



**NSW Cardiovascular
Research Network**



Health

NSW CVRN – OHMR Grants Workshop

NSW Health Cardiovascular Research Capacity Program

Senior and Early-Mid Career Researcher Grants 2025

Tuesday, 6 May 2025

Sessions commences 9.30am

Welcome



Dr Tamara Milder
UNSW

Housekeeping Announcements

- Room has microphones for online participants to hear discussion
- Workshop will be recorded and available on OHMR's website
- Online participants: please mute your microphone. Please use Teams chat to ask questions
- In-person participants: raise hand during Q&A time

Welcome and Acknowledgement of Country



Dr Kim Sutherland

Office for Health and Medical Research

We acknowledge the traditional owners of the land we work on.

We honour the ancestors of yesterday, the custodians of today and those of tomorrow.

We recognise the continuing connection to land and waters and how culture is held, nurtured and shared.

We pay our respects to Elders past, present and future and extend that respect to other Aboriginal peoples here today.

We acknowledge the contribution of Aboriginal people, and others with lived experience. Their sharing of knowledge and insight is vital to guiding our work.

2025 Cardiovascular Senior and EMC Research Grants



Cathy Kellick

Office for Health and Medical Research

Office for Health and Medical Research



Cardiovascular Senior and EMC Researcher Grants 2025

Cathy Kellick, Principal Policy Officer
Research Grants



Presentation Outline

Office for Health and Medical Research

- Snapshot

Senior and EMC Grants 2025

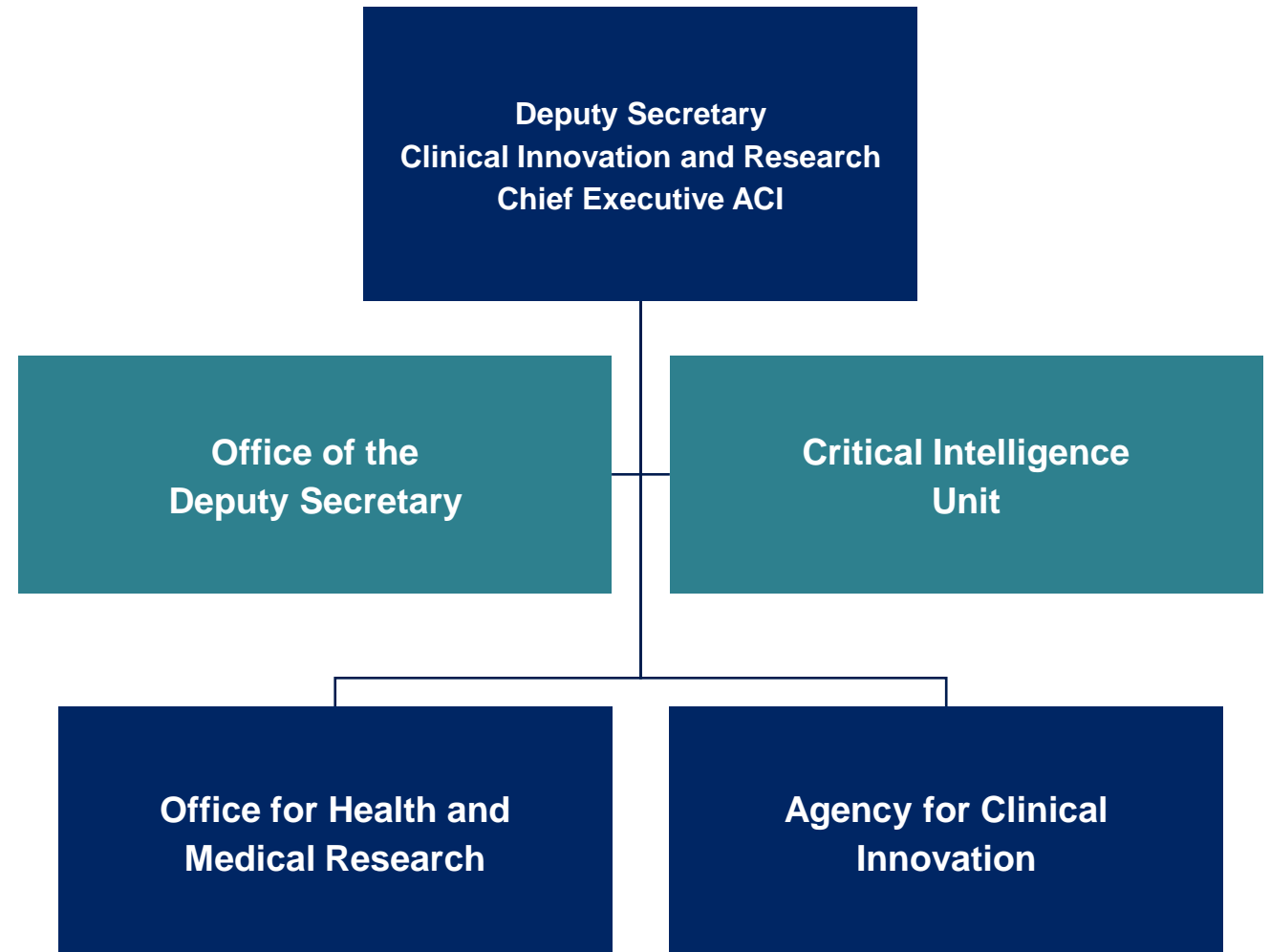
- Objectives
- Selection criteria
- Process and timeline
- Questions?



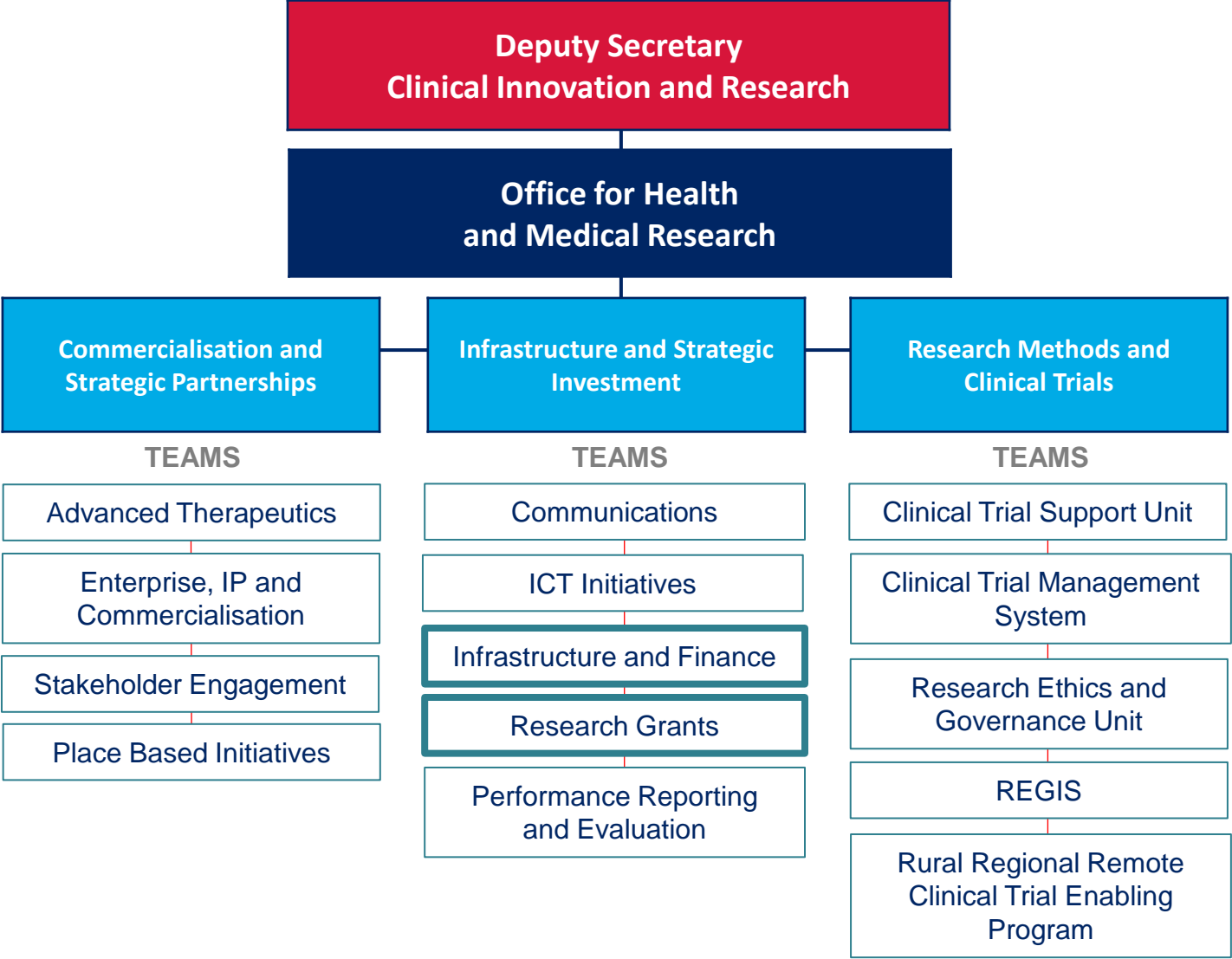
Clinical Innovation and Research Division



- Integrating the work of the Office for Health and Medical Research and of the Agency for Clinical Innovation
- Leadership role in the development of public sector funded research and innovation programs
- Coordinating innovation development, commercialisation and translation activities
- Providing overarching leadership across the continuum of the innovation and research ecosystem in the state
- Bringing a clinician and consumer voice closer to decision-making to support stronger and more effective relationships



Office for Health and Medical Research Structure



Cardiovascular Research Capacity Program

June 2018: NSW Government announces \$150 million investment in cardiovascular research over 10 years

1. Fund research excellence
2. Attract and retain high quality researchers in NSW
3. Build research capacity
4. Increase national and international competitiveness of NSW research
5. Support a competitive position for federal research funding

Objectives

Fund

Fund research that improves wellbeing and health outcomes

Encourage

Encourage collaboration, leadership and capacity building in the NSW research environment

Support

Support the development of multidisciplinary NSW-led collaborations to leverage national funding opportunities

Foster

Foster research excellence and increase the number of outstanding cardiovascular researchers in NSW

Embed

Embed high-quality, innovative cardiovascular research in the NSW health system

Bridge

Bridge the gap between research, policy and practice to increase and document research impact and translation

Cardiovascular Research awarded to December 2025



Grant Type	Number funded	Amount
Senior Scientists/ Senior Researchers	43	\$32 million
Clinician scientists	10	\$7.5 million
Early-Mid Career Researchers	64	\$31.5 million
Elite Research Leaders	3	\$6.0 million
Elite Postdocs	6	\$6.0 million
Investigator Development	11	\$1.0 million
Synergy Seeding	2	\$0.5 million
Collaborative Grants	9	\$9.0 million
Total	148	\$93.5 million

What areas of research can be included?

The term cardiovascular is used to encompass all diseases and conditions of the heart and blood vessels, including but not limited to:

- coronary heart disease
- stroke
- heart failure
- vascular disease and vascular health
- cardiovascular complications of diabetes and obesity
- major independent risk factors for cardiovascular disease
- rheumatic heart disease
- congenital heart disease.



Types of Research

- Basic Science
- Clinical Medicine and Science
- Health Services research
- Public Health research

Grants also support:

- data science research and
- research towards the development of novel therapeutics



arch

Three-year duration
Senior Researcher Grants:
\$750,000
EMC Researcher Grants -
\$450,000
(+\$300,000 top ranked)





40%

Selection Criteria



20%



40%





**NSW Cardiovascular
Research Network**

Broader strategic considerations



Medical Research Future Fund

Cardiovascular Health Mission

Roadmap



Skill development

- Clinical quality improvement
- Mentoring
- Training
- Collaborations e.g. research groups, policy agencies
- Roles in networks, advisory or governance groups
- Leadership roles and capacity development

EMCs assessed with applicants at similar career stage

PhD a. Date conferred (or expected) b. University name	
Early-Mid Career Researcher Grant ONLY Which category best describes your career stage? Note: If you have experienced significant career disruption, your nominated career stage may be different to the length of time since your PhD was conferred. Please select the category in which you wish to be considered during the review process. You must provide evidence of career disruption at Section B5. NSW Health reserves the right to determine your career category based on the evidence provided.	<input type="checkbox"/> Up to 2 years post-PhD <input type="checkbox"/> 3 - 7 years post-PhD <input type="checkbox"/> 8 - 15 years post-PhD

Timeline – Key Dates

Applications Open	14 April 2025
Senior and EMC Workshop	6 May 2025
Pitching Sessions - online	May – June 2025
Applications close	10 September 2025
Applicants notified of outcomes	By 30 January 2026



Any questions?





Q&A

Involving consumers in your research



Ms Rebecca Davies AO
Heart Foundation

Involving consumers in your research

REBECCA DAVIES AO
DIRECTOR NATIONAL HEART
FOUNDATION, CHAIR
RESEARCH ADVISORY
COMMITTEE



Why? Benefits for the System



Increases likelihood to lead to translatable outcomes



Transparency and accountability to the community which provides the funds for research



Makes the research process more engaging and fun for all concerned



Provides a cohort of educated and invested consumer and community members who can advocate on behalf of researchers



Promotion of outcome of research in the community – again, aids translation into practice

This isn't optional- the here and now



MORE FUNDING BODIES
BEING EXPLICIT ABOUT CCI
AS A REQUIREMENT



PUSH FOR 'IF NOT, WHY NOT'



CCI WILL BE A
DIFFERENTIATOR IF YOU DO
IT WELL



REQUIREMENT TO IDENTIFY
IMPACT IN GRANT
APPLICATIONS E.G. NHMRC,
CONSUMER STATEMENT
REQUIREMENT- MRFF

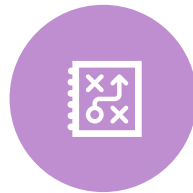


DOES IT MATTER FOR BASIC
RESEARCH? CAN YOU
ANSWER THE QUESTION-
WHAT IS THE POINT OF MY
RESEARCH?

What does it look like?



What is the project about? – *what questions matter?*



Planning the research – *how realistic is the plan for the work?*



Governing the project – *steering committee, CCI committee*



Reporting on outcomes – *CCI members as co-authors*



Choosing the research to fund



Strategic and policy input at institutional research committee level

How to approach consumer engagement in your project



Find someone who can be your trusted consumer advisor



Work out the preferred project governance structure and where you will engage with consumers



Sourcing the right people to assist in your project



Thinking about grant success- who will be reviewing your project and what are they looking for?



Plan early for resources, timing, cost of CCI

Some things I look for when assessing grants- the bad

CCI ignored with
no explanation ❌

Plain English
summary not
included or ignored ❌

CCI expressed only
as consumers as
trial participants ❌

CCI as a 'box
ticking exercise'
with no substance ❌

No consideration
of diversity/equity
issues ❌

Hard from the
grant to find how
consumers are
engaged ❌

Simple mistakes-
grammar, spelling ❌

Some things I look for when assessing grants- the good

Consumers embedded throughout the project



Consumers supported to participate- mentoring, training



Significance & potential impact of project clearly expressed, logical & achievable



Clear pathway to future translation



Consumer partners and their names and backgrounds explicit



Consumers named on the grant



Meaningful budget for CCI





Additional resources

- <https://www.nhmrc.gov.au/about-us/publications/statement-consumer-and-community-involvement-health-and-medical-research>

Toolkit covering

- **Expectations and Value** – Framework for Effective Consumer and Community
- Engagement in Research
- **Measuring Alignment** with Consumer and Community Expectations in Research
- **Measuring Effectiveness** of Consumer and Community Involvement in Research
- **Considering Impact** of Research from a Consumer and Community Perspective
- **Self-assessment** of Consumer and Community Involvement in Research

<https://www.nhmrc.gov.au/about-us/consumer-and-community-engagement#download>

<https://www.health.gov.au/resources/publications/mrff-consumer-involvement-in-research-funded-through-the-medical-research-future-fund>

Additional resources



- <https://www.chf.org.au/consumer-engagement>
- Heart Foundation Guidelines
<https://assets.contentstack.io/v3/assets/blt8a393bb3b76c0ede/blt0bcea4e715865086/65962ae51f895221bb913f8b/Consumer-Guide-for-Researchers.pdf>
- Consumer and Community Participation in Health and Medical Research: A practical guide for health and medical research organisations <https://research-repository.uwa.edu.au/en/publications/consumer-and-community-participation-in-health-and-medical-research>
- Consumer and Community Involvement (CCI) Program <https://cciprogram.org>
- Monash Partners - self paced 6 modules- free 😊
- <https://monashpartners.org.au/education-training-and-events/ccli/>
- <https://www.health.nsw.gov.au/patients/experience/all-of-us/Pages/default.aspx>
- https://consultations.health.gov.au/national-preventive-health-taskforce/draft-national-consumer-engagement-strategy-for-the-supporting_documents/Draft%20National%20Consumer%20Engagement%20Strategy%20for%20Health%20%20Wellbeing%20NCESHW.pdf



Q&A

Review Process

Applications close.
OHMR checks eligibility.

Each application is assessed against the selection criteria by 4 expert reviewers.

Scores, comments and recommendations are collated and applications ranked by average score.

Analysis of reviewer scores undertaken to account for variability in reviewer scoring.

Expert Panel Meeting provides opportunity for reviewers to discuss strengths and weaknesses

Expert Panel makes recommendations to the Office regarding funding

Grant reviewer perspectives – panel session



Prof Julie McMullen
Heart Research Institute



Dr Kathryn Reilly
Hunter New England LHD



Facilitated by
A/Prof Jessica Orchard
The University of Sydney



Prof Jamie Vandenberg
Victor Chang Cardiac
Research Institute



Prof Sally Redman
formerly Sax Institute

Grant Reviewer Perspectives & Tips

Professor Julie R. McMullen, PhD

Head of Heart Muscle Group

Deputy Director & Director of Research

Heart Research Institute

Research Proposal / Project

- Understand the reviewers perspective.
- The reviewers are busy, successful, intelligent, know a lot about the broad area of research, but probably very little about the in-depth subject matter of the project.
- The project should be written with an apparent focus, concisely, and clearly. It must also sound exciting.
- AVOID- jargon and topic specific abbreviations or acronyms

Research Proposal – Significance & Innovation

- Why is your project innovative?
- How is it different from current work?
- What new information will the study provide? How will it help fill a knowledge gap?
- How may the project translate to better therapeutics, policy changes etc? (but be realistic!)

Research Proposal – Scientific Quality

- Keep the message simple. The assessors may not be experts on the topic.
- Assessors often review after hours and on weekends.
For each aim, include the rationale, hypothesis/predicted outcomes. Finish sub-sections with a summary sentence.
- Preliminary data to support at least some hypotheses are important for demonstrating feasibility.
- Proven experience with methods (supported by previous publications) or mentioning collaborators with experience.
- What are you bringing to the project that distinguishes it from projects generated by your lab head.

Research Proposal – Scientific Quality

- Clarity : Match aims exactly to research plan. The reader should be able to follow the logic and linkages of the research plan and have an idea of what to expect.
- Outcomes : what will each experiment tell you?
- Avoid dead end study designs: e.g. if experiment 1 is negative then the proposal has no-where to go.
- Statistics : make sure you indicate numbers in groups, type of analysis to be used, how numbers were estimated. Power calculation where possible based on your primary outcome measure.
- The last thing you need is for your study to be underpowered or poorly designed statistically.

Feasibility

- Don't include far more work than could possibly be accomplished in the time frame.
- Avoid using techniques for which you have no track record or make sure you have collaborators who can assist.
- Unless you have published with the method, add enough information to the methods to show you know how to do the studies. You can save space by using references for methods you have used previously.
- Preliminary data are essential, especially for work using new methods or approaches.

Present your CV & publications in the best possible light!

- McMullen JR, Shioi T, Zhang L, Tarnavski O, Sherwood MC, Kang PM and Izumo S. Phosphoinositide 3-kinase(p110alpha) plays a critical role for the induction of physiological, but not pathological, cardiac hypertrophy. *Proc Natl Acad Sci U S A* 100: 12355-12360, 2003.
 - **McMullen JR***, Shioi T, Zhang L, Tarnavski O, Sherwood MC, Kang PM and Izumo S. Phosphoinositide 3-kinase(p110alpha) plays a critical role for the induction of physiological, but not pathological, cardiac hypertrophy. *Proc Natl Acad Sci U S A* 100: 12355-12360, 2003. ***Corresponding author.**
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Citations >200. #Accompanying editorial.

Present your CV & publications in the best possible light!

- Luo J, McMullen JR, Sobkiw CL, Zhang L, Dorfman AL, Sherwood MC, Logsdon NM, Horner JW, DePinho RA, Izumo S and Cantley LC. Class IA Phosphoinositide 3-Kinase Regulates Heart Size and Physiological Cardiac Hypertrophy. *Mol Cell Biol* 25: 9491-9502, 2005.
- Luo J*, **McMullen JR***, Sobkiw CL, Zhang L, Dorfman AL, Sherwood MC, Logsdon NM, Horner JW, DePinho RA, Izumo S and Cantley LC. Class IA Phosphoinositide 3-Kinase Regulates Heart Size and Physiological Cardiac Hypertrophy. *Mol Cell Biol* 25: 9491-9502, 2005. ***Equal first authors**
- Luo J*, **McMullen JR***, Sobkiw CL, Zhang L, Dorfman AL, Sherwood MC, Logsdon NM, Horner JW, DePinho RA, Izumo S and Cantley LC. Class IA Phosphoinositide 3-Kinase Regulates Heart Size and Physiological Cardiac Hypertrophy. *Mol Cell Biol* 25: 9491-9502, 2005. ***Equal first authors. Citations>150.**

Track record & evidence of leadership

Highlight your strengths

- leading a project as a PhD student/ postdoctoral fellow
- experience training PhD students, supervision of techs/RAs
- invitations to speak at national & international conferences
- invitations to write reviews & book chapters
- reviewer for journals/ granting bodies
- establishing a technique/ methodology in your lab

Let your CV, publications & facts speak for themselves.

A tone of over confidence / over-selling can come across as arrogant and not viewed favourably.

Formatting & attention to detail

- Proof read! First impressions are important. Applications with typos and errors are frustrating to read.
- Make the application as easy to read as possible.
- Headings can help reviewers find their way around the application.
- Make sure headings, aims etc are consistent throughout the application and in the summary.
- Use formatting to emphasise the various parts of the application.

Prepare your application early

- Allow enough time for review and revision.
- Get your application reviewed by experts and non-experts.
- Ask for constructive criticism
- Referee reports- offer to provide dot points for inclusion

Make assessment of your application / track record easy

- To compare applicants, some reviewers/assessors will put aspects of your CV/track record into an equation / algorithm to come up with a final score/rank.
- Look at the criteria & wording. Ensure these are addressed & clear.
- Incorporate relevant sub-headings
- Don't over state facts.

Stand out applications

- Interesting idea
- Unifying figure of the concept or aims
- Feasibility (clear ability to do the studies: track record, methods in place, collaborators/mentors)
- Simple story
- Formatting (make it easy for the reviewers/assessor).

Bouncing back from an unsuccessful application

- Unfunded grants & fellowships



-Take a step back. Clear your mind. Reassess.

Often reviewers make good suggestions!

-Consider new ideas, approaches, and collaborations which may strengthen your next application



Final advice!

It can be helpful to have a look at an application that has been successful. Many successful applicants are willing to share their applications.

You have to be in it, to win it!

Even if you are unsuccessful you often receive helpful feedback.

Good luck!

Grant reviewer perspectives – panel session



Prof Julie McMullen
Heart Research Institute



Dr Kathryn Reilly
Hunter New England LHD



Facilitated by
A/Prof Jessica Orchard
The University of Sydney



Prof Jamie Vandenberg
Victor Chang Cardiac
Research Institute



Prof Sally Redman
formerly Sax Institute



**NSW Cardiovascular
Research Network**



Health

NSW CVRN – OHMR Grants Workshop

Morning Tea Break

See you again in 15 min!



**NSW Cardiovascular
Research Network**



Health

NSW CVRN – OHMR Grants Workshop

NSW Health Cardiovascular Research Capacity Program

Senior and Early-Mid Career Researcher Grants 2025

Tuesday, 6 May 2025

Developing your Program Logic



Prof Jamie Vandenberg
Victor Chang Cardiac Research Institute



Victor Chang
Cardiac Research Institute

Developing your Program Logic

Discovery Science

Jamie Vandenberg

Mark Cowley Lidwill Research Program in
Cardiac Electrophysiology

The secret to success in science

Learning how to ask good questions.

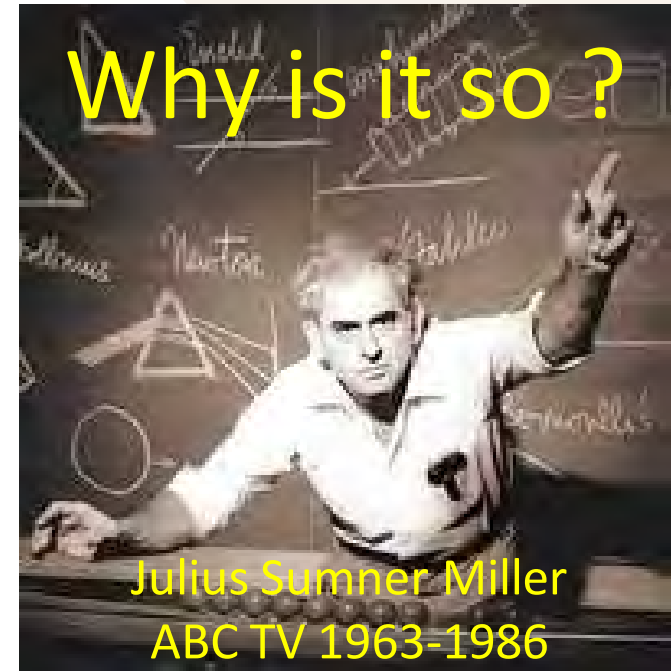
The best question to start with is Why?

The "Five Whys" is a problem-solving technique used to identify the root cause of a problem by repeatedly asking "why" five times

Why have you chosen the project you are working on ?

What is it you want to achieve ?

A) To have impact



The secret to success in writing a good grant

Convince your reviewer that your work will have impact

1. **WHAT** is the problem you are trying to solve and if you can solve it **WHY** does it matter (**Background**)
2. What is the major unmet need / hurdle to overcome – what is the **HYPOTHESIS** you are testing
3. **HOW** are **YOU** going to overcome that hurdle (**Methods, Preliminary Data, Expertise**)
4. How are you going to make sure your solution is adopted to help overcome the problem you are trying to solve (**PROGRAM LOGIC**)

Program Logic and research impact

If the research is funded, the Program Logic will guide the measurement of impact throughout the project and at its conclusion.

....

Particularly for basic science, the 'next users' who are responsible for taking the research findings to the next step for translation should be involved from the start of the project so they understand the research and can move the findings towards translation.

The steps from translatable to translational research

Frank Gannon

Stages from DISCOVERY to TRANSLATION

D1 Basic research that has no projected practical (clinical, practice or commercial) aspiration.

D2 Disease oriented research that will generate knowledge that has potential to be used in subsequent phases.

Something might be linked to the disease.

D3 The initial potential practical outcome is identified and work is ongoing to build on the observation.

The protein (gene) is the 'cause' of the disease.

D4 Research lead optimisation pre-translation

This compound can influence the target.

1: Knowledge Advancement

2: Capacity and Capability Building

3: Policy and Practice

4: Health and community

5: Economic benefit

Program Logic and research impact

Cardiovascular Senior and Early- Mid Career Researcher Grant Application Form 2025

C5. Program Logic Model

Please complete the program logic diagram below to provide a high-level overview of the project, including its activities, outputs, end users, pathway to adoption, and short and long-term outcomes.

Project Need: Write the need the project is seeking to address here.				
Project Aims: Write the key aims of the project here.				

Activities List the activities required to meet the project aims and produce research project outputs	Outputs List the deliverables of your research project (products or services) produced for next or end users from the activities previously listed	Next users or end users Next users/implementers: List the stakeholders who will utilise or implement the research outputs. Beneficiaries: List the end users who will benefit from the research project outputs (e.g. those who experience an improvement in health outcomes)	Pathway to adoption List how the next users/implementers will use the research outputs to change/influence outcomes (e.g. research report will be used by a statewide committee to inform revisions to a policy directive)	Impacts* List the anticipated short- and long-term impacts and outcomes in the following domains (refer to guidelines for details): 1. Knowledge generation 2. Capability building 3. Policy and practice 4. Patient health and population outcomes 5. Economic outcomes

**NSW Health is transitioning towards sustainable development goals for research. NSW Health may ask you to provide information about ways this project is seeking to contribute to equitable and sustainable development during the life of this grant through annual progress reports.*

Program Logic and research impact (resources available on the OHMR website)

Evidence and Evaluation Guidance Series
Population and Public Health Division

Developing and Using Program Logic: A Guide

[https://www.medicalresearch.nsw.gov.au/app/uploads/2019/02/
developing-program-logic-guide.pdf](https://www.medicalresearch.nsw.gov.au/app/uploads/2019/02/developing-program-logic-guide.pdf)

Program Logic and research impact (resources available on the OHMR website)



The image is a screenshot of a video presentation. On the left, a presentation slide is displayed with the HMRI logo in the top left corner. The slide title is "OBJECTIVE FOR MY PRESENTATION" in green. It contains two numbered points: "1. To equip you with knowledge, exemplars, resources and confidence to develop an Impact Program Logic Model for your grant application." and "2. To help you understand its utility beyond this grant application." At the bottom of the slide, a small green bar contains the text "HMRI is a partnership between the University of Newcastle, Hunter New England Local Health District and the community." On the right side of the video frame, a woman, Dr. Shanthi Ramanathan, is standing at a podium, speaking into a microphone. Behind her is a banner with the NSW Government logo and the text "HEALTH+MED RESEARCH" and "Better health outcomes through research". A name tag at the bottom right of the video frame identifies her as "Beng Chong".

HMRI

OBJECTIVE FOR MY PRESENTATION

1. To equip you with knowledge, exemplars, resources and confidence to develop an Impact Program Logic Model for your grant application.
2. To help you understand its utility beyond this grant application.

HMRI is a partnership between the University of Newcastle, Hunter New England Local Health District and the community.

NSW
HEALTH+MED
RESEARCH
Better health outcomes through research

Beng Chong

Dr Shanthi Ramanathan

<https://www.youtube.com/watch?v=5E12C3bjOUw>

Program Logic and research impact – one approach

Start drafting this early
(as soon as you know what your grant will focus on)

C5. Program Logic Model

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**NSW Health is transitioning towards sustainable development goals for research. NSW Health may ask you to provide information about ways this project is seeking to contribute to equitable and sustainable development during the life of this grant through annual progress reports.*

Program Logic and research impact – one approach

Step 1: Need / Aims (dot points are fine)

C5. Program Logic Model

Please complete the program logic diagram below to provide a high-level overview of the project, including its activities, outputs, and impact.

Project Need: Write the need the project is seeking to address here.	
Project Aims: Write the key aims of the project here.	

Need: Overcome the burden of Variants of Uncertain Significance in inherited arrhythmia syndromes

Aims: Develop assays to determine the functional impact of variants
Calibrate assays against known pathogenic and benign variants
Measure function of variants of uncertain significance

Program Logic and research impact – one approach

Step 2: Identify potential Impacts

Knowledge Generation:

- Understand the relationship between altered molecular function and clinical outcomes

Capability (and capacity) Building

- Training students / post-docs
- Training researchers in specialized lab techniques

Policy and Practice

- Incorporation of functional testing assays into clinical workflows for variant classification

Patient health and population outcomes

- More accurate and quicker variant classification
- Improve prediction of prognosis to guide management
- Improved family screening

Economic Outcomes

- Improved targeting of ICDs
- Platform technology for drug discovery

Impacts*

List the anticipated short- and long-term impacts domains (refer to guidelines for details):

1. Knowledge generation
2. Capability building
3. Policy and practice
4. Patient health and population outcomes
5. Economic outcomes

e and sustainable development during the life of th

Program Logic and research impact – one approach

Step 3: Next Users and Pathway to adoption

Next users or end users	Pathway to adoption
<p>Next users/implementers: List the stakeholders who will utilise or implement the research outputs.</p> <p>Beneficiaries: List the end users who will benefit from the research project outputs (e.g. those who experience an improvement in health outcomes)</p>	<p>List how the next users/implementers will use the research outputs to change/influence outcomes (e.g. research report will be used by a statewide committee to inform revisions to a policy directive)</p>
<p>Genetic Counsellors</p> <p>Cardiologists</p> <p>Patients</p> <p>Families</p> <p>Gene testing laboratories</p>	<p>What information do each of these groups need to get from your study to enable them to take your work forward</p>
<p><i>Health may ask you to provide information about ways this project is seeking to contribute to equitable</i></p>	

Program Logic and research impact – one approach

Step 4: Activities and Outputs

Activities List the activities required to meet the project aims and produce research project outputs	Outputs List the deliverables of your research project (products or services) produced for next or end users from the activities previously listed
	<ul style="list-style-type: none">• Peer reviewed publications• Conference presentations• Small group presentations• Professional society newsletters• Media stories• Patents

Peer- reviewed academic publications are great for communicating to researchers, but not necessarily for clinicians, patients or policy. But they still provide important validation for other groups.

Design your study so that the outputs facilitate uptake by your next users. This will likely be different for each group

**NSW Health is transitioning towards sustainable development goals for research. NSW*

Program Logic and research impact – one approach

Step 5: Revisit your Need / Aims

C5. Program Logic Model

Please complete the program logic diagram below to provide a high-level overview of the project, including its activities, outputs, and impact.

Project Need: Write the need the project is seeking to address here.	
Project Aims: Write the key aims of the project here.	

Program Logic and research impact – one approach

Step 6: Finalise the grant proposal

Is your plan optimal to ensure that if it is successful then it will be taken to the next level

Developing your Program Logic



Prof Kazuaki Negishi

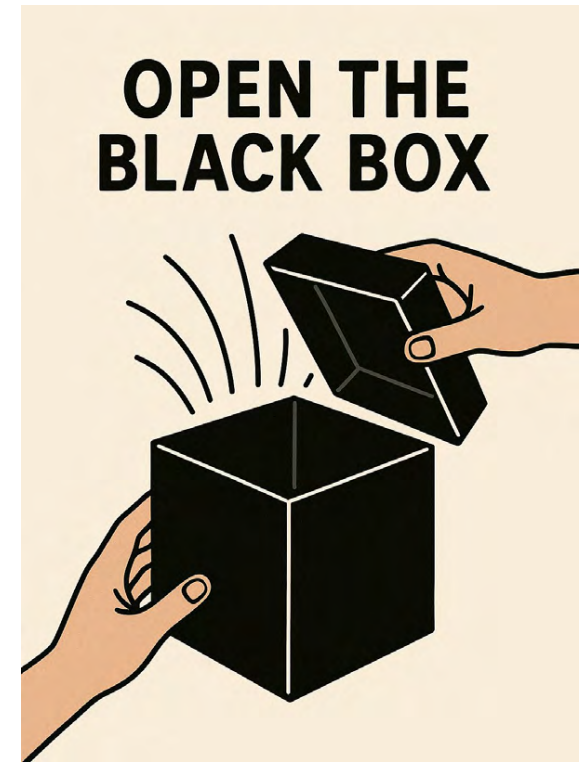
**Victor Chang Cardiac Research Institute and
UNSW**

Developing your Program Logic

Kazuaki (Kaz) Negishi

MD, PhD, MSc, FRACP, FACC, FESC, FASE, FAHA, FCSANZ

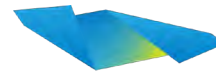
Professor and Chair of Cardiovascular Research UNSW South West Sydney



UNSW
SYDNEY



LIVERPOOL
HOSPITAL



Ingham Institute
Applied Medical Research

10 years



Victor Chang
Cardiac Research Institute

Motivation for Evaluation

Policy and Guidelines: Evaluation

1. Evaluation: introduction

Mandatory

- a) All NSW Government agencies are required to coordinate monitoring and periodic evaluation of their initiatives, both ongoing and new.
- b) Initiatives resourced by the NSW Government must be regularly examined to assess their achievement of intended outcomes and net social benefit to the people of New South Wales.

What is 'Evaluation' and why?

What is evaluation?

Evaluation is a systematic and transparent process that can be used to assess the appropriateness, efficiency, effectiveness, and net social benefits of an initiative, after it has been implemented.

Why?

Evaluations are a key tool to inform evidence-based decision-making.

Figure 1: Initiative logic model

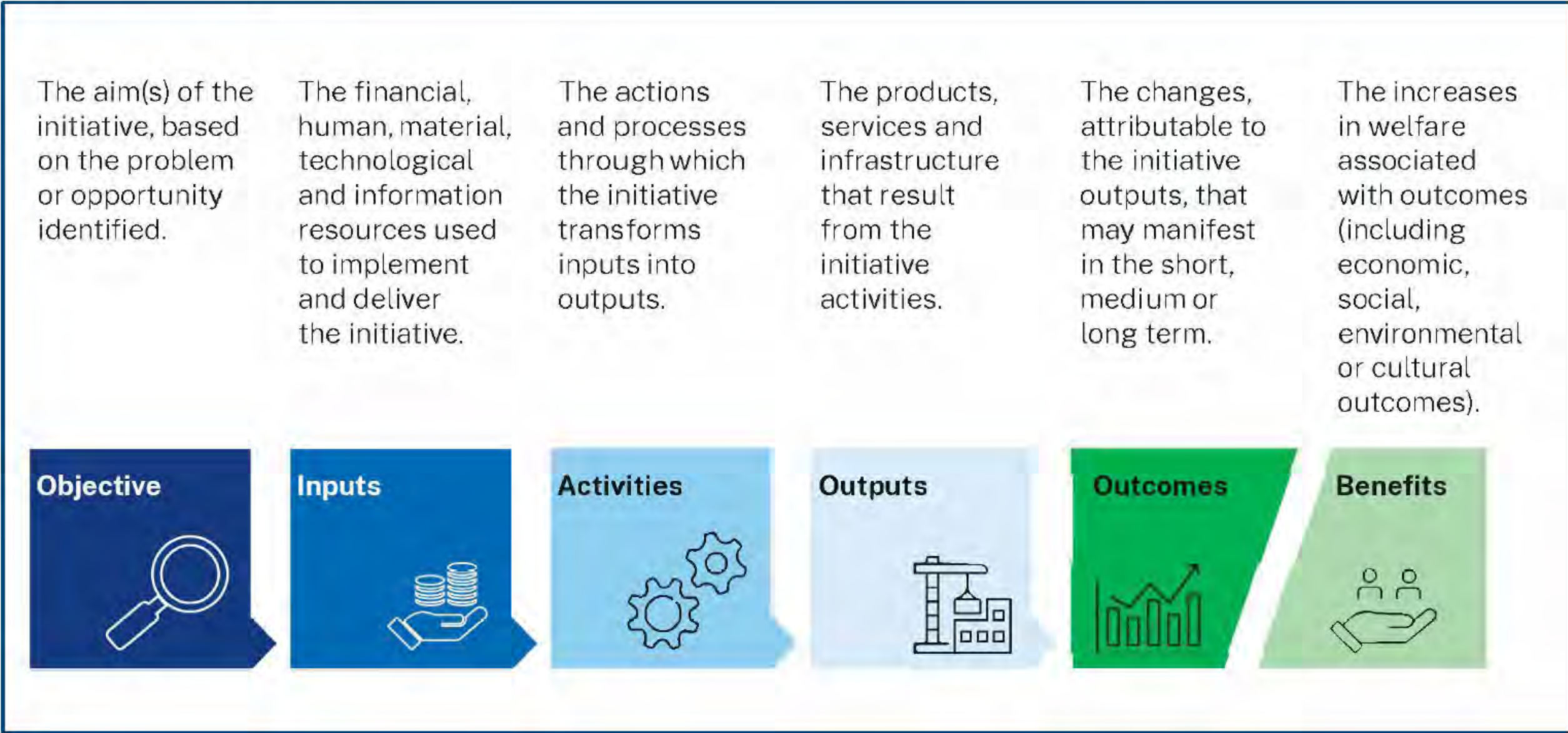
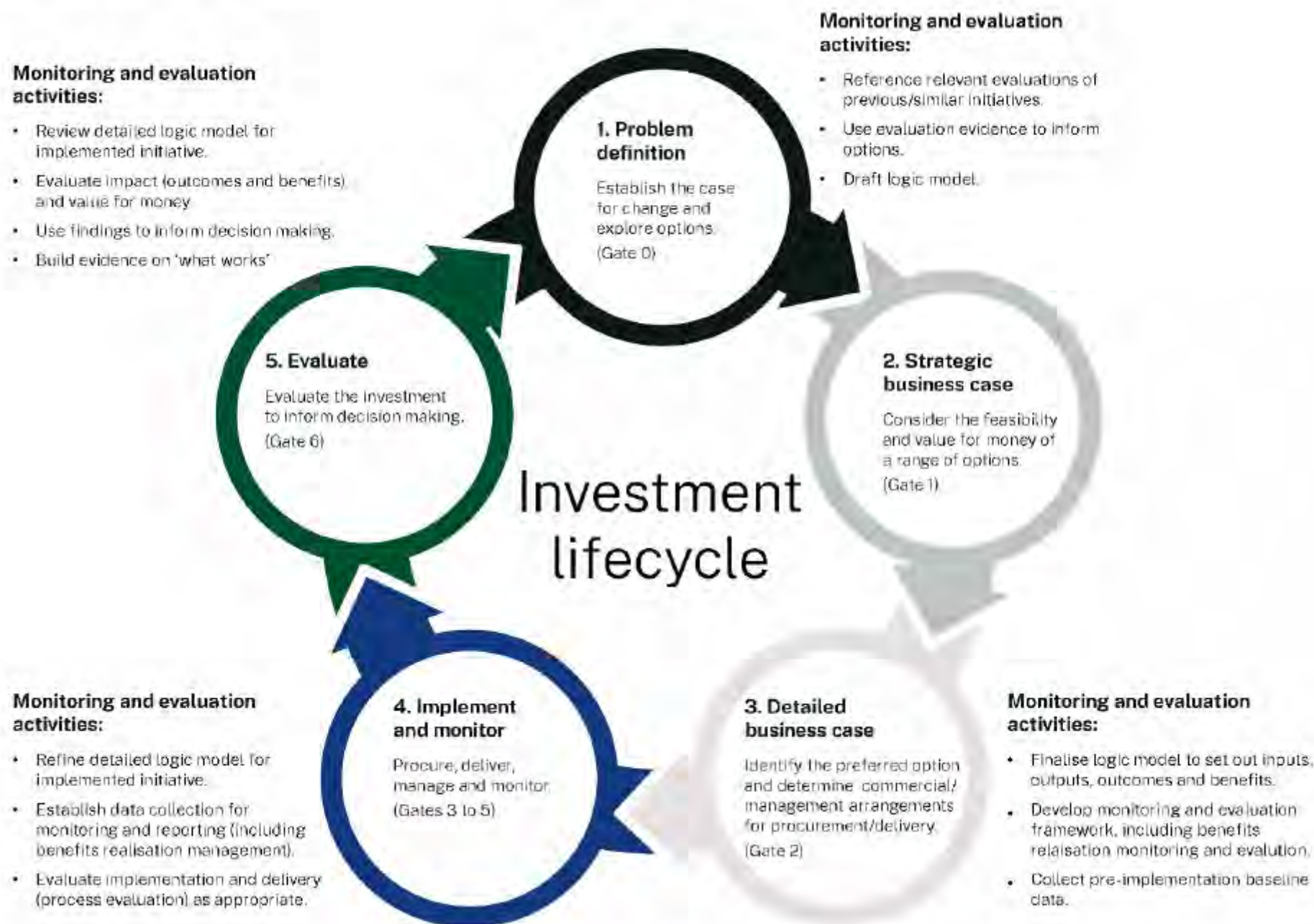
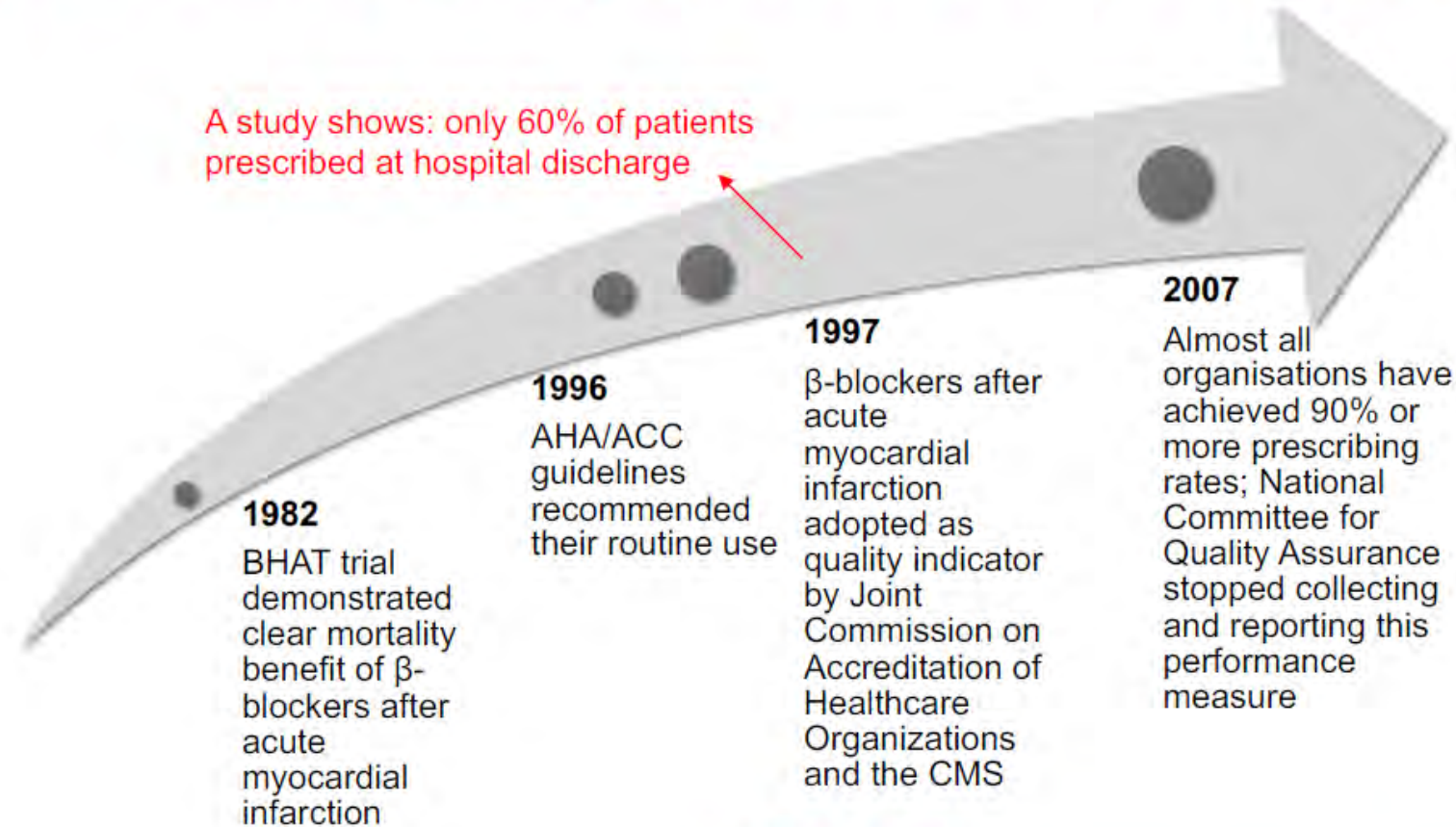


Figure 3: Investment lifecycle



An example of evidence-practice gap

β -blockers after acute myocardial infarction in the US



JAMA 1982;247:1707-1714

Ting HH et al. Circulation 2009;119:1962-1974
Lee TH. NEJM 2007;357:1175-78

1982-2007:
Quarter century from evidence to practice

A research journey (perspective)

Biological potential
Internal validity

Practical Impact
Generalizability
External validity

Implementation
integrity

Cost vs Benefit
Resource use & value

T0:

Discovery

In vitro/ in vivo

T1: Efficacy

Can it work?

Clinical trials

T2: Effectiveness

Does it work?

Pragmatic studies

T3: Fidelity

Was it delivered as designed?

Program evaluation

T4: Population Health

(Efficiency)

Health economics

What an intervention achieves

How well it is delivered as intended

Can our society afford it?

In clinical research context

Biological potential
Internal validity

Can it work in ideal setting?
(Efficacy)
Clinical trials

(in vitro to RCT)

Practical Impact
Generalizability
External validity

Does it work in real life?
(Effectiveness)
Pragmatic studies

Cost vs Benefit
Resource use & value

Is it worth the cost?
(Efficiency)
Health economics

Implementation
integrity

Was it delivered as designed?
(Fidelity)
Program evaluation

What an intervention achieves

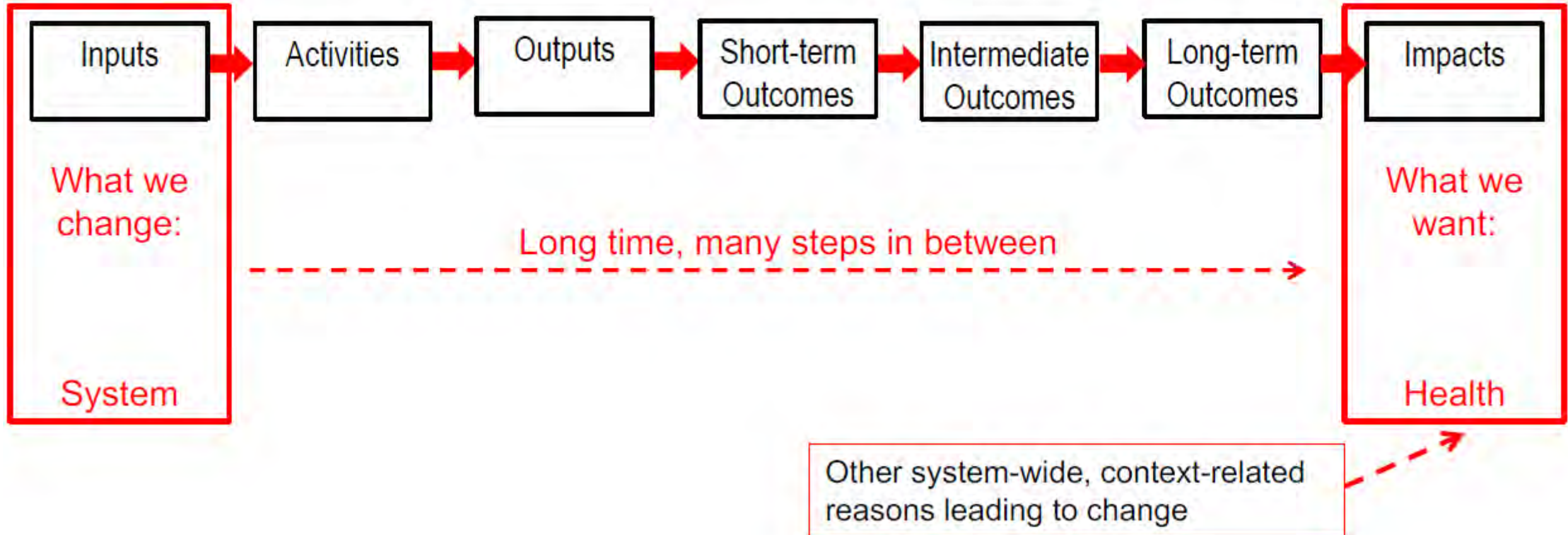
How well it is delivered as intended

Evidence-based medicine

Comparative effectiveness
research

Outcome Research

We need to fill the gaps (in a logical manner)



What are Logic Models (Program Logic)?

- **Impact theory (scientific fairy tale)**
- *aka* 'Theory of Change'
- **Based on causal assumptions**

- Logic models are series of if-then statements

- IF certain resources (e.g., staff, materials) are available, THEN the intervention can provide certain services



- IF target population receives these services, THEN they will change their knowledge, attitudes, or skills

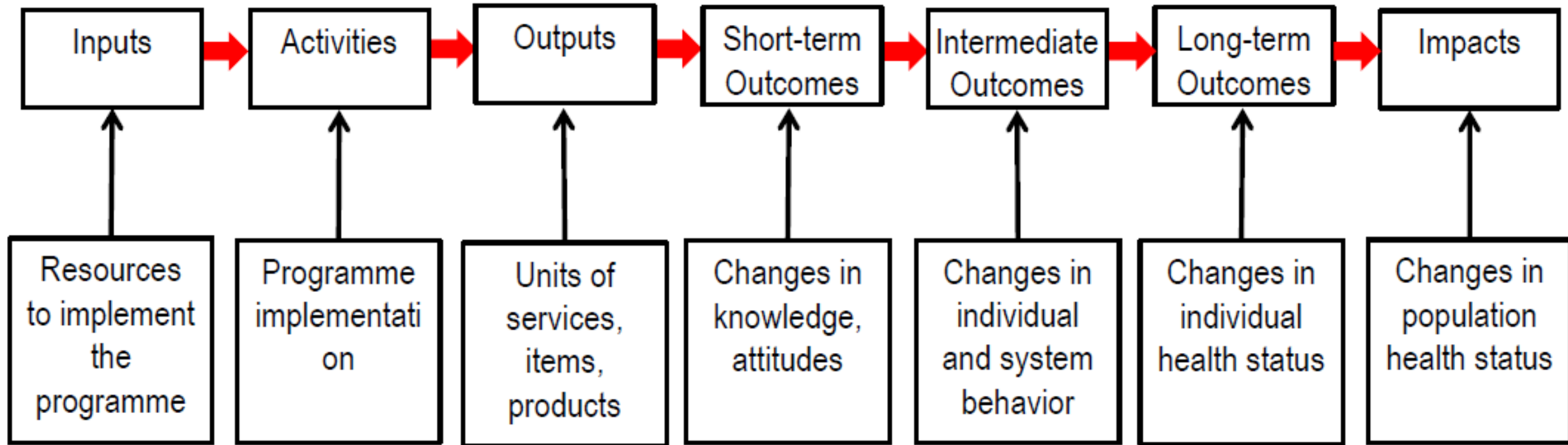


- IF target population changes their knowledge, attitudes, or skills, THEN they will change behaviour



- IF enough people change their behaviour, THEN the programme or intervention will affect community health

Logic model (*aka* 'Results chain')



Types of evaluation at different stages

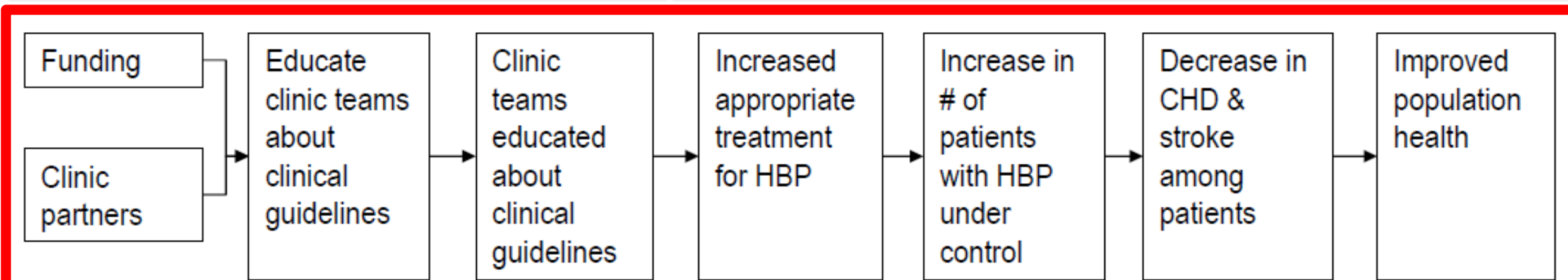
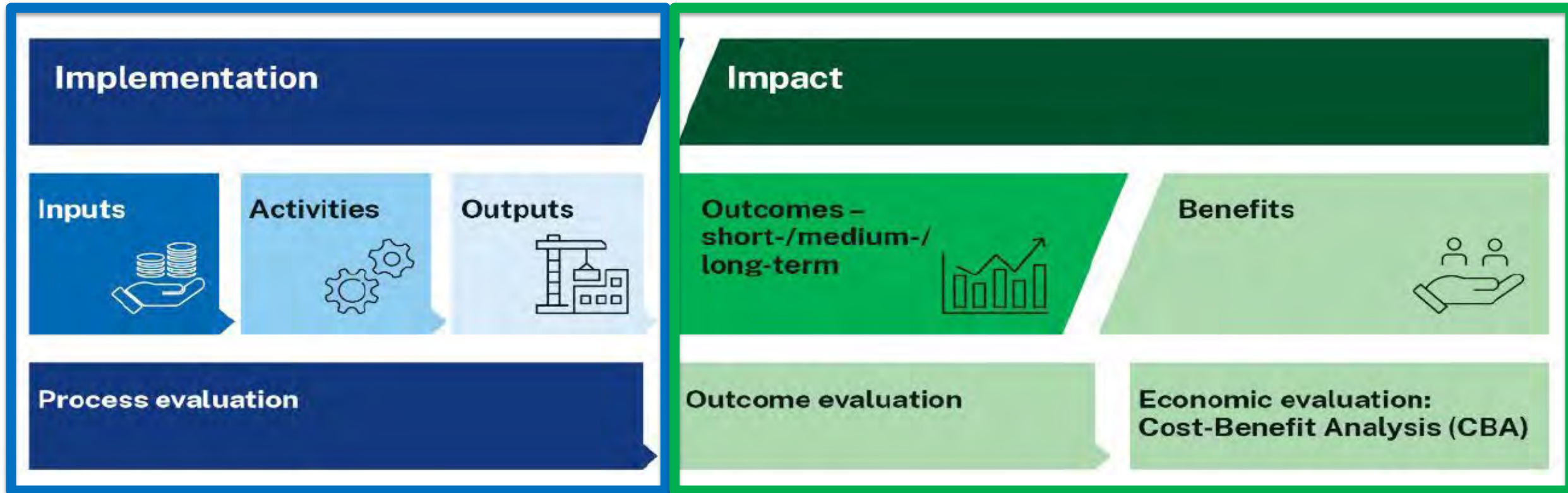
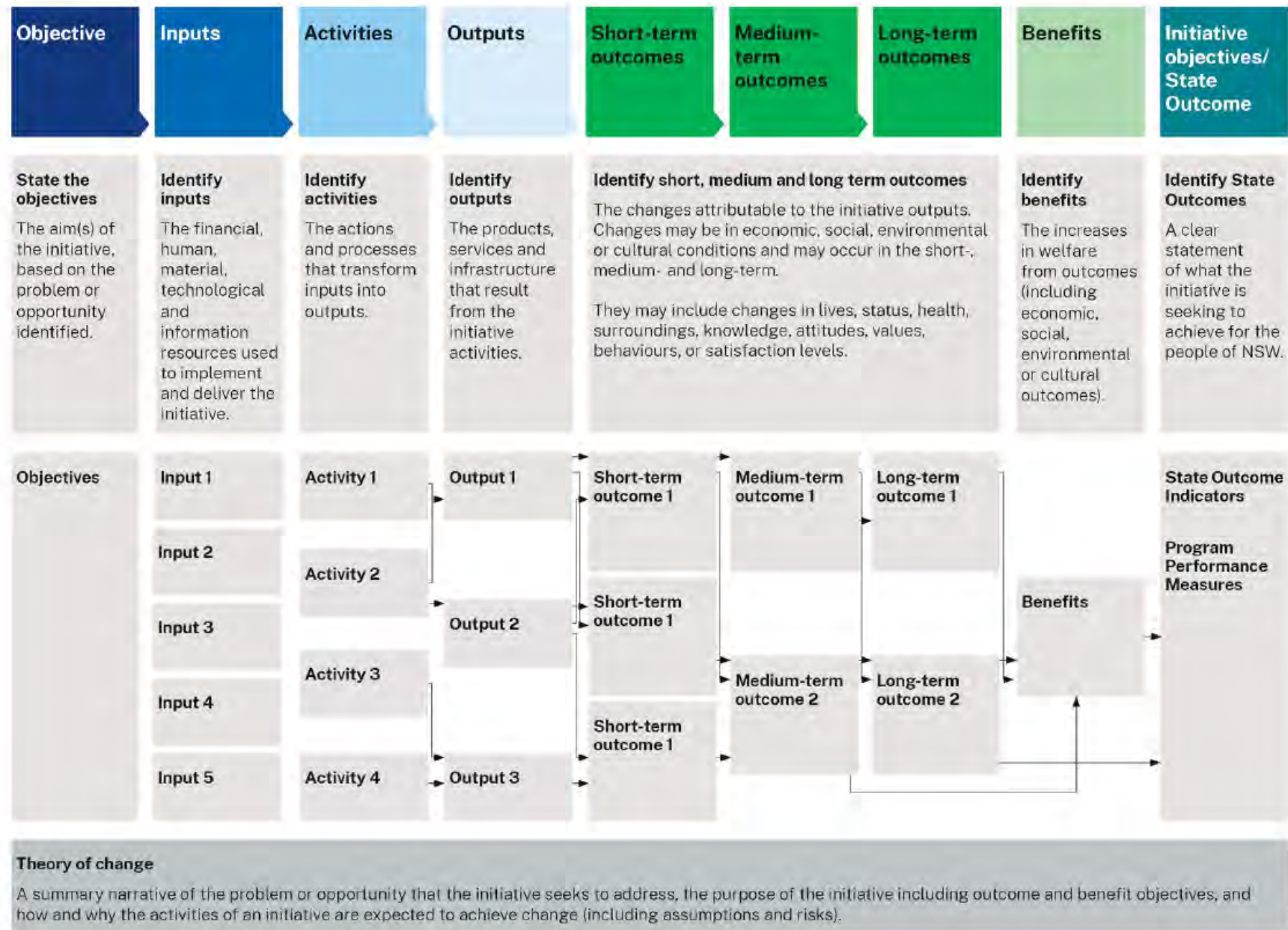


Figure 4: Example logic model



Appendix E. Example theory-of-change and logic model: building evidence presents an example theory-of-change and logic model relevant to an initiative to build an evidence bank.

Mapping evaluation questions & indicators to logic model

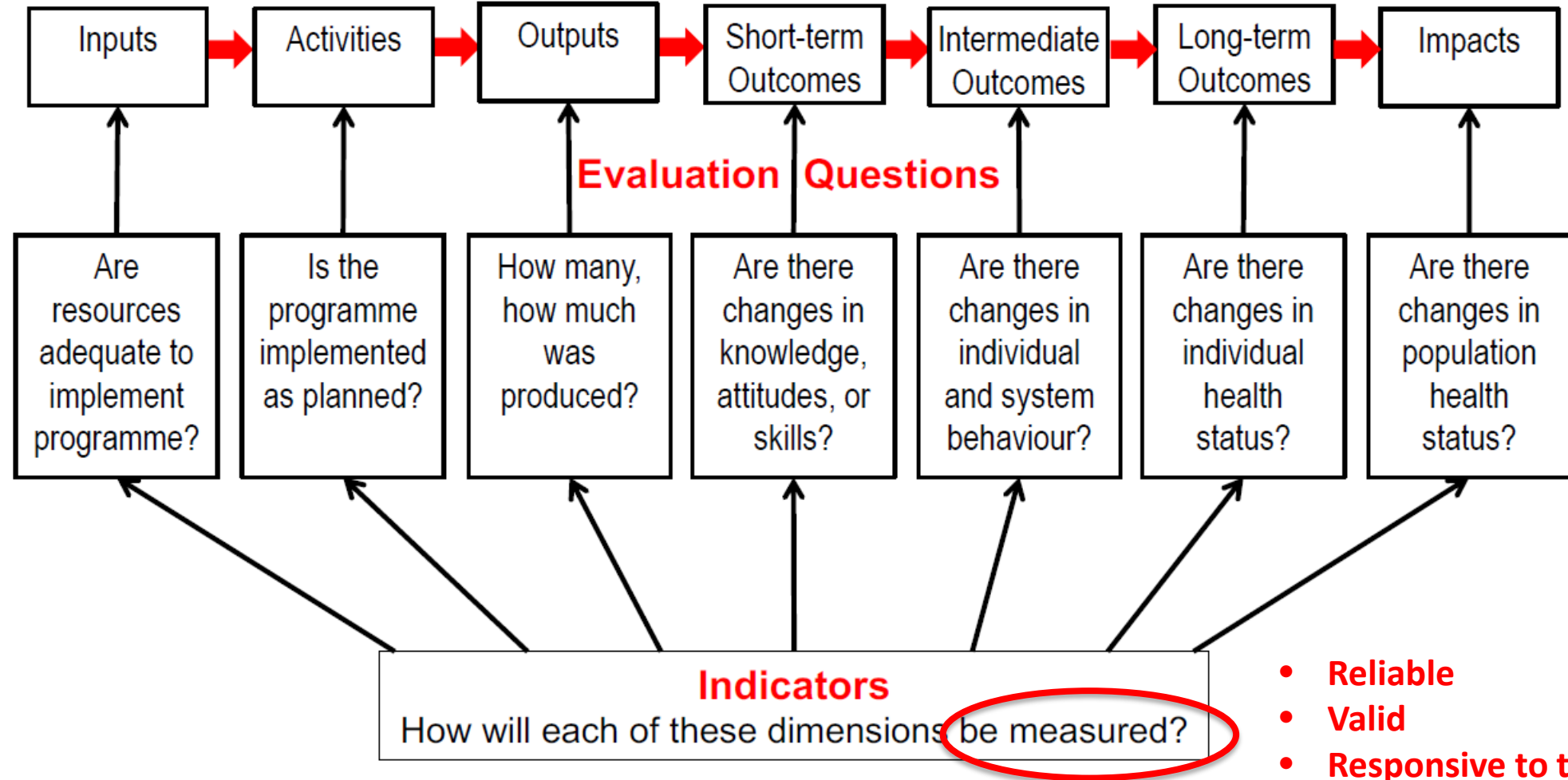
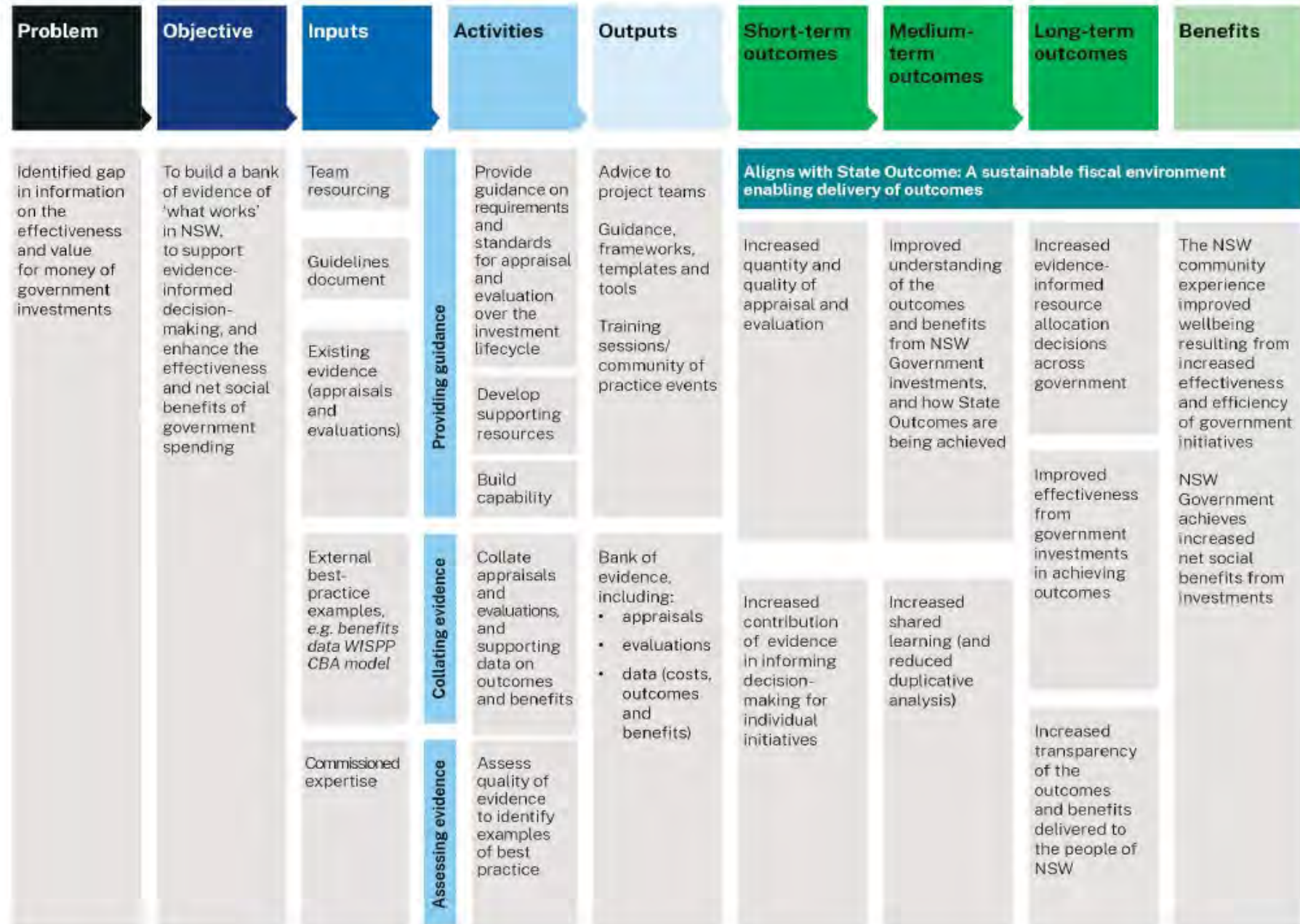
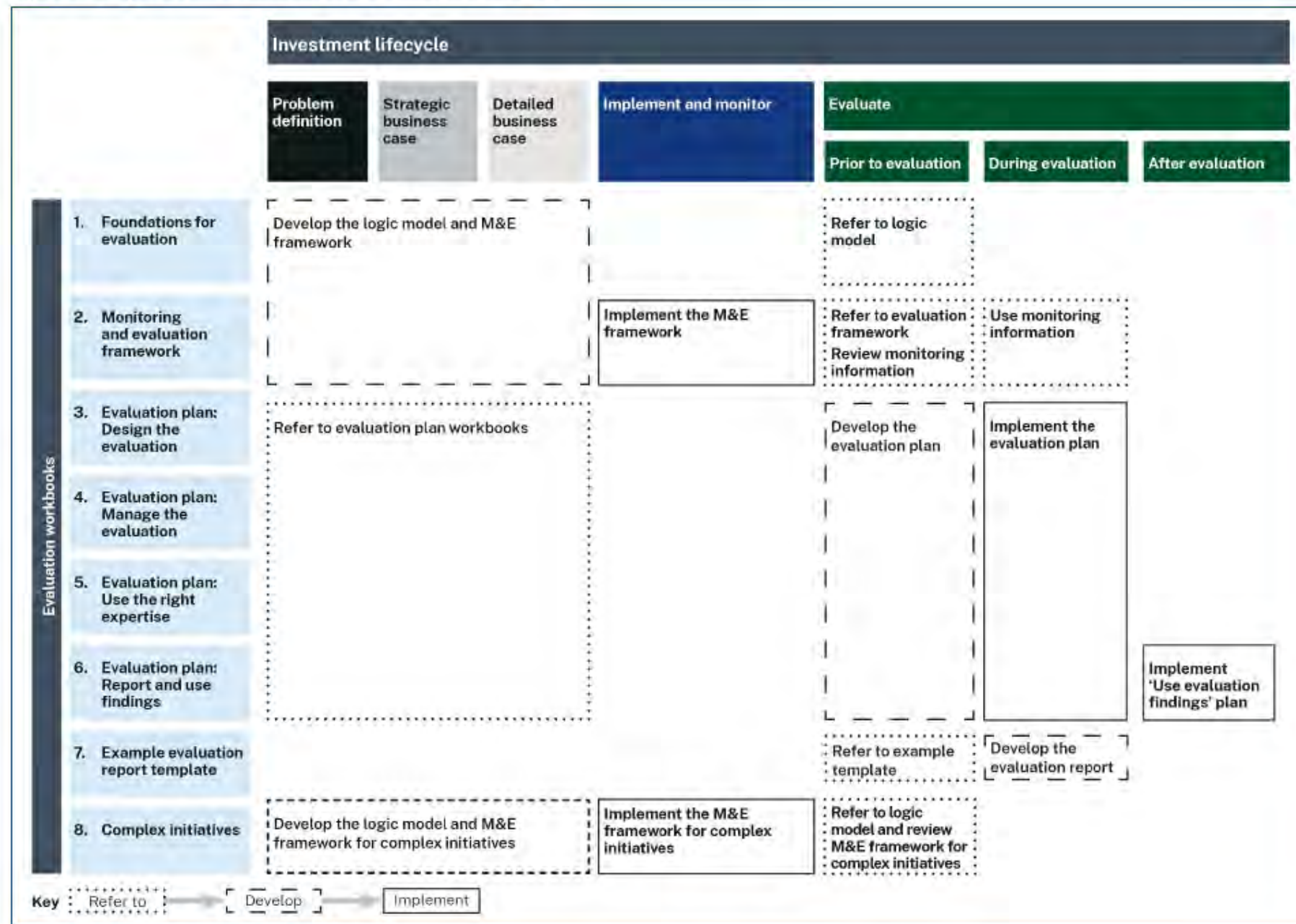


Figure 8: Example logic model



Appendix F. Evaluation workbooks summary

Figure 9: Using evaluation workbooks over the investment lifecycle



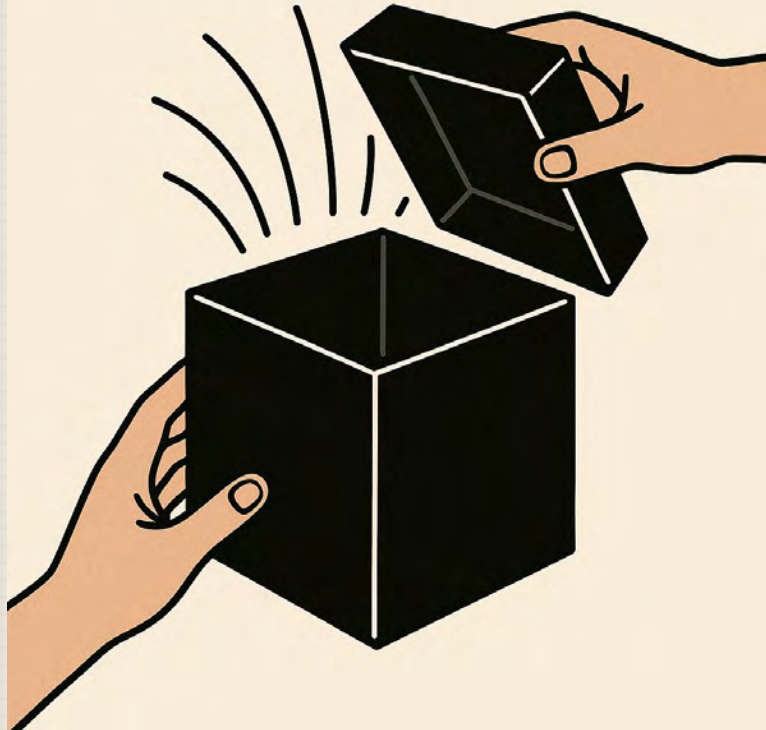
Conclusion



INPUT



**OPEN THE
BLACK BOX**



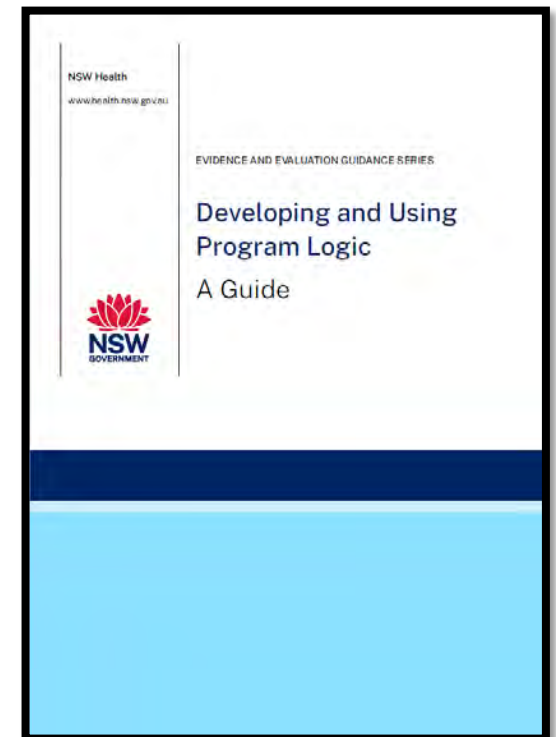
**SOMETHING
SPECTACULAR**

OUTPUT



References/ Resources

- **Evaluation Guidelines TPG22-22**
<https://www.treasury.nsw.gov.au/information-public-entities/centre-for-economic-evidence/evaluation-policy-and-guidelines>
- **NSW Health Developing and Using Program Logic A Guide**





k.negishi@unsw.edu.au



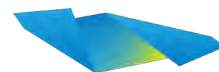
[@KazNegishiMD](https://twitter.com/KazNegishiMD)



UNSW
SYDNEY



LIVERPOOL
HOSPITAL



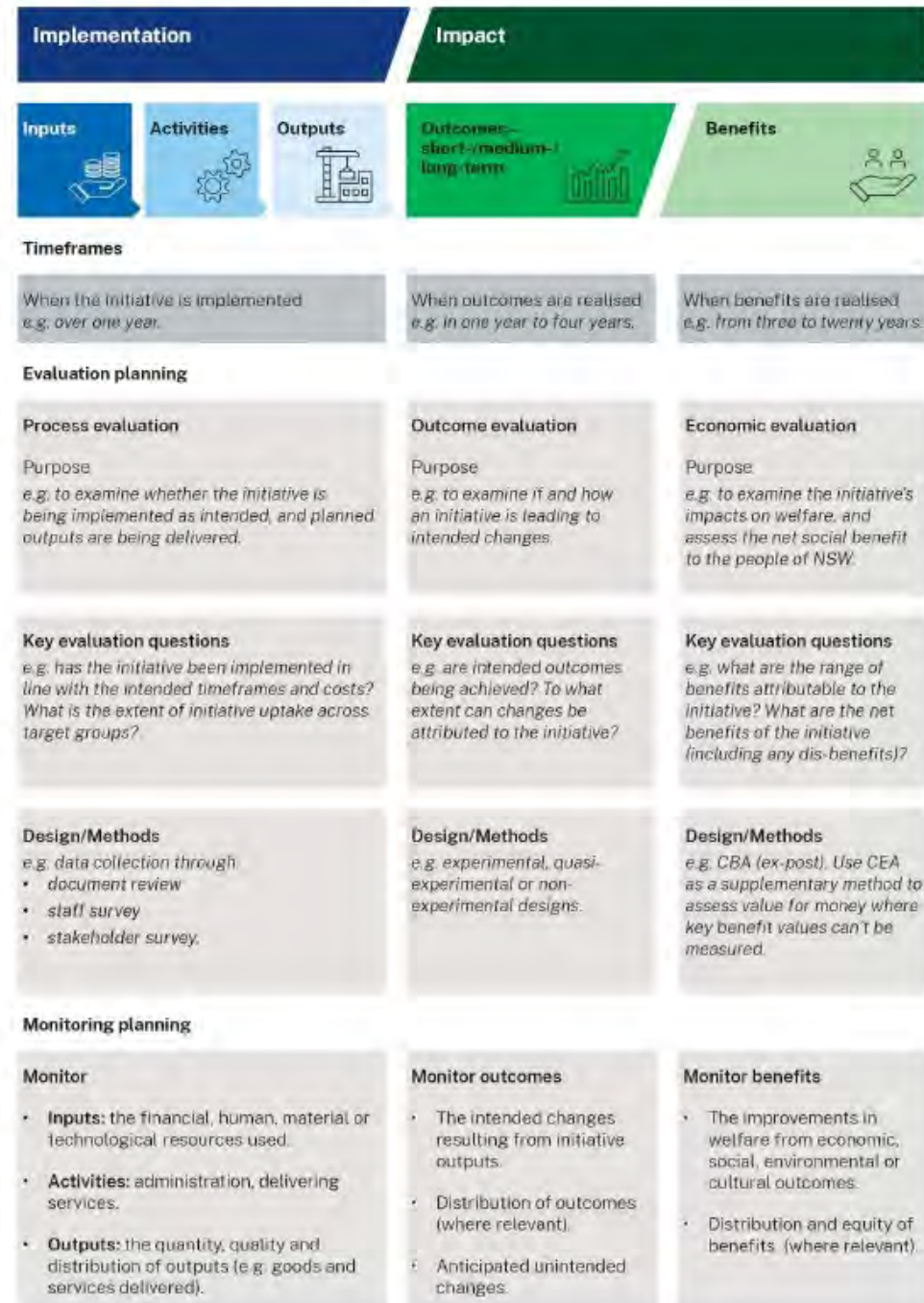
Ingham Institute
Applied Medical Research

10 years



Victor Chang
Cardiac Research Institute

Figure 5: High level monitoring and evaluation planning





Q&A

Writing a winning grant application



Prof Nigel Turner

Victor Chang Cardiac Research Institute

Writing a winning grant application

6th May 2025

Professor Nigel Turner

General tips

- Read the guidelines – what is the agency looking for with this type of funding? What will reviewers be looking for?
- Pitch at the right level – non-expert with general knowledge of the field
- Preliminary data is important – reinforces concepts, feasibility

Clarity

- Easy to follow – concepts are all introduced, logical approaches
- Keep the language simple - avoid highly technical language/jargon, unusual abbreviations, long and complex sentences
- Images can help – “a picture is worth a thousand words”, generally not part of word count and breaks up text
 - Consider a graphical abstract to outline of aims/approach, image for experimental timelines, graphs for preliminary data
 - Make sure images are large enough to read

Experimental plan

- Every grant needs a degree of **excitement** – what is novel about your proposed project – new drug, new experimental model, innovative approach, new application of existing methods/medications....
- Avoid experimental plans solely reliant on ‘fishing’ expeditions
- Clearly outline what information each experiment or study will provide
- Be realistic about the risks you may face – try to have a positive spin

Feasibility

- Choose your team carefully – what other investigators are needed to fill gaps in expertise?
- Highlight your strengths/experience throughout
- Use the publications and other outputs section – in the description highlight your research leadership (can get the job done) and papers that highlight expertise
- Experimental plan must be realistic for the timeframe

Start early and seek feedback

- All grants require refinement – give yourself time
- Seek feedback from colleagues with expertise outside of the topic of the grant – better to get constructive criticism from a colleague before the application goes for review
- Drafts don't have to be complete/perfect for feedback

- Attention to detail is important for all sections
- Make sure you spend adequate time on all sections – avoid repetition where possible and don't use the entire word count if it is not appropriate
- Budget needs to be clear, realistic and ideally linked to the Aims

Don't oversell the impact

- Consider what is a reasonable expectation for impact of a basic science vs. clinical project
- Where will you realistically be at the end of the funding period?
- Is there scope for any impact beyond the disease you are studying?

Development plan

- Think very clearly about the development plan
- Last thing that is seen – leaves an impression
- Strong finish!



Thanks and good luck!

Writing a winning grant application



Dr Mark Dennis

**Royal Prince Alfred Hospital and
the University of Sydney**

Writing a winning grant – keeping it as practical as possible



STEP 1: READ the grant and answer EACH question/guide

Have you done enough prelim work?
Stakeholders?

Systematic reviews - other work to
define need, intervention and potential
benefit?, consumer focus groups?

What is the need?

Why is your project critical or different?

How will you translate and disseminate

B	Applicant Track Record in Research and Research Impact <ul style="list-style-type: none">• Academic and relevant professional qualifications• Research, clinical and industry experience and collaborations• Track record• Funding awarded last five years• Impact of previous NSW Health grant funding• Responsibilities impacting on track record	8	40%
C	Research Project <ul style="list-style-type: none">• Project title• Long-term goal of research• Evidence Gap• Research protocol• Project Milestones• Program Logic• Project Team• Governance• Risk-Management• Intellectual Property arrangements• Lay summary	11	40%
D	Project Budget and other contributions	16	20%
E	Optional additional Budget for EMCRs only	17	
F	Skill Development, Leadership and Capacity Building	18	

Applicant track record and Publications/Presentations etc

1. Ideally choose papers where you are first or last author **OR** when you are involved a really impactful/major paper
2. Use Citations, FWCI, percentile benchmarking etc. metrics
 - Use your university librarian for you
 - **International** references or citations
 - Podcast Reach
3. Should be related to proposed research unless a very big paper

Impacts:

- Changed clinical practice
- Ministerial briefs
- Change resource allocation
- Changed guidelines
- Referenced in guideline
- **First** application, **first** paper
- Media, podcasts etc.
- New collaborations
- Higher degree students
- New clinics, research collaborations
- **New** research groups

Translation and Research Impact example

B3.5 Provide examples of translation and impact through your research career (max 300 words)

My earlier cardiac imaging work into diabetes effects on the heart using novel cardiac MRI techniques(7) led to the establishment of a new heart failure clinic at Royal Prince Alfred Hospital.

ECPR trials led by myself(5, 6, 8) that included mechanical CPR, enabled real-world assessment of mechanical CPR (MCPR) devices by paramedics. Subsequent formal assessment of MCPR was completed and over 1,000 devices across NSW deployed by NSW Ambulance to enable safe transfer of patients with ongoing CPR and new treatment pathways for cardiac arrest patients. The EVIDENCE study (of which I am CIA) has standardised ECPR inclusion criteria and OHCA data collection across 15 hospitals in an effort to improve outcomes.

My trial(8) and economic work(9, 10) which included in an International Liaison Committee on Resuscitation (ILCOR) sponsored review(11) and a European Resuscitation Guideline.(12) This work also led to national and international presentations outlined above (in B3.3) and invitations to join national (Australian Sudden Cardiac Death Alliance, NSW Sudden Cardiac Arrest Registry) and international (International Registry on Unloading during Cardiac Arrest Registry – across nine countries) research collaborations.

The traffic and spatial modelling research(13, 14) and application of transport accessibility principles to OHCA and ECPR is now being considered by two Australian states and one international jurisdiction for completion. My group articulated the impact of current patient selection and prognostic markers on ECPR outcomes (11,12) and identified a pre-ECMO prognostic marker (lactate) for further research.(8)

My ECMO coagulation work(15, 16) changed local practice at Royal Prince Alfred Hospital, is included international guidelines.(4) Moreover, it has informed NSW state formulary applications to ensure appropriate anticoagulant availability for clinicians and utilised a new technology (automated analyser of thrombin), to report on thrombin generation in ECPR patients.

When in doubt
form a new
“strategic alliance”
or working group

Research Project

Patients with prolonged cardiac arrest have abysmal outcomes(17) that have not changed significantly with time - **an unmet need**. Extracorporeal membrane oxygenation (ECMO) is therapy for prolonged cardiopulmonary resuscitation (ECPR) (3) used in NSW, but is limited to only a few select metropolitan hospitals (five in Sydney) in and around business hours and weekdays - a significant ***in-equity of access and health problem***. Adding new ECPR-capable hospitals is not the answer.(13) We need to **test** and **cost** a new ECPR strategy to **improve patient access**. We know ECMO is expensive at >\$100,000 per ICU admission(18). We need to cost and economically analyse pre-hospital ECPR and its place in the cardiac arrest survival chain to **ensure value-based health care**. We need our **PRECARE study**.

Hit them right between the eyes

Research Protocol

- **Structure your research protocol like a research paper/or trial protocol whether it be pre-clinical or clinical or other**
- **Link to your other work throughout – show that you are leveraging it**
- **Call out where practices are novel and new**
- **Don't forget health economics (especially if clinical work)**
- **Hit the outcomes and impact AGAIN and ensure you show how it will be disseminated**

Research outcomes and Impact

1. Critical health economics data that will underpin decisions on future ECPR service provision – *to ensure value-based health care and optimal service development*
2. Efficacy and comparator data of pre-hospital ECPR in Sydney – *this will accelerate definitive Phase 3 trials, will be referenced in guidelines and guide service development*
3. The feasibility of a pre-hospital ECPR integrated into ambulance workflow – *providing a means for future sustainability and scalability across NSW (including regionally) and avoiding inappropriate hospital based ECPR expansion.*
4. Provide a validated training program for pre-hospital ECPR – *exportable globally*

Translation, collaboration and dissemination

We have standardised case report forms with collaborators (Dr Singer – London, Prof. Lamhaut – Paris, Dr Miranda – Netherlands, Dr Burrell – Melbourne, Dr Yannopolous – Minnesota, Dr Daube – Albuquerque, Prof. Bělohávek – Prague) to enable metanalysis and trial collaboration. Applications will be made to state and national grant bodies for additional funding for a national Phase 3 clinical trial **within 12 months of completion of the study**. The PRECARE results will be provided by the investigators and the steering committee to: the NSW Minister for Health, relevant deputy secretaries, Extracorporeal Life Support Organization (ELSO) and the Australia and New Zealand Intensive Care Society Clinical Trials Group. Service changes for NSW Ambulance will be driven by CI Bendall who will also directly engage other ambulance services throughout Australia.

Good opportunity to sell your broader team that can support you

Have a steering committee or process/risk matrix/something to track you and the project and a escalation pathway

Program Logic

**Honestly –
this is a pain**

Cardiovascular Senior and Early-Mid Career Researcher Grant Application Form 2023

<p>PRECARE Study Activities Pre-hospital clinician and paramedic training package</p> <p>Pre-hospital clinician and paramedic exams and competency sign-off</p> <p>Pre-hospital ECPR systematic review</p> <p>Traffic engineering modelling of different ECPR delivery strategies</p> <p>Needs analysis of historical NSW OHCA registry</p> <p>International clinician engagement including international Delphi on ECPR training</p> <p>ECMO courses completed including theory, porcine lab, in hospital, in-vivo training</p> <p>Stakeholder engagement: clinician, consumer, Ministry of Health, hospital and NSW Ambulance and the Agency for Clinical Innovation.</p> <p>Consumer representative/s identified and engaged</p> <p>Hospital acceptance and treatment package and agreement</p> <p>Study protocol and ethics-signed off</p> <p>In-kind support for ECMO consumables</p> <p>Independent data safety monitoring board arranged</p> <p>Costing study and economic modelling protocol development</p>	<p>PRECARE Outputs ECPR consolidated training package</p> <p>Extracorporeal life support organisation ECPR training guidelines based on PRECARE training package and international Delphi on ECPR training</p> <p>Porcine model of cardiac arrest and cardiac dysfunction that can be used in any training program for ECMO and published in peer review journal</p> <p>Establishing a paramedic supported out of hospital cardiac desk within NSW Ambulance dispatch to specifically assist in management of OHCA patients, benefiting all OHCA patients</p> <p>Simple language summary for consumers and media</p> <p>Minister of Health brief</p> <p>Rates of false call outs, system impacts and resourcing requirements to inform a definitive larger national trial</p> <p>Data for an individual patient meta-analysis with international collaborators.</p> <p>Peer reviewed journal article</p> <p>Conference presentation and presentation to: ANZ clinical trial group, National Heart Foundation, Sudden Cardiac Death Registry, Cardiovascular</p>	<p>Next users / Implementers: International ECPR services, e.g. London Helicopter Emergency Medical Service has already engaged our team to assist with training and utilising of our porcine model of training</p> <p>Extracorporeal life support organisation (ELSO), the peak body for ECMO, has request CI Dennis and CI Kruit to develop ECPR training guidelines.</p> <p>Other researchers and clinicians</p> <p>Media</p> <p>Health system planners within NSW and across Australia.</p> <p>Other ambulance and ECMO services within Australia and internationally.</p> <p>NSW Ministry of Health</p> <p>Beneficiaries Cardiac arrest patients across NSW 24/7. More patients will access advanced therapies. If proven through cars, there is potential in the future for helicopter service (already being done in Netherlands) to cover a geography outside Sydney</p> <p>NSW Health – if proven, will enable optimal cardiac arrest system design and avoiding inappropriate health care expenditure e.g., expansion of ECPR-capable hospitals.</p> <p>International guidelines setting experts.</p>	<p>How the next users/implementers will use the research outputs to change/influence outcomes:</p> <p>Research report integrating findings from our previous ECPR and OHCA trials, our spatial modelling, needs analysis and cost effectiveness and budget variability modelling to be provided to NSW Ministry of Health.</p> <p>Agency for Clinical Innovation briefing and report to enable cardiac arrest system design.</p> <p>NSW Ambulance: formalisation of rostering and staffing to enable scalability</p> <p>Ministry and Minister of Health policy briefing – development of formalised pre-hospital ECPR service in NSW and funding of such.</p> <p>Agency for clinical innovation – ECMO expert user group briefing</p> <p>Australia and New Zealand Intensive Care – Clinical Trial Group presentation, briefing and partnering with National collaborators.</p> <p>State based ambulance services and clinicians – develop own pre-hospital ECPR services based on PRECARE training and experiences.</p>	<p>Anticipated short- and long-term impacts and outcomes in the following domains:</p> <ol style="list-style-type: none"> Knowledge generation <ul style="list-style-type: none"> Heavily cited international journal article and international conference presentations. Integration into ECPR training guidelines Key data to inform definitive large-scale trial NHMRC grant application for trials across Australia Capability building <ul style="list-style-type: none"> Expanded pool of ECMO clinicians including in the pre-hospital space offering redundancy across hospitals and NSW A local proven training program and model that can be utilised by all ECMO clinicians and paramedics – hospital and pre-hospital based. Policy and practice <ul style="list-style-type: none"> Change in OHCA guidelines in NSW – i.e., pre-hospital ECPR for selected patients. Pre-hospital ECPR service integration Patient health and population outcomes <ul style="list-style-type: none"> Improved patient survival rates Good long term functional outcomes Broader population access to therapy Economic outcomes <ul style="list-style-type: none"> Reduced health system costs spent on in-efficient ECPR delivery
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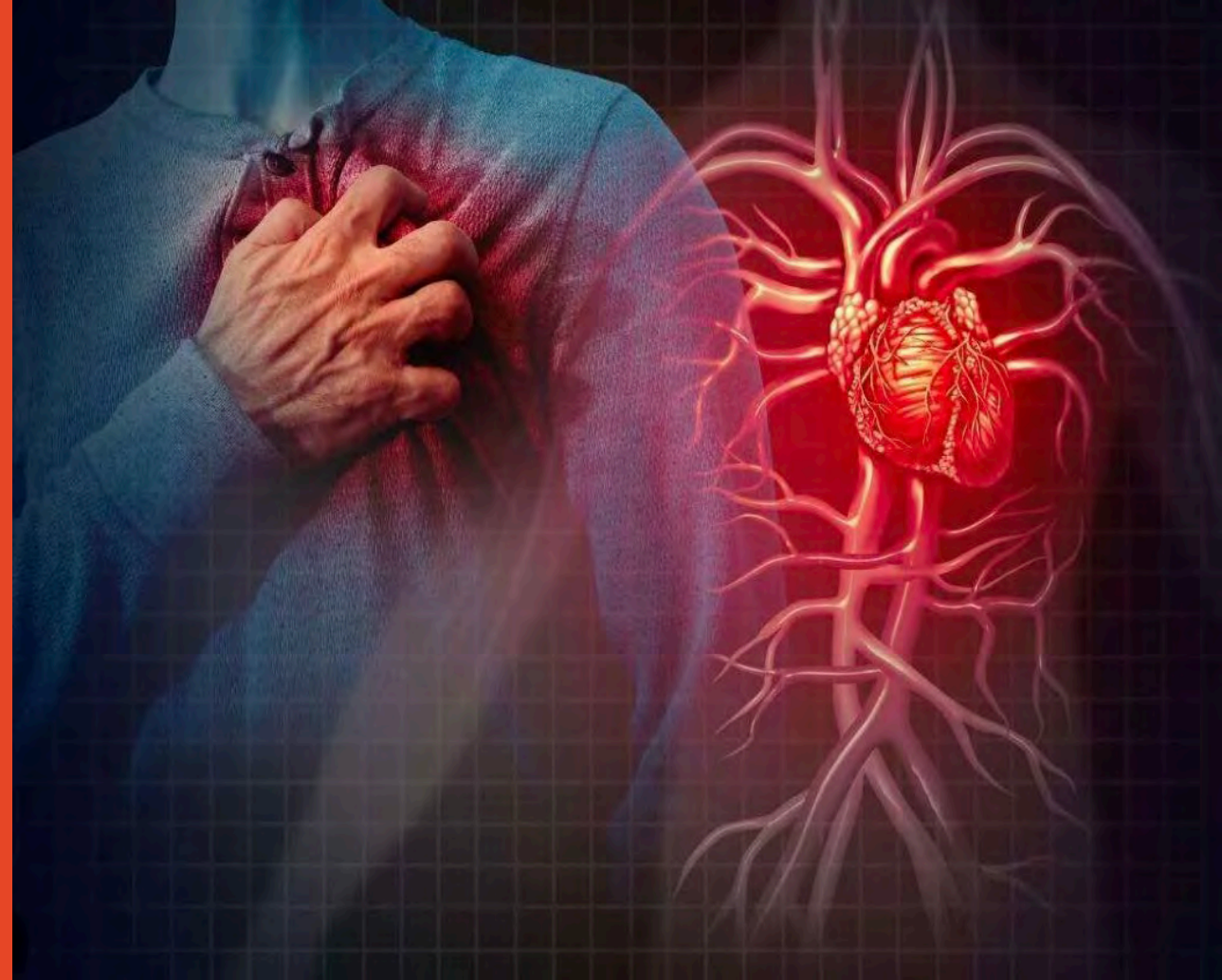
Project Team and Budget

- Use your project team to build confidence in you
- Include executive sponsors/supervisors etc. that can help
- Be generous and collaborative

**Think of all the
people/equipment/resources you need to
get your project done and have a
representative of each part**

**Budget must be believable
Leverage other funding**

Back Up



SECTION F – EARLY-MID CAREER RESEARCHER GRANTS ONLY

SKILL DEVELOPMENT

F1. Plan for skill development, leadership and capacity building

Applicants will be assessed on skill development activities undertaken to date, and proposed skill development during the period of the grant. Activities should align with the researcher's vision for their career. Applicants in the 8-15 years post-PhD category should also include reference to leadership and capacity development.

Describe how this grant will help you develop skills and build your career. Examples of skill development, leadership and capacity building activities are provided in the Guidelines (maximum 600 words).

Please include details of:

- skill development and leadership activities you have undertaken to date in your career
- how you would use this grant to develop your skills in research and leadership and build research capacity in NSW.

I collaborate with researchers across disciplines, trialists, health economists and translational scientists to build networks and pathways. My joint positions as Honorary Associate NHMRC Clinical Trial Centre, Sydney and Adjunct Clinical Associate Professor Monash University have enabled mentoring from senior trialists including Professor Tony Keech and Professor Carol Hodgson.

Skill development and leadership activities to date

LOCAL and STATE: I jointly established the RPAH acute heart failure multi-disciplinary team. I wrote the business case and governance for a new mechanical circulatory support technology (Impella). I was an invited expert to the NSW Health SAX Institute review of premature cardiac mortality. I led the NSW ECPR round table in 2019, leading to \$400,000 of ministerial funding. I am a co-founder of the NSW ECPR Research Interest Group and chair of the NSW Cardiogenic Shock symposium – November 9th 2023 with the ACI. I am a member of the NSW ECMO Advisory Group and of the End Unexplained Cardiac Death NSW Sudden Cardiac Death Registry. I am CIA on current partnership grant applications for increasing bystander CPR for OHCA in NSW.

NATIONAL: I chaired the 2019 ECPR national meeting leading to completion of five national NHMRC grant applications as CIA. I jointly organised the 2020 and 2022 Out of Hospital Cardiac Arrest symposium. I completed a national survey of over 100 cardiac arrest and ECMO clinicians on research priorities for Australia, (16), now used by national clinicians to guide research priorities. I am the lead of the National ECPR working group of 43 clinicians across specialties (first manuscript accepted in press – MJA), and invited member of the AuSCAA (Australian Sudden Cardiac Arrest Alliance).

INTERNATIONAL: I am a founding member of the International Registry of Unloading during cardiac arrest (IRUCA) a group from institutions across nine countries - (first manuscript under review). I am a member of the steering committee on three national ECMO trials (ROSETTA, ECMO-Rehab and PRECISE) and one international data safety monitoring board. I am developing guidelines for the Extracorporeal Life Support Organisation (ELSO) on pre-hospital ECPR and am a member of the Irish Critical Care Clinical Trials Network, seed funding external review panel.

Capacity development

I have dedicated myself to the development of research pathways across medical specialties outside my immediate remit. This has included supervising articles by medical students, junior doctors and senior clinicians across medical specialties and geography. (1-7) I currently supervise three PhD students (two of whom are completing PhDs in cardiac arrest) and two MD students. Ten researchers have now published in the last five years with my direction. I mentored a peer (Dr Jain) in grant writing, leading to a successful MRFF application for cardiogenic shock research (\$971,931.94). I established a translational research collaboration with the Cardiovascular Medical Devices Group (Usyd), contributing to PhD candidate work (Tiffany Goh).

Activities planned

In keeping with my career plan of developing research pathways for clinician researchers in acute cardiac care across specialties, PhD candidates Kruit (cardiac anaesthetist) and Burns (emergency physician), both employed by NSW Ambulance, will complete their PhDs on work related to this project and in turn will provide research pathways for clinician and paramedic researchers. I will seek to formalise research pathways by establishing an acute cardiovascular care collaboration between NSW Ambulance, the NHMRC Clinical Trial Centre and Westmead Applied Research Centre (WARC), based on the work completed in NSW thus far in this scheme and other programs. I will lead a national definitive Phase 3 clinical trial in ECPR application to the NHMRC Clinical trials grant scheme, with a strong focus of mentoring early career researchers from diverse backgrounds.

Key initial points

1. There is **NO** definition for physiological guided resuscitation or personalized resuscitation or TOE guided resuscitation
2. There is **NO** high quality evidence that any of the above is better than the standard algorithm: **We cannot assume that we we will do is better**
 - **E.g. Danger Shock:** unless we can agree to this: almost no point going further
3. There currently are **no** RCTs
4. This grant and trial **MUST be a RCT**
 - Observational data does not cut it in a grant or in guidelines
5. Even a small Phase 2 **RCT** will have significant impact
6. A unique opportunity to influence guidelines and be on the leading edge of this

Option 1 – biggest impact

- P:** 18 – 75 years
I: Personalized resuscitation
C: Conventional paramedic led resuscitation
O: Sustained ROSC to hospital

Inclusion/exclusion

- Medical cause of arrest
- Include PEA/VT/VF
- **Bystander CPR?**
- **Witnessed arrest?**
- **ROSC patients?**
- **Exclude ECPR patients**

**This has to be broader
than ECPR criteria**

Age extended to 75 – **more cases**

Conventional Resuscitation: no doctors present: much cleaner and increases the **likely difference between standard and treatment effect**

Trial that ILCOR and everyone would want to see

Randomisation options

At dispatch:

For:

1. Doctors don't see patients i.e. **true standard care**

Negative

1. False positives and negatives rate – this is ok in Phase 2
2. ECPR patients
3. No turning up to arrests

Enroute

For:

1. Doctors don't see patients i.e. **true standard care**
2. Less false negatives

Negative

1. False positives and negatives rate
2. ECPR patient risk
3. Data capture when doctors not present

On-scene

For:

1. Data capture easier
2. No false negatives

Negative

1. Doctors going to a lot of OHCA
2. Less need to worry about missing ECPR patients
3. Conventional care is NOT conventional care

Key Questions I need answers to

1. Would you go to an unwitnessed arrest
2. Would you go to an arrest with no bystander CPR
3. Would you enroll post ROSC patients (this would effect endpoint – we would then probably need to do Survival to hospital discharge CPC)
4. Would you be willing for ECPR eligible patients to be randomised to standard care i.e. no ECPR
5. Regardless of intervention would you be willing to be called off from arrest if got randomised to standard care
6. If you randomised to standard care at scene would you be will just to do “current standard algorithm”?

Option 2 – Randomize on Intervention

- P:** 18 – 75 years
I: TOE or NOT or Art line or NOT
C: Paramedic with doctor resuscitation without TOE or art line
O: Sustained ROSC to hospital

Inclusion/exclusion

- Medical cause of arrest
- Include PEA/VT/VF
- **Bystander CPR?**
- **Witnessed arrest?**
- **ROSC patients?**
- **Exclude ECPR patients**

This has to be broader than ECPR criteria

Age extended to 75 – **more cases**

As doctors present

- 1) Not standard care to have them present and the control arm effect may be higher than what we have in the past
- 2) Doctors must be willing NOT to do the intervention if randomised to standard

Other design option e.g. cluster

Cluster design – randomize based on larger group or area not individual

- Geographical area

Problems/Considerations

- The car can cover so many areas – need no go areas (including ECPR)
- Collection of data points in the control cluster – reliant on OHCA register to capture
- You may miss arrests in the cluster and that effects treatment effect in that cluster

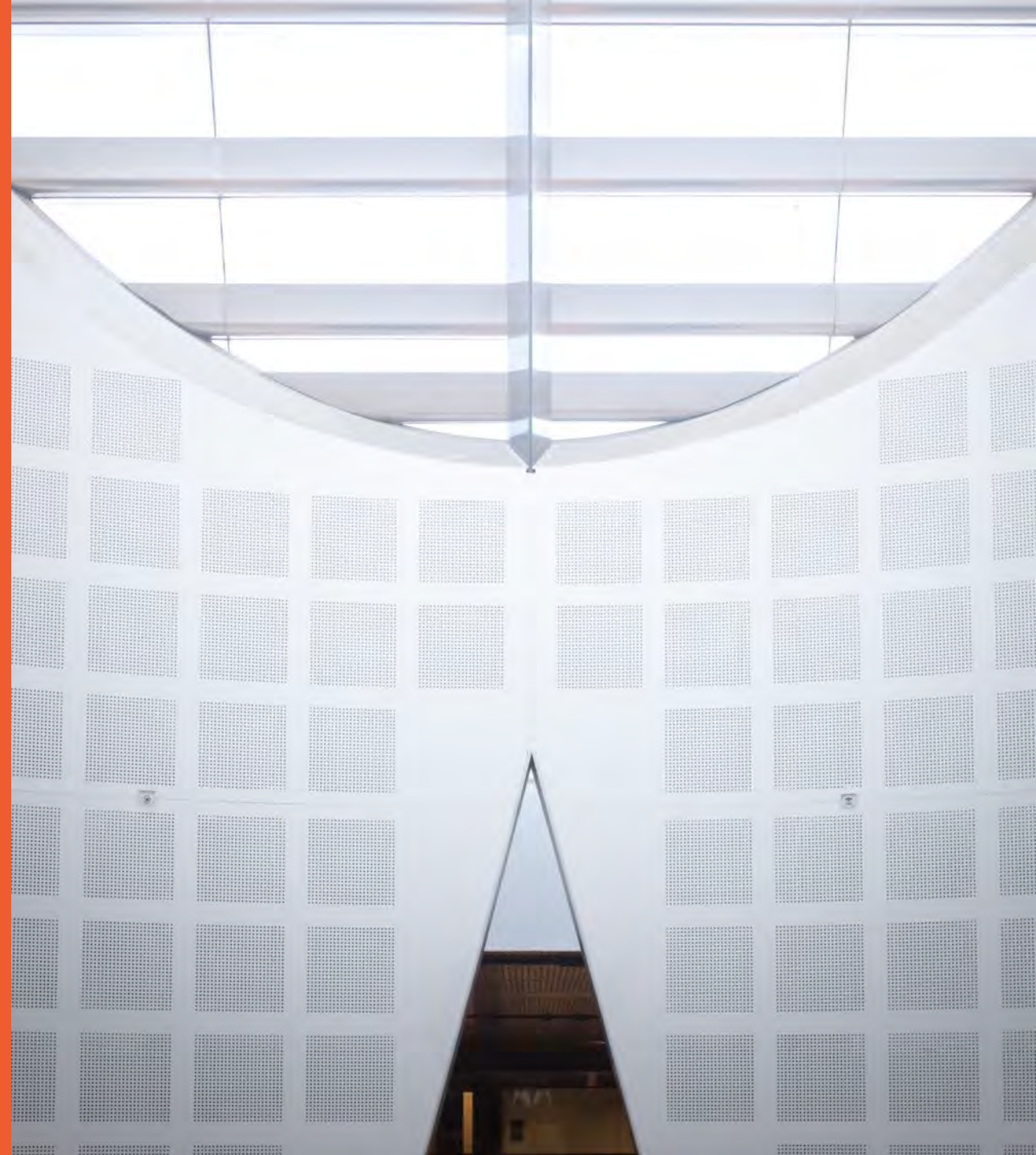
Writing a winning grant application



Dr Alex Ho Pang Chan
The University of Sydney

NSW CVRN – OHMR Grants workshop: Addressing feedback

Alex Ho Pang Chan
Faculty of Medicine and Health
Chronic Diseases Theme



Year	Grant applications	Outcome
2019	Tobacco Related Disease Program - Postdoc Fellowship	
2021	Stanford Cardiovascular Institute Seed Funding	
2022	Stanford Cardiovascular Institute Seed Funding	
2022	CVRN-OHMR Cardiovascular Research Capacity Program: Elite postdoctoral researcher grant	
2023	CVRN-OHMR Cardiovascular Research Capacity Program: EMCR Grant	
2023	CPC EMCR Seeding Funding	
2024	NHMRC Emerging Leader Fellowship	
2024	Heart Foundation Future Leader Fellowship	
2024	CVRN-OHMR Cardiovascular Research Capacity Program: EMCR Grant	

Getting feedback

- From all available sources

- Mentors
- Peers
- Pitching sessions
- Grant funding bodies
- General public



Internal

External

- Especially important with lay/consumer related parts of the grant

Assessment criteria

B	<u>Applicant Track Record in Research and Research Impact</u> <ul style="list-style-type: none"> • Academic and relevant professional qualifications • Research, clinical and industry experience and collaborations • Track record • Funding awarded (last five years) • Impact of previous NSW Health grant funding • Responsibilities impacting on track record 	9	40%
C	<u>Research Project and Project Team</u> <ul style="list-style-type: none"> • Project title • Long-term goal of research • Evidence Gap • Research protocol • Program Logic • Program Milestones • Project Team • Governance • Risk-Management • Intellectual Property arrangements • Status of current research activities relating to the project • Related funding applications • Project Lay Summary 	13	
D	<u>Project Budget and other contributions</u> <ul style="list-style-type: none"> • Grant funds requested • Budget Justification • Host Contributions and Other Project Income 	19	40%
E	<u>Additional Budget</u> (optional - for EMCRs only) <ul style="list-style-type: none"> • Budget • Justification for additional budget 	20	
F	<u>Skill Development, Leadership and Capacity Building</u> <ul style="list-style-type: none"> • Plan for skill development, leadership and capacity building (for EMCRs) • Leadership and Capacity Development plan (for senior researchers) 	21	20%

Track record related feedback

- “It was noted that there was limited success with large grant funding to date.”
- “... while these publications are directly relevant to the proposal, a stronger wider impact publication record would be beneficial.”

Addressing track record feedback

- Can't go back in time to work on those achievements
- Fill the gaps identified in feedback
- Do more

Project related feedback

- “Better explaining the unmet need for treatment, in the context of co-morbidities versus small vessel disease.”
- “The project overview could have benefited with providing more evidence of why the project is significant and required.”
- “The impact of the program and contribution of the applicant would benefit from clear articulation of how the research has generated knowledge impact, citing evidence for reach and influence.”

Addressing project feedback

- Clarity in the significance of your research
- Many iterations based on wide range of feedback
- Think broader for clinical impact

Methodology related feedback

- “greater clarity regarding the analysis and interpretation of spatial data. Who will interpret the spatial data and what will be looked at? The research output for this aim could be better explained.”
- “The project has good potential but is not well explained, important information about feasibility of the aims are missing.”

Addressing methodology related feedback

- More details on all aspects of methods
- Show evidence of feasibility with previous publication or preliminary data

Skill Dev/Leadership/Capacity building related feedback

- “The applicant needs to provide more detail on leadership. They should consider this by sitting on internal and external panels etc.”
- “... the proposal would benefit from clearer evidence of leadership beyond their primary institution.”

Addressing Skill Dev/Leadership/Capacity building related feedback

- Be proactive with opportunities
- Build networks and collaborate
- Think how your methods can help others in similar/adjacent fields

Conclusion

- Feedback is extremely crucial for improving grant writing.
- Track record: Fill the gaps. Do more.
- Project: Clarity
- Methodology: Details and feasibility.
- Capacity building: Build networks.

“失敗是成功之母”

“Failure is the mother of success” – Chinese Proverb



Q&A



**NSW Cardiovascular
Research Network**



Health

NSW CVRN – OHMR Grants Workshop

Lunch Break

See you at 1:40pm!

Welcome back



Dr Alex Ho Pang Chan
The University of Sydney

More tips from successful applicants



Building your project team

Dr Gillian Blue

Heart Centre for Children



Building your Project Team

NSW CVRN – OHMR Grant Workshop
6th May 2025

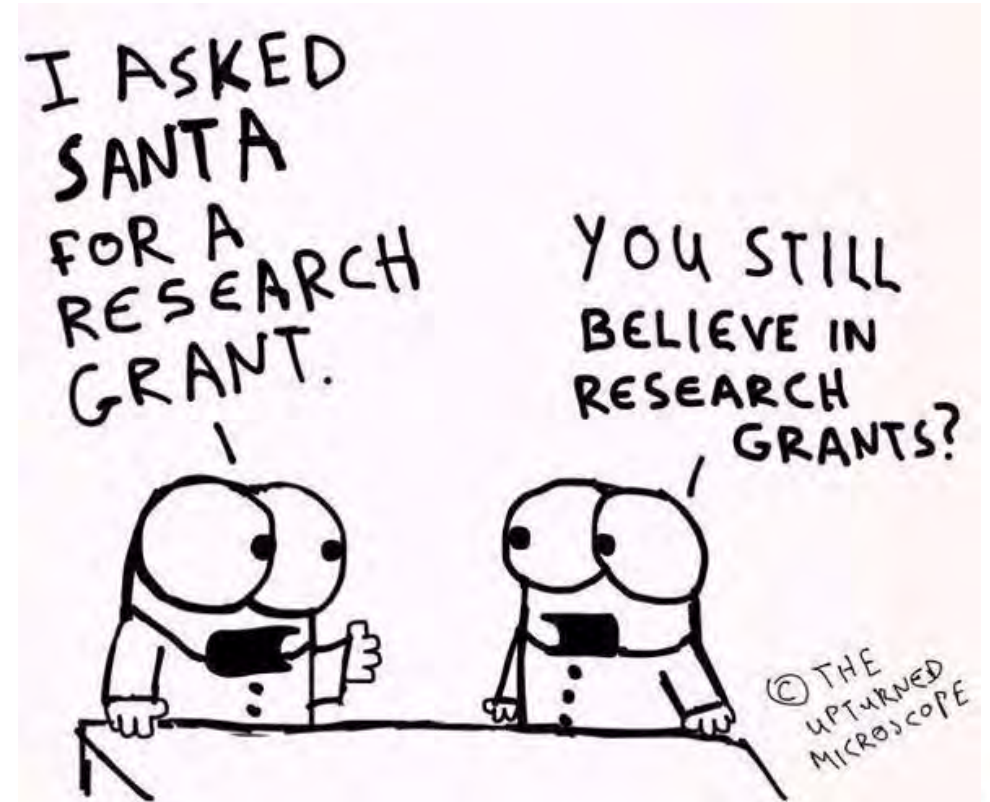
Dr Gillian Blue, PhD

Head, Genetics Research, Heart Centre for Children
The Sydney Children's Hospital Network
Email: gillian.blue@health.nsw.gov.au



Preface

- EMC Researcher
- Translational researcher straddling clinical and basic science research
- Built a collaborative network spanning basic science, clinical, psychosocial research networks, consumer groups



Read the Guidelines

- Determine the expectations, objectives and what you need to demonstrate with your project team

Objectives

Senior and EMC Researcher Grants aim to:

- foster research excellence and increase the number of outstanding cardiovascular researchers in NSW
- fund research that improves wellbeing and health outcomes
- embed high-quality, innovative cardiovascular research in the NSW health system
- encourage collaboration, leadership, and capacity building in the NSW research environment
- support NSW researchers to leverage national funding opportunities to further research and its translation in NSW
- bridge the gap between research, policy and practice to increase research impact and translation.

Research project and Team (40%)

A clear and detailed description and justification for the project is required, including aims, methodology, and expected outputs and outcomes. The research project and project team will be assessed against the following criteria:

- evidence of a gap in knowledge, provided by prior systematic reviews and/or gap analyses, and a clearly articulated need for the research
- how the proposed project will advance existing knowledge and why this is important
- the extent to which the proposed research is innovative and novel
- clarity of the research aim(s) and research question(s)
- strength, rigour and appropriateness of the research methodology in achieving the aims of the project

- the skills of the proposed research team that are relevant to the project and its translation, and how each team member has the ability to contribute meaningfully to the research

- the plan for research translation and impact, including consideration of data management and access, commercialisation and intellectual property

- relationship to existing research undertaken by the host organisation and the research team

- relevant to the project and its translation, and how each team member has the ability to contribute meaningfully to the research

- relationship to existing research undertaken by the host organisation and the research team
- strong project governance structure with evidence of appropriate and sustainable relationships with

Review the Application form

- Determine the specifics like level of detail required, number of team members etc
- Provide as much detail as possible about the roles of the individual team members

C7. Proposed project team – including role of applicant

Provide a list of the proposed project team members and their respective roles, adding a new row for each additional team member. Note the Applicant should be included in this table

#	Name	Position in organisation (include employer for external members)	Role in team	FTE on Project
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Add				

Provide detailed description of all roles for each team member, listing expertise and additional capabilities e.g. mentorship

C8. Project Governance to support translation (max 200 words)

Describe the governance structure for your project, for example, Steering Committee membership. How will you engage with research partners and other stakeholders who will take the research to the next step on the translation pathway?

Planning your project team

Key considerations:

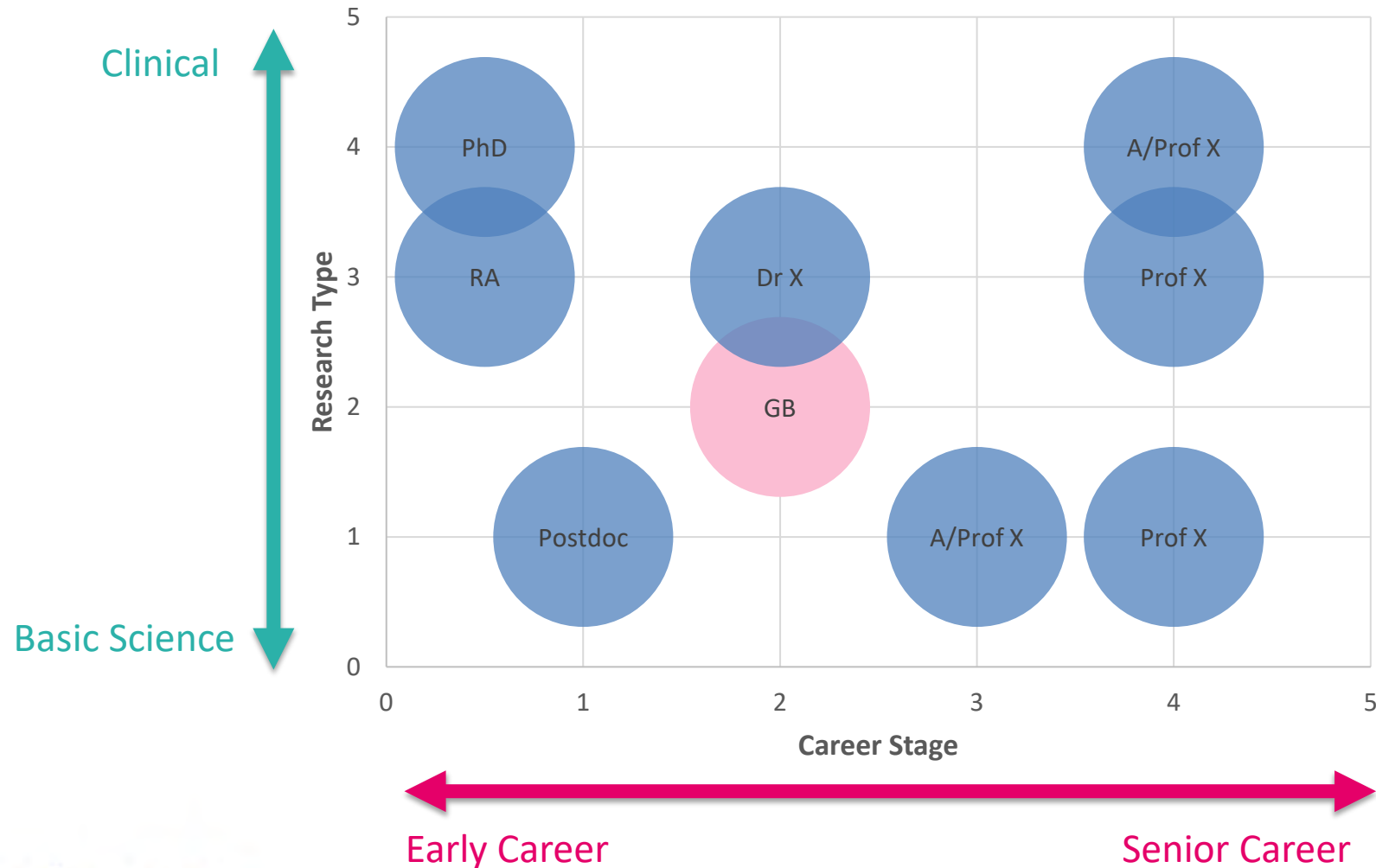
- Who do you need to support your research i.e. address skill & capacity gaps → **collaborators/fellow researchers**
- Who do you need to support your development → **mentors**
- How will your proposed research build research capacity in NSW → **research students/early career researchers**
- Real world applicability & translation → **consumers/partners**
- Representation across research type → **clinical, basic science, translational, epidemiological**



CHD-GEN: Genetic and Environmental factors determining congenital heart disease recurrence

# Name	Role in team	FTE on Project	Grant Aims	Research Type
1 Dr Gillian Blue	Project lead & oversight, conduct/supervise all aims, supervision, CHD genetics expertise	0.5 for 36 months	CI (EMCR)	Clinical/Basic Science
2 Prof X	Genomics expertise, research mentorship	0.05 in kind for 6 months	Mentor	Basic Science
3 A/Prof X	Bioinformatics & statistical genetics	0.05 in kind for 18 months	Collaborator	Basic Science
4 Prof X	Epidemiology expertise, research mentorship	0.05 in kind for 6 months	Mentor	Clinical
5 Dr X	Epidemiology analyses, data linkage	0.05 in kind for 18 months	Collaborator	Clinical
6 A/Prof X	Clinical oversight, research mentorship	0.05 in kind for 6 months	Mentor	Clinical
7 Ms X	Research assistant, project administration	0.6 for 36 months in kind	Capacity	Clinical
8 Post-doc	Genomic & statistical analyses	0.4 for 24 months	Capacity	Basic Science
9 PhD Candidate	Psychosocial project aims	1.0 for 36 months	Capacity	Clinical & Psychosocial
10 Consumers / Partners	Project design, processes, translational support & guidance	0.05 in kind for 36 months	Consumer / Partner	'Real world' experience

Representation across career stage & research type



Final comments

- Give yourself time to carefully plan your project team
- Approach and engage your team in your idea early
- Consider how you will work together as a team
- If you and (part of) your team have previously collaborated, demonstrate your track record
- Use previous governance models and collaborations that have worked successfully as a guide
- **Collaboration and multidisciplinary expertise is key!**

Thank you and good luck!



More tips from successful applicants



Preparing your budget

Dr Derek Tran

The University of Sydney

Preparing Your Budget

CVRN – OHMR Grants Workshop

NSW Health Cardiovascular Research Capacity
Program Senior and Early-Mid Career
Researcher Grants 2025

Dr Derek Tran

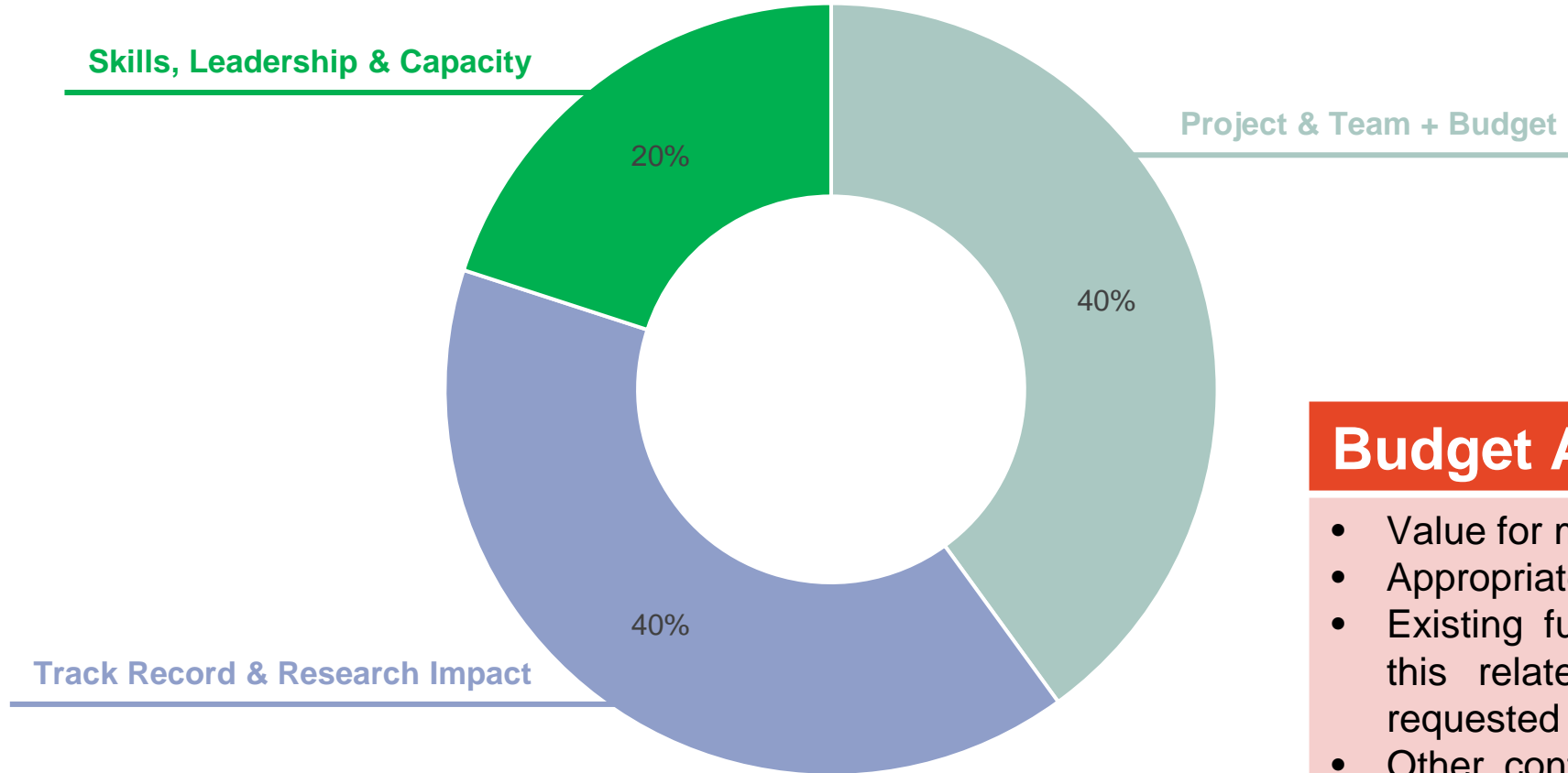
derek.tran@sydney.edu.au



THE UNIVERSITY OF
SYDNEY

Celebrating 175 *years*

Selection and Assessment Criteria

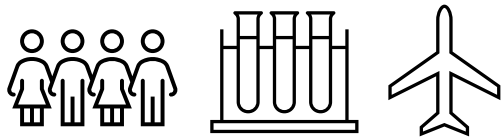


Budget Assessment

- Value for money
- Appropriateness of each line item
- Existing funding for research, and how this relates to the additional funding requested without duplication
- Other contributions and support for the project

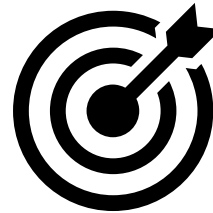
Budget Considerations

Consistent with the proposed project



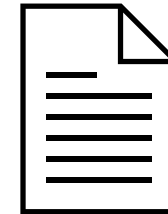
Are all expenses accounted for and/or required to conduct the project?

Aligning the budget with scheme



Do expenses facilitate achieving NSW Senior and EMC Researcher Grants aims?

Support other aspects of the application



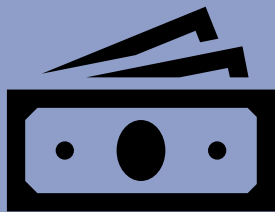
Can budget line items be justified and align with application requirements or guidelines?

Available Cardiovascular Research Capacity Program Funds

Senior Researcher Grant

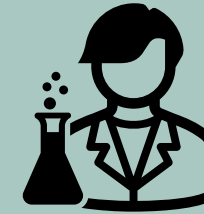


+15 years

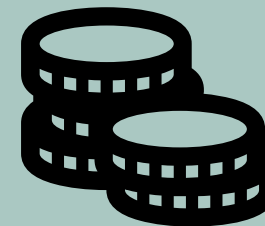


\$750k

EMC Researcher Grant



0-15 years



\$450k
+
Additional \$100k p.a.

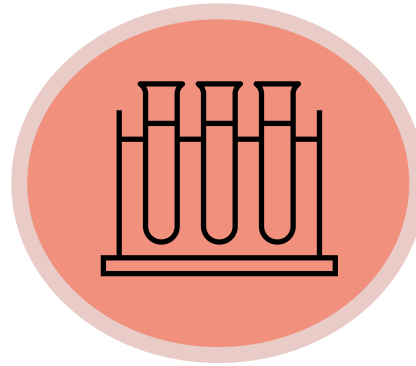
Project Budget Categories

Salaries



- Investigators
- Post-doctoral staff
- Research assistants
- Other professional staff
- Clinician backfill

Consumables



- Laboratory supplies
- ELISA & DNA kits
- Reagents & buffers
- FBS
- Small equipment

Research Costs



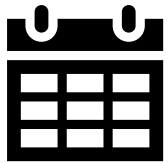
- Facility expenses (e.g., sequencing, pathology)
- Stipends & top-ups
- Animal housing
- Publication costs
- Travel

Salaries



Identify research personnel required

- Postdoctoral fellows/associates
- Research assistants



Identify when & how long do you need them

- Full time equivalent (FTE)
- Duration of employment



Refer to your enterprise agreement or institution scales

- Base salary
- Account for annual salary increases
- Include ~22-30% oncosts (e.g., leave, superannuation)



Example: Research Assistant

The project requires a research assistant for 18 months, 2 days per week (i.e., 0.4 FTE).

Grade 4, Step 1 - July 25, 1.0 FTE base = \$83,038

Grade 4, Step 2 - July 26, 1.0 FTE base = \$88,457

—

Year 1: 12/12 months x \$83,038 x 0.4 FTE x 1.3 = \$43,180

Year 2: 6/12 months x \$88,457 x 0.4 FTE x 1.3 = \$22,999

Total cost: Year 1 (\$43,180) + Year 2 (\$22,999) = \$66,179

N.b. FTE = days per week employed divided by 5
Salaries account for annual step & inflation increases

Domain 5: Economic benefit

- Research jobs created and sustained
- Patents and commercialisation
- Value of leveraged research funding (external grants awarded due to NSW Health funding)
- Reduction in cost of delivering care
- Potential for return on investment

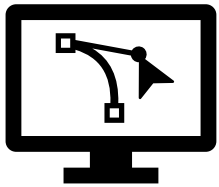
Objectives

Senior and EMC Researcher Grants aim to

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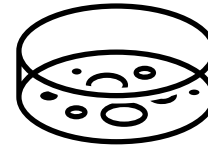


Consumables



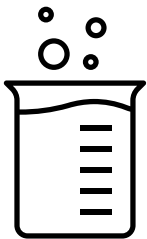
Research software & licenses

- Specialised analysis software (e.g., FlowJo)
- Questionnaire license fees



Laboratory & Clinic Consumables

- Cryovials
- Blood collection tubes
- Mouth pieces



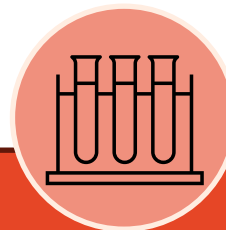
Reagents & kits

- DNA extraction kits
- ELISA assay



Small equipment

- HR monitors & physical activity watches
- Pipettes



Research Costs



PhD Stipend or Top-up

- Developing leadership
- Building research capacity



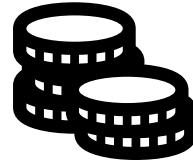
Conference expenses

- Facilitate dissemination of findings
- Aligns with strategic framework (Research Impact)

Research impact will be considered across five domains:

Domain 1: Knowledge Advancement

- New interventions, treatments, diagnostics or drug targets
- New clinical or medical prototypes
- Peer-reviewed publications and presentations at conferences
- Media coverage and other non-peer-reviewed publications



Patient & Consumer Reimbursement

- Travel expenses (accessibility to research)
- Honorarium (consumer involvement)



Open-access publication cost

- Facilitate dissemination of findings
- Aligns with application recommendations

C4. Research Protocol (max 1,500 words excluding diagrams and charts)

Use the following headings to provide a full research protocol for your project in the box below.

- Background and rationale
- Aim
- Hypothesis
- Research question(s)
- Study design
- Intervention
- Methods
- Analysis plan
- Research outcomes and impact

Please note:

- A list of references supporting the science may be attached to your email submission as a separate document.
- Where appropriate, NSW Health encourages the early and open-access publication of research protocols to avoid duplication of research. Please include this as an activity under research outcomes and impact.



Other Contributions

Cash or in-kind contributions

- Additional cash funds
- Investigator & collaborator time
- Equipment
- Facility services
- Consumables

“An in-kind contribution is a contribution of a good or a service other than money”



Planning Your Expenses Over the Grant Period

Identify when you are likely to expend line items

- Align with project milestones
- Account for salary increases (as appropriate)
- Consider when personnel will be employed
- Analysis (e.g., batch metabolomic) and conference expenses will likely occur towards the end (Year 3)
- Equipment is likely required at the start of the project

Recruitment & attrition rates

- Mortality rates (animal studies)
- Rate & duration of recruitment
- Participant dropout & lost to follow-up

#	Category	Budget item description	Amount			
			Year 1	Year 2	Year 3	Total
1	Salary	0.4 FTE research assistant @ HEO_#, Step 1-2 will be employed for 18 months to conduct study investigations and provide physical activity counselling	\$22,182	\$37,643	\$7,394	\$67,219
2	Salary	0.2 FTE brain MRI research assistant @ HEO_#, Step 1-2 will be employed in the last 12 months to assist with brain MRI testing analysis.	\$-	\$-	\$21,130	\$21,130
3	Research Cost	Genetic sequencing of samples @ \$450/sample x # samples = \$52,650	\$-	\$-	\$52,650	\$52,650

Justifying Your Budget

Maximum of 200 words + an addition 300 words for EMCR additional budget

- Describe salary calculation considerations
- Justify expenses that are not obvious to non-experts (e.g., echo vs MRI or RNAseq vs nanopore)
- Identify how project activity not in the budget will be accounted for (e.g., collaborations, in-kind contributions)
- Highlight other considerations you have accounted for (e.g., attrition rate)

D2. Budget Justification

Note any justification for the funding requested above (max 200 words).

- **Salary calculations** are based on the University of Sydney enterprise agreement. All salaries budgeted are inclusive of 28.5% oncosts, which is essential to ensure there is no shortfall between funding and requirements of the enterprise agreement. A multi-disciplinary research team will be employed to ensure optimal care is provided.
- **Exercise equipment** will be supplied to participants to ensure an adequate exercise intensity is prescribed. Participants' will be provided with a heart rate monitor and Gymstick to aid them in completing the exercise program.
- **Pathology** testing for NT-proBNP is required as part of routine care. We included a follow-up measure of NT-proBNP to ensure the intervention is not inducing deterioration in cardiac function.
- **Reimbursement of parking** is required to minimise the financial burden of participating in this study. This will ensure rural/remote, and low socially economic status patients are not disadvantaged and are represented in the data.

The budget accounts for a 20% attrition rate for study investigation expenses. All other study investigations (e.g., cardiopulmonary exercise testing, dual-energy X-ray absorptiometry scans, pulmonary function tests) will be performed by study staff using existing resources. We will utilise Read and Publish agreements to enable unrestricted access to the protocol and outcomes manuscript.

Recommendations for Preparing Your Budget

- Start developing your budget early
- Acquire and negotiate quotes
- Utilise existing resources and available expertise (i.e., collaborate)
- Develop a excel budget template or use budgeting tools provided by your institution
- Distribute your expenses appropriately
- Account for known increases in expenses (e.g., salaries)
- Identify existing personnel in the application

Good Luck!




Q&A

Skills development, leadership and capacity building (EMC Grants)



Dr Erin Clarke

The University of Newcastle



Skills development, leadership & capacity building (EMCR)

Dr Erin Clarke

Postdoctoral Fellow

The University of Newcastle &
Hunter Medical Research Institute

About Me

- Postdoctoral Fellow – The University of Newcastle
- ECR 3yrs post-doc relative to opportunity
- Accredited Practising Dietitian – also working clinically
- PhD focus - dietary assessment which harnesses technology, dietary biomarkers the relationship between diet quality and health.
- Since PhD focus on precision and personalised nutrition, including investigating the interplay between diet and genetics, and the dietary metabolome
- Applied in 2023 – unsuccessful 😞
- Reapplied in 2024 – successful! 😊

Long term vision

- Created a long-term vision for this grant and into the future
- Helped me to identify focus areas of my research now and in the future
- My why – why am I passionate about this area of research and how can I get where I want to go i.e. how do I become a leader in my field.

Skill development

- Consider the types of societies you are a part of, research centres and what they offer
- What training is offered at my university?
- Identify areas to focus on that are relevant to my grant
- Second time applying - used this time to build on my skills to make me the best candidate to run this proposed research e.g. AMBP training, leadership training, statistics courses

Leadership

- Leadership committees Think both within your research team/university and nationally
- Are there any committees you can become a member of help to draft position statements for that are relevant to your research area?
- Are there any leadership training opportunities within your institution/nationally/internationally?
- Use this as an opportunity to identify areas of growth

Capacity building

- Current and future supervision plans
- Mentoring – find a mentor who will support you and encourage you to apply!
- Collaborators - can you use this grant to create new collaborations and extend your skills/mentoring e.g. lab visits
- Conferences & networking

You are unique

- Everyone different – don't compare yourself!
- Sell why you are the best person for this project and why it is worth investing in you and your work
- Get someone else to read your application and help you sell yourself
- Keep a record of every little thing do e.g. press/non-scientific articles
- Get feedback and build on this – use this as an opportunity to identify where you are as a researcher and where you want to be
- Identify what would you like to get out this program of work and opportunity – you might not have all the answers now but how can you get there?

Good luck!

- Remember you can always adapt this information in future applications
- It's a process and gets better each time
- Rejection can be personal but it's hard but eventually you will get a yes 😊
- Be brave – go for it!

Thank you & good luck



Q&A

Leadership and capacity development (Senior Grants)



Prof Jenny Gamble
Centenary Institute



Q&A

Recap and closing remarks



Cathy Kellick

**Principal Policy Officer for Research Grants
Office for Health and Medical Research**

NSW CVRN – OHMR Grants Workshop

**Thank you for
your participation!**

**Please scan to provide your feedback
and join us for afternoon tea!**

