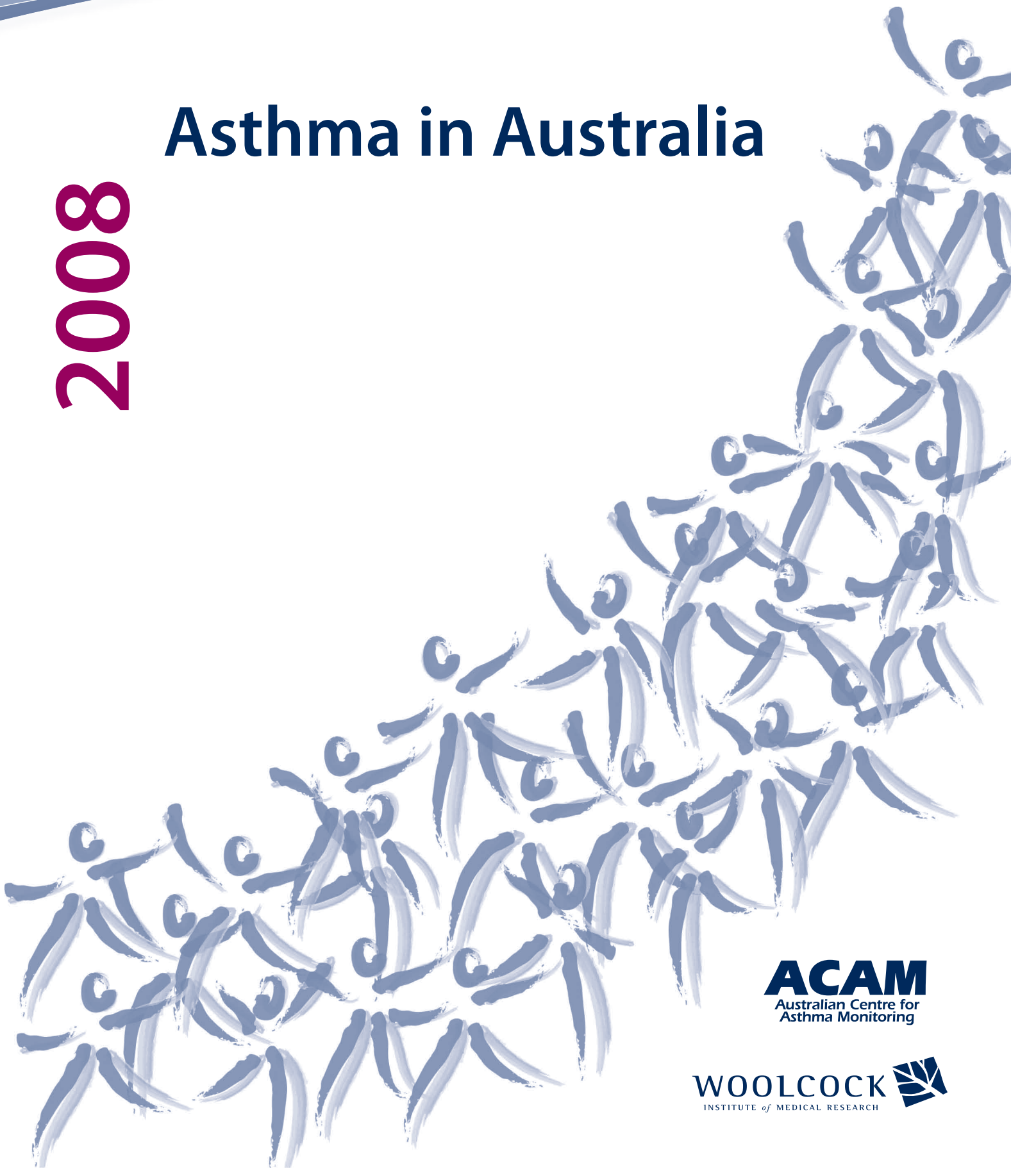
Australian Government
Australian Institute of Health and Welfare
Department of Health and Ageing

Asthma in Australia

2008



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This publication is part of the Australian Institute of Health and Welfare's Asthma series. A complete list of the Institute's publications is available from the Institute's website <www.aihw.gov.au>.

ISSN 1448-7594

ISBN 978 1 74024 851 8

Suggested citation

Australian Centre for Asthma Monitoring 2008. Asthma in Australia 2008. AIHW Asthma Series no. 3. Cat. no. ACM 14. Canberra: AIHW.

Australian Institute of Health and Welfare

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Published by the Australian Institute of Health and Welfare

Printed by Elect Printing, Canberra

Foreword

The Australian System for Monitoring Asthma was established in 2001 in response to the declaration of asthma as the sixth National Health Priority Area by the Australian Health Ministers. At that stage, the epidemiology of asthma in Australia was not clear and we needed to develop reliable statistics to describe the extent of the problem. There was a need to work with researchers and policy makers to put the monitoring of asthma on a firm footing. With that in mind, the Australian Institute of Health and Welfare established the Australian Centre for Asthma Monitoring as one of its collaborative units. The intention was to bring together its own data expertise and collections with clinical and epidemiological research expertise of the Woolcock Institute of Medical Research in Sydney. As this report shows, the synergy brought together by this collaboration has given asthma monitoring a clear direction in Australia. The model and quality of the work of the System is now acknowledged internationally.

Asthma in Australia 2008 is the third report in the series from the Australian System for Monitoring Asthma. The first report released by the Australian Institute of Health and Welfare in 2003 provides baseline information about the disease, its risk factors and its complications. One of the important steps in disease monitoring is to standardise data definitions and to raise data quality. The use of non-standard definitions can lead to incomparable, sometimes conflicting, information about disease epidemiology. The second report published in 2005, builds upon the first by putting data and definitional issues into better perspective and providing a clearer view of the extent of the problem, the underlying trends and clarification of various population health issues.

The third report in any disease monitoring series creates the opportunity to provide unambiguous answers about the extent of the problem and the policy issues that can be addressed using the information generated. While asthma remains a large problem in Australia, and Australia remains a high prevalence country by international standards, the adoption of a rigorous approach to monitoring of asthma has allowed us to gain a clear understanding of the issues surrounding this disease.

The prevalence of asthma among children in Australia is now plateauing, if not declining. Asthma mortality in Australia is also lower than it was a few short years ago. There is now general acceptance of the overlapping nature of asthma and chronic obstructive pulmonary disease (COPD) in older people.

Having settled some of the epidemiological issues in asthma monitoring, this report focuses its attention on asthma in Aboriginal and Torres Strait Islander Australians. A special chapter deals with the extent of the problem in this most disadvantaged population group. Unfortunately, the picture for asthma is no different among Indigenous Australians than for other health issues.

I would like to take this opportunity to congratulate the authors of the report, in particular Professor Guy Marks and Ms Leanne Poulos of the Australian Centre for Asthma Monitoring, in the preparation of this report. The advice and guidance of the Steering Committee in putting together this report is also gratefully acknowledged.

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Director
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Contents

Acknowledgments

Authorship

The authors of this report were Guy Marks, Leanne Poulos, Rosario Ampon and Anne-Marie Waters of the Australian Centre for Asthma Monitoring.

Contributors

Wei Xuan and Elena Belousova carried out extensive analysis and drafting of some sections.

The authors also acknowledge the contribution of Anne Chang who co-wrote the chapter on asthma in Aboriginal and Torres Strait Islander Australians.

Assistance in the early stages of drafting this report was also received from Rachelle Sullivan.

Deborah Baker, Margaret Williamson and Patricia Correll were authors on earlier editions of this series.

Analysis of state/territory computer-assisted telephone interview (CATI) data for the purposes of this report was by Nerissa Wood, Alison Daly, Linda Hayes, Sue-Lynne Khor, Taku Endo, Eleonora Dal Grande and Loretta Vaughan.

Refereeing was by Ilona Brockway, Christine Jenkins, David Muscatello, Kuldeep Bhatia, George Bodilsen, Robert van der Hoek, Rebecca Bennetts, Helena Britt, Christopher Harrison, Nancy Stace-Winkles, Christina Barry, Fadwa Al-yaman, Nicholas Glasgow, Margo Barr, John Goss, Gail Brien, Katrina Burgess, Isolde Kauffman and the Australian Government Department of Health and Ageing.

Assistance with analysis of the Bettering the Evaluation and Care of Health (BEACH) data was obtained from Lisa Valenti.

Preparation of this report was guided by the Steering Committee of the Australian System for Monitoring Asthma (ASMA), chaired by Robin Ould. Members of the ASMA Steering Committee at the time of publication were Norbert Berend, Kuldeep Bhatia, Donald Campbell, Peter Gibson, Nicholas Glasgow, Christine Jenkins, Susan Killion, Paul Magnus, Guy Marks, Craig Mellis, Charles Mitchell, David Muscatello, Kristine Whorlow and representatives from the Australian Government Department of Health and Ageing.

Funding

This publication was funded by the Australian Government Department of Health and Ageing through the National Asthma Management Program.

Key points—*Asthma in Australia 2008*

This section presents selected findings from the report. Also, each chapter begins with its own lists of key points.

Asthma in Aboriginal and Torres Strait Islander Australians

- Asthma represents the second most common self-reported illness affecting the Indigenous population.
- Compared with non-Indigenous Australians, Aboriginal and Torres Strait Islander Australians:
  - have a higher prevalence of asthma, particularly among older persons, children and those living in non-remote localities
  - have a higher rate of mortality due to asthma
  - have higher rates of hospitalisation for asthma
  - have almost double the rate of smoking
  - have relatively high rates of exposure to passive smoke as children, both before and after birth
  - are less likely to use inhaled corticosteroids for asthma, at least among children
  - are more likely to have diabetes and mental and behavioural disorders as a comorbid condition with asthma.

Prevalence

- Asthma remains a significant health problem in Australia, with prevalence rates that are high by international standards.
- In 2004–05, the prevalence of asthma in Australia was 10.2% (equivalent to 2,010,212 people).
- Compared with 2001, the prevalence of asthma in 2004–05 decreased slightly in children and young adults but remained unchanged in older adults.
- Among those aged 0–14 years, the prevalence of asthma is higher among boys than girls, but among those aged 15 years and over, asthma is more prevalent in females than males.
- The gap in prevalence between the least disadvantaged and most disadvantaged localities increased between 2001 and 2004–05.
- The majority of children with asthma in Australia have infrequent episodic asthma while very few (less than 5%) have persistent asthma.
- The majority of adults with asthma have mild or very mild forms of the condition.
- Asthma commonly coexists with other chronic conditions.

Mortality

- There were 402 deaths attributed to asthma as the underlying cause in 2006. This represents 0.30% of all deaths in that year.
- There was a 69% decrease in the mortality attributed to asthma between 1989 and 2006.
- The rate of mortality due to asthma in Australia is high on an international scale.
- The risk of dying from asthma increases with age but the rate of increase is less than for all-cause mortality.
- People living in more socioeconomically disadvantaged areas have a higher risk of dying from asthma than people who live in more advantaged areas.

Use of health-care services

General practice encounters

- There has been a decrease in the rate of general practice encounters for asthma among adults (–24%) and children (–37%) between 1998 and 2008.
- Inhaled corticosteroids are prescribed at more than half of asthma-related general practice encounters.
- Lung function testing and provision of asthma action plans occur in less than 10% of general practice encounters for asthma.
- Claims for completed Practice Incentives Program Asthma Cycle of Care:
  - are highest among boys aged 0–14 years and women aged 65 years and over
  - are lower among people aged 15–34 years, people living in remote areas and people living in areas of a relatively higher socioeconomic status
  - tend to peak in the winter months.

Hospitalisations and emergency department visits

- Children have higher rates of hospitalisation for asthma than adults.
- There has been a reduction in the rate of hospital admissions for asthma between 1993–94 and 2006–07 among both adults (–45%) and children (–42%).
- Hospital admissions for asthma are higher among:
  - adults living in remote areas than those residing in major cities
  - people living in socioeconomically disadvantaged areas compared with those living in the least disadvantaged areas.
- Peaks in hospital admissions for asthma vary by age, with rates highest in February and May among children and highest in the winter months among adults.
- In 2006–07, 11.7 out of every 1,000 hospitalisations for asthma included a period of mechanical ventilation (that is, on a 'life-support machine').

Health-care expenditure

- Health expenditure on asthma was $606 million in 2004–05.
- Asthma expenditure accounted for 1.2% of total allocated health-care expenditure in 2004–05.
- When compared with total allocated health expenditure, less asthma expenditure can be attributed to admitted patient hospital care but a substantially higher proportion of asthma expenditure is attributable to prescription pharmaceuticals.

Management

Asthma action plans

- The majority of people with asthma do not have a written asthma action plan, despite national guidelines recommending their use for the management of asthma for nearly 20 years.
- Young men and those living in socioeconomically disadvantaged areas are less likely to possess a written asthma action plan than others.

Medication use

- The use of almost all medications for asthma increases with age.
- As expected, use of inhaled corticosteroids is less common in children than in adults with asthma.
- Children are more commonly prescribed the less potent formulations of inhaled corticosteroids while prescriptions for combination formulations containing long-acting beta-agonists are relatively uncommon in children.
- Among adults, the majority of inhaled corticosteroids are prescribed in combination with long-acting beta-agonists.
- There has been a recent reduction in prescribing the most potent formulations of inhaled corticosteroids.
- Intermittent use of inhaled corticosteroids is the most common mode of use in adults and children, despite treatment guidelines recommending regular use in people with persistent asthma.

Smoking and occupational exposures

- People with asthma continue to smoke at least as commonly as people without asthma, despite the known adverse effects.
- The prevalence of smoking is higher among younger people with asthma than older people with asthma.
- Socioeconomic position is an important determinant of the risk of smoking among people with asthma.
- An estimated 11% of children with asthma reside in homes where smoking occurs inside the home.
- Nearly 10% of adult-onset asthma is caused by occupational exposures and, hence, could be avoided if exposure to triggering agents in the workplace was eliminated.

Quality of life

- Asthma is associated with poorer quality of life.
- People with asthma rate their health worse than people without asthma.
- People with asthma report a substantially higher proportion of days of reduced activity than those without the condition.
- Most of the impact of asthma is on physical functioning and on the ability to perform social roles.
- Australians with asthma report worse psychological health than those without asthma, and the difference is more pronounced in females and in older persons.