

4 Implications of population ageing

The implications of population ageing for social expenditures have been the subject of ongoing discussion in Australia over the last two decades, particularly in the 1990s, with the greatest focus on health and aged care costs.

Recently, there have been growing concerns about the extent to which existing disability support services can accommodate an increasing number of older people with disability, and about the cost implications for these services and possible implications for other related services.

This section reviews studies that examine the implications of population ageing for government health and welfare expenditures in general, and disability and aged care in particular. Potential impacts of population ageing on demand for disability and aged care services are also discussed.

4.1 Impact on government health and welfare expenditures

There are concerns that the accelerated ageing of the Australian population and the rapid growth in the 1980s and the early 1990s in government expenditure on older people may be not sustainable. Two major reports with a pessimistic view of the impact of ageing on social expenditures have attracted wide attention and provoked considerable debate. A report published by the Economic Planning and Advisory Council in 1994 focused on the long-term economic and social implications of population ageing in Australia (Clare & Tulpule 1994). Although the projections published in the report did not suggest that Australia would be unable to cope with the costs of an ageing population, the report produced some conclusions which some found alarming:

- Welfare expenditure would rise from 6.9% of Gross Domestic Product (GDP) in 1990 to 9.3% of projected GDP by 2051.
- Health expenditure would rise from 8.4% of GDP in 1990 to 11.1% of projected GDP in 2051. Such an increase would represent a large shift in health resources from the young and working age to older people (health care expenditure on older people could increase from about 33% of total health care expenditure in 1990 to 50% by 2051).

In 1996, a report to the Commonwealth Government by the National Commission of Audit found that:

- A radical and lasting change to the age structure of Australia's population would occur over the next 50 years, with aged dependency ratios (the ratio of people aged 65 years and over to those aged 18–64 years) increasing dramatically from the current level of 19% to 39% by 2041.
- Health and aged care costs would increase from a current level of 8.4% of GDP to about 14.5% of GDP by 2030.

The report recommended that to address the emerging social and budgetary pressures of population ageing, urgent action is needed to 'moderate community expectations of government assistance, increase incentives for self reliance in older age and more equitably share the cost of age related services funded by the government' (National Commission of Audit 1996:121).

Although there is no disagreement that the Australian population is ageing, and that health and welfare expenditure per person is increasing, the two reports, particularly the later one, were questioned or criticised on their basic approaches and the assumptions behind their projections:

- The studies adopted a rather narrow approach to the whole issue by emphasising the budgetary consequences of ageing. The 'burden of ageing' view is narrow and the ageing of the population has consequences that are far beyond the confines of the government budget (Saunders 1996).
- The models used in the 1996 report assume a direct relationship between demand for services (as defined by number of aged people in a population) and the level of service provision—in reality the relationship is more complex (Gibson & Goss 1999). To conduct a credible projection of future demand for health services and health expenditure, a range of issues should be taken into account (Madden & Goss 1998).
- Analyses of the level and pace of population ageing have found no consistent relationship between demographic trends and levels of health expenditure as a proportion of GDP in Australia. The lack of correlation between the patterns of fluctuation of health expenditure as a proportion of GDP and demographic trends is also observed in other OECD countries. Factors other than population ageing are the major influences on the level of health outlays (Howe 1997).
- Projections are based on assumptions of a relatively high rate of growth in health expenditure per person and a relatively low rate of growth in GDP. These assumptions are questioned (Gibson & Goss 1999). The projected outcome of the National Commission of Audit is at odds with Australian experience over the past 20 years and with the contemporary experience of other OECD countries with much older populations (Howe 1997).
- Australia's relatively young population age structure gives scope for a shift in expenditure towards older people in the future. The current level of expenditure in Australia could accommodate a population as old as Sweden's by making marginal shifts between health expenditures on younger and older age groups as the population ages (Howe 1997).
- It is believed that the Australian health system coped fairly well with rapid population ageing in the recent past; and that the controls put in place in health and welfare expenditure to contain costs have resulted in a manageable increase in government expenditure; and that to provide a reasonably high quality of health services for future generations of older Australians is not beyond our national resources (Choi 1998; Gibson & Goss 1999; Goss 1998; Howe 1997).

Regarding the relationship between population ageing and costs of health care, it has also been questioned whether higher levels of health expenditure are associated with improved outcomes. Rather than speculating about the potentially increasing proportion of GDP that might be spent on health care for older people, an alternative approach might be to model the kinds of options that could optimise health status across the population within a given level of expenditure (Howe 1997).

4.2 Impact on government expenditures in aged care and disability services

A number of reports contain research concerning the past or future trends in government expenditures on aged care and disability services.

A paper examining the level and patterns of government health and welfare expenditure on older Australians showed that, in the past 20 years, the ageing of the Australian population has put pressure on expenditure on the older population (Choi 1998). During this period, changes have been made in many aspects of the health and aged care systems to maintain care at an affordable level and also to introduce control over costs. The paper also found that the growth of the economy in this period has allowed more funds to be made available for government services, and some of these additional funds have been allocated to health and welfare services for older Australians (Choi 1998: 12).

A study of demographic influences on changes in social security spending over the past three decades (1965–1997) showed that expenditure on the Age Pension increased from 1.65% of GDP to 2.45% of GDP and expenditure on the Disability Support Pension (DSP) increased from 0.32% of GDP to 0.99% of GDP (Whiteford & Jackson 1998).

Population ageing has contributed substantially to the growth in the number of Age Pension recipients, primarily for females. Approximately two-thirds of the growth between the late 1980s and 1997 could be attributed to population ageing. Between 1971 and 1997, the number of recipients of the Age Pension increased from just over one million to just over two million (Whiteford & Jackson 1998).

The highest incidence of receiving the DSP is in the age group 50–64 years, the upper end of the working-age population. Prior to 1997, changes in the age structure of the working-age population had little impact on growth in the number of DSP recipients, since people aged 50–64 years as a proportion of the total working-age population (15–64 years) remained fairly constant at about 22% between 1971 and 1997. However, from 1997 on, the first of the baby boomers, born in 1945, have just passed age 50 and are entering the highest incidence age group (50–64). The increasing age of this baby-boomer cohort and the related ageing of the working-age population, are likely to cause further growth of DSP (Table 4.1; Whiteford & Jackson 1998; Jackson 1999).

If the current growth rate continues, the number of new DSP recipients would reach 140,000 per annum within a decade, and nearly 180,000 per annum by the year 2011 (Walsh 1997). The total number of recipients would increase from about 500,000 recipients in early 1996 to 935,000 by 2006. This trend reflects the combined effect of high grant rate for people aged 50 years and over and the bulge of the baby-boom population cohort, which is now entering this age group (Walsh 1997).

Walsh and De Ravin (1995) discussed future trends in demand for long-term care and projected costs. They attempted to re-open the debate about funding and delivery of long-term care by suggesting that 'free' access to long-term care services in future will need to be limited, either through increased personal financial contribution by care recipients or by introducing optional or compulsory 'pre-funding' (Walsh & De Ravin 1995: 5).

Long-term care was defined as care provided to people with a severe or profound handicap (as defined in the ABS 1993 disability survey) of any age. The paper estimated that the total cost of long-term care currently accounted for about 0.75% (or \$3.0 billion) of Australian GDP and could well increase to 1% of GDP by the middle of next century. The current level of 0.75% of GDP could remain stable with the projected trends of population ageing only if:

- residential care is successfully maintained in line with the target planning ratios;
- Home and Community Care Program (HACC) utilisation is maintained at about 33% of people with profound or severe handicap in the community; and
- GDP per capita growth is maintained at 1% per annum in real terms (Walsh & De Ravin 1995: 50).

According to the paper, the Australian private insurance industry already provided \$0.7 billion through accident compensation schemes to fund long-term care (although it is estimated that only about one-third of this amount is actually spent on long-term care). The paper stated that 'the Australian insurance industry believes government policy, taxation arrangements and legislation need to be changed to facilitate private sector involvement in the funding process, and hence ultimately assist the strains on consolidated revenue which will inevitably emerge next century' (Walsh & De Ravin 1995: 51).

Table 4.1: Disability Support Pension customers, June 1977 to June 1999

Year	Males		Females		Persons
	Number	Per cent	Number	Per cent	Number
1977					203,029
1978					205,011
1979					219,911
1980	158,327	69.1	70,892	30.9	229,219
1981	153,889	69.3	68,062	30.7	221,951
1982	151,146	69.8	65,503	30.2	216,649
1983	155,672	70.7	64,617	29.3	220,289
1984	173,063	71.9	67,511	28.1	240,574
1985	188,713	72.8	70,449	27.2	259,162
1986	200,898	73.4	72,912	26.6	273,810
1987	213,290	73.8	75,760	26.2	289,050
1988	219,168	73.8	77,745	26.2	296,913
1989	227,285	73.8	80,510	26.2	307,795
1990	233,251	73.6	83,462	26.4	316,713
1991	244,699	73.2	89,535	26.8	334,234
1992	273,697	72.3	104,861	27.7	378,558
1993	291,471	71.7	115,101	28.3	406,572
1994	309,123	70.9	127,111	29.1	436,234
1995	324,672	69.9	139,758	30.1	464,430
1996	340,256	68.2	158,979	31.8	499,235
1997	352,607	66.8	174,907	33.2	527,514
1998	361,539	65.3	191,797	34.7	553,336
1999	373,340	64.6	204,342	35.4	577,682

Source: Department of Family and Community Services unpublished data.

4.3 Impact on demand for disability support services

The AIHW estimated the projected growth in demand for disability support services in Australia, based on the projected growth in the target group—people with severe or profound handicap. The projections were based on the ABS population projections from 1995 to 2051 (AIHW 1997a).

The projected demographic trends, particularly population ageing, resulted in a substantial projected increase in the number of people with a profound or severe handicap between 1997 and 2003:

- The increase in the age group 5–64 years was estimated to be 9.9% (39,100 people).
- The growth in the working age population (age 15–64) with severe or profound handicap was estimated at 11.3% (37,200 people).
- Overall, the total number of Australians with a severe or profound handicap was projected to increase by 13.7% (109,200 people). The overall growth was mainly attributable to the rapid increase in the age groups of 45–64 years (19.5% increase or 32,600 people) and 65 years and over (17.3% increase or 70,200 people) (AIHW 1997a).

The high projected rates of increase in the number of people with a severe or profound handicap aged 45 years and over was likely to result in the ageing of the client population of disability support services. The high growth in the population aged 45–64 years would put pressure on disability services, either to provide services to increasingly older clients, or to make transitional arrangements between disability services and suitable aged care services (AIHW 1997a).

The 1997 AIHW projections of numbers of people with a severe or profound handicap relied on the assumption that the age–sex-specific prevalence rates of severe or profound handicap would remain constant (See Section 3.2).

4.4 Impact on residential aged care services

Under the policy directions of the Aged Care Reform Strategy, there has, since 1985, been a shift in policy emphasis from residential care towards home-based care in the aged care field (Gibson et al. 1997; Gibson 1998). Over the past ten years, the overall level of residential care has declined from 99 to 92 beds per thousand persons aged 70 years and over. This reduction has occurred during a time of rapid ageing of the aged population in Australia (Gibson 1998). Nevertheless, this shift has been largely carried out by way of a de-institutionalisation of program structures rather than a de-institutionalisation of people. This shift from residential to home-based care is characterised by several important features (Gibson 1998):

- The level of institutionalisation has substantially declined as a result of natural attrition rather than discharge of individual clients. In other words, the de-institutionalisation is largely due to non-admission rather than to discharge;
- Within the residential care sector, there is a shift from ‘high intensity’ nursing home beds towards ‘lower intensity’ hostel places;
- There is an expansion of home-based care not only in the number and range of services but also the intensity of provision;
- An enhancement of respite care provisions has resulted in an emerging interface between home and residential care.

Gibson and Liu (1995) examined the impact of population ageing on future use and supply of residential aged care services. Their paper presented projections of hostel and nursing home use from 1993 to 2021, based on 1993 patterns of actual use, and compared them with projected levels of supply. The study found that there may be a general under-supply of residential aged care from the turn of the century, including a likely under-supply of nursing home-type care for high-dependency aged people, particularly in the period from 2006 and 2016 (Gibson & Liu 1995).

The study also pointed out that the use of the standard planning ratio—the number of beds or places available per thousand persons aged 70 and over—to describe the level of supply over time has shortcomings. The ratio was determined on the basis of 1983 data and is not sensitive to the changing internal age structure of population 70 and over, in particular the increasing proportion of the population aged 80 years and over.¹ People aged 80 years and over are at greater risk of admission to residential care (Gibson & Liu 1995).

Liu (1998) has used refined life table models to estimate the probability of the first nursing home admission over a lifetime and the probability of nursing home use in the remaining lifetime at particular ages. The analysis of 1994–1995 nursing home data indicated that a much larger number of older people than has often been recognised are at risk of nursing home admission at some point in their lives. The results suggested that the chance of entering a nursing home after turning age 65 is actually one in three, although only 3% of people aged 65 years and over were resident in a nursing home on any one day in 1994–1995 (Liu 1998). Nevertheless, the estimated probabilities do not necessarily represent ‘need’ or ‘demand’, but rather nursing home usage patterns, as constrained by levels of provision (Liu 1998).

The new residential aged care system introduced in October 1997 has merged nursing homes and hostels into a single residential care system. The analysis of statistical data on the new system shows a continuing trend to higher dependency levels among residents. At the end of June 1999, almost half (49%) of residential aged care facility residents were aged 85 years and over, and 61% of residents were in high-care categories (AIHW 2000a).

4.5 Issues concerning the age dependency ratio

The age dependency ratio, commonly defined as the ratio of persons aged 65 years and over to the population of working age (15–64 years), has been widely used as a crude measure of the ‘burden’ of population ageing. In practice, the age groups used to define the ratio vary. For instance, a World Bank report defines the ratio as people over 60 years to people between 20 and 59 years, while the 1996 Australian National Commission of Audit report defines the ratio as people aged 65 years and over to those aged between 18 and 64 years (World Bank 1994; National Commission of Audit 1996).

The age dependency ratio must be used with caution. It has been criticised as potentially misleading for purposes of planning and policy. Old age is not synonymous with economic dependency and the ratio ignores unpaid productive activities, unpaid volunteer work and unpaid care. A true economic dependency ratio must take into consideration differences in

¹ The residential care policy aim of 40 nursing home beds per thousand persons aged 70 and over was first publicly announced in the report of the Nursing Homes and Hostels Review (Department of Community Services 1986: 25 and 44). The calculation and interpretations of the ratio were drawn from data collected and analysed by Rhys Hearn and Hearn (1986) and Howe and Preston (1985) which used mainly 1983 nursing home data (Gibson & Liu 1995: 62).

employment and other economic activity, by age and gender (Johnson 1996; Schulz et al. 1991).

Some refinements of the dependency ratio have been suggested. For example, a total dependency ratio has been proposed to include children and people with a disability as components of dependent population (e.g. Schulz et al. 1991; Borowski & Hugo 1997; Easterlin 1991). Another refinement—the labour force dependency ratio—is suggested, comparing the number of children, older persons and other people not in paid work with the number of paid workers able to provide financial support for them (e.g. Young 1994).

For disability and aged care service planning, the ageing of the working-age and older populations, and increases in the number of people with disability, particularly with severe or profound handicap, are major concerns. The dependency ratio and its modified versions cannot be used directly as measures for this analytical purpose.

It has been pointed out that the proportion of people aged 65 plus is a poor measure of the likely need for a long-term aged care services. The vast majority of people aged 65 to 80 has no need for such services. The proportion of people aged 80 and over is a more useful indicator of demand with respect to population ageing, as it is among this group that service use is highest (Gibson & Goss 1999).

A 'severe and profound handicap' dependency ratio has been used to examine need for long-term care in Australia. This is calculated as the ratio of number of people with severe or profound handicap to the number of people in the working-age population (Walsh & De Ravin 1995). However, that ratio uses the entire working-age population as the denominator. The working-age population may include unemployed people and people with a disability, or a severe or profound handicap. Again, the ratio focuses on economic concerns and there are other issues that need to be addressed.