Government of Western Australia
Child and Adolescent Health Service

CAHS Research Education Program

Research Skills Seminar

Knowledge Translation

23rd August 2024

Presented by

Prof Fenella Gill

Professor Acute Paediatrics

Curtin School of Nursing and Perth Children's Hospital

Lead | Safer care for children in hospital | Curtin University - Perth Children's Hospital - WA Country Health Service - St John WA

Lead | Critical Care Nursing program | Curtin School of Nursing

Research Integrity Advisor | Faculty Health Sciences | Curtin University

Honorary Research Consultant | Nursing & Midwifery Research Unit | South Metropolitan Health Service

Editor | Australian Critical Care

Curtin University

Perth Children's Hospital Foundation

Neonatology | Community Health | Mental Health | Perth Children's Hospital

Child and Adolescent Health Service, Department of Research

Department of Health, Government of Western Australia

CAHS Research Education Program Research Skills Seminar Series

✉ ResearchEducationProgram@health.wa.gov.au

cahs.health.wa.gov.au/ResearchEducationProgram

Perth Children's Hospital Foundation

Knowledge Translation

PRESENTATION SLIDES

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Perth Children's Hospital Foundation

Compassion | Excellence | Collaboration | Accountability | Equity | Respect

1

Acknowledgement of Country

The Child and Adolescent Health Service acknowledge Aboriginal people of the many traditional lands and language groups of Western Australia.
We acknowledge the wisdom of Aboriginal Elders both past and present and pay respect to Aboriginal communities of today.

2

CAHS Research Education Program

Research Skills Seminar Series

- Over 25 topics across the research process
  - 1h overview
  - Handouts are provided
- Recorded and uploaded
- Feedback
  - Back of handout
  - Emailed link
- Please hold questions to the end
  - Use provided microphone

3

Government of **Western Australia**
Child and Adolescent Health Service

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4

Overview: Introduction to knowledge translation and implementation science

- Definitions
- Practice v science
- Theories, frameworks
- Implementation strategies
- Changing behaviour and practice
- Planning and measuring KT

Definitions

Knowledge Translation definitions

World Health Organisation

The synthesis, exchange, and application of knowledge by relevant stakeholders to accelerate the benefits of global and local innovation in strengthening health systems and improving people's health

Canadian Institute Health Research

KT is an interactive process underpinned by effective exchanges between researchers who ***create new knowledge*** and those who ***use it***

National Health and Medical Research Council

The creation of knowledge does not, of itself, lead to widespread implementation and positive impacts on health. The knowledge must be translated into changes in practice and policy for the benefits and impacts to flow to Australians

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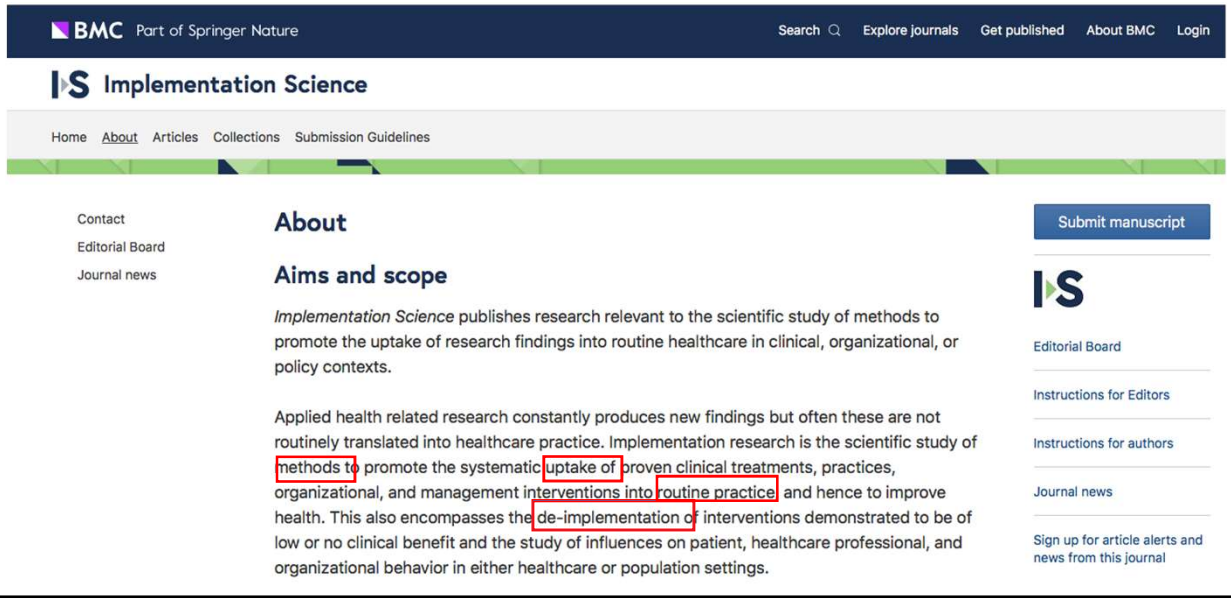
https://implementationscience.biomedcentral.com/about



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Knowledge translation

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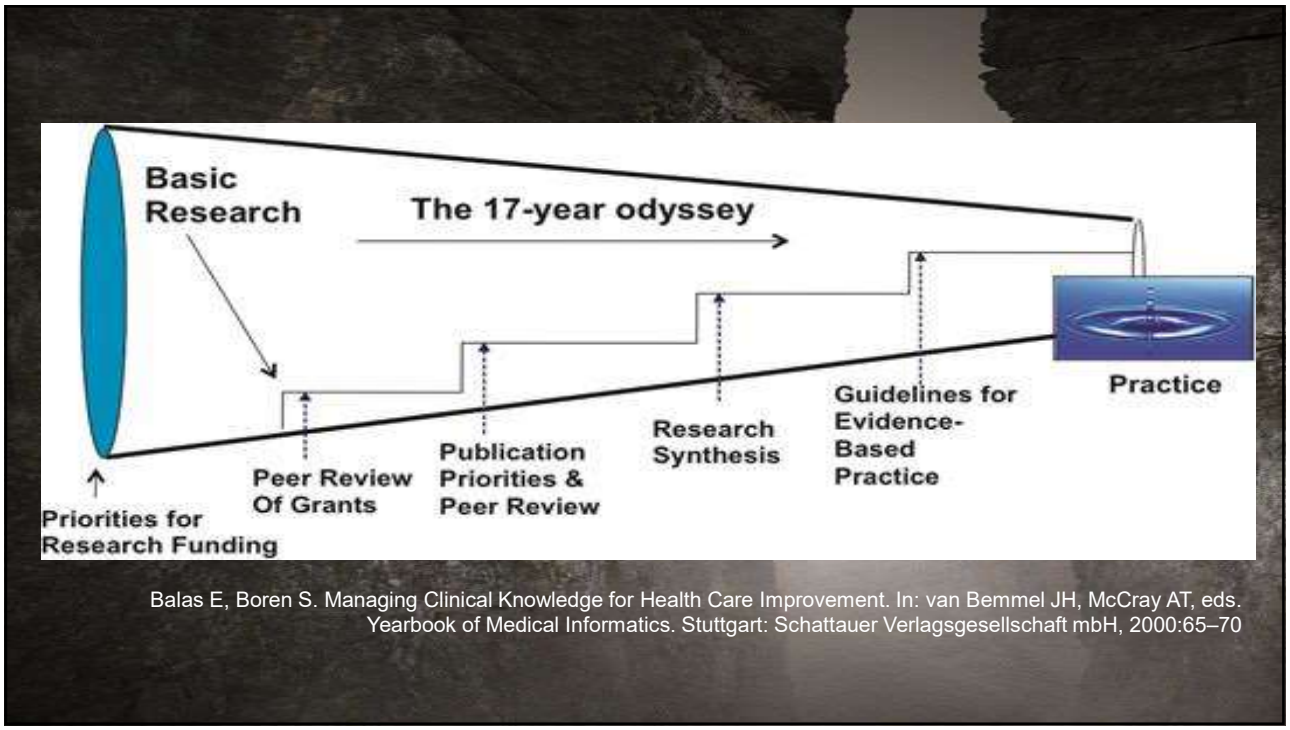


Balas E, Boren S. Managing Clinical Knowledge for Health Care Improvement. In: van Bemmel JH, McCray AT, eds. Yearbook of Medical Informatics. Stuttgart: Schattauer Verlagsgesellschaft mbH, 2000:65–70

10

The 60-30-10 Challenge

"Much of the US $100 Billion/year worldwide investment in biomedical and health research is wasted because of dissemination and implementation failures"

Woolf (2006) Washington Post

Braithwaite *et al. BMC Medicine* (2020) 18:102
https://doi.org/10.1186/s12916-020-01563-4

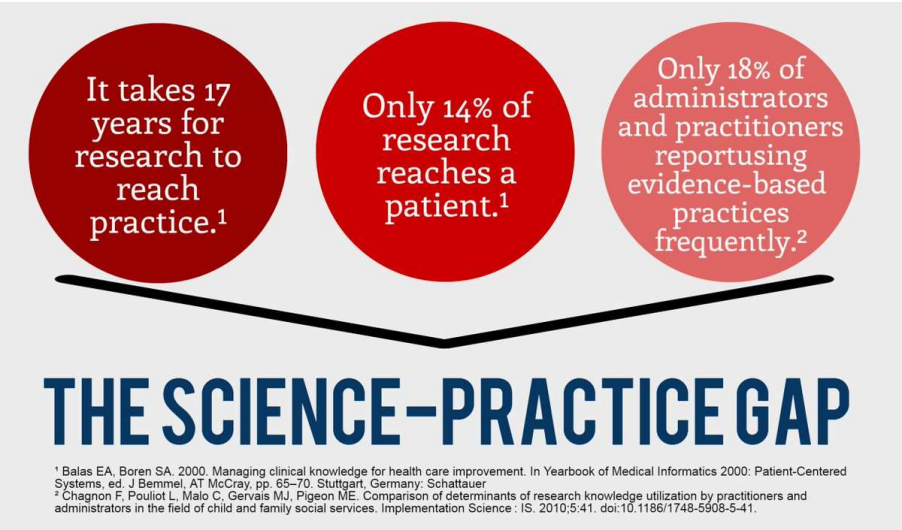
BMC Medicine

OPINION Open Access

The three numbers you need to know about healthcare: the 60-30-10 Challenge

Jeffrey Braithwaite[1*], Paul Glasziou[2] and Johanna Westbrook[3]

11



12

Practice v science

13

Implementation
Implementation Practice: The use of Strategies to adopt and integrate evidence-based interventions and change practice within specific settings
Implementation Science: The scientific study of the methods to promote the uptake of research findings in clinical, organisational, or policy contexts

Dissemination
Dissemination Practice: Purposive distribution of information and intervention materials to a specific audience. Intent is information spread
Dissemination Science: The scientific study of processes and variables that determine and/or influence the spread/sharing of knowledge to various stakeholders

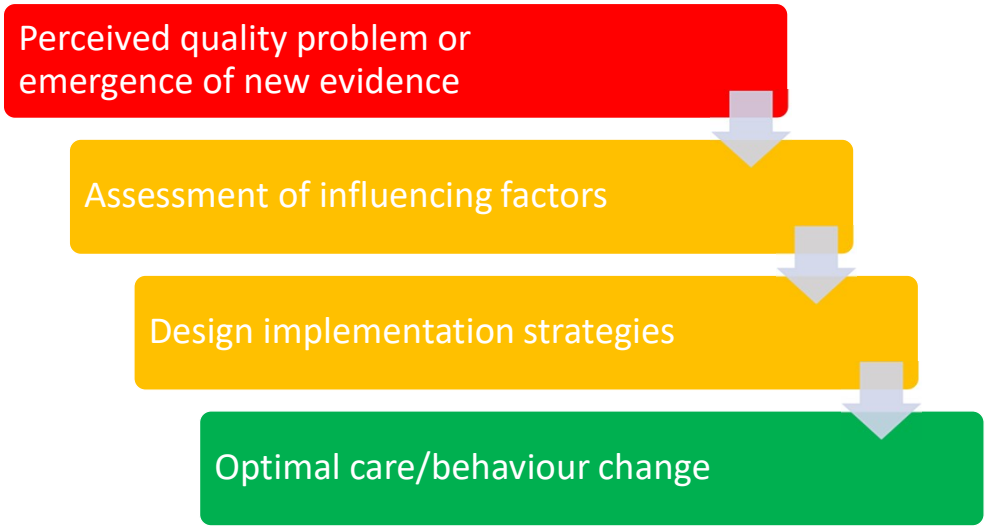
14

Research is implementation research if…

- Research participants are healthcare professionals
- Problem to be addressed concerns quality or efficiency of healthcare
- Research question involves identifying, investigating or addressing gaps in care
- Aim is to build evidence about whether implementation strategies work

15

The process….



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Implementation equation

The Center for Implementation

Figure adapted from the National Implementation Research Network

https://thecenterforimplementation.com

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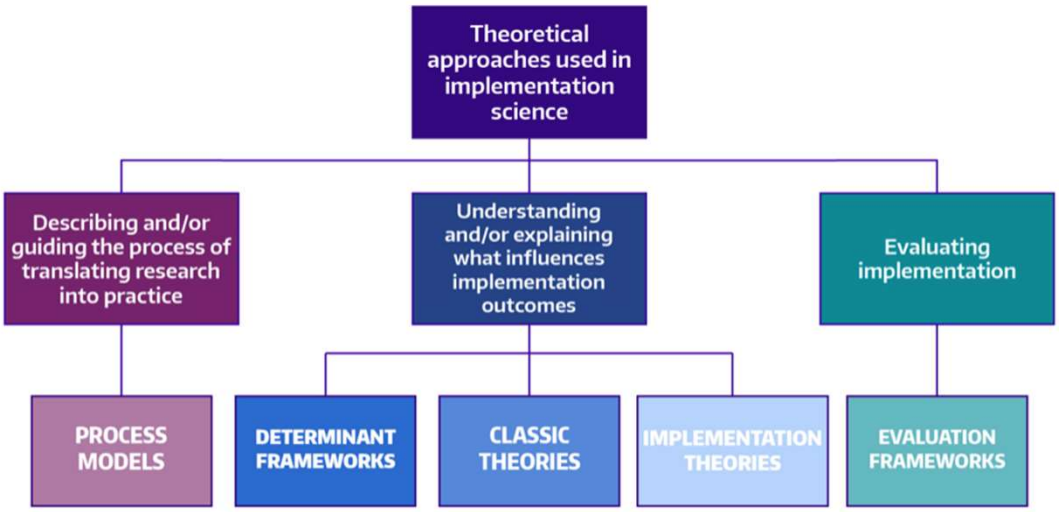
Theories and frameworks

18

Implementation and knowledge translation frameworks

- Concepts
- Process, steps, stages
- Domains, groups of levels of influence
- Elements, factors or barriers and enablers/facilitators or determinants
- Strategies, approaches
- Evaluations

Implementation theories, models and frameworks



Adapted from: Nilsen P. Making sense of implementation theories, models and frameworks. *Implement Sci*. 2015;10(1):1-13.

Expertise = Implementation Scientist

http://dissemination-implementation.org/

21

Key concept - Context

22

Key concept - Co-design/co-production or Integrated Knowledge Translation

- Collaboration between researchers and knowledge users at every stage of research process
  - from shaping research question
  - to interpreting results
  - to disseminating research findings into practice
- Co-production of research **increases** likelihood results of a project will be **relevant to end-users**, so improving possibility of uptake and application

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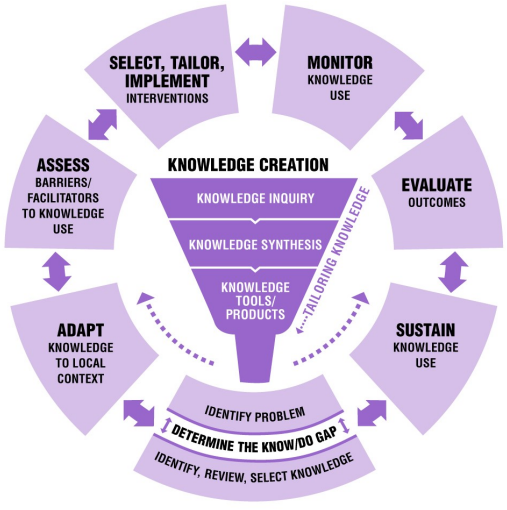
The Knowledge to Action Cycle (*process*)

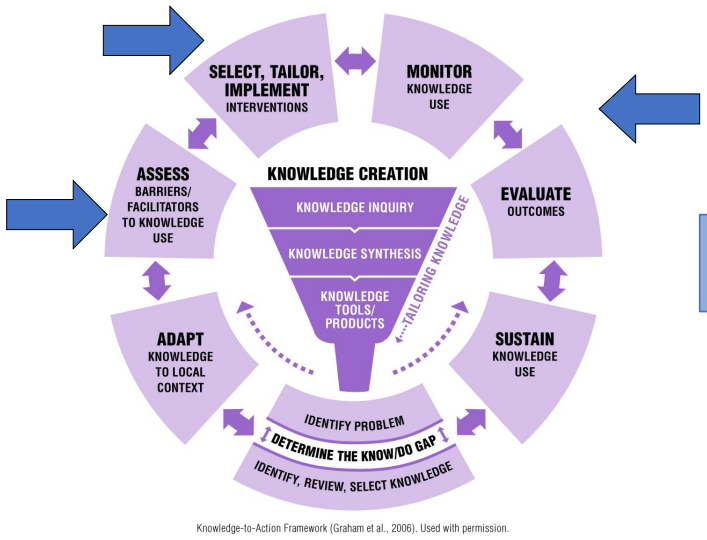


Knowledge-to-Action Framework (Graham et al., 2006). Used with permission.

http://www.jcehp.com/vol26/2601graham2006.pdf

24

Family initiated escalation of care at Children's Hospital 2015 - 2017



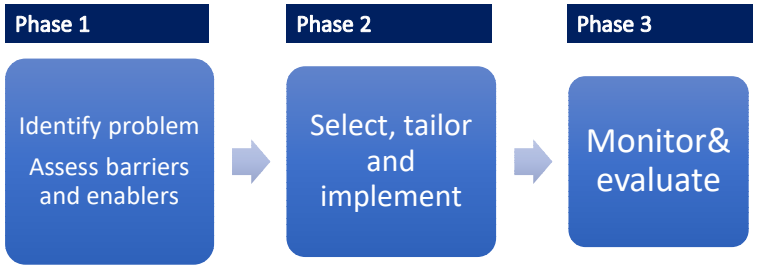
Knowledge-to-Action Framework (Graham et al., 2006). Used with permission.

Calling for Help 2015
CARE Call 2019
Aishwarya's CARE Call 2022

Australian Commission on Safety and Quality in Healthcare. National consensus statement: essential elements for recognising and responding to acute physiological deterioration. 2017.

25

Family initiated escalation of care at Children's Hospital 2015 - 2017



Measure effectiveness of implementation
- Audits parent awareness

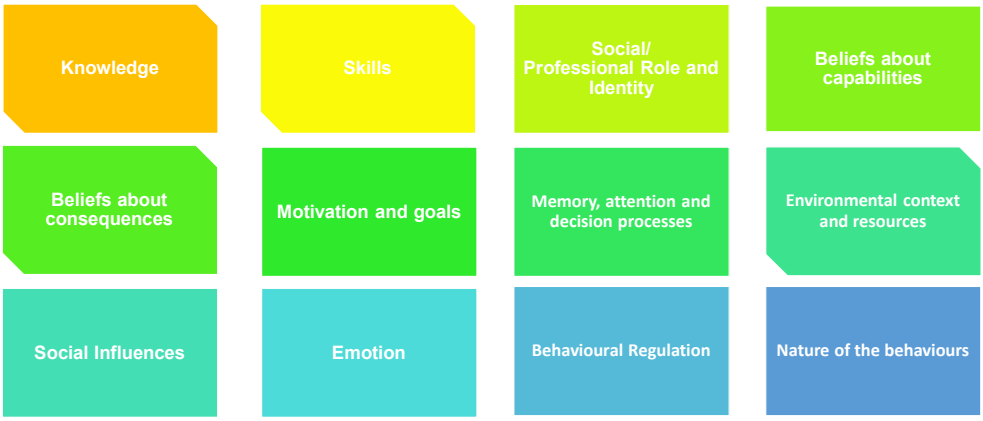
Describe parent involvement
- Patient health record review

Identify barriers & enablers
- Semi-structured interviews & focus groups with stakeholders

26

Theoretical Domains Framework

(*Determinant framework*) for exploring barriers and enablers



Making psychological theory useful for implementing evidence based practice: a consensus approach

S Michie, M Johnston, C Abraham, R Lawton, D Parker, A Walker, on behalf of the "Psychological Theory" Group

Qual Saf Health Care 2005;14:26–33. doi: 10.1136/qshc.2004.011155

IMPLEMENTATION SCIENCE

COMMENTARY Open Access

Theories of behaviour change synthesised into a set of theoretical groupings: introducing a thematic series on the theoretical domains framework

27

Family initiated escalation of care at Children's Hospital 2015 - 2017

Phase 1

Identify problem
Assess barriers and enablers

Measure effectiveness of implementation
- Audits parent awareness

Describe parent involvement
- Patient health record review

Identify barriers & enablers
- Semi-structured interviews & focus groups with stakeholders

Phase 2

Select, tailor and implement

Tailor and implement a revised process

Phase 3

Monitor& evaluate

Evaluate feasibility and acceptability of process
- Audit parent awareness
- Patient health record review
- Interviews parents & nurses

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Family initiated escalation of care at Children's Hospital 2015 - 2017

Low awareness

Concerns about
- **resources**
- **relationships**

Traditional hierarchy

Limited implementation

Marketing

Communication

Opinion leaders

Influencers

Champion ward

Audit & feedback

Tailoring for areas

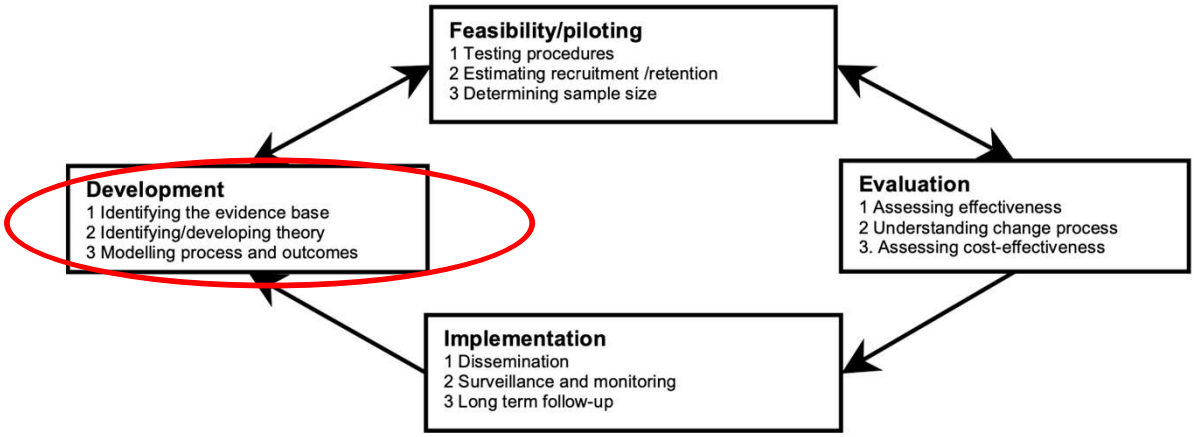
Acceptable process

Communication difficulties

Delays to escalation

Gill FJ, et al. (2018). Barriers and facilitators to implementing a process to enable parent escalation of care for the deteriorating child in hospital. *Health Expectations*
Gill FJ et al. (2019) Parent escalation of care for the deteriorating child in hospital: A health-care improvement study. *Health Expectations*

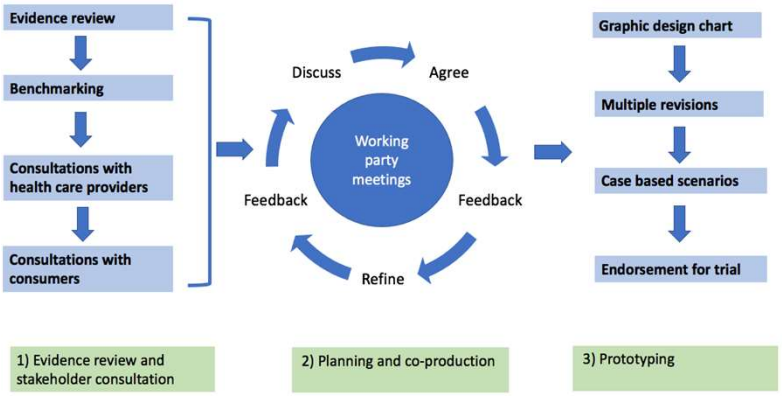
29



Craig, P., et al. 2021. Developing and evaluating complex interventions: new guidance, Medical Research Council and National Institute Health Research
https://mrc.ukri.org/documents/pdf/complex-interventions-guidance/

30

Early warning system for recognition and response to paediatric clinical deterioration



Adapted from: Hawkins, et al. (2017) Development of a framework for the co-production and prototyping of public health interventions. *BMC*

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ESCALATION System (intervention)

Situational Awareness

- Human factors principles
- Patients of concern
- Prompts for further action e.g. consider sepsis
- ABCDE format
- Family concern
- Clinician concern

Paediatric Acute Recognition and Response Tool

5 age ranges

10 weighted variables

- Clinician/family concern (0-1)
- Respiratory distress (0-3)
- Respiratory rate (0-3)
- Oxygen saturations (0-2)
- Oxygen therapy (0-3)
- Heart rate (0-3)
- Central capillary refill time (0-2)
- Systolic blood pressure (0-3)
- Level of consciousness (0-2)
- Pain score (0-2)

1 unweighted variable

- Temperature

Escalation Pathway

6 EWS clinical response levels

- 0 Remain Vigilant
- 1-3 Senior nursing review
- 4-5 Medical review (30 min)
- 6-7 Urgent treating team review (15 min)
- 8+ Rapid response review (5 min)
- E Immediate medical emergency call

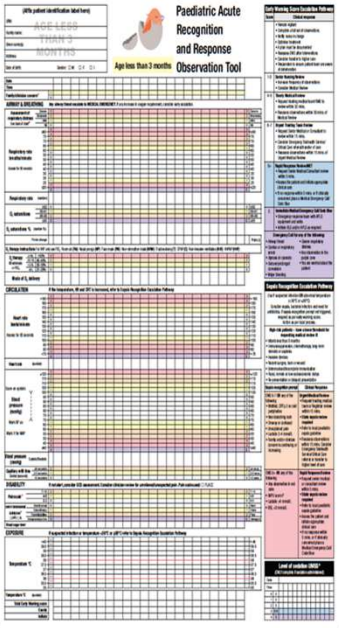
Sepsis recognition prompt

- Information on high risk patients
- Criteria to trigger a sepsis review
- Clinical response

Communication

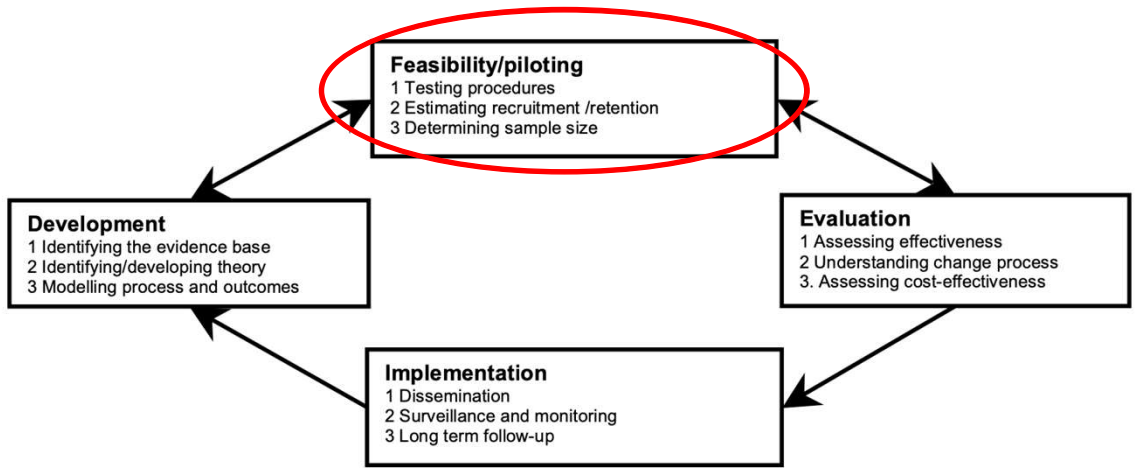
iSoBAR NOW

- Needs- review required and time frame
- Observations of concern
- Why - reason for concern and consequences of inaction
- Identify
- Situation
- Observertions
- Background
- Agree to a Plan
- Read back



Gill et al. (2021) Development of an evidence based ESCALATION System for recognition and response to paediatric clinical deterioration. *Australian Critical Care*

32



Craig, P., et al. 2021. Developing and evaluating complex interventions: new guidance, Medical Research Council and National Institute Health Research https://mrc.ukri.org/documents/pdf/complex-interventions-guidance/

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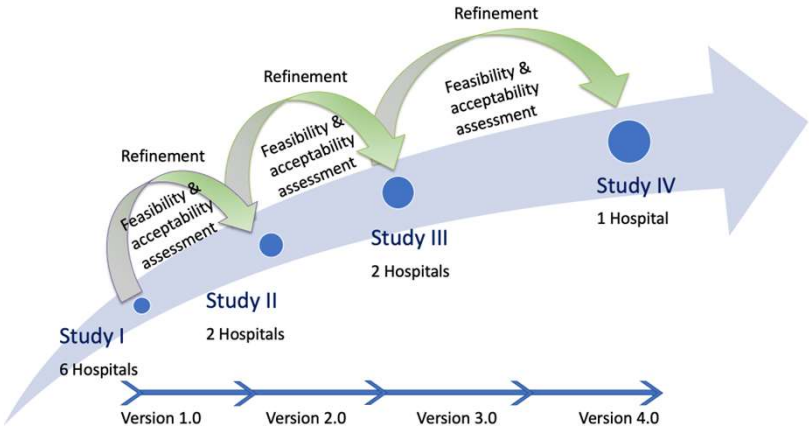
Testing ESCALATION System (intervention)

CLINICAL RESEARCH ARTICLE OPEN

Feasibility and acceptability of implementing an evidence-based ESCALATION system for paediatric clinical deterioration

Fenella J. Gill[1,2,3✉], Alannah Cooper[1,4,5], Pania Falconer[2], Scott Stokes[6,7], Alison Roberts[1,8,9], Matthew Szabo[3] and Gavin D. Leslie[1,3]

Pediatric Research 2024



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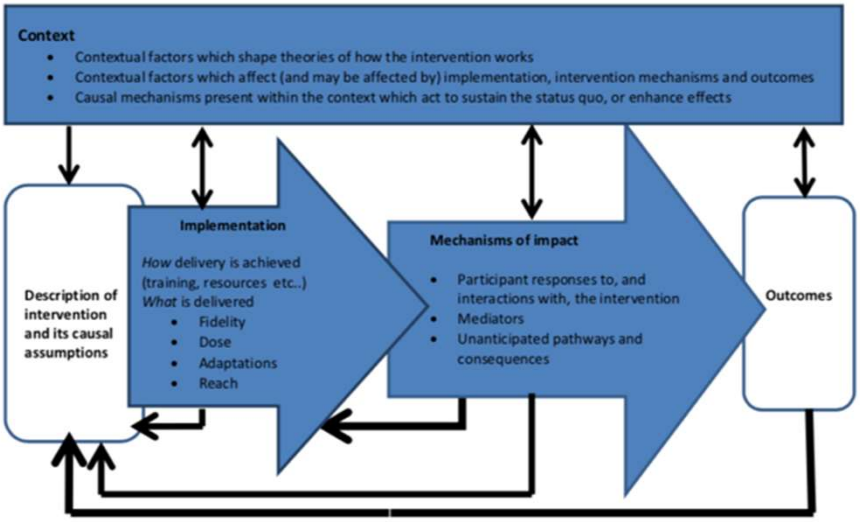
Medical Research Council process evaluation framework



Moore *et al.* (2015). Process evaluation of complex interventions: Medical Research Council guidance. *BMJ*

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CLINICAL RESEARCH ARTICLE OPEN

Feasibility and acceptability of implementing an evidence-based ESCALATION system for paediatric clinical deterioration

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Pediatric Research 2024

Table 3. Feasibility and acceptability indicators

Indicators	Measures	Study I	Study II	Study III	Study IV
Implementation – What was delivered?	Number (percentage) of sites where intervention used	x	x	x	x
	Number (percentage) of patients where intervention used	x	x	x	x
	Bedside audit of documentation				
	• Number (percentage) clinician/ family concern was identified	x	x	x	x
Implementation preparation	Number (percentage) of Champions who attended workshop	x	x	x	x
	Number (percentage) of nurses and doctors received education and training	x	x	x	x
Context – what influenced it?	Escalation of care audit –number and characteristics of patients and escalation of care events	x			
	Transfer audit	x			
	Health Professionals survey	x			
	Champions reported documented adverse safety events	x	x	x	x
Mechanisms of impact - how does the delivered intervention produce change?	Health Professionals focus groups	x	x	x	x
	Parents interviews	x			
	Number (percentage) of parents were asked how their child was doing			x	x
	Number (percentage) of parents who reported being involvement in child's assessment			x	x
	Number (percentage) of parents who were aware of the family escalation of care process			x	x

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Effectiveness - Implementation Research

ANNALS OF HSR

Medical Care • Volume 50, Number 3, March 2012

Effectiveness-implementation Hybrid Designs

Combining Elements of Clinical Effectiveness and Implementation Research to Enhance Public Health Impact

Geoffrey M. Curran, PhD, Mark Bauer, MD,† Brian Mittman, PhD,‡ Jeffrey M. Pyne, MD,* and Cheryl Stetler, PhD‡*

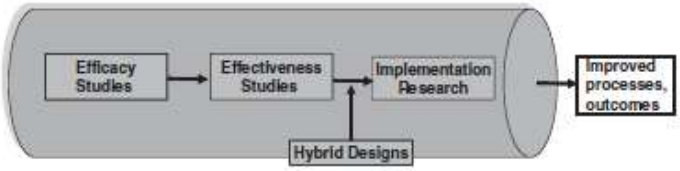
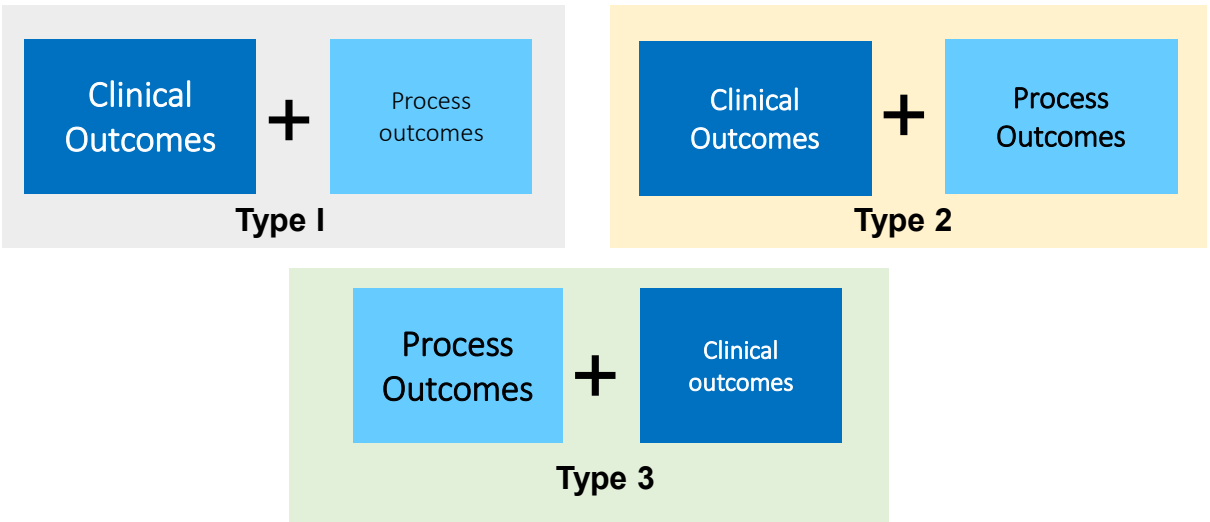


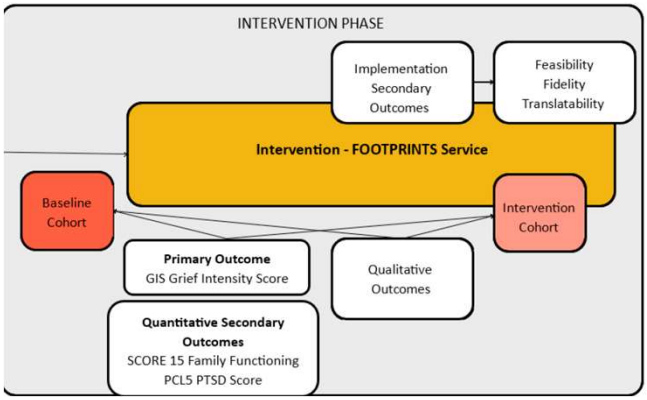
FIGURE 1. Research pipeline.

Effectiveness-Implementation Hybrid Designs

Landes SJ et al. An introduction to effectiveness-implementation hybrid designs. *Psychiatry Res*. 2019



Footprints Study – hybrid type 2



Arielle Jolly et al.
CAHS Telethon Nursing Research Fellow 2024

Timepoint & Setting		Outcome Measure
Baseline Cohort		
Within 12 months of consent – Up to 5 years post bereavement	Online survey	• Demographic Data • GIS Grief Intensity Scale • SCORE-15 Family Adjustment Scale • PCL5 PTSD Scale
Within 12 months of consent – Up to 5 years post bereavement	Participant preference: 1. Online open-ended survey, 2. Telephone interview, or 3. Face-to-face interview	• The experience of the care provided during the end-of-life period in PICU. • The experience of the care provided after the child's death. • Perceived additional bereavement care needs.
Intervention Cohort		
12 months post bereavement*	Online survey	• Demographic Data • GIS Grief Intensity Scale • SCORE-15 Family Adjustment Scale • PCL5 PTSD Scale
12 months post bereavement*	Participant preference: 1. Online open-ended survey, 2. Telephone interview, or 3. Face-to-face interview	• The experience of the care provided during the end-of-life period in PICU. • The experience of the care provided after the child's death. • Perceived additional bereavement care needs.
Feasibility Measures		
After 5 family enrolments	Feasibility Checklist	• Proportion of intended participants who participate in the intervention. • Proportion of intervention recipients who consent to complete the study measures. • Components of the intervention that have been or require modification from the original design.
Fidelity Measures		
Each service contact time-point	Intervention Delivery Checklist	• Extent the intervention is delivered as planned Enactment
Each service contact time-point	Telephone / Contact Log	• Extent family members receive contact and interact with the intervention providers
Each service contact time-point	Resource Utilisation Checklist	• Uptake and utilisation of community resources advised by the intervention providers
Translatability Measures		
Over the duration of project	Implementation Planning and Assessment Tool for Clinical Trialists	• Description of the Intervention • Implementation Process • Context - moderators and mediators • Mechanisms of Action

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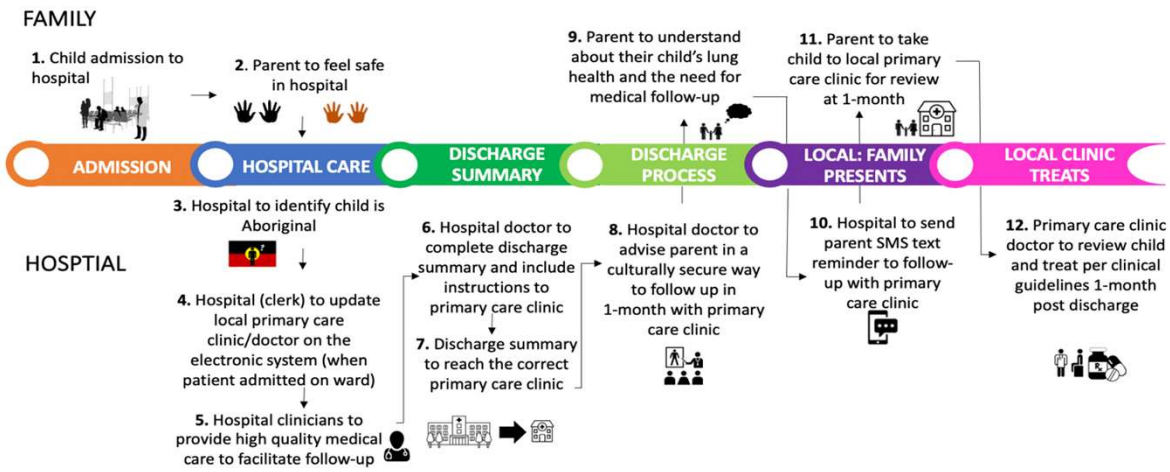
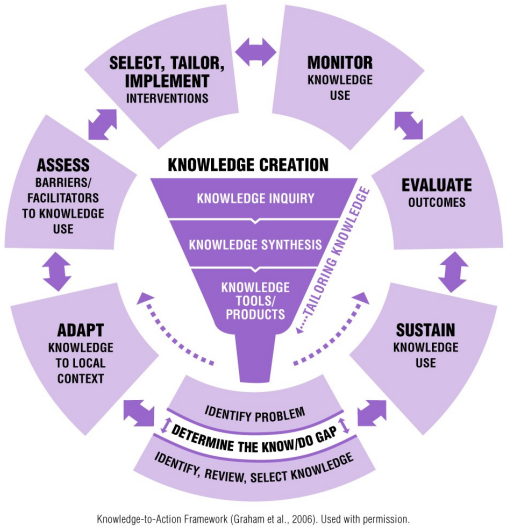
Respiratory follow-up to improve outcomes for Aboriginal children



Laird et al. Respiratory follow-up to improve outcomes for Aboriginal children: twelve key steps. (2021) *The Lancet Regional Health – Western Pacific*

40

The Knowledge to Action Cycle (*process*)



Knowledge-to-Action Framework (Graham et al., 2006). Used with permission.

http://www.jcehp.com/vol26/2601graham2006.pdf

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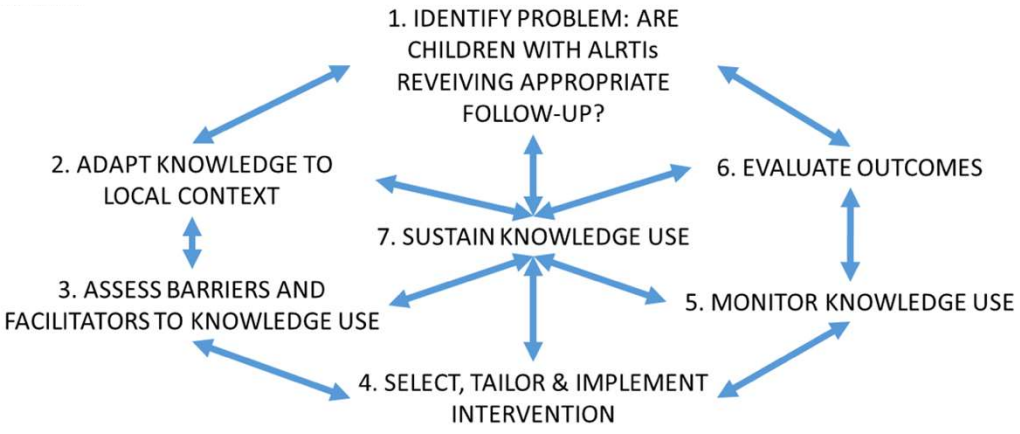
The Knowledge to Action Cycle (*process)*



Laird et al. (2023) Implementation of solutions to improve medical follow-up and health outcomes for Aboriginal children hospitalised with chest infections. *Lancet Regional Health-Western Pacific*

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Consolidated Framework for Implementation Research (CFIR) 2.0

(Determinant)

http://www.cfirguide.org/

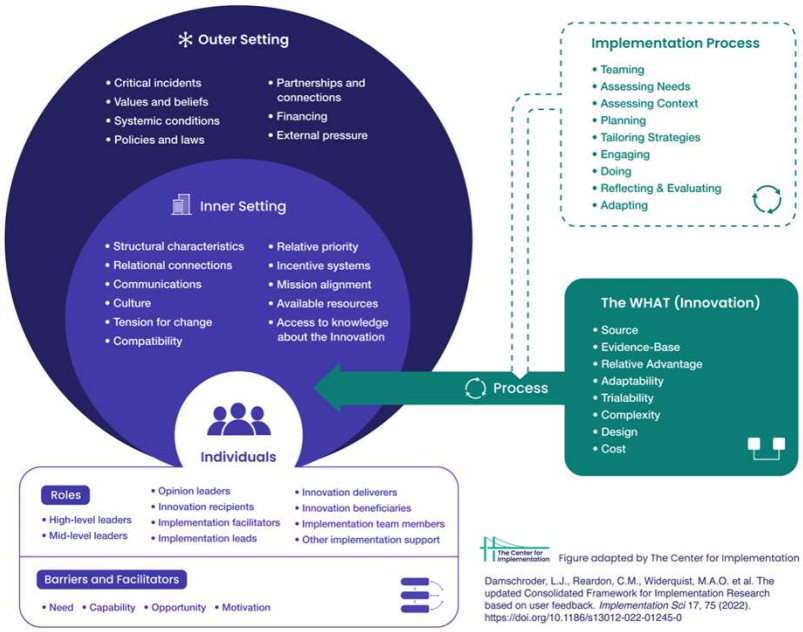

Figure adapted by The Center for Implementation

Damschroder, L.J., Reardon, C.M., Widerquist, M.A.O. et al. The updated Consolidated Framework for Implementation Research based on user feedback. *Implementation Sci* 17, 75 (2022). https://doi.org/10.1186/s13012-022-01245-0

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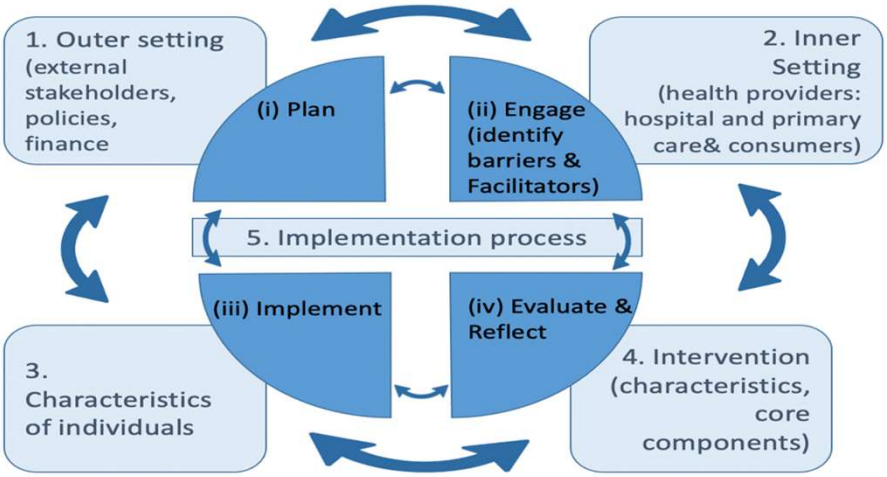
The Knowledge to Action Cycle *(process)* + Consolidated Framework for Implementation Research (CFIR) *(determinant)*



http://www.cfirguide.org/

Damschroder, L., Aron, D., Keith, R., Kirsh, S., Alexander, J., & Lowery, J. (2009). Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. *Implementation Science, 4* (1), 504

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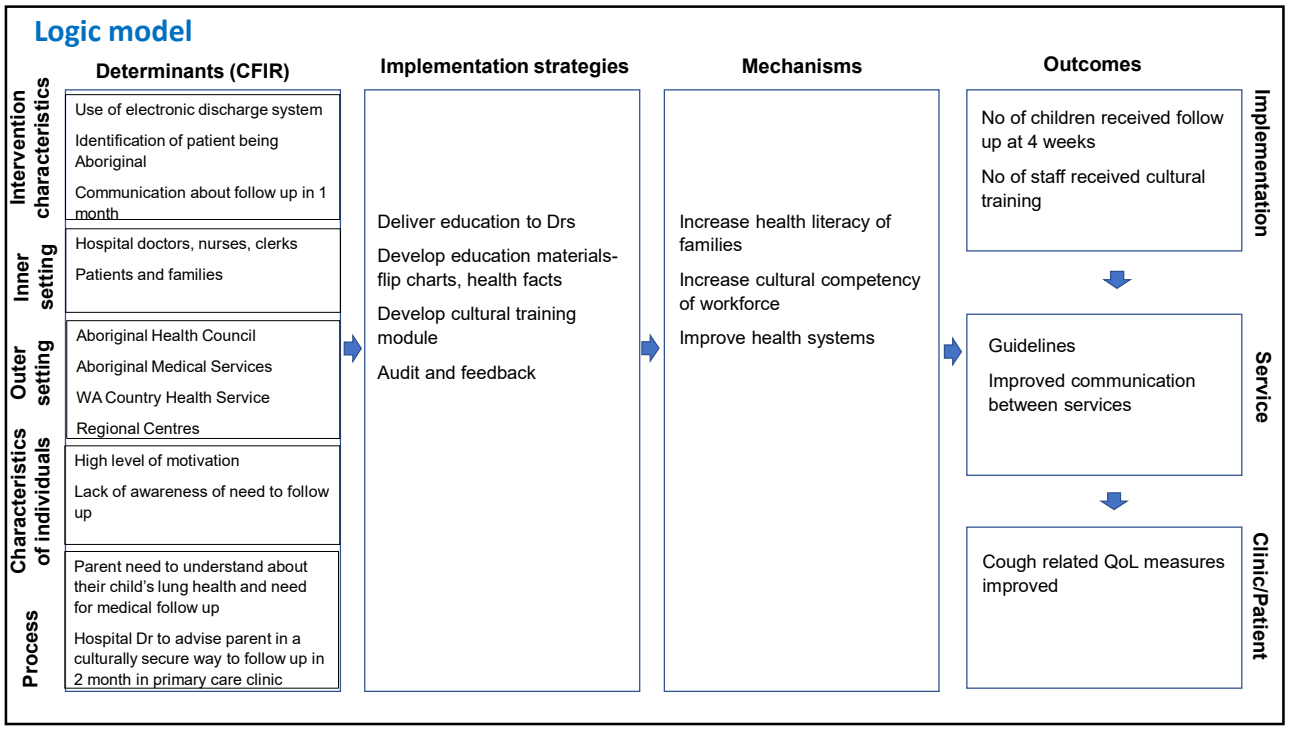
Logic model



Effectiveness and implementation outcomes

Clinical Outcome

Primary: Burden of chronic cough in children PC-QoL

Secondary: Local clinic follow up rate within 1 month - all
Child prescribed antibiotics
Presence of chronic wet cough 6 – 12 weeks post discharge

Implementation outcomes

Intervention core components:

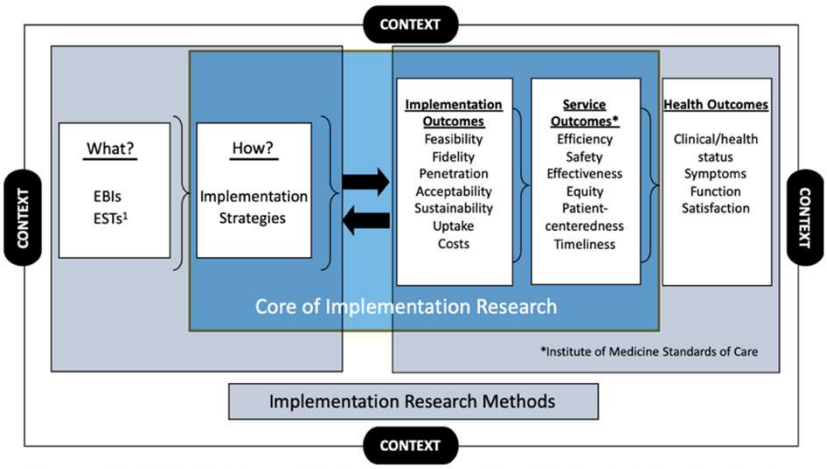
- Adoption - parents received lung health information, quality of discharge information, SMS re
- Penetration – number of health professionals attended training

Evaluation of the implementation and clinical effects of an intervention to improve medical follow-up and health outcomes for Aboriginal children hospitalised with chest infections

Pamela J. Laird, Anne B. Chang, Roz Walker, Melanie Barwick, Jack Whitby, Matthew N. Cooper, Fenella Gill, Elizabeth McKinnon, and André Schultz

Lancet- Regional Health Western Pacific, 2023

Proctor's Conceptual Model of Implementation Research *(determinant)*



Proctor et al 2009 Admin. & Pol. in Mental Health Services
[1] Empirically supported treatments

Adapted from the Implementation Research and Practice course at Johns Hopkins Bloomberg School of Public Health

Proctor *et al*. (2008) Implementation Research in Mental Health Services: An Emerging Science with Conceptual, Methodological, and Training challenges. *Administration and Policy in Mental Health and Mental Health Services Research,* 36 (1),24-34

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Conceptual Model of Implementation Research in Action

	Question	Measurement	Data collection tools	Evaluation Strategy
Implementation outcomes	Are the core components of Sense for Kids being delivered as intended?	Therapists must achieve 80% on the Sense for Kids treatment fidelity checklist during training	Observation of treatment sessions with performance scored against the treatment fidelity measure, self-reflection report	Quantitative - Proportion of patients recruited who have received the Sense for Kids intervention as intended
Service outcomes	Are eligible children receiving the Sense for Kids intervention? What are the functional outcomes for children who received the Sense for Kids intervention?	Children are having an assessment of sensory function; children with sensory impairment are receiving Sense for Kids	File audit, occasions of service records.	Quantitative - planned at key time points
Client (health) outcomes	Are children and parents/ caregivers satisfied with their receipt of Sense for Kids?	Purposive sampling based on receipt of service	Satisfaction Questionnaires, as well as content questions designed to identify moderators and barriers	Quantitative - proportion of patients recruited who have received the Sense for Kids intervention as intended; Qualitative – theme analysis of moderators and barriers

Dr Belinda McLean WAHTN Early Career Fellow in Research Translation 2019

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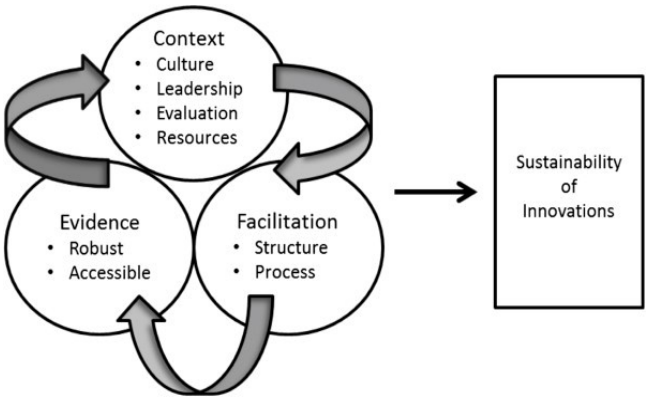
PARIHS *(implementation)* Framework → i-PARIHS Integrated Promoting Action on Research Implementation in Health Services



Bucknall et al (2022) Prioritising responses of nurses to deteriorating patient observations PRONTO: pragmatic cluster RCT evaluating effectiveness of a facilitation intervention on recognition and response to clinical deterioration. *BMJ Qual Safety*

Kitson et al. (1998) Enabling the implementation of evidence based practice: a conceptual framework. Qual Health Care
Harvey,et al. (2002) Getting evidence into practice: the role and function of facilitation. J Adv Nurs
Rycroft-Malone et al.(2004) An exploration of the factors that influence the implementation of evidence into practice. J Clin Nurs
Hunter et al. (2020) Experiences using i-PARIHS framework: a co-designed case study of four multi-site implementation projects. BMC Health Serv Res

Table 1 Intervention components

Type	Intervention components
Core components	*Training:* Being a facilitator, processes of facilitation, toolkit of techniques, knowledge of the patient problem and national guideline requirements. Review of hospital policy, VS triggers for escalation and nursing interventions. *Identification of ward barriers and enablers:* individual, discipline, ward and organisation. Monthly ward audits with feedback of results to nurse managers and staff via posters, presentations and discussions of areas for improvement. *Monthly HFLIP facilitation support* by external expert facilitator reviewing audit results, how to respond to ward issues, questions and concerns. *Toolkit of facilitation techniques (Harvey and Kitson, 2015) provided to HFLIPs:* Clarify and engage; assess and measure; action and implementation; review and share. Techniques included: interactive education, case presentations, individual discussions, reminder posters, working with clinicians during assessments, interdisciplinary discussions and ward audits with feedback. Each facilitator used the same techniques.
Adaptable components	Facilitation techniques were selected from the toolkit and tailored depending on the context such as patient management problems, ward audit results, ward staff needs and their availability.

HFLIPs, hospital facilitators; VS, vital signs.

Targeted:

1. Vital sign assessment at least 8 hourly on every patient
2. Recognition of abnormal vital signs and activation of appropriate response
3. Implement appropriate nursing interventions in response to deterioration

Outcomes:

- Significant increase in escalation of care after 6 months that was not sustained at 12 months
- Increase in vital sign assessment was sustained at 12 months

Conclusion:

- Despite 6 months facilitation - gap between conducting vital sign assessment and escalating care remains
- Changing clinicians' behaviour is difficult to achieve

Implementation strategies

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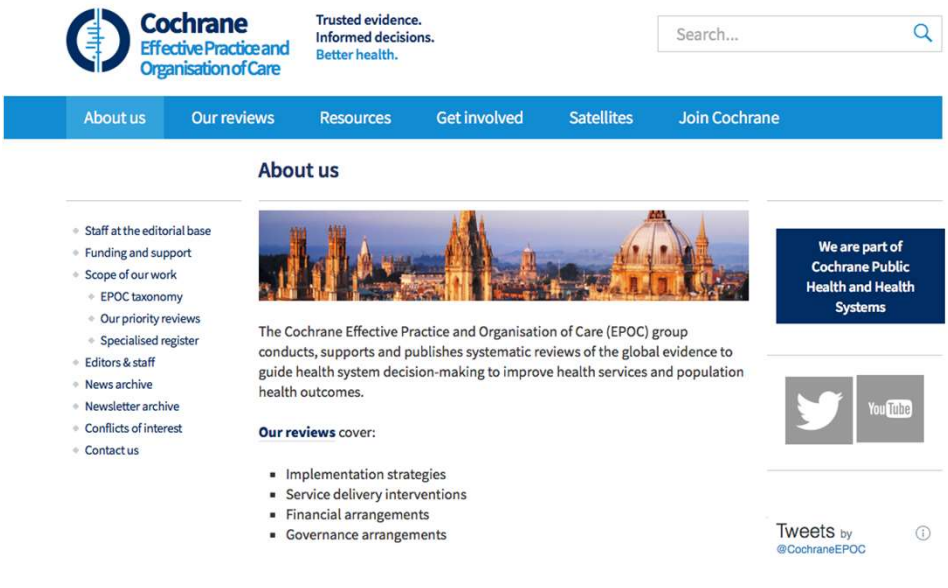
Implementation strategies



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Top-down implementation strategies

Clinical practice guidelines

Continuing education / professional development

Clinical pathways

Printed educational materials (Giguere, 2012) — May have **small** beneficial effect on prof practice outcomes

CME/CPD (Forsetlund, 2009) — Alone or combined with other interventions, can improve prof practice. Effect is likely… **small**

Audit & feedback (Ivers, 2012) — Generally leads to **small** but potentially important improvements in prof practice

On-screen, point of care computer reminders (Shojania, 2009) — Further research [needed] if computer reminders are to succeed on more than a trial and error basis

Clinical pathways (Rotter, 2010) — Reduction in hospital **complications** (OR 0.58)& improved **documentation** (OR 11.95), **No evidence** of differences in readmission or in-hospital mortality

Evidence – practice gaps

HARMFUL **Ineffective** **Unknown** **Promising** **EFFECTIVE**

Slow uptake of new interventions that are clinically effective

Premature or continued uptake of new interventions that are subsequently shown to be ineffective, wasteful or even harmful

Failure to keep up with changes in the ethos of care

Failure to keep up with gradually emerging evidence

Premature uptake of new interventions

Albumin and Saline for Fluid Resuscitation in ICU N Engl J Med 2004

Intensive versus Conventional Glucose Control in Critically Ill Patients. N Engl J Med 2009

Decompressive Craniectomy in Diffuse Traumatic Brain Injury. N Engl J Med 2011

Goal-directed resuscitation for patients with early septic shock. N Engl J Med 2014

Failure to keep up with emerging evidence

Low-value care requires **de-implementation**: strategies to reduce or stop behaviours

Routine versus clinically indicated replacement of peripheral intravenous catheters: a randomised controlled equivalence trial

Claire M Rickard, Joan Webster, Marianne C Wallis, Nicole Marsh, Matthew R McGrail, Vanessa French, Lyndie Foster, Peter Gallagher, John R Gowardman, Li Zhang, Alice McClymont, Michael Whitby

Summary

Background The millions of peripheral intravenous catheters used each year are recommended for 72-96 h

BMJ Open The I-DECIDED clinical decision-making tool for peripheral intravenous catheter assessment and safe removal: a clinimetric evaluation

Gillian Ray-Barruel, Marie Cooke, Vineet Chopra, Marion Mitchell, Claire M Rickard

I-DECIDED®

IV ASSESSMENT & DECISION TOOL

- **I** — **IDENTIFY if an IV is in situ**
- **D** — **DOES patient need the IV?** Unused in last 24hrs? Use unlikely in next 24hrs? Consider removal. Change to oral meds?
- **E** — **EFFECTIVE function?** Follow local policy for flushing and locking.
- **C** — **COMPLICATIONS at IV site?** Pain ≥2/10, redness, swelling, discharge, infiltration, extravasation, hardness, palpable cord or purulence.
- **I** — **INFECTION prevention** Hand hygiene, scrub the hub & allow to dry before each IV access. Careful use of administration sets.
- **D** — **DRESSING & securement** Clean, dry, and intact. IV and lines secure.
- **E** — **EVALUATE & EDUCATE** Discuss IV plan with patient & family.
- **D** — **DOCUMENT your decision** Continue, change dressing, or remove IV.

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Failure to keep up with emerging evidence

Low-value care requires **de-implementation**: strategies to reduce or stop behaviours

RACP Top 5 "do not routinely do"

- **Order chest x-ray for diagnosis of bronchiolitis or routinely prescribe salbutamol or systemic corticosteroids to treat bronchiolitis**

Journal of Paediatrics and Child Health

doi:10.1111/jpc.14104

ORIGINAL ARTICLE

Australasian bronchiolitis guideline

Sharon O'Brien, Meredith L Borland, Elizabeth Cotterell, David Armstrong, Franz Babl, Paul Bauert, Christine Brabyn, Lydia Garside, Libby Haskell, David Levitt, Nicola McKay, Jocelyn Neutze, Andreas Schibler, Kam Sinn, Janine Spencer, Helen Stevens, David Thomas, Michael Zhang, Ed Oakley, and Stuart R Dalziel; on behalf of the Paediatric Research in Emergency Departments International Collaborative (PREDICT) Network, Australasia

Aim: Bronchiolitis is the most common lower respiratory tract disorder in infants aged less than 12 months, and research has demonstrated that there is substantial variation in practice patterns despite treatment being well defined. In order to align and improve the consistency of the management of bronchiolitis, an evidence-based guideline was developed for the Australasian population.

Methods: The guideline development committee included representation from emergency and paediatric specialty medical and nursing personnel in addition to geographical representation across Australia and New Zealand – rural, remote and metropolitan. Formulation of the guideline included identification of population, intervention, comparator, outcomes and time questions and was associated with an extensive literature search from 2000 to 2015. Evidence was summarised and graded using the National Health and Medical Research Council and Grading of Recommendations Assessment, Development and Evaluation methodology, and consensus within the guideline group was sought using nominal group technique principles to formulate the clinical practice recommendations. The guideline was reviewed and endorsed by key paediatric health bodies.

Results: The guideline consists of a usable clinical interface for bedside functionality supported by evidence summary and tables. The Grading of Recommendations Assessment, Development and Evaluation and National Health and Medical Research Council processes provided a systematic and transparent process to review and assess the literature, resulting in a guideline that is relevant to the management of bronchiolitis in the Australasian setting.

Conclusion: This is the first robust Australasian acute paediatric guideline and provides clear guidance for the management of the vast majority of patients seen in Australasian emergency departments and general paediatric wards with bronchiolitis.

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Low-value care requires **de-implementation**: strategies to reduce or stop behaviours

Journal of Paediatrics and Child Health

doi:10.1111/jpc.14930

2020

ORIGINAL ARTICLE

Knowledge translation in Western Australia tertiary paediatric emergency department: An audit cycle of effectiveness of guideline dissemination on bronchiolitis management

Yee Lymn Yeo,[1] Sharon O'Brien,[1,2] Natasha Bear[3] and Meredith L Borland[1,4]

[1]Emergency Department, [3]Department of Child Health Research, Perth Children's Hospital (formerly Princess Margaret Hospital for Children), [2]School of Nursing, Midwifery and Paramedicine, Faculty of Health Sciences, Curtin University and [4]Divisions of Paediatrics and Emergency Medicine, School of Medicine, University of Western Australia, Perth, Western Australia, Australia

Aim: Bronchiolitis is the commonest cause of hospitalisation for infants. Evidence-based Australasian bronchiolitis guideline was developed and introduced in 2017. This audit was to determine if the knowledge translation process of the updated local tertiary hospital bronchiolitis guideline (based on the Australasian guideline) reduced unnecessary interventions.

Methods: A retrospective chart review of infants with bronchiolitis diagnosis during the pre-guideline (1 July to 31 August 2015) and post-guideline (1 July to 31 August 2017) period, with the primary outcome of the number/proportion of unnecessary interventions.

Results: Presentations between 1 July to 31 August 2015 (n = 465) were compared with 2017 (n = 343). There was no difference in undertaking chest X-ray (24 (5.2%) vs. 17 (5.0%), odds ratio (OR) 0.98 (95% confidence interval (CI) 0.71–1.35), P = 0.911), salbutamol (23 (4.9%) vs. 10 (2.9%), OR 0.86 (95% CI 0.65–1.13), P = 0.279), glucocorticoids (2 (0.4%) vs. 5 (1.5%), OR 1.89 (95% CI 0.83–4.31), p = 0.129), antibiotics (11 (2.4%) vs. 5 (1.5%), OR 0.86 (95% CI 0.65–1.15), P = 0.307) or nasopharyngeal aspirate (172 (37%) vs. 124 (36.2%), OR 1.00 (95% CI 0.87–1.67), P = 0.937) in hospital. Adrenaline was not administered in both years. There was reduced hospital admissions (303 (65.2%) vs. 192 (56.0%), OR 0.82 (95% CI 0.71–0.95), P = 0.008) with no difference in paediatric intensive care unit admissions (10 (2.2%) vs. 8 (2.3%), OR 1.04 (95% CI 0.65–1.67), P = 0.863).

Conclusion: The dissemination process of the updated local hospital bronchiolitis guideline did not show any statistically significant reduction of unnecessary interventions in the hospital. Further studies are required to determine the effective process to instigate changes in health services.

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Low-value care requires de-implementation: strategies to reduce or stop behaviours

Mandatory medication double checking

- Double checking (DC) is a wide-spread safety policy used in hospitals around the world.
- Purpose is to engineer redundancy into the system to reduce the likelihood of errors.
- DC practice has remained unchanged despite significant changes to practices & technological advances.
- Recent reviews have shown little evidence that it is effective in reducing errors.
- The practice is extremely resource intensive.
- Surveys of nurses have identified DC as a low-value practice.

SYSTEMATIC REVIEW

Effectiveness of double checking to reduce medication administration errors: a systematic review

Alain K Koyama,[1] Claire-Sophie Sheridan Maddox,[1] Ling Li,[1] Tracey Bucknall,[2,3] Johanna I Westbrook[1]

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Low-value care requires de-implementation: strategies to reduce or stop behaviours

Reducing low-value nursing practices: A cluster randomised controlled trial of strategies to de-implement mandatory double checking of medication administration in paediatrics

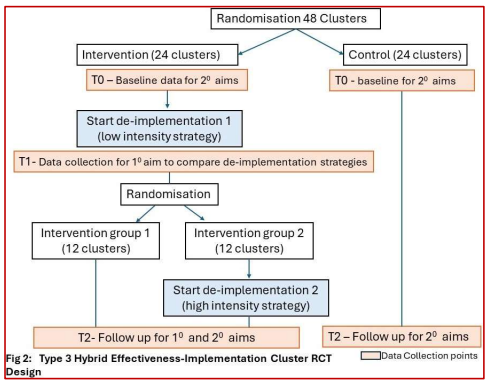

Fig 2: Type 3 Hybrid Effectiveness-Implementation Cluster RCT Design

Group 1:
Education (rationale, evidence base & outcomes)
Video by senior leader – support
Redesign work processes

Group 2:
Strategy 1 +
Interactive training in techniques
Resource tools
Information

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Changing behaviour and practice

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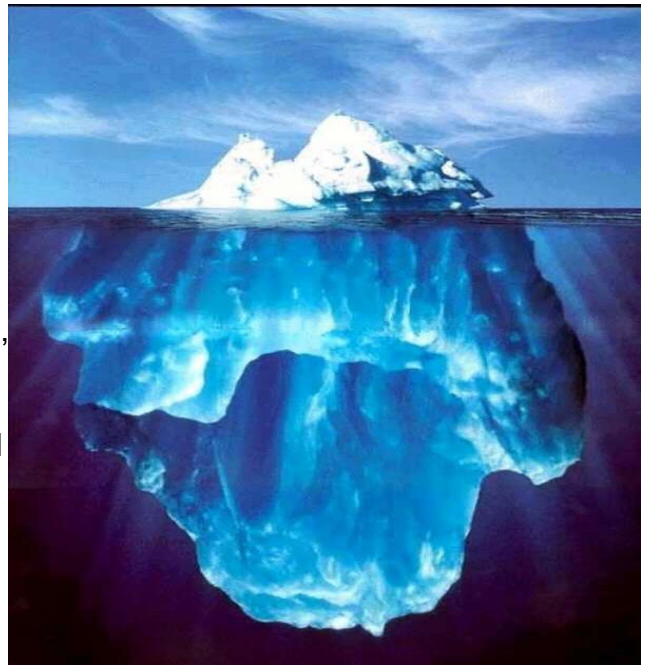
Below the waterline lie the underlying beliefs, attitudes, values, philosophies and taken-for-granted aspects of workplace life: *"how we think"* and "*why we do the things we do around here*"



Above the waterline lie the observable workplace behaviours, practices and discourse*: this is the way we do things around here*

Braithwaite (2011) A lasting legacy from Tony Blair? NHS culture change *JRSM*

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Bottom-up Approach – Behavioural perspective

Four steps

1. Who needs to do what differently?
2. What are the barriers and enablers to performing these behaviours in the healthcare context?
3. How can the barriers be overcome and the enablers leveraged?
4. How best to evaluate success of the implementation intervention?

French et al. Implementation Science 2012, 7:38
http://www.implementationscience.com/content/7/1/38

IMPLEMENTATION SCIENCE

METHODOLOGY Open Access

Developing theory-informed behaviour change interventions to implement evidence into practice: a systematic approach using the Theoretical Domains Framework

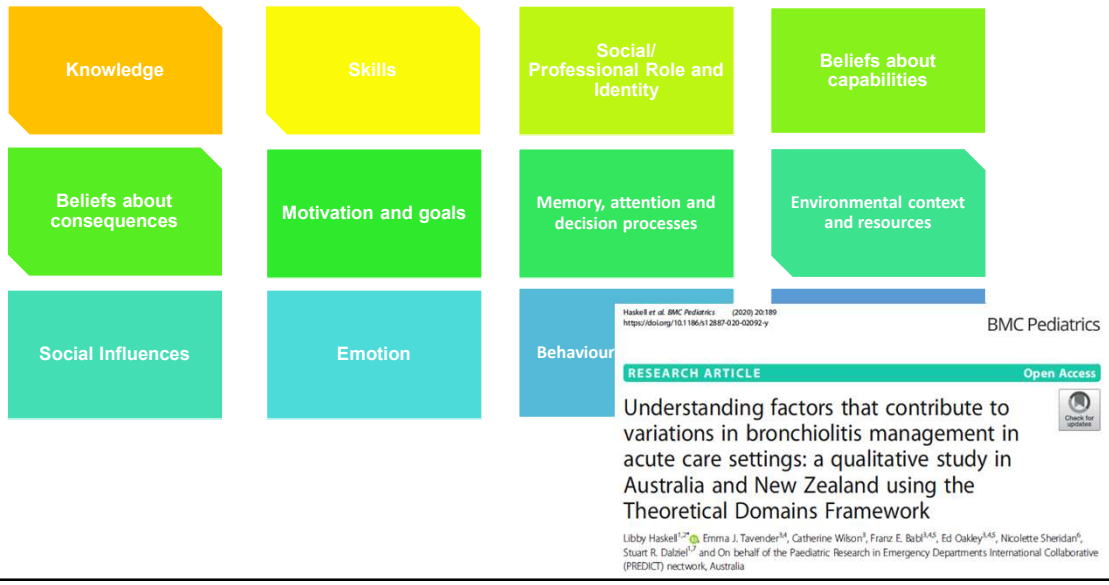
Simon D French[1,2*], Sally E Green[1], Denise A O'Connor[1], Joanne E McKenzie[1], Jill J Francis[3], Susan Michie[4], Rachelle Buchbinder[1,5,6], Peter Schattner[6], Neil Spike[6] and Jeremy M Grimshaw[7,8]

Abstract

Background: There is little systematic operational guidance about how best to develop complex interventions to reduce the gap between practice and evidence. This article is one in a Series of articles documenting the

Theoretical Domains Framework

for exploring barriers and enablers



Haskell et al. BMC Pediatrics (2020) 20:189
https://doi.org/10.1186/s12887-020-02092-y

BMC Pediatrics

RESEARCH ARTICLE Open Access

Understanding factors that contribute to variations in bronchiolitis management in acute care settings: a qualitative study in Australia and New Zealand using the Theoretical Domains Framework

Libby Haskell[1,2*], Emma J. Tavender[3,4], Catherine Wilson[3], Franz E. Babl[4,4,5], Ed Oakley[4,4,5], Nicolette Sheridan[6], Stuart R. Dalziel[1,7] and On behalf of the Paediatric Research in Emergency Departments International Collaborative (PREDICT) network, Australia

Theoretical Domains Framework Haskell *et al.*, 2020

for exploring barriers and enablers

Are you familiar with assessing infants with bronchiolitis?

Are you confident in assessing bronchiolitis?
Do you or your colleagues/junior staff find it difficult to interpret CXR findings to distinguish between that and pneumonia?

Benefits / disadvantages of doing CXR.
Consequences of doing or not doing?
Any concern re medico-legal issues?
What is said / not said by colleagues if you do a CXR?
Do you think the evidence is strong enough to not do a CXR?

Do you seek opinion of colleagues before doing a CXR or when reviewing it?
What are the views of colleagues?
Can you observe others eg have role models?
Are there any social influences/pressures that affect whether you perform a CXR (prompts, peers, families)? i.e when referring for admission of implementation behaviour: psychometric properties of a framework

Huong.,*et al.* (2014). Measuring determinants of implementation behavior: psychometric properties of a questionnaire based on the theoretical domains framework. *Implementation Science, 9* (1), 33.

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Investigating barriers and enablers

Domain	Barriers & enablers
Knowledge	Lack of and variation in knowledge & experience
Skills	Lack of confidence / competence junior clinicians Role modelling
Professional role & identity	Importance of good relationships between clinicians
Beliefs about consequences	Aware of radiation risks Concern re deterioration & missing something wanting to do something Potential harmful effects of steroids / comfortable to stop using steroids
Environmental contexts & resources	Regional /access issues – staffing & skill mix in mixed EDs Distance to tertiary care Junior doctors, staff turnover, overseas trained doctors Different clinicians - different opinions
Social influences	Parental expectations - prescribing steroids and antibiotics Staff pressure

Haskell *et al.*, 2020

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Designing an implementation intervention

Behaviour change techniques to address barriers

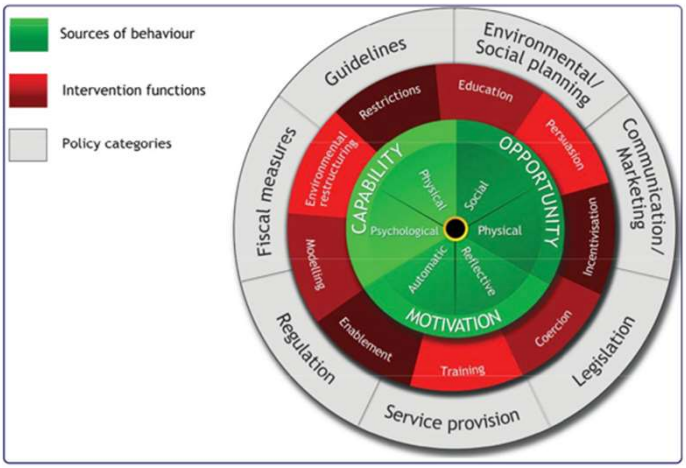

Michie et al. Implementation Science 2011, 6:42
http://www.implementationscience.com/content/6/1/42

IMPLEMENTATION SCIENCE

RESEARCH Open Access

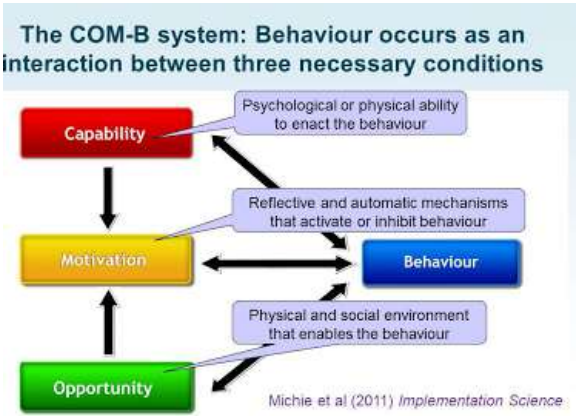
The behaviour change wheel: A new method for characterising and designing behaviour change interventions

Susan Michie[1*], Maartje M van Stralen[2] and Robert West[3]



Designing an implementation intervention

Behaviour change techniques to address barriers



Intervention functions
Education
Training
Enablement
Persuasion
Incentivisation
Modelling
Restrictions
Environmental restructuring
Coercion

Matching the solution to the identified factors

- Knowledge
- Skills
- Professional role & identity
- Beliefs about capabilities
- Optimism
- Beliefs about consequences
- Reinforcement
- Intention
- Goals
- Memory, attention, decision processes
- Environmental contexts & resources
- Social influences
- Emotion
- Behavioural regulation

Intervention functions
- Education
- Training
- Enablement
- Persuasion
- Incentivisation
- Modelling
- Restrictions
- Environmental restructuring
- Coercion

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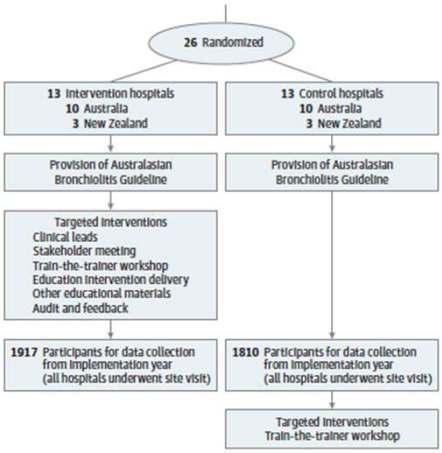
Targeted interventions



JAMA Pediatrics | Original Investigation

Effectiveness of Targeted Interventions on Treatment of Infants With Bronchiolitis
A Randomized Clinical Trial

Libby Haskell, MN; Emma J. Tavender, PhD; Catherine L. Wilson, MPH; Sharon O'Brien, BNurs; Franz E. Babl, MD; Meredith L. Borland, MBBS; Elizabeth Cotterell, MPH; Rachel Schembri, PhD; Francesca Orsini, MSc; Nicolette Sheridan, PhD; David W. Johnson, MD; Ed Oakley, MBBS; Stuart R. Dalziel, PhD; for the PREDICT Network

- Clinical leads
- Stakeholder meeting
- Train the trainer workshop
- Educational intervention delivery
- Other educational materials
- Audit and feedback

CONCLUSIONS AND RELEVANCE Targeted interventions led to improved treatment of infants with bronchiolitis. This study has important implications for bronchiolitis management and the development of effective interventions to deimplement low-value care.

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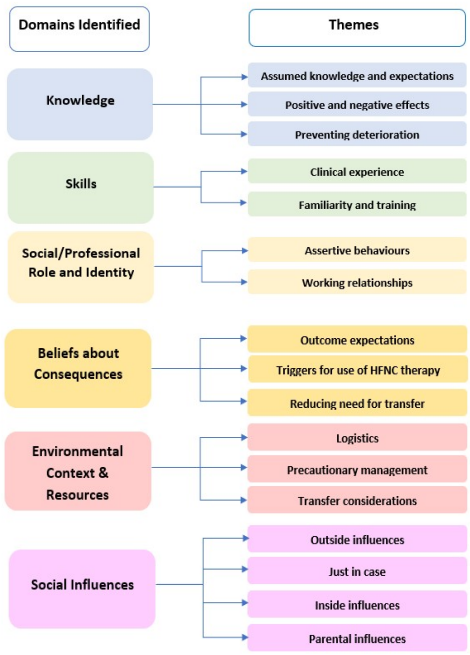
frontiers | Frontiers in Pediatrics

TYPE Original Research
PUBLISHED xx xx 2023
DOI 10.3389/fped.2023.1098577

Factors influencing health professionals' use of high-flow nasal cannula therapy for infants with bronchiolitis – A qualitative study

Sharon L. O'Brien[1,2*], Libby Haskell[3,4], Emma J. Tavender[5,6], Sally Wilson[2], Meredith L. Borland[1,7], Ed Oakley[3,8,9], Stuart R. Dalziel[3,4] and Fenella J. Gill[2,10,11] on behalf of the Paediatric Research in Emergency Departments International Collaborative (PREDICT) network Australasia



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Planning and measuring KT

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The ISLAGIATT principle…

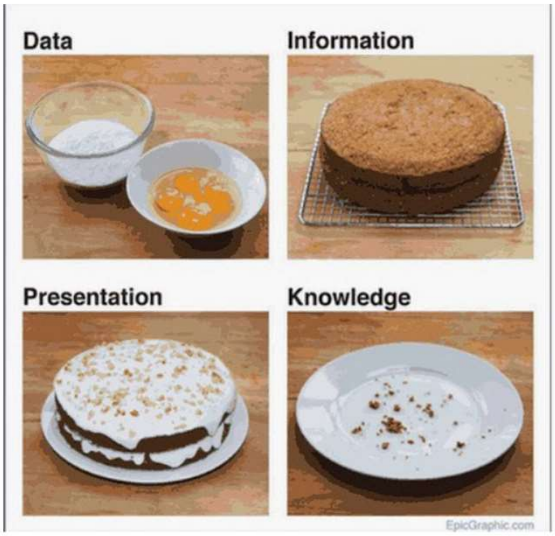
… it seemed like a good idea at the time

End-of-grant KT

The **dissemination** of findings generated from research once a project is completed

- publishing in peer-reviewed journals
- presenting research at conferences and workshops

Development and implementation of a plan for making knowledge users aware of the results of a research project



Research outputs are the data/ **ingredients for the cake**

We organise, summarise and catalogue this to 'bake' into our **information cake**.

We then present this information in a way in which we feel is most useful and "palatable" to our intended audiences with the intention they will **consume it** and be able to make use of new knowledge.

SOURCE: http://epicgraphic.com/data-cake/ Data cake metaphor, Mark Johnstone

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KT Planning Template

Prof Melanie Barwick
Email melanie.barwick@sickkids.ca
Knowledge Translation Program

1. What are your **main messages**?
2. Who needs to know? Who are your **target audiences / knowledge users**?
3. What are your **KT goals for these KUs**? Why are you telling them this?
4. **How** will you engage them?
5. **When** will you engage them?
6. **What KT strategies** will you use to achieve your KT goals?
7. How will you **implement** these KT strategies?
8. With what **impact** (how will you evaluate the success of your KT plan relative to your KT goals)?
9. What **resources** are required (budget, staffing, etc.)

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Knowledge Translation Planning Template©

INSTRUCTIONS: This template was designed to assist with the development of Knowledge Translation (KT) plans for **dissemination** of research evidence. It is universally applicable to health and other disciplines. Begin with page one and work through subsequent columns to address the essential components of the KT dissemination planning process. Feel free to work through the components in a non-linear fashion. Two e-learning modules are available for additional support : https://bit.ly/2RHf3UI. Links to implementation planning support are found on page 2 of this template.

(1) Project Partners

Which partners will help you plan and execute your KT activities? Some partners may be targeted knowledge users.

- ❑ Researchers
- ❑ Practitioners/service providers
- ❑ Public
- ❑ Media
- ❑ Patients/consumers
- ❑ Decision makers
- ❑ Policy makers/government
- ❑ Private sector/industry
- ❑ Research funders
- ❑ Volunteer health sector/NGO
- ❑ Other: ▶ _____

(2) Partner Engagement

When will partner(s) be engaged?

- ❑ From idea formulation straight through
- ❑ After idea formulation & straight through
- ❑ At point of dissemination & project end
- ❑ Beyond the project

Note: Not all partners will be engaged to the same extent or at the same point in time. Some will be involved only for specific activities.

(3) Partner Roles

What will partner(s) bring to the project? How will they assist with developing, executing and/or evaluating the KT plan?

Note: Capture their specific roles in letters of support to funders, if requested.

(4) KT Expertise

Do you require KT expertise and how will this be accessed?

- ❑ Scientist(s) with KT expertise
- ❑ Consultant with KT expertise
- ❑ Knowledge broker/specialist
- ❑ KT supports within the organization(s)
- ❑ KT supports within partner organization(s)
- ❑ KT supports hired for specific task(s)

Note: If your KT involves *implementation* for practice or behaviour change, include an implementation specialist or scientist.

Notes

https://www.sickkids.ca/siteassets/learning/kt_planning-template_may2021.pdf

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Example

Dr Dayna Pool

Walk Aide device improving walking ability, strength, balance & muscle size

→ implementation

Lilly Carvossa, 5, practises her left hand skills with OT Caitlyn Keron and Nate Fearnell, 7, in action. Credit: Kelsey Reid

Pool et al.(2021). Locomotor and robotic assistive gait training for children with cerebral palsy. *Developmental Medicine and Child Neurology*

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KT goals

To impart knowledge to children and families about the Walk Aide® so that they can make informed choices about their treatment options.

To impart knowledge to clinicians so that the treatment can be appropriately identified for suitable candidates then applied safely and effectively.

To change clinical practice for clinicians so that the Walk Aide® can be provided as a choice of treatment for appropriate children.

To generate awareness and interest in clinicians and consumers about how the Walk Aide® can be used as a treatment strategy.

To generate policy action with funding bodies: NDIS and funding of new technology for children with cerebral palsy.

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Measuring impact

The KT strategy aims to impact:

- **Healthcare** by establishing a suitable referral pathway to ensure that all suitable candidates can access this service
- **Clinical practice** by increasing the number of clinicians who will be able to effectively and safely provide this treatment
- **Policies/systems** by establishing clear eligibility guidelines for the funding of the Walk Aide® and the associated trial supports required to identify suitable candidates

Consumer	Clinician	Decision Makers
• No of followers on Facebook and Instagram • Engagement: number of interactions i.e. views/like/comment on posts • Online feedback/surveys on awareness of the Walk Aide® and understanding of its use • No of consumer initiated referrals for Walk Aide® trials	• No of clinicians who dial into the webinars and finish watching it • No of hits on the website to read literature (length of time on website) • Feedback from webinar and training sessions • No of people who complete and pass the competency standards • No of clinician lead referrals for Walk Aide® trials • No of trials for the Walk Aide®	• No of Walk Aide® funded

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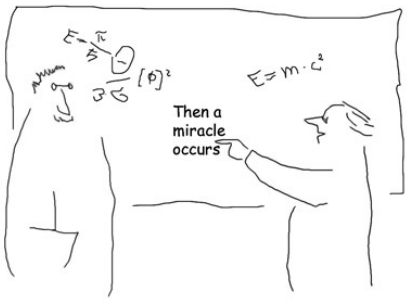
2023

The Minister for the NDIS and Government Services, Bill Shorten visits Victoria Park's Healthy Strides. He is pictured with Tonya McCusker, Nate Fearnall ,7, Kellie Fearnall and Christine Simpson Stokes. Credit: Kelsey Reid/The West Australian

Reporting http://www.equator-network.org



"I think you should be more explicit here in step two."

Duncan *et al.* (2020) Guidance for reporting intervention development studies in health research (GUIDED) *BMJ Open*
Hoffmann *et al*. (2014) Better reporting of interventions: template for intervention description and replication (TIDieR) checklist and guide, *BMJ*
Pinnock *et al.* (2017) Standards for reporting implementation studies (StaRI) statement, *BMJ*

Summary

- Closing the evidence – practice gap
- Practice v science
- Theoretical approaches
- Evidence based targeted implementation strategies
- Changing behaviour and practice – top down and bottom up
- Planning and measuring KT

Questions?
Comments

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Coming up next

30 Aug Media and Communications in Research
– Peta O'Sullivan, CAHS

6 Sep Survey Design and Techniques
– Dr Giulia Peacock, CAHS

Register → **trybooking.com/eventlist/researcheducationprogram**

We love feedback

A survey is included in the back of your handout, or complete online
https://tinyurl.com/surveyKnowledgeTranslation

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Knowledge Translation

RESOURCE NOTES

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1. Useful websites

https://implementationscience.biomedcentral.com/about
Implementation Science journal publishes research relevant to the scientific study of methods to promote the uptake of research findings into routine healthcare in clinical, organisational or policy contexts.

https://thecenterforimplementation.com
Provides training, support and resources for individuals and organisations in applying theory and evidence informed methods to improve outcomes

Implementation Science Resource Hub
https://impsciuw.org/implementation-science/research/frameworks/

http://ktclearinghouse.ca/knowledgebase/knowledgetoaction
Knowledge to action cycle.

http://www.cfirguide.org/.
Consolidated framework for implementation research.

https://www.equator-network.org
Reporting checklists.

https://www.equator-network.org/reporting-guidelines/squire/
SQUIRE 2.0 (Standards for Quality Improvement Reporting Excellence): revised publication guidelines from a detailed consensus process

https://bmjopen.bmj.com/content/10/4/e033516
Duncan *et al.* (2020). Guidance for reporting intervention development studies in health research (GUIDED): an evidence-based consensus study. *BMJ Open*

https://www.bmj.com/content/348/bmj.g1687
Hoffmann *et al*. (2014). Better reporting of interventions: template for intervention description and replication (TIDieR) checklist and guide, *BMJ*

https://www.bmj.com/content/356/bmj.i6795
Pinnock *et al.* (2017). Standards for reporting implementation studies (StaRI) statement, *BMJ*

http://www.tidierguide.org
TIDieR stands for the Template for Intervention Description and Replication. TIDieR is a guide and reporting checklist that was developed to improve the completeness of reporting, and ultimately the replicability, of interventions.

www.mrc.ac.uk/complexinterventionsguidance
Medical Research Council guidance 2019 on the development, evaluation and implementation of complex interventions.

https://epoc.cochrane.org/about-us
The Cochrane Effective Practice and Organisation of Care (EPOC) group conducts, supports and publishes systematic reviews of the global evidence to guide health system decision-making to improve health services and population health outcomes.

https://www.choosingwisely.org.au
Choosing Wisely Australia is a campaign to support clinicians, consumers and healthcare stakeholders to talk about tests, procedures, treatments where evidence shows there is no benefit and in some cases can lead to harm.

http://melaniebarwick.com/
KT training and implementation tool suite including:

- http://www.sickkids.ca/Learning/AbouttheInstitute/Programs/Knowledge-Translation/5-Day-Knowledge-Translation-Professional-Certificate/index.html
  The Knowledge Translation Professional Certificate™
  (KTPC) is a five-day professional initiative. The curriculum, presented as a composite of didactic and interactive teaching, focuses on the core competencies of KT work in Canada, as identified by a survey of knowledge translation practitioners (Barwick et al., 2010). Developed in The Learning Institute, KTPC™ is hosted three times a year. Each session is open to a maximum of fifteen participants. This one-of-a-kind opportunity for professional development and networking is fully accredited by the University of Toronto's Continuing Professional Development Office.

- http://melaniebarwick.com/wp-content/uploads/2019/07/SKTT-Course-Brochure-2019.pdf
  Specialist Knowledge Translation Training
  A well-developed knowledge translation (KT) plan is often a proposal requirement for health research funding agencies in Canada and abroad. In addition, various sectors are demonstrating greater attention to the utilization and impact of research. The Specialist Knowledge Translation Training (SKTT™) workshop was developed on the premise that scientists, and increasingly, other practitioners and educators, are agents of change in creating research impact, promoting research utilization, and ensuring that research findings reach the appropriate audiences. This course was designed to teach the unique skillset that surrounds KT practice.

- http://melaniebarwick.com/wp-content/uploads/2019/02/KTPT-Companion-Tool-Feb-15-2019.pdf
  The KT Planning Template Companion Tool
  The KTPT Companion Tool helps to shape the content of your KTPT plan into prose that can be inserted into a research proposal or project plan.

- https://www.sickkids.ca/en/learning/continuing-professional-development/knowledge-translation-training/knowledge-translation-plan-appraisal-tool-form/
  Knowledge Translation Plan Appraisal Tool (KT-PAT)
  Grant reviewers are often tasked with assessing the quality of a proposed knowledge translation (KT) plan within a research proposal. The KT Plan Appraisal Tool (KT-PAT)

guides the assessment of quality for a proposed KT plan. The intended users of the KT-PAT are grant reviewers but individuals may also find it useful to rate their own plan in a formative sense, with a view towards improvement.

- https://melaniebarwick.com/knowledge/knowledge-translation-planning-template/
  Knowledge Translation Planning Template (KTPT) 2019
  The KT Planning Template provides a step-by-step framework for planning research or project-related KT activities.
- **E-learning Modules for Knowledge Translation**
  Developed in 2017 by the SickKids' KT Program, these two e-learning modules support knowledge and practice in KT. The first e-modules summarizes our conceptualization of KT. The second e-module introduces and describes the Knowledge Translation Planning Template.
    - Module 1 summarizes Introduction to Knowledge Translation
      http://melaniebarwick.com/modules/Introduction-KT/story_html5.html
    - Module 2 introduces How to Prepare Knowledge Translation Plan
      http://melaniebarwick.com/modules/Introduction-KT/story_html5.html
- http://www.cvent.com/events/the-kt-game/event-summary-b5c05251f8ed4edaa8c401a3d603a060.aspx
  KT Game
  This card game was designed to support KT knowledge and planning. Based on the Knowledge Translation Planning Template, the KT Game is an educational group activity.

https://ktcanada.org/
Knowledge Translation Canada
KT training and resources

https://www.cymh.ca/Modules/ResourceHub/
Ontario Centre of Excellence for Child & Youth Mental Health
KT learning modules

https://www.nhmrc.gov.au/research-policy/research-translation-and-impact
National Health & Medical Research Council
NHMRC role in research translation

http://ktdrr.org/ktlibrary/index.html
Center on Knowledge Translation for Disability & Rehabilitation Research
KT library

https://www.iwh.on.ca/knowledge-transfer-and-exchange/methods
Institute for Work & Health
Stakeholder audience relationships and stakeholder audience capacity building

http://www.actionnuggets.ca/
Brief, focused communications about the primary care needs of special populations in primary care.

http://www.ucl.ac.uk/behaviour-change/resources
University College of London
Resources about behaviour change techniques and theories.

http://www.bct-taxonomy.com/
The Behaviour Change Technique Taxonomy
A resource for intervention designers, researchers, practitioners, systematic reviews and all those wishing to communicate the content of behaviour change interventions.

http://researchimpact.ca/knowledge-mobilization/#mobilization
Research Impact Canada (RIC)
Knowledge mobilization services

http://www.dcc.ac.uk/resources/how-guides/write-lay-summary#6
Digital Curation Centre
Resource for writing lay summaries

http://epoc.cochrane.org/publications-and-projects
Cochrane Effective Practice and Organisation of Care
Undertakes systematic reviews of educational, behavioural, financial, regulatory and organisational interventions designed to improve health professional practice and the organisation of health care services.

http://www.involvingpeopleinresearch.org.au
Consumer and Community Involvement Program
Formerly known as the Consumer and Community Health Research Network (CCHRN) the Consumer and Community Involvement (CCI) Program works with our universities, health and medical research institutes, health service providers and Non-Government organisations to bring together consumers and people with lived experience and connect them with health and medical researchers.

https://eric.ed.gov/?q=recommencations+for+implementing+change
Expert Recommendations for Implementing Change (ERIC)
ERIC is a comprehensive, easy-to-use, searchable, Internet-based bibliographic and full-text database of education research and information.

https://cfirguide.org/choosing-strategies
Consolidated Framework for Implementation Research
The CFIR can be used to design an implementation strategy. After completing a context assessment and identifying barriers and facilitators to implementing an innovation, the CFIR can

help tailor implementation strategies to mitigate barriers and leverage facilitators. This process can also be used to refine implementation processes through the course of implementation. The CFIR-ERIC Matching tool was developed based on survey responses from “implementation experts” who chose up to 7 implementation strategies they believed would best address each CFIR barrier. Though consensus was not strong, this tool does provide a prioritized list of strategies to consider based on your knowledge of potential CFIR-based barriers. The matching tool will provide a list of implementation strategies to consider based on the CFIR-based barriers you enter

2. Additional reading

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3. Possible research translation outputs to report

Reporting knowledge translation outputs:

Being cited and/or read by…

- H-index –from Scopus/Web of Science/Google
- Research Gate Score
- Policy documents, government/health organization reports or clinical practice guidelines that cite your research
- Publications awarded "highly accessed" and/or editor's choice by journals

- Commentaries in journals that cite your research
- Blogs or websites of others that cite your research
- Downloads and/or hits to products or processes that were developed within your research program
- Requests for permission to use your material
- Reports in media and/or news written about your research program (circulation/ listenership/ market share)

Products or processes that were developed within your research program …

- Resources to translate research into practice or policy (e.g., knowledge tools, interventions, policy briefs, programs, new positions created, etc)
- Website for your research program
- Publications in journals targeting specific professions/audiences

- Blogs
- Book chapters informed by findings from your research studies
- Training workshops provided to knowledge users

Your participation in meetings or committees for which your research informed the discussion/product …

- Invitations to meetings to disseminate research to knowledge users to inform policy, education, practice
- List of your memberships on advisory committees/ boards/ regulatory committees
- List of your memberships and/or contributions to clinical practice guideline development teams
- Consultancies
- Training delivered/contracted for health professionals, patients, and/or policy makers

Other indicators of impact …

- Award(s) or other formal recognition for research translation activities
- Summary statement/bullet points of indicators of impact from your research
- Indicators of impact from the research of your graduate students
- Elected membership on a society for which membership requires demonstration of research impact
- Stories of impact from knowledge users (e.g., changes in practice/ processes locally, state-wide, national including de-implementation)
- Integration of research program materials into services within a community (e.g., most significant research contributions)
- Stories of impact

Collaborations with knowledge users
(patients, policy makers, clinical decision-maker):

- Contracts from health services for projects focused on changing knowledge users practice
- Knowledge users indicated on publications
- Knowledge users indicated on grants
- Knowledge users indicated on grants

Other research translation activities or indicators of impact …

- Course Content or Curriculum (including online training modules) informed by your research program
- Twitter followers

Government of **Western Australia**
Child and Adolescent Health Service

Perth Children's Hospital **Foundation**

Perth Children's Hospital

CAHS Research Education Program

Research Skills Seminar Series

A free, open-access resource designed to upskill busy clinical staff and students and improve research quality and impact.

2024 Seminar Schedule

Interactive in pdf format
Last updated 22/8/24

#	DATE	TOPIC	PRESENTER	ENROL	WATCH
1	9 Feb	**Research Fundamentals**	Dr Kenneth Lee, UWA	-	2024
2	16 Feb	**Introductory Biostatistics**	Michael Dymock, TKI	-	2024
3	8 Mar	**Social Media in Research**	Dr Amy Page, UWA	-	2024
4	22 Mar	**Introduction to Good Clinical Practice**	Alexandra Robertson, CAHS	-	2024
5	19 Apr	**Research Governance**	Dr Natalie Giles, CAHS	-	2024
6	3 May	**Scientific Writing**	A/Prof Tony Kemp, UWA	-	2024
7	17 May	**Project Management**	Melanie Wright, SMHS	-	2024
8	7 Jun	**Research Impact**	Dr Tamika Heiden, Vic	-	2024
9	21 Jun	**Consumer & Community Involvement in Research**	Belinda Frank, TKI	-	2023
10	19 Jul	**Getting the Most out of Research Supervision**	Dr Timothy Barnett, TKI	-	2024
11	26 Jul	**Enrolling Incapacitated Patients into Medical Research in WA**	Prof Daniel Fatovich and Mark Woodman, EMHS	-	2024
12	2 Aug	**Sample Size Calculations**	Michael Dymock, TKI	-	2024
13	9 Aug	**Rapid Critical Appraisal of Scientific Literature**	Dr Natalie Strobel, ECU	-	2024
14	16 Aug	**Conducting Systematic Reviews**	Prof Sonya Girdler, Curtin Uni	-	2024
15	23 Aug	**Knowledge Translation**	Prof Fenella Gill, Curtin/CAHS	REGISTER	2023
16	30 Aug	**Media and Communications in Research**	Peta O'Sullivan, CAHS	REGISTER	2023
17	6 Sep	**Survey Design and Techniques**	Dr Giulia Peacock. CAHS	REGISTER	2023
18	11 Oct	**Grant Applications and Finding Funding**	Dr Tegan McNab, TKI	REGISTER	2023
19	22 Oct	**Oral Presentation of Research Results Workshop**	Dr Giulia Peacock, CAHS	REGISTER	2023
20	25 Oct	**Statistical Tips for Interpreting Scientific Claims**	Michael Dymock, TKI	REGISTER	2023
21	1 Nov	**Involving Aboriginal Communities in Research**	Cheryl Bridge, TKI and co.	REGISTER	2023
22	15 Nov	**Ethics Processes for Clinical Research in WA**	Dr Natalie Giles, CAHS	REGISTER	2023
23	22 Nov	**Qualitative Research Methods**	Dr Lorna Davin, Uni Notre Dame	REGISTER	2023
24	29 Nov	**Innovation and Commercialisation**	Dr Helga Mikkelsen (Brandon BioCatalyst) & Ashley Schoof (TKI)	REGISTER	2022
25	6 Dec	**Data Collection & Management (REDCap)**	Dr Giulia Peacock, CAHS	REGISTER	2023

Register via Trybooking.com

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Seminars are held from 12:30-1:30pm at Perth Children's Hospital Auditorium and are broadcast live online through Avaya and Teams.
Seminars are recorded and uploaded to our website within a week of presentation. Topics are subject to change with appropriate email notice provided.
Handouts are revised and updated regularly. Attendance certificates are available on request.

CAHS Research Education Program

Research Skills Seminar Series

A free, open-access resource designed to upskill busy clinical staff and students and improve research quality and impact.

Media and Communications in Research

30th August 2024 12.30 -1.30pm

Understanding how to work with the media is essential and a critical responsibility for all researchers, whether it's the newspaper, TV, radio, or social media.

This seminar will provide practical techniques on working with the media and ensuring your bottom line is delivered in an engaging, accurate, and responsible way.

Meet the presenter

Peta O'Sullivan
Communications Coordinator – CAHS Research Department

Peta's early working life was as a journalist, working in print media and writing both news and feature articles, before eventually moving into sub-editing. Peta has been with the WA Health System for over a decade, working in communications. While at the Department of Health Peta has had the opportunity to work on stories promoting WA research, which she has really enjoyed.

Perth Children's Hospital Auditorium

Level 5, 15 Hospital Ave Nedlands
Accessible via pink or yellow lifts
or
Access online via Teams or
Watch from a hosted video-conferencing site

- Fiona Stanley Hospital
- Lions Eye Institute
- Pathways in Shenton Park
- Royal Perth Hospital

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A light lunch is provided for our in-person attendees. Bookings are essential.

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Survey Design and Techniques

6th September 2024 12.30 -1.30pm

Surveys, including clinical audits, are one of the most commonly conducted clinical research projects. There is a lot more to doing these well than meets the eye.

This seminar provides practical help for planning and conducting surveys. It includes good survey design, approval pathways, sampling and administration methods, writing high quality questionnaires & data collection instruments, maximising response rates and reducing data errors.

Meet the presenter

Dr Giulia Peacock
Research Fellow
CAHS Research Education Program

Perth Children's Hospital

Giulia graduated medical school from the University of Notre Dame Fremantle in 2014. Giulia supplements her clinical work as an Advanced Paediatric Trainee by conducting and publishing research in paediatric cardiology and through active involvement in medical education. She is currently completing her Masters in Clinical Science, Child Health Research at the University of Western Australia. She hopes to ensure easy accessibility to research education and support, to create best outcomes for all patients.

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CAHS Research Education Program

REDCap Workshop Series

Research Electronic Data Capture

Perth Children's Hospital Foundation

The Research Education Program - supported by the Perth Children's Hospital Foundation and the Telethon Kids Institute - offers a series of hands-on workshops that focus on the most integral features of REDCap and its application to your research project data. Workshops aim to directly build user skills in a guided environment, with time to ask questions and work on your own project.
Dates below are still being finalised so check back again for latest version.

Presented by: Research Education Program Research Fellow Dr Giulia Peacock

Location: PCH, TKI Seminar Room, Level 5 (West).

TELETHON KIDS INSTITUTE
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Topic	Day	Date	Time	Max No *(in person)*
Workshop 1 – Basic Walkthrough	Tuesday	27 Feb	2:30pm to 4:30pm	Watch
Workshop 2 – Intermediate Walkthrough	Tuesday	12 March	1:00pm to 3:30pm	Watch
Workshop 3 – Advanced REDCap - Creating Surveys	Tuesday	30 April	1:00pm to 3:30pm	Watch
Workshop 4 – REDCap Troubleshooting Workshop	Tuesday	28 May	2:00pm to 4:00pm	cancelled
Workshop 5 – Basic Walkthrough	Tuesday	16 July	1:00pm to 3:30pm	Watch
Workshop 6 – Intermediate Walkthrough	Tuesday	20 Aug	1:00pm to 3:30pm	Watch
Workshop 7 – Advanced REDCap - Creating Surveys	Tuesday	10 Sep	2:00pm to 4:30pm	**40** Register
Workshop 8 – Basic Walkthrough encore	Tuesday	15 Oct	1:00pm to 3:30pm	**40** Register

IMPORTANT

Attendance is open to all Department of Health and Telethon Kids Institute staff.

Places are strictly limited and offered on a first-come, first-serve, basis. If you are not able to attend a workshop for which you have registered, please contact Research Education Program support via phone or email to cancel your reservation and/or be placed in another workshop or on the waitlist.

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CAHS Research Education Program

REDCap Research Electronic Data Capture Workshop Series

Advanced REDCap and Creating Surveys

10th September 2024 2.00 - 4.30pm

Level UP!

- This workshop explores a more in-depth look at advanced features in REDCap and how to design and distribute a survey through REDCap.
- Enrolment in this workshop requires previous attendance at one of our preliminary sessions (Basic OR Intermediate) or be able to demonstrate that you are already administering projects within REDCap.
- Do you know how to create a project from scratch AND are you comfortable with applying branching logic? If no please register for an Intermediate Workshop. This workshop is for users who are already comfortable using the REDCap interface.

Meet the presenter

Open to all WA Health and TKI staff only.

Dr Giulia Peacock

CAHS Research Education Program Research Fellow

Giulia graduated medical school from the University of Notre Dame Fremantle in 2014. She supplements her clinical work as an Advanced Paediatric Trainee by conducting and publishing research in paediatric cardiology and through active involvement in medical education.

She is currently completing her Masters in Clinical Science, Child Health Research at the University of Western Australia. She hopes to ensure easy accessibility to research education and support, to create best outcomes for all patients.

PCH, TKI Level 5 Seminar Room

Accessible via the yellow or pink lifts

Register via Trybooking.com

View recorded workshops online

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Places are capped at 40. Laptops are available if required

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CAHS Research Education Program

2024 Research Skills Workshop Series

Perth Children's Hospital Foundation

The Research Education Program (REP) Research Skills Workshop Series, supported by the Perth Children's Hospital Foundation and the Telethon Kids Institute, offers a series of interactive workshops that focus on building the most fundamental research skills required to undertake clinical research projects.

TELETHON KIDS INSTITUTE Discover. Prevent. Cure.

Workshops aim to directly build user skills and knowledge in a guided environment, with time to ask questions specific to your own project.

Presented by: CAHS Research Department and invited guests **Location:** PCH, TKI Seminar Room, Level 5 (W)

Topic	Day	Date	Time	Max *(in-person)*
Workshop 4 - Navigating Research Ethics and Governance in WA If you are undertaking a research project or are thinking about becoming involved in research, understanding the review and approval requirements for your research project may appear intimidating. This workshop aims to help you understand the process of ethical and governance review for research approvals at CAHS - includes PCH, CACHS, CAHMS and Neonatology.	Tue	23 April	2.00pm - 4:00pm	Watch
Workshop 1 - Setting up Clinical Trials Clinical trials are the benchmark for testing interventions in healthcare. This workshop aims to provide practical advice to clinical researchers who want to gain insight on how to develop and complete their clinical trial on time and within budget. Come learn practical aspects of the steps involved in developing a clinical trial from the research idea to protocol development and execution.	Mon	20 May	12.00 noon - 2.00pm PCH level 6 TKI Manda	Watch
Workshop 2 - Manuscript Writing Journal publications are an integral part of dissemination of research findings. However, it can be overwhelming to convert several months of research into a succinct manuscript that will be loved by peer-reviewers and attract readers. This workshop is designed to give those who have completed their research projects, practical skills to transform their research data into publishable peer-reviewed literature.	Tue	11 June	2.00pm - 4:00pm	Watch
Workshop 3 - Oral Presentation of Research Results Dissemination of research findings is integral in knowledge translation and clinical practice change. Oral presentations provide rapid dissemination of research findings to a target audience. We invite you to a practical session that will provide useful tips, practice sessions and personalised feedback to help deliver an adequate depth of your research findings to various research stakeholders.	Tue	22 Oct	2.00pm - 4:00pm	**40** Register

IMPORTANT

Places are strictly limited and offered on a first-come, first-serve, basis. If you are not able to attend a workshop for which you have registered, please contact Research Education Program support via phone or email to cancel your reservation and/or be placed on the waitlist.

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CAHS Research Education Program

2024 Research Skills Workshop Series

Oral Presentation of Research Results Workshop

22nd October 2024 **2.00 - 4.00pm**

Dissemination of research findings is integral in knowledge translation and clinical practice change. Oral presentations provide rapid dissemination of research findings to a target audience.

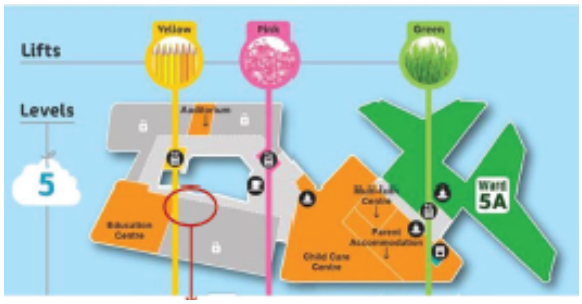
We invite you to a practical session that will provide useful tips, practice sessions and personalised feedback to help deliver an adequate depth of your research findings to various research stakeholders.

Meet the presenter

Dr Giulia Peacock
Research Fellow
CAHS Research Education Program

Giulia graduated medical school from the University of Notre Dame Fremantle in 2014. Giulia supplements her clinical work as an Advanced Paediatric Trainee by conducting and publishing research in paediatric cardiology and through active involvement in medical education. She is currently completing her Masters in Clinical Science, Child Health Research at the University of Western Australia. She hopes to ensure easy accessibility to research education and support, to create best outcomes for all patients.

PCH, Level 5, TKI Seminar Room



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Perth Children's Hospital

Child Health Research Symposium

Empowering Futures: Advancing Child Health

4 - 7 November

2024

You are invited!

Monday 4 November at 5pm
PCH Collegiate Lounge

Join us in opening our CAHS Symposium

Poster Opening Night

For more information, contact us on
✉ pch.symposium@health.wa.gov.au

Neonatology | Community Health | Mental Health | Perth Children's Hospital

CAHS Research Education Program

Research Skills Seminar Series

A free, open-access resource designed to upskill busy clinical staff and students and improve research quality and impact.

Knowledge Translation

Thank you for your interest in this seminar

Please complete this 1-minute evaluation.
Your feedback will help guide future presentations and educational activities.

How did you attend the seminar?

- ○ Live seminar at Perth Children's Hospital
- ○ Hosted video-conference on-site (e.g. FSH, Lions Eye, RPH etc.)
- ○ Online via Teams
- ○ Viewed online recording

Please rate your agreement with the following statements:

	N/A	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
The aims and objectives were clear	○	○	○	○	○	○
The session was well structured	○	○	○	○	○	○
Presentation style retained my interest	○	○	○	○	○	○
The speaker communicated clearly	○	○	○	○	○	○
The material extended my knowledge	○	○	○	○	○	○
The additional resources were helpful	○	○	○	○	○	○

What were the best aspects of the seminar?

What changes or improvements would you suggest?

How did you hear about the seminar?
(you can select multiple answer)

- ☐ Email invitation from Research Education Program
- ☐ CAHS Newsletters e.g. The Headlines, The View, CAHS Research Newsletter
- ☐ "Health Happenings" E-News
- ☐ Healthpoint Intranet Upcoming Events
- ☐ Collegiate lounge screen or other posted promotional material
- ☐ Telethon Kids Institute screen or other posted promotional material
- ☐ Telethon Kids Institute Newsletter
- ☐ Other

Thank you!

cahs.health.wa.gov.au/ResearchEducationProgram