

Introduction

Over the last 20 years a consensus has emerged, based on available evidence, that written asthma action plans and regular use of medications that control the disease and prevent exacerbations are key elements in the effective management of asthma. Additionally, the important role of spirometry in the diagnosis, assessment and follow-up of patients with asthma has been recognised for many years.

This chapter will review the data relating to the use of these management strategies and their implementation in the Australian population.

6.1 Written asthma action plans

A written asthma action plan (AAP) enables people with asthma to recognise a deterioration in their condition promptly and respond appropriately, by integrating changes in symptoms or peak expiratory flow measurements with written instructions to introduce or alter their medication. The aim of an AAP is to assist the process of early intervention and to prevent or reduce the severity of acute asthma episodes. There is evidence that, in patients with asthma, the use of a written AAP in conjunction with training in self-management and regular medical review improves outcomes. This includes less need for hospitalisation, urgent GP visits, and additional medication, as well as better lung function (Gibson et al. 2002). It has also been shown that written AAPs reduced the risk of death from asthma by 70% (Abramson et al. 2001). Written asthma action plans have formed part of national guidelines for the management of asthma since 1989 (Woolcock et al. 1989) and have been promoted in public education campaigns by the NAC (NAC 2002).

AAPs may be provided in various formats. The following features, which are common to most of the AAPs that have been shown to be beneficial, are considered to be the four essential components:

1. The AAP should be in a written format.
2. It should be individually prescribed, rather than a generic example.
3. It should contain information that allows the user to recognise the onset of an exacerbation.
4. It should contain information on what action to take in response to that exacerbation (usually increase or commence steroids and/or seek urgent medical care).

While most existing surveys on the use of AAPs have asked about the possession of a written AAP, most have not specifically established whether it contains the other essential components.

Possession of written asthma action plans

In recent surveys the proportion of adults with current asthma who possess an asthma action plan ranged from 15% to 22% (Table 6.1).

People with recent asthma symptoms or with more severe asthma were more likely to report that they possessed a written AAP. In New South Wales in 1997, 43% of adults with severe asthma possessed a written AAP (Marks et al. 2000). In the same state, in 2003, 41.2% of people who had taken treatment for asthma or had symptoms of asthma in the last 4 weeks reported having a written AAP (Centre for Epidemiology and Research 2004). At the same time, in Victoria, 51% of people who had experienced asthma symptoms in the last 12 months had an AAP (Department of Human Services, unpublished data 2004).

Table 6.1**Possession of asthma action plans: people with current asthma, Australia, 1998–2001**

Place	Age (people with current asthma)	Year	Rates	95% CI
Possession of a written asthma action plan				
Australia (1)	All ages (n=3,157)	2001	17.0%	15.6–18.5%
	15 years and over (n=2,170)	2001	14.6%	12.9–16.4%
ACT (2)	4 to 6 years	1999–2001	23.2%	21.3–25.1%
Possession of an asthma action plan (written instructions on what to do if asthma is out of control)				
SA (3)	15 years and over (n=388)	2001	22.2%	18.1–26.3%
	15 years and over (n=346)	1998	29.2%	24.3–34.6%
Possession of a written asthma management plan from a doctor on how to treat asthma				
Qld (4)	18 years and over (n=795)	2000	21.1%	18.3–23.9%
NSW (5)	16 years and over (n=1,897)	1998	34.4%	31.4–37.3%
NSW (6)	2 to 12 years (n=1,296)	2001	43.6%	40.1–47.2%

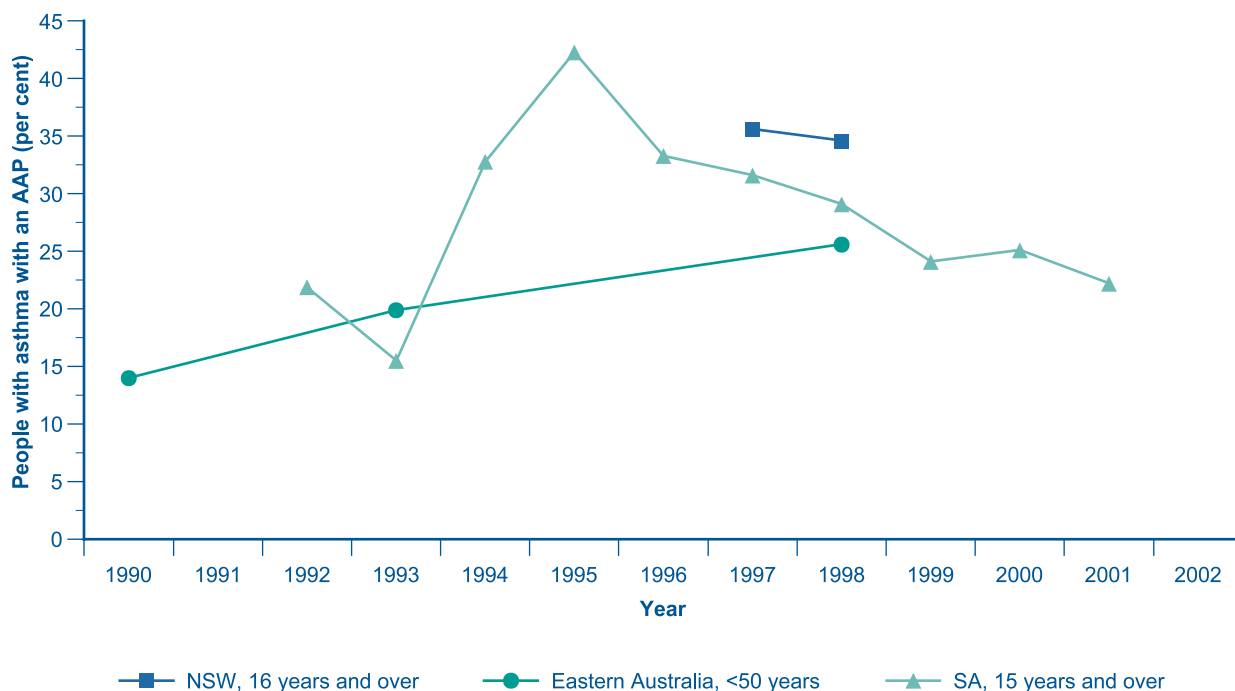
Notes: Only people with current asthma (n) were asked about the possession of AAPs. The definitions for current asthma were: NSW Survey and Queensland Chronic Disease Survey: Doctor diagnosis of asthma plus treatment or symptoms of asthma in the last 12 months; National Health Survey and SA Omnibus: 'Yes' to the question 'Have you ever been diagnosed by a doctor with asthma?' and 'Yes' to 'Do you still have/get asthma?' While the currently accepted term for written instructions on how to manage one's asthma is an 'asthma action plan', it was previously known as an 'asthma management plan'. As a result, the questions used in some surveys reported in the table refer to an 'asthma management plan' while others refer to an 'asthma action plan'.

Sources: (1) ABS National Health Survey 2001 (CURF); (2) ACT assessment of new primary school entrants (Glasgow et al. 2003); (3) South Australian Health Omnibus Survey (Wilson et al. 2003); (4) Queensland Chronic Disease Survey (Epidemiology Services Unit 2002); (5) NSW Health Survey 1998 (Public Health Division 2001); (6) NSW Child Health Survey (Centre for Epidemiology and Research 2002).

Time trends in the possession of written asthma action plans

The data from the series of South Australian Health Omnibus surveys show that, between 1992 and 1995, there was a rise in the proportion of adults with asthma who reported that they had AAPs (Figure 6.1). This trend is confirmed by the NAC studies in eastern Australia in 1990 and 1993. However, the rate of AAP ownership has declined since 1995 in the South Australian series. No other time series is available for the recent period, but the single studies performed in recent years in other states and nationally show rates of possession of AAPs equivalent to the most recent, lower, rates found in the South Australian series (Table 6.1).

Figure 6.1
Possession of asthma action plans: adults with current asthma, Australia, 1990–2001



Notes: Only people with current asthma were asked about the possession of AAPs. Definitions used to identify AAP possession are SA: Current asthma = 'Yes' to the question 'Have you ever been diagnosed by a doctor with asthma?' and 'Yes' to 'Do you still have asthma?' then asked 'Do you have an asthma action plan (written instructions of what to do if your asthma is out of control)?'; NSW: Current asthma = doctor diagnosis of asthma plus treatment or symptoms of asthma in the last 12 months, 'Do you have a written asthma action plan?'; Eastern Australia: Current asthma = self-reported diagnosis of asthma, 'Do you have a written action plan?'

Sources: Comino et al. 1996; Gibson et al. 2000; Public Health Division 2001; Wilson et al. 2002, 2003.

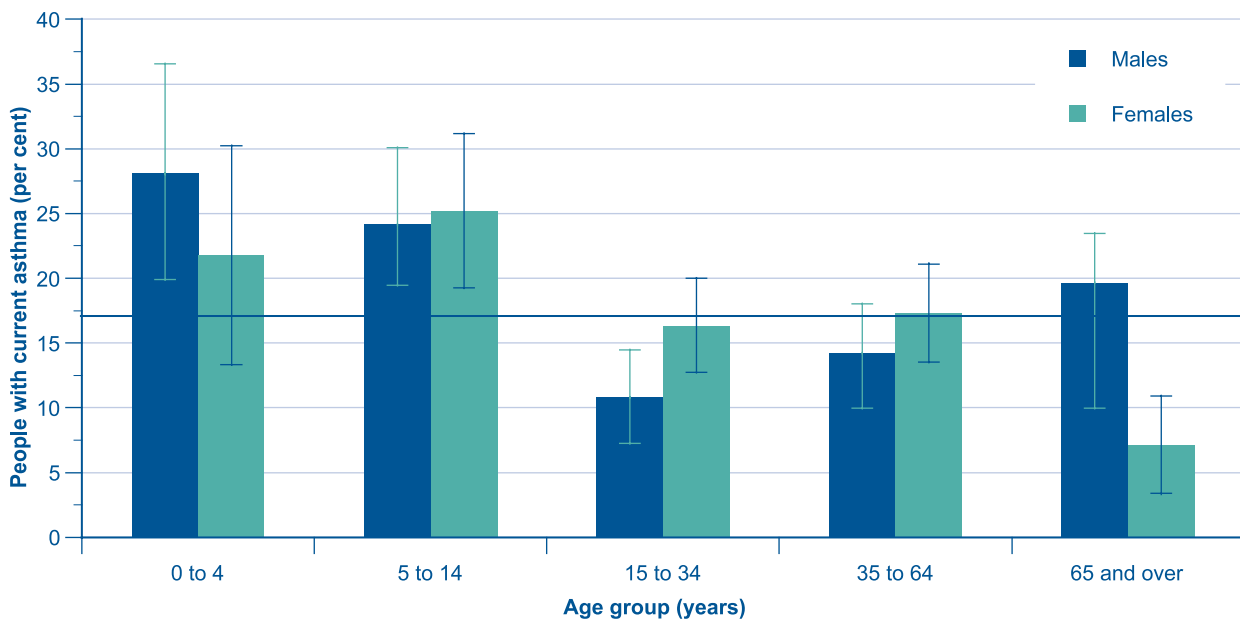
Differentials in the possession of written asthma action plans

Age and sex

Among people with asthma, the highest rate of possession of written AAPs was among children and the lowest rate was among young adults (Figure 6.2). In the adult age range, females were more likely than males to report having a written AAP, except in the elderly. Males aged 15 to 34 years and females aged 65 years and over had a very low rate of possession of written AAPs (10.8% and 7.1%, respectively).

Figure 6.2

Possession of a written asthma action plan in people with current asthma, by broad age group and sex, Australia, 2001



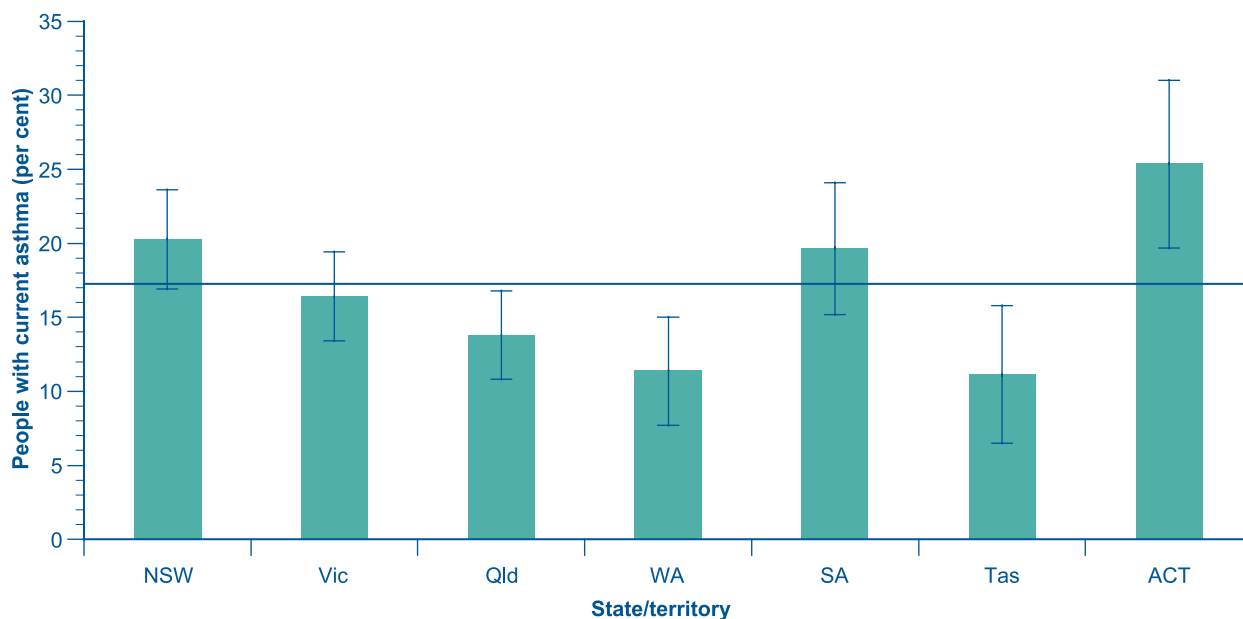
Note: Horizontal line represents the proportion of people of all ages with a written AAP (17.0%).

Source: ABS National Health Survey 2001.

States and territories

The proportion of people with current asthma who reported having a written AAP was relatively high in the Australian Capital Territory and New South Wales and relatively low in Western Australia, Tasmania and Queensland (Figure 6.3).

Figure 6.3
Possession of a written asthma action plan in people with current asthma, by state and territory, all ages, Australia, 2001



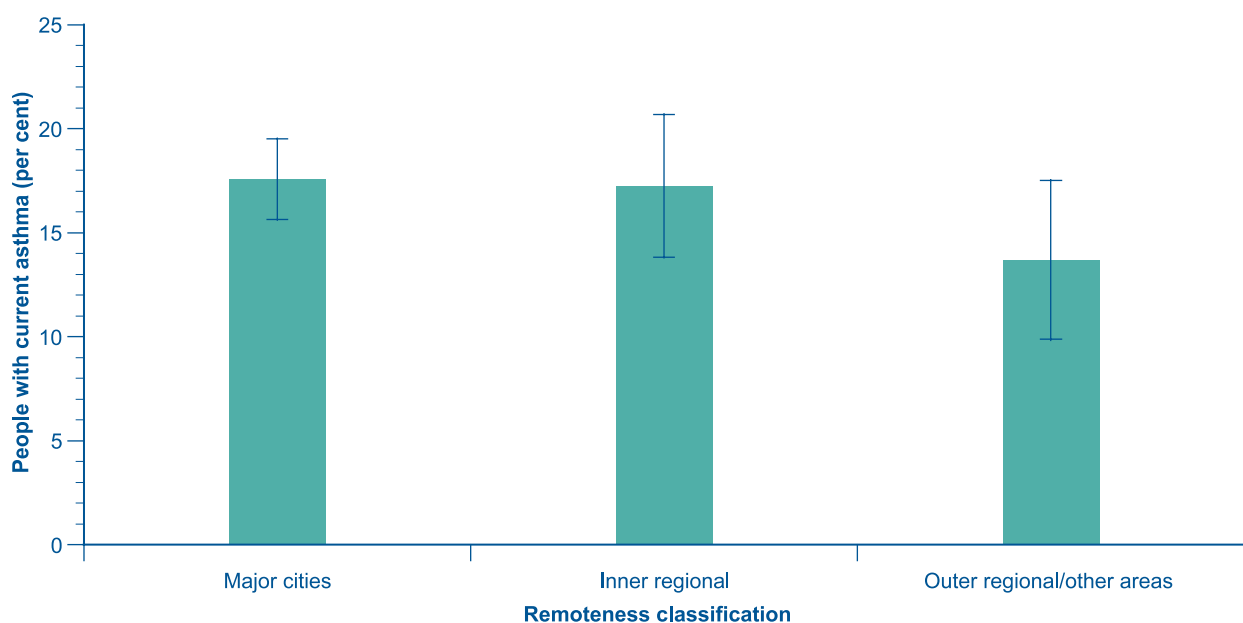
Note: Horizontal line represents the proportion of people of all ages with a written AAP (17.0%). Northern Territory excluded because numbers too small to produce reliable estimates.

Source: ABS National Health Survey 2001.

Urban, rural and remote areas

There was no significant difference in the rate of ownership of a written AAP among people with current asthma living in major cities, or in regional and remote areas (p trend=0.1) (Figure 6.4).

Figure 6.4
Possession of a written asthma action plan in people with current asthma, by remoteness, all ages, Australia, 2001



Note: Remoteness is classified according to the Australian Standard Geographical Classification (ASGC) of remoteness.

Source: ABS National Health Survey 2001.

Culturally and linguistically diverse background

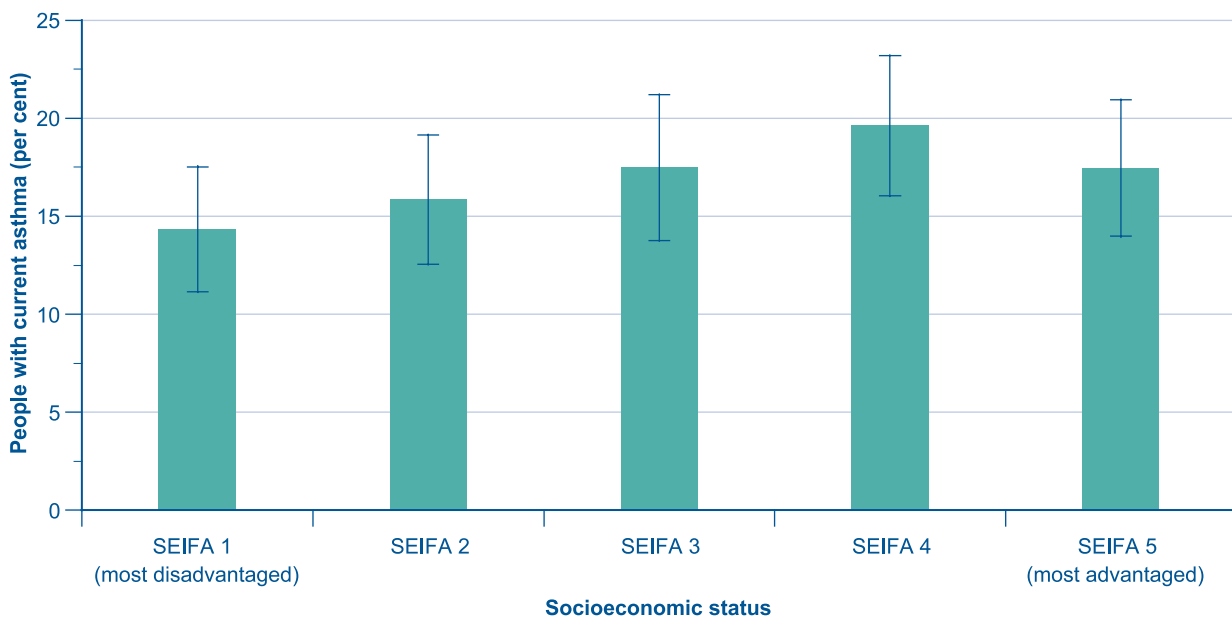
In the 2001 National Health Survey (ABS 2002a), approximately 17% of people from English-speaking backgrounds reported possession of written asthma action plans, compared to 13% from non-English-speaking backgrounds (ACAM 2003). This difference was not statistically significant.

Socioeconomic disadvantage

There was a lower rate of possession of written AAPs among people with asthma living in localities with greater levels of socioeconomic disadvantage (p trend=0.04), (Figure 6.5).

Figure 6.5

Possession of a written asthma action plan in people with current asthma, by socioeconomic status, all ages, Australia, 2001



Note: SEIFA 1 represents the most disadvantaged socioeconomic quintile and SEIFA 5 the most advantaged.

Source: ABS National Health Survey 2001.

Summary

The majority of people with asthma do not have a written asthma action plan. Although there was apparently an increase in the use of AAPs during the early part of the 1990s, coinciding with the public awareness campaigns of the National Asthma Council (Comino et al. 1996), this trend has not been sustained. Young adults, adult men, and persons living in outer regional and remote areas and in socioeconomically disadvantaged areas were least likely to have a written AAP. People with more severe asthma or those experiencing symptoms were also more likely to have AAPs. There was some variation among the states and territories in the proportion of people with asthma who reported possessing a written AAP.

There are no data on the extent to which the AAPs that are in use incorporate those elements that are required for their effectiveness.