

A national survey of cardiac rehabilitation programs in Australia: Program characteristics and psychosocial screening practices

Report to ACRA in compliance with ACRA endorsement policy

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Background

Centre-based group programs are the major systematic approach to cardiac rehabilitation (CR) currently available in Australia. Typically group CR comprises low or moderate intensity physical activity; and education and discussion, with programs usually running for 6-8 weeks. CR aims to restore individuals to their optimal level of physical, psychological, social and vocational wellbeing and is considered 'an essential part of the contemporary care of heart disease'. CR has been shown to reduce the risk of further heart attack or death by 25-30%. Ideally, CR should involve multi-disciplinary teams of health professionals.

There is a need for baseline data on centre-based CR program staffing, content and structure. Having such baseline data will enable tracking of trends in CR over time, for example with regard to distribution of services, staffing levels and staffing mix, program content and duration.

A review of CR Guidelines with screening recommendations published between 2008 and 2014 was undertaken. This review, **conducted prior to the release of the ACRA Core Components of Cardiovascular Disease Secondary Prevention and Cardiac Rehabilitation 2014**, included:

Background

- **American Heart Association** Prevention Committee of the Council on Cardiovascular Nursing, Council on Clinical Cardiology, Council on Epidemiology and Prevention, and Interdisciplinary Council on Quality of Care and Outcomes Research: *Recommendations for Screening, Referral, and Treatment* (2008)
- Cardiac Rehabilitation Section of the **European Association of Cardiovascular Prevention and Rehabilitation**: *Secondary prevention through cardiac rehabilitation: from knowledge to implementation. A position paper* (2010)
- **National Heart Foundation of Australia & the Cardiac Society of Australia & New Zealand**: *Guidelines for the prevention, detection and management of chronic heart failure in Australia* (2011)
- **French Society of Cardiology**: *Guidelines for cardiac rehabilitation in adults* (2012)
- The Fifth Joint Task Force of the **European Society of Cardiology** and Other Societies on Cardiovascular Disease Prevention in Clinical Practice: *European Guidelines on cardiovascular disease prevention in clinical practice (version 2012)*
- Cardiac Rehabilitation Section of the **European Association for Cardiovascular Prevention & Rehabilitation**: *Secondary prevention in the clinical management of patients with cardiovascular diseases. Core components, standards and outcome measures for referral and delivery* (2012)
- **The National Heart Foundation of Australia**: *Screening, referral and treatment for depression in patients with coronary heart disease: A consensus statement* (2013)
- Cardiac Rehabilitation Section of the **European Association of Cardiovascular Prevention and Rehabilitation of the European Society of Cardiology**: *Position paper on psychosocial aspects in CR* (2014)

Physical and behavioural factors: what screening is recommended?

	Physical activity	Smoking	Functional capacity	Diet	Sedentary behaviour
AHA 2010	✓	✓	✓	✓	
EACPR 2010	✓	✓	✓	✓	
NHFA & CSANZ 2011	✓	✓	✓	✓	
French Soc. Card 2012	✓	✓	✓	✓	
European Soc. Cardiol. 2012	✓	✓	✓	✓	
EACPR 2012	✓	✓	✓	✓	
NHFA 2013	✓	✓	✓	✓	
EACPR 2014	✓	✓	✓	✓	

Psychosocial factors: what screening is recommended?

	Depression	Anxiety	Stress	QoL	Social Support	Sleep
AHA 2010	✓					
EACPR 2010	✓	✓	✓		✓	
NHFA & CSANZ 2011	✓	✓		✓	✓	
French Soc. Card 2012	✓	✓	✓	✓		
European Soc. Cardiol. 2012	✓	✓			✓	
EACPR 2012	✓	✓	✓	✓	✓	
NHFA 2013	✓					
EACPR 2014	✓	✓	✓		✓	

Australian screening practices

- Limited data regarding screening practices in Australian cardiac rehabilitation (CR) programs
- Uncertainty over:
 - Screening practices with regard to physical, behavioural and psychosocial factors
 - Take up of screening recommendations including uptake of NHF/CSANZ depression screening guidelines
 - Some risk factors, such as sleep and sedentary behavior, not yet included in most guidelines

Aims of the national CR coordinators' study

To investigate and document:

1. Program and coordinator characteristics.
2. Current practice in CR in screening and assessment for a range of CHD risk factors;
3. Perceived barriers to undertaking screening and assessment in CR.

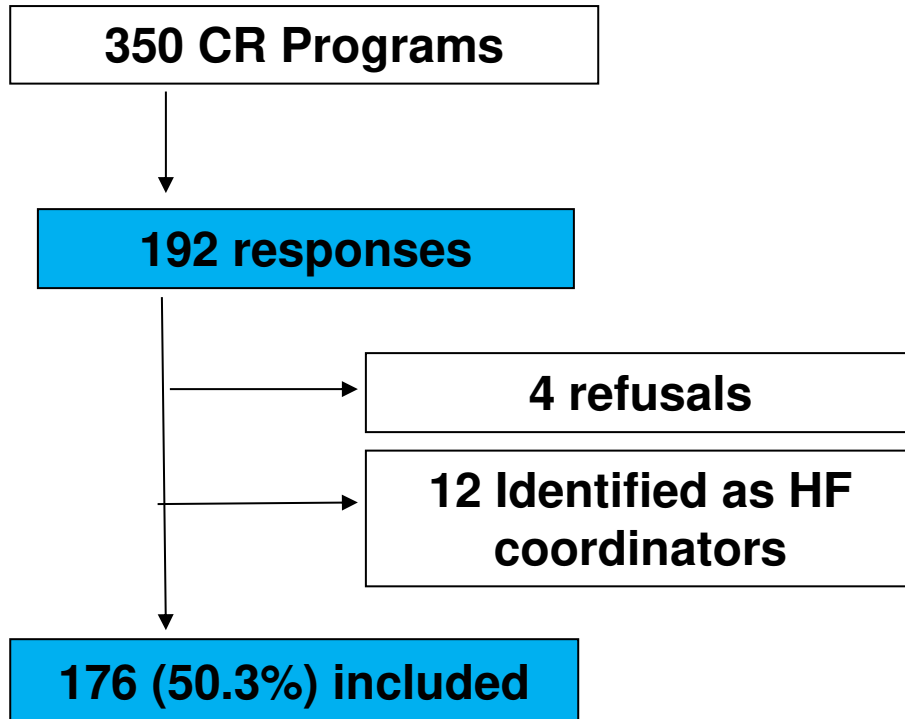
Method

- An online survey was created using Survey Monkey® which asked about screening and assessment activities across a range of traditional and emerging CVD risk factors, as well as barriers to screening & assessment.
- A link to the survey was emailed to the CR coordinator at each of the 350 CR programs currently operating across Australia, using contact details in the latest State Directories of Cardiac Rehabilitation Services.
- Responses were received over a 60 day period with two follow-up reminders after the initial email/mail contact. Only one survey could be completed from each unique IP address.
- Ethics approval was granted by the University of Melbourne Human Research Ethics Committee (Ethics ID: 1341278.1) and the project was endorsed by ACRA.

Areas covered in the survey

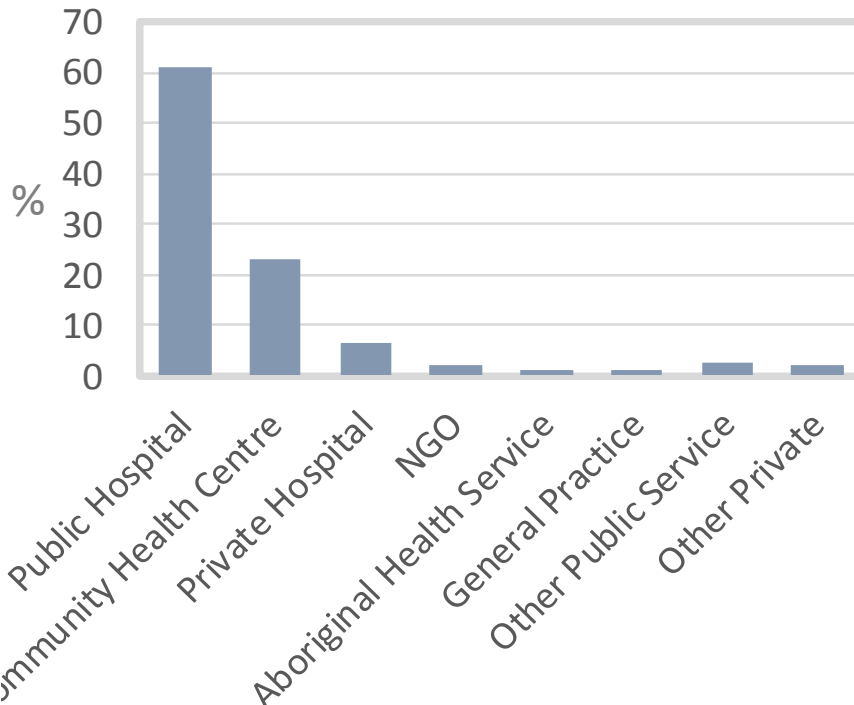
- **Demographics:** location, profession, qualifications, employment status, type of hospital / service.
- **Program information:** components and topics covered, no. of sessions, co-ordinator hours spent in CR, CR staffing profile (regular and sessional).
- **Patients:** referral and attendance.
- **Assessment / screening:** what is done at entry and exit, who does it and what instrument if any is used for depression, physical activity, functional capacity, sedentary behaviour, diet, sleep, anxiety, stress, quality of life, social support, other risk factors (eg history of anxiety and depression, living alone, self efficacy, medication adherence).
- **Barriers to screening and assessment:** personal factors (eg lack of knowledge about assessment tools) and structural barriers (eg no referral protocol in place if condition is assessed).
- **Follow up:** referral protocols for depression, anxiety, sleep disturbance, sedentary behaviour.
- **Training in CR:** what has the CR co-ordinator done, further training desired, ACRA membership.

Study sample

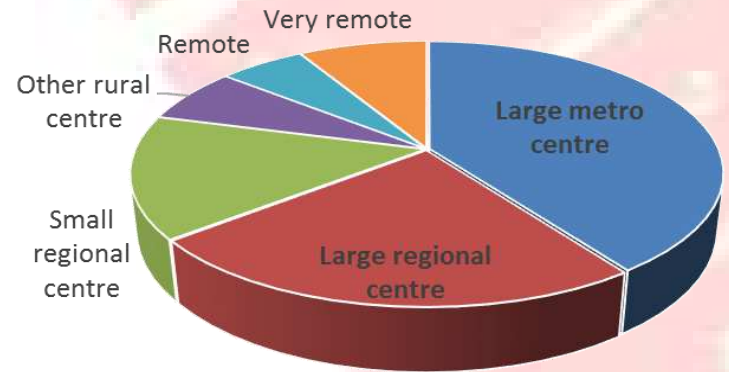


Survey respondents (N=176)

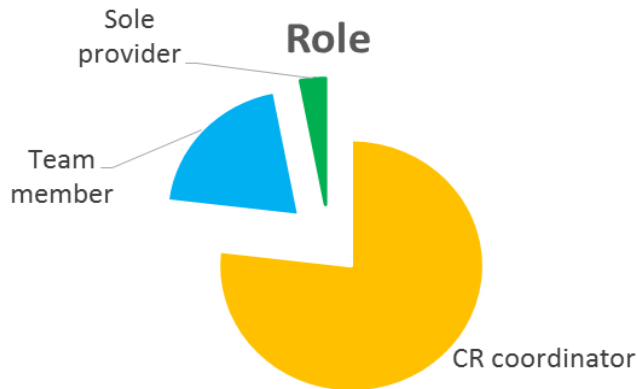
Service Type



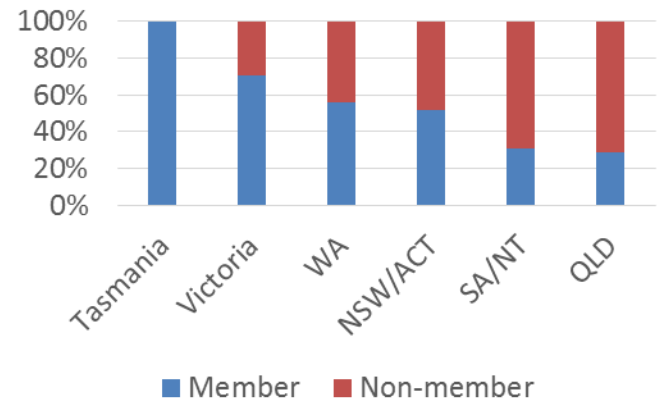
Location



Role



ACRA membership

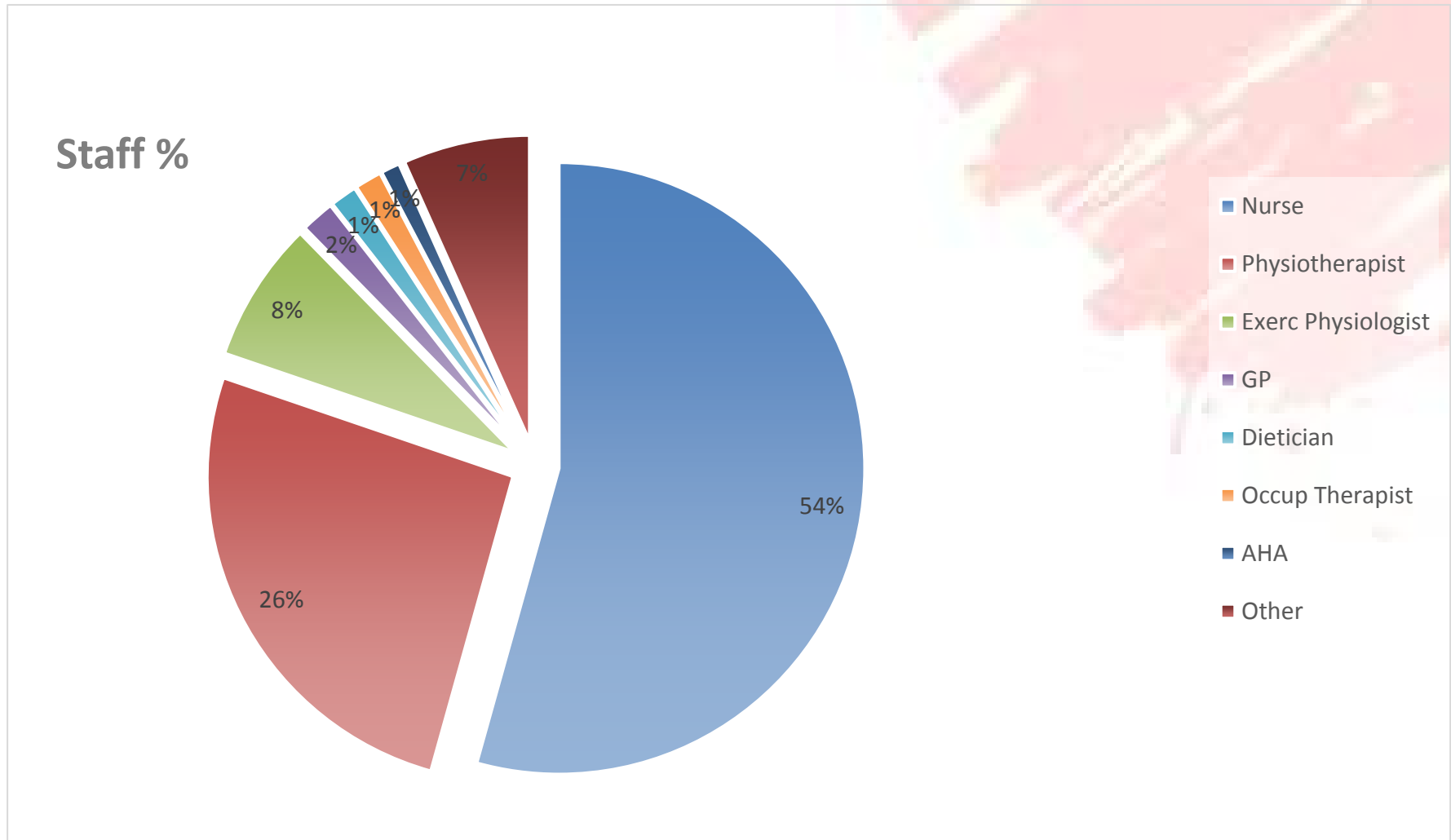


Screening at CR program entry and exit

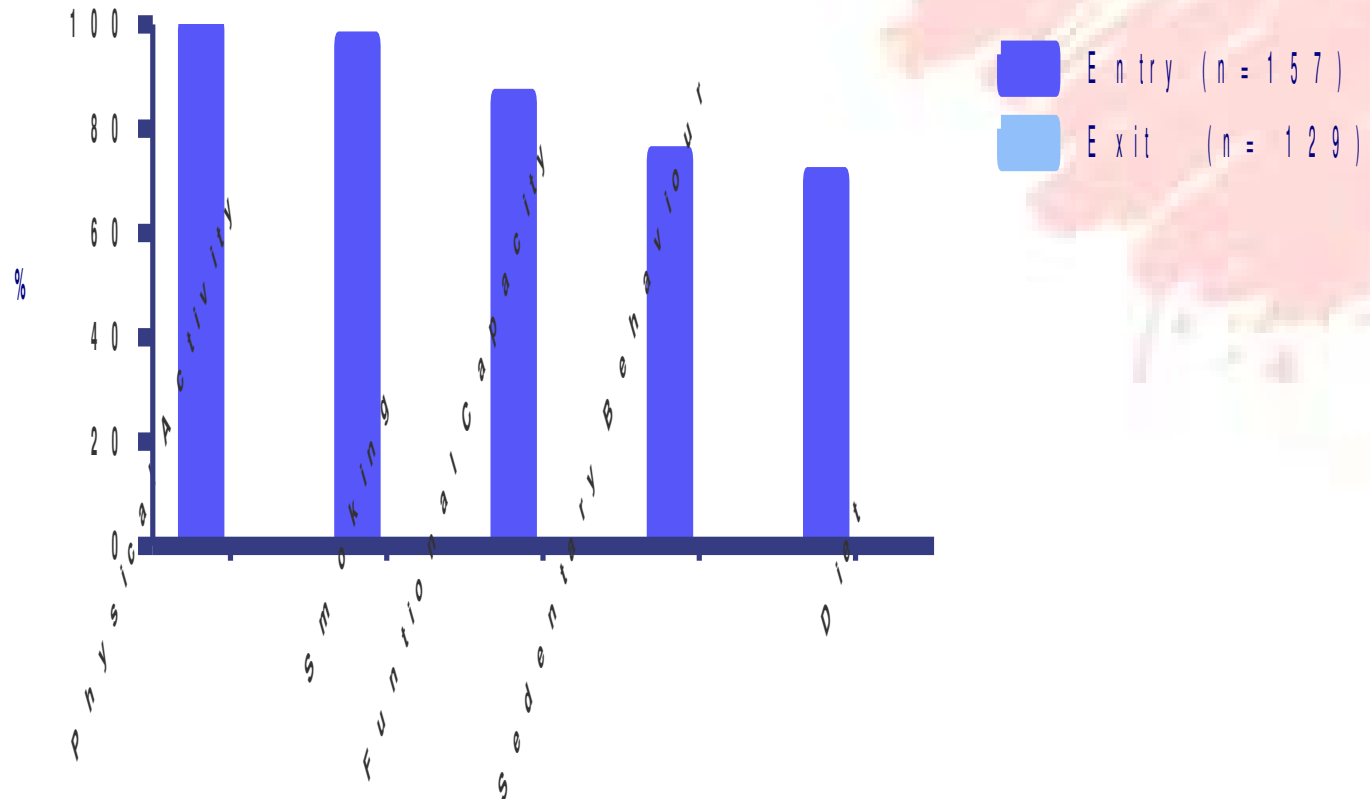
ENTRY (n=165)		EXIT (n=157)	
n	%	n	%
157	95	129	82

Median time spent per person = 60 minutes at entry
30 minutes at exit

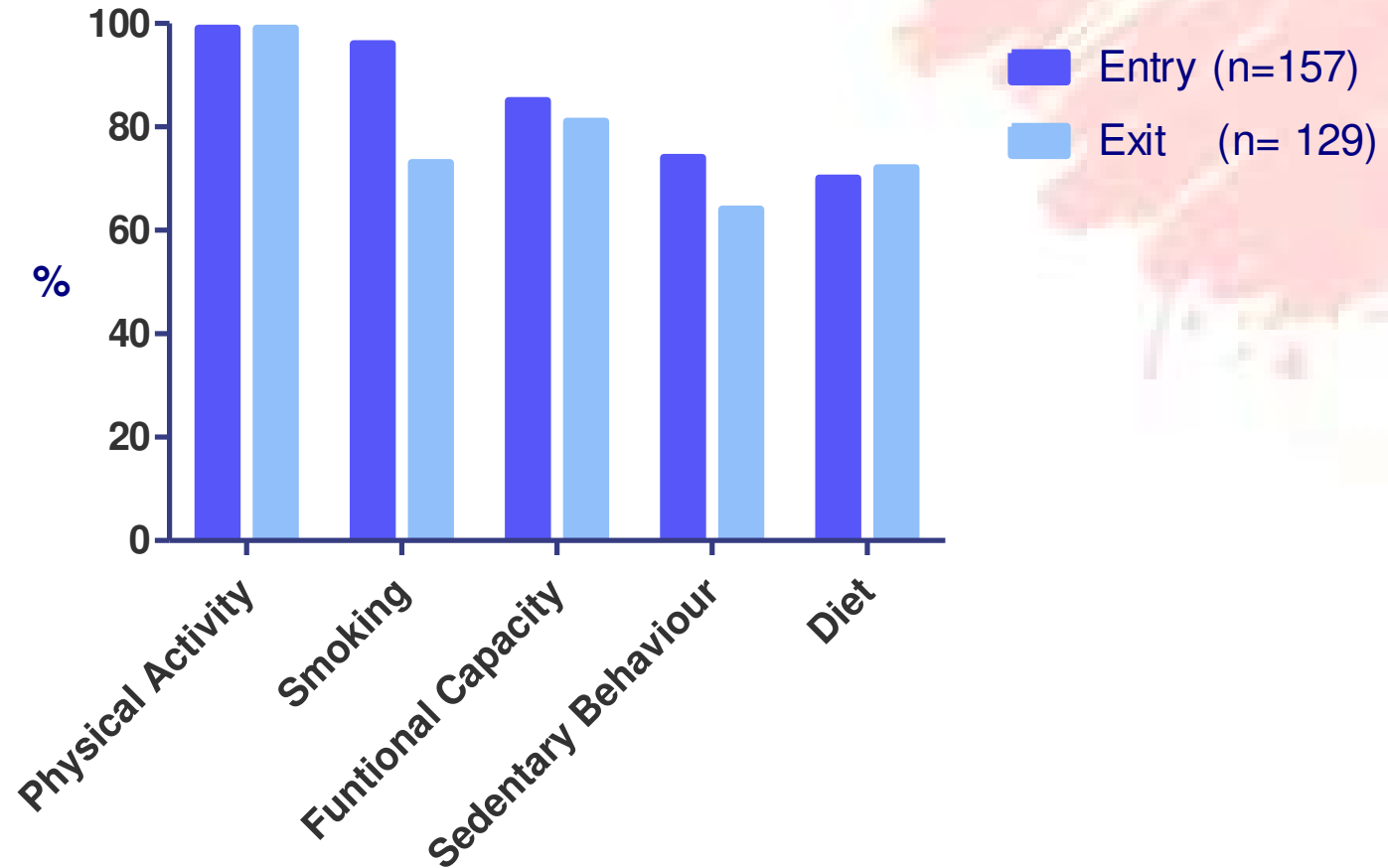
Who does the screening at entry? (N=157)



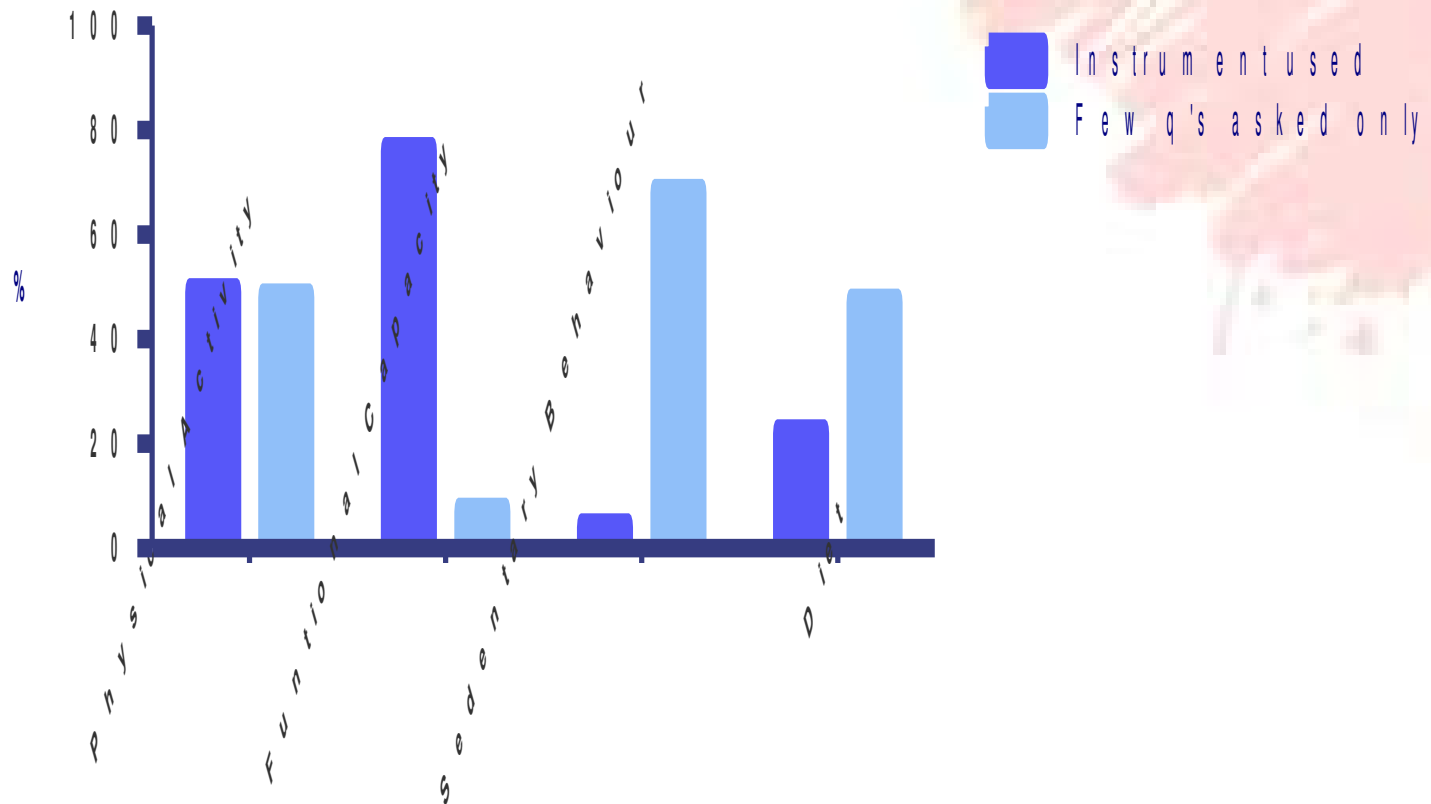
Assessment of physical & behavioural factors



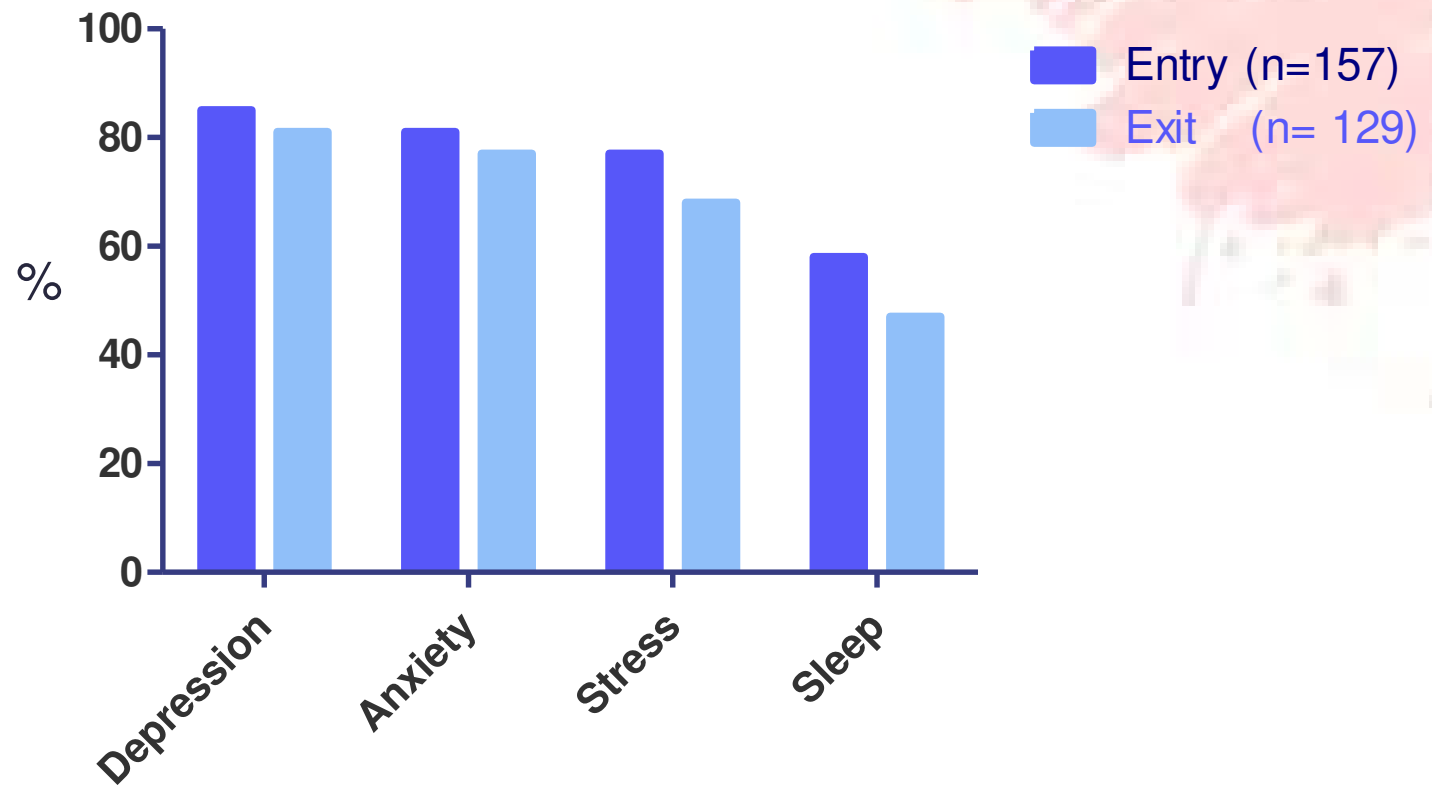
Assessment of physical & behavioural factors



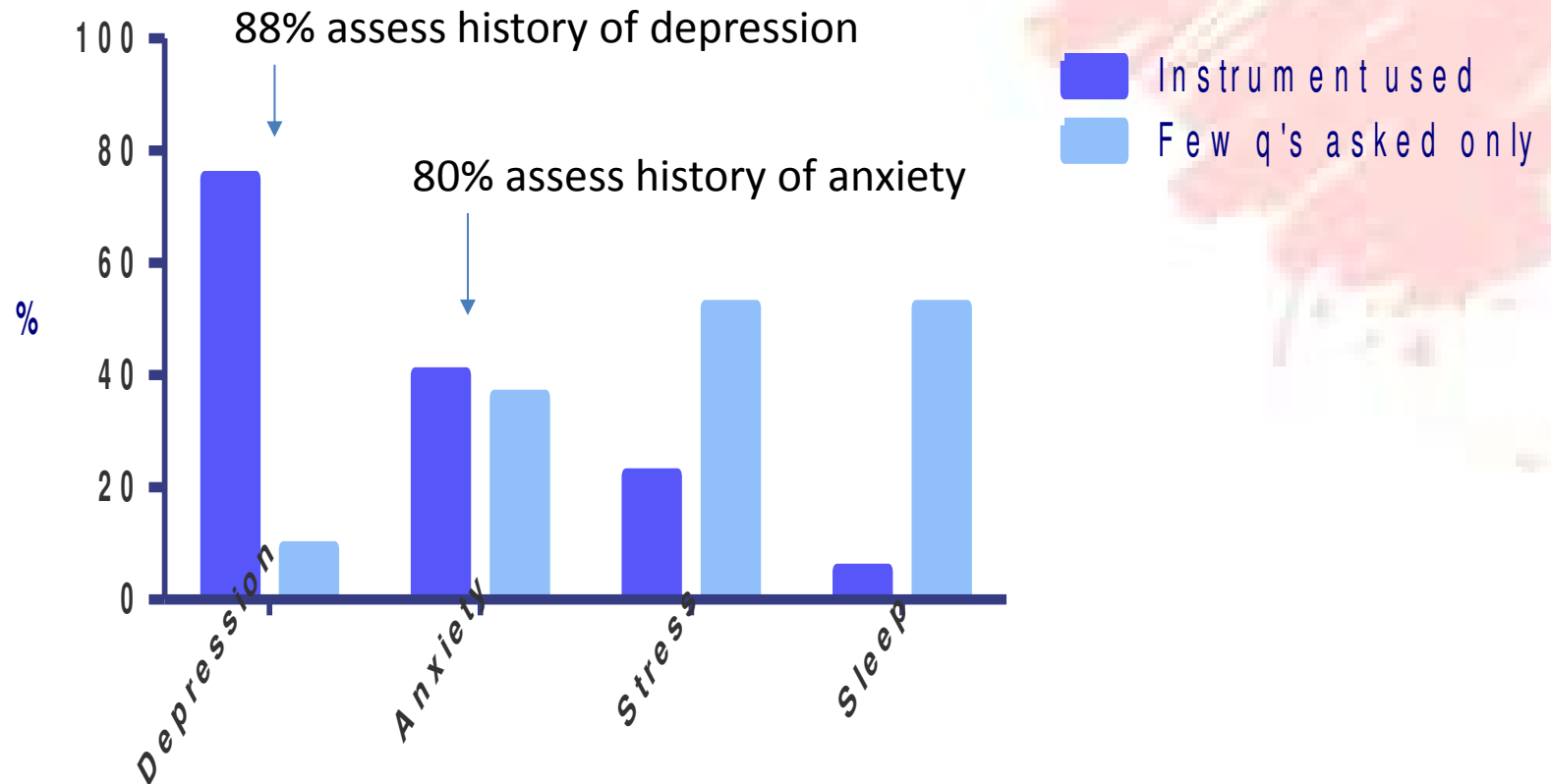
Use of standardised measures in physical & behavioural assessment (n=157)



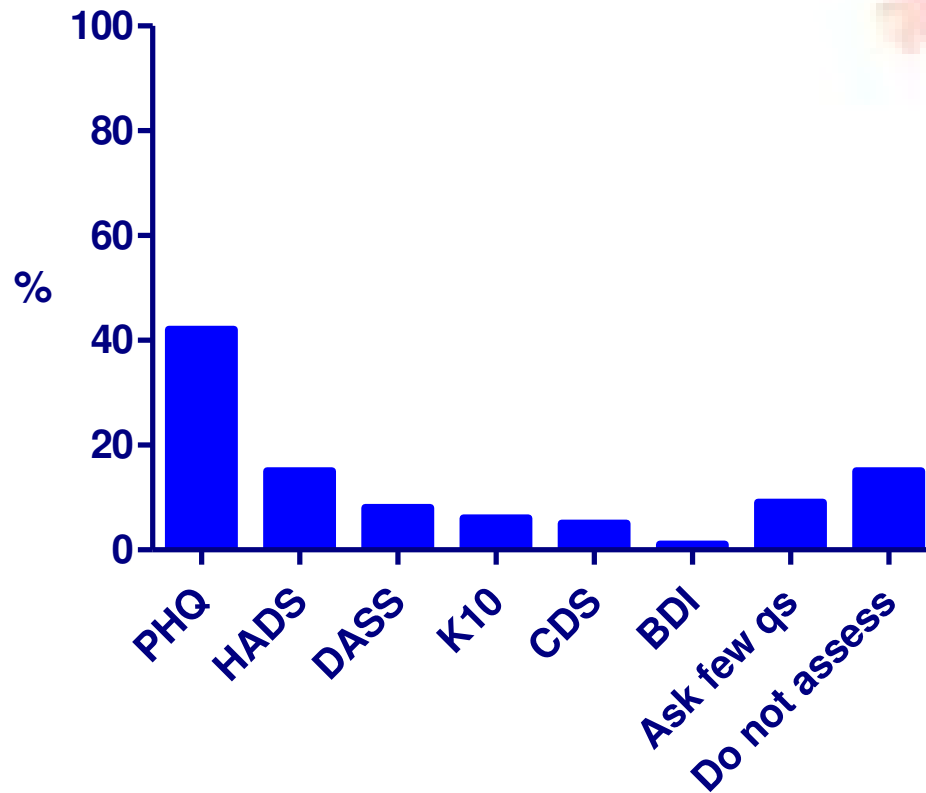
Assessment of psychological factors



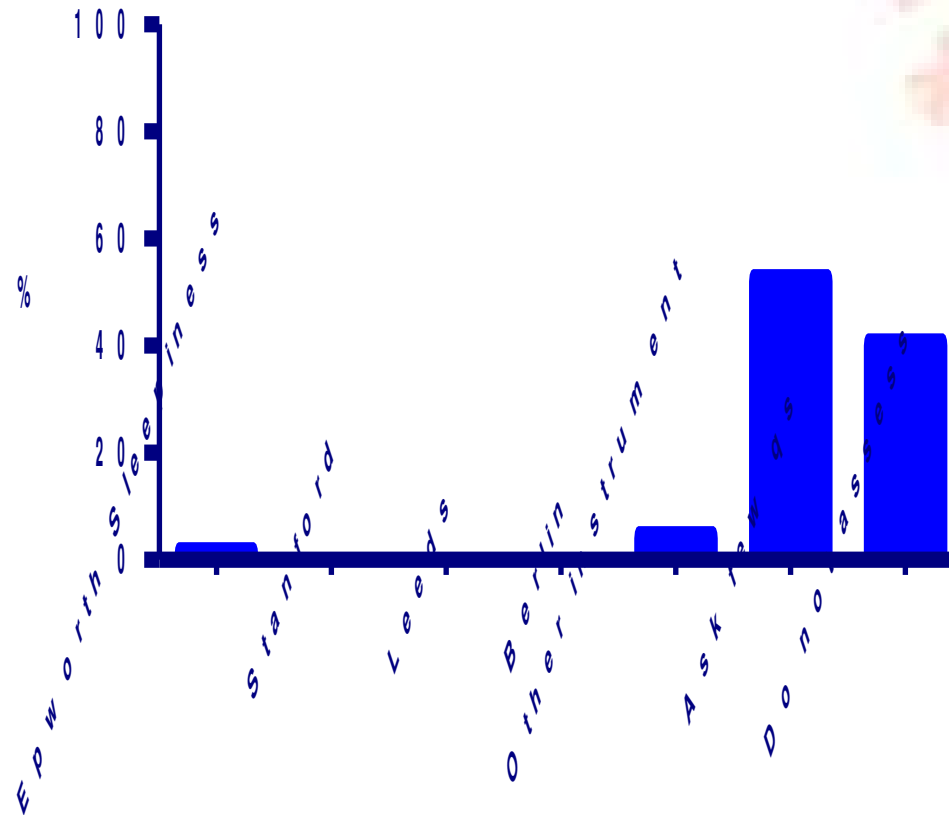
Use of standardised instruments in psychological factor assessment (n=157)



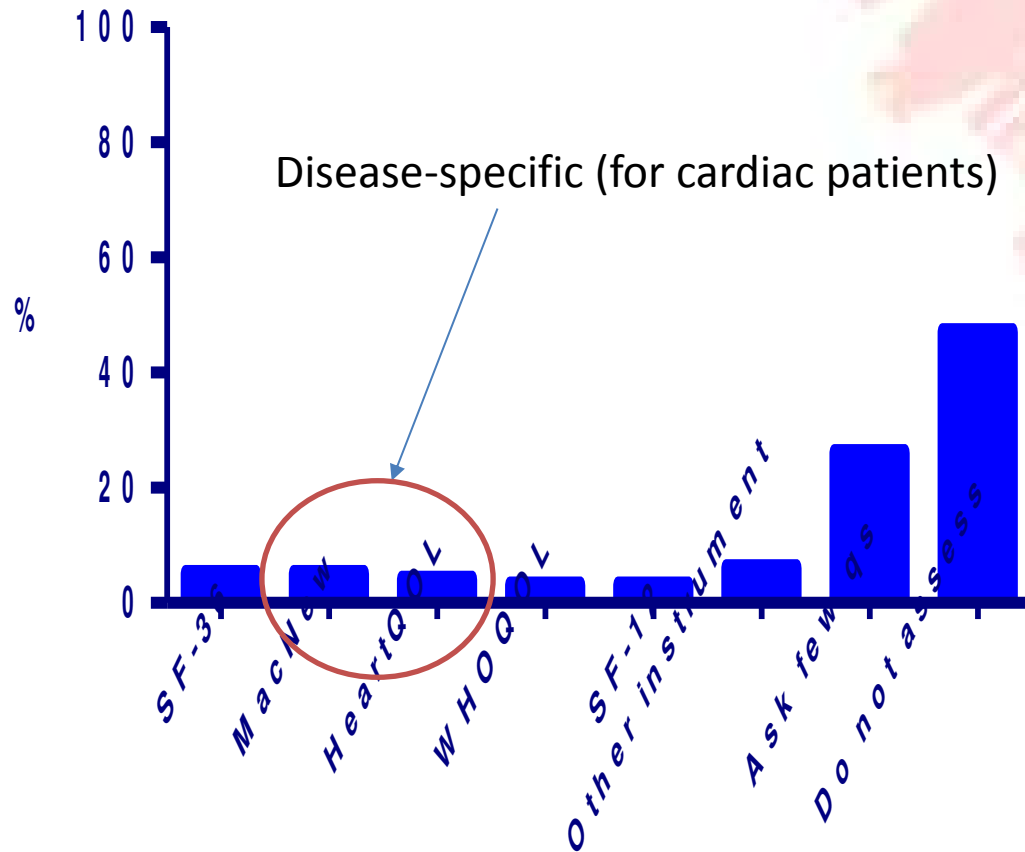
Example: depression assessment at entry (n=157)



Example: sleep assessment at entry (n=157)



Example: quality of life assessment at entry (n=157)



Other risk factors routinely assessed at CR program entry (n=157)

Medical/Physical		Behavioural/Psychological		Social/ Functional	
	%		%		%
Blood pressure	95	Smoking	96	Living alone	93
Family hx CVD	94	Hx anxiety	94	Return to work	85
Weight	90	Hx depression	88	Marital status	85
Cholesterol	76	Alcohol	87	Confidante	56
Waist girth	72	Medication adherence	87	Recent other loss (eg. Retrenchment)	50
BMI	71	Substance abuse	54	Financial strain	50
Health literacy	41	Self-efficacy	50	Recent bereavement	42
		Anger	19	Sexual dysfunction	24

Discussion

- Variability in screening practices in terms of what is screened for, and whether validated measures are used or simply questions asked.
- Depression generally well screened for, unlike sleep disturbance which is not well screened for. This is important as the estimated prevalence of OSA in cardiac patients ranges between 26% and 69%. Sleep disorders in these patients may severely impact upon secondary prevention efforts since they are associated with impaired exercise performance, functional limitation, depression and reduced health-related quality of life. In addition, poor sleep can double unplanned hospitalisations of heart failure patients.
- Possibly over-reporting of sedentary behaviour screening with some confusion with physical activity measurement.
- Health literacy and self efficacy screening seems high. This needs further exploration.
- Difficult to compare practices across services given the lack of standardised data collection tools and no national minimum data set requirement.

Conclusion

- The following papers are in preparation from this study:
- Jackson, A.C., Le Grande, M., Higgins, R.O., Beauchamp, A., Rogerson, M., Murphy, B.M. Screening, assessment, and referral practice within cardiac rehabilitation: A survey of cardiac rehabilitation coordinators in Australia, for *European Journal of Preventive Cardiology*
- Higgins, R.O., Beauchamp, A., Le Grande, M., Rogerson, M., Murphy, B.M., Jackson, A.C. A national benchmarking study of cardiac rehabilitation programs in Australia.