medibank
For Better Health

Health Research at Medibank 2021

1 July 2020 – 30 June 2021

Contents

Foreword 4

Introduction 5

Who we are 6

Strategy 7

Key achievements 8

Research projects 10

Strengthening education and employment opportunities for Indigenous Australians living in the Northern Territory 11

Partnering for high-value prosthesis selection and better patient outcomes 12

The impact of price transparency on price variation and out-of-pocket costs 14

Developing and piloting a framework to evaluate health apps to enable the promotion of a curated set of evidence-based health apps to consumers in the Australian setting 16

E-health to empower patients with musculoskeletal pain in rural Australia: The EMPoweR project 18

Investigating a problematic trilogy (osteoarthritis, obesity, hip/knee arthroplasty) 20

Loneliness roundtable report 22

Reducing knee injury in women's football: Optimising the implementation of an injury risk reduction program in women's Australian Football 24

Mental and physical health impacts of working at home: How do we protect our wellbeing? 26

Rapid implementation of a tele-rehabilitation model for cancer survivors 28

Evaluating the sustainable, effective, and safe use of virtual care technologies, during and after the COVID-19 pandemic 30

Developing a model for Rehabilitation in the Home (RITH) as a hospital substitution for the reconditioning rehabilitation impairment codes 32

Analysis of the Australian Commission on Safety and Quality in Health Care survey on cultural safety 34

The Harry Nespolon Grant 36

Comparing spinal decompression surgery with placebo surgery for patients with lumbar spinal canal stenosis 38

Case studies 40

Better Knee, Better Me™ 41

Heart Health at Home 42

Medibank Type 2 Diabetes 43

Prep to Play 44

Climate change 46

Health impacts of climate change 47

Acknowledgements 50

Partner organisations 50

Aboriginal and/or Torres Strait Islander peoples should be aware that this report may contain the images and names of people who may have passed away since publication.

Foreword

Given the uncertainty around COVID-19 and increased pressure on the health system, it's never been more important to look at new and innovative ways to support better health outcomes for our customers and all Australians.

Undoubtedly, healthcare was one of the most significant themes of 2021. Managing our physical and mental wellbeing was increasingly important, especially during extended lockdowns in our major cities and regional centres.

Medibank has long been a champion of health research and health researchers, and we will continue to provide financial support and access to our expertise and experience to advance change in areas of high health need in Australia.

As the projects in this report come to fruition, we look forward to the learnings informing the way we support the health and wellbeing of our customers, and adding to the knowledge base on important health issues facing all Australians.

Thank you to all those who contribute to Australia's increasingly important health and medical research. I applaud your ongoing efforts and proudly present the Health Research at Medibank 2021 report.

David Koczkar
Medibank CEO

Photo by Arsineh Houspian

Introduction

At Medibank, everything we do is aimed at delivering better health outcomes. Through the Medibank Better Health Foundation, we fund vital research into key areas of need in the community.

The Health Research at Medibank 2021 report again highlights the extraordinary out-of-the-box thinking in the health research sector. Innovative studies, trials and, ultimately, solutions have demonstrated that Australian researchers are well and truly leaders in this space.

By funding these studies, our customers benefit directly from the development of new tools and programs. At the same time, it helps us advocate for changes to the health system in policy and clinical practice.

Although it has been another year of challenges for clinicians and researchers, we thank them again for their ongoing commitment and extraordinary effort to improve and expand health outcomes that ultimately benefit all Australians.

Dr Linda Swan
Medibank Chief Medical Officer

Who we are

The Medibank Better Health Foundation was established in 2013 with the aim of supporting translational clinical research through partnerships and collaborations that enable impactful change in areas of high health need in Australia.

We prioritise research in areas of concern to Medibank and that address the triple aims of health care: improved healthcare outcomes, improved healthcare affordability and improved healthcare experience. From inception up to the end of June 2021, we have supported 65 research projects and partnerships to the value of $7.4 million.

We undertake both research and patient advocacy initiatives, partnering with universities and research leaders, industry, and advocacy groups to design and produce high-value research or relationships to produce outcomes for the benefit of Medibank customers and all Australians.

The Health Research Governance Committee

Research supported by the Medibank Better Health Foundation is governed by the Health Research Governance Committee comprised of Medibank executives with diverse professional and academic backgrounds. The committee rigorously reviews all research proposals for merit and alignment our strategy to ensure that all research we support is robust.

Health Research Governance Committee members

- **Dr Linda Swan**
  Medibank Chief Medical Officer and MBHF Executive Lead
- **Dr Sue Abhary**
  Senior Executive Medical Director – Clinical Business Support & Medical Research
- **Dr Catherine Keating**
  Head of Member Health Service Design & Strategy
- **Jason Elias**
  Head of Partnerships & Sales, Overseas Business
- **Andrew Roma**
  Senior Health Innovation Strategist
- **Dr Ahmed Elsayed**
  Clinical Research Advisor
- **Dr Jessica Choong**
  Senior Medical Advisor

Key achievements

$1.1m

total allocated to research across Medibank

1 July 2020 to 30 June 2021

11 funded projects

30 active projects

Partnered with **35** organisations

3 conference presentations

9 publications

$361k
Out-of-pocket costs

$186k
Alternative models of care

$94k
Osteoarthritis
(+$45k for merchandising support for ACL injury project)

$99k
Healthcare transparency
(+$270k from Overseas Student Health Cover)

$50k
Indigenous health equity

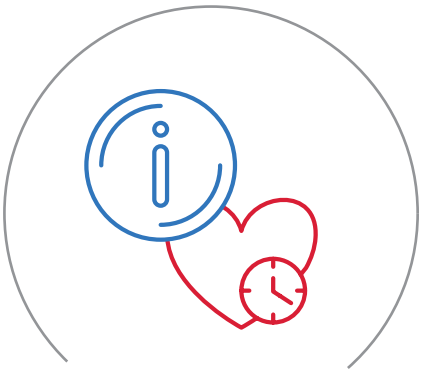
$30k
COVID-19

Strategy

Research focus

We review our priority areas annually. In 2021-2022 our research focus areas are:

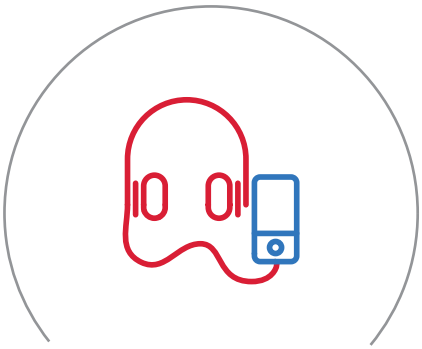
Out-of-pocket costs



Transparency in healthcare

Primary care

Loneliness



Alternative models of healthcare delivery

Research projects

Menzies VET on Country: Strengthening education and employment opportunities for Indigenous Australians living in the Northern Territory

Lead investigator: Dr Sharon Chirgwin, Associate Dean Teaching & Learning, Charles Darwin University

2021 MBHF grant: $30k

COVID-19 presented Menzies Education & Training with an ideal opportunity to upgrade their online training and electronic resources.

Menzies School of Health Research is one of Australia's leading medical research institutes dedicated to improving the health and wellbeing of Aboriginal and Torres Strait Islander people. Prior to COVID-19, Menzies Education & Training had initiated the delivery of their Vocational Education and Training (VET) Certificate II in Community Health Research in remote communities. However, in March 2020 when the pandemic hit Australia, much of the vital capacity building was under threat.

At the time, preventative public health strategies to protect remote communities included closure to any outsiders. Unfortunately, that applied to Menzies trainers and researchers and the movement of potential students out of a community to receive training. Likewise, other Indigenous health organisations withdrew their staff to larger cities and towns, whereas previously, they would have moved freely amongst the Top End communities.

Because face-to-face delivery was not an option, the reduced demand on trainers' time meant it was an ideal opportunity to provide vitally needed training. The training meant they could improve their understanding of community health research work and their overall knowledge and skill set.

As well as training their own team during the lockdown, the Menzies VET team was contacted by organisations like Machado Joseph, whose staff required training to participate in small-tailored research projects in East Arnhem. Purple House also reached out, needing training on various preventative projects on kidney health and a delivery message about kidney transplants.

What was immediately apparent was that the Menzies VET team had to change its approach to training. There was an urgent need to adapt materials to meet the demand of the specific organisations, including electronic delivery via available technologies that are easy to use.

The team firstly had to become proficient in using Zoom, Microsoft Teams and Blackboard. They needed to identify how the programs could be used in culturally appropriate ways to communicate, deliver knowledge, and provide the opportunity for skills to be developed and assessed. Additionally, the team undertook to minimise the risks in developing their training materials by having them reviewed for cultural sensitivities and applicability, as well as appropriate English Language, Literacy and Numeracy (LLN) levels.

The Medibank Better Health Foundation has provided financial support to produce electronic learning materials and a tailored adaptation for specific Indigenous Australian audiences. Indigenous employees who work in health-related areas can now use much of this newly acquired technology, training and resources when delivering their own important messages to their clients on country. The Menzies VET trainers also conducted phone call follow-ups taking clients through the resources step-by-step, to help them build confidence in their delivery, particularly the older learners.

The training ensures a health-literate Indigenous remote workforce who are aware of how to conduct research and projects ethically. Menzies VET trainers are now more proficient and efficient in the production of electronic learning materials. Additionally, having a valuable bank of culturally appropriate material that can be used repeatedly also reduces future costly preparation time.

Importantly, that proficiency and understanding can now be passed on to their Indigenous clients. This will result in better delivery of essential health messages that these clients can, in turn, impart to their people.

Partnering for high-value prosthesis selection and better patient outcomes

Lead investigator: Professor Steven McPhail, Queensland University of Technology

Research partnership grant: $270,000

For Professor Steven McPhail, successful patient outcomes in joint replacement surgery come from ensuring the right prosthesis is selected.

Understanding the selection process of a specific prosthesis by orthopaedic surgeons and whether this choice affects patient outcomes is something that intrigues Prof. McPhail.

He leads the health management discipline at the School of Public Health and Social Work, Faculty of Health, Queensland University of Technology. Prof. McPhail is also the Academic Director of the Australian Centre for Health Services Innovation (AusHSI) and holds a Doctor of Philosophy (UQ) and a Bachelor of Physiotherapy (UQ).

His team's latest research looks at high-value prosthesis selection and better patient outcomes. This study seeks to better understand why some prostheses are selected over others and the factors influencing selection.

> We know that hip and knee arthroplasty procedures are really common and that people can get many benefits from this procedure including better quality of life and the ability to be more physically active. We also know that it's really expensive. It costs a lot of money, both to the Australian society, and in various ways to the individual.

These costs come from the patient's out-of-pocket expenses, through public healthcare and government funding, and through private health insurance. Prof. McPhail believes the choices behind why specific prostheses are selected in clinical practice are not well understood.

"The reasoning behind, or the process around why a particular prosthesis is chosen for arthroplasties, is not really well understood. There seems to be variation between what surgeons choose when working in a public versus a private setting. The prosthesis that people receive may differ, and it's not necessarily driven by better outcomes for patients. However a lot of this information has not previously been explored in great detail," he says.

Currently, prosthesis selection is driven by orthopaedic surgeons, who are expected to know the quality, expected outcomes, and longevity of various prostheses when making a decision for an individual patient. Prof. McPhail believes that's partly because there are technical elements in implanting these prostheses that are not necessarily easily conveyed when communicating with a patient.

"The extent to which patients could be more involved in the decision isn't fully understood. It could be that patients may want to be more involved in their prothesis decision, but currently, they're happy to let the surgeon decide."

The research also looks at the lifespan of the prosthesis a patient receives. The more revisions a patient has, the greater chance of a poorer outcome.

"We want to ensure that when a patient receives their first joint replacement, they can maintain a high quality of life for as long as possible after surgery. We don't want them returning for a second or even third procedure," Prof. McPhail says.

He believes there could be a range of factors influencing prothesis selection that warrants further exploration. This could include practical things like the availability of a particular prosthesis type in the facility where the surgery is conducted, or even the surgeon's familiarity with a specific prosthesis or group of prostheses.

"We certainly believe surgeons do their best to make good choices for their patients. However, we need to understand further the factors that influence some of those decisions."

So, what does the future look like after this research is completed? Prof. McPhail would like to better understand the potential impact of unwarranted variation in joint replacement prosthesis selection; to understand how the decisions are being made and what factors drive those decisions.

"Ultimately, we want some positive steps forward that we can promote to encourage those in the field. It's about how they can best ensure patients are receiving the highest-quality care, with the lowest risk of adverse outcomes. And at a price that isn't unduly high for patients and for the broader societal cost ofhealthcare," Prof. McPhail says.

A key benefit of the research is in helping to improve the quality and efficacy of joint arthroplasty surgeries in Australia and the outcomes that follow. Those improvements will directly benefit patients who receive joint arthroplasties and their families. Moreover, it will help inform healthcare organisations and clinical teams around opportunities to improve the quality of care they're providing.

The research and findings are expected to be finalised in 2022. Prof. McPhail acknowledges that the project wouldn't be possible without the support of Medibank.

> Medibank's support enables our researchers to have the time and resources to conduct the study. From having good questions to having good answers informed by high-quality evidence and data and engaging widely with stakeholders, without Medibank's generous support, we wouldn't be able to carry out that work.

The impact of price transparency on price variation and out-of-pocket costs

Lead investigator: Professor Anthony Scott, University of Melbourne

2021 MBHF grant: $188,092 (Total investment planned for this study = $664k)

The factors driving fee structures and variations in out-of-pocket costs for patients intrigue Professor Anthony Scott and his team.

Navigating the healthcare system for most Australians can be quite complex, and many don't feel confident to participate in decision making for their health – especially when they're ill. Health literacy, price transparency and out-of-pocket costs are not well understood by patients and even some healthcare professionals.

Prof. Scott is part of the Melbourne Institute of Applied Economic and Social Research team at the University of Melbourne looking into price transparency in healthcare. He believes there are issues in understanding health literacy and, in turn, financial literacy of Australia's healthcare system.

> Most people think that they can manage their own health, but when it comes to navigating the healthcare system and their financial literacy, trying to negotiate out-of-pocket costs becomes quite difficult.

Participation in private health insurance has been impacted by the steady increase in healthcare costs over the past few years. Some people are not visiting their doctors when they need to because of cost, which, in turn, impacts the healthcare system. The introduction of price transparency websites has made it easier for consumers to make better choices around their healthcare. However, Prof. Scott can see obstacles to transparency around out-of-pocket costs.

"It's not just about publishing a price because you don't really know what you're going to need until your doctor says you need it. Then you've been connected with an individual doctor, and it becomes challenging to get second opinions and to shop around in advance of any treatment recommendations," Prof. Scott explains.

Often, it's not until patients are in the specialist office that they find out what they charge. Price shock aside, many people are unaware when they have a major procedure of what out-of-pocket costs they'll face and the size of those costs.

Prof. Scott and his team aim to understand how doctors set their prices, what factors impact the prices they charge, and explore the variation in fees between providers and geographical locations.

"There's a lot of variation, complexity, and other possible factors that we don't know much about. Previous research on fee variation is really focused on consultations with specialists. There's been nothing on the variation of fees for private hospital procedures, and that's what we're focusing on," Prof. Scott says.

The variation and complexity of fees impact patients' decisions to go ahead with care. Treatment options for potentially life-threatening medical conditions range from spending what it takes (which often puts them in a difficult financial position), to going into the public system, to no care at all.

Steps are underway to implement measures around price transparency. A government price transparency website was introduced in January 2019. Before that, private health insurers like Medibank already had similar websites in place.

"The government is developing their website based on the average price across providers in a particular primary health network area. It provides information on the average out-of-pocket cost for a particular procedure," Prof. Scott says.

> People have the capacity and ability to process information, make choices, and to discuss it with family and friends. These websites give them more control over what's happening in the management of their health condition.

For those consumers who want more information before deciding to go ahead with a procedure, these medical costs finder websites may offer greater transparency and improve patient consumer experience and outcomes.

The multi-year study is in its infancy, and Prof. Scott's team is in the early stage of interviewing doctors in private practice about fee setting behaviours, including what factors influence the fee an individual patient is charged.

This important research had been challenging to fund until the Medibank Better Health Foundation took an interest. Prof. Scott believes it will have a significant impact on the way individuals access healthcare in the future.

"Medibank doing this has been really good because they're also giving us some access to non-identifiable data on healthcare costs that will help us to do this research."

Developing and piloting a framework to evaluate health apps to enable the promotion of a curated set of evidence-based health apps to consumers in the Australian setting

Lead investigator: Associate Professor Martin Hensher, Deakin University
2021 MBHF grant: $76,500 (Total investment planned for this study = $153k)

With Medibank's help, Associate Professor Martin Hensher is looking at what makes a great health app and the framework around health app development.

There is a huge number of health apps available to download covering everything from clinical applications, medication dosage and heart rate monitoring, to fitness and exercise, wellness and mindfulness.

A/Prof. Hensher and his team from Deakin University's Institute for Health Transformation have set out to discover what merits a great health app, who uses them, and if a framework can be determined for quality and regulation.

"It's a massive field, and quite difficult to get a handle on what's really going on in this market," A/Prof. Hensher says. "It's challenging for people to know not only what is a good app in terms of quality, but what app is actually needed for their particular interests or issues."

In many countries, Australia included, there is a trend towards providing formal regulation of some clinical apps. At the other end of the spectrum, however, determining how to regulate a meditation or wellness app, for example, is a challenge. A/Prof. Hensher says it's a difficult balance to get right.

"We've been looking at how to provide some information, some level of confidence, or even which apps people should be less confident in because not all apps are brilliant. And, particularly, the kind of information to help people choose an appropriate app for what they need. That's probably the number one thing people are looking for; some guidance or seal of approval from someone they can look to with some confidence."

Regardless of age, smartphone popularity means apps are easily accessible, and people can download, assess and either retain or discard them accordingly. Consequently, health apps are becoming increasingly popular. Younger people, in particular, are comfortable with looking up information online without the need or desire to see a doctor. In fact, they often turn to an app for self-diagnosis.

"There are apps which are more directly designed for diagnosis. For example, there are various kinds of apps where you can take a photo of marks on

your skin, and it will use artificial intelligence to determine whether it's a melanoma or just a benign spot," A/Prof. Hensher says.

All apps, however, come with strong disclaimers that you should always seek medical advice. While many apps potentially do allow for some kind of self-diagnosis, A/Prof. Hensher believes it's a complicated space to regulate.

"One of the issues is whether self-diagnosis apps should be forbidden. That's probably not realistic, but equally, how do we make sure, if you're drawing conclusions about what might be wrong with you, that the right steps are taken to get the appropriate medical advice afterwards? It's a complex area."

There's an increasing trend for health bodies and other health professionals to utilise apps, with some clinicians very enthusiastic. However, A/Prof. Hensher points out the difficulty that lies in standardisation.

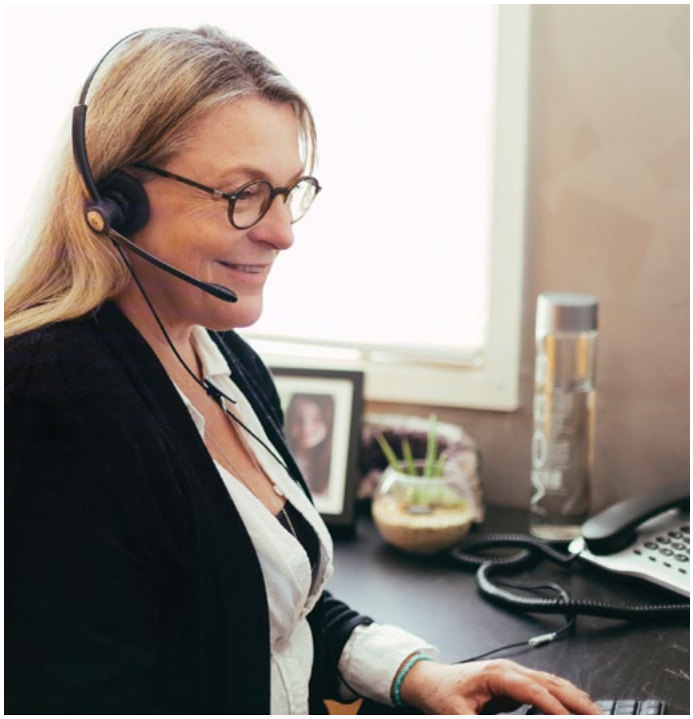
"Because there are many apps in many different areas, it's hard to specifically make recommendations about which one should be used. Part of our research project was to understand how easy or complicated it is to do assessments of apps and make those judgments for people."

The Therapeutic Goods Administration (TGA) is in the process of introducing strict regulations for what they call software as a medical device, including apps that directly manage or run medical devices or administer treatment in some way to a patient.

"The software that drives those devices is now quite strictly regulated by the TGA, and that includes apps that do that sort of work. The Australian Commission on Safety and Quality in Health Care are also in the process of introducing a framework for evaluating mental health apps," A/Prof. Hensher says.

The work that A/Prof. Hensher and his team has been doing with funding from the Medibank Better Health Foundation has resulted in developing a usable evaluation framework. They've also shown that this framework can screen a lot of apps and then do a more detailed assessment on a shortlist that ultimately results in a set of high-quality apps.

The team has been working closely with Medibank to field test the app evaluation framework, focusing on mental wellbeing, particularly apps that help with stress and anxiety. Medibank has set up a



mental wellbeing hub on its website, offering various information and services. As part of that offering, people are invited to download one of three apps, start using it, and then participate in a feedback and evaluation survey. A/Prof. Hensher acknowledges Medibank as a significant contributor in the study.

> Working with Medibank and directly involving Medibank customers who use the web portal has been fundamental to the success of this project. We would have found it much harder just to run this as a pure research project ourselves.

E-health to empower patients with musculoskeletal pain in rural Australia: The EMPoweR Project

Lead investigator: Professor Paulo Ferreira, The University of Sydney
2021 MBHF grant: $40k (Total investment planned for this study = $120k)

Professor Paulo Ferreira's telehealth program delivers much-needed relief for people with chronic low back pain in rural Australia.

Osteoarthritis and chronic low back pain are debilitating conditions that impact thousands of Australians. In rural areas, access to supported pain management strategies other than pain medication is virtually non-existent.

Prof. Ferreira leads the Musculoskeletal Research Group at the Charles Perkins Centre at the University of Sydney. His alternative approach investigates the benefits of telehealth for people with chronic low back pain and knee osteoarthritis.

As Prof. Ferreira explains, there is the perception that low back pain results from manual labour and that rural Australians are more hands-on than people in the city. However, once he and his team looked at physical activity levels in rural areas compared to people living in the city, they were surprised at the results.

"We found that people living in rural areas are more sedentary than people living in major cities. The notion that people living in the bush are very physically active and they're walking a lot and riding their horse and so on is probably not true anymore.

Back pain tends to be more prevalent in people whose jobs involve work-related physical activity. However, the prevalence of back pain is also high for people who have more sedentary lives," Prof Ferreira says.

> Osteoarthritis is the number one condition causing disability globally, and every global burden of disease study shows that it significantly affects people's personal lives. It can lead to depression, and it has been demonstrated that people with low back pain are 13% more likely to pass away every year.

Long-term effects of chronic low back pain include isolation from social activities and being unable to work, which can lead to depression and loss of income.

Using telehealth to deliver a physical activity and physiotherapy program remotely, Prof. Ferreira is testing the hypothesis that this is more effective than the usual care of medication and doctor visits alone for the 28% of Australians living in rural and remote communities.

"The main objective was to show that if you support people to exercise, even if it is remotely using a computer screen, it might lead to better clinical outcomes than their usual care," he says.

The telehealth-based program goes beyond just a consultation tool. A physiotherapist interacts with patients in real-time to design an exercise program suited to their lifestyle. These exercises are mainly resistance-based as lifting weights help strengthen a patient's lower back and lower limb muscles.

"If the patients mention that they liked walking or they would like to swim a little bit more, the physiotherapist incorporates these into their program," Prof Ferreira says.

So far, the results are encouraging.

The study has been running for three years, with final results expected in October 2022. While recruitment was severely affected by the 2020 bushfires followed by the outbreak of COVID-19, the telehealth program has been embraced by Australians living in rural and remote communities.

"People were really interested in participating, especially older people. There were some challenges and technical limitations when it comes to internet speed and access, but these did not preclude patients from engaging in telehealth," Prof. Ferreira says.

He advocates that this landmark study would not have happened without the Medibank Better Health Foundation.

"Without them, we couldn't do this work. The team believed in us, and they thought that this project was important for Australia. It's a great example of a good partnership."

> We know from many studies that exercise programs are more effective than the usual care of medication and doctor visits, particularly for chronic low back pain. In the pilot stage of this study, we did a preliminary analysis on levels of pain and physical function, and the physical function was significantly better in the people receiving the intervention, compared to those in the usual care group.

Investigating a problematic trilogy (osteoarthritis, obesity, hip/knee arthroplasty)

Lead investigator: Natalie Pavlovic, University of New South Wales

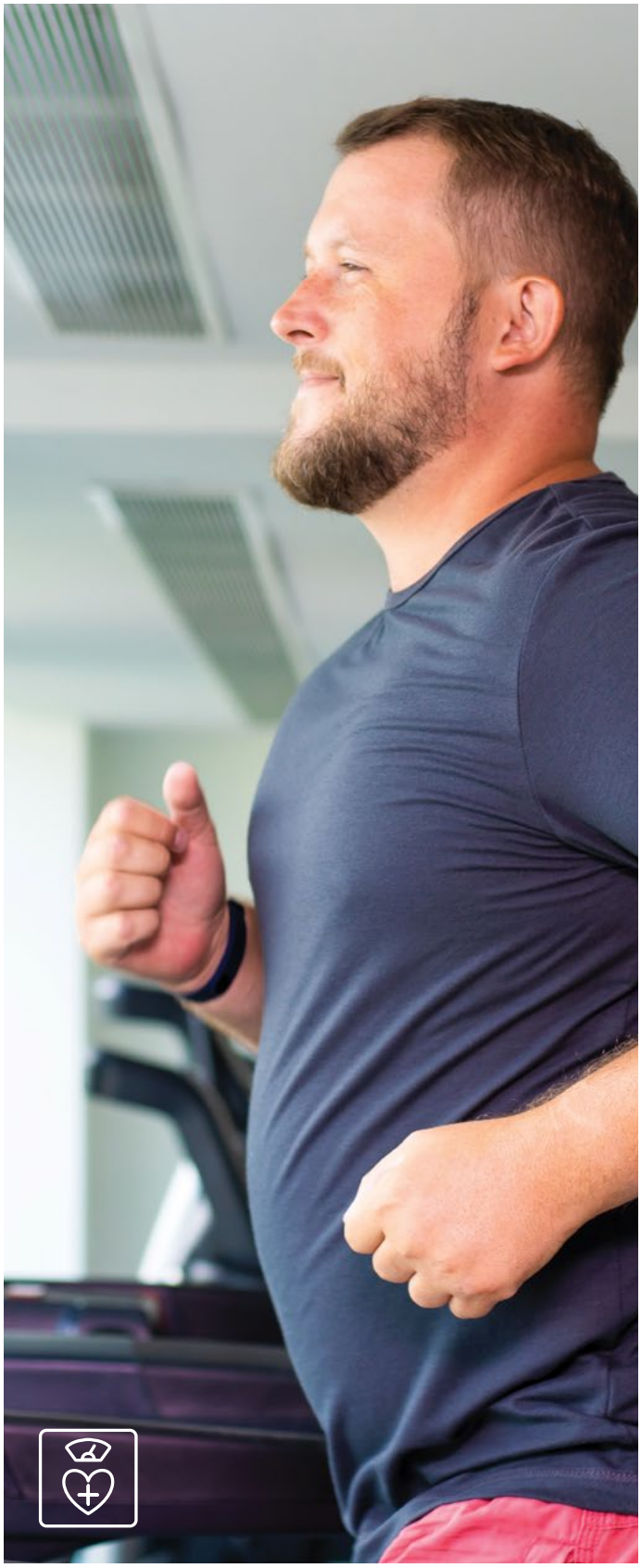
2021 MBHF grant: $42,575 (Total investment planned for this study = $127,725)

PhD candidate Natalie Pavlovic is discovering obesity-related post-operative outcomes after arthroplasty impacts patients and the health system.

Thousands of Australians undergo arthroplasty (joint replacement) surgery every year. However, patients with obesity experience greater post-operative complications. Natalie has found during her study, these patients are six times more likely to undergo revision surgery due to infection compared to someone with a normal body mass index.

Natalie is a PhD candidate and physiotherapist working with the Whitlam Orthopaedic Research Centre and is a senior outpatient physio working at Fairfield Hospital. Under the watchful eye of Professor Justine Naylor, Natalie is looking at the evidence surrounding pre-operative dietician-led weight loss.

> With obesity, the body weighs more and contributes to the development and progression of osteoarthritis, particularly affecting the knee, through increased mechanical loading through the joints which accelerates degeneration.



Exploring the obesity, osteoarthritis and joint replacement trilogy has merit when you consider obesity associates with greater post-operative complications affecting patient recovery. It also impacts the healthcare system, which has to utilise more resources to manage these complications.

With more hip and knee arthroplasty surgeries performed each year, the prevalence of patients with obesity is also expected to rise as our population becomes older. That, in turn, exacerbates the rate of post-operative complications.

"We have the potential to address the impact of obesity in people undergoing arthroplasty for osteoarthritis right now, rather than in the future, through pre-operative weight loss programs," Natalie says.

Following this type of surgery, patients with obesity experience greater rates of certain post-operative complications, such as wound complications, blood clots, the need for revision surgery, and infections.

"Additionally, obesity is associated with worse long-term patient-reported functional outcomes including reduced mobility and inadequate physical activity levels. Along with post-operative complications, there is a risk of developing other chronic diseases like diabetes or cardiovascular conditions," Natalie explains.

Those complications can be costly, not only for patients but to the healthcare system as a whole.

"The costs relate to management of post-operative complications during hospital admission, ongoing management when patients are discharged, potentially longer stays in hospital following surgery, additional rehabilitation, and for re-admissions into hospital," she says.

One Australian study suggests that due to obesity alone, arthroplasty procedures are expected to cost an additional $550 million in the next 10 years.

Other studies in recent times have focused on bariatric surgery as the weight loss method before different elective surgeries. However, it's not for everyone and comes with strict eligibility criteria and unique post-operative complications.

Natalie believes a diet-based weight loss program deserves further research to determine if it is feasible to implement. However, many questions need to be addressed, such as the effect on post-operative complications and outcomes, whether one diet is better than another, and how long a patient needs to be on a diet to reduce complication risks.

The pilot study was multicentered. One group received the usual care from the Whitlam Joint Replacement Centre, including a nurse and a physiotherapist creating a user-led weight management plan to prepare the patient for surgery.

The second intervention group received this usual care plus a nine-month dietician-led low-inflammatory weight loss program based on a Mediterranean diet of fruit, vegetables, legumes, nuts, cereals, whole grains, fish and olive oil.

The follow-up qualitative study revealed four themes: a person's beliefs regarding weight loss, adaptability and willingness to change, ability to navigate healthcare, and sociocultural context. Other considerations included cultural backgrounds and the link between mental health and motivation.

Further research included interviews, questionnaires, regular weigh-ins, and adherence to the low-calorie Mediterranean diet. These were all monitored with the expectation that there should be a weight reduction.

Natalie believes the study will show that a diet-led weight reduction program pre-arthroplasty will positively impact post-operative recovery outcomes.

"We're expecting fewer complications and admissions to inpatient rehabilitation, as well as shorter hospital stays in the diet group or the group of patients who lost 5% or more of their baseline weight. We're also expecting better patient-reported outcomes, such as pain and function, which makes it easier for them after surgery," Natalie says.

"What's also exciting is that we have an opportunity to address risk factors, not only for surgery but for the rest of their lives."

The diet program ran for nine months, while the wait time for arthroplasty was one year. Patients were followed up for three months post-surgery.

Overall, the 15-month study was made possible by the Medibank Better Health Foundation, and Natalie acknowledges their important contribution.
"Without their support, I don't think this study would have been possible."

Loneliness roundtable report

Lead investigator: Leanne Wells (CEO), Consumers Health Forum
2021 MBHF grant: $30k

The Consumers Health Forum has instigated a roundtable to discuss the impact and amplify the conversation around loneliness.

Loneliness is set to be the next big public health issue, according to Leanne Wells, CEO of the Consumers Health Forum of Australia. Leanne's interest was piqued because of emerging data and, through the support of the Medibank Better Health Foundation, she ran a thought leadership roundtable to explore the topic of loneliness. The panel included expert clinicians, consumers, researchers, and policymakers, who deep dived into the issue and discussed what could be done in Australia to tackle loneliness better.

The roundtable also discussed the impact the COVID-19 pandemic has had on loneliness.

"Before the pandemic, we know that one in four Austalians reported feeling lonely all or part of the time, so it's a common experience. However, since the pandemic, it's come as no surprise that one in two people have reported feeling lonelier, which is quite alarming," Leanne says.

> The health issues around loneliness are quite profound. A meta-analysis of people effected by loneliness, social isolation, or living alone found they had a 26% higher risk of early death.

"Loneliness is associated with chronic health conditions like cancer, heart disease, stroke, poorer cardiovascular health indicators like high blood pressure and cholesterol, and impaired cardiac function. It's also a predictor of poor mental health."

From the data that Leanne and her team have used, two main age groups are at greater risk of loneliness: 18-25 and 56-65. Within these groups, other circumstances play a role, such as sole parenting, disability, caring for others, living alone, loss of a partner, and lower socioeconomics, whereby they don't have the means to get out and about.

In Australia, not much is happening to address loneliness. Internationally, Leanne cites the United Kingdom as an exemplar and taking a leadership stance.

"They've developed a National Loneliness Strategy in the UK, and they have a Minister for Loneliness as does Japan. And that's something we'd really like to see here. Every issue wants its own minister, but I think when you've got profound, cross-cutting societal issues like mental health, ageing, and loneliness, it's a really emergent public health issue."

Leanne would love Australia to get to the point where the government supports a coordinated response. However, she believes the government shouldn't be the only player. There are a lot of private organisations, the health workforce, community organisations, and philanthropy that can play a role.

"It's pretty early days for us. There is a movement led by Michelle Lim from Swinburne University called Ending Loneliness Together. It's a national organisation that's formed to tackle loneliness, and they've worked to put together a parliamentary friends' group to keep an eye on and stay up-to-date with the issue."

The Consumers Health Forum is an advocacy body only. It does not deliver programs or services but participates in national policy debates and discussions. Its role is to bring the issue of loneliness to the fore, explain to decision-makers why it's such a concern for the community, consumers and patients.

"For an advocacy organisation like us, our role is to say to policymakers 'this is an issue' and to ask what are some of the practical, evidence-based things that could be done about this problem?" Leanne says.

She believes that a socially-connected society can identify loneliness early and offer meaningful connections to those at risk. Social determinants of health and a sense of connection and purpose are profound factors of whether people are at greater risk of getting a chronic condition. However, it goes further, as Leanne explains.

"Those with a chronic condition may not be well-equipped or confident to self-manage and navigate the health system. In fact, a feeling of disconnect is a health issue, so I think a socially-connected society puts a meaning on, and values connection, and keeping people connected."

The Loneliness Thought Leadership Roundtable Report was published in January 2021, but Leanne and her team are aware that this is just the beginning of a long process.

They're hoping success looks like a national loneliness response program that has funding commitments. This program would enable the implementation of an awareness campaign, some ways of connecting services, regular measurement, and a skilled-up workforce to identify loneliness and respond to it.

"If we could get a government strategy to tackle loneliness, if we could amplify our advocacy for that and get some sort of commitment, that would be success," Leanne says.

Thanks to a grant from the Medibank Better Health Foundation, the process is already underway, and Leanne is thankful for the support.

"It's been a very valued collaboration that's enabled us to start the conversation. A roundtable is not the end in itself. It's generated a report, which we are now continuing to draw on as part of our advocacy."

Reducing knee injury in women's football: Optimising the implementation of an injury risk reduction program in women's Australian Football

Investigator:	Dr Brooke Patterson, La Trobe University
Lead investigator:	Professor Kay Crossley, La Trobe University
2021 MBHF grant:	$45k (Total investment planned for this study = $195k)

Physiotherapist and La Trobe Research Fellow Dr Brooke Patterson is hoping the Prep to Play program for AFLW will prevent knee injuries in young players with the help of the Medibank Better Health Foundation and a National Health and Medical Research Council (NHMRC) grant.

Former Melbourne Demons AFLW player and now development coach, Dr Patterson is investigating why women suffer from serious knee injuries while they're playing Australian football, at a lot higher rate than men. Most importantly, she is looking at what can be done to prevent it.

"In the AFLW, the rates of sustaining an ACL injury are around seven to eight times higher compared to the AFL men," Dr Patterson says.

Anterior cruciate ligament (ACL) injuries average one per club and are severe enough that players have a year out of the game. As someone who has had an ACL injury herself, she has found that time away from the game has a negative impact.

"Either the injury itself, or the perception of injury risk, impacts negatively on participation. While we want women to reap the physical and psycho-social benefits of participating in sport, there's an enormous impact, socially and culturally, in a sport like football when participation is not maintained."

The rates of injuries in AFLW across the whole population is around 3-4%. The 15-19-year-olds are the highest risk group, while the most surprising increase is in the 5-15-year-olds. However, the study found that ACL injuries are multifactorial, meaning there's probably not one factor that causes them at any one point in time. The causes can include family history, previous injuries, physical attributes, strength and fitness, and anatomy and hormones.

"What the research is becoming more aware of is the role of environment. Women aren't exposed to many of the physical development of skills required to play a sport like football. They don't typically play in the schoolyard as much as boys and aren't as confident to go to the gym and participate in activities that might reduce the risk of injury."

Initial devastation aside, the consequences of a severe knee injury for many young women can mean recurring minor injuries that impact their return to playing. In fact, the study reveals only about half of women and girls resume sport after they have an ACL injury. However, Dr Patterson has discovered that's only part of the story.

"If participants don't stay involved in a sport or a sporting club, they're not getting the social benefits that may come from that. Even if they stop playing, they might stay involved in their club, but if they're not a part of that club growing up, that's not going to happen. Then we don't get women staying involved and being on the board of clubs and creating those future opportunities for women to be involved in sport at a higher level when their playing career is completed."

With clubs reaching out for information, and media attention on ACL injuries in the AFLW, the AFL decided action was necessary. The Prep to Play injury prevention program was developed by the team at La Trobe University in conjunction with the AFL. The benefits of the program are being researched with the support of Medibank and multiple industry associations, and was awarded a NHMRC grant.

"We created the program which formed part of the national female football guidelines, and coaches have had free access to it since then," Dr Patterson says.

The program has been running since 2019. Informed by strong evidence in other sports like soccer, basketball and handball, the program utilises a dynamic warmup, strength, exercises, football-specific and contact skills, and education.

"The warmup focuses on multidirectional movement skills, such as falling and landing with contact and a bit of balance as well. And the strength part of it focuses on low limb muscle groups such as hamstrings, the hip, core muscles and the quads," Dr Patterson says.

The contact skills focus on the safe execution of tackling and being tackled, ground balls, and aerial contests. Data from the AFLW also shows these three activities are where most concussions occur.

Dr Patterson and her team have worked closely with the AFL to develop program resources with terminology that aligns with the AFL's coaching philosophies.

> It's about educating and empowering the girls and the women to understand their bodies and what they can do, and why these activities are important to reduce the risk of injury and improve their performance and health.

After only six months, a survey at the end of 2019 revealed 70% of coaches were aware of Prep to Play and had a go at using it. Dr Patterson and her team are testing the effectiveness of Prep to Play in the 2021 and 2022 seasons.

"We recruited 164 teams across Victoria, and we're still turning some away for next year. The coaches, players, and club support staff have been integral in providing the data about injuries and training activities to measure the success of the program."

Mental and physical health impacts of working at home: How do we protect our wellbeing?

Lead investigator:	Associate Professor Jodi Oakman, La Trobe University
Research partnership grant:	In response to the rapid development of the COVID-19 pandemic, Medibank, in collaboration with La Trobe University, funded $150k towards three research projects for immediate implementation investigating health service delivery and the impacts of the pandemic

COVID-19 has had a massive effect on the workplace, and Associate Professor Jodi Oakman is discovering the impacts of mandated working at home.

When COVID-19 hit in March 2020, the issues with transitioning to working from home were focused primarily on the logistical aspects such as setting up workstations and digital connectivity.

However, A/Prof. Oakman from the Centre for Ergonomics and Human Factors at La Trobe University has found this to be a small part of that transition. Her School of Psychology and Public Health team set out to learn more about how Australians are coping with working away from an office environment.

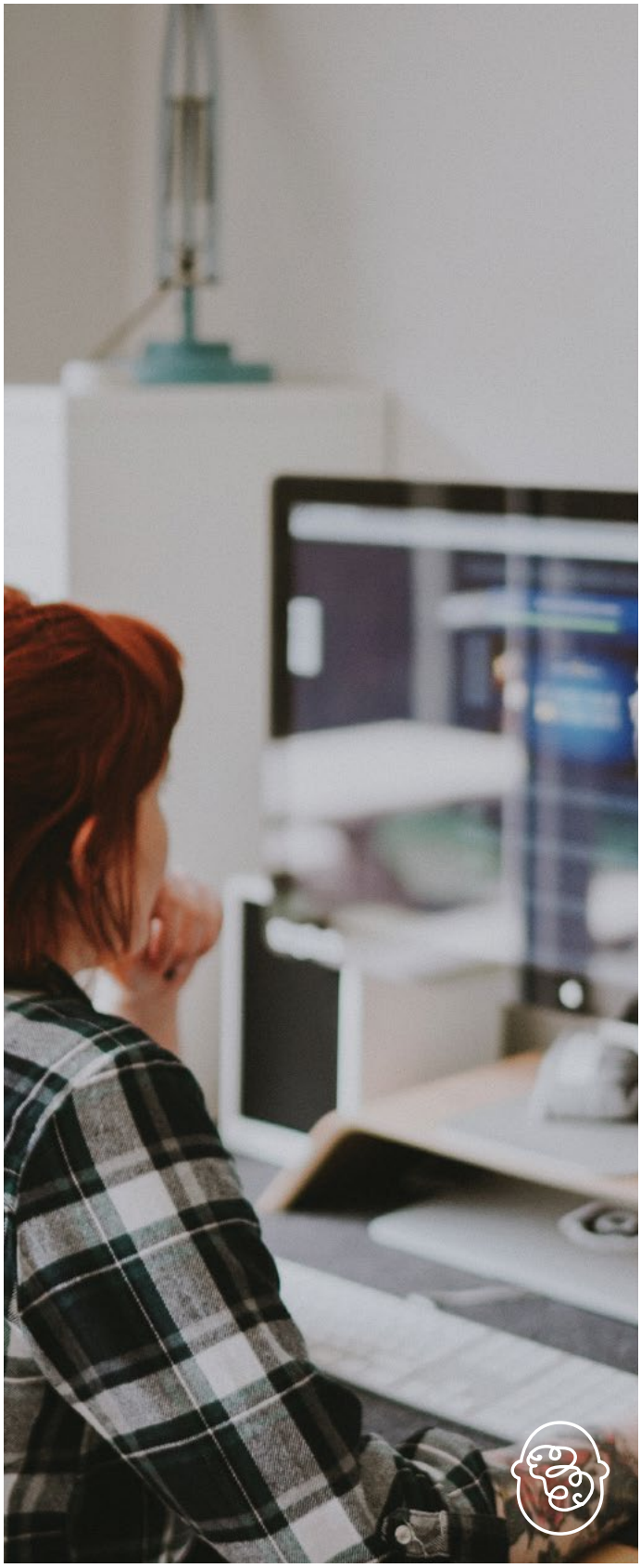
"Some of the issues are around how easily your job translates to working from home. Some jobs are perfectly fine, whereas for others the transition has been more difficult," A/Prof. Oakman says.

Working from home is undoubtedly presenting some challenges. Inactivity is a problem because incidental exercise people usually get with commuting or walking around the office or even getting lunch is no longer an option. Mental health and wellbeing are also issues with repetitiveness, isolation and a lack of interaction with other team members significant factors.

Additional pressures have emerged, such as feeling an obligation to be available and responsive.

"A very strong message was the feeling of needing to have a device with you at all times. Even though it would be normal to have a coffee or a lunch break, people felt that if they weren't available, they would be judged."

Her team found that it was important to have boundaries in place with colleagues, managers, and supervisors.



"If people are getting interrupted a lot, that harms their mental health and impacts their stress levels," A/Prof. Oakman says.

Those boundaries also apply to the household. People are making a concerted effort to ensure there is a clear distinction between working or not. Some wear different clothes or a jacket when working, others put away the computer when they've finished for the day. In fact, boundary-setting is essential, particularly when managing children at home.

"For some people, getting dressed to go to work at their bench or in their study signals to the household what their role is. And having that clarity about which hat they've got on is really important," A/Prof. Oakman says.

While people have worked out how to best manage their work at home-based workspaces, the equipment set up varies, with some people having a dedicated space while others use the end of a kitchen table or even cardboard boxes.

"Employees have been allowed to bring home equipment, and there have been levels of support from organisations in terms of financial support to purchasing. Where the complications arise is when people start going back to their workplace on a part-time basis and equipment needs to be returned, and then a dual set-up for the workplace and the home office are required," A/Prof. Oakman says.

Equipment aside, there are also significant gender differences to working at home. The research suggested women are better at coping with managing their workload, the kids, and the household. However, A/Prof. Oakman has also discovered that women have suffered more than men with physical issues like pain and discomfort.

"Often, the health impacts overall can be worse for women, probably because they typically bear most of the caregiving. If there was a good balance between home life and work life, the health impacts were not as bad and less stressful."

Current working at home guidelines supporting employers and employees primarily focus on physical approaches to set up. But this is also an issue.

"When we think about ergonomics, it's only those physical aspects, but I think that it's much more than that. What we need now is to use what we've learned to inform some more nuanced guidelines," A/Prof. Oakman says.

She believes if people are going to work more at home in the future, they're going to need a space where they can regularly work uninterrupted. However, some negotiation will be required with employers.

"For an employer, that's actually going to be tricky and will require not only trust but also conversations about where and how it's going to work. Some negotiation will have to take place, but I think employers are also going to need some support on that front."

A/Prof. Oakman believes the next six months will be interesting to see what happens to organisations regarding employees returning to the workplace full-time, part-time or staying at home.

"We're in a transitional space. I think it will be variable, and probably on balance we'll see people at least retaining some time at home. But how that balance plays out, I don't think we know yet," she says.

The study funded by Medibank has concluded, but A/Prof. Oakman and her team are continuing the investigation with expected outcomes to be available in March 2022.

> I think what we'll have is a really detailed analysis and rich collection of data that will ultimately help to facilitate workplace policy.

Rapid implementation of a tele-rehabilitation model for cancer survivors

Lead investigator:	Dr Amy Dennet, La Trobe University
Research partnership grant:	In response to the rapid development of the COVID-19 pandemic, Medibank, in collaboration with La Trobe University, funded $150k towards three research projects for immediate implementation investigating health service delivery and the impacts of the pandemic

Dr Amy Dennet looks at how cancer patients are using tele-rehabilitation to regain their fitness and quality of life after treatment and diagnosis.

It's only in the last 10 years or so that exercise has played an essential role in improving and enhancing cancer patient recovery. Physiotherapist and Research Fellow at Eastern Health, Dr Amy Dennet and her team from La Trobe University have discovered recovery after a cancer diagnosis can improve immeasurably with access to tele-rehabilitation (tele-rehab).

The current state of tele-rehab availability is relatively poor; it didn't really exist before COVID-19. Larger centres, such as the Peter MacCallum Cancer Centre in Melbourne who service the whole of Australia, use some tele-rehab, but generally, face-to-face care is the standard across most hospitals.

"Up until 2020, it didn't really exist except for the larger cancer centres, especially in Victoria," Dr Dennet says. "It's only since COVID-19 that hospitals have had to venture quickly into this unknown territory," Dr Dennet says.

Previously, regional and country patients would have to travel to the main cancer centre near to their home to have their physio and other allied health appointments. Alternatively, they'd have to travel to a local community health centre that's unlikely to have specialists or staff with specialist cancer expertise. However, that's starting to change.

"In those regional areas, we're seeing a lot more up-skilling of physios and exercise physiologists who have the skills to deliver these rehab programs via tele-health as well."

For this particularly vulnerable population of people with cancer, tele-rehab was a valuable option during COVID-19 because many patients were immuno-compromised. Although the risk of going outside is significant for immunocompromised people, the risk of being inside in isolation for a prolonged period has other detrimental effects on their health.

"Because they're at greater risk of rapidly deconditioning like losing muscle fitness and mass, it was more important than ever for us to intervene during this period, for not only their physical health, but also for emotional support," Dr Dennet says. "That emotional support was so important because some of these patients felt so isolated, and we may well have been the only people talking to some of them."

On top of the emotional support, patients expressed that they felt quite safe doing tele-rehab because they knew there wouldn't be a risk of infection and getting COVID-19.

Although face-to-face cancer rehabilitation at a hospital may include a supervised gym program, information sessions with various allied health professionals, and social support, Dr Dennet believes the same care can be replicated in a tele-rehab program.

> With the tele-rehab program, patients actually got one-on-one half-hour health coaching with the physio via phone or a Zoom call helping them to set up a home exercise program and coaching them through how to do it.

Patients were also offered group exercise training plus live information webinars covering other areas of health from dieticians, pharmacists and social workers.

The information sessions were also recorded, and exercise handouts and Cancer Council booklets were put on an information portal that patients could access outside of therapy time.

While some patients bought exercise equipment, Dr Dennet and her team discovered many patients were quite resourceful when organising things like dumbbells. Innovative solutions included filling lemonade bottles with water, using bags of rice, and even tins of baked beans!

"Part of the funding that came from Medibank included giving everyone a resistance exercise band as part of their pack, but we would also utilise whatever they had at home. We became quite creative in the way we developed their exercise programs," Dr Dennet says.

The feedback on the tele-rehab program has been nothing but positive, with patients citing convenience as a significant benefit. They commented on not having to go to another appointment, finding a car park, and just saving energy because fatigue can be problematic for people with cancer.

"Convenience was definitely the number one highlight but, surprisingly, all the benefits they got were exactly the same benefits that they've reported to us for face-to-face care," Dr Dennet says. "They loved having access to a physiotherapist who could give them tailored exercise advice. They felt safe, they felt motivated, and they liked learning new things, especially about exercise."

While the study with Medibank has concluded, Dr Dennet and her team are looking at how it will inform future models for cancer rehabilitation and how tele-rehab for cancer patients can be delivered down the track.

"I think what it's told us is the value of health coaching and having that regular phone call or Zoom call with a physiotherapist and how beneficial that can be," Dr Dennet says. "We don't have the ultimate model of tele-rehab yet, but we're close. I think this study has shown us this model can work, and it improves patient outcomes. With more solid research, we will be able to determine that it's not inferior to face-to-face forms of care."

Evaluating the sustainable, effective, and safe use of virtual care technologies, during and after the COVID-19 pandemic

Lead investigator: Professor Aniruddha Desai, La Trobe University

Research partnership grant: In response to the rapid development of the COVID-19 pandemic, Medibank, in collaboration with La Trobe University, funded $150k towards three research projects for immediate implementation investigating health service delivery and the impacts of the pandemic

Professor Aniruddha (Ani) Desai believes that adopting remote health monitoring technologies could be key to reducing pressure on our health systems.

Prof. Desai is a Research Professor and Director of La Trobe University's Centre for Technology Infusion. He and his team are trialling the potential of remote health monitoring technologies. Particularly, how to develop a framework of measures to evaluate the sustainable, effective, and safe use of virtual care models during and after the COVID-19 pandemic.

This trial is part of Northern Health's (one of Victoria's largest health services) Patient Watch Program aiming to investigate if the use of remote monitoring systems in the homes of patients at high risk of hospital presentation is of benefit. Although the ethics and paperwork are complete, all the hardware is ready, and the patient cohort have been selected, installing the necessary technology in patients' households was not possible due to the COVID-19 lockdowns throughout the year.

Extra workloads on Melbourne's health services due to COVID-19, particularly in the north, meant the trial was suspended temporarily. At the time of publishing this report, the trial is expected to resume subject to capacity of the health services and approval by Northern Health.

This research has come about in response to the COVID-19 pandemic pressure on Australian health systems. Social distancing and isolation have emerged as a global prevention strategy to reduce the spread of disease. Prof. Desai has found that widespread social isolation may be particularly impacting more vulnerable populations, including the elderly, people with comorbidities, and other high-risk groups.

His project focuses on how next-generation technology can alleviate some pressures on the public health system with innovations like remote health monitoring to see if people can safely recover from illness in their own homes, helping patients, carers, and clinicians access and provide care outside of the hospital.

The remote health monitoring system called HalleyAssist acts in a non-intrusive way. What Prof. Desai and his team are planning to trial does not involve any cameras in the home. It consists of passive motion sensors similar to a home alarm system, except that there's quite a few of them. These are coupled with artificial intelligence software that tracks certain activities or environmental measures, such as room temperature.

It means patients can have personalised health monitoring where there are alerts for anomalies of patient activity behaviour. This could, for example, include having a fall event, or general activity being reduced gradually over time. If things are not going in the right direction, the hope is that by having this kind of remote health monitoring, clinicians are alerted immediately, and can provide earlier care to the patients in the comfort of their own homes.

Medibank has provided funding support, and Prof. Desai believes the project would not have started without this. He and his team were able to engage an award-winning Melbourne-based start-up resulting in HalleyAssist winning a Good Design award in October 2021.

The results of this trial are tentatively expected around March 2022.

> Essentially, this technology may allow patients to recover in their own homes while being continuously monitored by the remote health monitoring system. This is preferable to a phone call to check up every so often because clinicians are able to access 24/7 day-to-day data to make informed decisions based on personalised information, without needing to rely on the memory of the patients, carers, or family.

Developing a model for Rehabilitation in the Home (RITH) as a hospital substitution for the reconditioning rehabilitation impairment codes

Lead investigator: Professor Christopher Poulos, HammondCare and University of New South Wales

Research partnership grant: $186,326

Professor Chris Poulos is looking at what safe and cost-effective home-based rehabilitation looks like by designing a model for Rehabilitation in the Home.

Prof. Poulos is a rehabilitation physician, Director of the Centre for Positive Ageing with care provider HammondCare, and a Professor in the Medical Faculty at University of New South Wales. Along with public health physician Associate Professor Roslyn Poulos and their team, they're determining a model that will advise a future Rehabilitation in the Home (RITH) program. Although RITH programs are already running, there has been no consensus on a framework to support best practice for reconditioning programs.

"We're not testing a RITH program in this study; we're at the stage before that. We're designing the RITH model for people who have become severely deconditioned. Part of the model is to develop a selection process so that we can identify the people who can be safely managed at home, and allow people to choose to have their rehabilitation at home," Prof. Poulos says.

RITH, put simply, allows patients to recover in their homes after a hospital admission for a significant medical episode, major surgery, or treatment for cancer.

"A patient would still have a formal period of rehabilitation, which could be quite intensive, and include allied health therapy and nursing input, with a rehabilitation physician or other physician managing their care," Prof. Poulos says.

"We're particularly focusing on people requiring rehab for what's called reconditioning after becoming deconditioned and debilitated following medical illness or surgery."

The reconditioning category has grown in Australia and accounts for approximately a third of all inpatient rehabilitation episodes.

> As we get older, we often develop more health conditions and are at greater risk of becoming frail. Following a hospital admission some patients become quite debilitated and can't bounce back without a reconditioning rehabilitation program.

Patients having a relatively straightforward surgical procedure like a hip or a knee replacement may only need some physiotherapy, or other rehab that can easily be provided at home. However, if the condition is more complex with multiple surgeries and extended hospital stays, bouncing back from extreme deconditioning becomes more difficult.

"If someone had cancer with extensive surgeries, or perhaps potent chemotherapies, not only is the treatment going to knock them around, but because they've been in hospital for a long period it means they lose a lot of condition, muscle strength, and fitness," Prof. Poulos says.

While the study is not specifically about COVID-19, the pandemic provides an example of a condition that can cause extreme deconditioning in some people. Older patients at risk of delirium and those with pre-existing cognitive impairment can become disorientated in hospital increasing the risk of a fall.

"During lockdown, hospital patients weren't able to have visitors at all, which was very distressing for many people. COVID-19 has shown us the importance of being able to deliver healthcare interventions out of hospital when possible. And we know RITH

is an effective alternative to hospital for clinically appropriate patients. Having your rehab at home and providing choice, that's what we're trying to do," Prof. Poulos says.

"Because older people often have less reserve, it can be harder for them to get back on their feet. They may really benefit from reconditioning rehab to help them resume their normal activities and hopefully a good quality of life.

"Many health funds and public hospitals are looking more and more at what can be delivered at home, and offering choice where possible. It can be more comfortable and contextually relevant if therapy and services can be brought to you."

Data collected across thousands of cases in Australia and New Zealand shows that rehabilitation for reconditioning works at an inpatient level. Prof. Poulos and his team are now aiming to design a model for RITH with patient outcomes that are the same or better as those who undergo rehab in the hospital setting.

A/Prof. Roslyn Poulos says the design of the model will be informed by several sources.

"Using a mixed-methods approach using both quantitative and qualitative data, we'll bring all the sources of information together to look at possible models of RITH," she says.

The mixed-method approach looks at various sources, including data from the Australasian Rehabilitation Outcomes Centre, patient surveys, expert and staff interviews, and running an online Delphi survey with experts across Australia.

The purpose of the study is to design the RITH model and a decision support tool, helping the clinician, the patient, and their carers to work out whether RITH is the right program for them.

"Part of the model is to develop a selection process so that we can identify the people who are the most appropriate and who can be safely managed at home," Prof. Poulos says.

"What we don't want is a program where people are at home when they should be in hospital."

A successful outcome for Prof. Poulos and his team would lead to a program that could take the demand pressures off hospital inpatient services by offering an alternative pathway for people who choose it.

Prof. Poulos is impressed by the support he's received from the Medibank Better Health Foundation.

"The team has basically let us get on and do our thing. You can't do your research unless you've got funding available. They're trusting us to get on and do the study."

Analysis of the Australian Commission on Safety and Quality in Health Care survey on Cultural Safety

Lead investigator: Margaret Banks, Director, National Standards Program, Australian Commission on Safety and Quality in Health Care

2021 MBHF grant: $50k

Setting a national standard for best practice cultural safety training in health services for Aboriginal and Torres Strait Islander people.

Margaret Banks is the Director of the National Standards Program with the Australian Commission on Safety and Quality in Health Care (ACSQHC) which develops national standards to protect the public from harm and improve the quality of health service provision. This includes the improvement and development of healthcare standards and resources for Aboriginal and Torres Strait Islander people.

"Our work is about improving safety and quality in Australian health services. It is the responsibility of health service organisations to work with Aboriginal and Torres Strait Islander people, to develop local strategies that are tailored to the needs of the Aboriginal and Torres Strait Islander communities they service. The Commission supports this work by producing additional tools and resources in specific areas of work," Margaret says.

> Cultural safety is when an Aboriginal or Torres Strait Islander person goes into a service, they actually feel that the service is treating them fairly and with respect. That they're not experiencing racism and they're getting the care they need, that's safe and of good quality.

The Standards describe what should be in place in health service organisations to improve their performance, including the way they manage, monitor, evaluate, and involve Aboriginal and Torres Strait Islander people in their own care.

One of the main issues around health services for Aboriginal and Torres Strait Islander people that the Commission is looking to improve is cultural safety.

"We're asking services to not just to be aware of cultural safety, but to take proactive steps to deliver it."

A service is only culturally safe when the people accessing care report it is safe. It is not a point the health service alone can assume they have reached.

"An Aboriginal or Torres Strait Islander person needs to be the judge of that, not the health service. Now, when cultural safety is measured, you actually have to get the people who are directly affected to be able to say, yes, when I access these services I know I am going to be treated with respect, I will get the information I need to make decisions about my care, and I will be asked about how my care is delivered," Margaret says.

Complying with the National Standards has become a real driver for change. Organisations that previously collected information on Aboriginal and Torres Strait Islander people for administrative databases didn't always put that information into clinical systems. Margaret says that it's a significant step forward that these databases are now linked.

"Now opportunistic care such as vaccination status or blood pressure checks can be done when an Aboriginal or Torres Strait Islander person is receiving care. With these data sources now linked, health services can collect information and use it as part of better clinical care."

One of the requirements in the National Standards is for health service organisations to create a culturally safe and welcoming environment for Aboriginal and Torres Strait Islander people, and provide services that meet their health needs.

The Commission recognises there are improvements that can be made to the accreditation system. It's a largely non-Indigenous health system and an extensive, almost exclusively, non-Indigenous assessment workforce, something that Margaret and her team are in the process of improving.

"We've been working to make sure we've got a comprehensive cultural safety training program in place for assessors to be better prepared. Long term, my aim is to try and increase Aboriginal and Torres Strait Islander representation across the assessor workforce so we can continue to improve the understanding of what good cultural safety, a welcoming environment and quality care looks like for Aboriginal and Torres Strait Islander people."

The Commission's analysis of the cultural safety training that the health service workforce currently undertake, and how this can be strengthened, is near completion, with positive developments in patient experience, safety, and quality of care. Margaret and her team expect to see a greater focus on cultural safety in health service organisations, and training that meets best practice, which in turn will make a difference to the safety and quality of the care delivered.

"The long-term aims are to improve the safety and quality of care Aboriginal and Torres Strait Islander people receive so that their health outcomes equal that of any other Australian. Their engagement, involvement, choices and the way they exercise those choices and the overall experience they have of the healthcare system should all improve as a result of the changes that the National Standards will bring about."

The Commission has been working closely with the George Institute, combining the latter's expertise in cultural training with the Commission's own survey and analysis, developed by its Aboriginal and Torres Strait Islander Committee.

"Once we put these two pieces of information together, we'll be able to say, these are the elements that we expect to see in a cultural safety training program you provide for your workforce. This leads to monitoring and measuring if what organisations are doing is making a difference," Margaret says. "Assessors can then look to see if these elements are included in the training program."

Margaret recognises the importance of the Medibank Better Health Foundation grant.

Aboriginal and/or Torres Strait Islander peoples should be aware that this report may contain the images and names of people who may have passed away since publication.

Image © 2020 Caro Telfer, used under license from Austockphoto

> "The grant has meant that we could do the additional analysis that allows us to describe what best practice is, and then to be able to develop our resources. I don't think that we would've had the strong evidence base that we've been able to develop without this funding."

The Harry Nespolon Grant

Lead investigator: Associate Professor Jill Benson AM
2021 MBHF grant: $30k

The 2021 RACGP Foundation Harry Nespolon Grant in the former president's honour is awarded to Associate Professor Jill Benson AM.

The Royal Australian College of General Practitioners (RACGP) has awarded its inaugural Foundation Harry Nespolon Grant to A/Prof. Benson for her research project entitled, 'Finding meaning through diversity - exploring the role of career and job diversity in GPs' wellbeing.'

The grant is in honour of former RACGP President Dr Harry Nespolon, who passed away aged 57 in July 2020 following a battle with pancreatic cancer.

Dr Nespolon was elected RACGP President in July 2018 and strongly advocated that GPs need to look after themselves if they are to have greater empathy for others, make better decisions, and provide best-practice quality care.

Dr Nespolon displayed passion and exemplary leadership, particularly during the 2019-20 summer bushfires and the COVID-19 pandemic. As the face and spokesperson for the RACGP, he worked tirelessly to ensure GPs have access to the support and care they need to live full, healthy, and balanced lives, just like the communities they serve.

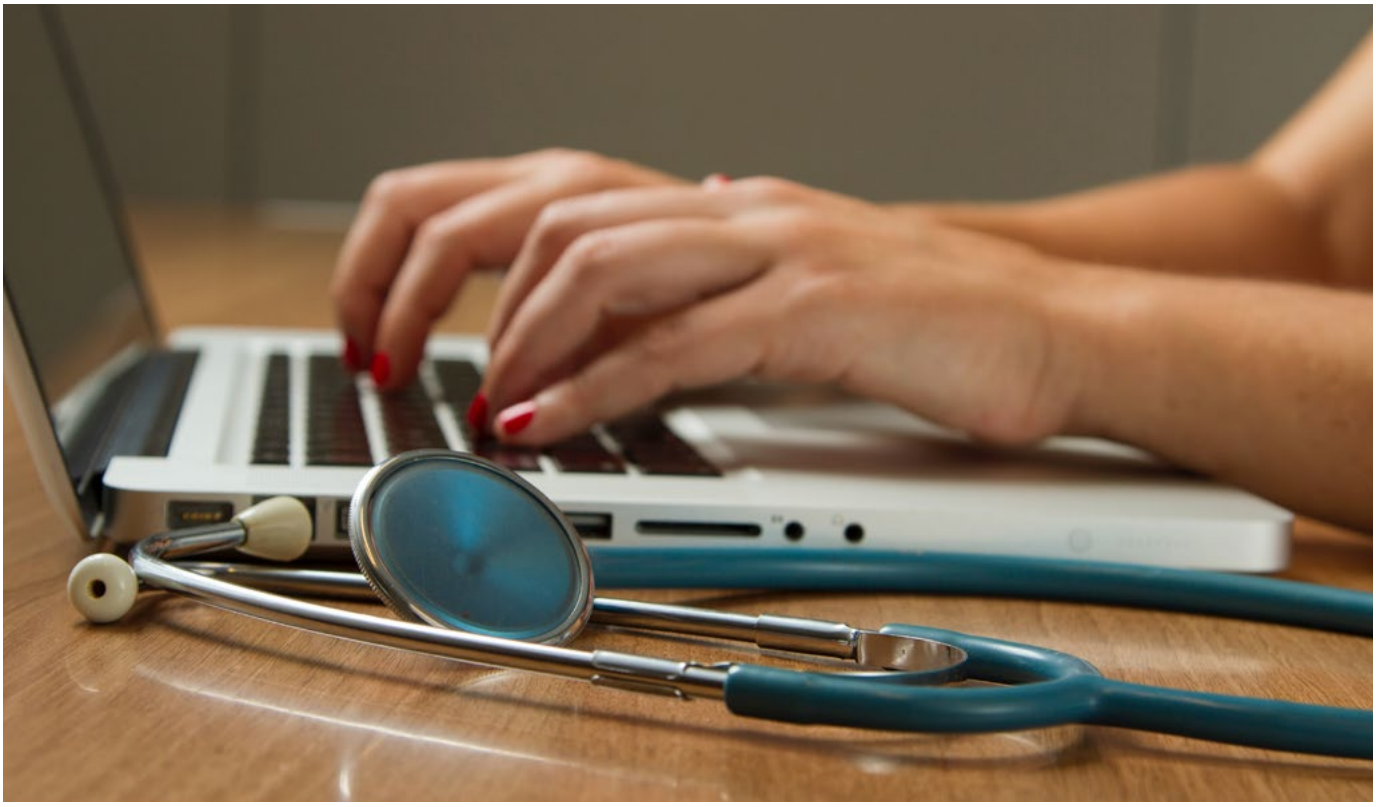
A career as a GP is both rewarding and fulfilling and contributes to the betterment of the population through the provision of quality primary health care. By its very nature, though, the work is challenging and stressful, and many doctors are known to experience high levels of mental distress.

And it's with this ongoing challenge, the inaugural 2021 RACGP Foundation Harry Nespolon Grant was created to fund research into the wellbeing of GPs.

Contributors to the $60,000 grant include the Medibank Better Health Foundation ($30,000), the RACGP, and kind donations made by Sonic Healthcare, RACGP members, and the family, friends, colleagues and patients of Dr Harry Nespolon to honour his vision and continue his important work.

A/Prof. Benson has been a GP for 40 years and has spent the past 20 years primarily working with:

- Remote Aboriginal communities in the Western Desert
- Refugees in Adelaide
- Doctors Health SA
- GPEx (GP training organisation) as a medical educator and researcher
- Australian Medical Council
- Rocketship Pacific in Tonga (an international health non-profit organisation, based in Australia, dedicated to improving health in Pacific Island countries).



A/Prof. Benson has been involved in doctors' health nationally and internationally for 20 years and was instrumental in writing the Dr4Drs website and developing the Dr4Drs training program. She also runs resilience and wellbeing courses for doctors in South Australia, as well as internationally.

Her project focuses on a practical solution to decreasing burnout in GPs by identifying the relationship between career diversity and wellbeing.

GPEx research has found that GP registrars, supervisors and other stakeholders believed work diversification was associated with preventing burnout. In fact, there is evidence suggesting that if doctors invest time in professionally meaningful work, there is an associated decreased risk of burnout.

Encouraging GPs, for instance, into sub-specialties, fly-in-fly-out rural and remote work, and working with vulnerable populations is likely to add variety and meaning, without risk to continuity of care or workforce pressures.

A/Prof. Benson's research explores the extent, timing, enablers, and barriers faced by GPs concerning work diversification via an online survey to GPs around Australia. She and her team will analyse the results to understand trends, associations and themes emerging from the data and share them with the RACGP community along with practical strategies to improve wellbeing.

Importantly, the results will inform future GP registrar training, wellbeing support and career counselling.

Comparing spinal decompression surgery with placebo surgery for patients with lumbar spinal canal stenosis SucceSS: surgery for spinal stenosis – a randomised controlled trial

Lead investigator: Professor Manuela Ferreira, The University of Sydney
2021 MBHF grant: Up to $225k over three years

Professor Manuela Ferreira is comparing spinal decompression surgery with placebo surgery for patients with lumbar spinal canal stenosis.

Prof. Ferreira is a Principal Research Fellow at the Institute of Bone and Joint Research at Sydney University. She and her back pain clinical research team are leading a ground-breaking trial into the effectiveness of decompression surgery for patients with lumbar spinal canal stenosis called SucceSS.

SucceSS is unique in that it is the first randomised double-blinded controlled study comparing spinal decompression surgery with placebo surgery.

"Patients with canal stenosis usually have leg pain that can present in one or both legs. When they're walking or standing, the pain worsens, but they get relief when they sit down. In clinical practice, this condition is called neurogenic claudication," Prof. Ferreira says.

Typically, patients with this condition try non-surgical care, medication and even physiotherapy before being referred to surgery. However, as Prof. Ferreira explains, not everyone is convinced this type of surgery is beneficial.

> If you look at the literature, it's very conflicting. There's no definite answer on whether or not this type of surgery, which is called lumbar spine decompression, works for this population.

As the name suggests, the surgeon removes the back part of the bone at the point of the spine where the nerves are compressed. With decompression surgery, the belief is that by removing part of the bone, the space between gets bigger, the nerves are no longer compressed, and thus the symptoms are relieved.

"It happens that symptoms go away for maybe 70 to 80% of patients, but not everyone. There's really no strong correlation between the size of that space and symptoms, meaning that some patients have a very narrow space and no symptoms, while others have a large space and lots of symptoms," Prof. Ferreira says.

With the SucceSS trial, all patients undergo a surgical procedure, including the skin incision and clearing away the back muscles to expose the bone of the spine.

The surgeon then calls the randomisation centre at the University clinical trial centre to determine if the patient has the bone removed (decompression surgery) or not (placebo surgery). If it's the latter, the surgeon then closes everything back up with no intervention to the spine. Recovery for both surgeries is the same, and the patients are followed up in 3, 6, 12 and 24 months to assess their symptoms and recovery.

"If patients meet the inclusion criteria, the surgeon will present the idea of the trial. My team then calls them and explains the process, and, if they agree, that they will be randomised to have either decompression or placebo surgery," Prof. Ferreira says.

The trial is a randomised, double-blinded control trial. Prof. Ferreira stresses the importance of doing it this way to remain impartial.

"When participants come into a trial, they don't get to choose what treatment they receive. It's a random selection; I don't get to choose, they don't get to choose, and the surgeon doesn't get to choose; it's someone else who draws a number, for example. The benefit is that mathematically and statistically, it creates two groups that are comparable to each other. It's controlled because we have two groups, and it's blinded because no one will know except the surgeon at the time of surgery.

Prof. Ferreira is hoping to define whether or not surgery provides benefits to patients with neurogenic claudication. She acknowledges the importance of a placebo control.

"Unless you add a placebo control into a trial, there's no way that you can adjust for those placebo effects. The chief benefit is that we'll have a definite answer and that will inform practice and policy very quickly. Placebo is more of a high-fidelity type of control. You identify what part of the procedure you think is responsible for the benefit. In this case, we identify that removing the bone could be responsible for the benefits. In a placebo, we do everything the same but omit removing the bone."

The success rates of spinal decompression surgery for lumbar spinal stenosis are around 60 to 80%, with patients having very little or no symptoms after surgery. However, the remaining will still have some symptoms. Looking at the comparison to placebo surgery, Prof. Ferreira believes that they may see benefits in both groups.

"That's the idea, but we haven't analysed all the data yet. If the benefits in both groups are the same, most of the benefit in the decompression comes from a placebo effect. If it's significantly higher in the decompression, it means that removing the bone is crucial, meaning it's the mechanism that's responsible for the benefit, and it's not attributable to a placebo effect."

SucceSS is a NHMRC-funded trial running in six Sydney hospitals and two in Melbourne. Because of COVID-19, some elective surgery has been postponed in part for the past couple of years. This has put the trial back twice, with a completion date now set for the end of 2023.

The Medibank Better Health Foundation is providing funding contingent on the number of Medibank customers enrolled in the study. It is covering customers' admission costs and hospital excess.

Case studies

BETTER KNEE, BETTER ME™

Lowering the likelihood of joint replacement surgery.

In Australia today, osteoarthritis is a common affliction affecting more than 60% of people aged 55 and over. Osteoarthritis prevents them from doing the things they love, like playing with their grandchildren, going for walks, gardening, travel, and more. There are some simple and effective methods to manage the symptoms of knee osteoarthritis, but many people are either unaware or don't know how to access this support.

Better Knee, Better Me™ is a Medibank health program designed to support customers who have chronic painful knee osteoarthritis. Initially, it began as a research trial with the University of Melbourne's School of Physiotherapy and Austin Health.

The aim is to offer customers a best practice, non-surgical option that can be delivered remotely to reduce knee pain and improve the health and wellbeing of people with osteoarthritis.

The 12-month program combines targeted exercise and weight loss, via regular video consultations with a team of specialised physiotherapists and dietitians.

Great results were seen in the trial with the Better Knee, Better Me™ treatment group losing on average 10.2kg over a six-month period. Four out of five participants achieved clinically significant improvement in pain. Participants also reported better knee function, enhanced quality of life, reduced feelings of depression and lower use of pain medications. A majority of participants in the trial were able to maintain their results at the 12-month mark of the program.

The program is now widely available to Medibank customers who meet the eligibility criteria. It is provided to customers remotely via video consultations, with all the resources and tools posted to their homes so they can access the program wherever they are in the country, and at any time.

HEART HEALTH AT HOME

A new model of cardiac rehabilitation in the home.

After a significant cardiac event, some patients are at greater risk of having another heart episode and hospital readmission down the track. The introduction of cardiac rehabilitation programs has been shown to reduce the risks of another heart attack by around 30%, and may prevent the need for more cardiac surgery. Unfortunately, many people do not have the opportunity to realise these benefits.

Medibank has been on the front foot and partnered with Cardihab, a spin-off of the CSIRO. This program utilises a personal app developed by the CSIRO to help people who've had a cardiac event or cardiac surgery.

The six to eight-week program is one of Australia's first national, easily accessible, and fully telehealth-delivered cardiac rehabilitation services. It includes a cardiac nurse delivering personalised telehealth consultations, alongside the Cardihab app, which together, aims to develop a personalised cardiac care plan. The plan addresses contributing heart episode issues such as high blood pressure, smoking status, sedentary lifestyle, weight, alcohol consumption and more.

Importantly, Medibank's Heart Health at Home program allows more eligible Medibank customers to participate in cardiac rehabilitation. With the introduction of this new model with Cardihab, the aim is to offer a remotely-delivered version of cardiac rehabilitation to address the issues of access and inconvenience, and reduce the risk of subsequent cardiac events for customers.

MEDIBANK TYPE 2 DIABETES PROGRAM

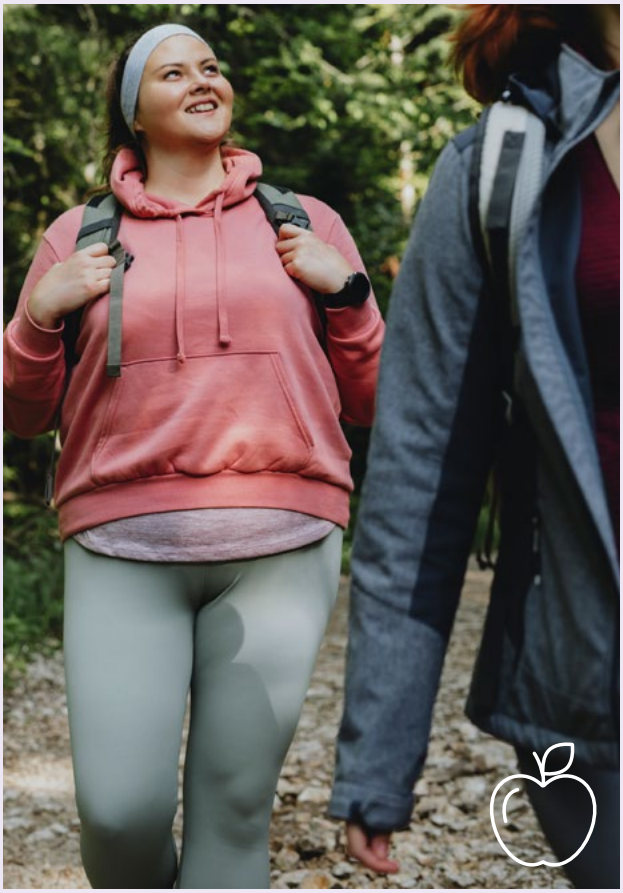
Helping customers living with type 2 diabetes.

Diabetes is one of the world's fastest-growing chronic conditions that seriously impacts people's health and wellbeing. While this condition is manageable, if left unchecked it can cause complications such as heart disease, kidney disease, blindness, and can even result in the need for lower limb amputation.

With support from the Baker Heart and Diabetes Institute, Medibank has piloted an initiative based on the weight loss program of the Better Knee, Better Me™ program. The pilot program is designed to help eligible customers with type 2 diabetes and where weight is a contributing/risk factor achieve a clinically significant weight loss to help manage their diabetes better, and aims to reduce their risk of developing complications.

The program is barely 12 months old, but the early findings are positive. Another remotely-delivered initiative, the program provides a tailored care plan, up to 10 video consultations with an experienced dietician, and up to 18 weeks of meal replacements delivered to the participant's door. Participants also receive information on self-managing type 2 diabetes, plus practical aids including weight scales, measuring tapes, a food shopping guide, and a cookbook.

The Medibank Type 2 Diabetes pilot program is based on evidence that demonstrates improved control of type 2 diabetes is possible via a clinically-based weight management program.



Prep to Play

Prep to Play is already working for the Mordialloc - Braeside JFC under-18s girls' team.

Pat Torpey is the coach of the Mordialloc-Braeside (Mordi-Brae) Junior Football Club under-18s girls' team. He's been involved with the club for over 10 years and has seen his fair share of injuries. Even though this is only his third year coaching the team, Pat is mindful that the girls game gets more physical as they get older. He's also noticed that because the players are stronger in their attack on the ball, they're suffering more serious injuries as a result of their determination.

This year, Mordi-Brae was invited into the Prep to Play program. The three girls' teams (two under-18s and an under-16s) trained together and participated in the program. Pat believes the program helps coaches support their players to perform at their best and better prepare them for playing football. He's particularly impressed with the dynamic warmup, the strengthening and stretching exercises, development of football skills, and more education around the sport.

Even though their season was cut short with COVID-19, the Mordi-Brae coaches can already see the benefits for the players involved in the Prep to Play program. The girls are behind it 100%, embracing it and taking it on board. They gain a better understanding of why they do some of the drills and skills, the reasoning behind the strengthening exercises and learning how to play safely, and its application to AFLW.

The program has improved the girls' fitness and strength and changed their attitude; they can see a real purpose behind the program and why it's essential to help them protect their bodies and keep them playing football. It will continue into next year, and the club has decided that this will become part of all their AFLW teams' programs, from under-10s right through to under-18s. They're hoping to educate their coaches on better preparing the girls for football to reduce serious injuries.

Pat and the other coaches are confident that the program also lends itself to being adaptable to freedom and a little bit of fun. And that's what makes it exciting and purposeful.

GRIFFIN
CONSTRUCTIONS
EASTLAKE
KANE

Climate change

Health impacts of climate change

A study into the health impacts of climate change and how it affects all Australians.

The effects of climate change will significantly impact the physical health, mental wellbeing, and financial security of people around the world. In Australia, we're likely to face further periods of extreme heat, bushfires, and other extreme weather events. Southern Australia, in particular, is likely to be impacted by droughts and bushfires due to its warmer and drier climate.

Medibank commissioned a report on the health impacts of climate change in 2021. This included a review of a wide range of internationally published literature on the health impacts of climate change to form an evidence base to understand the links between climate change and health.

Globally, one of the major climate-related health risks is infectious disease, particularly mosquito-spread viruses. In Australia, research on the health impacts of climate change has a high focus on mortality, heat-related non-communicable diseases, respiratory conditions resulting from bushfires, and mental health.

The report identified five vulnerable groups of people:

- Young children and elderly adults
- People susceptible to heat stress or allergic illnesses (those aged over 65 years, those with chronic cardiovascular, renal, or respiratory diseases, those with diabetes, those with allergic rhinitis or pollen sensitisation)
- Outdoor and physical labourers
- Pregnant women
- People who are more socially vulnerable (those who live alone, those at risk of falls, and those who have a lower socioeconomic status)

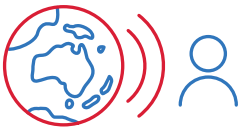
The research also looked at public health data following major climate-related events in Australia. These included the 2019–20 ACT bushfires and the corresponding impacts on hospitalisations, emergency department presentations, ambulance callouts, Medicare claims, and the use of respiratory medicines. The data shows clear increases in presentations to emergency departments, increased demand for respiratory medications, and increased public mental health support.

This analysis highlighted the likely impacts to the Australian healthcare sector from future climate change-related events. The report notes that the public health system is likely to experience further capacity constraints, especially during extreme events like bushfires, cascading and compounding events, and the need to develop climate resilience plans.

Medibank has been carbon neutral since 2018 and has committed to Net Zero carbon emissions by 2050. We welcome collaboration on tackling climate change across the healthcare sector.

Australia has a high risk of human health impacts due to climate change[1]

United Nations Intergovernmental Panel on Climate Change Fifth Assessment Report



Heat stress from extreme heat and increasing average temperatures is a risk for Australians

Increase in:[2]

Hospitalisations

Emergency department visits

Ambulance call-outs

Particularly at risk:

Australians who perform physically laborious work outdoors

Negative effects on the whole population's mental health and an increase in suicide rates, with men more affected than women[3]

More vulnerable to increases in heat:

Aged over 65

People with underlying cardiovascular disease, diabetes and chronic respiratory disease[4]

Drought

causing food insecurity, loss of livelihoods and mental ill-health[3]

Flooding

resulting in loss of homes and livelihoods causing mental ill-health[5]

Bushfires

can have negative impacts on nearly every bodily system including the cardiovascular[6], respiratory[6], reproductive and urological and neurological systems[5], and can result in chronic mental ill-health[7] and death[8]

1. Field, C. B., & Barros, V. R. (Eds.). (2014). **Climate change 2014–Impacts, adaptation and vulnerability: Regional aspects.** Cambridge University Press.
2. Blashki, G., Armstrong, G., Berry, H. L., Weaver, H. J., Hanna, E. G., Bi, P., ... & Spickett, J. T. (2011). Preparing health services for climate change in Australia. *Asia Pacific Journal* **of Public Health, 23**(2_suppl), 133S-143S.
3. Zhang, Y., Beggs, P. J., McGushin, A., Bambrick, H., Trueck, S., Hanigan, I. C., ... & Watts, N. (2020). The 2020 special report of the MJA–Lancet Countdown on health and climate change: lessons learnt from Australia's 'Black Summer'. **Medical Journal of Australia, 213** (11), 490-492.
4. Beggs, P. J., Zhang, Y., Bambrick, H., Berry, H. L., Linnenluecke, M. K., Trueck, S., ... & Capon, A. G. (2019). The 2019 report of the MJA–Lancet Countdown on health and climate change: a turbulent year with mixed progress. **Medical Journal of Australia, 211** (11), 490-491.
5. Actuaries Institute. (2020). **Climate Change – Information Note for Appointed Actuaries** https://actuaries.asn.au
6. Yu, P., Xu, R., Abramson, M. J., Li, S., & Guo, Y. (2020). Bushfires in Australia: a serious health emergency under climate change. **The Lancet Planetary Health, 4** (1), e7-e8.
7. Hanna, E. G., & McIver, L. J. (2018). Climate change: a brief overview of the science and health impacts for Australia. **Medical Journal of Australia, 208** (7), 311-315.
8. Borchers Arriagada, N., Palmer, A. J., Bowman, D. M., Morgan, G. G., Jalaludin, B. B., & Johnston, F. H. (2020). Unprecedented smoke-related health burden associated with the 2019–20 bushfires in eastern Australia. **Medical Journal of Australia, 213** (6), 282-283.

Acknowledgements

We wish to acknowledge the contribution of the Medibank Better Health Foundation Health Research Governance Committee

Dr Linda Swan

Dr Sue Abhary

Dr Jessica Choong

Andrew Roma

Dr Ahmed Elsayed

Dr Catherine Keating

Jason Elias

Bridget Colussa

Partner organisations

Arthritis Australia

Austin Health

Australian Catholic University

Australian Kookaburra Kids Foundation

Australian & New Zealand College of Anaesthetists (ANZCA)

ANZCA Foundation

Australian & New Zealand Musculoskeletal Clinical Trials Network (ANZMUSC)

Australian Orthopaedic Association National Joint Replacement Registry (AOANJRR)

National Joint Registry

Banksia Project

Beyond Blue

Consumers Health Forum

Deakin University

Gallipoli Medical Research Foundation

Grattan Institute

La Trobe University

Menzies School of Health Research Monash University

- Centre for Health Economics
- Department of Epidemiology and Preventative Medicine

Musculoskeletal Australia (formerly MOVE, muscle bone & joint health)

Royal Australian College of General Practitioners (RACGP)

Royal Australasian College of Surgeons (RACS)

Whitlam Orthopaedic Research Centre

Swinburne University of Technology

The Australian National University

The University of Sydney

The University of Western Australia

University of Newcastle

University of New South Wales

University of Melbourne

- Melbourne Institute of Applied Economic & Social Research
- Centre for Health Exercise Sports Medicine
- Melbourne School of Population and Global Health

University of Queensland

University of Tasmania

University of Wollongong

While we hope you find this information helpful, please note that it is general in nature. It is not health advice, and is not tailored to meet your individual health needs. You should always consult a trusted health professional before making decisions about your healthcare. While we have prepared the information carefully, we can't guarantee that it is accurate, complete or up-to-date. And while we may mention goods or services provided by others, we aren't specifically endorsing them and can't accept responsibility for them. For these reasons we are unable to accept responsibility for any loss that may be sustained from acting on this information (subject to applicable consumer guarantees).

BRIDGE
FINISHER