



Country Heart Attack Prevention (CHAP)

Education Program



The CHAP project is co-funded by NHMRC Partnership Grant (GNT 1169893)

 @CHAPproject



Acknowledgement of country

Education Program

- Second Wednesday of each month
- Recorded for viewing later
- Today: Overview of CHAP Project
 - July 8th – Unpacking the Standardised Program Content
 - August 5th – Unpacking the National CR Quality Indicators

The Country Heart Attack Prevention (CHAP) Project:

A four-step model of care and clinical pathway for the translation of cardiac rehabilitation and secondary prevention guidelines into practice for rural and remote patients

Prof Robyn A Clark

Rosy Tirimacco

Background

- CVD kills one Australian every 12 minutes.
- CVD is a major cause of mortality 2017, 43,477 deaths.
- Australians living in rural and remote areas, who have 4 times more risk factors, 90% higher rates of CVD-related hospitalisation and 60% higher rates of CVD death than those in metropolitan areas.
- ½ million people living in our community who have had a heart attack.
- CVD secondary events 26-50%.
- Despite high level evidence supporting benefit and cost effectiveness of risk factor modification for the past 20 years report that only 20-50% of eligible patients attend.



Background

- Historically, CR has been delivered face-to-face to groups in acute hospitals or community centres.
- The content and length of CR programs varies considerably in Australia
- National quality indicators only published in 2020
- Alternative methods for provision of CR have been shown to be effective but few have been implemented into practice.
- We would argue that the evidence for strategies to modify risk factors is strong but the evidence for the mode of delivery has become outdated. (RAMMIT 2012)



 Check for updates

Review

Alternative models of cardiac rehabilitation: A systematic review

Robyn A Clark¹, Aaron Conway², Vanessa Poulsen³,
Wendy Keech³, Rosy Tirimacco⁴ and Phillip Tideman⁴

European Journal of
**Preventive
Cardiology** 

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Abstract

The traditional hospital-based model of cardiac rehabilitation faces substantial challenges, such as cost and accessibility. These challenges have led to the development of alternative models of cardiac rehabilitation in recent years. The aim of this study was to identify and critique evidence for the effectiveness of these alternative models. A total of 22 databases were searched to identify quantitative studies or systematic reviews of quantitative studies regarding the effectiveness of alternative models of cardiac rehabilitation. Included studies were assessed using a Critical Appraisal of Published Research

Aims

- Our preliminary research has identified key human and system-based barriers to attending CR.
- These include
 - 1) limited clinician recommendation,
 - 2) reliable electronic auto referral systems,
 - 3) individualized choice of programs, and
 - 4) sustainable lifelong commitment to CR supported by primary care.
- The aim of our project is to address these **4** modifiable barriers to accessing and successfully completing cardiac rehabilitation.
- **All rural and remote residents will be eligible to participate in this project including Aboriginal people. We acknowledge we are implementing standard guidelines and that an Aboriginal CHAP model will be a future large project to culturally adapt our outcomes into practice using appropriate Aboriginal and Torres Strait Islander Translation methods.**

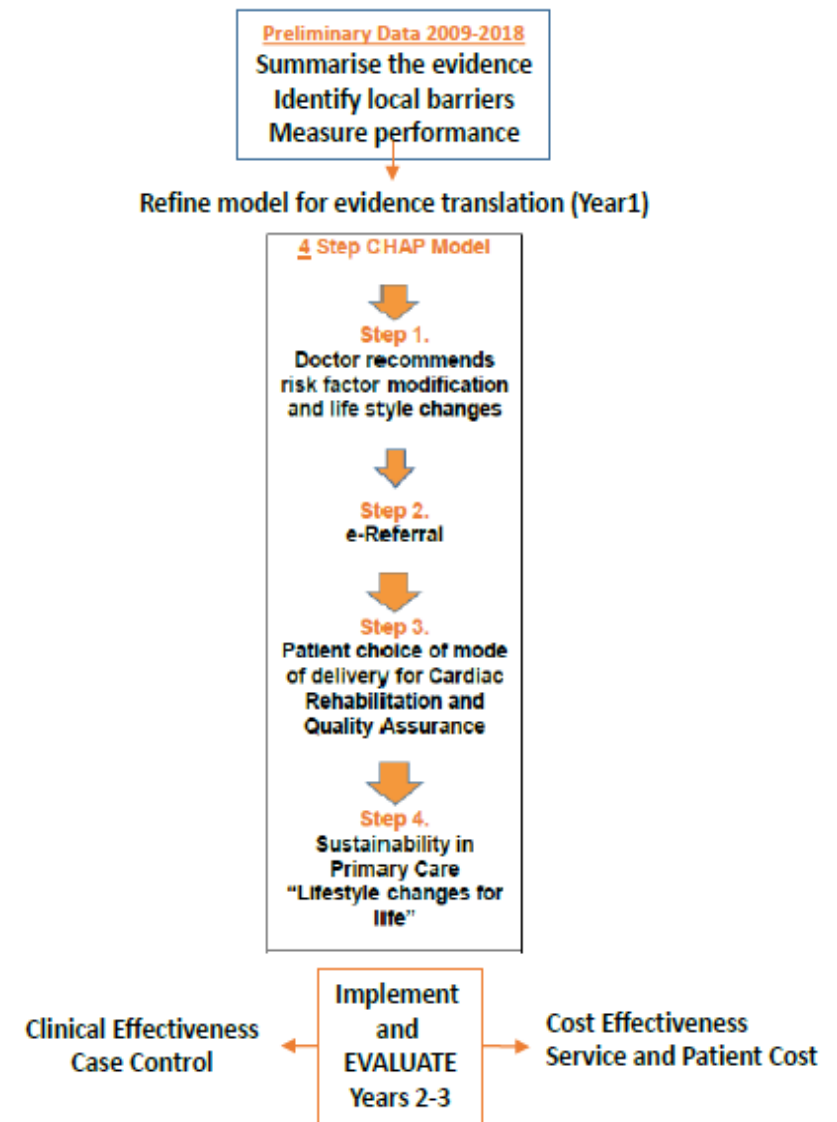


Figure 1 CHAP Project Study Flow

Objectives

Objective 1: Refine the CHAP model for implementation (Year 1)

Objective 2: Evaluate the clinical effectiveness of CHAP (Year 2-3)

Objective 3: Evaluate the cost effectiveness of the CHAP. (Year 3)



Methods

- The Country Heart Attack Prevention (CHAP) project will use a translation methodology combining
- Pre-post design and a prospective case control evaluation with a Model for Large Scale Knowledge Translation
- Economic evaluation to implement evidence-based CR into rural and remote practice.
- *We hypothesize that patients receiving CHAP will have higher rates of attendance and completion of CR; higher rates of risk factor modification higher rates of evidence base pharmacotherapy and experience lower rates of morbidity and mortality at 30 days and 12 months and the model will demonstrate cost effectiveness for both services and patients.*

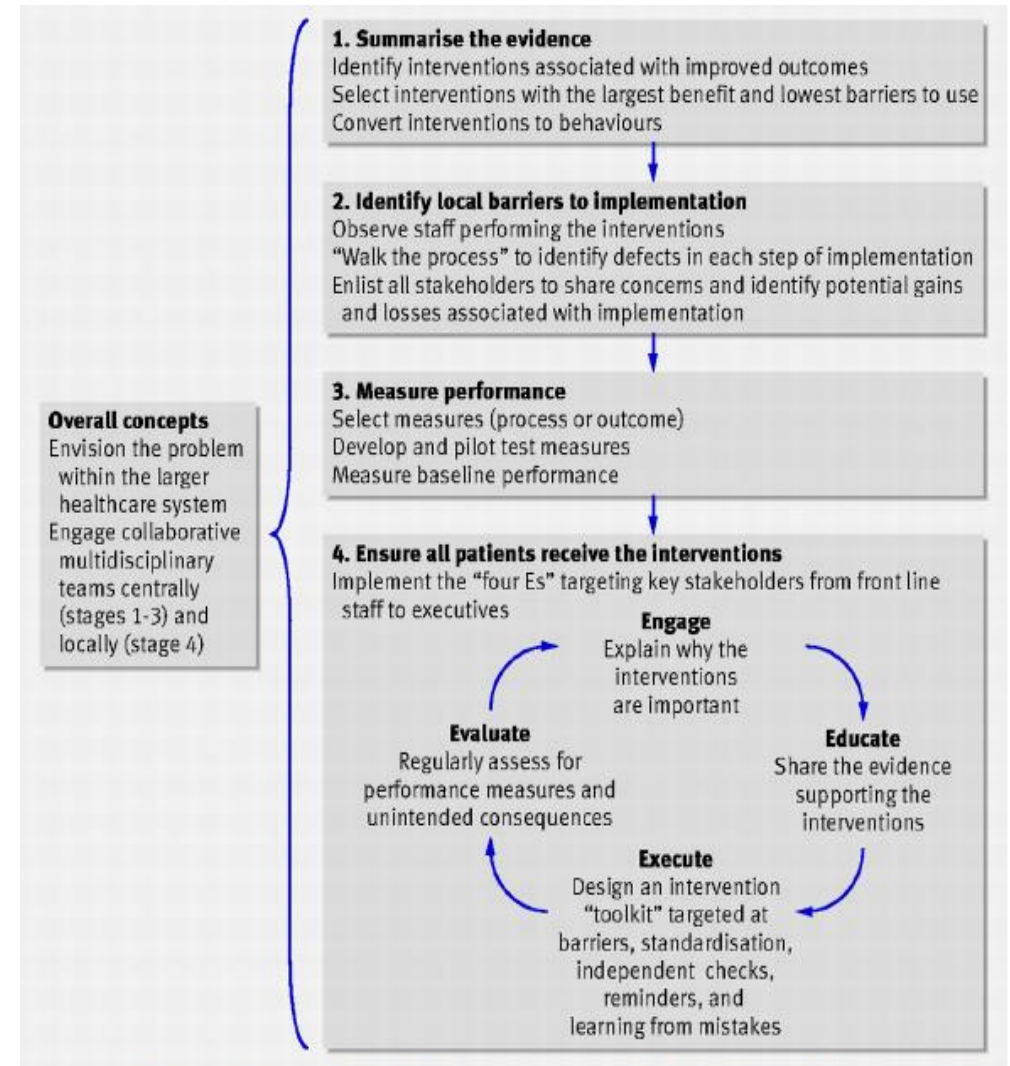


Figure 2 Translation Model (Pronovost et al. BMJ 2008;337:bmj.a1714)

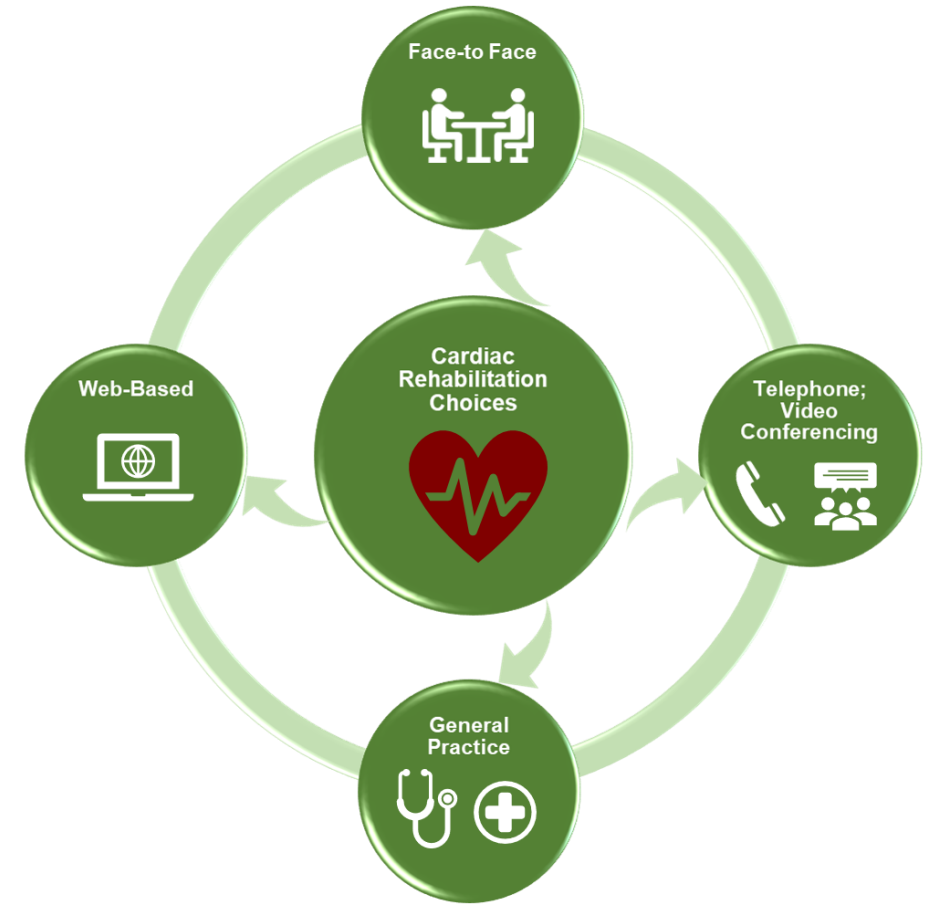
Methods

- **Setting:** Rural and remote South Australia via iCCnet CHSA.
- **Participants:** the current guidelines recommend
 - ACS
 - IHD
 - MI
 - unstable angina
 - HF
 - AF
 - Coronary angioplasty or stenting,
 - Coronary artery bypass surgery, valve surgery,
 - Cardiac transplantation and/or
 - Implantation of a defibrillator or pacemaker
- **Recruitment, Consent and Ethical considerations:** All consecutive patients who are eligible for CR according to the recommended DRG codes and referred for CR ~ 2000 patients per year
- **Consent waiver**



CHAP Model

- All components will be co-created with consumers,
- Structured using the new 2018 Heart Foundation CR Program Curriculum.
- Patients can choose how they wish to complete CR from a 'menu' which allows patients to receive CR in any mode or combination of modes they wish. In this model we will
- Deliver standardised **QUALITY**, evidence-based practice, standardise data collection with on-line forms, minimize self-report by collecting objective blue-tooth data on outcomes and measure cost effectiveness.
- The modes will be co-designed to address the needs of the identified low CR attendee groups; low socio-economic, women, disabled, rural and remote, culturally and linguistically diverse populations and patients who wish to return to work early.



Team (Total Funds \$3.2 million)

Co-Cl: Rosy Tirimacco

Senior Research Fellow: Dr Susie Cartledge

Project Manager: Kay Govin

	Name	Title
A.	Prof Robyn Clark	Chair SA Translation Centre Cardiac Rehab Research Committee, Member Heart Foundation Research Board
B.	Prof Steve Nicholls	Chair, South Australian Translation Centre Cardiac Rehab Group; SAHMRI Heart Health Theme Leader
C.	Prof Alex Brown	Aboriginal Health Theme Leader, Ministerial Advisor to NHMRC, NACCHO, Lowitja Institute, ABS & AIHW
D.	Prof Derek Chew	Regional Head of Cardiology, Chair Heart Foundation/CSANZ & Member ESC ACS Guidelines Writing Groups
E.	Prof John Beltrame	Michell Professor of Medicine Uni Adelaide & Director Research at Central Adelaide Health Network
F.	Prof Anthony Maeder	Prof Flinders Digital Health Research Centre, Founder Telehealth Research & Innovation Laboratory
G.	A/Prof Carol Maher	A/Prof Alliance for Research in Exercise & Nutrition, NHMRC Career Development Fellow (Updated)
H.	A/Prof Vincent Versace	Director Deakin Rural Health (UDRH), Deputy Chair of the Australian Rural Health Education Network
I.	Dr Jeroen Hendriks	Derek Frewin Lectureship Centre for Heart Rhythm Disorders, State President Aus Cardiac Rehab Assoc.
J.	Prof Phil Tideman	Clinical Director Cardiology & Integrated Cardiovascular Clinical Network (iCCnet) Country Health SA

Associate Investigators

A.	Rosy Tirimacco	Operations & Research Manager, Integrated Cardiovascular Clinical Network Country Health SA (iCCnet)
B.	Dr Rosanna Tavella	Clinical Data Manager, Central Adelaide Local Health Network, SA Health
C.	Wendy Keech	Chief Executive Officer of the South Australian Academic Health Science and Translation Centre
D.	Dr Ivanka Prichard	Co-Deputy Director of the SHAPE (Sport, Health, Activity, Performance, & Exercise) Research Centre
E.	Prof Chris Zeitz	Director of the Cardiology Assistance to Remote Districts in Australia – SA division (CARDIA-SA)
F.	Billingsley Kaambwa	A/Prof Health Economics and Head, Health Economics Unit, Flinders University of South Australia

Partner	Cash	In-Kind	Sub-Total
The Cardiac Society of Australia and New Zealand (CSANZ)	\$0.00	\$20,000.00	\$20,000.00
Novartis Pharmaceuticals Australia PTY Limited	\$25,000.00	\$115,618.00	\$140,618.00
Flinders Foundation	\$25,000.00	\$20,000.00	\$45,000.00
The Royal Australian College of General Practitioners Limited (RACGP)	\$0.00	\$20,000.00	\$20,000.00
Australian Cardiovascular Health & Rehabilitation Association (ACRA)	\$0.00	\$20,000.00	\$20,000.00
Australian Association for Exercise and Sports Science Limited (ESSA)	\$0.00	\$20,000.00	\$20,000.00
AstraZeneca PTY LTD	\$151,476.00	\$0.00	\$151,476.00
Country South Australia Primary Health Network (Country SA PHN)	\$0.00	\$247,214.00	\$247,214.00
SA Health	\$100,229.00	\$20,000.00	\$120,229.00
Country Health SA Local Health Network Incorporated (CHSA)	\$211,390.00	\$731,462.00	\$942,852.00
Heart Foundation	\$150,000.00	\$15,000.00	\$165,000.00

Total Partner Contribution: \$1,892,389.00

Impact –Heart Health for Life

- Highly effective, generalisable
- Outcomes will be scalable, will translate nationally and potentially internationally.
- The CHAP model could easily be adapted to other chronic diseases.
- An Aboriginal CHAP model will be a future large project to culturally adapt our outcomes into practice.
- Partners are committed to integrating the outcomes of this project into the health system and clinical practice
- Investigators, representing each organisation, are outstanding leaders and change agents, who demonstrate extensive experience and success in drafting health policy or delivering a health programme or health service.



CHAP and clinicians

Dr Susie Cartledge

CHAP – what's in it for you?

- Education program
- Infrastructure
 - Data collection tools and database
 - CHAP Clinician Manual
 - Alternative delivery methods to increase capacity
 - Reports for each service
- Your chance to assist in shaping the CHAP CR model through co-design



Looking back, looking forward:

CELEBRATING **30** YEARS

Australian Cardiovascular Health and Rehabilitation Association

30th Annual Scientific Meeting

10-12 August 2020

Online event: A new digital experience

We've gone virtual, not viral!

Questions?



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 @CHAPproject

