Research Capability and Excellence Framework

Metro South Research education and development

V1.0

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Background

Metro South Health (MSH) acknowledges the significant impact that research and researchers have in contributing to the delivery of high-quality healthcare services for our community. The MSH Research Strategy 2019 – 2024 sets the direction, goals and priorities which guide MSH research activities and contributes to MSH's vision.

As part of the strategy, our research focus areas include:

- building research capability: skilled researchers, supported by a system that aligns research development with health service requirements.
- research excellence: research as a component of clinical excellence, and a research culture that strives for excellence in ethical conduct and research quality.

This Research Capability and Excellence Framework aims to implement Metro South Research education and development initiatives which aims to assist in developing the skills, knowledge and behaviour of employees involved with research at all levels of MSH. The Research Capability and Excellence Framework is based upon the National Health and Medical Research Council (NHMRC)'s:

- National Statement on Ethical Conduct in Human Research (2007) - Updated 2018
- Australian Code for the Responsible Conduct of Research 2018
- Research Quality Strategy 2019
- National Clinical Trials Governance Framework
- Funding agreements, approved standards and guidelines

This means that the framework is built on a robust, evidence-based approach which has been adapted to a Hospital and Health Service (HHS). It applies to all MSH or Queensland Health (QH) employees whose usual reporting line is through a MSH facility or service.

Purpose

This framework aims to:

- describe the general capabilities that would be typical for all MSH researchers at each stipulated level: novice, early and mid-career and established researchers.
- assist novice researchers to:
  - understand the complexity and context of their research role
  - understand research integrity and quality principles, and how it applies to the clinical research environment
  - gain more clarity around MSH expectations of employees involved in research activities
  - identify areas of strength and development for current and future research roles
  - identify appropriate learning and development opportunities in order to continually develop and
  - set the standard by building a strong foundation in the conduct of research in MSH.
- assist early and mid-career researchers to:
  - assess the necessary combination of capabilities for those involved in research including their own research
  - support others to identify areas of development and learning opportunities
  - refresh existing knowledge with the aim to further strengthen research foundations and
  - refresh clinical research integrity and quality principles and build upon this knowledge.

- assist established researchers to:
    - develop their research teams and continually improve their performance
    - make strategic decisions around research integrity and quality
    - lead highly functioning teams focused on delivering quality outcomes
    - adhere to and promote MSH research values and address breaches of protocol and probity.
- provide a framework that applies across professions and facilities/service areas and promotes consistency across MSH.
- assist Metro South Research to:
    - develop strategies and resources that will facilitate the development of researchers
    - integrate and align strategic planning, capability building and research excellence strategies
    - create high performing research environments and
    - provide a consistent framework for reporting on capability to strengthen MSH research standards.

The framework is NOT intended to:

- Replace the Performance Appraisal and Development (PAD) process and/or be used for performance management – it aims to assist in self-reflection and guide learning/development
- Replace existing clinical and stream capability frameworks - this framework is designed to stand alongside professional frameworks and address multi-disciplinary professional capabilities (clinical capabilities will need to be addressed within professions).
- Provide an exhaustive list of learning and development options - the development options are suggestions and ideas only (other approved and appropriate options should be discussed with a relevant manager and/or supervisor).

Overview

The Research Capability and Excellence Framework describes the skills and knowledge that our research workforce should strive to develop to be successful and achieve research excellence by embodying research integrity and quality principles. Whilst technical or functional skills, such as clinical trial coordination or wet lab research, are critical to successfully achieving work outcomes, the Research Capability and Excellence Framework is focused upon transferable skills, knowledge and behaviour that can be taken from research role to research role, from function to function and from facility to facility.

Definitions

Capability

Capability incorporates the skills, knowledge and behaviours that each person brings to their work. It includes personal, inter-personal, professional and technical expertise which can be developed by formal and informal learning, observation, mentoring, feedback, lifelong experience and reflection. The Research Capability and Excellence Framework aims to build a framework which increases research capability by enabling novice researchers to learn in a supported environment, early and mid-career researchers to develop their skills, and established researchers to share their knowledge and apply their skills.

Research excellence

Research excellence is a commitment to go beyond compliance, to a culture of excellence in clinical services — our research endeavours are an integral part of that commitment. We are committed to the highest standards of ethical conduct, quality and management in research.

Novice researchers

The term 'novice researcher' generally applies to graduate students, interns or employees who are new to research and have little to no experience in conducting research in MSH. In the context of the RECF, a novice researcher may:

- carry out research under supervision with integrity and with a quality focus

- have the ambition to develop knowledge of research methodologies and discipline

- have demonstrated a good understanding of a field of study

- identified potential research questions within an area of practice

- have demonstrated the ability to produce data under supervision

- be capable of critical analysis, evaluation and synthesis of new and complex ideas

- be able to explain the outcome of research and value thereof to research colleagues

- co-author papers at workshops and conferences

- adhere and uphold MSH policies and procedures.

Early and mid-career researchers

Generally, early and mid-career researchers are emerging researchers within their initial specialised years of academic or other research-related employment, following completion of postgraduate research training. Some early and mid-career researchers may have conducted research before within MSH or a University institution but have not yet established a significant level of independence. In addition to the characteristics assigned to novice researchers, an early and mid-career researcher may have also:

- demonstrated a systematic understanding of a field of study and mastery of research associated with that field

- demonstrated the ability to conceive, design, implement and adapt a substantial program of research with integrity

- contributed through original research that extends the frontier of knowledge by developing a substantial body of work, innovation or application - this could merit national or international refereed publication or patent

- developed knowledge, expertise and skill in research and evidence-based practice

- demonstrated critical analysis, evaluation and synthesis of new and complex ideas

- supports colleagues in research integrity and quality and informs their team of current best practice and imbeds this in team practice

- appropriately disseminates research through a variety of methods including conference abstract, poster presentations, Sourcing Industry Group (SIG) presentation and journal publications.

- communicated with their peers by being able to explain the outcome of their research and value thereof to the research community and

- taken ownership for and managed their own career progression, set realistic and achievable career goals, identified and developed ways to improve employability.

Established researchers

The term 'established researchers' commonly refers to experienced researchers who may lead a team or a research group, have developed a level of independence and/or are leading their research area or field. In addition to the characteristics assigned to early and mid-career researchers, an experienced researcher may have:

- an established and/or international reputation based on research excellence in their field
- made a positive and substantial contribution to the development of knowledge and research through co-operations and collaborations in their research field or spanning multiple areas
- identified research problems and opportunities within their area of expertise and appropriate research methodologies and approaches
- conducted research independently which advances a research agenda
- taken the lead in executing collaborative research projects in cooperation with colleagues and project partners which influences clinical processes and standards of clinical practice
- published papers as lead author
- organised, lead and participated in workshops or conference sessions
- demonstrated critical judgment in the identification and execution of research activities and
- developed a strategic vision on the future of the research field and recognises the broader implications and applications of their research
- mentors and supervises novice researchers
- engages consumers and key stakeholders in research
- seeks research grants and supports others to seek research grants
- establishes appropriate partnerships both internally and with external stakeholders
- leads and drives a research culture and agenda which upholds principles of integrity and quality
- seeks infrastructure to support research, including human and physical resources (eg establishes designed research roles and roles that include research, advocating for space)
- upholds and leads their team in best practice.

The structure of the Research Capability and Excellence Framework

At the heart of the framework are five research focus capabilities that all researchers in MSH should strive develop and demonstrate.

While the core focus of each capability remains unchanged, some capabilities change in complexity to reflect increased accountability required:

1. Integrity
2. Quality
3. Data and privacy
4. Finance & business management
5. Impact and translation

This is a guide for how attributes may be measured across the five research focus capabilities (ie integrity and administration, quality, data and privacy, funding and finance and impact and translation) however these attributes may be contextualised in accordance with each individual and/or work area.

Research Capability and Excellence Framework – Five Capabilities

	Research focus	Novice researchers	Early and mid-career researchers	Established researchers
1	**Integrity**	Displays personal integrity through active adherence to ethical principles and professional standards.	Exemplifies personal and team focussed behaviours which uphold research integrity principles.	Displays personal commitment to the purpose and philosophy that underpins research integrity. Exhibits high levels of ethics and probity. Openly challenges personal and organisational breaches of values and standards.
2	**Quality**	Achieves and maintains high quality standards in such a way that allows others to have confidence and trust in the methods and the findings of the research. Demonstrates curiosity and innovation.	Leads and formulates best practice frameworks for managing and assessing the quality of research. Fosters curiosity and innovation.	Optimises professional expertise within MSH to improve overall performance and delivery of quality outcomes. Explores innovative approaches to ensure quality management frameworks are in place to deliver high quality research outputs.
3	**Data & privacy**	Understands, supports and promotes data and privacy requirements and ensures the storage, preservation and sharing of data collected in a research project meets MSH standards.	Gathers and investigates data from a variety of sources to formulate data management strategies pertaining to access, integration, governance, storage and analytics.	Engenders a culture of accountability and transparency in the collection and use of data. Upholds privacy principles.
4	**Finance & business management**	Recognises research funding sources, requirements and expenditure processes which formulate the research grant process.	Engages others and manages competently all financial, resourcing and research funding components.	Mentors others to develop MSH capability in managing research funding and leads the exploration of critical knowledge gaps in budget management.
5	**Impact & translation**	Recognises value of impact-driven research questions and considers incorporating purposeful pathways to impact in their research design and dissemination.	Engages with multidisciplinary stakeholders including health consumers to define desired impact of research and implement strategies to monitor and measure impact. Incorporates impact metrics into professional development plans and annual review processes	Engenders a culture of research impact by collecting and reporting in impact measures and considering impact-led research questions across their research group. Employs innovative strategies to develop intradisciplinary collaborations across research translation pipeline. Generates an impact driven narrative when designing methodologies to answer research questions of patient importance.

Using the Research Capability and Excellence Framework

Researchers can use the Research Capability and Excellence Framework to identify personal capabilities and support their learning planning process. In conjunction, researchers can select appropriate learning and development opportunities and measure growth and professional development.

Metro South Research will utilise the framework to develop capability based and assessed education programs, modules (face-to-face and eLearning) aimed at building capability and research excellence. The below capability framework will be utilised to target education and development activities for the different categories of researchers (ie novice, early and mid-career and established).

Capability framework

	Integrity	Quality	Data & privacy	Finance & business management	Impact & translation
	Shapes the way integrity in research is upheld in MSH and embodies principles and ethos. Mentors others to act with integrity.	Acts as quality advocate and provides advice and technical expertise on the structure, design, implementation and evaluation of quality management systems.	Understands legislative data and privacy requirements and ensure research compliance.	Understands MSH's key funding objectives and ensures resources and funding is used appropriately.	Designs and implements research with measurable impact which aims to improve the workforce capability in undertaking research.
Novice	Comprehensive application	Basic application	Basic application	Basic application	Basic application
Early and mid-career	Advanced application	Comprehensive application	Comprehensive application	Comprehensive application	Comprehensive application
Established	Mastery	Mastery	Advanced application	Advanced application	Advanced application

Basic application

The application of the knowledge and skills appropriate to the capability area in situations that are less complex and predictable and are completed under the instruction of a manager/supervisor.

Comprehensive application

Applies the capability in increasingly complex situations, some of which are non-routine and under the guidance of a manager/supervisor.

Advanced application

Applies a significant range of the knowledge and skills appropriate to the capability area across a wide variety of contexts, most of which are complex and non-routine and with a substantial degree performed without guidance or supervision. Has significant knowledge and experience and is accepted as being a specialist within the research area/group.

Mastery

Demonstrates leading knowledge in this capability area. Applies knowledge and skills across a wide variety of contexts and is performed without guidance or supervision. Acknowledged as an expert and can apply experience in solving complex and difficult challenges.

Reference List

- Queensland Government, Capability and leadership framework - https://www.forgov.qld.gov.au/capability-and-leadership-framework
- MORE3, Career stages R1 to R3 https://www.more3.eu/indicator-tool/career-stages-r1-to-r4
- Allied Health Capability Development Framework Oct 2019