

THE PULSE

We have taken the opportunity in this Newsletter to highlight a growing area of concern: and one that challenges health providers: the presence of multiple chronic conditions in people with cardiovascular disease, and how to manage these effectively so that people get the best integrated care.

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From the Director

This Newsletter is very timely, with momentum increasing for heart health to be identified as a national health priority. We are in the midst of campaigns by the National Heart Foundation and the Baker Heart & Diabetes Institute, both bringing strong messages about heart health and risk, which reinforce The Australian Centre for Heart Health's commitment to prevention, especially secondary prevention of cardiovascular disease. Knowing that the risk of a heart attack or stroke is higher if a person's heart age is greater than their actual age, the Heart Foundation is encouraging people aged 35 to 75 to use their Heart Age Calculator to tell you how your heart age compares to your actual age. You can access the Calculator here: <https://www.heartfoundation.org.au/your-heart/know-your-risks/heart-age-calculator>.

The Baker Institute's campaign, No Second Chances, highlights the additional risk posed for people who have already had a heart attack. As we have often pointed out, one third of all hospitalised cases of heart attack are a repeat event, and much of the risk of these repeat events can be reduced through cardiac rehabilitation and behaviour change programs. As our supporters will know, our Centre also stresses the importance to secondary prevention of addressing psychological issues such as unresolved depression and anxiety, and social issues such as not being able to access cardiac rehabilitation.

In this Newsletter you will also see updates on our research, programs and publications and recent funding announcements by Government which are relevant to the Centre's work. We are pleased to be able to give you an idea of how important bequests are to us, as we spell out some of our plans for the coming year for how we intend to use the money from a recent bequest to roll out elements of our Cardiac Wellbeing Program. We are extremely grateful to the supporter who left us a very generous bequest in their will. As promised in the last Newsletter we present some findings on the effectiveness of our flagship training program, the Cardiac Rehabilitation and Secondary Prevention intensive course for health professionals, and the only Australian course recognised by the International Council of Cardiovascular Prevention and Rehabilitation.

Finally, we highlight an issue of growing concern, and one that challenges health providers: the presence of multiple chronic conditions in people with cardiovascular disease, and how to manage these effectively so that people get the best integrated care.

Professor Alun C Jackson
Director

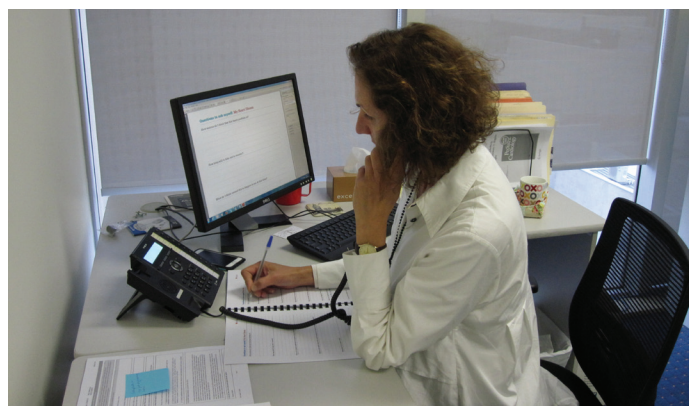
The Cardiac Wellbeing Program

We are delighted to share with our supporters our plans for rollout of a number of elements of our Cardiac Wellbeing Program over the next two years. As you know, with your support, the Centre has been able to conduct research on what works best for cardiac patients who are unable to attend the usual cardiac rehabilitation programs offered by their treating hospital or an associated community centre.

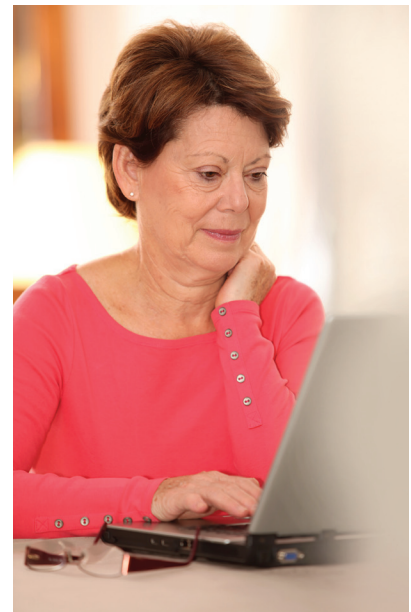
Research conducted by the Centre, with your support, has provided overwhelming evidence to support the benefits of cardiac rehabilitation, including lower cardiovascular disease-related morbidity and mortality, improved function and quality of life, and reduced hospital readmissions and length of hospital stays. Some people, however, are unable to attend cardiac rehabilitation because it is too far to travel, or because they live alone and don't have anyone to take them, or because they feel uncomfortable in a group.

Again, with our donors' support, we have developed and trialled programs to meet the needs of people recovering from their heart attack or surgery who are isolated for some reason and need to access their cardiac rehabilitation by phone or internet. These programs include:

Teleheart, an 8-session **telephone**-delivered program offered post-cardiac event, providing a personalised behaviour change and maintenance program with patients supported by one-on-one telephone sessions with a trained psychologist, together with self-designed SMS messages. The program addresses key health behaviours – healthy eating, physical activity, medication adherence and smoking cessation. It also provides support in managing mood difficulties including anxiety and depression, with specific tailoring to patient's individual needs.



Back on Track, a 4-session **internet**-delivered program for people who have had a cardiac event. Three of the modules focus on supporting patients in the same areas of behaviour change as Teleheart – namely healthy eating, physical activity and smoking cessation. This program also focusses on patient's mental health, particularly how to manage the cardiac blues during the period of adjustment after a cardiac event that can last a couple of months.



Cardiac Anna, a digital coach accessed by **smartphone or computer**, who acts like a 'real' health coach, providing interactive education about a patient's condition, helps patients set goals about their self-management, and monitors and follows-up on progress, so that new behaviours are maintained. We are able to gain an insight into the success and value of the coaching program for patients via real-time reporting. This program covers the same areas of behaviour change as the previous two and has an additional module on healthy sleep.



We have developed these programs with the support of our donors through things like our **Regular Giving** program, but we are able to now deliver these programs on a regular basis through a very generous bequest received by the Centre at the end of 2018.

Update on our Women'sCR project

We are very excited to let you know that our women'sCR project is now underway. The women'sCR project involves a women-only, women-friendly cardiac rehabilitation program designed to help women's cardiac recovery. In this Australian-first program, female cardiac patients are offered an exercise program especially designed for women and run in a women-only environment. The project is being undertaken by the Centre in conjunction with MonashHeart and is available to women admitted to MonashHeart after a heart attack, or to undergo stenting or bypass surgery. The women'sCR program is running for a six-month period during 2019.



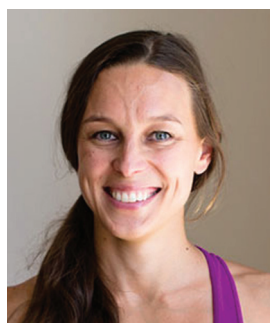
say that they do not wish to undertake an exercise program with men.

The purpose of this project is to offer women an exercise program that is female-friendly, as part

of their cardiac rehabilitation program. In this program women participate in the usual educational sessions of cardiac rehabilitation and attend special women-only sessions of low to moderate-intensity yoga. A recent meta-analysis study demonstrated that yoga is as effective as more strenuous exercise for improving cardiovascular risk.

Why do we need a women-friendly CR program?

Previous research has shown that cardiac rehabilitation is extremely beneficial in helping people who have had an acute heart event to make a full physical and emotional recovery. However, female cardiac patients are much less likely than their male counterparts to attend cardiac



The yoga sessions are being run by our accredited yoga instructor, Ms Jenni Morrison-Jack. Jenni is very experienced in providing yoga for women of all ages and tailoring her program to the particular needs of each participant.



rehabilitation. Often this is attributed to the exercise component, as some women believe that the gym-style exercises generally offered at cardiac rehabilitation programs may not be suitable for them. Some women also

What does the women'sCR project aim to achieve?

The major aim of the project is to improve the uptake of cardiac rehabilitation amongst female cardiac patients. Currently only around 20% of women attend CR; we hope to significantly increase that attendance rate. We will also ask participating women about their experiences in the program. This information will help us to improve cardiac rehabilitation for many women in the future.

How you can help

We are very excited to announce that the women'sCR project has received funding from the National Heart Foundation of Australia. You can help by also contributing financially to this very important project. With your support, we will be able to continue this project into the future and potentially assist more female cardiac patients.

Webcast on Depression and the Cardiac Blues

Together with the National Heart Foundation of Australia, the Centre delivered a live webcast on Depression and the Cardiac Blues in December 2018. The live webcast was viewed by around 200 health professionals working in hospital and cardiac rehabilitation settings, and the recording has since been viewed by many others.

You can access the podcast here: <https://www.heartfoundation.org.au/for-professionals/clinical-information/psychosocial-health/cardiac-blues-webcast>



Webcast panel (L to R): Eugene Lugg, Rosemary Higgins, Niamh Dormer, Kim Tucker & Barbara Murphy

How the Centre enhances the knowledge and confidence of the cardiac rehabilitation workforce

In Australia and internationally, cardiac rehabilitation (CR) is recommended for all people after an acute cardiac event and, in our research, has been shown to improve survival and quality of life and reduce hospital readmission and length of stay. CR aims to restore individuals to their optimal level of physical, psychological, social and vocational wellbeing. It has long been recognised that the delivery of CR programs, particularly for coordinators, is a specialised task that requires a breadth of knowledge and skills across a range of areas. It is these knowledge and skill areas that we cover in our Cardiac Rehabilitation and Secondary Prevention intensive training program. We have delivered this training to almost 1,200 health professionals since 1993.

The training is delivered by a team of professionals who specialise in cardiology, cardiac surgery, cardiac nursing, physiotherapy, exercise physiology, occupational therapy, psychocardiology, behaviour change, and adult learning. The main areas covered are: operational aspects of cardiac rehabilitation; medical aspects of heart disease; and psychosocial aspects of cardiac rehabilitation.

Since 2014 we have measured how the program improves participants' self-efficacy, or their confidence to run CR programs at the start of the training, when they finish, and 4 months after completion. Surveys were completed by 167 trainees, 72% of whom were nurses. Over a third were CR program coordinators, and just under half were CR team members, with most of the remainder planning to work in CR in the future.

We found that participants' self-efficacy scores increased significantly after undertaking our training, across all three of the main areas – operational, medical and psychosocial aspects of CR. Another important result showed that for the operational area, those with more experience in CR (2 years or more) scored higher than those with less CR experience (0-2 years) at pre-training but the less experienced made greater gains over time, with there being no difference between the two groups by post-training. This highlights the importance of our training in supporting health professionals who are new to the area of cardiac rehabilitation.

The improvements in self-efficacy evidenced immediately post-training were also maintained four months later. This is particularly encouraging, as immediate gains in confidence can be challenged once training participants return to their workplace and encounter barriers to implementing the knowledge and skills they have gained. These challenges can include both personal and workplace-related barriers to practice change.

In a future study, with our donors' support, we would like to explore how the CR professionals are able to translate their increased knowledge and skills into actual practice.

Why are bequests important?

We are now able to deliver our Cardiac Wellbeing programs regularly because of a very generous bequest at the end of 2018.

Gifts in wills, or bequests help us to plan our research and program delivery over a longer period, as the bequest gives us certainty around a portion of our funding that can then be allocated over a known period as in the case of our outreach cardiac rehabilitation programs described above, where we are able to make a two-year commitment to offering these programs

Making a gift as a legacy of your own, or as a memorial to a loved one, is a great way to contribute to the Centre's work.

If you would like to confirm a bequest, or if you want to talk about the process for making provision for the Centre in your will, please phone Emma Llewelyn on 03 9326 8544.

If you would like to specify a particular area of research that you wish to support through a bequest, please phone the Director, Professor Alun Jackson on the same number.





Publications

We have now published the final paper in the Psychology in Cardiology series, for the British Journal of Cardiac Nursing:

- Jackson AC, Barton DA, Murphy BM. (2018). Major psychiatric disorders and the aetiology and progression of coronary heart disease, British Journal of Cardiac Nursing, 13,9,446-454

Psychology in Cardiology

Major psychiatric disorders the aetiology and progression of coronary heart disease

Alun C Jackson (Corresponding Author), Director, Australian Centre for Heart Health, Melbourne; Honorary Faculty of Health, Deakin University, Geelong; Victoria, Australia; Honorary Professor, Centre on Behavioral Science, University of Hong Kong, Pokfulam, Hong Kong; **David A Barton**, Consultant Psychiatrist, Australian Centre for Heart Health, Melbourne; South Eastern Private Hospital, Noble Park, Victoria, Australia; **Barbara M Murphy**, Research Fellow, Australian Centre for Heart Health, Melbourne; Faculty of Health, Deakin University, Geelong, Australia. Email: alun.jackson@australianhearthealth.org.au

In January we had an important paper on psychosocial measurement in patients published:

- Le Grande M, Bunker S, Tucker G, Jackson AC. Validating the SF-12 and the development of disease specific norms in a cohort of Australian private health insurance members, (2019). Australian Journal of Primary Health <https://doi.org/10.1071/PY18069>

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Australian Journal of Primary Health
<https://doi.org/10.1071/PY18069>

Validating the Short Form-12 and the development of disease-specific norms in a cohort of Australian private health insurance members

Michael R. Le Grande^{A,B,E}, Graeme Tucker^C, Stephen Bunker^D and Alun C. Jackson^A

^AAustralian Centre for Heart Health, 75 Chetwynd Street, North Melbourne, Vic. 3051, Australia.

^BFaculty of Health, Deakin University, 75 Pigdons Road, Waurin Ponds, Vic. 3216, Australia.

^CAdelaide Medical School, University of Adelaide, Adelaide, SA 5000, Australia.

^DDepartment of Epidemiology and Preventive Medicine, Faculty of Medicine, Nursing and Health Sciences, Monash University, Prahran, Vic. 3181, Australia.

^ECorresponding author. Email: michael.legrande@australianhearthealth.org.au

Abstract. Despite the large number of Australians with private health insurance (PHI), normative quality-of-life are not available for this population. The Short Form (SF)-12 has been used to characterise the health-related quality of life of Australians in the general population, but there is debate concerning the appropriate algorithm that should

Government announcements

- The Australian Minister for Health, the Hon Greg Hunt recently announced \$26 million in new funding for congenital heart disease, following release of The National Strategic Action Plan for Childhood Heart Disease 2019 - Beyond the Heart: Transforming Care. ACHH was represented on the Working Party that developed this plan. \$20 million is allocated for research, including research on the needs of young people transitioning into adult care. The Centre has identified this as a priority area for our work on congenital heart disease and will apply for grants related to this. HeartKids Australia will receive \$1million a year in additional funding, some of which will be dedicated to rolling out the Family Coping Program that the Centre has developed and successfully trialled. **The Family Coping Program is jointly badged with ACHH and HeartKids and forms an important part of our Cardiac Wellbeing Program.**
- The Federal Government, Labor and the Greens are in agreement that \$170 million should be allocated over five years beginning on 1st April to pay for a Medicare rebate of \$72.80 for a half-hour service, in which a GP will check patient's blood pressure, cholesterol, lifestyle factors, smoking status and family history then estimate their risk of heart attack in the next five years. **While the Centre joins with the AMA in supporting this health check funding, we suggest it should be a longer session in which people's mental health is also assessed given the elevated risk for first and repeat cardiac events, conferred by poor mental health.**
- The Australian Minister for Health has also announced funding of \$122 million over 10 years through the Medical Research Future Fund (MRFF), for a Mission for Cardiovascular Health aimed at improving health outcomes through prevention strategies, earlier detection and improved outcomes for patients suffering a heart attack or stroke. It aims to reduce hospitalisations, develop clinical trials and new drug therapies, use the unique DNA of a patient to develop new therapies and also look into why people who don't lead an unhealthy lifestyle or have a genetic cause suffer heart attacks. **Open and contestable grant opportunities will be available, and ACHH looks forward to winning some of these to advance our world-leading research and service design on psychocardiology and cardiac rehabilitation.**

Living with Cardiovascular disease and other chronic conditions

With an ageing population, the number of people living with multiple chronic conditions is increasing and is recognised internationally as a growing health care burden. Recent evidence shows that one in four Australians have two or more chronic conditions, and this rate is increasing.

In Australians with cardiovascular disease (CVD), the proportion with five or more other chronic conditions or comorbidities increased four-fold between 2000 and 2014. Currently two of three Australians with CVD have three or more chronic conditions, twice the rate of those without CVD (62% vs. 29%).

Data from the Australian 2017-2018 National Health Survey shows the following comorbidity rates for people aged over 65 years with CVD:

	Arthritis	Back problems	Diabetes	Mental Health	Osteoporosis	Asthma	COPD	Cancer	Kidney Disease
Male	47.7	32.2	31.4	20.7	10.1	11.5	13.7	11.6	6.9
Female	70.0	38.6	20.2	30.5	31.5	18.3	10.5	6.7	8.9
Total	57.5	34.0	26.5	24.4	18.4	14.0	12.1	9.0	7.4

This NHS survey also showed that 57% of men and 70% of women with CVD over 65 years had three or more of these conditions.

Why is this important?

In patients with coronary heart disease (CHD), multimorbidity puts people at greater risk of a recurrent CVD event, together with increased and longer-stay unplanned hospital admissions and readmissions, higher pharmaceutical costs and premature mortality.

People with CVD and other chronic conditions may feel that cardiac rehabilitation may not be suitable for them, but this isn't the case. We know that cardiac rehabilitation increases people's quality of life and contributes to overall better health and longer life. Importantly, cardiac rehabilitation caters to people with very different levels of physical functioning and different conditions in addition to their heart conditions. For example, there is an individual exercise assessment that takes into account other conditions such as back problems.

What is ACHH doing?

The Centre is leading a national and international team of cardiologists, psychologists, nurses, behavioural scientists, the Heart Foundation, health economists and heart health consumer groups in seeking funding from the Medical Research Future Fund to investigate the effects of innovative cardiac rehabilitation programs that we have designed that pay close attention to working with the multiple conditions, rather than treating each condition in isolation.

While we are hopeful of receiving government funding as part of the initiatives recently announced, this does not always eventuate as competition for these funds is high and even if we receive government funding, we are still dependent of the generosity of our donors, so please consider donating to this new area of our work.