The ACTIveARM Project:

Australian Constraint Therapy Implementation study of the ARM A project funded by the NSW Health Translational Research Grant Scheme (TRGS)

Implementation of sustainable publicly funded constraint-induced movement therapy (CIMT) in South Western Sydney Local Health District (SWSLHD), Australia

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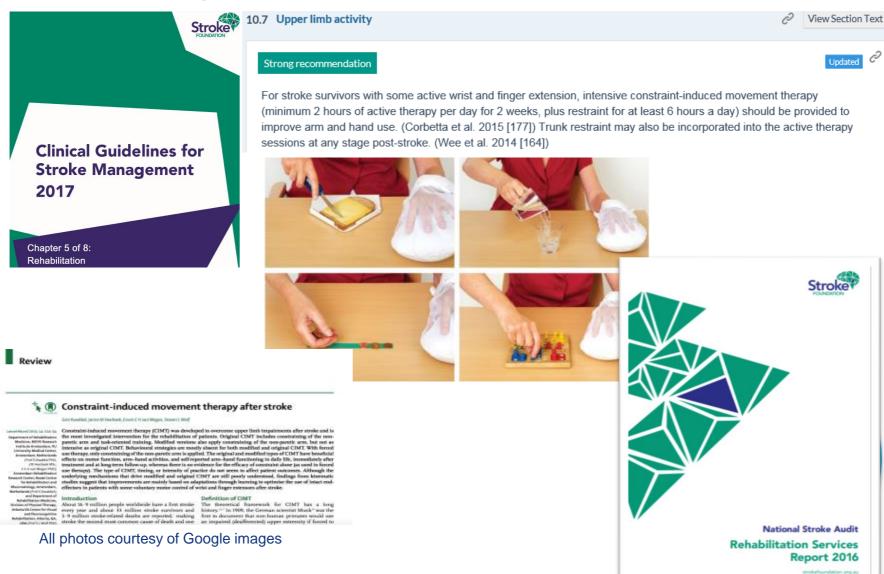
Supported by







Background



Aim and Research Questions

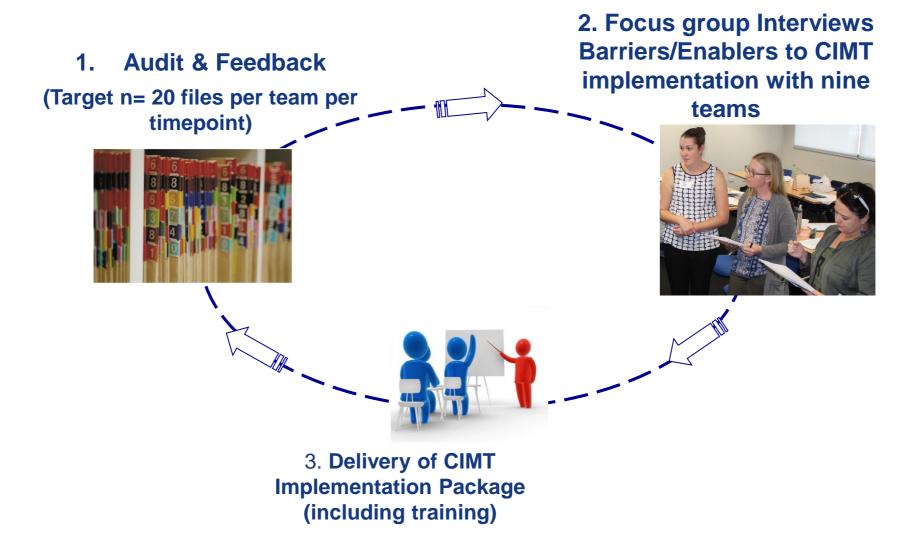
Research Aim: To investigate the **impact** of an **implementation package** on **clinician behaviour** and **increase the number of CIMT programs delivered** over 2 years in SWSLHD

- Q1: Do rehabilitation teams deliver more CIMT programs after receiving a CIMT implementation package?
- Q2: Do stroke and brain injury survivors that complete a CIMT program achieve upper limb outcomes consistent with published outcomes?
- Q3: Can teams recruit sufficient patient participants to regularly provide CIMT?
- Q4: What is the cost of a 2-week CIMT program and district-wide implementation?



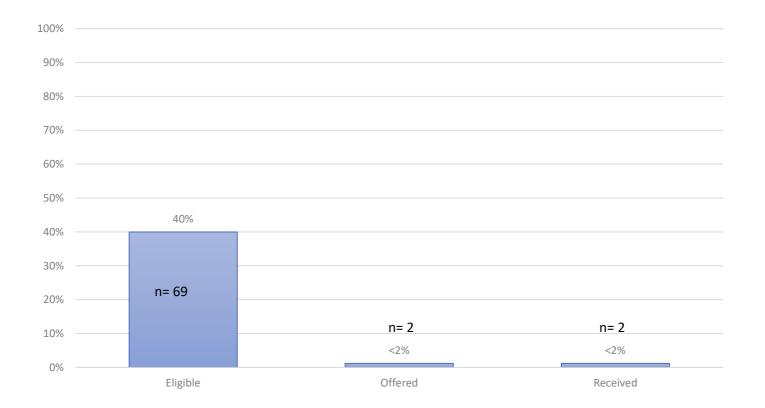
Methods

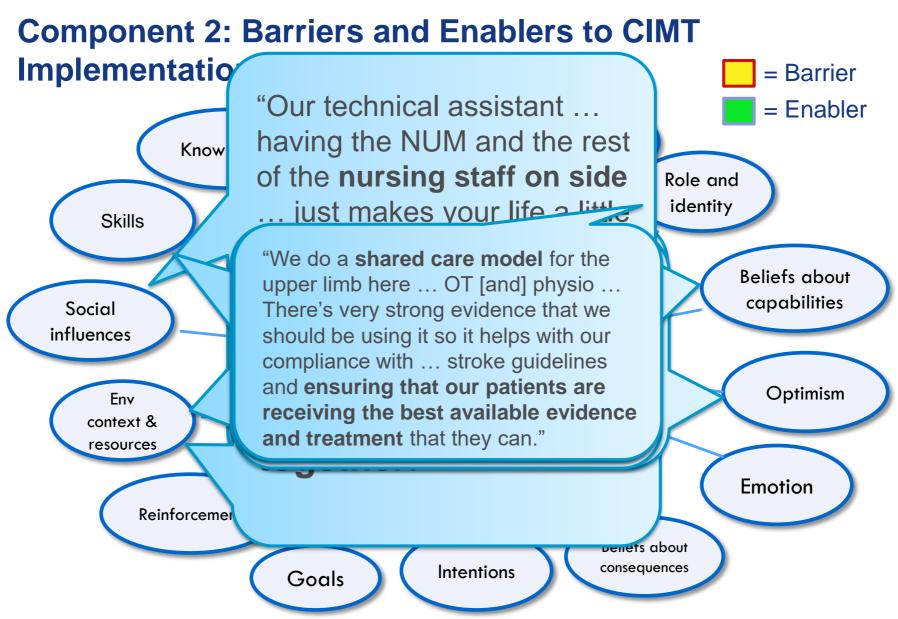
Design: Before-and-after design, with mixed methods



Component 1: File audit outcomes: Baseline Timepoint 1 (October- December 2016)

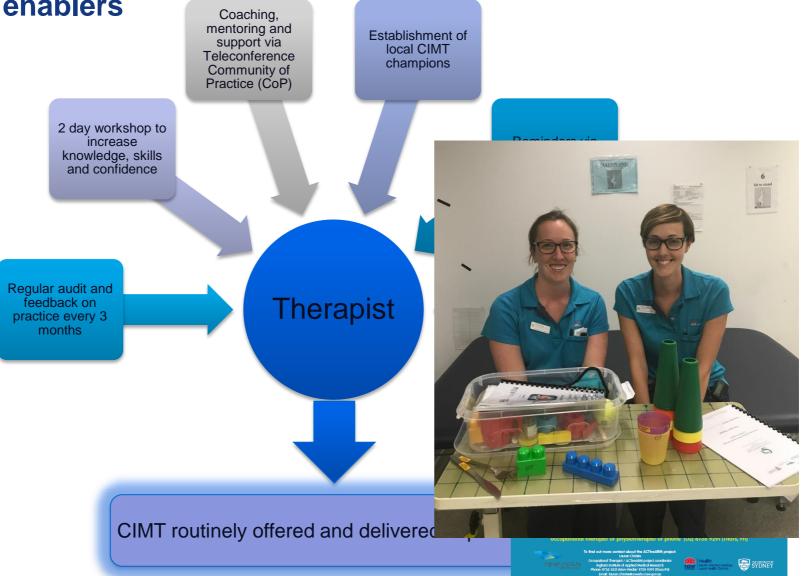
Proportion of baseline sample eligible for, offered and delivered a CIMT program (n= 172)





Michie et al (2005); Cane et al (2012)

Intervention: Developing and delivering a behaviour change implementation package that targets barriers and enablers

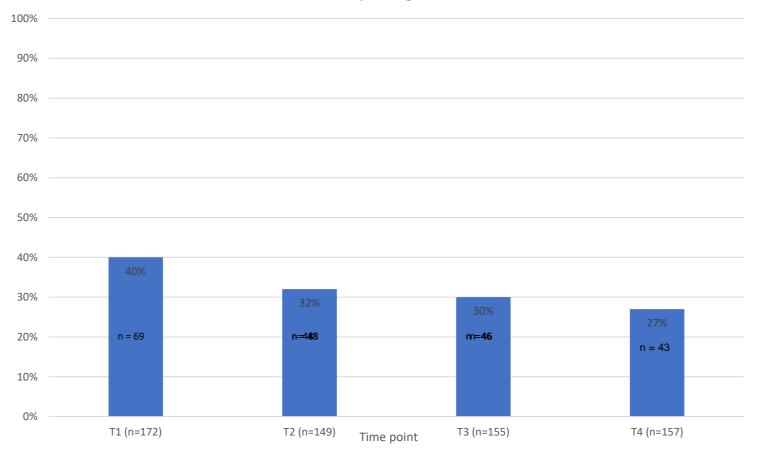


Component 3: Delivery of package and measurement of outcomes Preliminary File Audit Outcomes: Demographics

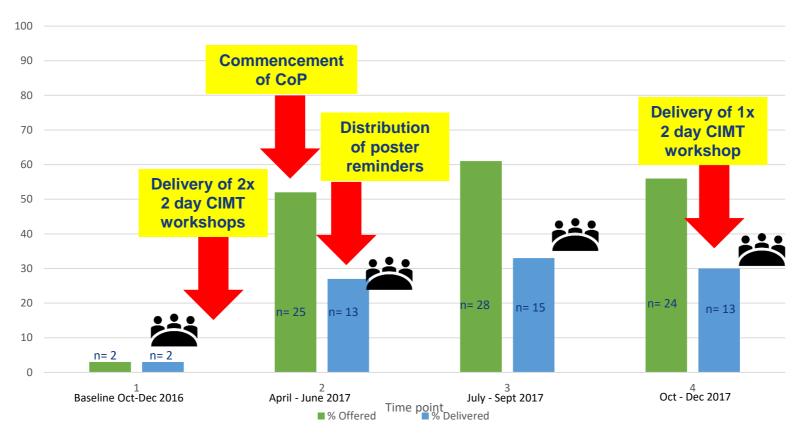
Characteristic			All teams (n=628) % (n)
Sex, % (n)	Male	Stroke	46.8% (294)
		ТВІ	15.6% (98)
	Female	Stroke	34.4%(216)
		ТВІ	3.2% (20)
Mean age (years)	Stroke		68 years (SD 15)
	ТВІ		37 years (SD 14)
Diagnosis, % (n)	Stroke		81.2% (510)
	ТВІ		18.8% (118)
Mean duration from neurological event to admission (days)	Inpatients	Stroke	12 days (27 SD) (range 0 - 255 days)
		ТВІ	120 days (421 SD) (range 0 - 3136 days)
	Outpatients	Stroke	599 days (1588 SD) (range 9 - 8911 days)
		ТВІ	2542 days (SD 3199) (range 47 – 16315 days)
Mean Modified Rankin Score (mRs) at admission (range 0- 5)	Inpatients	Stroke	4.2 (SD 0.7)
		TBI	4.3 (SD 0.7)
	Outpatients	Stroke	2.8 (SD 0.7)
		TBI	3.4 (SD 0.8)

Component 3: Preliminary File Audit Outcomes

% of Total sample eligible for CIMT



Component 3: Preliminary File Audit Outcomes



% of Eligible CIMT participants offered & delivered a CIMT program

= verbal and written feedback on audit results given

Component 3: Preliminary File Audit Outcomes

% of eligible people for CIMT that were offered and delivered a program over 12 months by team % 50 Teams

■ % Offered ■ % Delivered

Conclusions and future directions



- Due to commence timepoint 4 file audits this week (Jan-March 2018)
- Recently provided 4th CIMT workshop at request of teams
- Successful implementation of CIMT in public health practice is multifaceted
- Importance of a **multidisciplinary team approach** highlighted and leadership/organisational support
- Finding used to **inform** the **development and delivery** of an implementation package for CIMT translation in South Western Sydney, The ACTIveARM project Health

South Western Sydney ocal Health District

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Key references

- 1. Kwakkel, G., Veerbeek, JM., van Wagen, EEH., Wolf, SL. (2015). Constraint-induced movement therapy after stroke. *Lancet Neurology*; 14: 224-234.
- 2. Walker, J., Pink, MJ (2009). Occupational therapists and the use of constraint-induced movement therapy in neurological practice. *Australian Occupational Therapy Journal*; 56: 436-437.
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- 6. French, SD., Green, SE., O'Connor, DA., McKenzie, JE., Francis, JJ., Michie, S., Buchbinder, R., Schattner, P., Spike, N., & Grimshaw, JM. (2012). Developing theoryinformed behaviour change interventions to implement evidence into practice: a systematic approach using the Theoretical Domains Framework, *Implementation Science*; 7: 38.

