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**Arthritis Australia**  
**2022 Budget submission**

**Addressing the burden of arthritis: for consumers and  
the health system**

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# Addressing the burden of arthritis: for consumers and the health system

Arthritis and musculoskeletal conditions affect people of all ages, including children and young adults, and are the most common, costly and disabling chronic conditions in Australia. There are over 100 types of arthritis, ranging from osteoarthritis to severe autoimmune conditions, and arthritis and musculoskeletal conditions **cost the health system an estimated \$14 billion in 2018** – much of which could be avoided with better access to evidence based care and prevention and a more equitable investment in research.

**In 2020, funding for research** in arthritis and musculoskeletal conditions, which at 13% represents one of the largest burden of disease groups, was **less than half of what went to disease groups with a similar burden of disease** such as cardiovascular disease and mental illness (see Table 1 below).

People with arthritis carry a heavy burden of pain and disability that is often trivialised, and face a **double financial hit** – arthritis is a leading cause of **early retirement and loss of work hours and income**, and consumers face **high out of pocket costs** from the accumulated costs of care including general practice, specialist and allied health appointments, diagnostics and medicines.

The [National Strategic Action Plan for Arthritis](#) is an [evidence based](#) blueprint to improve health and quality of life for people living with arthritis, reduce the cost and prevalence of the condition, and reduce the impact on individuals, their carers and the community. It is the result of extensive [consultation](#) with consumers, clinicians and health system stakeholders, including Steering Group representation from key medical and allied health peaks.

## Key priorities for action

In 2021, Arthritis Australia has again consulted consumers and a multidisciplinary group of experts, as well as our network of community based affiliates across Australia, to identify the **top three priorities for implementation** moving forward:

- Addressing the disproportionately low investment in arthritis research to improve outcomes for children and adults with arthritis and unlock health system cost savings
- Providing support for people with arthritis to exercise safely to improve their condition
- More affordable access to evidence based, multidisciplinary care

## Funding proposals

The proposals outlined in this submission address the key priorities for action that have emerged from our consultation with consumers and the sector:

- Proportionate investment in arthritis and musculoskeletal research to improve outcomes for children and adults with arthritis and unlock major health system cost savings: ***\$200 million over ten years.***
- Fund an evaluated national arthritis exercise program to help people manage arthritis: ***\$5 million over four years***
- Expand access to group allied health services to people with musculoskeletal conditions under existing Chronic Disease Management Plan items: ***\$6 million per year***
- Increase the number of allied health services available under existing MBS Chronic Disease Management Plan items to an additional five services per calendar year: ***to be costed***
- Fund community-based arthritis educators to deliver much-needed information and support for children and adults with arthritis: ***\$4.5 million over four years.***

# Proportionate investment in arthritis and musculoskeletal research

## Proposal

Provide funding of \$200 million over 10 years from the Medical Research Future Fund (MRFF) for an arthritis and musculoskeletal research mission, including:

- A virtual National Arthritis and Musculoskeletal Research Institute
- Strategic funding of high-quality research projects and infrastructure that will lead to improved prevention, diagnosis and treatment, and support the search for cures
- Building the research workforce and linking stakeholders and end users

## Background and rationale

Research funding for arthritis and musculoskeletal conditions in Australia is disproportionately low relative to the disease burden and cost of these conditions. These conditions affect people of all ages including children and young adults, and account for 13% of the total disease burden<sup>1</sup>, incur the highest spending of \$14 billion (10.3%) in 2018/19<sup>2</sup> and are a leading cause of disability, chronic pain and early retirement due to ill-health in Australia.

In 2020, NHMRC funding for research in the field totalled only \$46.1 million, less than half the investment in disease groups such as cardiovascular and mental illness which have a similar burden of disease. While the recent announcement of an MRFF investment of up to \$20 million over 4 years into research into chronic musculoskeletal conditions in children and adolescents is a welcome initiative that will improve the outlook for children with arthritis, it still falls far short of what is needed.

Ongoing low levels of research funding have severely undermined research capacity for arthritis and musculoskeletal conditions, with serious implications for future research and for sustaining clinical excellence. It also undermines our ability to identify and implement better treatment and management strategies to reduce the personal, social and economic burden of these conditions.

Investing in research into the most effective and affordable strategies to deal with these conditions has the potential to save the health system many hundreds of millions of dollars a year. Some areas of expenditure where research could achieve substantial cost savings include:

- **More than \$1.4 billion** a year is spent on knee replacements for osteoarthritis.<sup>3</sup> At least **\$200 million** of this cost could be avoided by delivering better management and lifestyle modifications for people at risk of knee replacement.<sup>4</sup> In addition 20-40% of people who have this surgery achieve little clinical benefit<sup>5</sup> for reasons which are unclear. Research into better patient selection for surgery and the delivery of more effective models of care for osteoarthritis would achieve improved outcomes at much lower cost.
- **\$540 million** a year spent on biological drugs for rheumatoid and other inflammatory forms of arthritis, which could be spent more effectively with research to improve drug targeting (personalised medicine). A major project, the Australian Arthritis and Autoimmune Biobanking Collaborative, is being rolled out with philanthropic support to provide the infrastructure, biospecimens, data linkage and big data analysis capacity to support research in this area. Additional funding could accelerate the roll-out and allow additional conditions to be included.
- **\$220 million** a year on imaging for low back pain,<sup>6</sup> which may be mostly unnecessary<sup>7</sup> and which could be addressed by a modest investment in research into better models of care.

## Cost

\$200 million over 10 years.

**Table 1: Cost, burden and research funding for the four leading causes of disease burden, Australia, by disease group, plus dementia and diabetes (green).**

Impact	Cancer	CVD	Arthritis & MSK	Mental health	Dementia	Diabetes
<b>Burden of disease (2018)</b>	18%	13%	<b>13%</b>	13%	2.9%	2.5% (type 2)
<b>Health system cost (2018) \$bn</b>	\$11.7	\$11.8	<b>\$14</b>	\$10.5	\$5.4*	\$3
<b>NHMRC funding (2020) \$m</b>	\$170.2	\$107.6	<b>\$46.1</b>	\$103.9	\$64.1	\$45.6
<b>Medical Research Future Fund missions</b>	\$135m (brain cancer)	\$220m	<b>\$0</b>	\$125m	\$185m	\$54.5m (Type 1 diabetes)

Source: AIHW Burden of Disease Study, AIHW Health Expenditure by Disease, NHMRC funding statistics/website

\*Source NATSEM 2017 Economic cost of dementia in Australia 2016-2056. Includes costs for residential aged care

## Fund community based arthritis exercise programs

### Objective

Increase access to community arthritis-appropriate exercise programs to help people with arthritis undertake more physical activity to better manage their condition and to reduce demand for medicines and surgery.

### Proposal

Provide funding for the national delivery over 4 years of The Joint Movement program, an evidence-based, evaluated group exercise program designed to improve health outcomes for people with arthritis and musculoskeletal conditions.

The Joint Movement was developed by Arthritis Australia with the support of leading health and fitness experts. It offers both warm-water and land-based strength exercise programs which are led by trained and accredited exercise professionals. During the covid pandemic, we pivoted to offer online classes, providing consumers with better access and choice.

The Joint Movement was delivered from 2019-2021 in some states and territories with funding from Sport Australia's Better Ageing program. Participants either responded to local advertising or were referred by their GP. However, initial funding expired in 2021 and was restricted to participants aged 65 years or more, which meant that people under 65 who could have benefited had to be turned away, and were often not comfortable seeking an alternative such as attending a gym.

This proposal aligns with recommendation 2.2.4 of the *National Strategic Action Plan for Arthritis* which includes providing funding for people with arthritis to access arthritis-appropriate evidence-informed exercise programs.

This proposal also aligns with the National Preventative Health Strategy's emphasis on encouraging and helping people, include older people, to take part in physical activity.

### Background and rationale

#### *Benefits of exercise*

Exercise is one of the most effective management strategies for arthritis and can also delay or avoid expensive joint replacement surgery.

However only 25% of Australians with arthritis report that they exercise most days and 14% do strength training to manage their condition. On the other hand, 83% report taking medication<sup>8</sup> and arthritis is one of the most common conditions for which opioids are prescribed, despite limited clinical benefit and a high risk of adverse events.<sup>9</sup>

A landmark study found that two-thirds of patients with moderate to severe knee osteoarthritis eligible for joint replacement surgery delayed surgery for at least 2 years following appropriate non-surgical treatment, comprising patient education, exercise therapy and weight control.<sup>18</sup>

Hip and knee replacements for osteoarthritis cost the health system around \$2.3 billion in 2012/13<sup>10</sup> and this cost is projected to rise to \$5.3 billion by 2030.<sup>11</sup> Widely implementing non-surgical management strategies for osteoarthritis has been estimated to save more than \$200 million a year in reduced knee replacements alone.<sup>12</sup>

In the wake of the impact of covid and lockdowns on mental health and wellbeing, it is more important than ever to support community activities that contribute to health and social wellbeing.

### **The Joint Movement evaluation**

An evaluation of The Joint Movement Program is currently being finalised. Data analysis shows statistically significant changes, including a reduction of pain and stiffness and improvements in functional outcomes. Qualitative survey responses indicated that increases in physical activity had positive effects on participants' daily activities and mental and social wellbeing. In the words of participants:

*"[The program] convinced me how much exercises help me mentally and physically everyday"*

*"I have been given some exercises by an Exercise Physiologist but as I found it wasn't as good as our group sessions as the socialising was missing which I found by doing it online with other people".*

*"I was aware of being stronger while cooking, gardening and lifting"*

*"It gave me confidence to restart an exercise program as it catered for my current low fitness levels and arthritic knee and shoulder problems".*

The pivot to offering online classes due to covid was highly beneficial:

*"I love the fact that I can exercise in the home without having to go out to a gym ... which I would not do".*

*"As a pensioner, I cannot afford to attend exercise classes and these taught me what I can do to help my arthritis safely during Covid"*

*"I like the fact that I am booked to zoom the class, it makes me do it, as I'm not good at motivating myself for exercise"*

*"I was motivated to do the program as it was so easy to log in and join the class. I never missed a session and enjoyed it immensely"*

There were some striking examples of the potential of the program to benefit and link to services for consumers with complex needs - in a case study from one provider:

*We have one particular Torres Strait Islander woman who found our program when it was advertised in the free local press. She could barely move and was very much housebound. We started working with her, but also assisted her to link up with services such as My Aged Care which then allowed her to get community transport so she could come to classes two times a week. She is now much more independent, has a program of exercise she undertakes every day at home, she has lost 20 kgs, her cardiac health is better than it was, her diabetes no longer needs medication and she has made friends!*

The Joint Movement program guidelines will be reviewed and updated to incorporate learnings from the evaluation.

A randomised control trial of a similar program in Canada showed significant improvements in self-reported pain, physical function, and fear of movement in the training group compared to the control group.<sup>13</sup>

### **Cost**

**\$5 million over four years** for national delivery and promotion of the program.

## Improve affordable access to allied health through existing MBS chronic disease management items

### Proposal

- Expand access to group allied health services to people with musculoskeletal conditions under Chronic Disease Management Plans
- Increase the number of allied health services available under MBS Chronic Disease Management Plans. Based on an assessment of need and evidence of benefit, people with arthritis should be able to receive an additional five services per calendar year

In 2019, the MBS Review Taskforce's Allied Health Reference Group recommended increasing the number of allied health appointments under GP Management Plans (GPMPs) and team care arrangements (TCAs) by stratifying patients to identify those with more complex care requirements. It also recommended conducting a systematic review of current evidence to support evidence-based expansion of group allied health interventions<sup>14</sup>.

The [National Strategic Action Plan for Arthritis](#) recommends that individual allied health services under Chronic Disease Management Plans should be extended along the lines of the psychology model – a review by the GP, who can recommend a further five sessions if needed. Not all patients would receive additional sessions. The NSAPA was based on a [robust evidence review](#) and extensive [consultation](#) with consumers, clinicians and health system stakeholders, including Steering Group representation from key medical and allied health peaks.

### Benefits:

- Reduced out of pocket costs to consumers and better access to multidisciplinary care, leading to improved quality of life, delayed disease progression, reduced disability and improved workforce retention for people with severe arthritis
- Potential savings of hundreds of millions of dollars in reduced costs for joint replacements alone
- Reduced costs to the health, welfare and aged care systems as a result of improved management of arthritis which preserves function and mobility and supports independence.

### Background and rationale

*“Last financial year I spent over \$6,500 on medication alone!!! This doesn't take into account the many doctor visits, physiotherapy, podiatry and specialised exercise programs that I require.”*

Consumers in Arthritis Australia's 2018 survey reported that they faced **high out-of-pocket costs** for their care, which was mostly undertaken in the private sector. In particular, people reported extremely high cumulative costs associated with private specialist visits, imaging, allied health professional services (especially for exercise therapy), medicines and surgery. The high cost of accessing care was the most commonly cited concern among survey respondents, mentioned by one in three people. Given arthritis and musculoskeletal conditions are a leading cause of early retirement and loss of work hours, consumers face a double financial hit.

A major concern raised by those consulted (59%) was limited patient access to multidisciplinary care in both the public and the private sector. **The cost to patients of accessing allied health professionals was identified as a major barrier to improving arthritis management.** In the private community sector, only five subsidised allied health visits are available to consumers with a chronic condition under Medicare chronic disease management items, and these may be used for a range of allied health services needed, such as podiatry, Occupational Therapy etc. Typically, a series of allied health visits are required to achieve improvement or behaviour change.

Arthritis is one of the most common comorbid conditions. Three out of four people with arthritis have at least one other chronic condition, and arthritis increases the risk of developing other chronic conditions. There is an **over-reliance on medications and surgery for management of arthritis.** More than \$1.4 billion was spent on knee replacements for osteoarthritis in 2016.<sup>15</sup> At least \$200 million of this cost could be avoided by delivering better management and lifestyle modifications for people at risk of requiring a knee replacement.<sup>16</sup>

**Multidisciplinary team care is consistently recommended in local and international guidelines and standards of care for people with most forms of arthritis,** but is not widely available in Australia. The cost of accessing private allied health services, which are inadequately covered by Medicare and private health insurance, forms a significant barrier to optimal access to multidisciplinary care.

## Cost

\$6.5 million per year to expand group allied health services under CDMP to people with musculoskeletal conditions

In the last financial year, 8.7 million individual allied health services were claimed under the CDMP items at a cost of \$481 million. If the number of services were expanded, not all patients would go on to claim an additional five sessions per year as this would be dependent on stratification of those with more complex care requirements who would benefit.



## Fund arthritis educators to provide community based support

### Objective

Improve health outcomes for children and adults with arthritis by improving access to community-based information, education and support.

### Proposal

Fund a proof of concept trial of arthritis educators linked to arthritis organisations around Australia to increase the capacity of these organisations to deliver information, education and support for children and adults with arthritis.

Educators would be appropriately skilled specialist nurses, allied health professionals or pharmacists. Roles would include:

- Provide tailored information, education and support to children and adults living with arthritis to assist them to understand their condition and its management.
- Assist people to navigate the health system to access appropriate services and supports, potentially avoiding unnecessarily presenting to emergency departments.
- Refer people to appropriate exercise programs and other community based supports (eg peer support groups) to help them to self-manage and cope with their condition.
- Undertake group-based patient education and support sessions for people who are newly diagnosed, on referral from local health professionals.
- Deliver education sessions in underserved areas eg rural and regional areas.
- Liaise with and educate health professionals.
- Provide a nurse support line for children and adults with arthritis.

An evaluation to assess the benefits and cost-effectiveness of the service would also be completed.

### Background and rationale

#### *Issue*

Access to information, education and support from health professionals and other sources is important to equip people with chronic conditions such as arthritis with the knowledge and skills to self-manage their condition and to participate in decisions about their care. It is also an important contributor to psychological wellbeing and an individual's ability to cope with their condition.

However, access to information and support within the health system for adults and children with arthritis is limited:

- People with arthritis commonly report that they are advised to 'put up with' their condition and offered few options for their treatment.<sup>17 18 19</sup> Lack of information and advice from GPs is a major concern.<sup>20</sup> In particular, people are rarely advised to exercise or lose weight for osteoarthritis, even though these strategies are recommended in all clinical guidelines, have been shown to be as effective as non-steroidal anti-inflammatory medicines and can avoid or delay joint replacement surgery.<sup>21</sup>
- A recent survey found that only half of people receiving care for their arthritis were satisfied with the information and support they received for their condition and only 30% were satisfied with the support they received for their emotional and mental wellbeing.<sup>22</sup>

- Two out of three people with arthritis report that they are faring badly with their condition. People who report poor access to information and support from health care professionals are two to three times more likely to report that they are faring badly with their arthritis.<sup>23</sup>

This proposal aligns with recommendation 1.3.1 of the *National Strategic Action Plan for Arthritis* which is 'Fund arthritis educators to provide education and support to children and adults with arthritis.' Consultations during the development of the Action Plan highlighted this action as one of the top priorities for consumers.

### **Benefits**

Funding community-based arthritis educators to provide education and support for people with arthritis will help to fill current gaps in the provision of care and support within the health system, leading to improved health outcomes and quality of life.

Access to appropriately qualified educators is associated with better health outcomes, higher patient satisfaction, improved patient knowledge of their condition and better support for patients' emotional wellbeing.<sup>24 25</sup>

Access to educators will also help to increase referral to evidence-based non-surgical management strategies, such as exercise and weight loss. These non-surgical strategies have been shown to improve symptoms in people with osteoarthritis by one third and to substantially reduce demand for expensive joint replacement surgery.<sup>26 27</sup>

### **Cost**

#### **\$4.5 million over four years for a proof-of-concept trial and evaluation.**

This would cover eight full-time-equivalent health educators across Australia over four years, promotion of the service and an evaluation of the benefits and cost-effectiveness of the service.

## About Arthritis Australia

Arthritis Australia is the peak national arthritis consumer organisation in Australia and is supported by affiliate offices in ACT, New South Wales, Northern Territory, Queensland, South Australia, Tasmania and Western Australia.

Arthritis Australia provides support and information to people with arthritis and related musculoskeletal conditions, as well as their family and friends. It promotes awareness of the challenges facing people with arthritis across the community, and advocates on behalf of consumers to leaders in business, industry and government.

In addition, Arthritis Australia funds research into potential causes and possible cures as well as better ways to live with these conditions.

## References

- <sup>1</sup> Australian Institute of Health and Welfare 2021. Australian Burden of Disease Study: impact and causes of illness and death in Australia 2018. Australian Burden of Disease Study series no. 23. Cat. no. BOD 29. Canberra: AIHW
- <sup>2</sup> Australian Institute of Health and Welfare 2021. Disease expenditure in Australia 2018-19. Cat. no. HWE 81. Canberra: AIHW.
- <sup>3</sup> The Australian Commission on Safety and Quality in Health Care. *Prioritised list clinical domains for clinical quality registry development: Final report*. Sydney: ACSQHC; 2016
- <sup>4</sup> Ackerman IN et al 2016. *Counting the Cost: The current and future burden of arthritis. Part 1 Healthcare costs*.
- <sup>5</sup> Choong PF and Dowsey MM 2014. The grand challenge – managing end-staged joint osteoarthritis. *Frontiers in surgery*. doi: 10.3389/fsurg.2014.00009
- <sup>6</sup> NSW Agency for Clinical Innovation. Management of people with acute low back pain: model of care. Chatswood; NSW Health; 2016. 39 p
- <sup>7</sup> Downie Aron, Williams Christopher M, Henschke Nicholas, Hancock Mark J, Ostelo Raymond W J G, de Vet Henrica C W et al. Red flags to screen for malignancy and fracture in patients with low back pain: systematic review *BMJ* 2013; 347 :f7095
- <sup>8</sup> Australian Bureau of Statistics. 4364.0.55.002 - Health Service Usage and Health Related Actions, Australia, 2014-15. Available at <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/4364.0.55.002~2014-15~Main%20Features~Arthritis~10002>. 2017
- <sup>9</sup> Harrison, C.M., et al., Opioid prescribing in Australian general practice. *Med J Aust*, 2012. 196(6): p. 380-1.
- <sup>10</sup> The Australian Commission on Safety and Quality in Health Care. *Prioritised list of clinical domains for clinical quality registry development: Final report*. Sydney: ACSQHC; 2016
- <sup>11</sup> Ackerman, IN, Bohensky, MA, Zomer, E, et al, 2019. The projected burden of primary total knee and hip replacement for osteoarthritis in Australia to the year 2030. *BMC Musculoskeletal Disorders* 2019 20:90
- <sup>12</sup> Ackerman IN et al 2016. *Counting the Cost: The current and future burden of arthritis. Part 1 Healthcare costs*.
- <sup>13</sup> Takacs J, Krowchuk N, Garland J, Carpenter M, Hunt M. Dynamic balance training improves physical function in individuals with knee oa : a pilot randomized controlled study. *Arch Phys Med Rehab* 2017 Aug;98(8):1586-1593.
- <sup>14</sup> MBS Review Taskforce, *Post Consultation Report from the Allied Health Reference Group*, Canberra: Commonwealth Department of Health; 2019
- <sup>15</sup> The Australian Commission on Safety and Quality in Health Care. *Prioritised list clinical domains for clinical quality registry development: Final report*. Sydney: ACSQHC; 2016
- <sup>16</sup> Ackerman IN et al 2016. *Counting the Cost: The current and future burden of arthritis. Part 1 Healthcare costs*.
- <sup>17</sup> Ackerman IN, Livingston JA, Osborne RH. (2016) Personal Perspectives on Enablers and Barriers to Accessing Care for Hip and Knee Osteoarthritis. *Physical Therapy*. 96(1):26-36.

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- <sup>18</sup> Nolan G, Koutsimanis H, Page C, Briggs A, Harris B 2016, Consumer feedback on the current and future management of hip and/or knee osteoarthritis in Victoria, MOVE muscle, bone & joint health, Melbourne. MOVE muscle, bone & joint health
- <sup>19</sup> Arthritis Australia, 2011. *The Ignored Majority: The Voice of Arthritis 2011*
- <sup>20</sup> Nolan G, Koutsimanis H, Page C, Briggs A, Harris B 2016, Consumer feedback on the current and future management of hip and/or knee osteoarthritis in Victoria, MOVE muscle, bone & joint health, Melbourne. MOVE muscle, bone & joint health
- <sup>21</sup> Skou, S.T., et al., Total knee replacement and non-surgical treatment of knee osteoarthritis: 2-year outcome from two parallel randomized controlled trials. *Osteoarthritis Cartilage*, 2018. 26(9): p. 1170-1180.
- <sup>22</sup> Australian Healthcare and Hospitals Association 2017. *Rheumatology nursing: Adding value to arthritis care*. Arthritis Australia 2017
- <sup>23</sup> Arthritis Australia, 2011. *The Ignored Majority: The Voice of Arthritis 2011*
- <sup>24</sup> Australian Health and Hospitals Association 2017. *Rheumatology nursing: Adding value to arthritis care*. Arthritis Australia 2017.
- <sup>25</sup> van Eijk-Hustings, Y, van Tubergen, A, Boström, C, Braychenko, E, Buss B, Felix, J & EULAR, 2012, 'EULAR recommendations for the role of the nurse in the management of chronic inflammatory arthritis', *Annals of the Rheumatic Diseases*, vol. 71, no. 1, pp. 13–19.
- <sup>26</sup> Skou, S.T. and E.M. Roos, *Good Life with osteoArthritis in Denmark (GLA:D): evidence-based education and supervised neuromuscular exercise delivered by certified physiotherapists nationwide*. *BMC Musculoskeletal Disord*, 2017. 18(1): p. 72.
- <sup>27</sup> Skou, S.T., et al., Total knee replacement and non-surgical treatment of knee osteoarthritis: 2-year outcome from two parallel randomized controlled trials. *Osteoarthritis Cartilage*, 2018. 26(9): p. 1170-1180.