

Faculty of Medicine, Dentistry and Health Sciences

MISCH Hub

Methods and Implementation Support for Clinical and Health Research

Website:- <u>https://clinicalresearch.mdhs.unimelb.edu.au/</u> Email:- <u>misch-info@unimelb.edu.au</u> X @MischHub

Collaborate with MISCH to maximise your research impact

Shaie O'Brien, MISCH manager





SO HOW DOES MISCH SUPPORT CLINICAL AND HEALTH RESEARCH?

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One-stop shop for cutting-edge support in clinical and health research. Our team of biostatisticians, co-design experts and health economists provide expertise, from planning to execution and reporting.



We have a clinical trial coordinators network that connects over 120 clinical trial staff across the University.



We provide a vast array of training opportunities for researchers at all stages of their careers from one-on-one consults to webinars, workshops and in person seminars.



We provide expert guidance to increase funding success. Co-investigators on 66 grants (31 successful) in 2023. 59 in 2024 (13 successful to date).



We foster interdisciplinary and cross-school collaborations and supported over 140 projects last year.



MISCH has been instrumental in establishing – and will be providing the methodological support for, the newly launched Melbourne Centre for Clinical Trials (MCCT) which will bring together a consortium of clinical trial groups to deliver exceptional trials.

MISCH nodes of support

Biostatistics and Clinical Epidemiology

Biostatistics underpins the sound application of statistical methods in clinical research.

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Health Economics

Economic evaluation is widely used to assess many new health care interventions and technologies.

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Health Informatics (REDCap)

Health Informatics ensures the optimal use of information, including REDCap database support to capture health and clinical data.

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Clinical Trials

Health-related interventions that seek to evaluate tests and treatments comprise Clinical Trial research. Mutually beneficial relationships and resources allow the University and partners to work together, sharing resources and knowledge.

Co-Design and Consumer Involvement

Supporting health and social services to use participatory and collaborative approaches for research, intervention co-design, and monitoring and evaluation to improve services, systems, and outcomes

→ View

Melbourne Academic Centre Health Node Health Studies Australian National Data Asset (HeSANDA)

Learn about the HeSANDA initiative, Health Data Australia and how to contribute your clinical trial metadata.

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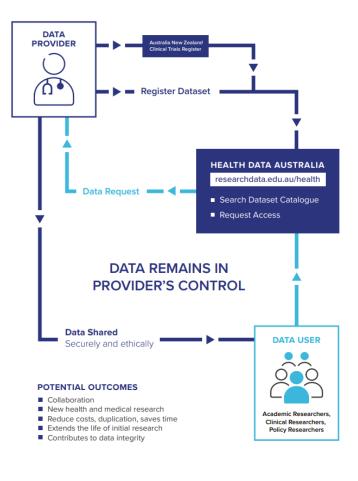
Health Studies Australian National Data Asset (HeSANDA)

- HeSANDA is a national initiative of the Australian Research Data Commons (ARDC)
- Collaboration of 9 HeSANDA nodes that represent over 70 health research organisations across Australia
- Catalogue of clinical trial metadata researchers can browse and apply to the P.I/data custodian to be considered for secondary reuse of trial data

Contact MACH HeSANDA Node

hesanda-mach@unimelb.edu.au







What does working with MISCH look like? 3TLA Trial – 244 participants with MND Led by:- Prof. David Berlowitz, \$3.4M

Biostatistics

- Design the multi-centre RCT
- Calculate sample size required
- Randomisation
- Study protocol
- Data collection, database checks, & data cleaning
- Statistical analysis
- Reporting & interpretation of findings

Health Economics

- Cost data to collect for quality of life, hospitalisation, survival, carer burden, etc.
- Performing cost-effectiveness analyses





How MISCH can help

Co-Design & Consumer Involvement

- Grant development support
- Consumer engagement or co-design planning and outputs
- Literature review about relevant co-design or implementation research for your project
- Evaluating co-design processes, interventions, and implementation strategies
- Mentoring and education about co-design and implementation
- Multidisciplinary research with other MISCH nodes (e.g., biostats, health economics, etc.)



MISCH support models

Grant development:

Best for:

- Development of new clinical research grant applications
- Strengthening research design & methodology
- Used to develop grant applications

Model:

- Budget included for salary support
- Chief or Associate investigator on the grant

Subscription:

Best for:

- Protocol review, sample size, randomisation
- Data analyses
- Systematic reviews
- Paper revisions

Model:

- Budget via subscription package (e.g. 50 hours)
- Authorship discussed, independent of costs

Hub and Spoke model:

Best for:

- Long term research collaborations>12 months
- Hospitals & research departments
- Research group gains ongoing support, & biostatistician / health economist is supported through specialised groups

Model:

- E.g. 0.4FTE for 12 months
- Costs depend on experience of biostatistician

Training (Website:- <u>https://clinicalresearch.mdhs.unimelb.edu.au/</u>)

MACH EMCR Webinars

[Example topics]

- Introduction to Co-Design what, why, who and how
- Simulating an Adaptive Trial
- Cost-utility analysis of health care interventions using clinical trial data key aspects and case study
- Survey Design

Recordings are available at MACH website for 2022, 2023 & 2024 webinars

https://machaustralia.org/news/mach-2024-emcr-research-design-webinar-series/

Training (Website:- <u>https://clinicalresearch.mdhs.unimelb.edu.au/</u>)

2025 MACH ECR & MCR Webinars

- Statistical Significance vs. Clinical Significance
- Co-design & consumer involvement in clinical trials
- Systematic reviews & meta-analysis
- Comparing Trial-Based & Model-Based Cost-Effectiveness Analyses: Methodologies & Decision-Making Criteria in Healthcare

Health Economics courses

- Introduction to cost-effectiveness analysis in health
- Evaluating public health interventions using epidemiological & economic methods
- Practical methods for health economic evaluation
- Designing economic evaluation alongside clinical studies

REDCap courses

- REDCap 1: An introduction, 6 May, 30 July, 16 Sept, 11 Nov 2025
- REDCap2: Beyond the basics, 4 March, 29 July, 18 Nov 2025

Thank you!

- Website: <u>https://clinicalresearch.mdhs.unimelb.edu.au/</u>
- Email: <u>misch-info@unimelb.edu.au</u>
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