal-investigators-pis/leading-a-research-project/managing-a-research-project>

Reflection:  
lessons learnt  
Ongoing,  
outcomes & impact

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TOPICS ▾ CONTENT TYPE ▾

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THE WILEY NETWORK / RESEARCHERS / WRITING AND CONDUCTING RESEARCH / SEVEN ESSENTIAL TIPS FOR MANAGING A LARGE RESEARCH PROJECT



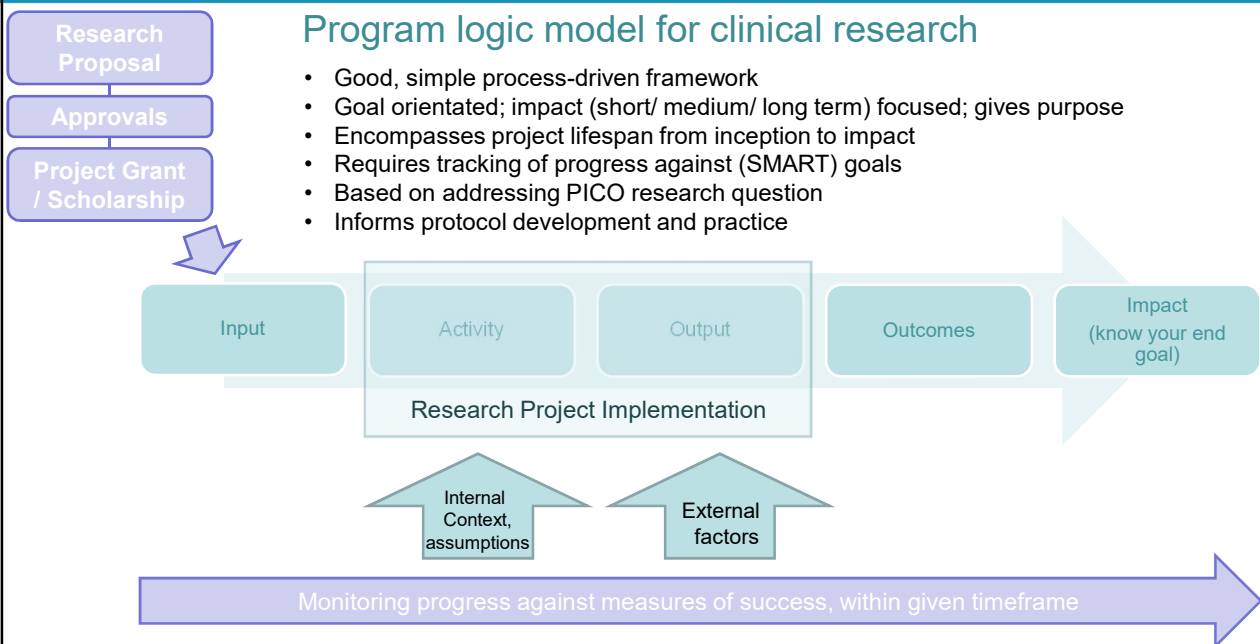
Eva Lantsoght, Assistant Professor, Universidad San Francisco De Quito | January 11, 2018

1. **Identify your research question**
2. **Master the literature**
3. **Learn planning skills**
4. **Identify your checkpoints**
5. **Use technology to your advantage**
6. **Take notes**
7. **Work with student**

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## Program logic model for clinical research

- Good, simple process-driven framework
- Goal orientated; impact (short/ medium/ long term) focused; gives purpose
- Encompasses project lifespan from inception to impact
- Requires tracking of progress against (SMART) goals
- Based on addressing PICO research question
- Informs protocol development and practice



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Knowledge	<b>Description of research impact</b>
	<b>New knowledge</b> , demonstrating the <b>benefits</b> emerging from <b>adoption, adaption or use</b> of new knowledge to <b>inform further research</b> , and/or understanding of what is effective.
	Improvements in health through <b>new</b> or <b>improvements in therapeutics, diagnostics, disease prevention or changes in behaviour; management</b> of health problems, health policy, health <b>systems</b> , and <b>quality of life</b> .
	Improvements in <b>economic performance</b> through creation of new industries, jobs or valuable products, or <b>reducing health care costs</b> , improving efficiency in resource use, or <b>improving the welfare/well-being of the population</b> within <b>current health system resources</b> .  (An economic impact may also contribute to social or health impacts, including <b>human capital gains</b> and the <b>value of life and health</b> .)
Social	Improvements in <b>health of society</b> , including <b>well-being</b> of end user and community. -may include improved ability to <b>access health care services</b> , to participate socially (inc. <b>empowerment and participation</b> in decision making) and to quantify improvements in the health of society.

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## Planning timelines of research activity stages

<b>PROJECT TITLE</b>	The most engaging, insightful, best ever very important research project						
Company Name							
Project Lead							
TASK NAME	ASSIGNED TO	START DATE	DUE DATE	DURATION	% DONE	DESCRIPTION	MILESTONE
Design research project		1/03/2019	31/03/2019	30			Phase 1
Research resourcing (grant applications)		15/03/2019	31/05/2019	77			Phase 1
Research Ethics and Governance		15/03/2019	1/06/2019	78			Phase 2
Research activity milestone 1		15/06/2019	30/12/2019	198			Phase 3
Research activity milestone 2		16/12/2019	15/06/2020	182			Phase 3
Research activity milestone 3		16/03/2020	15/09/2020	183			Phase 3
Data entry		15/09/2019	15/09/2020	366			Phase 4
Data cleaning		16/09/2020	30/09/2020	14			Phase 4
Data analysis		1/10/2020	31/10/2020	30			Phase 4
Interpretation of project results		15/10/2020	15/11/2020	31			Phase 4
Report writing: draft 1		15/11/2020	15/02/2021	92			Phase 5
Manuscript submission: journal 1		15/02/2021	15/03/2021	28			Phase 6
Revision of manuscript journal 1		16/03/2021	16/06/2021	92			Phase 6
Proofs		17/09/2021	19/09/2021	2			Phase 6
Translation research outcomes into practice		1/01/2022	15/12/2022	348			Phase 7

Template will be uploaded and if outside QH,  
available upon request MNHHS-Research@health.qld.gov.au

- Use a Gantt chart (eg Exel templates)
- Assign activity and milestones against time, based on protocol
- Include ALL steps in process;
  - Recruitment,
  - Data collection(s), interventions / experiments, follow up visits,
  - Data collation, cleaning, analysis and interpretation
  - Writing, editing, submitting and revising manuscripts
- Colour code types of activities
- Assign tasks and responsibilities
- Track progress for all aspects regularly
- Schedule a weekly activity timetable
- Report, review and share progress with team; students, collaborators, stakeholders

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Research Project Gantt Chart



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## My tips for clinical research project

### Planning, planning, planning (plan, do, study, act cycle)

**Context;** consider and note the clinical context in which your study will be done.

- does it change from commencement and completion?
- e.g. diagnostic practice in department, drug delivery protocols, staff changes

### Regular study meetings

- Minute key issues discussed
- Capture the rationale for decisions (refer when reporting)
- Discuss how people at sites **interpret and enact** the protocol
- Note any differences in practice between sites or individuals
  - e.g. multidisciplinary team perspectives.

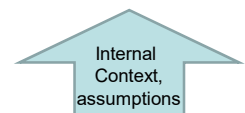
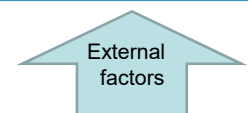
**Track/manage the quality of data entry early:** improve or clarify with data dictionary

- Saves time later for data cleaning; simple examples are "F" ; "f"; female; Y, y or yes; date & time formats

### Record keeping and observation

Data quality in → robust data analysis → reliable interpretation → relevance of outcomes → **greatest impact**

**People, people, people:** communicate, encourage, value and support all members of your team; start to end



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## Andrew and De's lived experience of doing clinical research

Title:  
Aim:  
Hypothesis (if relevant):

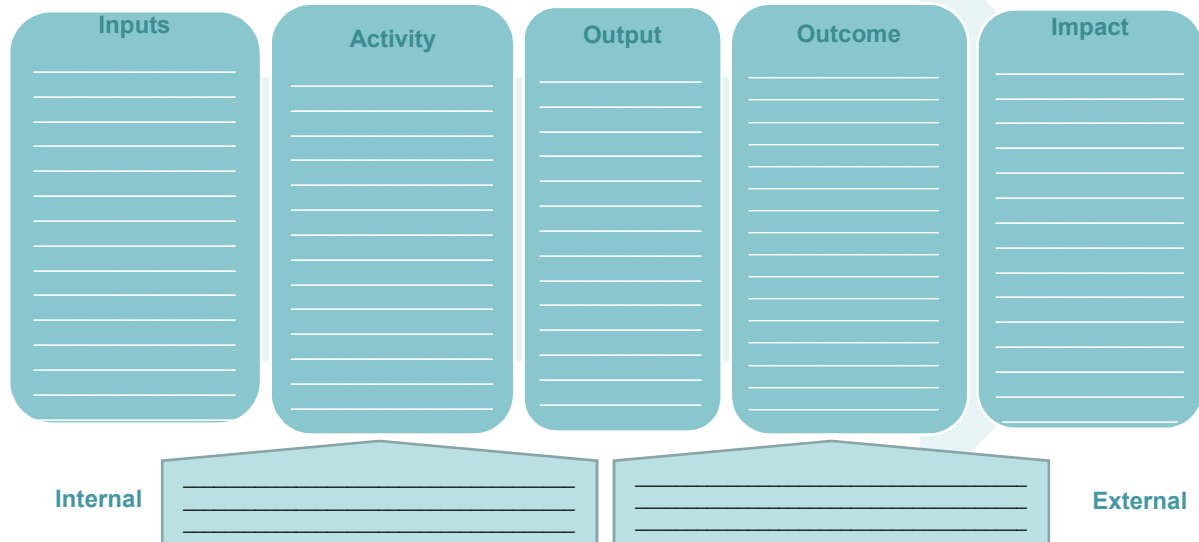
Protocol/method/ activities

Outputs;  
Data sets

Outcomes:  
e.g. New understandings of utility of the data  
collection tools  
Lost key points? Insights to balance between rigour  
verses bias and loss of sensitivity to detect  
unexpected new finding.  
New knowledge; design of next study, papers, skills?

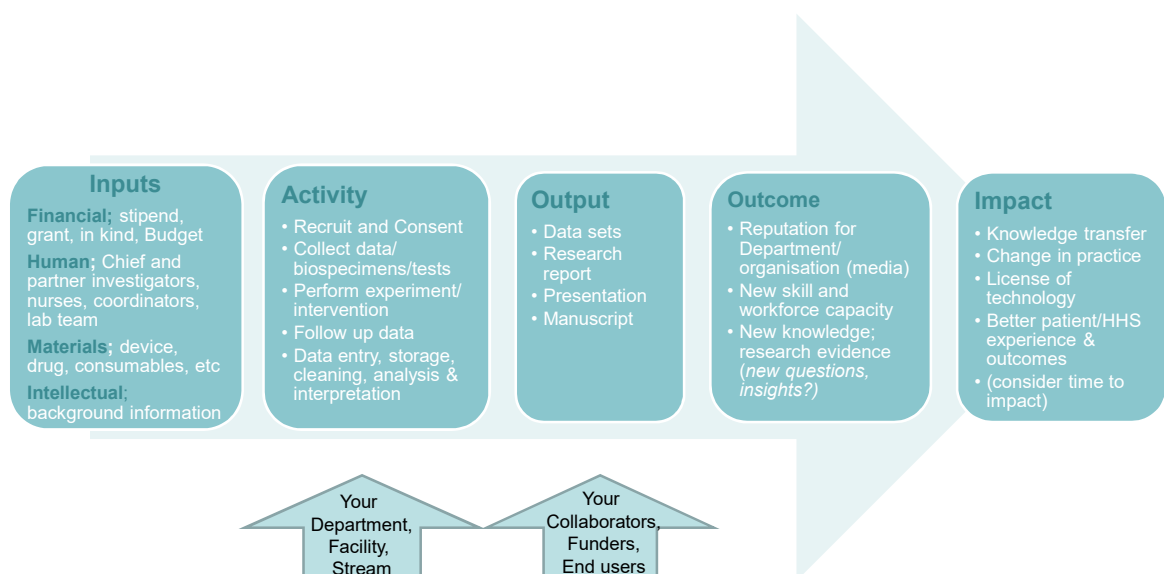
Lived experience;  
What worked well?  
  
What didn't work?

## Program logic framework for clinical research



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## Program logic framework for clinical research



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## For Discussion: practical considerations to reflect on

How did you approach managing the clinical research study?

What aspects of undertaking the research study worked well for your team?

Were there any contexts of your clinical setting that affected study success?

What did you learn that you would use in design and execution of future clinical research projects?