

# 1 Introduction

## 1.1 Background

Currently, more than one in ten people in Australia are aged 65 years or more (12.4%). This figure has risen by one per cent since 1991 (11.3%), and is projected to rise further over the course of this century. It is estimated that the proportion of the Australian population aged 65 years and over will reach 20.5% by 2026, and by 2051 one in four people (26.1%) will be in this age group.<sup>1</sup>

Australia is not alone in having an ageing population. Population projections worldwide demonstrate a demographic shift to older populations. In the year 2000 there were 600 million people over the age of 60. If projections prove accurate, this number will double to 1.2 billion people in 2025, reaching 2 billion people by 2050.<sup>2</sup>

It is well known that older people, with their many chronic or disabling conditions, are high-level users of health services. In Australia, they account for one-third of hospital separations and use twice as many general practice services (9,654 services per 1000 patients) than those aged less than 65 years (4,732 services per 1000 patients).<sup>3</sup> GPs are therefore responsible for much of the medical care and management of patients in this age group.

### Demographic changes in the population

Increases in life expectancy and changes in fertility patterns over the twentieth century have both contributed to the increased proportion of older people in the Australian population. Over the twentieth century, life expectancy in Australia increased by approximately 60% for males and 40% for females. In 2001, life expectancy for males aged 65 years was 81.6 years, and females 85.2 years.<sup>4</sup> Thus, most Australians aged 65 years will expect to live almost one-quarter of their lives in the period referred to as 'old age'. Increases in life expectancy are due to many factors. A considerable decline in the mortality rates of infants and children,<sup>5,6</sup> decreasing overall death rates,<sup>5</sup> and fewer deaths from infectious diseases<sup>6,7</sup> have all contributed to increased life expectancy. In the last century, massive improvements in the knowledge of disease processes, and subsequent advances in the way diseases are detected and treated,<sup>7</sup> improved sanitation and public health initiatives in the late nineteenth century, and the invention of antibiotics and immunisation in the early twentieth century, have also contributed to longer years of life.<sup>7,8</sup>

At the turn of the twentieth century, Australia had a fertility rate of approximately 3.5 births per woman. This declined in the 1930s to 2.1 births per woman.<sup>9</sup> The years following the end of World War II were characterised by large numbers of births, peaking in 1961 with almost 240,000 births,<sup>10</sup> a 50% increase on the birth rate in 1945 of 161,000 births.<sup>10</sup> However, the post-war baby boom did not reflect a rising birth rate per woman. Rather, more women were having children, increasing the birth rate but not the overall size of families.<sup>11</sup>

While population ageing and its subsequent implications are now foremost in the minds of policy makers and researchers, this was not the case as recently as the 1970s, when a major demographic study was conducted in Australia. At this time demographers believed that the increasing net numbers of older dependents would be offset by a large numerical cohort of people of working age anticipated with a relatively high expected birth rate.<sup>10</sup>

However, birth rates have declined, partly due to increased numbers of women in the workforce<sup>12</sup> and the increased use of contraception.<sup>4,10,11,13</sup> In Australia, fertility dropped to replacement level (2.0 children per woman) in 1976, and has continued to decline steadily since, to the present rate of 1.7 children per woman.<sup>1</sup> It has been estimated that fertility could continue to fall to levels as low as 1.3 children per woman in Australia.<sup>1</sup> Falling fertility levels, together with rising life expectancy and declining mortality rates, have had a significant impact on population ageing, particularly from an economic and social perspective.

### **Economic and social impacts of population ageing**

There are enormous economic and social implications involved with populations having a large proportion of people in older age groups. Economically, the relationship between greater numbers of older people and fewer numbers of people of working age is referred to as the 'old age dependency ratio'. This ratio could dramatically increase in Australia due to declines in fertility, and possible shortages of labour, increasing the economic burden of the older population. This may 'place severe strains on government budgets, necessitating higher tax burdens on a diminishing number of workers'.<sup>14</sup> In Australia, goals have been set to reduce the possible strain this may cause, including encouraging employers to both employ and retain mature aged employees.<sup>15</sup>

The ageing of the population will also have a significant impact on social trends. In many countries children take responsibility for the care of their parents as they age.<sup>2</sup> Changes in the demography of populations, particularly the declining fertility rates and the increased proportion of women in the workforce, as discussed in the previous section, may influence the availability of informal services, increasing the burden on formal sources of care for older people.<sup>16</sup> In Australia, 42.2% of older people not in residential care require either formal or informal care, with the majority of this care provided by either the person's partner or their children.<sup>17</sup> Approximately 146,000 Australians were residents of aged care homes in 2002, and almost two-thirds of these required high-level care.<sup>18</sup>

It is therefore important to plan for the expected rise in the proportion of older people in their populations, to ensure there are adequate resources available to the older population in terms of health care, housing and income support. It also needs to be ensured that the possible contribution of older people to society is not underestimated.<sup>15</sup>

### **Recent initiatives regarding ageing**

The Second World Assembly on Ageing was held in April 2002 in Spain. One of the major initiatives at the Assembly was the adoption of the International Plan of Action on Ageing 2002. The aim of this plan is to 'respond to the opportunities and challenges of population ageing in the twenty-first century and promote the development of a society for all ages'. In terms of health, the plan recognises that older people should have a right to access medical care when required and that 'primary health care is essential health care'. It set an objective to ensure that older people have access to primary health care.<sup>19</sup>

Through the National Strategy for an Ageing Australia, Australia has been actively involved in ageing issues. Therefore, Australia's objectives at the Assembly focused on informing and sharing information on ageing with other countries, to assist the revision of the International Plan of Action on Ageing and to promote Australia's role as a leader in the Asia-Pacific region with regard to ageing.<sup>19</sup>

## Active Ageing

The World Health Organization (WHO) has advocated the contribution that older people make to society through the Active Ageing policy released as part of the 2nd World Assembly on Ageing in 2002. This policy, while acknowledging the economic and social impacts of population ageing, encourages the participation and involvement of older people in all aspects of life. The WHO describes Active Ageing as 'the process of optimising opportunities for health, participation and security in order to enhance quality of life as people age'.<sup>16</sup>

From a health perspective, the WHO Active Ageing policy encourages older people to maintain physical, mental and social health by continuing to participate in social activities, remaining independent and focusing on the maintenance of a healthy lifestyle, minimising disability and maintaining quality of life.<sup>16</sup>

The National Strategy for an Ageing Australia policy document<sup>15</sup> reflects this approach. This document provides a holistic view of the issues associated with the older population in Australia, and population ageing in general. The policy emphasises that ageing is a lifelong process. Rather than focusing on only the older population, it outlines plans to ensure that Australia is prepared for future population ageing. It contains sections on retirement incomes, changes to the structure of the Australian workforce and attitudes towards ageing, as well as issues related to healthy ageing and care for older Australians.<sup>15</sup>

## Healthy ageing

Healthy ageing is one of the national priorities set out in the National Strategy for an Ageing Australia, which states that 'it will be important for older individuals and for our society and economy to have older people spend as much of their old age with good health'. Healthy ageing in older people includes the prevention of functional disability, improving the quality of life for older people and ensuring that they have the opportunity to remain independent for as long as possible. The move towards healthy ageing focuses on both the maintenance of good health in later life, and on prevention of many of the chronic conditions that are highly prevalent in the older population.<sup>15</sup>

General practitioners (GPs) can play a large role in healthy ageing because they are actively involved in managing the health of older people. The National Strategy for an Ageing Australia states that 'GPs ... see many patients who present with one or more of the key behavioural risk factors for chronic disease of smoking, poor diet, alcohol misuse, and inadequate physical activity'.<sup>15</sup> Guidelines have been introduced into general practice to encourage GPs to help their patients deal with these risk factors.<sup>20</sup> Due to the high numbers of older people who attend general practice each year, and the level of respect older people hold for their GP, it is thought that GPs are in an ideal position to promote healthy ageing.<sup>21</sup> A randomised controlled trial conducted on GPs' promotion of healthy ageing practices, found that there were marginal increases in patient levels of healthy behaviours when GPs were educated about this issue, and passed information on to their patients.<sup>22</sup>

However, some have questioned the relevance of GPs providing information to patients on preventive health care. Harris and Mercer (2001) believe that if GPs are to be responsible for health promotion, they have to learn to balance their curative and preventive roles.<sup>23</sup> In addition, some believe that there are barriers to GPs fulfilling this role, including limitations of time, skills and funding.<sup>21,23</sup>

## **Older people and their GPs**

GPs play a significant role in the lives of older people. The National Strategy for an Ageing Australia acknowledges the contribution of GPs in the care of older people, stating that 'General Practitioners, in particular, are likely to continue to be seen by older people as an important contact and coordination point for their interactions with the health system'.<sup>15</sup> A small qualitative study found that older people have a great regard for their GP, with high levels of trust and respect.<sup>24</sup> Those who visit GPs report a high level of satisfaction with their care from the GP<sup>25</sup> and are more likely than younger people to do so.<sup>26-28</sup>

Conversely, GP satisfaction with encounters with older people has not been well documented. A small study conducted in Australia found that GPs feel confident in the management and diagnosis of medical and psychological problems, but lack confidence in the diagnosis and management of social problems in older people.<sup>29</sup> In contrast, a study from the United States found that physicians' satisfaction with encounters, from their perspective, did not change with the increasing age of the patient.<sup>30</sup> Another small qualitative study from the United States found that while doctors enjoyed treating older patients, they also found the management of these patients more difficult for a number of reasons, including the chronic and complex problems requiring management, limitations to time and communication, and greater administrative requirements. The interaction between these factors was also identified as complicating the management of older patients.<sup>31</sup>

## **Attendance rates among older patients**

While the high rates of general practice attendance among older people is well recognised,<sup>32,33</sup> there is little research on why older patients attend GPs in Australia. Two small Australian studies found that physical and psychological health problems are associated with an increased frequency of GP visits among older people.<sup>34,35</sup>

Korten et al. (1998) found that the predictors for attending GPs were considerably different for males and females. For males, increasing age and the number of symptoms experienced predicted high levels of attendance, while disability (as measured through the Activities of Daily Living (ADL) scale), lower educational level and loss of vision were more likely to result in GP visits in females.<sup>34</sup> Older men who do not attend general practice have been found to have poor health and lower levels of social support<sup>35</sup> while those with good social support are more likely to attend general practice.<sup>34</sup>

## **Length of consultation**

There is little consensus among researchers concerning the length of GP consultations with older people. One school of thought states that consultations are shorter with older patients.<sup>36</sup> Other research has shown that older patients have longer consultations.<sup>37,38</sup> Discrepancies between the results of different studies may be due to differences in the structures of health systems in individual countries.<sup>38</sup> These issues will be discussed in greater detail in Section 4.5 Length of consultation.

## **Injuries**

In Australia in 1998, approximately 50% of deaths in older people attributed to injury were the result of falls.<sup>39</sup> In addition, falls are responsible for the greatest proportion of disability adjusted life years (DALYs), particularly for those aged 75 years or more.<sup>40</sup> Exercise programs,<sup>41,42</sup> hazard reduction and improvements in vision<sup>41</sup> have been shown to be effective in reducing falls in older people. The effects of falls in older people will be discussed in greater detail in Section 6.3 Injuries.

## **Risk factors**

The risk factors available for analysis in the current study include alcohol consumption, smoking status and body mass index (BMI). While it has been shown that alcohol consumption decreases with age,<sup>43,44</sup> between 6.0%<sup>44</sup> and 8.0%<sup>45</sup> of older people consume alcohol at high-risk or at-risk levels, depending on the source of data. Moderate alcohol consumption, in particular of red wine, has been shown to have beneficial effects on health in older people.<sup>46</sup>

Smoking is responsible for the greatest burden of disease in older Australians, and it is estimated that it is responsible for 16% of the burden of disease in older men and 9% in older women.<sup>47</sup> The National Drug Strategy Household Survey found that, in 2001, 8.9% of Australians aged 60 years or more smoked, while almost 40% of people in this age group were past smokers.<sup>44</sup> However, the actual number of older smokers is increasing as the older population increases.<sup>48</sup> The benefits of smoking cessation are well documented at all ages, with potential gains in both health and life expectancy.<sup>46,49-51</sup>

The burden of disease attributed to obesity in Australia is 4.3%. There are multiple health risks associated with a BMI (overweight and obesity), particularly in relation to cardiovascular disease.<sup>40</sup> In older people, research has shown that the impact of being underweight may also be a risk factor for ill health and mortality.<sup>52-54</sup> These issues are discussed in greater detail in Chapter 10 Risk factors.

## **Chronic conditions**

In the United States, a study found that 88% of older people had at least one chronic condition.<sup>55</sup> Around the world, chronic conditions are estimated to be responsible for 55% of deaths, and this is projected to rise to 70% of deaths in 2020.<sup>56</sup> It is well known that the proportion of people experiencing chronic conditions increases with age.<sup>45,55,57-59</sup>

People with chronic conditions use health services at higher rates than those who do not, with 66% of visits to doctors being for the management of chronic conditions.<sup>55</sup> A study from the United States has stated that the majority of patients with chronic conditions are treated by a primary care physician.<sup>60</sup>

About two-thirds of those with chronic conditions experience co-morbidity,<sup>55,58</sup> the coexistence of two or more health conditions. The prevalence of co-morbidity increases with age<sup>55,58,61</sup> and the greater the number of chronic conditions experienced by the patient, the higher the consultation rate.<sup>62,63</sup> A more detailed background to chronic conditions is provided in Chapter 12 Chronic conditions.

## **Theories regarding the compression of morbidity**

The theory regarding the compression of morbidity was postulated by James Fries in 1980. Fries based his theory on the assumptions that life expectancy had a defined limit beyond which it cannot extend, and that the onset of chronic disease could be delayed by minimising the impact of risk factors. Based on these assumptions, Fries hypothesised that morbidity can be compressed into the later years of life.<sup>64</sup>

Since this time, various studies have been published that both support and reject this theory. Nusselder et al. (1996) found that morbidity is either compressed or expanded depending on the type of condition experienced. They found that the elimination of fatal conditions causes an expansion of morbidity, by increasing the possibility of life expectancy and disability from non-fatal conditions. In contrast, it was found that the elimination of chronic disabling conditions compresses morbidity.<sup>65</sup> Similar results were found in an Australian study based on the Health Adjusted Life Expectancy (HALE) scale. However, this study found that the expansion of morbidity following the elimination of fatal conditions occurred only in men. In women, there were no conditions found that resulted in an expansion of morbidity.<sup>66</sup>

Recently, two studies from the United States have found that disability is declining, and have projected that it will continue to decline, possibly at an average rate of 1.5% per year. However, this decline is dependent on an assumption of certain factors, such as improvements in research and technology.<sup>67,68</sup>

## **Enhanced Primary Care**

New Medicare item numbers for the management of older people and those with chronic and complex care needs were introduced by the Federal government in 1999. Through this package, called Enhanced Primary Care (EPC), GPs are remunerated specifically for managing the care of these patients. The package consisted of three areas for which Medicare items were introduced: annual health assessments for those aged 75 years or more; care planning for those with chronic and complex care needs; and case conferencing, also for those with chronic conditions requiring complex care.<sup>69</sup>

The introduction of EPC items has been praised for rewarding GPs for the management of these patients.<sup>70</sup> Research has reported both that these items are useful for GPs<sup>71</sup> but that there are barriers to their implementation.<sup>71-73</sup> Much of the published research on EPC items concerns the attitudes of GPs toward EPC items. The current study provides the first data on the way EPC items are being used in general practice.

A more detailed description of EPC items can be found in Chapter 13 Enhanced Primary Care.

## **Other large projects concerning the health of the older population in Australia**

A number of studies investigating the health of older people have been conducted in Australia. The Australian Longitudinal Study of Ageing is an ongoing, longitudinal, multidisciplinary study examining the health of older Australians, focusing on the biomedical, economic and social aspects of ageing.<sup>74</sup> The Health Status of Older People Project was a five-year project conducted in the 1990s, which examined both the social and medical aspects of ageing.<sup>33</sup> While not age-limited, the National Health Survey also collects information about the self-reported health and use of health services by older Australians.<sup>45</sup>

However, to date, none has reported comprehensively on the care of older people in general practice. In addition, very few surveys are based on a nationwide sample, and some are limited through the use of self-reported data on health. Due to the fact that patients aged 65 years or more use general practitioner services at approximately twice the rate of those younger than 65 years,<sup>3</sup> the management of older patients in general practice is an area of research that could significantly contribute to our knowledge regarding the health of the older population in Australia. The BEACH survey, a national survey of general practice activity in Australia, is ideally placed to examine the care of the older patient population in general practice.

## 1.2 Objectives

The objectives of this study are to:

- describe the characteristics of GPs who managed patients aged 65 years and over between 2000–02
- describe the characteristics of patients aged 65 years or more who attended general practice in the period 2000–02, their reasons for encounter and problems managed
- describe the management techniques used at encounters with patients aged 65 years and over
- determine the existence of age-related differences in patients aged 65 years or more, by dividing this group into those aged between 65 and 74 years, and 75 years and over
- determine the length of consultation for patients aged 65 years and over, and to compare length of consultation with those aged less than 65 years
- examine the impact of risk factors (smoking, alcohol and BMI) on general practice patients aged 65 years or more, and divided into 65–74 and 75+ age groups
- describe changes in the management of patients aged 65 years and over (65–74 and 75+) over the period between 1990–91 and 2000–02
- describe chronic conditions managed in patients aged 65 years and over, and to estimate the prevalence of chronic conditions in this age group
- describe encounters at which EPC items were claimed.