



How to meaningfully engage stakeholders in behavioural intervention research: Focusing on impact

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Academic Health Science Centre



MHTP
Monash Health
Translation Precinct

No declarations of interest

Grant Funding from

- Horizons 2020 EU
- Global Alliance of Chronic Disease
- National Health and Medical Research Council (Aus)
- Australian Research Council (Aus)
- Medical Research Future Fund (AUS)
- National Institute of Health Research (UK)
- PCORI (USA)



Overview



- Research: Flipping the paradigm to impact
- Understanding the problem from all perspectives
- Partnership and empowerment moving to solutions
- Knowledge to action framework
- Application principles to behavioural intervention work
 - Healthy lifestyle in pregnancy

Unidirectional translational research

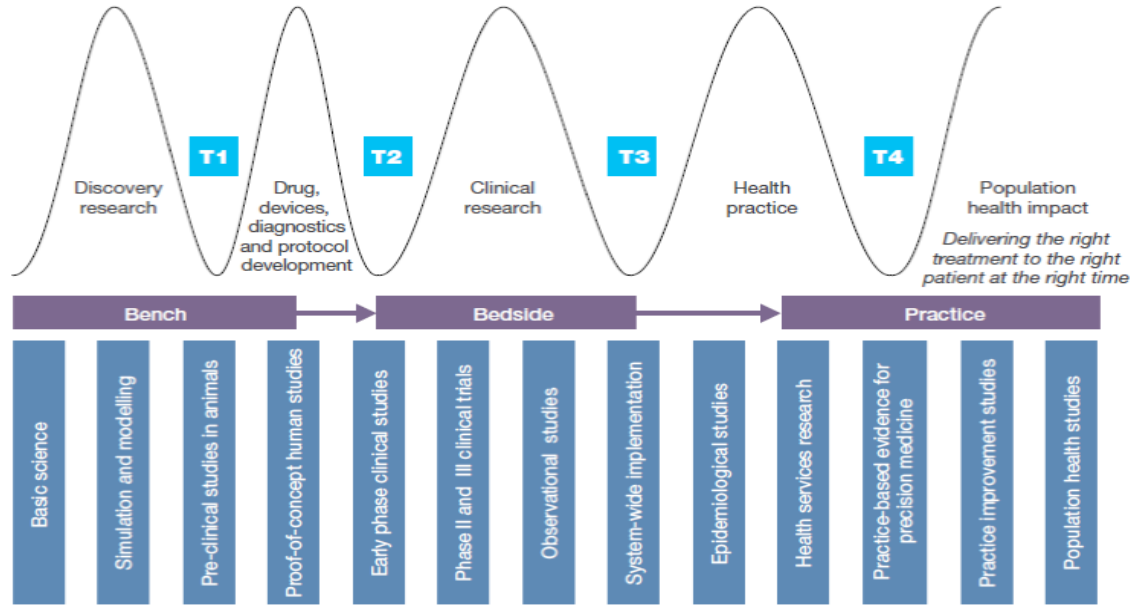
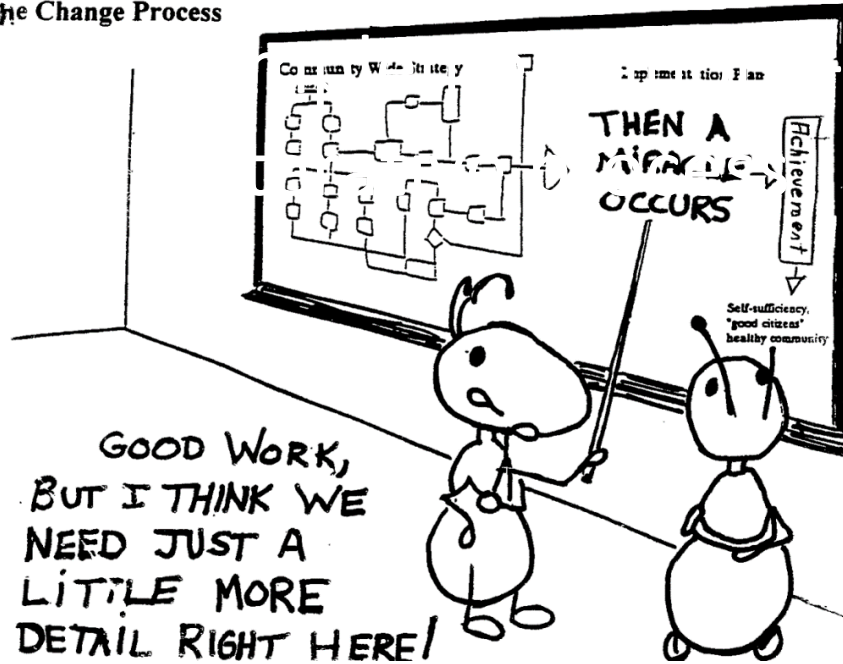


Figure 3: Health and medical research pathway from bench-to-bedside to practice

Adapted from Meslin et al. 2013¹³ and Westfall, Mold & Fagnan 2007¹⁴

Implementation and impact

The Change Process



Unidirectional translational research

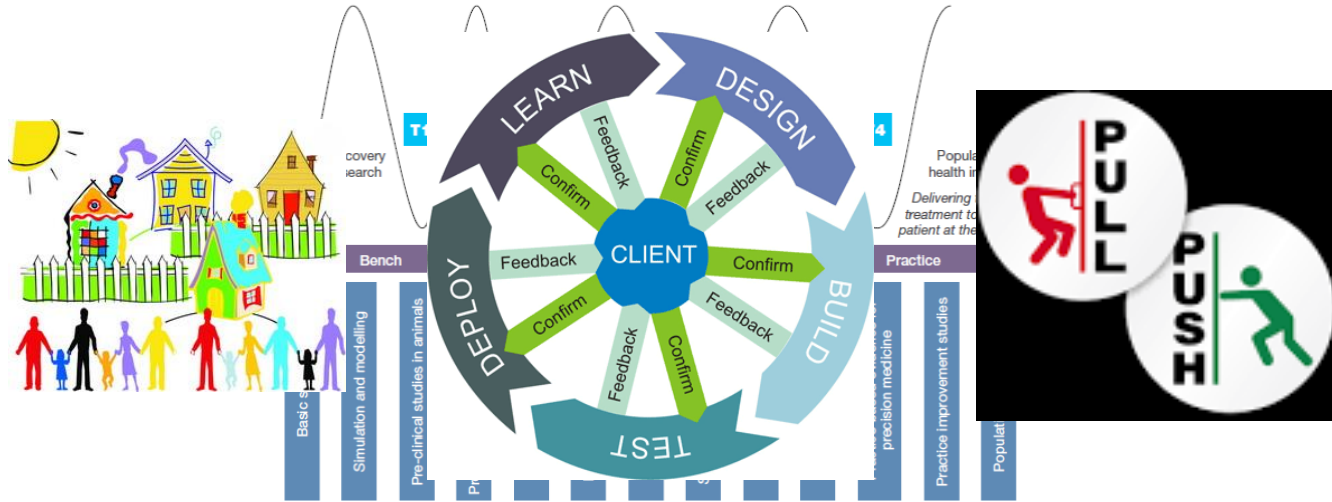


Figure 3: Health and medical research pathway from bench-to-bedside to practice
Adapted from Meslin et al. 2013¹³ and Westfall, Mold & Fagnan 2007¹⁴

Silo's and research



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Systems level barriers

System design and metrics

Dysfunctional system

1 - Hospitals

Episodes of care, waiting times,
patient flow, quality metrics

2 - University

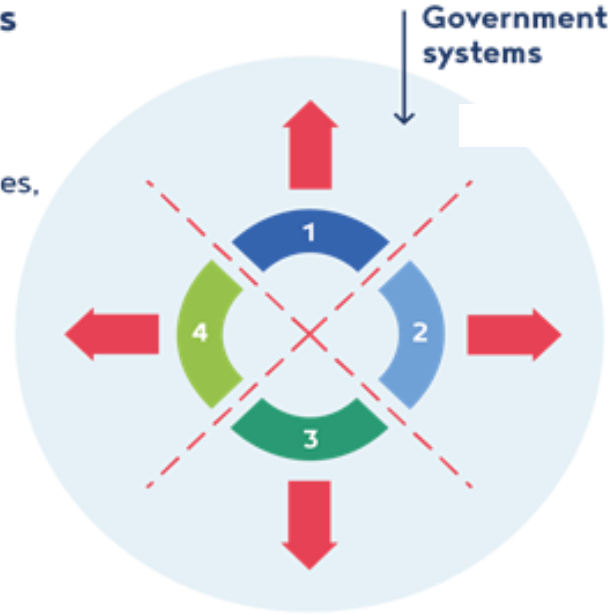
Student enrolments,
higher degree completions

3 - Research Entities

Bibliometrics, grants,
investor-led paradigm

4 - Primary Care

Private businesses





FLIPPING THE PARADIGM

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Community as stakeholders

The community are the funders and beneficiaries of research

The community are the funders and beneficiaries of healthcare and public health innovation

The community have a fundamental role to ensure research, healthcare and public health initiatives meet their priorities and needs



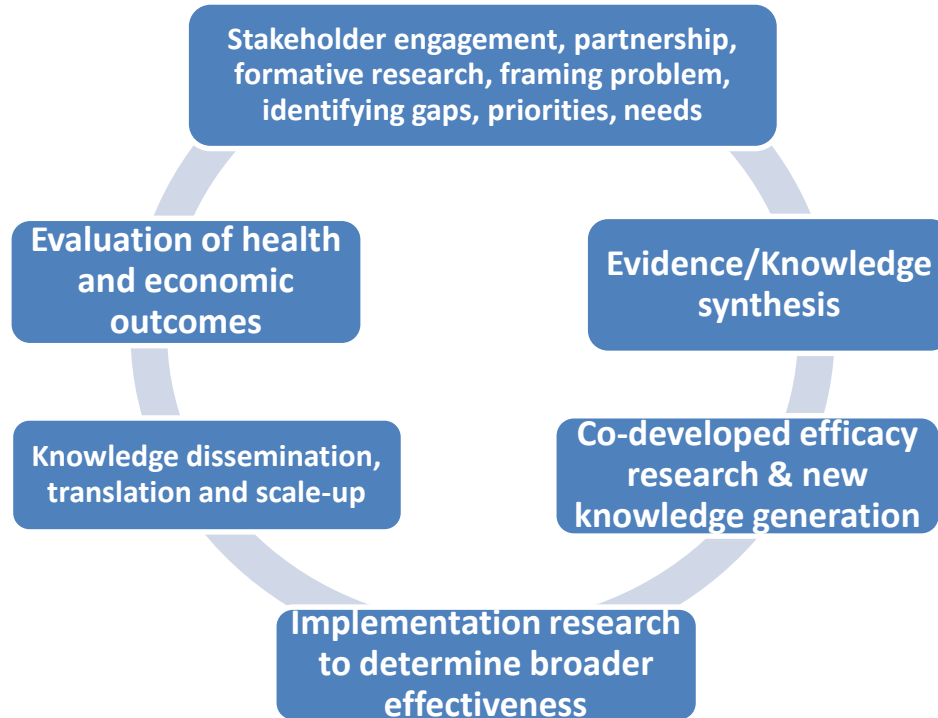


Monash Centre for Health Research and Implementation

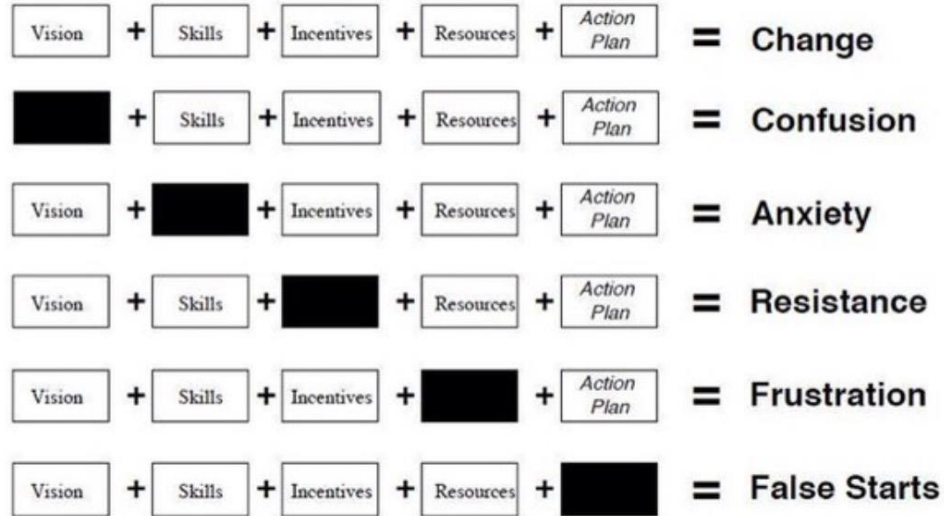
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Knowledge to Action framework

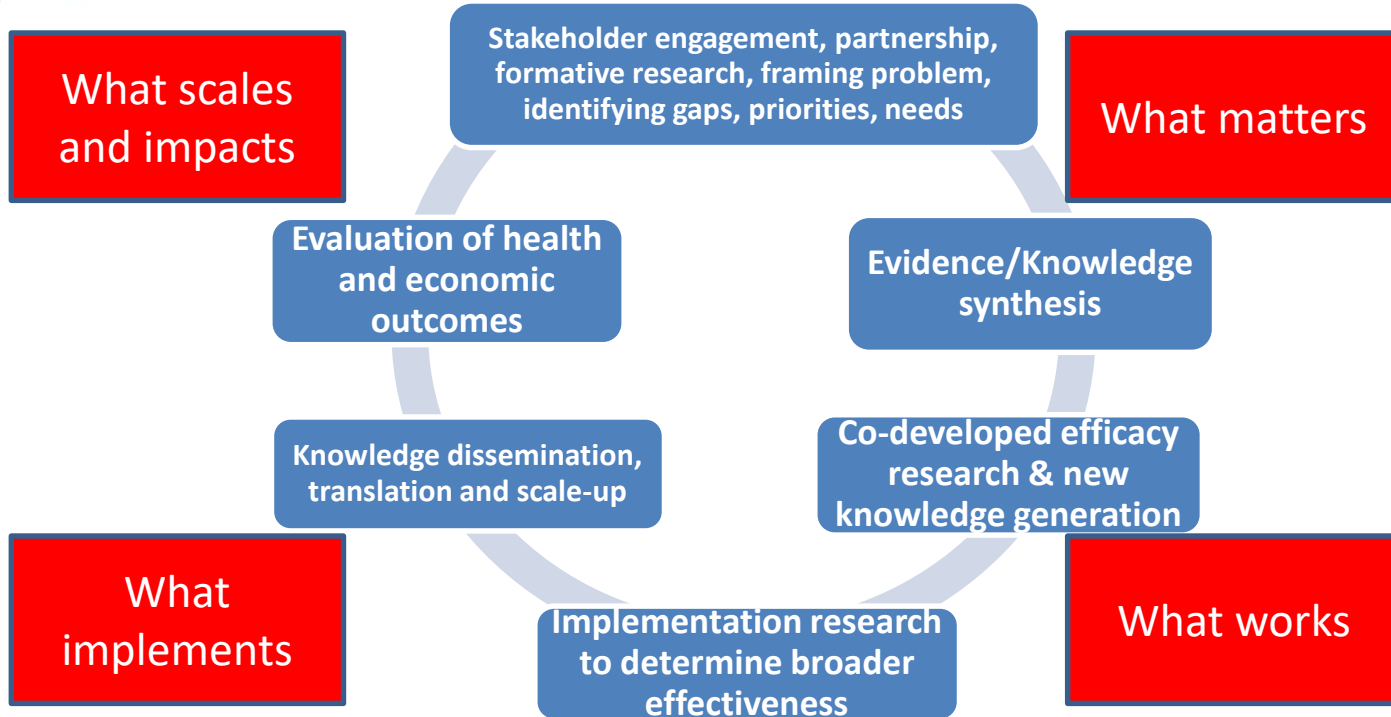


Managing Complex Change



Adapted from Knoster, T., Villa R., & Thousand, J. (2000). A framework for thinking about systems change. In R. villa & J. Thousand (Eds.), *Restructuring for caring and effective education: Piecing the puzzle together* (pp. 93-126). Baltimore: Paul H. Brookes Publishing Co.

Knowledge to Action framework



Lifestyle Preconception, Pregnancy Postpartum HiPPP



Knowledge to Action framework



Healthy Lifestyle HiPPP program

Create, capture, and deliver healthy lifestyle and obesity prevention strategically targeting women around pregnancy, and underserved populations to improve the health of women and the next generation.

Systems level and implementation approaches, stakeholder led, to generate and implement new knowledge to deliver on this vision

Global HiPPP Alliance, National Centre for Research Excellence, linked to iWHP and PONI, Community and consumer framework,

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Healthy Lifestyle HiPPP program

Stakeholder Engagement:

Effective network principles; Brown field collaborations

Governance, Processes

Transparency, Trust, Values, Respect

Representativeness, diversity, equity

Training and capacity building

Individual, organisational, policy level

Strategies to engage and coproduce – project management, resources, roles/PDs, recognition of expert status, training, buddy systems, Delphi, nominal group technique and think out loud, qualitative research

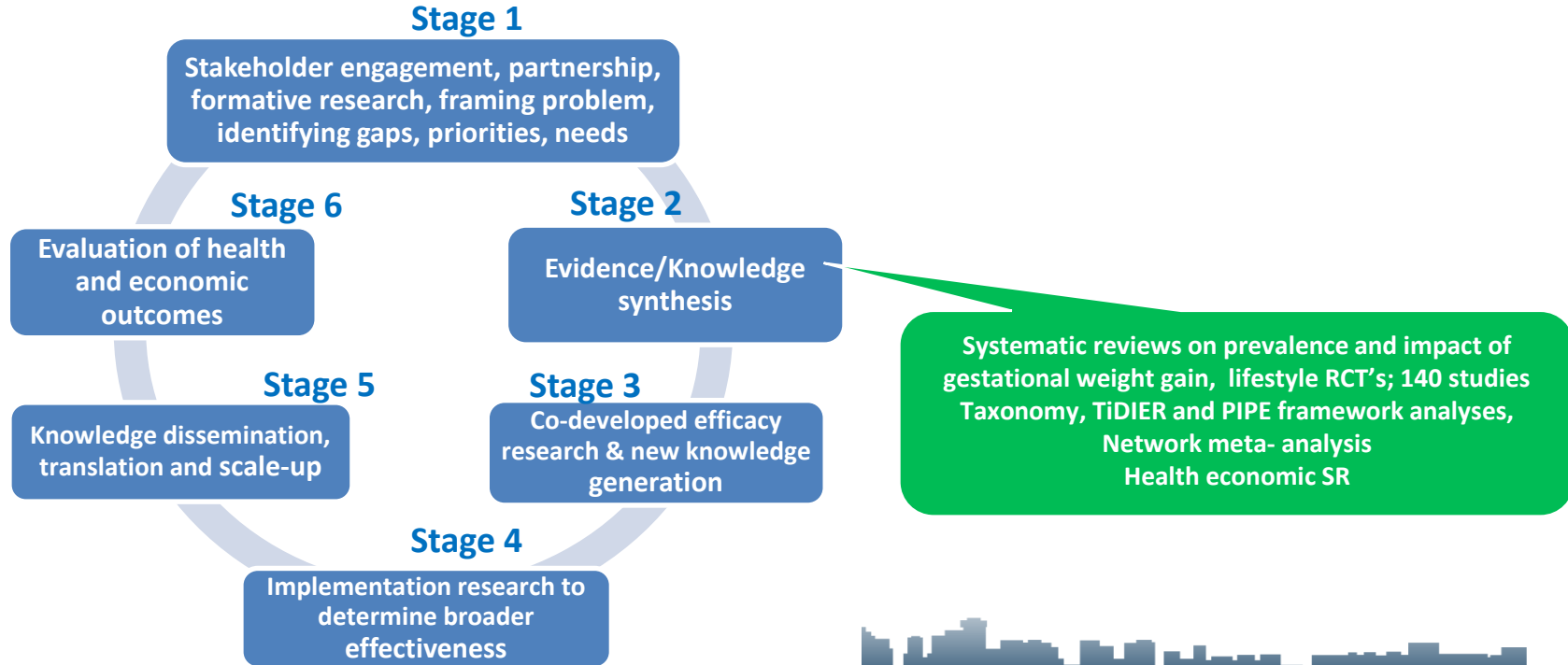


Healthy Lifestyle HiPPP program

Collaboratively develop a deep understanding of the problem from all perspectives and develop a collective vision

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Association of Gestational Weight Gain With Maternal and Infant Outcomes

A Systematic Review and Meta-analysis

Rebecca F. Goldstein, MBBS, FRACP; Sally K. Abell, MBBS, FRACP; Sanjeeva Ranasinha, MSc, MEpi; Marie Misso, MSc, PhD; Jacqueline A. Boyle, MBBS, FRANZCOG, PhD; Mary Helen Black, MS, PhD; Nan Li, MSc; Gang Hu, MD, MPH, PhD; Francesco Corrado, MD; Line Rode, MD, PhD; Young Ju Kim, MD, PhD; Margaretha Haugen, BSc, PhD; Won O. Song, MPH, PhD; Min Hyoung Kim, MD, PhD; Annick Bogaerts, RM, MSc, PhD; Roland Devlieger, MD, PhD; Judith H. Chung, MD, PhD; Helena J. Teede, MBBS, FRACP, PhD

Table 1. Recommendations for Gestational Weight Gain During Pregnancy^a

Recommendation	Prepregnancy Weight			
	Underweight	Normal Weight	Overweight	Obese
BMI	<18.5	18.5-24.9	25-29.9	≥30
Total weight gain range, kg	12.5-18	11.5-16	7-11.5	5-9
Total weight gain range, lbs	28-40	25-35	15-25	11-20

CONCLUSIONS AND RELEVANCE In this systematic review and meta-analysis of more than 1 million pregnant women, 47% had gestational weight gain greater than IOM recommendations and 23% had gestational weight gain less than IOM recommendations. Gestational weight gain greater than or less than guideline recommendations, compared with weight gain within recommended levels, was associated with higher risk of adverse maternal and infant outcomes.

JAMA. 2017;317(21):2207-2225. doi:10.1001/jama.2017.3635



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Science Network

i-WIP International Weight Management in Pregnancy IPD meta-analysis Collaborative Network

Effect of diet and lifestyle interventions in pregnancy on maternal and fetal outcomes



PCTU



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International network IPD collaboration

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- NIHR HTA funded
Systematic review
- 44 RCTs (7278 women)


BMJ

BMJ 2012;344:e2088 doi: 10.1136/bmj.e2088

Page 1 of 15

RESEARCH

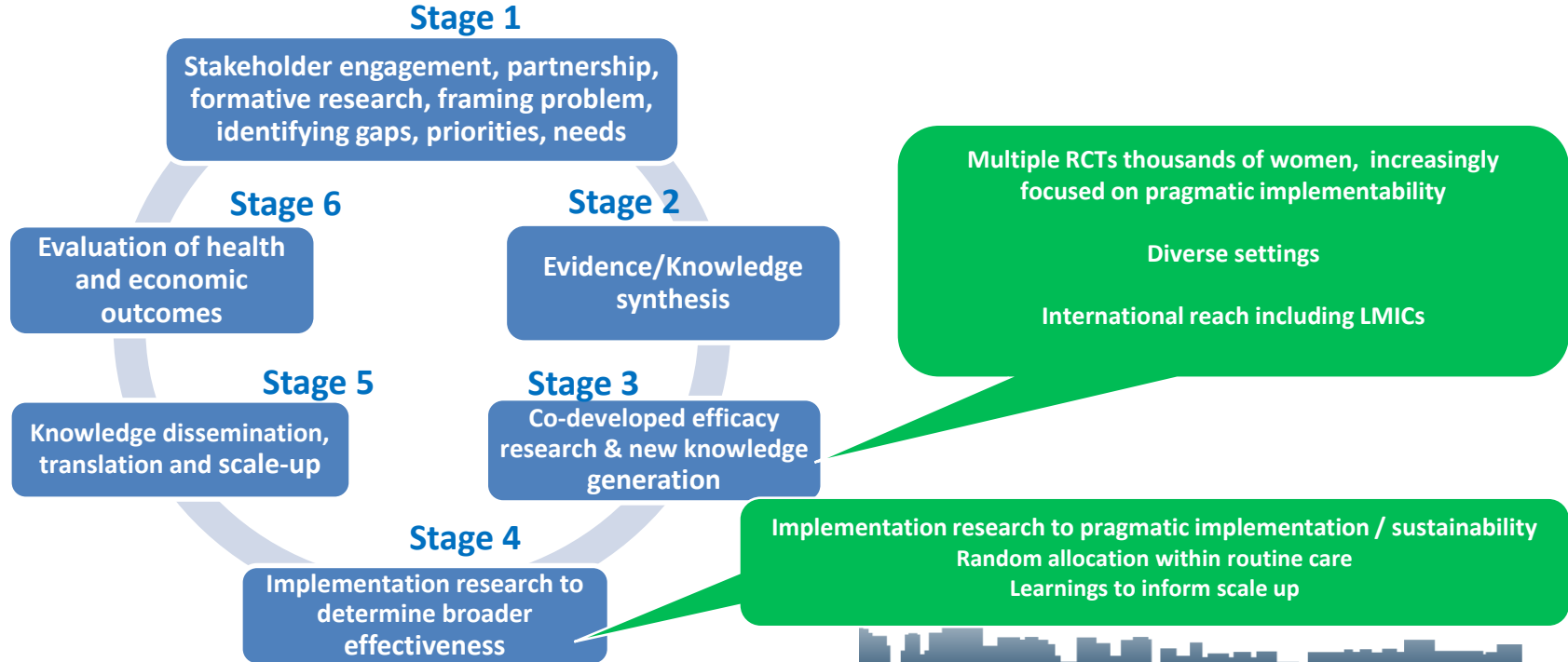
Effects of interventions in pregnancy on maternal weight and obstetric outcomes: meta-analysis of randomised evidence

 OPEN ACCESS

S Thangaratinam *senior lecturer/consultant in obstetrics and maternal medicine*¹, E Rogozińska *researcher*¹, K Jolly *reader in public health*², S Glinkowski *researcher*³, T Roseboom *associate professor*^{4,5}, J W Tomlinson *MRC senior clinical fellow/reader in endocrinology*⁶, R Kunz *professor*⁷, B W Mol *professor*², A Coomarasamy *professor*², K S Khan *professor*¹

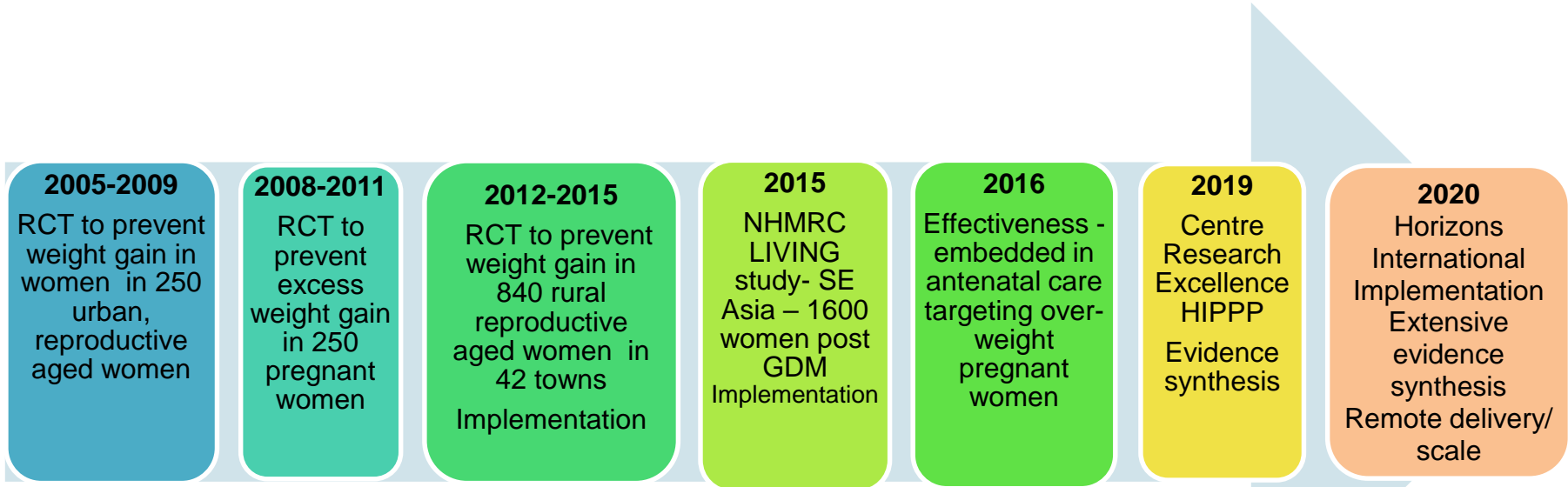
Lifestyle Intervention in pregnancy

- Systematic review expanding to 140 RCTs - no more needed
- Taxonomy of behavioural interventions
- TiDIER framework
- PIPE framework
- Network meta analysis
- Most effective interventions
 - components, approaches and delivery methods
- Health economic analysis to determine
 - cost effectiveness and
 - cost savings that we “have” to spend on interventions

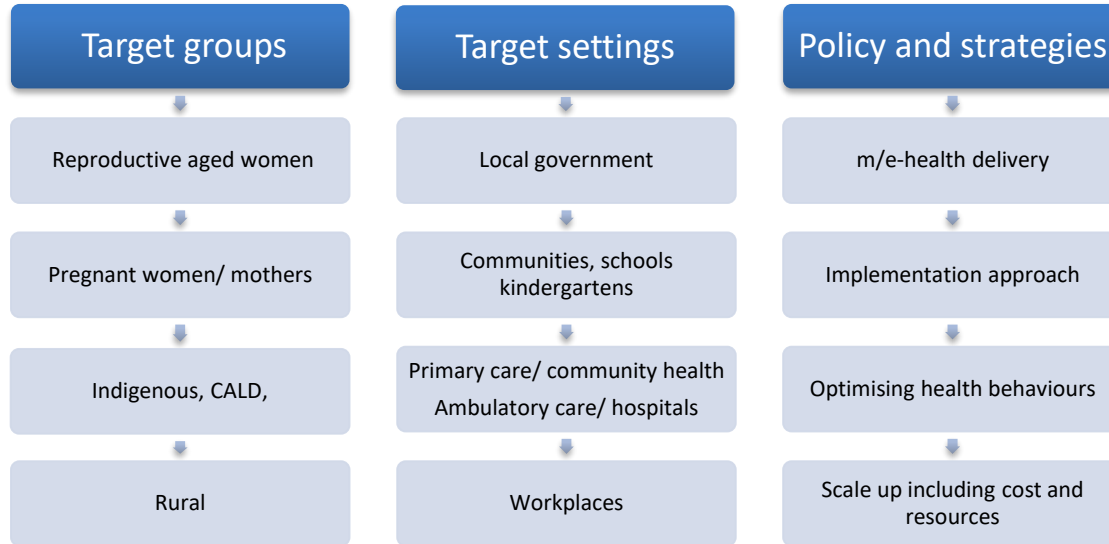




Healthy Lifestyles Program in Preconception Pregnancy Postpartum (HIPPP)



HIPPP Program



Lombard BMJ 2010, Lombard Public Health nutrition 2009, Lombard BMC Public Health 2014,
Harrison Obesity 2013, Harrison IJBNPA 2014, Lombard PLOS Medicine 2016

A low intensity, community based lifestyle programme to prevent weight gain in women with young children: cluster randomised controlled trial

Catherine Lombard, senior research fellow,¹ Amanda Deeks, senior research fellow,¹ Damien Jolley, associate professor in biostatistics,² Kylie Ball, associate professor in behavioural epidemiology,³ Helena Teede, professor in women's health^{1*}

Harrison et al. *International Journal of Behavioral Nutrition and Physical Activity* 2014, **11**:134
<http://www.ijbnpa.org/content/11/1/134>



Original Article

CLINICAL TRIALS: BEHAVIOR, PHARMACOTHERAPY, DEVICES, SURGERY

Optimizing Healthy Gestational Weight Gain in Women at High Risk of Gestational Diabetes: A Randomized Controlled Trial

Cheryce L. Harrison¹, Catherine B. Lombard¹, Boyd J. Strauss^{2,3} and Helena J. Teede⁴

Australian and New Zealand Journal of Obstetrics and Gynaecology 2014; **54**: 382–385

DOI: 10.1111/ajo.12207

RESEARCH

Open Access

Limiting postpartum weight retention through early antenatal intervention: the HeLP-her randomised controlled trial

Cheryce L Harrison^{1*}, Catherine B Lombard^{1*} and Helena J Teede^{1,2*}

Harrison et al. *International Journal of Behavioral Nutrition and Physical Activity* 2011, **8**:19
<http://www.ijbnpa.org/content/8/1/19>



Short Communication

How effective is self-weighing in the setting of a lifestyle intervention to reduce gestational weight gain and postpartum weight retention?

Cheryce L. HARRISON,¹ Helena J. TEEDE^{1,2} and Catherine B. LOMBARD¹

¹Monash Centre for Health Research and Implementation (MCHRI), School of Public Health and Preventive Medicine, Monash University, and ²Diabetes Unit, Monash Health, Clayton, Victoria, Australia

RESEARCH

Open Access

Measuring physical activity during pregnancy

Cheryce L Harrison¹, Russell G Thompson³, Helena J Teede^{1,2}, Catherine B Lombard^{1*}

Abstract

Background: Currently, little is known about physical activity patterns in pregnancy with prior estimates predominantly based on subjective assessment measures that are prone to error. Given the increasing obesity rates and the importance of physical activity in pregnancy, we evaluated the relationship and agreement between subjective and objective physical activity assessment tools to inform researchers and clinicians on optimal assessment of physical activity in pregnancy.



RESEARCH ARTICLE

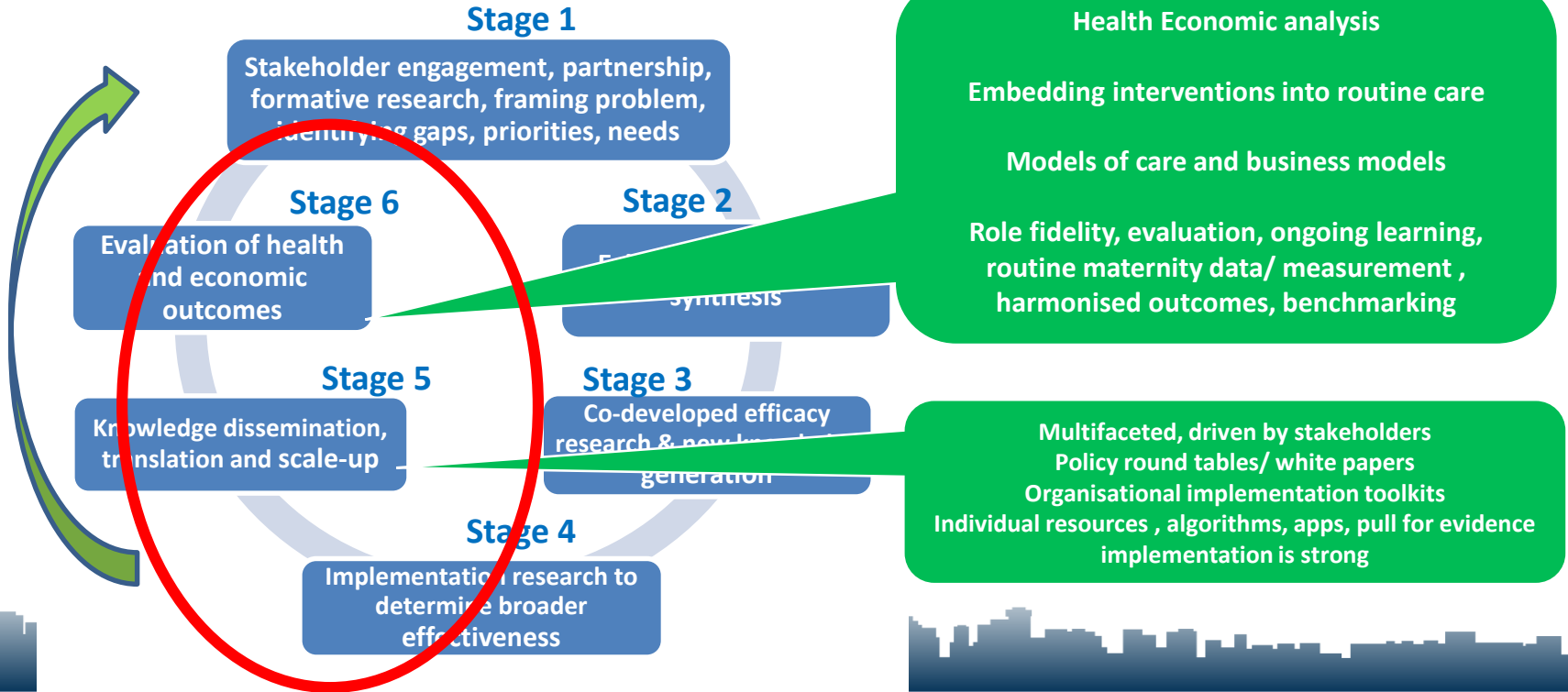
Preventing Weight Gain in Women in Rural Communities: A Cluster Randomised Controlled Trial

Catherine Lombard^{1,2*}, Cheryce Harrison¹, Samantha Kozica¹, Sophia Zoungas^{1,3}, Sanjeeva Ranasingha¹, Helena Teede^{1,3}

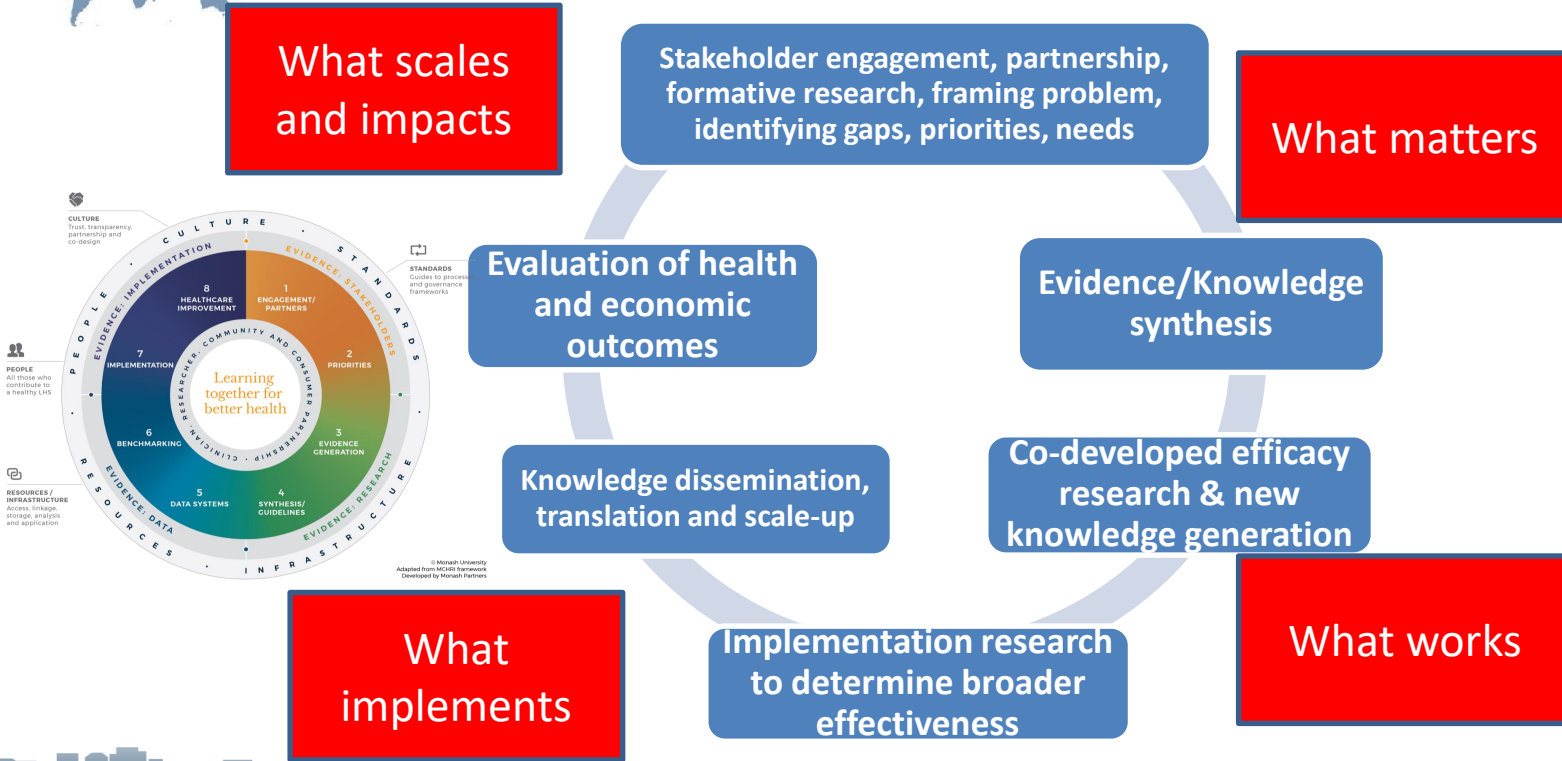
¹ Monash Centre for Health Research and Implementation, Monash University, Melbourne, Australia, ² Department of Nutrition and Dietetics, Monash University, Melbourne, Australia, ³ Diabetes and Vascular Medicine Unit, Monash Health, Melbourne, Australia

* catherine.lombard@monash.edu





Knowledge to Action framework



Learning health systems

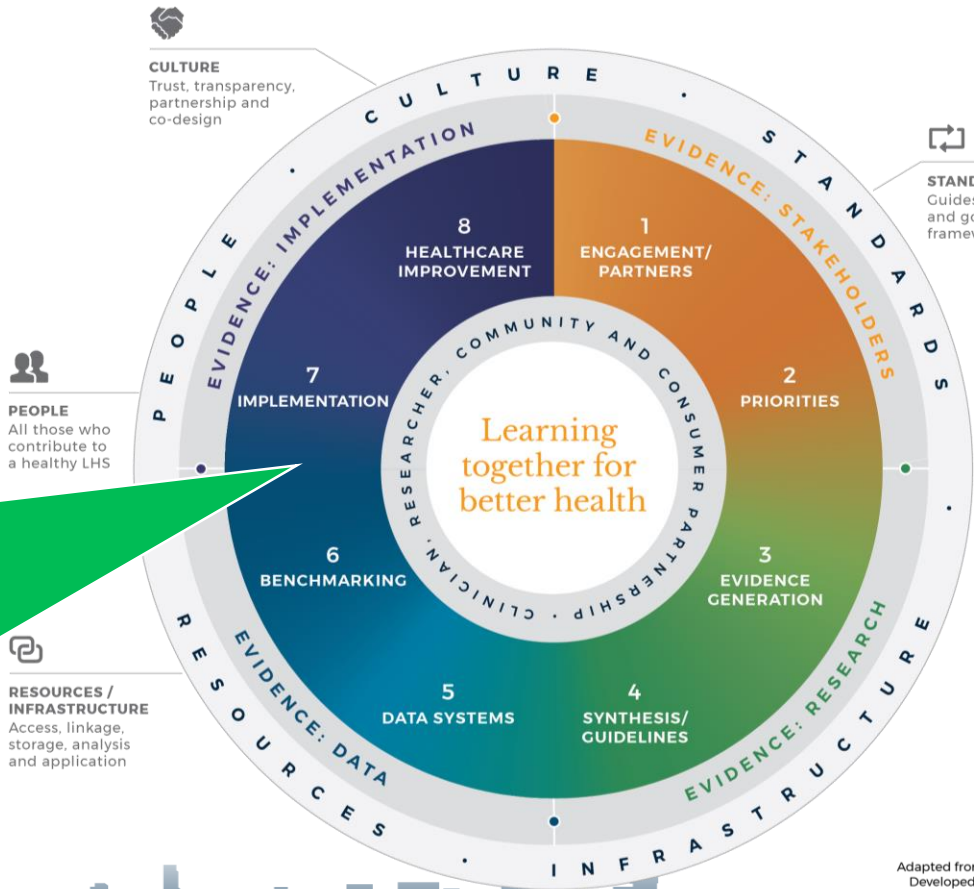
1. Expert working group
 2. Systematic literature review
 3. Qualitative research
 4. Diverse expert / partner input
 5. Co-design workshop with stakeholders
- Vision - improve care and patient outcomes
 - Partnerships: community, academic, HPs, managers, primary care, others
 - Data from routine care- new knowledge, continuously informing healthcare improvement/ continuous iterative learning
 - LHS embedded in healthcare -**benefits** stakeholders

Learning Health System model

Stakeholder engagement, priorities

Evidence synthesis and guidelines
Embed harmonized core outcomes,
benchmark, measure

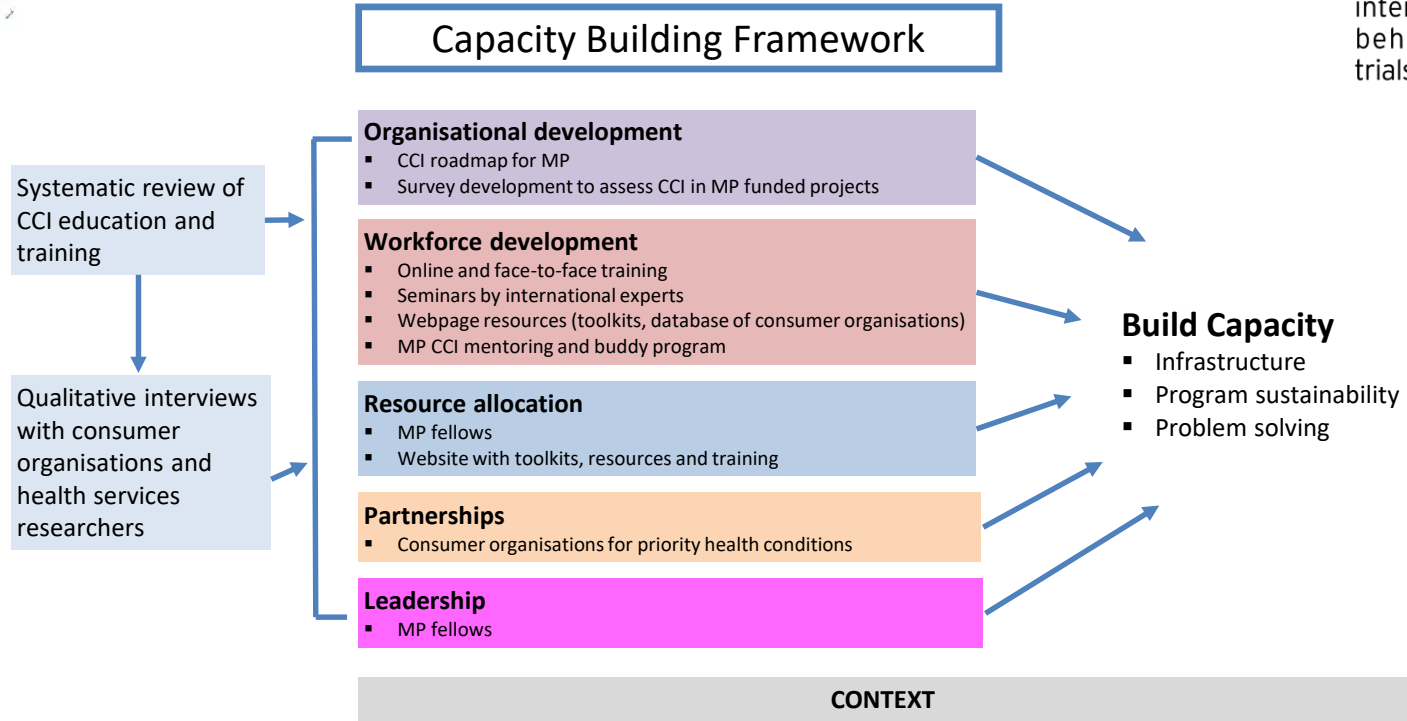
**Implementation knowledge and
build rigor and capacity in our
health services to drive this under
their organizational improvement
programs**



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Adapted from MCHRI framework
Developed by Monash Partners

Community and consumer involvement

- Vision for a National consistent approach to accelerate CCI
- International partnerships
- National engagement
- Systematic review, Qualitative research
- Codesigned a national framework
- Training program targeting diverse stakeholders
- Systems change e.g. Peer review
- Multifaceted evaluation



Knowledge to Action framework

What scales
and impacts

Evaluat
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What matters

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Knowledge dissemination,
translation and scale-up

Co-develop
research
knowledge

What
implements

Implementation research
to determine broader
effectiveness

- A Prof Jacqui Boyle
- Prof Helen Skouteris
- A/Prof Lisa Moran
- Dr Siew Lim
- Dr Cheryce Harrison
- Dr Anju Joham
- Dr Rebecca Goldstein
- Julie Martin
- Dr Nadira Kakoly
- Mahnaz Bahri Khomami
- Adina Lang
- Stephanie Pirota
- Dr Jillian Tay





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