

**Impairments and disability associated  
with arthritis and osteoporosis**

The Australian Institute of Health and Welfare is Australia's national health and welfare statistics and information agency. The Institute's mission is *better information and statistics for better health and wellbeing*.

Please note that as with all statistical reports there is the potential for minor revisions of data in *Impairments and disability associated with arthritis and osteoporosis over its life*. Please refer to the online version at <[www.aihw.gov.au](http://www.aihw.gov.au)>.

ARTHRITIS SERIES  
NUMBER 4

# **Impairments and disability associated with arthritis and osteoporosis**

**Naila Rahman and Kuldeep Bhatia**

**September 2007**

Australian Institute of Health and Welfare  
Canberra

**AIHW cat. no. PHE 90**

© Australian Institute of Health and Welfare 2007

This work is copyright. Apart from any use as permitted under the *Copyright Act 1968*, no part may be reproduced without prior written permission from the Australian Institute of Health and Welfare. Requests and enquiries concerning reproduction and rights should be directed to the Head, Business Promotion and Media Unit, Australian Institute of Health and Welfare, GPO Box 570, Canberra ACT 2601.

A complete list of the Institute's publications is available from the Business Promotion and Media Unit, Australian Institute of Health and Welfare, GPO Box 570, Canberra ACT 2601, or via the Institute's website at <<http://www.aihw.gov.au>>.

ISSN 1833-0991

ISBN 978 1 74024 707 8

#### **Suggested citation**

Australian Institute of Health and Welfare: Rahman N & Bhatia K 2007. Impairments and disability associated with arthritis and osteoporosis. Arthritis series no. 4. Cat. no. PHE 90. Canberra: AIHW.

#### **Australian Institute of Health and Welfare**

Board Chair

Hon. Peter Collins, AM, QC

Director

Penny Allbon

Any enquiries about or comments on this publication should be directed to:

Dr Naila Rahman

National Centre for Monitoring Arthritis and Musculoskeletal Conditions

Australian Institute of Health and Welfare

GPO Box 570

Canberra ACT 2601

Phone: (02) 6244 1057

Published by the Australian Institute of Health and Welfare

# Contents

<b>Acknowledgments</b> .....	<b>vi</b>
<b>Abbreviations</b> .....	<b>vi</b>
<b>Key findings</b> .....	<b>vii</b>
<b>1 Introduction</b> .....	<b>1</b>
Structure of the report .....	1
Theoretical framework .....	2
Operationalising disability .....	3
Disability data presented in this report .....	5
Arthritis, osteoporosis and disability in the Australian population .....	5
<b>2 Disability associated with arthritis and osteoporosis</b> .....	<b>10</b>
People with disability associated with arthritis .....	11
People with disability associated with osteoporosis .....	13
Summary .....	15
<b>3 Impairments and activity limitations</b> .....	<b>16</b>
Physical impairments .....	16
Activity limitations .....	17
Summary .....	23
<b>4 Health-related quality of life</b> .....	<b>25</b>
QoL and HRQoL .....	25
Life satisfaction .....	26
Psychological effects .....	28
Self-reported health status .....	29
Summary .....	35
<b>5 Environment and adjustments</b> .....	<b>36</b>
The environment .....	36
Use of assistive devices .....	37
Home modifications.....	39
Workplace modifications .....	39
Assistance from carers .....	40
Summary .....	44
<b>References</b> .....	<b>45</b>
<b>List of tables</b> .....	<b>48</b>
<b>List of figures</b> .....	<b>49</b>

# Acknowledgments

Several colleagues and experts have made significant contribution to the development of this report. Their input is gratefully acknowledged.

Valuable comments on this report were received from the Arthritis and Musculoskeletal Conditions Data Working Group/Steering Committee. The authors also wish to thank Ms Tracy Dixon, Dr Perri Timmins, Dr Xingyan Wen and Ms Catherine Sykes for their advice. The assistance received from the staff of the AIHW Information Services and Publishing Unit and the Business Promotion and Media Unit in coordination and production of the report is also gratefully acknowledged.

This publication was funded by the Australian Government Department of Health and Ageing through the *Better Arthritis Care* Budget Initiative 2002–06. The authors thank Mr Michael Fisher and Ms Narelle Moody from the Asthma and Arthritis Section of the department for providing valuable comments on this report.

## Abbreviations

ABS	Australian Bureau of Statistics
AIHW	Australian Institute of Health and Welfare
CURF	confidentialised unit record file
HRQoL	health-related quality of life
ICF	International Classification of Functioning, Disability and Health
K10	Kessler 10-item Psychological Distress Scale
NHS	National Health Survey
SDAC	Survey of Disability, Ageing and Carers
WHO	World Health Organization

# Key findings

This report describes the impairments and disability associated with arthritis and osteoporosis among Australians aged 35 years or over. These conditions are major contributors to disability through a variety of physical and functional impairments.

Physical impairments may include reduced mobility of joints, pain (acute or chronic) and body stiffness. Functional impairments are generally limitations or restrictions in carrying out everyday activities of daily living, working or participating in social activities. For arthritis the type and number of joints involved influences the type and severity of any impairments, whereas impairments associated with osteoporosis are mostly the result of fractures or fracture-related complications.

## Number of people affected

Arthritis and osteoporosis are frequently reported long-term conditions, particularly among older Australians. These conditions are among the most common causes of disability in Australia.

- Self-reported data indicate that almost 3 million Australians (16%) have arthritis or a related disorder (such as gout), and almost 586,000 Australians (3%) have osteoporosis.
- There were an estimated 3.9 million Australians with disability (20% of the population) in 2003.
- Arthritis was the main disabling condition for 546,000 people with disability aged 35 years or over in 2003, while osteoporosis was the main disabling condition for 50,000 people of this age.
- More than one-quarter of people with arthritis- or osteoporosis-associated disability in 2003 were aged 75 years or over.
- Around 253,000 people with arthritis-associated disability and 12,000 people with osteoporosis-associated disability in 2003 were of working age (35–64 years).

## Specific impairments

Disability associated with arthritis or osteoporosis is more commonly reported by females than males. The majority of people with disability associated with arthritis or osteoporosis require assistance with various activities of daily living.

- More than 30% of people with arthritis-associated disability and almost 45% of people with osteoporosis-associated disability report profound or severe core activity restrictions. These people are unable to do or always need help with one or more core activities of daily living, such as self-care or mobility.
- Almost 172,000 people with arthritis-associated disability and 10,000 with osteoporosis-associated disability have limitations relating to employment, such as restrictions in the type of job undertaken, difficulty in changing jobs or in getting a preferred job.
- Half of those people with arthritis-associated disability report difficulty in gripping or holding things. This can affect a range of basic daily activities including writing, turning taps or doorknobs, opening bottles and jars, preparing and eating meals, and brushing teeth and hair.

- Almost two-thirds of people with osteoporosis-associated disability require assistance when using public transport, and 40% require assistance with mobility outside their own home. This can reduce social participation and affect the ability to undertake everyday activities such as shopping or attending health services.

## **Effects on quality of life and self-assessed health**

Physical or functional impairments are often a blow to self-esteem and self-image, affecting the quality of life. The quality of life of people with disability associated with arthritis or osteoporosis is generally poorer than that of people in the general community.

- People with disability associated with osteoporosis rated their health as fair or poor more frequently than those with disability associated with arthritis (52% compared with 40%).
- Poorer self-rated health was associated with the inability to do daily activities, and the presence of other long-term conditions such as hypertension, back problems, diabetes and asthma. These are issues commonly affecting people with arthritis and osteoporosis.

## **Improvement through intervention**

The functional capacity and quality of life of people with disability can be improved through rehabilitation and modification of the physical environment. Interventions such as the use of assistive devices, home modifications, occupational modifications and help from family members can greatly reduce the impact of disability, allowing the person to maintain independence and reducing the need for nursing home care.

- Assistive devices are commonly used by people with disability to help with mobility, showering, toileting and meal preparation.
- Devices that assist with reaching or balance are frequently used by people with disability associated with osteoporosis. These include long-handled reachers, shoe horns, special brushes, grab bars and walking frames.
- People with disability associated with arthritis frequently use devices that assist with mobility. These include crutches, walking sticks, walking frames, wheelchairs, electric scooters and ejector chairs.
- Modifications to the toilet, bathroom or laundry (such as altering the height of the toilet or sink) were reported by 11% of people with disability associated with osteoporosis and 7% of those with disability associated with arthritis.
- Occupational changes, in particular the provision of special equipment by an employer, were more likely to be reported by people with disability associated with arthritis than by those with osteoporosis-associated disability.
- Many people with disability associated with arthritis or osteoporosis receive care and support from their family, especially those who require assistance with activities of daily living. This support is most likely to be provided by the person's spouse/partner, son or daughter.