



**Australian Government**

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**Department of Health**

**National Strategic  
Action Plan for  
Arthritis**

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In particular we would like to thank the following:



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The members of the Steering Committee who provided their valuable time and expertise to help shape the Action Plan.

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The project team for the National Osteoarthritis Strategy, including members of the Leadership Group and Working Groups, who shared their research, deliberations and recommendations with Arthritis Australia to help inform the development of this Action Plan.

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Participants in the Arthritis Roundtable held in December 2017 who identified potential actions and priorities for consideration as part of the development of the Action Plan.

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Members of the National Arthritis Consumer Reference Group who shared their experience of living with arthritis and their ideas for improving arthritis care and support.

# FOREWORD

I am very pleased to have been asked to write the foreword for the National Strategic Action Plan for Arthritis. This important initiative provides a comprehensive guide to improving care and support for the four million Australians of all ages living with arthritis.

Arthritis can be an invisible disease and its true impact on people's lives is poorly understood. I experienced this firsthand when my daughter, Kate, was diagnosed with juvenile arthritis in the early 1980s, when she was just 14 years old.

Through my involvement in the arthritis cause, many people have told me of their struggles to cope with the pain, fatigue and life-changing impact of their arthritis, often with little understanding from those around them of just what they were going through. I have been inspired by their fierce courage and determination to live as normal a life as possible with this painful and often debilitating condition. They should not have to do this alone.

Implementing the recommendations detailed in this Action Plan will go a long way towards improving arthritis awareness and education, reducing delays in diagnosis and ensuring people with arthritis get the treatment, care and support they need. The ambitious and forward-looking investment in research proposed will be essential to help find better ways to treat and, ultimately to cure, arthritis in its many forms.

I congratulate all those who have contributed to the development of the Action Plan and strongly encourage all stakeholders to work together to support its implementation. I sincerely hope that this Action Plan provides a turning point that will help ensure that everyone facing the challenge of arthritis gets the care and support they need to live the best possible life, in spite of their condition.



**Ita Buttrose AO, OBE**  
**Emeritus Director**  
**Arthritis Australia**

## VISION : Freedom from the burden of arthritis.

### PRIORITY AREAS

- 1 **Awareness, prevention and education.**
- 2 **High-value, person-centred care and support.**
- 3 **Research, evidence and data.**

These priority areas are interconnected and coordinated action will often be required across two or more priority areas to maximise impact.

The National Strategic Action Plan for Arthritis provides an evidence-informed blueprint to guide national efforts to improve health-related 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.

Arthritis is one of the most common, costly and disabling of all chronic conditions. In its many forms it affects nearly four million Australians of all ages, including children and young people. Yet the personal, social and economic impact of arthritis is poorly recognised and often wrongly trivialised.

Misconceptions persist that arthritis is just a single condition, that it only affects old people and is an inevitable part of ageing about which nothing can be done. These misconceptions create a sense of futility among consumers, health professionals and policy makers which undermines prevention, early diagnosis and effective management of the condition.

But much can be done to prevent and better manage arthritis to reduce the severity of the condition and its impact on individuals, carers and families, health and welfare systems, and the economy.

Currently, there is a major mismatch between the burden of disease associated with arthritis and its prioritisation in policy and resourcing which needs to be addressed. This Action Plan sets out priorities and actions for addressing the challenge of arthritis with the objective of achieving the best possible health and life outcomes for people living with these painful and often debilitating conditions. It aims to address issues common to most forms of arthritis and has a strong focus on preventing the onset and progression of arthritis, supporting people to become active participants in their care and promoting person-centred, high-value treatment and care.

The Action Plan identifies three key priority areas and proposes a number of objectives and actions to achieve the overall vision of freedom from the burden of arthritis. The priorities and actions of the Plan have been developed with input from members of the Steering Committee (see Appendix 1), representing key stakeholders in arthritis care; the project team developing the National Osteoarthritis Strategy; a range of targeted consultations with consumers, clinicians, policy makers and health service providers; and a public consultation.

## PRIORITY AREAS AND OBJECTIVES



### **Awareness, prevention and education**

Increase community awareness and understanding of arthritis, its risk factors and opportunities for prevention and improved management.

Reduce the risk of developing arthritis across the life course.

Empower people with arthritis with information, education and support to effectively self-manage their condition



### **High-value person-centred care and support**

Drive systems-level improvements to support the delivery of high-value care for people with all types of arthritis.

Improve affordable and timely access to appropriate health care, services and treatments.

Support health professionals with information, education and tools to deliver high-value arthritis care.

Address the needs of priority populations.



### **Research, evidence and data**

Fund a national arthritis and musculoskeletal health mission from the MRFF to increase strategic investment in research and research capacity.

Enhance data collection, linkage and analysis to drive quality improvement in arthritis prevention, management and outcomes.

**A range of detailed actions to support the achievement of these objectives is outlined in the following pages.**

## PARTNERSHIPS

Implementation of the actions included in this Action Plan will require contributions by a wide range of partners. These partners include:

- individuals, carers and families
- communities
- all levels of government
- non-government organisations
- the public and private health sectors, including all health care providers and private health insurers
- industry
- researchers and academics.

All partners have shared responsibility for health outcomes according to their role and capacity within the health care system. Greater cooperation between Partners will lead to more successful individual and system outcomes. Actions included in this Action Plan are intended to guide Partner investment in the prevention and management of arthritis and should be implemented collaboratively to achieve the best health outcomes.

## OUTCOMES

Implementation of this Action Plan will improve prevention, management and support for people with or at risk of arthritis. This will provide significant benefits to individuals by reducing the pain and disability associated with arthritis, helping them to maintain their independence and quality of life and maximising their ability to work and participate in social activities. Significant benefits will also accrue to the health system, society and the economy from better management of these highly prevalent and disabling conditions.

### The expected outcomes include:

- Equitable, timely access to appropriate, comprehensive and person-centred health services for people with arthritis
- More effective use of limited health resources to deliver high-value services, with the potential for significant cost savings in many areas
- Reduced incidence and burden of disease
- Improved health outcomes and quality of life
- Reduced disability and welfare expenditure
- Reduced social and economic burden through higher rates of social and workforce participation for people with arthritis.



# ABOUT THIS ACTION PLAN

## The National Strategic Action Plan for Arthritis addresses the pressing need for a coordinated and strategic national response to the challenge of arthritis.

The intended audiences for the Action Plan include the Australian and state and territory governments, health service providers and funders, clinicians, consumers, researchers and research funders. Implementation will require national action and partnerships across all sectors and levels of the health system, non-government organisations, the private sector, researchers and academics, and individuals.

The Action Plan builds on the recommendations of the *Time to Move: Arthritis* strategy which was published by Arthritis Australia in 2014. It also closely aligns with and supports the goals, principles and strategic priority areas of the *National Strategic Framework for Chronic Conditions* through a shared emphasis on prevention and efficient, effective and appropriate person-centred care to optimise quality of life for people with chronic conditions. The Action Plan also builds on and aligns with a range of other national and state-wide strategies, action plans and models of care, including the *National Strategic Action Plan for Pain Management* (in preparation).

In particular, the Action Plan aligns with the *National Osteoarthritis Strategy* (2018) which has informed the development of many of the Plan's recommendations. The Strategy provides additional detail regarding the implementation of recommendations relating to the prevention and management of osteoarthritis.

The development of the Action Plan was led by Arthritis Australia with the valuable input of an expert, multidisciplinary Steering Committee, comprising representatives of major stakeholder groups with an interest in arthritis prevention, management and care. Steering Committee members included consumers, health professionals, researchers, policy makers and service providers. Major contributions were also provided by the project team for the *National Osteoarthritis Strategy* (2018), participants in the Arthritis Roundtable Workshop held in December 2017, and the National Arthritis Consumer Reference Group.

Targeted consultations with consumers, health professionals, policy makers and service providers and a public consultation, also informed the development of the Action Plan. Information on these consultations, a summary of evidence supporting the Action Plan and an outline of major arthritis-related initiatives across Australia are provided separately.

The development of this Action Plan has recognised the current fiscally constrained environment and so should guide the Australian Government and state and territory governments in planning and directing funding in a cost-effective and sustainable way to improve the health of all Australians – specifically, to reduce the incidence and impact of arthritis. Governments will use the activities in this Plan to inform their prioritisation of effort. Action will vary in each jurisdiction depending on available resources, current programs and local needs.

# WHAT IS ARTHRITIS

## Arthritis is an umbrella term for more than 100 conditions affecting the joints and surrounding structures.

These conditions damage the joints, causing swelling, pain, stiffness, reduced mobility and impaired physical function. Some forms may also affect the heart, eyes, lungs, kidneys and skin and are associated with reduced longevity. Many types of arthritis can progress over time, with worsening symptoms and joint damage if not managed effectively. There is no cure for arthritis, although effective treatment and management can help to ease symptoms, achieve remission in some forms of arthritis, and slow or prevent disease progression.

The most common form of arthritis is osteoarthritis. Osteoarthritis is often described as 'wear and tear', but this is not an accurate description of the disease. The joints do not wear away because of too much use. Osteoarthritis is now understood to be the result of a breakdown in the body's normal joint repair processes. Osteoarthritis is more common in older age, but it can affect younger people, especially those with a prior joint injury. Treatment options include exercise, weight loss if required, and self-management education as first-line therapies, with pharmacological therapies useful as an adjunct for some. Joint replacement surgery may be appropriate for some people when other treatments are no longer effective.

The second most common form of arthritis is rheumatoid arthritis, an inflammatory form of arthritis in which the immune system attacks the joints and other parts of the body. Other forms of inflammatory arthritis include gout, ankylosing spondylitis and psoriatic arthritis. Most forms of inflammatory arthritis are auto-immune conditions. Inflammatory forms of arthritis can affect people at any age, including children. Early diagnosis and intervention are crucial for most of these forms of arthritis. In rheumatoid arthritis for example, early diagnosis and treatment with disease-modifying anti-rheumatic drugs, ideally within 12 weeks of symptom onset, can prevent or delay joint damage, increase the chance of achieving disease remission and improve long-term outcomes, including reduced disability.<sup>1</sup>

Juvenile Idiopathic Arthritis (JIA) is the most common rheumatic condition in children. If not treated quickly and appropriately, it can seriously affect the growth and development of a child, causing severe joint damage, growth abnormalities and permanent disability. Although JIA resolves in many children, 50% of those diagnosed will continue to have active disease into adulthood.

# THE CHALLENGE OF ARTHRITIS

## Arthritis is one of the most common, costly and disabling chronic conditions in Australia and is the leading cause of chronic pain.

In its many forms arthritis affects nearly four million Australians of all ages, including at least 6000 children and two million people of working age (15-64 years). The number of Australians with arthritis is projected to rise to 5.4 million by 2030.<sup>3</sup>

Arthritis can have a profound impact on a person's quality of life and well-being. The persistent pain and impaired mobility and physical function associated with arthritis can lead to problems with sleep, fatigue, depression and anxiety. It can also reduce a person's capacity to study, work and participate in family and social activities. Children affected by JIA, even if the condition resolves, often experience lifetime impacts from the disease or its treatment, including poorer physical health and wellbeing, and lower educational attainment and employment prospects.<sup>4</sup>

Arthritis also increases the risk of developing other chronic conditions, and subsequently complicates their management, due to its treatment (e.g. with non-steroidal anti-inflammatory drugs or corticosteroids) and impact on mobility and systemic inflammation.<sup>5</sup> This is a major issue as three out of four people with arthritis have at least one other chronic condition. In addition, 52% of people with COPD, 41% of people with diabetes and 41% of people with cardiovascular disease report that they also have arthritis.<sup>6</sup> A strong relationship also exists between arthritis and musculoskeletal pain and a lack of physical activity, which can lead to functional decline, frailty, loss of independence and social isolation.<sup>7</sup>

Arthritis affects not only individuals living with the condition but also their carers, family members, friends, local support networks, employers and communities.

Despite these impacts, the immense personal, social and economic costs of arthritis are poorly recognised. These costs include health care costs, personal and societal costs associated with lost productivity due to the impact of arthritis on a person's capacity to work, and, of course, the immeasurable cost of lost wellbeing. Key indicators of the cost of arthritis include:

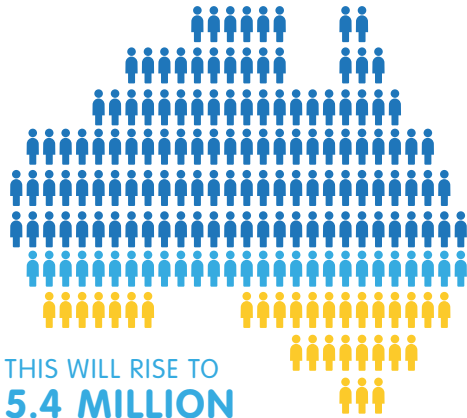
- Health system expenditure for arthritis was \$5.5 billion in 2015, making arthritis one of the most expensive disease groups in Australia.<sup>8</sup>
- Two million Australians have osteoarthritis and nearly half a million have rheumatoid arthritis.<sup>8</sup>
- Hip and knee replacements for osteoarthritis cost the health system around \$2.3 billion in 2012/13 and this is projected to rise to \$5.3 billion by 2030.<sup>10</sup>
- Arthritis and musculoskeletal conditions account for 12% of the total Australian disease burden, equal to mental health conditions. Arthritis alone accounts for around 8% of the total burden.<sup>11</sup>
- Arthritis is the second most common cause of disability after back pain.<sup>12</sup>
- Arthritis has a major impact on a person's capacity to work and is the second most common reason for early retirement due to ill health.<sup>13</sup> In 2015, it cost over \$1.1 billion a year in extra welfare payments and lost taxation revenue, as well as \$7.2 billion in lost GDP.<sup>14</sup> Arthritis also accounts for nearly half (40%) of the loss in full-time employment and 42% of the loss in part-time employment due to chronic disease.<sup>15</sup>
- One in four people with arthritis experiences mental health issues.<sup>16</sup> People with mental health conditions are also around 50% more likely to have arthritis than the general population.<sup>17</sup>
- By 2030, the number of people with arthritis is projected to rise to 5.4 million and the associated health system cost to \$7.6 billion.<sup>8</sup>

Arthritis tends to be poorly managed in Australia.<sup>18</sup> Much money is spent on low-value, ineffective or potentially harmful care, at great expense to both governments and individuals, while proven, effective care strategies go unfunded.<sup>19</sup> In addition there is variable access to and delivery of services and programs for children and adults with arthritis in both the public and the private sector across Australia.<sup>20</sup>

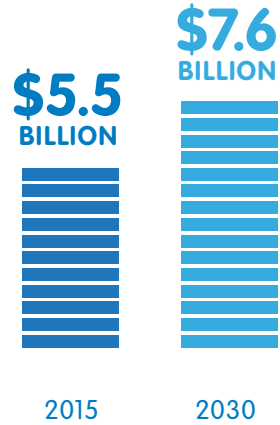
There is a major mismatch between the burden and cost associated with arthritis and its prioritisation in policy and resourcing. Given the projected increase in arthritis prevalence and cost, there is an urgent need to implement policies and programs to prevent arthritis and improve its management to deliver high-value care, better outcomes and increased health-related quality of life.

# ARTHRITIS IS ONE OF THE MOST COMMON, COSTLY AND DISABLING CHRONIC CONDITIONS

**4 MILLION AUSTRALIANS LIVE WITH ARTHRITIS**

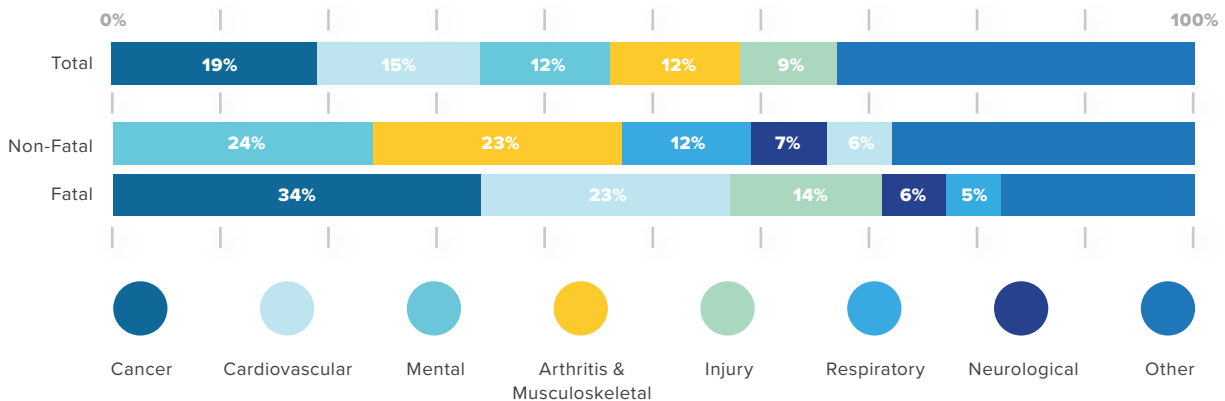


**HEALTH SYSTEM COST**

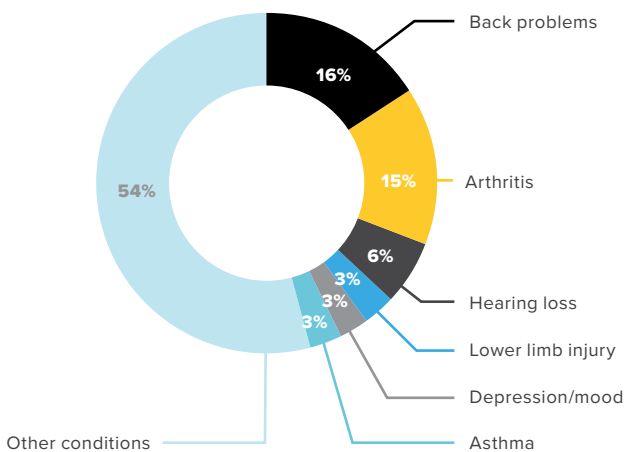


## BURDEN

Proportion (%) of total, fatal and non-fatal burden by disease group, Australia 2011

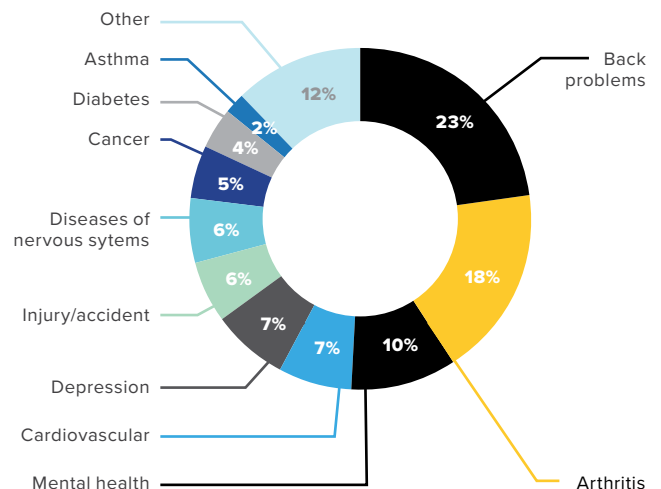


## DISABILITY



Proportion of all disability by main disabling condition, Australia 2009

## WORKFORCE IMPACT



Main chronic conditions of people aged 45-64 years not in the labour force due to ill health, 2010

'Sometimes, the pain feels like a truck is driving over you. I tell myself I am not going to die from rheumatoid arthritis and often that's the only thing that keeps me going.'

'No one seems to care. I received my diagnosis and was told there was nothing they could do, take Panadol for pain and see you later.'

'I am 32. Due to my condition, I can only work part time. I am limited by my pain and my medical appointments and tests. I struggle to stand, sit or walk for any length of time, am in constant pain. My physical pain I can cope with, but the shame and isolation from my financial hardship is debilitating.'

'Rheumatoid arthritis is killing me, slowly. It is taking the life I knew and changing the life we had planned for our children. The physical pain I endure to just get up in the morning is nothing anyone should experience.

But I ask you; how do I explain to my children that it can't be cured? The mum my son remembers running around the park with him, is gone? '

'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.'

'I am 24 and live with rheumatoid arthritis. Some days the pain and fatigue are so bad I can't get dressed or cook myself a meal. Even on a good day I struggle with most things 'normal' people don't think twice about doing, such as accessing a shopping centre or going to university.'

'I have suffered since I was a teenager. If I don't move I will stiffen up. If I move I am in pain. Every day my body hurts.'

'I have lost a lot of friends due to my diagnosis. I was unable to attend many events due to chronic fatigue, pain and difficulty when driving due to high inflammatory levels. I don't think a lot of people realise exactly what I am suffering as I look "normal" on the outside.

'My husband is going into enormous debt to renovate our home so I can move around easier, get into the shower, go to the toilet, and even, with lower benches and oven, cook again.

Psychologically it is terrible as my self-worth has dwindled and depression set in quickly. I had goals to finish my MBA, now my goal is to get out of bed each day.'

'I would have liked some emotional guidance at diagnosis. I felt very alone despite my caring husband.

I was in a very 'dark place' for the first time in my life and quite frankly, I was scared.'

'Diagnosed with osteoarthritis at 22 years. I would love to have one night's peaceful sleep with no pain.... just one night. I would love to be able to walk without grinding my teeth to hide my pain rather than let it show on my face.'

'My 8 year old daughter was diagnosed with juvenile arthritis at 2 years of age. Regular visits to [hospital] for drug infusions are essential in controlling her condition. It takes 90 minutes in each direction to get to and from regular treatments [because] services are not available in our local region.

We as a family try to keep our heads above water with regular illness due to her immunosuppression caused by the treatment, time away from work, my child's time away from school and we just survive. Other family and friends truly have no idea of the impact of our situation. Financially we struggle.

# 1. AWARENESS, PREVENTION AND EDUCATION

## PRIORITY AREA 1

### What we hope to achieve



Improved community, policy maker and health professional awareness and understanding of arthritis, its risk factors and opportunities for prevention and better management.



Lower arthritis incidence and prevalence by reducing modifiable risk factors.



Provision of timely information, education and support to people with arthritis and their families and carers, to assist them to become active participants in their health care and to help them to self-manage their condition at all stages.

### Why is this important?

Although arthritis is very common, it is not well understood. Community misconceptions persist that arthritis is a single condition that only affects old people and that it is an inevitable part of ageing about which nothing can be done. These misconceptions create a sense of futility among consumers, carers and health professionals which can undermine prevention, early diagnosis and effective management.<sup>21</sup>

There is also limited community awareness of modifiable risk factors for arthritis including obesity, physical inactivity, poor diet, smoking and joint injuries. Arthritis is rarely included in public health messaging or policy around chronic disease prevention or healthy lifestyle promotion. In addition, there is limited awareness that sports injuries associated with increased osteoarthritis risk can be reduced by implementing simple, low cost sports injury prevention programs and timely and effective post-injury rehabilitation.

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, a recent survey found that only around 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> People who report poor access to information and support are also more likely to report that they are faring badly with their arthritis.<sup>23</sup>

Education, information and support are required at all stages of a person's journey, but particularly at diagnosis and during a disease flare to assist people to understand and actively manage their condition. People should receive information and education about: their condition and treatments; likely prognosis/course of symptoms; medications; pain and pain management strategies; effective self-care strategies such as physical activity, healthy eating and weight loss where indicated; and advice on reputable sources of evidence-based information. Education and support needs to be tailored to an individual's needs which will vary depending on the type of arthritis they have, their age at diagnosis, their personal life stage, their comorbidities, and the severity and duration of their condition.

## Objective 1.1

### Increase community awareness and understanding of arthritis, its risk factors and opportunities for prevention and improved management.

#### Actions

#### Implementation

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##### 1.1.1

Develop and deliver education and awareness campaigns tailored to different target audiences, to address identified community knowledge gaps.

Priority topic areas and target audiences for awareness campaigns include:

- The importance of early diagnosis and treatment of inflammatory arthritis. Targets: general public, health professionals, PHNs.
- The benefits of physical activity, smoking cessation, exercise and weight loss for managing arthritis. Targets: people with or at risk of arthritis, health professionals.
- Arthritis risk factors and prevention including obesity, physical inactivity, smoking and joint injuries. Targets: general public, policy makers, health professionals, PHNs, industry, healthy lifestyle program providers, sporting organisations, schools, sports participants, especially adolescents and young adults and the fitness industry.
- Myth busting – countering common myths about arthritis (e.g. that it only affects old people). Targets: general public, health professionals, policy makers.

Develop and deliver campaigns in partnership with consumers and other organisations where appropriate, such as chronic disease groups and relevant health professional associations.

Include tailored, culturally-appropriate components for specific populations, developed in collaboration with representatives of the target audience/s, including Aboriginal and Torres Strait Islander peoples and culturally and linguistically diverse groups.

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##### 1.1.2

Integrate arthritis into all appropriate health care policies, programs and reform initiatives across all levels of government in Australia.

Update existing or new chronic disease prevention and management policies, programs and funding arrangements across all levels of government to explicitly include a focus on arthritis.

Include arthritis messaging in government-run campaigns and programs promoting physical activity, healthy diets, weight management and smoking cessation.

### Objective 1.2

## Reduce the risk of developing arthritis across the life course

#### Actions

#### Implementation

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### 1.2.1

Raise awareness of modifiable risk factors for arthritis.

Engage with government and organisations active in obesity prevention to raise awareness of the link between obesity and arthritis.

Partner with organisations promoting sport and physical activity to advocate for policies, programs and infrastructure to encourage safe, increased physical activity at every age.

Include a warning message about smoking increasing the risk of developing rheumatoid arthritis as one of the health warnings on tobacco products.

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### 1.2.2

Work with government and other stakeholders to support the development and implementation of the national obesity strategy.

Work with government, community and industry to promote the implementation of the *Tipping the Scales: Australian obesity prevention consensus* recommendations and other obesity prevention policies and programs.

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### 1.2.3

Develop and implement a national sports injury prevention program to reduce sports injuries associated with increased arthritis risk.

Develop and implement a national sports injury prevention program in collaboration with Sport Australia, injury prevention researchers, sport and exercise health professionals, sporting bodies and organisations, schools and the fitness industry.

Require government-supported sporting programs such as Sporting Schools to implement sports injury prevention programs as a condition of funding.



### Objective 1.3

**Empower people with arthritis with information, education and support to effectively self-manage their condition.**

#### Actions

#### Implementation

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##### 1.3.1

**Fund arthritis educators to provide education and support to children and adults with arthritis.**

Fund community-based arthritis educators to deliver targeted national information, education and support programs for children and adults with arthritis.

Fund arthritis educators within the public and private health systems to integrate the provision of patient-centred education, support and care co-ordination into health service delivery.

Educators need to be appropriately skilled and could be drawn or upskilled from a range of disciplines including nursing (rheumatology and/or practice nurses), allied health and pharmacy, with levels of practice determined by skills and competencies (see 2.3.2).

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##### 1.3.2

**Expand existing and develop new information, education and support programs to assist people with arthritis to proactively manage their condition.**

Contribute funding to develop, implement and evaluate an innovative comprehensive, digitally-enabled patient support program for people with inflammatory arthritis.

Develop and trial arthritis-appropriate telephone coaching programs, for national roll-out. Programs should incorporate behavioural change strategies and should be developed and evaluated for different types of arthritis including osteoarthritis, inflammatory arthritis (including JIA) and gout.

Expand the reach and coverage of JIA kids camps and programs run by arthritis organisations to cater for more children, different age groups including young adults, and children with other rheumatic conditions.

Expand peer support programs for people with arthritis to cater for groups with different needs, including children and their families

Expand and enhance the existing Arthritis Infoline support service to provide a more comprehensive, nationally consistent service, supported by healthcare professionals (e.g. nurses, allied health professionals) with knowledge of locally available services.

### Objective 1.3

**Empower people with arthritis with information, education and support to effectively self-manage their condition.**

#### Actions

#### Implementation

### 1.3.3

Develop and disseminate new consumer information, tools and resources to address identified gaps and unmet needs.

Develop comprehensive new health promotion resources with a focus on exercise to support people with arthritis and health professionals to use exercise and physical activity to help manage arthritis.

Expand existing and develop new resources for Aboriginal and Torres Strait Islander peoples and culturally and linguistically diverse groups, including video tutorials in different languages. Develop and promote these resources in partnership with representative stakeholder groups.

Develop age- and developmentally-appropriate resources and programs to support children and young people and their families living with JIA. These should include resources suitable for preschool, primary-school and high-school age children, resources and programs for schools, and transition resources to support children as they move to adulthood.

Develop information resources for less common types of arthritis and for people at different ages, disease stages (e.g. at diagnosis, during a flare) and life stages, such as family planning.

Develop resources and programs to support people with arthritis in the workplace.

Maintain a central on-line repository of information, resources and education programs for consumers and health professionals.

### 1.3.4

Develop and disseminate consumer-focused guides or standards of care for people with arthritis so they know what care they should receive.

Care guides or standards should be based on the most up-to-date clinical practice guidelines which include diagnosis, comprehensive assessment and care planning, disease education and self-management strategies, pain management, medication, early treatment, management of established disease and surgery. The consumer fact sheet for the Australian Commission on Safety and Quality in Health Care's *Osteoarthritis of the Knee Clinical Care Standard* and the European Musculoskeletal Conditions Surveillance and Information Network's (eumusc.net) consumer standards of care could be used as a guide.

# 2.

## HIGH-VALUE, PERSON-CENTRED CARE AND SUPPORT

# PRIORITY AREA 2

### What we hope to achieve

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Children and adults with arthritis receive holistic, comprehensive, and person-centred care that is culturally appropriate and tailored to their individual needs and circumstances.

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Children and adults with arthritis have equitable, affordable and timely access to appropriate care in line with their needs, including lifestyle interventions, specialist and interdisciplinary team care delivered by appropriately-skilled health professionals, pain management services, psychological support services and surgery if required.

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Evidence-based models of care for arthritis and pain management are implemented across Australia to deliver nationally consistent, high-value care and support.

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Health services are adequately resourced and structured to support rapid access to affordable specialist care for those who need it.

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Health professionals are skilled and supported with information, education and tools to deliver high-value arthritis care.

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Priority populations, including Aboriginal and Torres Strait Islander peoples, receive equitable access to information, health services and support that is timely and culturally appropriate.

## 2. HIGH-VALUE, PERSON-CENTRED CARE AND SUPPORT

# PRIORITY AREA 2

### Why is this important?

Evidence indicates that much needs to be done to improve the current management of arthritis in Australia,<sup>24</sup> with two thirds of people with arthritis reporting that they are faring badly with their condition.<sup>25</sup> The most common problems reported by people with arthritis are inadequate pain management, lack of information and support to help them to self-manage their condition and the high costs of care. Other reported problems include: delays in diagnosis and treatment; limited and inequitable access to services, especially public services; limited access to interdisciplinary care; fragmented, uncoordinated care; and lack of psychosocial support.<sup>26 27</sup>

Major evidence-practice gaps relating to the delivery of arthritis care in Australia include:

- Inadequate, inappropriate management of osteoarthritis, with limited uptake of effective lifestyle interventions such as exercise and weight loss, and over-reliance on medications and surgery.<sup>28 29</sup>
- Delays in diagnosis and access to specialist care for children and people with inflammatory arthritis, which is associated with poorer outcomes.<sup>30 31</sup>
- Limited access to interdisciplinary team care, which is consistently recommended in local and international guidelines and standards of care for children and adults with most forms of arthritis.
- Poor utilisation of urate lowering therapy for gout.<sup>32</sup>
- Lengthy waiting times for joint replacement surgery in the public sector<sup>33</sup> and significant levels of patient dissatisfaction following surgery.<sup>34 35</sup>
- Limited access to paediatric rheumatology services, including transition care programs for adolescents and young adults moving from paediatric to adult services.<sup>36</sup>

The delivery of appropriate evidence-based care can be facilitated by developing and implementing models of care. Models of care are evidence- and consultation-based frameworks that describe what and how health services and other resources should be delivered to people with specific health conditions. They provide an effective way to embed evidence into health policy and practice and achieve system efficiencies.<sup>37</sup>

A number of arthritis-related models of care already exist in some jurisdictions and are at various stages of implementation. These models have been developed by state-based musculoskeletal clinical networks. Where evaluations or reviews are available, these models of care have been shown to achieve system efficiency gains; to improve the quality of health care delivered; and to improve community access to appropriate, timely care.<sup>38 39</sup> An example is the New South Wales Osteoarthritis Chronic Care Program (OACCP), which provides assessment and non-surgical management for people on the waiting list for joint replacement surgery. Evaluation of the model found that it improved clinical outcomes, facilitated earlier access to surgery where clinically indicated, and reduced demand for surgery, with 11% of participants waiting for knee replacements and 4% awaiting hip replacements deciding they no longer required surgery.<sup>39</sup>

There is scope to adapt and implement existing models of care more broadly across the country, as well as to develop new models of care to address significant evidence-practice gaps. This process would be facilitated by establishing appropriate clinical networks in those jurisdictions where they do not currently operate. In addition, establishing a national network - a National Arthritis Collaboration - would support a strategic and coordinated approach to driving improvements in prevention and care across the country. This Collaboration could be expanded to address musculoskeletal conditions more broadly, to reflect the scope of existing jurisdictional networks. A similar approach has been effective in driving a whole-of-system approach to support the delivery of improved musculoskeletal prevention and care in England.<sup>40</sup>

## Objective 2.1

### Drive systems-level improvements to support the delivery of high-value care for people with all types of arthritis.

#### Actions

#### 2.1.1

Establish and fund a National Arthritis Collaboration to engage with and align efforts across multiple stakeholders, sectors and levels of the health system to drive improvements in arthritis prevention and management.

#### Implementation

The Collaboration would work inclusively with state- and territory based musculoskeletal clinical networks and other stakeholder groups. Membership of the Collaboration would include clinicians, researchers, consumers, policy makers and health service providers.

Support the work of the Collaboration with adequate funding and resources.

The role of the Collaboration would be to:

- Galvanise and support partnerships across multiple sectors and levels of the health system and other stakeholders to work collaboratively to reduce the burden of arthritis.
- Develop and promote consistent, national standards of care.
- Identify models of care and interventions suitable for national implementation, adapted to suit local circumstances and resources (see 2.1.2).
- Define, prioritise and develop resources and projects, including a research agenda, to support best-practice, high-value care.

Establish formal state and territory musculoskeletal clinical networks supported by local departments of health where these do not already exist, to develop and implement models of care and quality improvement initiatives.

#### 2.1.2

Fund the implementation of evidence-based musculo-skeletal models of care across Australia to guide the delivery of appropriate health services for people with arthritis.

Assess, adapt as required, and fund the implementation of existing evidence-based, jurisdictional models of care relevant to arthritis across Australia, including:

- Victorian Model of Care for Osteoarthritis of the Hip and Knee
- Osteoarthritis Chronic Care Program (OACCP) (New South Wales)
- Osteoarthritis Hip and Knee Service (Victoria)
- Local Musculoskeletal Service (delivers OACCP in a primary care setting) (New South Wales)
- Model of Care: New South Wales Paediatric Rheumatology Network
- Elective Joint Replacement Service Model of Care (Western Australia)
- Inflammatory Arthritis Model of Care (Western Australia)
- Western Australian Framework for Persistent Pain 2016-2021
- Service model for community-based musculoskeletal health in Western Australia
- Musculoskeletal Triage and Assessment Service (Tasmania).

Identify areas of need and develop and implement new evidence-based models of care to address them. This process could be driven by the National Arthritis Collaboration recommended in 2.1.1.

Embed models of care in local information and care pathways such as HealthPathways.

### Objective 2.1

**Drive systems-level improvements to support the delivery of high-value care for people with all types of arthritis.**

#### Actions

### 2.1.3

**Trial and evaluate innovative models for delivering better care for people with arthritis and to improve care coordination.**

#### Implementation

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Pilot and evaluate a community-based, interdisciplinary arthritis clinic to provide a one-stop shop for diagnosis, assessment, triage, treatment and/or referral to other specialists and services. The clinic could be hosted or run by a GP or specialist practice, an arthritis consumer organisation, a community health centre, or in partnership with one or more Primary Health Networks (PHNs)/Local Hospital Districts (LHDs).

In collaboration with LHDs, PHNs and researchers, trial models for delivering specialist and interdisciplinary care within a primary care setting, such as the Inala Clinic model or the West Sydney Diabetes Alliance model. These models allow patients to access specialist care in their usual place of care, upskilling local primary care team members and supporting integrated patient-centred care.

Trial and evaluate the effectiveness of shared medical appointments in both primary and secondary care to provide education and support for people with arthritis.

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### 2.1.4

**Provide dedicated funding to PHNs to commission programs to address the needs of children and adults with arthritis in their area.**

This funding could be used to:

- Commission services to address shortfalls in local services and programs for people with arthritis
- Develop locally tailored pathways of care for people with arthritis where these do not already exist (e.g. via HealthPathways).
- Improve integration of care across primary, secondary and tertiary care services.
- Trial innovative models of care and funding options to support affordable and equitable access to appropriate services.

## Objective 2.2

### Improve affordable and timely access to appropriate health care, services and treatments

#### Actions

#### 2.2.1

Drive early diagnosis and intervention for children and adults with inflammatory arthritis.

#### Implementation

Increase the rheumatology workforce (see 2.2.2) and adopt innovative care delivery models and workforce strategies to reduce waiting times for rheumatology services. Strategies include:

- Advanced practice physiotherapy clinics to assess, triage and manage general musculoskeletal patients on rheumatology wait lists.
- Appropriately-skilled rheumatology nurse specialists or nurse practitioners to triage urgent cases and undertake less complex management tasks within their scope of practice.
- Early arthritis clinics for people with suspected inflammatory arthritis.

Develop information and education materials, programs and tools for primary health care professionals to promote early diagnosis and intervention for children and adults with inflammatory arthritis (see 2.3.2 and 2.3.3).

Develop and deliver an awareness and education campaign to increase consumer and health professional knowledge of inflammatory arthritis symptoms and the importance of early diagnosis and rapid referral to specialist care (see 1.1.1)

#### 2.2.2

Improve access to affordable specialist adult and paediatric rheumatology services.

Undertake a workforce assessment and planning exercise to review the current adult and paediatric rheumatology workforce in both the public and private sector to identify priority areas of unmet need.

Expand funding for public adult and paediatric rheumatology services in identified areas of need across Australia to reduce waiting lists and improve equitable access to timely and affordable specialist and interdisciplinary services.

Increase funding for rheumatology training positions especially in areas of identified workforce shortfalls such as Queensland, Western Australia and rural areas.

Provide funding through the Specialist Training Program to support rheumatology training in non-traditional settings such as non-tertiary hospitals and private practice.

Provide dedicated funding for paediatric rheumatology training, which is currently unfunded, and expand public funding for paediatric rheumatology consultant, nurse and allied health positions. In addition, fund appropriate transition care services for young people moving from paediatric to adult rheumatology services.

### Objective 2.2

## Improve affordable and timely access to appropriate health care, services and treatments

### Actions

#### 2.2.3

Improve affordable access to interdisciplinary team care, including appropriately-skilled nurses, allied health professionals and relevant medical specialists.

### Implementation

Develop, trial and implement funding models (public and private) to better support appropriate team-based care for people with arthritis.

Funding models should enhance affordable access to evidence-based interdisciplinary packages of care including patient education and support, exercise, healthy diet advice, weight loss, pain management and psychological health interventions, tailored to an individual's needs and preferences.

Fund rheumatology nurses and/or allied health professionals to provide education, care and support, including care coordination, for people with severe or inflammatory arthritis, in both the public and private sector:

- Trial and evaluate a rheumatology nurse service offered through arthritis organisations, PHNs, LHDs or community health services for people being managed in private practice (similar to the McGrath breast cancer nurse model).
- Extend the existing practice nurse MBS item numbers to specialist nurses working in secondary care in the private sector.

Increase the number of allied health services available under MBS Chronic Disease Management items. Based on the clinical judgement of the treating clinician, people with arthritis who may benefit should be able to receive an additional five services per calendar year.

Provide MBS funding for group allied health services, including assessment and review, for people with arthritis (as is currently available for people with type 2 diabetes).

Develop pathways and recognition processes for advanced practice nurses and allied health professionals with particular expertise and experience in managing complex patients with arthritis. This would assist health professionals and people with arthritis to identify appropriately-skilled practitioners in their local community.

Ensure affordable access to other relevant physicians and specialists, such as pain specialists, sports and exercise physicians, orthopaedic surgeons and rehabilitation physicians, as part of the interdisciplinary team, in line with an individual's needs.



### Objective 2.2

## Improve affordable and timely access to appropriate health care, services and treatments

### Actions

#### 2.2.4

Increase the uptake of effective lifestyle and self-management interventions for people with arthritis.

### Implementation

Support health and non-health professionals with training and tools to recommend and deliver tailored, evidence-based, non-pharmacological and non-surgical care and support for people with arthritis (see 2.3).

Provide funding for people with arthritis to access arthritis-appropriate evidence-informed exercise programs, pain coping skills training and weight loss services.

Upskill and accredit exercise professionals in the delivery of evidence-based, arthritis-appropriate exercise programs, e.g. roll out The Joint Movement program in conjunction with Arthritis Australia Affiliates.

Increase affordable access to exercise health professionals, such as specialist sport and exercise physicians, physiotherapists and exercise physiologists, to enhance exercise therapy for people with arthritis.

#### 2.2.5

Improve equitable and timely access to appropriate surgical care for people with arthritis.

Ensure that people with osteoarthritis have had access to evidence-based, non-surgical management, both in the community and in outpatient settings, before considering joint replacement surgery or being placed on a joint replacement waiting list.

Develop an optimal decision aid and educational materials to support informed decision-making for joint replacement surgery for both health professionals and people with osteoarthritis and embed them into clinical practice.

Standardise and improve patient pathways from GP assessment through to rehabilitation and follow-up, to improve patient outcomes and the timeliness and efficiency of surgical care (e.g., as per the Western Australia Elective Joint Replacement Service Model of Care).

Upscale existing and implement new advanced scope physiotherapy-led clinics for orthopaedic triage and standard post-surgical reviews.

Implement a consistent national post-operative pathway of care with an emphasis on discharge to the home where access to appropriate post-operative care services suitable for the patient are available.

Develop, trial and evaluate community- or home-delivered postoperative rehabilitation options.

Provide private health insurance funding for community or home-based rehabilitation following joint replacement surgery.

### Objective 2.3

**Support health professionals with information, education and tools to deliver high-value arthritis care.**

#### Actions

### 2.3.1

**Establish and promote guidelines and systems to assist health professionals to deliver high-value clinical care for children and adults with different types of arthritis.**

#### Implementation

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Promote the uptake of the recently revised *RACGP Guideline for the management of knee and hip osteoarthritis* as outlined in the communication, implementation and dissemination plan that accompanies the Guideline.

Develop and disseminate up-to-date standards of care suitable for primary health professionals for best-practice diagnosis and early and ongoing management of inflammatory arthritis, based on the latest national and international recommendations.

Consider the development and production of 'living' guidelines for arthritis, using advanced methodology to create recommendations tailored to the Australian practice context and updated in real time as new evidence is produced.

Embed up-to-date information into clinical information systems and care pathways such as HealthPathways.

### Objective 2.3

## Support health professionals with information, education and tools to deliver high-value arthritis care.

#### Actions

### 2.3.2

Develop and deliver information, training and education to upskill health professionals and relevant non-health professionals in appropriate management and care for people with arthritis.

#### Implementation

Establish an advisory group to oversee the development and implementation of information, training and education programs, in collaboration with relevant professional bodies, educators and stakeholder groups. Tasks could include:

- Identify priority educational needs relating to arthritis care across clinical disciplines, including GPs, nurses, allied health professionals and pharmacists.
- Review and enhance content relating to evidence-based arthritis management in university curricula for medical students, nurses and allied health practitioners.
- Define skill sets and competencies for components of arthritis management and care across clinical disciplines, care settings, and levels of professional practice.
- Identify the education needs of specific health professional groups such as Aboriginal and Torres Strait Islander health practitioners and workers and those working in rural and remote areas.
- Address the educational needs of relevant non-health professionals including exercise, fitness and lifestyle professionals, aged care workers, school staff (for children with JIA) and pharmacy assistants.
- Consider certification or recognition programs (micro-credentialing) for health and non-health professionals, who acquire additional arthritis management skills and competencies beyond their professional training.
- Build on existing resources and programs such as the Course in Management of Musculoskeletal Conditions and the GLA:D Australia and RAPeL programs designed for physiotherapists to increase disease-specific knowledge and clinical skills for best-practice arthritis management.

Develop and deliver educational resources and programs suitable for the relevant target audiences and make them available in a range of formats including online modules, webinars or face-to-face sessions.

Potential priority areas include:

- Best-practice, evidence-based care for people with osteoarthritis, particularly non-pharmacological, non-surgical management.
- Effective management of gout.
- Early diagnosis and shared care for children and adults with inflammatory arthritis.
- Pain management, including quality use of medicines.
- Education programs for health professionals living in or delivering outreach or telehealth services in rural areas (see 2.4.1).

Establish an online hub to provide a central point of access to arthritis-related education and training resources for health professionals.

### Objective 2.3

## Support health professionals with information, education and tools to deliver high-value arthritis care.

### Actions

#### 2.3.3

Develop support tools and systems to assist health professionals to deliver high-value care.

### Implementation

In collaboration with relevant professional bodies, develop a toolkit for GPs to support the delivery of best-practice arthritis care. Make the toolkit available in a range of formats and embed it into clinical practice software (e.g. Medical Director) and incorporate into local clinical pathways e.g. via HealthPathways. The toolkit would include:

- A decision support tool to enhance early diagnosis and referral for children and adults who may require specialist care. This tool should include a guide to key clinical features suggesting inflammatory arthritis, clinical examination, an agreed set of laboratory tests to assist in diagnosis and a checklist of essential information to include in referral letters to rheumatologists to support triage.
- Template management plans to assist in developing comprehensive care plans suitable for different types of arthritis, including shared care arrangements. Sample management plans should cover best-practice comprehensive patient assessment, diagnosis and care; patient education and self-management strategies; appropriate allied health services; pain management; medication and medication monitoring; management of co-morbidity risks ; and sources of additional consumer support and information (e.g. Arthritis Australia and Affiliates).
- A decision aid for referral of people with osteoarthritis for joint replacement surgery (see 2.2.5).

Identify (or develop) and promote simple screening tools or symptom checklists to assist primary care practitioners such as physiotherapists and pharmacists to identify people with possible inflammatory arthritis who should be referred to their GP.

### Objective 2.4

## Address the needs of priority populations

### Actions

#### 2.4.1

Improve access to appropriate care for people in rural/remote and other underserved areas by expanding specialist and interdisciplinary outreach clinics, with additional support through telehealth services.

### Implementation

Increase funding for both public and private rheumatology outreach and telehealth services into areas of identified need, including Aboriginal and Torres Strait Islander communities.

Provide funding for outreach and telehealth services delivered by appropriately-skilled nurses and allied health professionals, to support team-based care, including Medicare and private health insurance rebates for allied health telehealth services.

Integrate outreach services with local health care services, e.g. via co-location, to support continuity of care and upskill local care providers.

Establish new or promote existing models that enable internet and telephone delivery of exercise programs, health coaching for self-management, healthy diet and/or weight loss, and pain management strategies.

Upskill health professionals in rural and regional areas to provide appropriate care for people with arthritis.

- Develop education and training resources for health professionals in rural and remote areas in specific knowledge and skills required to provide effective shared care. Deliver education using both content experts (clinical expertise) and context experts (experienced in delivering care in rural and remote areas) on an on-demand basis via online educational modules and webinars.
- Provide telehealth training for participating health professionals to improve confidence in using the technology effectively for consultation and education purposes.
- Implement cultural awareness training and best-practice protocols for health professionals delivering outreach/telehealth services to ensure care is culturally appropriate for the local community.

## Objective 2.4

### Address the needs of priority populations

#### Actions

#### 2.4.2

Develop information and education resources and health services that are culturally appropriate and address the needs of Aboriginal and Torres Strait Islander peoples and culturally and linguistically diverse groups.

#### 2.4.3

Ensure appropriate recognition of the impact of arthritis-related disability on people's lives and incomes in assessment processes for disability support services and welfare payments.

#### 2.4.4

Deliver services and programs to improve arthritis pain management in older people both in the community and in residential aged care.

#### Implementation

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Collaborate with groups representing Aboriginal and Torres Strait Islander peoples and culturally and linguistically diverse groups to identify information needs and develop culturally-appropriate resources and support programs.

Work with the Aboriginal Community Controlled Health Sector and other representative stakeholders to develop culturally-appropriate health and support services for Aboriginal and Torres Strait Islander people.

Develop culturally-appropriate information and training for Aboriginal and Torres Strait Islander health workers and health practitioners.

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Survey people with arthritis-related disability to identify the prevalence of issues relating to access to disability support services (including the National Disability Insurance Scheme) and welfare payments.

Develop a bespoke guide to disability support services and payments for people with arthritis.

Work with the National Disability Insurance Agency and Centrelink to review eligibility and assessment processes for disability support services and payments to ensure that arthritis-related disability is appropriately recognised.

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Deliver arthritis-appropriate exercise programs suitable for older people (e.g. chair-based exercise programs) in community and residential aged care settings. These programs would help older people with arthritis to maintain their independence for longer, reduce the burden on informal carers, reduce premature admission to residential aged care facilities and delay requirements for higher level care.

# 3. RESEARCH, EVIDENCE AND DATA

# PRIORITY AREA 3

## What we hope to achieve



Research effort is escalated to strengthen the knowledge base, develop new treatments and provide evidence to support best-practice high-value prevention, care and support.



Research investment is guided by a strategic, priority-driven, collaborative approach developed in consultation with the musculoskeletal research sector.



Research funding and capacity for arthritis and musculoskeletal conditions is commensurate with the burden and cost of these conditions.



Translation of research into practice is accelerated.



Data collection, linkage and analysis are enhanced to drive quality improvement in arthritis management and outcomes.

## Why is this important?

Research, evidence and data are essential to improve our knowledge of arthritis and how to prevent, better manage and potentially cure the condition in its many forms. Investment is required across all areas of research from basic through to clinical research, epidemiological, translational and implementation research.

Currently, research funding for arthritis and musculoskeletal conditions in Australia is disproportionately low relative to the disease burden and cost of these conditions.<sup>41,42</sup> These conditions account for 12% of the total disease burden (equivalent to mental health conditions)<sup>43</sup> and nearly 9% of disease expenditure<sup>44</sup> yet receive only 3% of funding allocated to National Health Priority Areas from the National Health and Medical Research Council (NHMRC).<sup>45</sup>

Australia has world-leading researchers in the field, but research efforts to date have tended to be siloed and fragmented, and there is scope to enhance collaboration and adopt a more strategic approach. Limited research capacity is also a major issue, driven mainly by ongoing low levels of funding.

Boosting investment in research, building research capacity and supporting a more collaborative, strategic and priority-driven approach has the potential to achieve major benefits for people with arthritis, and efficiencies for the health system, by building the evidence base to support high-value care.

There are a number of recent, predominantly investigator-led initiatives aimed at improving research quality and capacity and supporting strategic, collaborative research into arthritis and musculoskeletal conditions in Australia. These initiatives are encouraging, but dedicated funding is required to build on them to boost research capacity and accelerate the generation of new knowledge and its implementation into practice. The initiatives include:

- The development of the Australian Arthritis and Autoimmune Biobank Collaborative (A3BC). The A3BC will support collaborative research into genomics and precision medicine for autoimmune

and other forms of arthritis. This initiative will use biobanking, genomic data analysis, data linkage and big data modelling to identify factors and biomarkers related to the onset and progression of these conditions. The A3BC will integrate with the Australian Rheumatology Association Database (ARAD), a registry collecting patient-reported outcomes for adults and children with inflammatory arthritis.

- The development and/or expansion of arthritis registries including ARAD, the OPAL Rheumatology database, the Australian Orthopaedic Association National Joint Replacement Registry, and a number of disease-specific registries, including registries for scleroderma, lupus, ankylosing spondylitis and JIA.
- The establishment of the Australia and New Zealand Musculoskeletal Clinical Trials Network (ANZMUSC), which aims to improve clinical research quality and capacity. ANZMUSC is the first formally constituted clinical trials network for musculoskeletal conditions, though other less formalised networks exist.
- The establishment of three NHMRC Centres of Research Excellence focusing on musculoskeletal health.
- Enhanced networking, collaboration and priority setting for osteoarthritis research, supported by regular National Osteoarthritis Summits.

The Medical Research Future Fund (MRFF) provides an opportunity to provide strategic funding to boost arthritis research, but no funds have yet been specifically been allocated to arthritis and musculoskeletal health research, nor has there been a specific call for projects in this field.

In other areas such as mental health and dementia, the Australian government has funded specific programs to boost research funding. The Boosting Dementia Research Initiative for example, provides \$200 million over five years to boost Australia's dementia research capacity, while \$125 million has been allocated to mental health from the MRFF under the Million Minds Mission.



## Objective 3.1

**Fund a national arthritis and musculoskeletal health mission from the MRFF to increase strategic investment in research and research capacity.**

### Actions

#### 3.1.1

Establish and fund a virtual National Arthritis and Musculoskeletal Research Institute.

### Implementation

The Institute would work with the arthritis and musculoskeletal research sector to develop and deliver a strategic national research agenda, build research capacity, foster collaboration and support translation and implementation of research into clinical practice.

#### 3.1.2

Fund high-quality research projects and infrastructure that will lead to improved prevention, diagnosis and treatment, and support the search for cures.

Release targeted calls for research in identified priority areas from the NHMRC and/or the MRFF.

Co-fund the Australian Arthritis and Autoimmune Biobanking Collaborative (A3BC) to support research into personalised medicine for people with arthritis and autoimmune conditions.

Prioritise musculoskeletal conditions under the MRFF Targeted Translation Research Accelerator - Chronic Conditions program.

#### 3.1.3

Build the arthritis and musculoskeletal research workforce.

Provide dedicated funding for musculoskeletal research fellowships for clinician researchers and researchers at all career stages.

#### 3.1.4

Foster collaborative research.

Foster national clinician research networks to advance research into specific clinical topics or conditions.

Foster collaborative, interdisciplinary research partnerships between universities, research organisations, health services, industry and consumer groups.

Fund Centres of Research Excellence in priority research areas to promote collaborative research partnerships.

### Objective 3.2

**Enhance data collection, linkage and analysis to drive quality improvement in arthritis prevention, management and outcomes.**

#### Actions

##### 3.2.1

Expand data collection and monitoring to provide a clearer picture of arthritis prevalence, management, outcomes and costs beyond hospital settings, and to support bench-marking and quality improvement.

##### 3.2.2

Embed data collection into hospital and clinical management systems to capture and analyse treatment and outcomes data to inform clinical decisions and drive quality improvement.

#### Implementation

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Expand funding for the Australian Institute of Health and Welfare to develop national data linkage projects to better utilise existing data sources, and to develop new collections to address arthritis data gaps.

Develop and implement a national dataset to capture data on patient assessments, treatments and outcomes and support national benchmarking of the quality and effectiveness of arthritis management.

Expand and enhance existing arthritis registries and databases.

Incorporate additional arthritis-related questions into national surveys such as the Australian Health Survey to more accurately capture information on the prevalence of different types of arthritis and treatment and management of arthritis in the community.

Develop and monitor a set of performance indicators and outcome measures for the prevention and management of arthritis.

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Routinely collect patient-reported outcome measures.

Adopt nationally interoperable applications for routinely collecting data on clinical assessment, outcomes and patient-reported measures relating to joint replacement surgery.

Explore digitally-enabled strategies to enhance data collection including self-management apps, tracking tools etc., and integrate them into clinical practice to enhance patient care.

## Implementation of this Action Plan will require sustained and ongoing effort and collaboration across a large number of stakeholders across all levels and sectors of the health system as well as the aged care and disability sectors.

Appropriate and ongoing investment in multiple areas will also be required to enable real progress in implementing the Action Plan.

Further work is required to develop the implementation details for the actions proposed in the Plan. Some of this work has already been initiated as part of the development of the National Osteoarthritis Strategy.

In order to achieve progress, it is recommended that an Implementation Steering Group be established to drive the implementation of the Plan's recommendations. This would include establishing priorities, identifying implementation partners for each priority, establishing taskforces/working groups to develop implementation details for priority actions and identifying key performance indicators for monitoring progress in implementing the Action Plan. Executive members of the National Arthritis Collaboration recommended in this Action Plan, working with Arthritis Australia and arthritis consumer organisations, could undertake this role.

Progress in implementing the Action Plan should be reviewed on an annual basis, with a major review at five years.

## PARTNERSHIPS

Establishing partnerships and collaborations among multiple stakeholders will be essential to implement the actions recommended in this Action Plan. Arthritis consumer organisations and people with arthritis must be key members in all partnerships and collaborations. Implementation partners will vary according to the action to be addressed but would include:

- People with arthritis, their families and carers, and arthritis consumer organisations
- Australian and state and territory governments, departments of health and social services, and agencies such as the Australian Institute of Health and Welfare and the Australian Commission of Safety and Quality in Health Care
- Primary, secondary and tertiary healthcare providers in both the public and the private sector
- Musculoskeletal clinical networks (e.g. the musculoskeletal networks in New South Wales and Western Australia)
- Health organisations including PHNs, LHDs, NPS MedicineWise
- Clinicians and health professional colleges, peak bodies and associations
- Aboriginal and Community Controlled Health Organisations and other representative stakeholders of Aboriginal and Torres Strait Islander peoples
- Representatives of culturally and linguistically diverse groups
- Rural health organisations
- Industry, including health insurance providers and the pharmaceutical and devices industry
- Researchers, research organisations, institutes and funders
- Sporting and fitness organisations and professionals
- Organisations active in chronic disease prevention and promotion of physical activity
- Educational institutions, including schools, universities and vocational medical training institutions
- National Disability Insurance Agency and disability support service providers
- Aged care providers
- Media and marketing agencies and digital product developers.

## INDICATORS

A wide range of indicators can be used to assess overall progress in delivering the Action Plan. Some proposed indicators include:

- Implementation of awareness-raising campaigns and assessment of their impact
- Progress in implementing sports injury prevention programs and review of sports injury presentation rates to emergency departments
- Consumer access to and satisfaction with information and care (assessed via a survey)
- Consumer participation in support programs run by arthritis organisations
- Commitment to and progress in implementing musculoskeletal models of care in each jurisdiction
- Development of new public and private reimbursement models to support interdisciplinary care
- Proportion of people with arthritis offered conservative therapy
- Proportion of people with arthritis adopting lifestyle measures to manage their condition
- Waiting lists for access to public rheumatology services and joint replacement surgery
- Availability of outreach and telehealth services for people with arthritis in rural and underserviced areas
- Research funding levels
- Development and implementation of expanded data collection and linkage projects.

Implementation plans for each priority action will also require specific indicators to be developed to assess progress.

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## A

Achilles tendonitis  
 Achondroplasia  
 Acromegalic arthropathy  
 Adhesive capsulitis  
 Adult onset Still's disease  
 Ankylosing spondylitis  
 Anserine bursitis  
 Avascular necrosis

## B

Behcet's syndrome  
 Bicipital tendonitis  
 Blount's disease  
 Brucellar spondylitis  
 Bursitis

## C

Calcaneal bursitis  
 Calcium pyrophosphate dehydrate (CPPD)  
 Crystal deposition disease  
 Caplan's syndrome  
 Carpal tunnel syndrome  
 Chondrocalcinosis  
 Chondromalacia patellae  
 Chronic synovitis  
 Chronic recurrent multifocal osteomyelitis  
 Churg-Strauss syndrome  
 Cogan's syndrome  
 Corticosteroid-induced osteoporosis  
 Costosternal syndrome  
 CREST syndrome  
 Cryoglobulinemia

## D

Degenerative joint disease  
 Dermatomyositis  
 Diabetic finger sclerosis  
 Diffuse idiopathic skeletal hyperostosis (DISH)  
 Discitis  
 Discoid lupus erythematosus  
 Drug-induced lupus  
 Duchenne's muscular dystrophy  
 Dupuytren's contracture

## E

Ehlers-Danlos syndrome  
 Enteropathic arthritis  
 Epicondylitis  
 Erosive inflammatory osteoarthritis  
 Exercise-induced compartment syndrome

## F

Fabry's disease  
 Familial Mediterranean fever  
 Farber's lipogranulomatosis  
 Felty's syndrome  
 Fibromyalgia  
 Fifth's disease  
 Flat feet  
 Foreign body synovitis  
 Freiberg's disease  
 Fungal arthritis

## G

Gaucher's disease  
 Giant cell arteritis  
 Gonococcal arthritis  
 Goodpasture's syndrome  
 Gout  
 Granulomatous arteritis

## H

Hemarthrosis  
 Hemochromatosis  
 Henoch-Schonlein purpura  
 Hepatitis B surface antigen disease  
 Hip dysplasia  
 Hurler syndrome  
 Hypermobility syndrome  
 Hypersensitivity vasculitis  
 Hypertrophic osteoarthropathy

## I

Immune complex disease  
 Impingement syndrome

## J

Jaccoud's arthropathy  
 Juvenile ankylosing spondylitis  
 Juvenile dermatomyositis  
 Juvenile idiopathic arthritis

## K

Kawasaki disease  
 Kienbock's disease

## L

Legg-Calve-Perthes disease  
 Lesch-Nyhan syndrome  
 Linear scleroderma  
 Lipoid dermatoarthritis  
 Lofgren's syndrome  
 Lyme Disease

## M

Malignant synovioma  
 Marfan's syndrome  
 Medial plica syndrome  
 Metastatic carcinomatous arthritis  
 Mixed connective tissue disease (MCTD)  
 Mixed cryoglobulinemia  
 Mucopolysaccharidosis  
 Multicentric reticulohistiocytosis  
 Multiple epiphyseal dysplasia  
 Mycoplasmal arthritis  
 Myofascial pain syndrome



## N

Neonatal lupus  
Neuropathic arthropathy  
Nodular panniculitis

## O

Ochronosis  
Olecranon bursitis  
Osgood-Schlatter's disease  
Osteoarthritis  
Osteochondromatosis  
Osteogenesis imperfecta  
Osteomalacia  
Osteomyelitis  
Osteonecrosis  
Osteoporosis  
Overlap syndrome

## P

Pachydermoperiostosis  
Paget's disease of bone  
Palindromic rheumatism  
Patellofemoral pain syndrome  
Pellegrini-Stieda syndrome  
Pigmented villonodular synovitis  
Piriformis syndrome  
Plantar fasciitis  
Polyarteritis nodosa  
Polymyalgia rheumatica  
Polymyositis  
Popliteal cysts  
Posterior tibial tendonitis  
Pott's disease  
Prepatellar bursitis  
Prosthetic joint infection  
Pseudoxanthoma elasticum  
Psoriatic arthritis

## R

Raynaud's phenomenon  
Reactive arthritis/Reiter's syndrome  
Reflex sympathetic dystrophy syndrome  
Relapsing polychondritis  
Retrocalcaneal bursitis  
Rheumatic fever  
Rheumatoid arthritis  
Rheumatoid vasculitis  
Rotator cuff tendonitis

## S

Sacroiliitis  
Salmonella osteomyelitis  
Sarcoidosis  
Saturnine gout  
Scheuermann's osteochondritis  
Scleroderma  
Septic arthritis  
Seronegative arthritis  
Shigella arthritis  
Shoulder-hand syndrome  
Sickle cell arthropathy  
Sjogren's syndrome  
Slipped capital femoral epiphysis  
Spinal stenosis  
Spondylolysis  
Staphylococcus arthritis  
Stickler syndrome  
Subacute cutaneous lupus  
Sweet's syndrome  
Sydenham's chorea  
Syphilitic arthritis  
Systemic lupus erythematosus (SLE)

## T

Takayasu's arteritis  
Tarsal tunnel syndrome  
Tennis elbow  
Tietze's syndrome  
Transient osteoporosis  
Traumatic arthritis  
Trochanteric bursitis  
Tuberculosis arthritis

## U

Arthritis of Ulcerative colitis  
Undifferentiated connective tissue syndrome (UCTS)  
Urticarial vasculitis

## V

Viral arthritis

## W

Wegener's granulomatosis  
Whipple's disease  
Wilson's disease

## Y

Yersinia arthritis