

“Achieving excellence in evaluation”

Emerging new talent award recipient

Presented by Dr Clancy Read (PhD)



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The study

Systems-based intervention in the Northern Territory of Australia: stepped wedge, community randomised trial (RCT) aimed at improving delivery and uptake of secondary prophylaxis (SP) for rheumatic heart disease prevention.

Funded by the Australian National Health and Medical Research Council (NHMRC) (Project: 1027040)



EVALUATION CRITERIA

PROCESS & FIDELITY:

- What was the completeness and acceptability of implementation of the intervention package, and of individual items?
- What were the barriers and enablers of implementation?

- What were the barriers and enablers of organisational change?

EFFICIENCY: Degree to which inputs have been converted to outputs

- To what extent did health centres change their delivery of RHD care to align with the systems-based intervention?

PERFORMANCE:

- What were the factors associated with success in achieving organisational and client level improvements in SP for RHD?

EFFECTIVENESS: Degree to which project purpose has been achieved by the project outputs

- To what degree did adopting the systems-based intervention improve processes of RHD care and adherence to SP?
- Which elements of the intervention were most effective in activating change?

RELEVANCE & IMPACT: Degree to which the program design was right

- Did the intervention, (a model of care designed to optimise health systems), improve overall adherence to SP for RHD and minimise 'days at risk'?

STUDY LOGIC MODEL

BASELINE (3 months):

2-week site visit, interviews & development of customised action plans

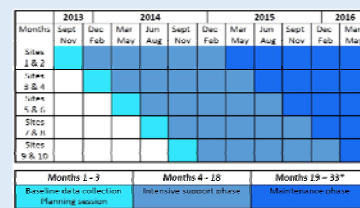
INTENSIVE (15 months):

Monthly site visits, review of action plan progress

MAINTENANCE (up to 15 months):

Monthly follow up, review of action plan progress

IMPLEMENTATION: Health centres commence the study at 3-monthly steps in random order

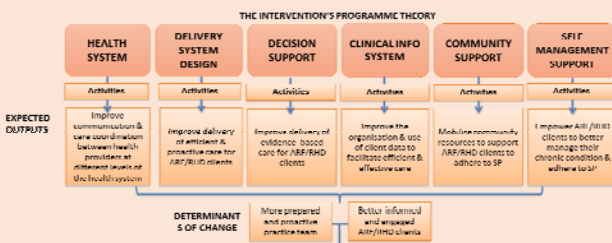


IMPLEMENTATION (Input)

MODERATORS
(factors that condition the intervention's effect on outcome)

THE INTERVENTION PACKAGE:

- Project Officers support health centres to develop and implement a customised set of activities aimed at improving penicillin delivery
- Activities are aligned under the elements of the Chronic Care Model (CCM)
- The intervention's Programme Theory is organised under the streams of the CCM & aim to activate "determinants" allowing for achievement of outcomes



INTERVENTION (Activities & outputs)

DETERMINANTS

OUTCOMES:

- Measured with generalised linear mixed models; Primary outcome with a logit link
- Outcomes measured at community level: McNemar's test for binary outcomes or a paired t test for normally distributed continuous outcomes

- OUTCOME MEASURES
- Proportion of clients receiving 80% or more of scheduled BPG injections over a minimum 12 month period
 - The proportion of scheduled injections that a client receives over a minimum 12 month period
 - The average number of days at risk
 - Proportion of clients receiving at least 90% of scheduled BPG injections over a minimum 12 month period
 - Proportion of clients receiving 50-79% and <50% of scheduled BPG injections over a minimum 12 month period
 - Recurrence rate and proportion of acute rheumatic fever (ARF) episodes that are recurrences, compared to non-participating communities and to the whole jurisdiction
 - Improvement in delivery of other services for RHD clients
 - Effect of the programme on delivery of other routine services
 - Impact of the intervention on RHD clients' experience of care including their perception and understanding of the disease and its management

OUTCOMES
Improved delivery and uptake of SP by ARF/RHD clients

IMPACT
Reduction in ARF recurrence

THEORY-DRIVEN EVALUATION SUCCESSES

1. Implementation success

When there is evidence that the intervention is appropriately implemented in the field

Occurs only when an intervention appropriately activates a change process

2. Action theory success

When activities to optimise health systems for RHD care DO lead to a more prepared practice team & more engaged clients

(when there is evidence that intervention activities DO affect the determinants of change)

3. Conceptual theory success

When prepared practice teams & engaged clients DO positively affect delivery and uptake of SP by ARF/RHD clients)

(when there is evidence that the determinants DO affect outcomes)

SUSTAINABILITY: Durability of the benefits produced by the project after its completion

- Which of the activities and streams of the Chronic Care Model were sustained during maintenance phase?



Investigators & affiliations

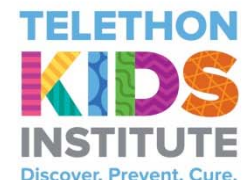
Chief Investigators: Jonathan Carapetis¹, Anna Ralph², Vanessa Johnston², Ross Bailie⁴, Graeme Maguire⁵, Keith Edwards⁶, Bart Currie², Adrienne Kirby⁷

Project Team: Clancy Read¹, Jessica de Dassel², Alice Mitchell³, Jane Poole², Sagen Wilks²

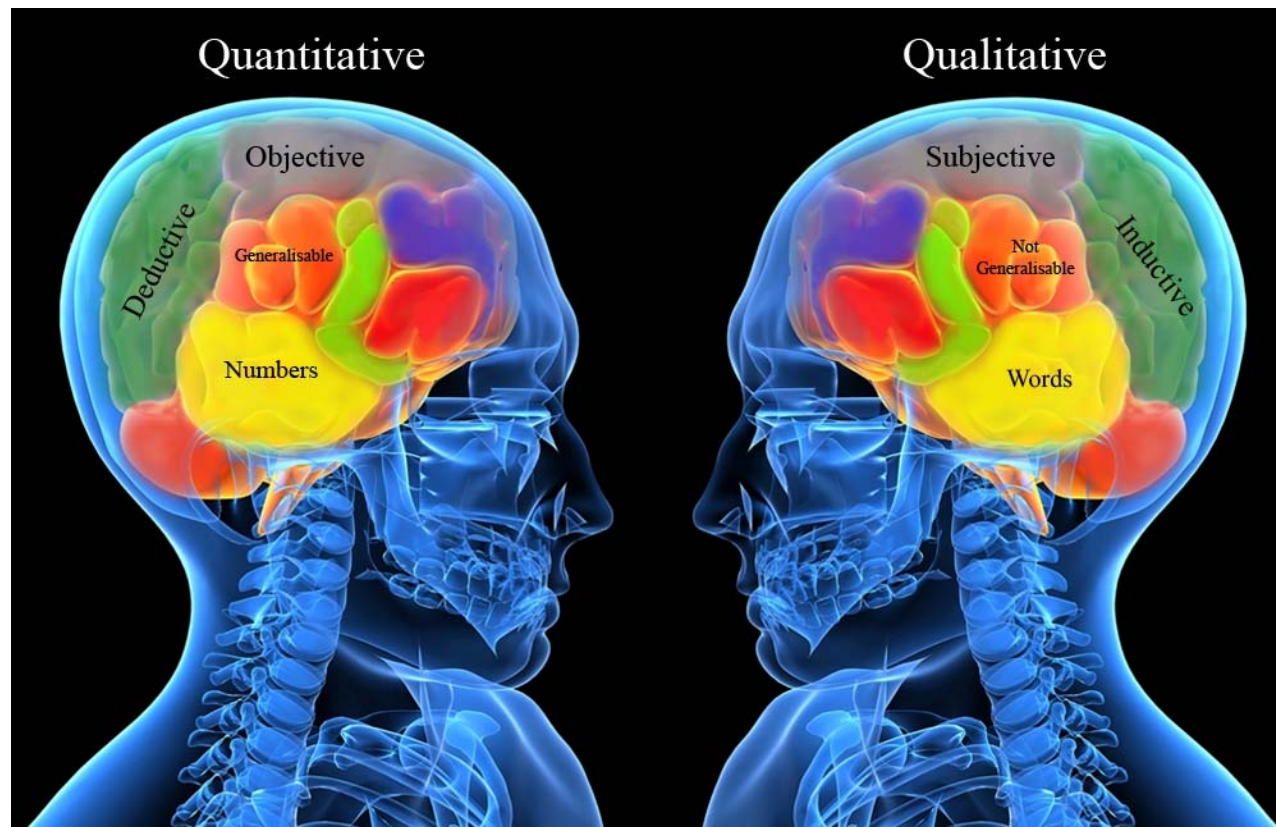
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Working in multidisciplinary teams





Key contributions

- Raised the profile of qualitative research and challenged historical criticism towards the rigour of qualitative research
- Proposed a theory-driven approach and evaluation framework that is new to the professionals tackling rheumatic heart disease – and to RCTs of complex interventions
 - Communicating in a language that cuts across the differing paradigms of explanation of a multidisciplinary team
 - Concerted effort in sharing experiences and teaching others





Key messages

- RCTs for population based complex interventions: Proceed with **caution!**
- Qualitative inquiry is vital to answering the hows and whys of success or failure
- Theory driven approaches don't have to complicate an already complex intervention
- The key is in *how* we communicate these ideas to non-evaluators





With thanks

Thank you to the Australasian Evaluation
Society for this great opportunity!

