

Global Advances in Research Translation for Hospitals

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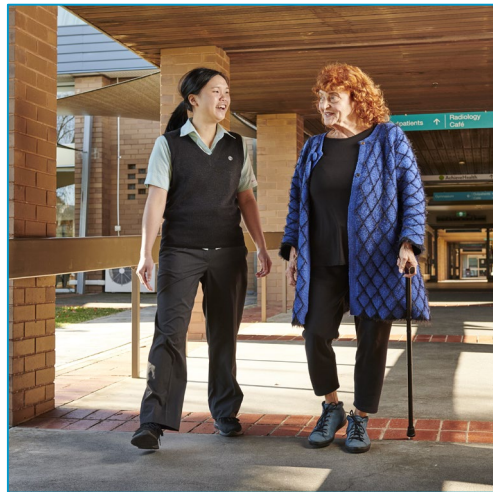
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“The ARCH”

Academic Research Collaborative in Health

A Health Research and Translation Centre



Academic Research Collaborative in Health

What is the ARCH?

- The **ARCH** is a health research translation centre
- The **ARCH** is all about partnerships that deliver better care to Australians.
- The **ARCH** model promotes close ties between research, clinical education, workforce training, clinical practice and consumer engagement.
- The **AIM** is high quality, evidence-based, science-led healthcare, with our partners.

ARCH

Purpose: Clients have access to evidence based services to optimise health and wellbeing, supported by exceptional clinical education and research training for students and clinicians

Strategy: Translational research & education co-produced with clients & partners

Nodes

Alfred
ARCH

Eastern
ARCH

Austin
ARCH

Northern
ARCH

Healthscope
ARCH

The Royal
Melbourne
ARCH

Mercy
ARCH

Royal
Womens
ARCH

Strategic Initiatives



Translational research



Inter-professional
research & education



Workforce capability



Consumer enablement

Flagships

Chronic
disease

Rehabilitation
Therapy

Falls
Fractures

Maternal &
child health

Ageing
Aged Care

Health
Service
Evaluation

Resources

Clinical
Trials

Biomedical
Platforms

Digital
Health

Data &
Analytics

Consumers

Health
Services

Primary
Care
Community



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ARCH

Research Translation is Integral



- The ARCH adopts an Implementation Science Framework to co-produce research with our partners and consumers.
- Our translational research pipeline starts with co-production of the research questions, research design, methodology and implementation of projects with stakeholders. Together we interpret and disseminate the results, ensuring that the findings quickly reach intended end-users.



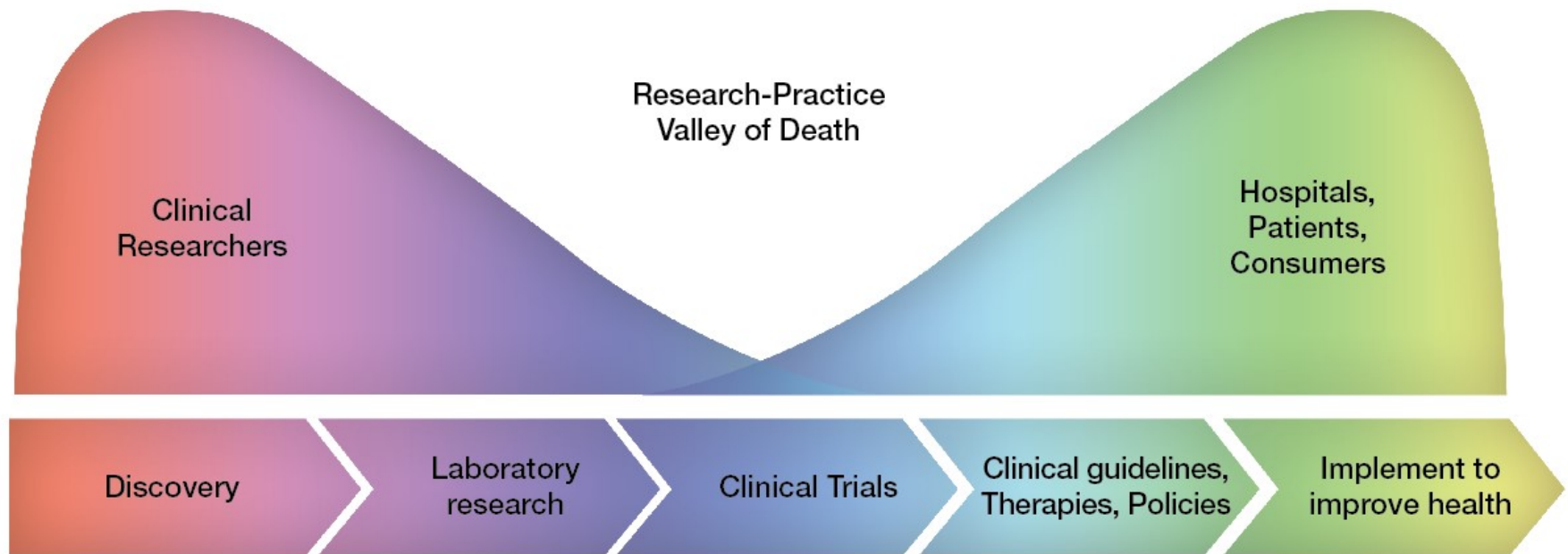
Global Research Translation Pipelines

Key Constructs:

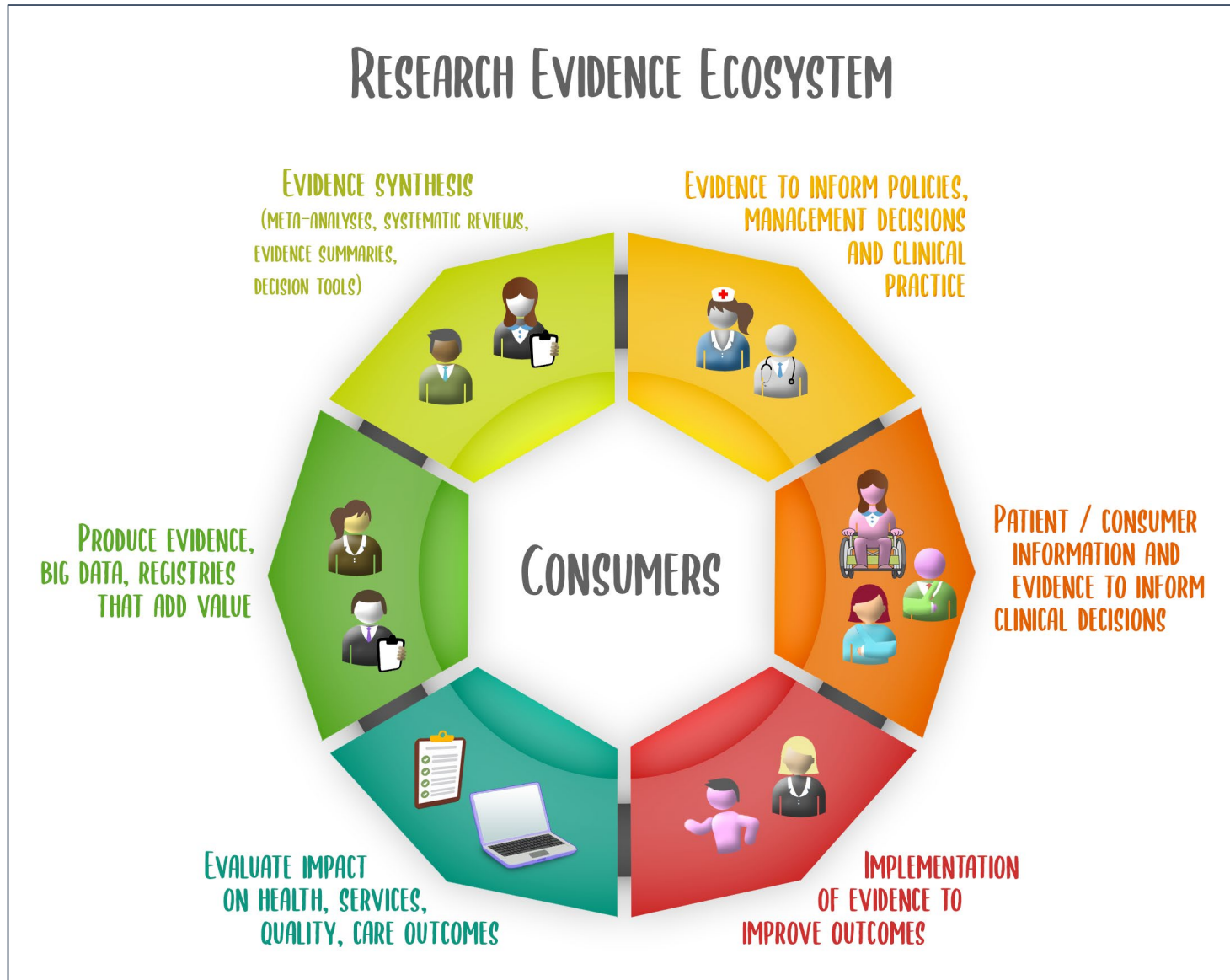
- Ecosystems of Evidence
- Learning Health Systems
- Consumer Focussed, Co-Produced Research

Historical & Contemporary Models

Historical: Linear Models of Research Translation



Contemporary: Ecosystems of Evidence

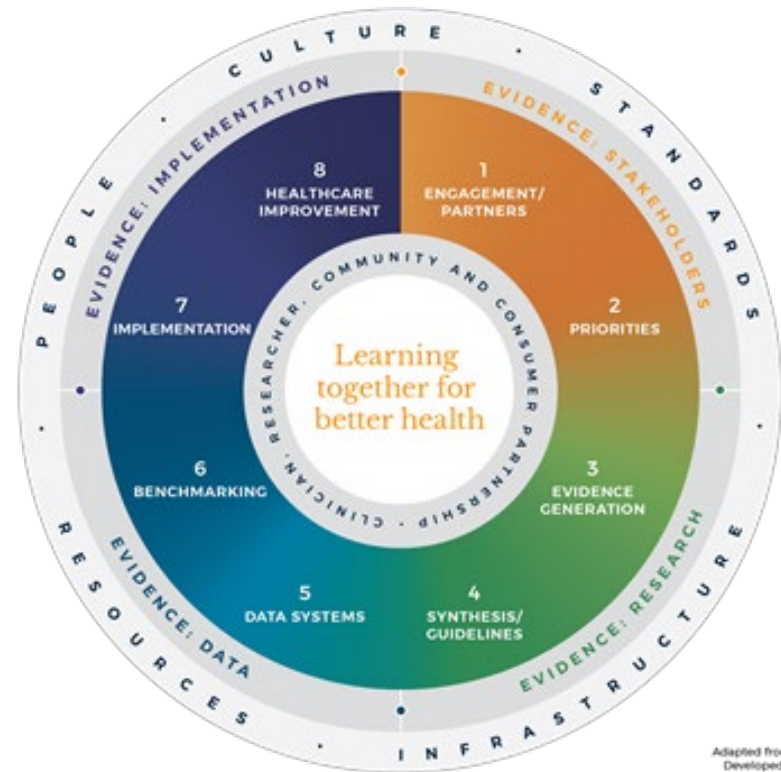


Meg Morris

Global Learning Health Systems

An example of contemporary ecosystems of evidence are Learning Health Systems

LHS are healthcare systems promoting knowledge generation and translation, so knowledge can be quickly embedded into clinical practice to enable continuous improvements in care, safety, quality and efficiency.



Monash Partners Learning Health System



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Monash Partners Learning Health System

- **Inner Wheel:** Co-produced research with all stakeholders – patients, clinicians, researchers, policy makers to enable “Learning together for better health”
- **Middle layer:** is about connecting Evidence Stakeholders, to conduct Evidence Research, Evidence Data And then Evidence Implementation. This involves:

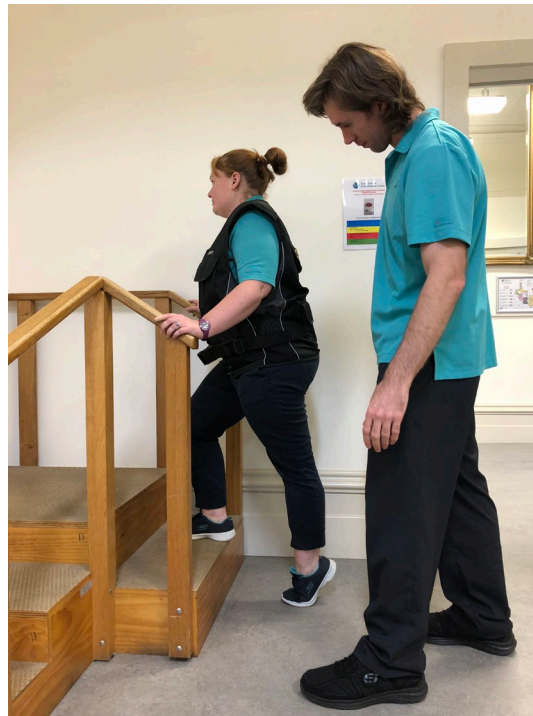
1. Partnership engagement
2. Priority Setting
3. Evidence Generation
4. Synthesis/Guidelines
5. Data Systems
6. Benchmarking
7. Implementation
8. Healthcare Improvement



© Monash University
Adapted from MCHRI framework
Developed by Monash Partners

- **Outer Rim:** Is the Ecosystem **Environment:** People, Culture, Regulation, Infrastructure, Resources

The ARCH is a Learning Health System within an Ecosystem of Evidence



Healthcare Evidence Ecosystems

- Cartabellotta et al: Biannual International Conference for Evidence-based Healthcare Teachers and Developers in Sicily.
- **Ecosystems of evidence** promote efficiency of knowledge generation, synthesis & translation. The “**non-nonliving**” elements include scientific evidence generated according to rules, standards, and frameworks associated with the generation, synthesis, and translation of findings to end-users.
- The “**living**” elements are the people creating and using the evidence, and the environment (social, cultural, economic, and political).



THE ECOSYSTEM OF EVIDENCE

Global challenges for the future

9th International Conference for EBHC Teachers and Developers
8th Conference of the International Society for EBHC
Taormina, 6th-9th November 2019

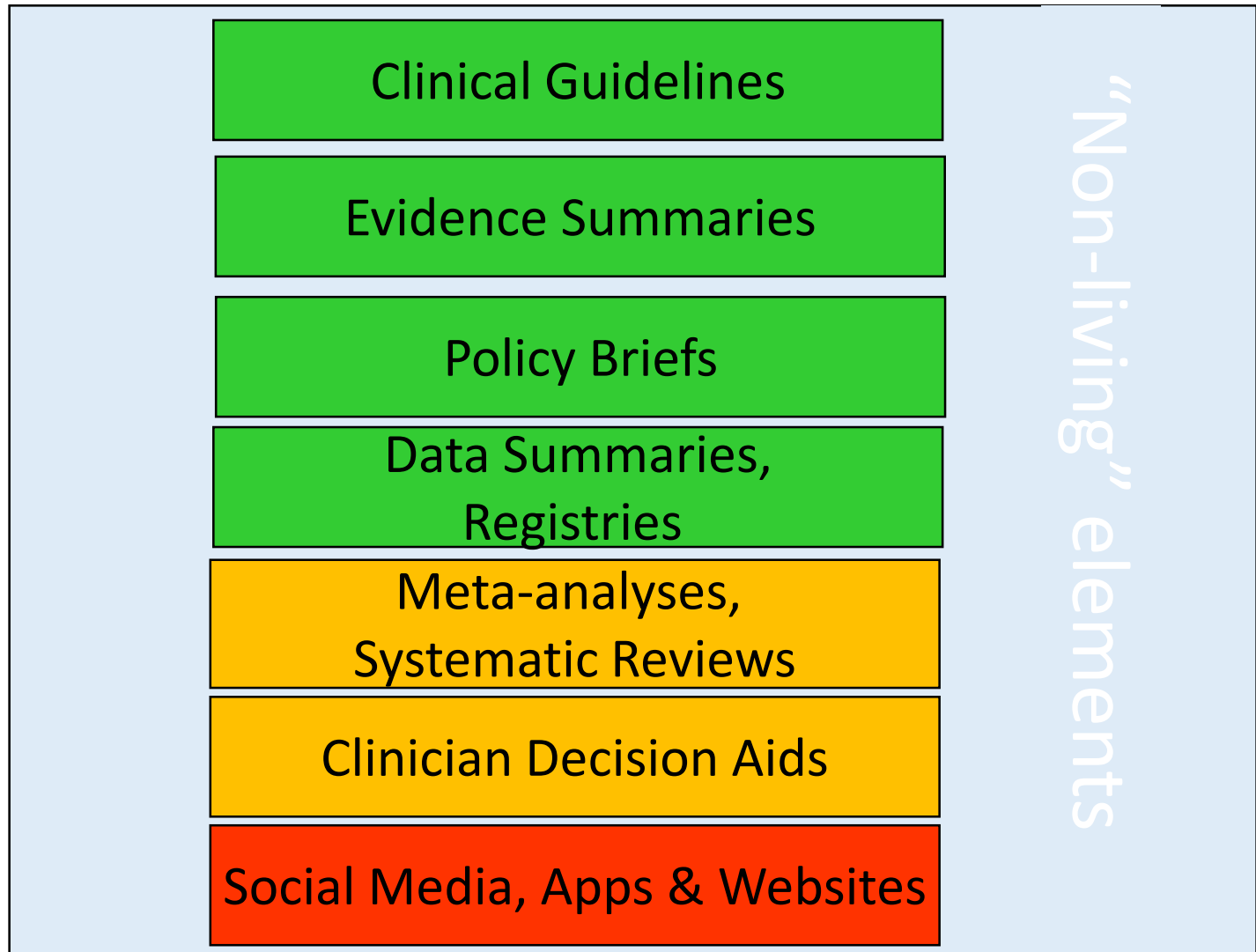
#EBHC2019



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Ecosystem: Tools For Translating Knowledge



Clinical Research Evidence Hierarchy



Tools to move evidence to decision making

- **Data** from RCTs and other research methodologies into implementation settings.
- **GRADE** (Grading of Recommendations Assessment, Development and Evaluation) a way to rank the quality of evidence and recommendations arising from the impact of intervention trials
- **CERQual** (Confidence in the Evidence from Reviews of Qualitative research): determines the confidence of evidence from qualitative research reviews
- **DECIDE** (Tools for decision making and dissemination) project to develop and evaluate strategies for disseminating and supporting the uptake of guidelines by decision makers in clinical practice and policy
- **The INAHTA Product Type** (IPT) Multi-lingual recognition and classification of health technology products, including HTA reports and rapid reviews used to inform decisions about the registration of health technologies for use.

Gough, D., Davies, P., Jamtvedt, G. *et al.* Evidence Synthesis International (ESI): Position Statement. *Syst Rev* 9, 155 (2020). <https://doi.org/10.1186/s13643-020-01415-5>

Evidence Ecosystems: “Living Elements”

- The people creating and using the evidence
- The health and social care environment (social, cultural, economic, and political) enabling evidence to be co-created and disseminated to consumers



Evidence Ecosystems: “Living Elements”

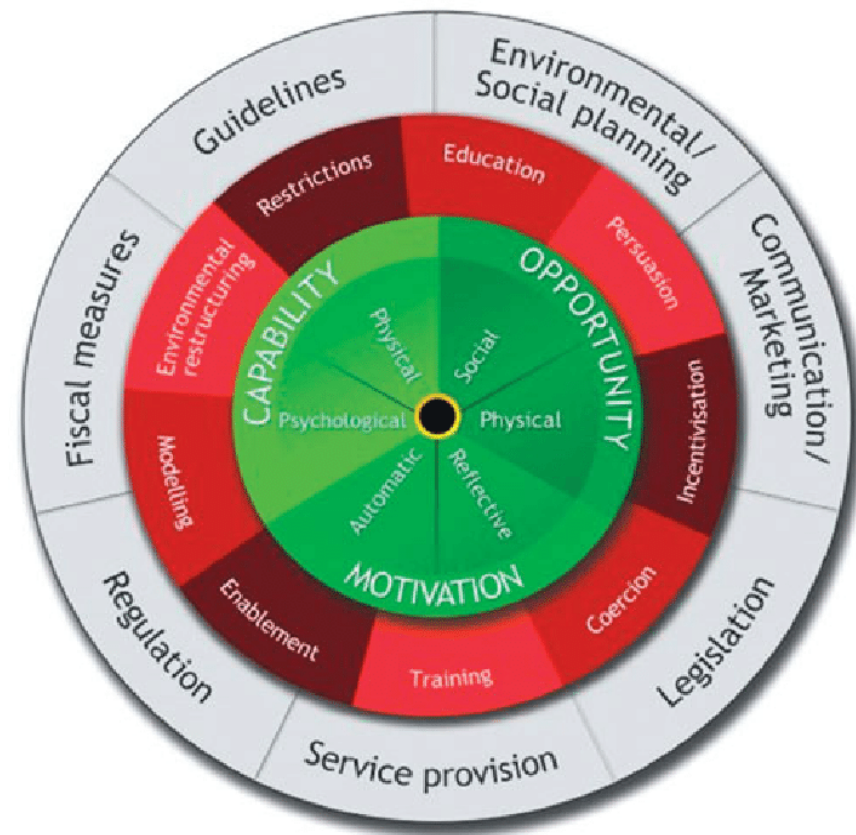
People: Behaviour Change

Michies Behaviour Change Model

Centre: “Behaviour System” Clinician Capability, Motivation, Opportunity to adopt evidence

Middle: Intervention Functions: Education, Training, Modelling, Restrictions, Coercion... to adopt EBP

Outer: Policy Categories. Regulations, Legislation, Service Models, Guidelines etc.



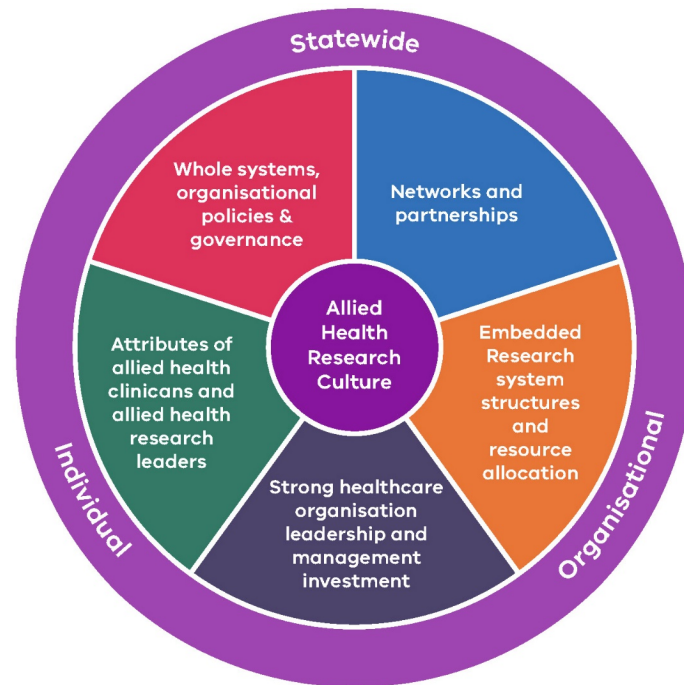
Michie et al. Implementation Science 2011, 6:42



Evidence Ecosystems: Environment

cultural, social, economic, and political

Example: Victorian Allied Health Research Framework



<https://www2.health.vic.gov.au/health-workforce/allied-health-workforce/allied-health-research>



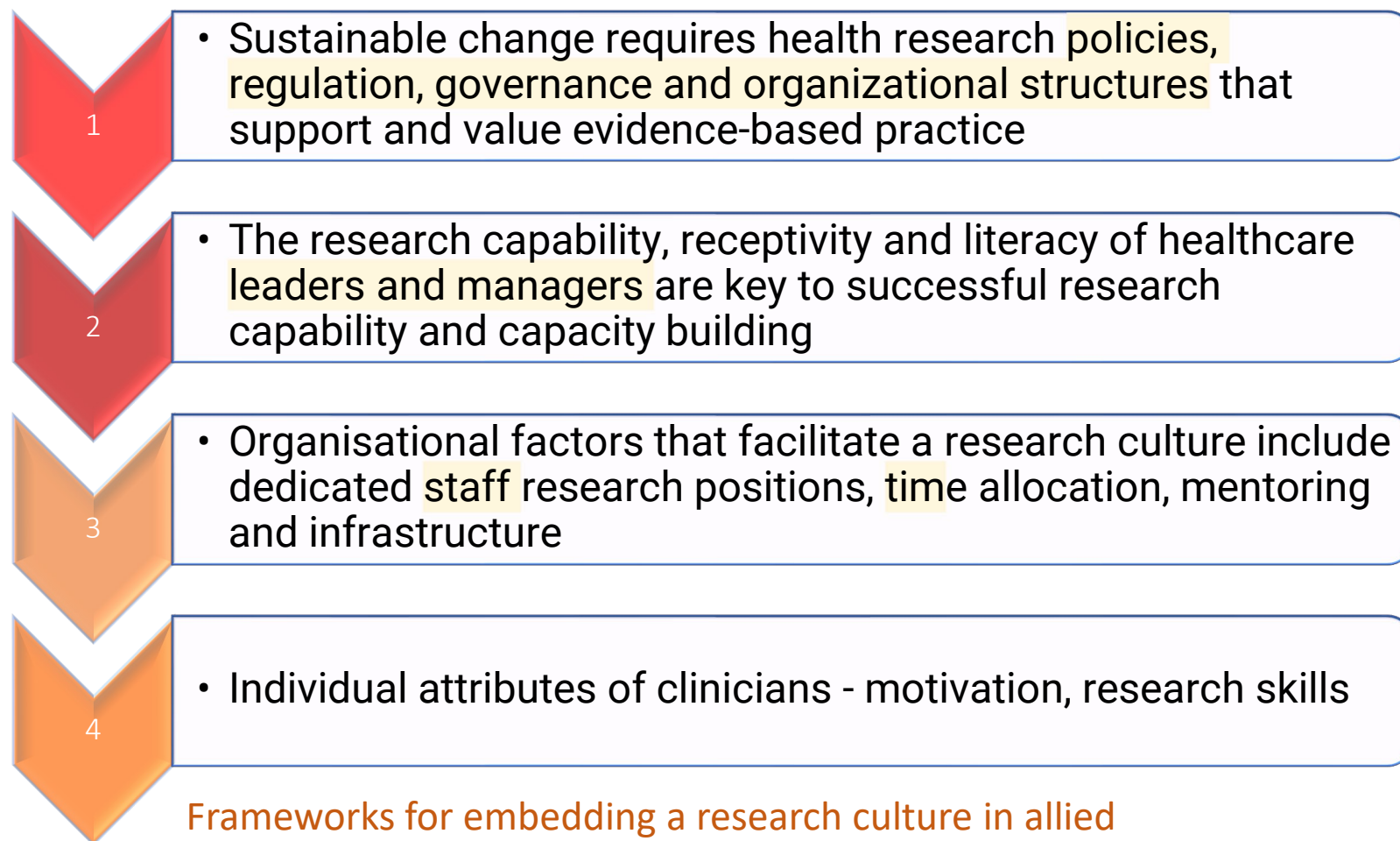
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A Culture of Evidence Based Practice

Slade, Philp, Morris 2018

Focus groups, expert consensus meetings, rapid review literature



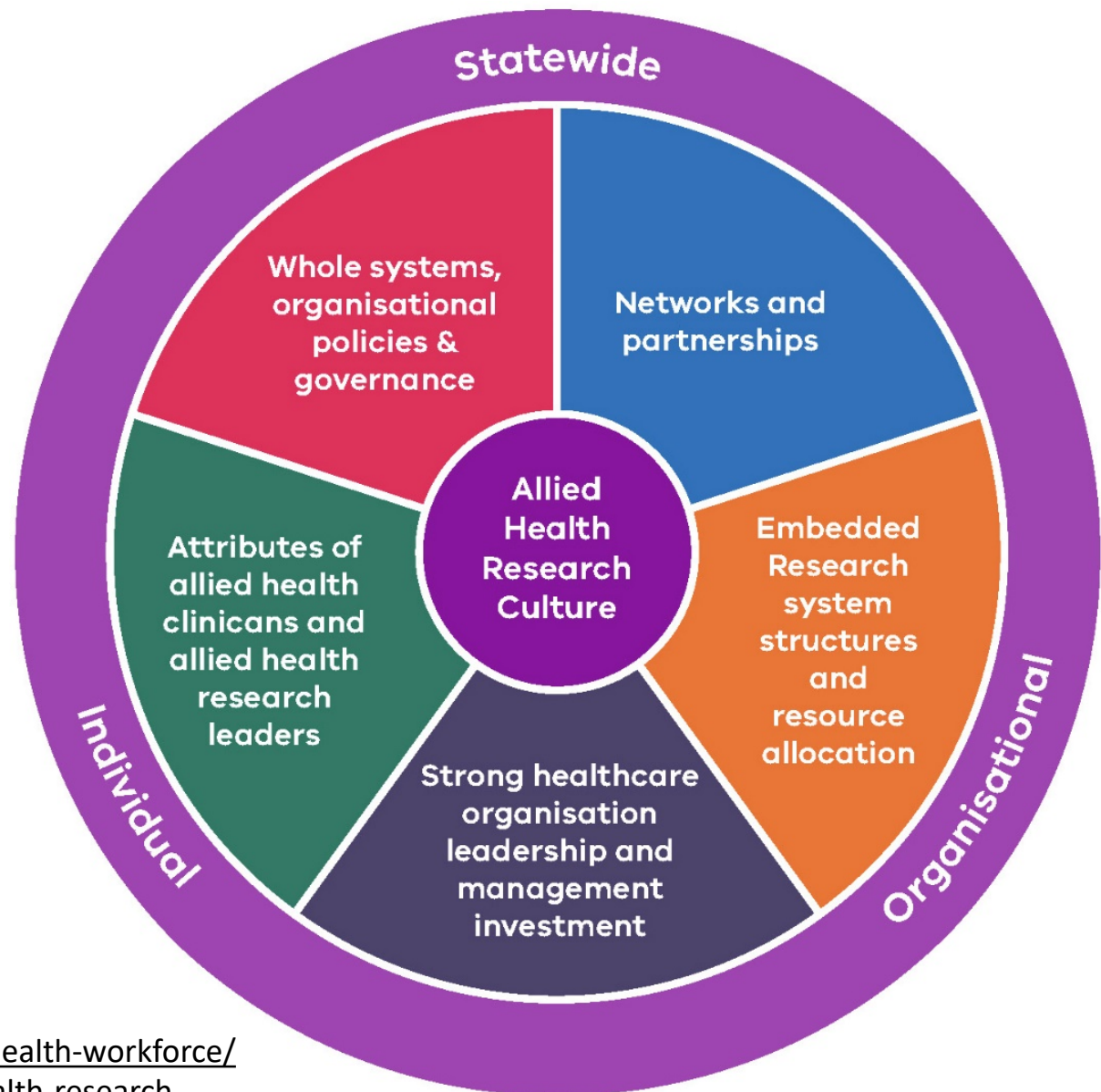
Frameworks for embedding a research culture in allied health practice: [Health Research Policy and Systems, 2018](#)



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Evidence Ecosystems: Culture



Global Research Translation Pipelines

Key Constructs:

- Ecosystems of Evidence
- Learning Health Systems
- Consumer Focussed, Co-Produced Research

Patient / Consumer Expectations

- Consumer / patient expectations of healthcare are rapidly changing.
- Many people with health conditions want to be directly involved in the planning, conduct, and reporting of clinical research. They want research to be with or by members of the public rather than done “for them” or “to them”
<https://www.peopleinresearch.org/publicinvolvement>
- Healthcare agencies, consumer groups and community organisations can have major influence, as shown by the AllTrials alliance <http://www.alltrials.net> calling for every clinical trial to be registered and evidence summaries to be published for every clinical research project.



The ARCH Exemplifies a Global Advance in Research Translation for Hospitals

Please visit our WEBSITE

<https://www.latrobe.edu.au/she/arch>



Please join our Webinar series

Sept 23 10 am Prof Leeanne Carey

Synchronous (Live) A network of sites and ‘up-skilled’ therapists to deliver best-practice stroke rehabilitation of the arm

Asynchronous

1. “Open Access Research Data: How to Use an Open Access Repository” Thomas Shafee
2. “Open Access Research Data: Sensitive data safety and deidentification” Hannah Buttery

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Thank you



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