

# Preparing for Victoria's Future Challenges and Opportunities in an Ageing Population



The Victorian Government Submission to the  
Productivity Commission Research Study on the  
Economic Implications of an Ageing Australia  
**November 2004**



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## Structure of submission

This submission is structured in three parts.

Part A contains an executive summary of key issues discussed in this submission, and sets the scene through the provision of background information on the projected demographic shifts in Victoria.

Part B examines possible fiscal impacts associated with the ageing of our population, using *the Victorian Department of Treasury and Finance–Access Economics* model to explore aggregate impacts, before further exploring possible impacts for various portfolios.

Part C considers a range of possible economic impacts of population ageing, including on the population itself, labour force participation and productivity and economic growth. It further explores how Australian governments may manage the fiscal and economic pressures of population by facilitating greater economic and productivity growth.

Parts B and C are interrelated. Health issues, for example, flow through to labour force participation issues, and vice versa. Although they are separated here for explanatory purposes, these interrelationships need to be recognised.

## Contact

This submission was prepared by the Victorian Department of Treasury and Finance on behalf of the Victorian Government. The Strategic Policy Group of the Victorian Department of Treasury and Finance can provide further details on this submission if requested.

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# Foreword



The ageing of our population presents both significant challenges and opportunities for Victoria.

Coming decades will see Victorians living longer, healthier lives. The attendant shift in the age structure of our population also presents considerable challenges for governments and communities.

Since the tax base is generally focussed on the incomes and expenditures of the working age population, and government services focus more on the needs of those outside the working age (both the very young and the old), ageing is likely to increase government spending relative to revenue.

This changing balance is expected to place pressure on the fiscal balances of all Australian governments.

Within 15 years, if present trends continue and government policy settings remain unchanged, a combined Commonwealth–State fiscal ‘gap’ of 3 per cent of gross domestic product could emerge. Depending on how the burden of future age related costs is shared between levels of government, Victoria’s fiscal deficit could be between 1 per cent and 2 per cent of Victoria’s gross state product by 2020. With unchanged policy, the deficit is likely to continue to widen after that.

Population ageing will also produce significant economic and labour market effects as baby boomers retire over the next 15 years, however there is a great deal we can do today to ensure Victorians can meet these future challenges.

By growing our economy faster, consistent with environmental sustainability, and increasing productivity, we can provide future generations with more resources and options to address the impacts of an ageing population.

The Government is committed to improving Victoria’s economic performance and has formulated a seven-point plan to improve productivity and economic growth through actions to:

- Strengthen our education and skills base
- Boost workforce participation
- Grow our regional populations
- Foster innovation through R&D
- Deliver world class economic infrastructure
- Enhance the productivity of health and education services, and
- Maintain a best practice regulatory environment

***Strengthen our education and skills base:*** Victoria’s growth prospects will increasingly rely on having a world class workforce of highly educated and skilled people. In a world of ideas, innovation and rapid information flows, the qualities of our people will determine our capacity to generate wealth.

***Boost workforce participation:*** We need to help every person to realise their capacity to participate socially and economically. This will help achieve the best outcomes in the short term and help avoid a future with a relatively smaller workforce supporting a larger dependant population.

***Grow our regional populations:*** The capacity of regional Victoria is greater than we have so far tapped. The Government’s policy encouraging skilled migration to regional areas will strengthen regional populations. The Government is also making key investments in infrastructure and services to ensure that people living in regional Victoria can make the maximum contribution to economic growth and receive their fair share of the rewards.

***Drive innovation through R&D and throughout industry:*** Economic competitiveness and industry profitability is increasingly being driven by innovation and the capacity to get ideas to market quickly. Governments can stimulate an innovative economy through support for R&D.

***Deliver world class infrastructure:*** Victoria has a major competitive advantage in its infrastructure assets. The Government is continuing to build on this base to provide the strongest possible growth path for the future.

***Enhance the productivity of health and education services:***

With knowledge, skills and good health the key ingredients in a productive workforce the productivity of health and education sectors will be of growing importance in an ageing Australia. All Australian governments should work together on a national program of health promotion, early intervention strategies, and an integrated national system of primary and community health care. Victoria considers these strategies will be essential for managing future pressures on health costs and slowing the growth of age-related chronic diseases.

***Maintain a best practice regulatory environment:*** Through the Victorian Competition and Efficiency Commission and the broader approach to industry regulation, the Government is ensuring a competitive environment for Victorian business with minimum regulation.

Critical to addressing the challenges of an ageing population is cooperation between the States and the Commonwealth. National Competition Policy (NCP) arrangements are a Commonwealth-State partnership that has delivered measurable economic benefits.

An additional Commonwealth-State partnership, to share the gains from initiatives to boost productivity similar to the NCP, would ensure that all states receive incentives to contribute to national efforts to grow the economy.

The Victorian Government strongly supports ongoing exploration and discussion of the likely implications of population ageing for Australian communities and their governments. By understanding these issues we prepare current and future generations to fully seize the opportunities and manage the risks associated with the changing profile of our community.



**John Brumby**  
*Treasurer*

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## PART A

### Summary and Background



# 1 Executive Summary

This submission to the Productivity Commission (PC) Research Study on the economic implications of an ageing Australia explores a range of possible economic and fiscal impacts associated with the projected ageing of the Victorian population. It also highlights the priority areas identified by the Victorian Government requiring greater cooperation and coordination between the Commonwealth and the states. Effective management of these issues will be a critical determinant of the extent to which Australia and Victoria can meet the challenges and seize the opportunities associated with the ageing of our population. The Australian and Victorian economies, communities and their public services have adapted well to structural changes in the past. By taking a proactive stance on the important issue of population ageing we will continue to do so in the future.

## *Australia's and Victoria's populations are ageing*

- While the future is inherently unpredictable, it is certain that the combination of low fertility rate plus lengthening life spans will result in a gradual ageing of the Australian and Victorian populations. In 2001, 13 per cent of the Victorian population was aged 65 years and over. By 2042 it is projected that this group will have grown to 25.8 per cent of our population.
- Most developed countries already have high proportions of their population aged 65 and over. While the next several decades will see the age profile of Australia and Victoria catch up with that of most other OECD nations, Australia is particularly well placed to plan for and manage the economic and fiscal impacts of ageing.

## *Slowing economic growth*

- Over the next 40 years population ageing is expected to slow Victoria's economic growth substantially. Without significant increases in productivity or labour force growth, economic growth could be reduced to around one-half that of the past 40 years.

## *Each decade will bring different adjustment issues*

- The most immediate effects forecast over the next 15 years will be on labour markets. As baby boomers retire labour force participation rates will decline, potentially giving rise to labour supply constraints and slowing economic growth, while placing upward pressure on wages.
- In later decades, the most significant impact will be fiscal. As the baby boomers retire they will become increasingly dependent on health and other age-related services.

## *Ageing impacts will initially be most pronounced in regional Victoria and within culturally and linguistically diverse communities*

- Small rural and remote regions are ageing faster than the rest of Victoria. In some instances this will lead to an adjustment period where age-related increases in service delivery demands are greater than the available skilled working age population to service those demands.
- By 2011, 38 per cent of Melbourne's older population will be from culturally and linguistically diverse backgrounds. Providing services appropriate for these Victorians will be comparatively costly, placing additional fiscal pressure on the Victorian Government.

## *Asymmetric effects on budget revenues and expenses will produce a growing fiscal gap on unchanged policy assumptions*

- Cost pressures—largely health-related—represent by far the largest fiscal risk to the State. These cost pressures will not be offset by reduced demand for services to younger age groups. Indeed, if higher productivity and labour force participation are pursued as key strategies to address the adverse economic effects of population ageing, the resultant increased participation in education and training for all age groups would increase demand for these services.
- Victoria's revenue growth, by contrast, is expected to slow relative to economic growth due to the direct and indirect effects of population ageing on the State's tax base and on future GST revenues.



***Health expenditure presents the primary fiscal risk. Effective organisation and management of our health system, including Commonwealth and state government funding and policy responsibilities, will be essential to address future health cost pressures***

- Future health costs depend on developments in age-specific utilisation rates, the health status of various age cohorts, medical technologies, the public-private sector interface, and the division of service provision and funding responsibilities.
- The scale and distribution of future health cost pressures on Commonwealth and state governments depend critically on Commonwealth policy stances with respect to these health cost drivers.
- Fiscal pressures on both levels of government could be eased through national programs to increase the efficiency of the health system and accelerate its shift towards the provision of integrated community-based care for chronic disease, and through health promotion and early intervention strategies to slow the growth of chronic diseases associated with advancing age.

***The funding and provision of other public services will also be affected***

- Population ageing will result in a shift in demand for education and training services. Ongoing investment in the education of young and adult Victorians will be critical in meeting the economic and fiscal challenges of ageing, by supporting increased labour force participation and increased productivity growth and responding to emerging skill shortages.
- As the young perpetrate a large proportion of offences, an ageing population should coincide with a decline in the total level of criminal offences. However, the increasing level of vulnerability associated with growing numbers of older Victorians, on the other hand, is likely to have implications for demand for civil law protection and advocacy services.
- As the population ages, greater numbers of people are likely to have mobility restrictions, shifting the pattern of demand for public transport services towards local transit (relative to commuter transport). More emphasis may need to be given to pedestrian safety.
- Since the Victorian public sector labour force has an older age profile than the broader Australian labour force, the impact of ageing will be felt earlier and more significantly by the Victorian Government. This could lead to wage pressures and compromise the Government's ability to deliver quality services. Recruitment and retention strategies will be fundamental to addressing these risks.

***As will volunteer work***

- Population ageing is likely to impact upon both the supply and demand for unpaid and volunteer work. These impacts will vary among different types of work, creating pressure on some activities (e.g. emergency services). As a result, state service models may need to be reviewed in key areas.

***Boosting population, labour force participation and productivity needs joint government action***

- Boosting the size, engagement and productivity of the working age population will mitigate many of the adverse economic and fiscal effects of population ageing.
- Most importantly, states can significantly influence productivity growth, by providing appropriate conditions for innovation to thrive and businesses to flourish, through their role in the development of human and physical capital and in the efficient use of natural assets. A Commonwealth–State partnership that shares the gains from initiatives to boost productivity would ensure all states receive appropriate incentives to contribute to national efforts to grow the economy.
- States also contribute to a number of important determinants of labour force participation. While Commonwealth tax, social security, child care and retirement incomes policies remain the key determinants of workforce participation, states are the primary providers of school and vocational education and training, crucial determinants of active workforce participation by all age groups. States also regulate workplace safety and, as significant employers in their own right, can offer flexible and family friendly working arrangements.
- Although the Commonwealth has the primary policy leverage over population growth (both natural increase and overseas migration), states can create the conditions that will attract an increased share of the population. States can also be proactive about attracting additional skilled migrants and helping to settle them into regional communities.

***Future Victorians will enjoy increased prosperity***

- Although growth will be slower over the coming 40 years, standards of living (as measured by average incomes per capita) will be much higher than they are now—an important factor when considering the intergenerational equity implications of population ageing.

## 1.1 Priority actions

### Boosting productivity

Improving productivity growth is likely to be the primary way in which we can help address the fiscal pressures of an ageing population. Even small gains in annual productivity growth will produce significantly higher living standards in 30 to 40 years time, increasing future capacity to pay for the higher service needs of the aged. In *Victoria: Leading the Way*<sup>1</sup> the Victorian Government outlined its commitment to securing future economic prosperity by building a competitive, innovative economy.

Productivity can be improved in the short term by enabling businesses to achieve best practice in their field of activity. This will occur through the normal forces of the market provided there are no barriers or impediments. State governments can facilitate productivity by fostering competitive environments and ensuring that impediments to market activity are minimised. The recent establishment of the Victorian Competition and Efficiency Commission, to ensure that the business regulatory framework does not unduly impede business productivity and growth, is a good example of the way in which state governments can promote productivity.

In the longer term, governments can promote productivity growth by encouraging a dynamic environment for business development, in which new ideas are quickly assimilated and innovation is rewarded. States have an important role to play in boosting productivity through their investment in education and training and ongoing skills acquisition, their provision of physical infrastructure and their promotion of the productive use of natural assets. State governments can also enhance productivity growth by efficient delivery of key government services such as health, education and public infrastructure.

The economic and fiscal benefits from increased productivity growth will not be restricted to the state or territory implementing measures to achieve them. Indeed, some states may face disincentives to take the action necessary to boost productivity growth if resulting fiscal gains are partly redistributed to other jurisdictions (regardless of their contribution to that growth) such as currently occurs through the approach to distribution of GST grants between states. Nevertheless, by supporting Victorian productivity growth, the Victorian Government increases the capacity of our community to respond to the fiscal and economic challenges posed by population ageing.

### Increasing workforce participation

While the retirement of older workers (and possible delays in their early departure from the workforce) will be a key factor in determining future labour force participation, the participation of all age groups, including younger Victorians, will be critical. In particular, participation rates among women of childbearing age could be boosted.<sup>2</sup>

Continued investment in education and training will be critical to increasing labour force participation of all age groups. A 30-year-old Victorian who has completed Year 12 or equivalent has an average 10 per cent higher probability of being in the labour force than a 30 year old who left school before completing Year 12 or equivalent. The Victorian Government considers this area to be a key priority in responding to the challenges of population ageing.

The Victorian Government does not believe people should work longer than they want to. But impediments to participation need to be removed for those who wish to continue in work. These impediments include inappropriate incentives in current retirement incomes policies and superannuation arrangements that encourage people to retire earlier than they need to. Along with the promotion of more flexible working arrangements, increased availability and affordability of child and dependent care will also be necessary to facilitate the participation of parents and those with dependent partners in the labour force.

### Increasing skilled immigration

Skilled immigration can be used effectively to manage the specific impacts of population ageing, particularly in more rapidly ageing regional communities.

Australia should further explore flexible approaches to attracting and selecting migrants appropriate to the economic and social goals of individual states and territories. Precedents exist in other federal systems (e.g. Canada) for allowing individual states to identify and attract additional skilled migrants with specific skills or other qualities of significant benefit to the economic development of that jurisdiction.

Through the new Skilled Independent Regional Visa scheme, the Commonwealth Government has recently begun to extend such a capacity to those Australian States that wish to attract more migrants. The Victorian Government welcomes this change and is capitalising on the opportunity by committing an additional \$6 million over four years to its new Skilled Migration Strategy. A major focus of this commitment will be on 'settlement' support to regional communities wishing to attract skilled migrants.

### Containing future growth in health costs

Health expenditure presents the primary fiscal challenge associated with population ageing. Health costs represent a very significant component of ongoing government expenditure, and our consumption of health services generally increases as we become older. Fortunately, there is much we can do to manage future health costs by ensuring future populations are healthier, and our health system responds efficiently to the service needs of the community.

Establishing a more comprehensive and focused national program for health education and early intervention will be critical to successfully slowing the growth of chronic diseases associated with advancing age. Development of an integrated national system of primary and community health care will allow us to use our investment in health more effectively, by providing high quality services in lower-cost settings outside the acute system.

The future fiscal pressures associated with an ageing population will be exacerbated if the current split between the Commonwealth and the States in health policy and funding responsibilities encourages cost shifting and undermines the efforts of all levels of government to manage future demand for health services. Governments need to cooperate to limit fiscal risks by managing costs and ensuring that waste associated with duplication of services is minimised.

<sup>1</sup> Victorian Government Economic Statement, April 2004.

<sup>2</sup> These are currently significantly lower in Australia than in countries with more family friendly policies.

## 2 Demographic Shifts

The combination of low fertility rate plus lengthening life spans will result in a gradual ageing of the Australian and Victorian populations.

### KEY ISSUES

- Over the next 40 years the natural increase of the Victorian population is projected to slow significantly, ceasing by the mid-2030s. Older people will account for an increasing proportion of our community.
- The proportion of our population of working age (15 to 64 years) is currently at a peak and is projected to decline over the next 40 years, from 67 per cent in 2001 to 60.2 per cent in 2042.
- A key feature of demographic change in Victoria will be faster growth of households than in the population.
- Spatial diversity is becoming more marked: the extent and timing of population ageing will vary for different regions, towns and suburbs.

Projections prepared by the Victorian Department of Sustainability and Environment indicate that Victoria, like Australia and many other developed countries, is undergoing a major demographic shift. Our community is becoming older, with larger proportions of the population aged 65 years or more.

### 2.1 Declining natural increase

Natural increase refers to the net increase in population derived by subtracting population loss through deaths from gains through births.

#### 2.1.1 Fewer births

For the past 50 years the strong population growth in Victoria and the whole of Australia has been due to two key factors: overseas migration and natural increase. The latter has been supported by a fertility level above the replacement level of 2.1 children per female. Since the late 1960s, however, fertility rates have fallen.<sup>3</sup>

As shown in figure 1, the total number of births each year will not change substantially over the next 30 years, as the increasing numbers of women in the population aged 15 to 45 years will offset lower fertility rates.

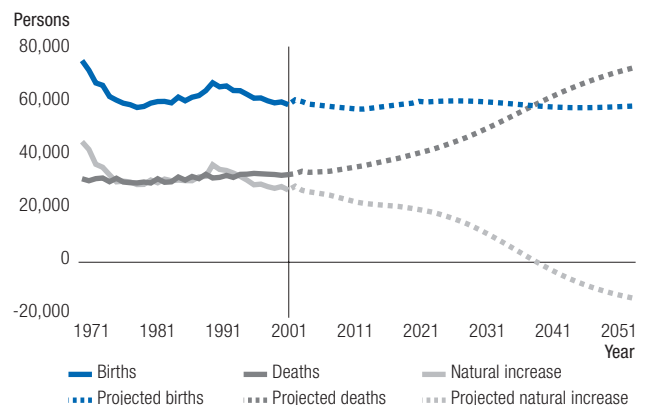
#### 2.1.2 Increasing deaths

The second key component of natural increase is deaths. While enjoying better health and greater life expectancy than previous generations, the shift of the large population cohort born in the post-war period (from 1946 onwards) into the later years of their lives over the next 30 to 40 years, will significantly increase the number of deaths and cause a decline in natural population increase.

Victoria, like Australia and many other developed countries, is beginning to be affected by this trend. Due to lower birth rates it is likely that natural increase will fall and cease to be the major source of population growth. By the mid-2030s, deaths will outnumber births and natural decrease will result.

**Figure 1: Births, deaths and natural increase, Victoria 1971 to 2051**

Sources: Australian Bureau of Statistics (ABS), Victorian Department of Sustainability and Environment.



With natural increase contributing relatively less to our population growth over time, migration will become increasingly important. Australia will rely on overseas migration—Victoria will rely on overseas and interstate migration and, within Victoria, regions may be competing for the inter-regional flow of population.

<sup>3</sup> Fertility rates can be measured in different ways. The Crude Birth Rate is the number of live births registered in any given year per 1,000 resident population. As it is based on the resident population, the crude birth rate is not a good measure of the fertility of women of child bearing age. The Total Fertility rate measures the average number of live births women expect to have. Age specific fertility rates measure the number of live births registered in any given year by age of mother per 1,000 females of that age in the population. The sum of all age specific fertility rates is the total fertility rate.

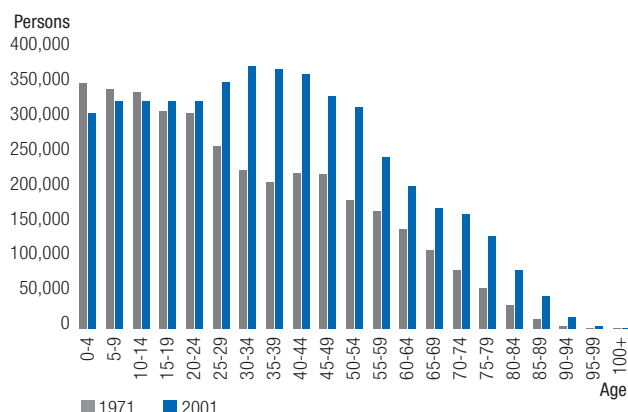
## 2.2 An ageing population

### 2.2.1 Current situation

The size and age structure of our population is constantly changing, albeit slowly. Our present age structure has been determined largely by decisions made in the past and their ongoing implications. The shift in the age structure of the Victorian economy in the past three decades is shown in Figure 2.

**Figure 2: Population age structure of Victoria, 1971 and 2001**

Source: ABS.



By 2001 the largest proportion of the Victorian population were those born during the long boom following the end of World War II, often referred to as the 'baby boom', peaking in 1971. Those born in this period were aged 32 or more years in 2001, with the largest five year age cohort aged 30–34 years.

The current generation of parents have lower and declining fertility rates. However, since there are so many potential parents aged in their 20s and 30s, total birth numbers have remained relatively high and there was only a small decline in the total numbers of children from 1971 to 2001.

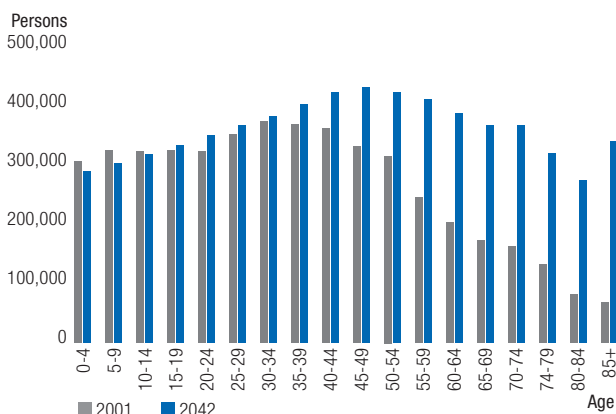
Older Victorians already comprise a significantly larger part of our population, the proportion of people aged 65 years and over increasing from 8.5 per cent of the population in 1971 to 13.0 per cent in 2001.

### 2.2.2 Ageing in the future

Over the next 40 years this change in age structure is likely to continue, with those aged 65 years and over increasing to 25.8 per cent of the population by 2042. The total number of children is likely to remain relatively unchanged, although as a proportion of the total population, the number of children under 15 years is likely to fall from 20 per cent of the population in 2001 to 14 per cent in 2042. By then, those born in 1971 - the largest single year for births in Victoria - will be reaching the age of 70 and the bulk of the baby boomers will be older than that or deceased. Figure 3 shows the age structure of the Victorian population in 2001, and that projected for 2042.

**Figure 3: Population age structure of Victoria, 2001 and 2042**

Source: Victorian Department of Sustainability and Environment.



## 2.3 Spatial impacts of ageing

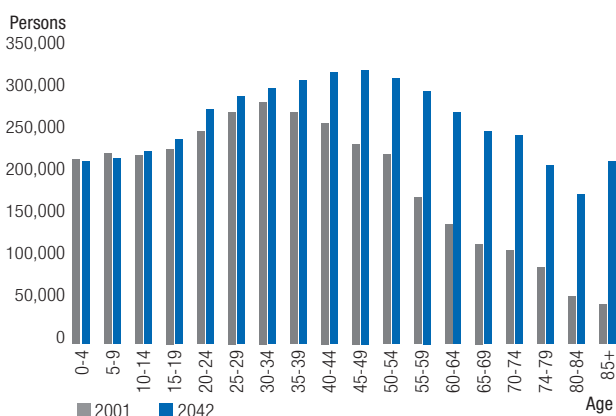
### 2.3.1 Ageing in Melbourne

Although Melbourne and Victoria will develop an older age profile over coming decades, Melbourne will remain younger on average than regional Victoria. This is largely due to an inflow of young people, particularly those aged 20 to 29 years. While the numbers of those aged less than 20 will remain fairly stable, the largest gains in the population will be among those aged 30 and above. Most of this increase will come from people living in Melbourne currently and who are simply getting older.

Figure 4 shows population projections for Melbourne in 2001 and 2042.

**Figure 4: Projected population by 5-year age groups, Melbourne, 2001 and 2042**

Source: Victorian Department of Sustainability and Environment.



### 2.3.2 Ageing in regional Victoria

Many rural areas and small towns have a very high percentage of their population that are aged, driven by emigration of young people and the 'ageing in place' of older age groups. Retirees and semi-retirees seeking a 'sea change' are also migrating to regional areas, putting pressure on most coastal areas and some inland regions.



Table 1 highlights the impact of these trends, comparing the median ages of residents in selected rural and remote locations with the average for Victoria in 2001.

**Table 1: Median age by Local Government Area (LGA)**

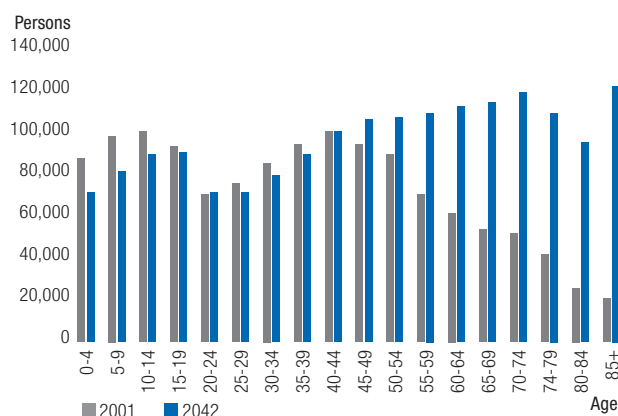
Source: ABS.

LGA	Median Ages
Hindmarsh	42.6
Yarriambiack	42.2
West Wimmera	41.5
Horsham	37.8
Buloke	43.3
North Grampians	39.4
Victoria	35.8

These trends can be seen more broadly in the age structure of regional Victoria compared with Melbourne. Many parts of regional Victoria experience a marked departure of young people (aged 20 to 29 years), reflected by the dip in this age group (see Figure 5). The projected decline in the numbers of children, particularly aged less than 15 years, is evident. Also, the increase in numbers of people aged 55 years and older, compared with the 2001 population, is proportionally larger and earlier in regional Victoria than in Melbourne.

**Figure 5: Projected population by 5-year age groups, regional Victoria, 2001 and 2042**

Source: Victorian Department of Sustainability and Environment.



Regional Victoria already has an older age profile than Melbourne with 31.7 per cent of people aged 50 years or over, compared with 28.0 per cent for Melbourne.

## Future population challenges for regional Victoria

In Victoria, population ageing will be manifest in different trends in Melbourne and regional Victoria. This will be compounded because Melbourne can expect to receive the largest share of Victoria's population growth over the next 30 years.

Melbourne already receives more than 90 per cent of the overseas migrants coming to Victoria and is a net gainer of interstate migrants. Regional Victoria, which receives less than 10 per cent of overseas migrants, is a net loser of population to other states and territories.

Much of regional Victoria is faced with declining fertility rates, out-migration of young adults, including younger women of child-bearing age, and lower numbers of people moving to regional Victoria from Melbourne. These factors imply that ageing will affect regional Victoria before Melbourne and, in some parts of regional Victoria, the effects of a rapidly ageing population are already being felt.

The economic (including labour force) and fiscal implications of population ageing, described in Parts B and C of this submission, will be experienced even more sharply in regional areas of the State. Ageing in these areas may also present distinct infrastructure and service delivery challenges.

Strategic planning for an aged population can play an important role in population growth and retention. Aged care facilities, for example, can retain aged population, while contributing to the employment options of the younger population. This also helps to free up housing stock for new and existing populations. Nhill, located in the Shire of Hindmarsh, provides a good example of a town that has developed a strong strategy to support and retain aged persons (see Box 1).

### Box 1: Regional case study – Nhill

Located in Western Victoria, Nhill is a small town in the heart of the Wimmera region. The town is 76 kilometres from the nearest large service centre, Horsham. Of Nhill's population of 1980 people, 641 are aged over 60 and 320 over 75 years.

Nhill has several aged accommodation facilities reflecting the needs of the town's population and its role as a service centre.

Of the aged accommodation residents, 20 per cent are from the nearby town of Goro. There is no aged care facility in Goro and the close proximity to Nhill ensures connection with family and friends.

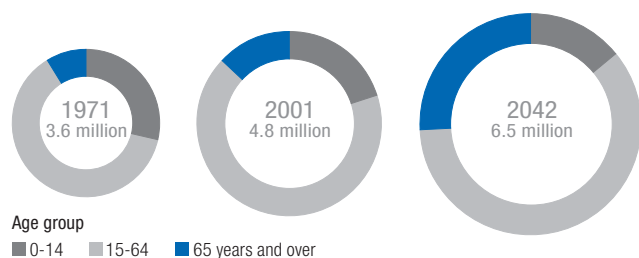
Nhill has a high tendency for people to 'age in place' even if that means waiting for a place, rather than moving away from family and friends. This is particularly common in small towns and rural areas. Providing aged accommodation and facilities has been essential to Nhill retaining its aged population and attracting a small number from the neighbouring towns such as Goro.

## 2.4 Ageing of the working population

As outlined above, increasing life expectancy and declining birth rates have resulted in a shift in the age profile of the Victorian population. These factors have also interacted to produce a historically large working age population (those aged 15 to 64 years). Between 1971 and 2001 this group grew from 62.8 per cent to 67.0 per cent of the population, representing an increase of nearly one million people (from 2.26 million in 1971 to 3.22 million in 2001).

**Figure 6: Population by selected age groups, Victoria, 1971, 2001 and 2042**

Source: Victorian Department of Sustainability and Environment.



By 2042, the working age population in Victoria will decline to 60.2 per cent of the population. Nevertheless, the total number of people in this age range will increase by around 710 000 people to 3.93 million by 2042. While the total number of workers will continue to rise, in the 2030s and 2040s the *proportion* of Victorians of working age will fall significantly. It should be noted, however, that the 'traditional' working age population may change, with more people aged 65 and over participating in paid work.

## 2.5 Household change

The total number of households in Melbourne is projected to grow by an average of 1.1 per cent per annum between 2001 and 2042, significantly more than the projected average annual population growth rate (0.8 per cent) for the same period. This reflects a projected decline in average household size, driven by an ageing population and other social changes. Average household size in Melbourne, which was 2.61 in 2001, is projected to fall to 2.44 by 2016 and 2.26 by 2042.

Ongoing demographic change will mean that single-parent families, couples without children and lone-person households will become increasingly prevalent household types. It should also be noted that many of the 'new' one and two-person households will not be young singles and couples forming their own new households, but will instead be middle-aged and older couples (and former single parents) whose children have moved out of home. Many of the single-person households will be divorcees and older Victorians whose partner is deceased.

The continuing decline in household size will also affect various areas of social and economic life and, importantly, interact with the impacts of ageing.

# PART B

## Fiscal Impacts

### Overview

All levels of government—Commonwealth, state and local—will face fiscal challenges associated with the ageing of the population. Part B of this submission highlights these challenges and implications for the Victorian Government.

Section 3 uses a long-term economic model to explore the possible implications of population ageing on Victorian Government revenue and expenditure – or the fiscal ‘gap’. Section 3 also provides a discussion of the use of modelling for examining possible long-run fiscal and economic impacts, and the assumptions used to construct various scenarios.

Section 4 explores further the possible expenditure impacts of population ageing for service delivery portfolios, including exploring the various factors that may shape future health costs—the single largest expenditure pressure on state governments from population ageing.

Section 5 examines the likely implications of population ageing for the revenue of state governments.

Finally, Section 6 places these trends within the context of concepts of intergenerational equity, considering whether and how current generations should manage the future financial burden of caring for the aged.



### 3 Fiscal Projections

If we do not act now, as the population ages Victorian government revenues will progressively decline relative to spending.

#### KEY ISSUES

- Modelling is a useful tool for examining long-term fiscal pressures. This submission incorporates two plausible situations—a high fiscal impact case and a low fiscal impact case—as a means of identifying key issues.
- Declining revenue and faster growth in service demand are expected to result in a negative fiscal balance or gap. Projected increases in the demand for health services are the most important influence on expenditures.
- The high fiscal impact scenario indicates a fiscal gap of around 3.3 per cent of gross state product Growth State Product (GSP) in the decade to 2041–42. In the low fiscal impact scenario the gap is around 1 per cent of GSP in the decade to 2041–42.
- The combined Commonwealth–State fiscal gap is 7 per cent under the high fiscal impact scenario. Its distribution between the states and the Commonwealth depends on the extent of Commonwealth payments to the states and territories.

#### 3.1 The fiscal balance—a key policy concern

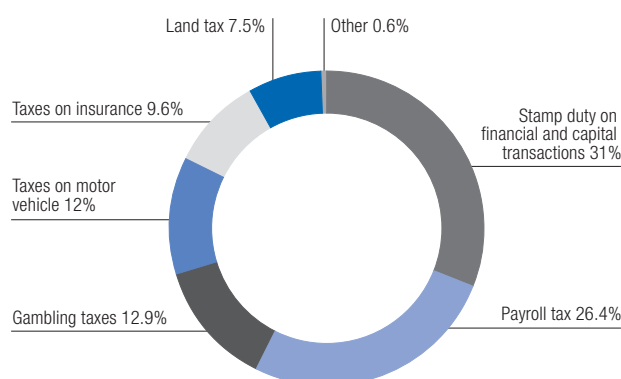
A key policy concern for all governments is the fiscal balance—revenue from all sources less total expenditure before net interest costs.<sup>4</sup> The Victorian Government is committed to fiscal sustainability and has adopted the medium-term fiscal objective of maintaining an overall operating surplus. A particular issue in relation to population ageing is the ability of the Government to maintain a positive fiscal balance in the long term. In general, revenues are dependent on tax bases that are mainly focused on the working population, while expenditure is mainly directed towards the non-working population. Thus a scenario in which the size of the working population falls relative to the non-working population threatens the fiscal balance under current policy settings.

State taxation provides Victoria with a little over one-half of the revenue it needs to meet its service obligations. The remainder is received from the Commonwealth through a combination of specific purpose payments (SPPs) and GST revenues distributed via the Commonwealth Grants Commission. Ageing of the population is likely to change the size and structure of the tax base upon which the State's revenues are based, either directly for state raised taxes or indirectly for receipts from the Commonwealth.

The Victorian Government derives most of its own-source revenue from stamp duties and taxes on payrolls, gambling, motor vehicles, insurance and the unimproved value of land (Figure 7).

**Figure 7: Current state tax mix**

Source: 2004–05 Victorian Budget Paper 4, 2003–04 revised figures.

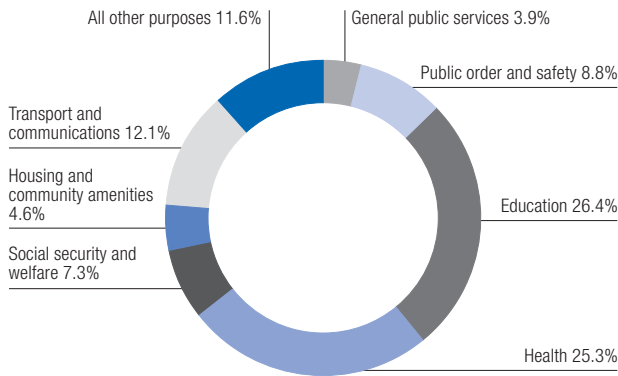


The most important areas of ongoing state government expense are health, education, transport and justice, as shown in Figure 8. In addition, the Victorian Government has a crucial role in providing for and/or regulating certain infrastructure investments. The quantum of spending is determined by the structure of the population and the level of its demands. Health expenditure is greatest on older people particularly those in the last few years of life. An increased proportion of older people within the overall population is likely to produce significantly increased health costs.

<sup>4</sup> The focus here is on the general government sector; however, governments are also concerned about the recurrent and capital expenditure of non-financial public corporations.

**Figure 8: Victorian general government spending by purpose**

Source: 2004–05 Budget Paper 4, 2003–04 revised figures.



In this section we use a long-term fiscal model to explore issues concerning the generation of revenue, the path of service demand and the resulting fiscal balance in the long term.

### 3.2 The role of modelling

In considering population ageing this submission examines both contemporary matters—where these impacts can be evaluated with some confidence—and impacts that may occur well into the future. Since the future is inherently uncertain, projections provided here should be viewed as an exploration of future possible outcomes rather than predictions. Nevertheless, modelling is a useful tool for examining both the prospects for the future and appropriate policy options. In this submission we use modelling to explore matters surrounding possible fiscal balances in the future.

There are several ways of utilising forecasting models. The simplest is to predict a course of events. In order to do this, assumptions must be made about the various factors that are likely to be influential. Even with well-informed judgement, the chance of accurately selecting the right assumptions is likely to be very low. An alternative approach is to vary the all-important assumptions and investigate the multi-dimensioned matrix of possible outcomes. However, this is likely to be extremely complex and difficult to interpret. A better approach is to choose a plausible set of baseline assumptions and investigate their importance by measuring the marginal effect of changes to them on the key outcome variables.

In our modelling we choose assumptions to fit high and low fiscal impact situations. These cases are two of many plausible alternative outlooks but we believe they encompass a reasonable range of likely outcomes under unchanged policy settings. We also explore the impact on the fiscal balance of alternative assumptions in relation to productivity, labour market participation, migration and the extent to which demand for services tracks movement in real incomes.

The underpinnings of our model—the DTF – Access Economics model—have been described in *Shaping a Prosperous Future*.<sup>5</sup> The main features of the model are that it:

- Provides a long term-outlook, up to 50 years
- Compares future scenarios with a baseline case of no policy change (see discussion below)
- Includes demographic, fiscal and macro-economic modules and, therefore, informs each of the three parts of this submission
- Provided the platform upon which models were developed subsequently by Access Economics and utilised by other states and territories for the purpose of informing their submissions to this research study.

#### 3.2.1 The key assumptions

Except where otherwise noted, projections are made on a no policy change basis. For service delivery this usually means that services are funded to increase with growth in the number of relevant recipients. One particularly important issue is the extent to which spending reflects growth in state real income per capita. This report assumes underlying demand for government services grows in line with real incomes—an assumption which appears reasonable in light of past history.

In the two scenarios, unchanged policy for state tax rates means that tax rates and the tax base (coverage) remain unchanged. Unchanged policy in relation to GST payments means that the tax rate remains constant at 10 per cent of the value of eligible consumption spending. Other assumptions are:

- Health care costs grow at a rate one per cent faster than the general price level
- The structure of the Victorian population changes as per demographic projections produced by the Victorian Department of Sustainability and Environment and published in *Victoria In Future 2004*
- Annual labour productivity grows at the national 30-year average of 1.75 per cent per year
- Underlying community demand for government services grows with real incomes
- Future age-related consumption patterns are based on current consumption patterns
- Governments continue to fund current publicly provided services.

The high and low fiscal impact cases are distinguished in the way that health costs are treated. There are three significant differences between the scenarios in regard to:

- The way in which health utilisation rates vary by age
- Whether health costs relate to age or proximity to death
- The way in which Commonwealth shares of hospital expenditure are maintained over time.

5 Victorian Department of Treasury and Finance (2003) *Shaping a Prosperous Future*.

Table 2: Approach to projecting health costs, high and low fiscal impact scenarios

Approach	High Fiscal Impact Scenario	Low Fiscal Impact Scenario
Health utilisation rates	Based on bed days	Based on case mix adjusted separations data
Relationship between costs and age	Based on age from birth (e.g. 80–85 years old)	Based on distance from death (e.g. final five years of life)
Commonwealth – State distribution of costs	Commonwealth health funding to Victoria maintained in real per capita terms (e.g. in line with changes in prices and population growth).	Commonwealth health funding to Victoria maintained as a share of hospital costs (e.g. in line with the cost of providing health services).

These approaches are summarised in Table 2 and explained below.

### Health utilisation rates

Two sets of health utilisation rates are employed. The high fiscal impact scenario uses weights derived from national bed-day usage rates. In the low fiscal impact scenario we use weights derived from recent data on case mix adjusted separations. While both sets of weights imply a sharp utilisation gradient in which health service provision per person rises sharply with age, the first set implies greater relative weights for older age groups than the second set.

### Relationship between health costs and age

The cost of health services for a particular age group may be obtained by dividing expenditures on people of that age group by the number of people of that age group. The high fiscal impact scenario calculates health costs in this way. However, many health economists argue that the best way to consider health service utilisation is in terms of the proximity to death. This suggests that health costs are not large because people are old, but because the process of dying is often preceded by serious illness. Thus increasing individual longevity adds non-costly healthy years. The proportion of people close to death will rise with population ageing, but not as fast as suggested by projections of the proportion of people in older age groups. The low fiscal impact case uses calculations of health cost based on proximity to death.

### Commonwealth–State distribution of costs

About 40 per cent of hospital costs are currently met by SPPs provided by the Commonwealth Government under arrangements that are agreed for five years.<sup>6</sup> There is no guarantee that current arrangements will continue past the term of the agreement. In the high fiscal impact case we assume that the Commonwealth provides SPPs maintained to meet increases in population and general levels of inflation. However, since our base assumptions allow for health costs to rise at a rate faster than inflation this would mean the Commonwealth share of health expenditures would fall. In the low fiscal impact case we assume the Commonwealth's share of hospital expenditure (and other areas for which SPPs are made) remains constant.

This assumption means that the pressure of future growth in health expenditures will be shared more evenly between the Commonwealth and the states.

## 3.3 The fiscal gap

The fiscal balance or gap represents the capacity of government to provide a sustained level of services to the community. In the Australian context, because expenditure and revenue are not aligned by jurisdiction, large transfers from the Commonwealth to the states and territories are required to maintain balance in both jurisdictions. While the primary focus here is on Victoria's fiscal situation, the Commonwealth position is also critical since transfers from the Commonwealth have major implications for Victoria.

### 3.3.1 Likely influences on the fiscal gap

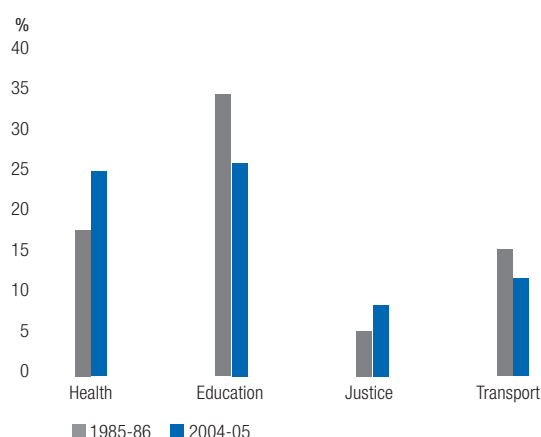
The ways in which the Victorian fiscal gap can be influenced by revenue and expenditure pressures are summarised in Table 3. The table also shows the expected size of the potential pressure.

#### Demand over time

Fiscal pressure is partly a consequence of changes in the structure of demand for government services. Figure 9 shows the increasing importance of health in Victorian general government spending. In the 20 years to 2004–05 health services increased from 18 to 25 per cent of total general government spending.

Figure 9: Changes in expenditure over time

Source: Victorian Budget Papers, various issues.



<sup>6</sup> SPPs are also made in areas other than health. The same assumptions are used for these other payments as for hospital funding (in both scenarios).

Table 3: Potential future pressures on Victoria's fiscal position

Pressure	Fiscal impact (indicative % of GSP in decade to 2041–42)	Comment
Demographic change	~1% GSP	Will affect a range of government activities, particularly health spending as ageing baby boomers increasingly draw on health services.
Health expenditure	1–4% GSP	Uncertainty about how improved health outcomes, the cost of new technologies and rising expectations will impact on public finances.
Productivity growth and the real income effect	0–1% GSP	Higher productivity growth means a faster economic growth and potentially reduced fiscal pressure. However, higher real incomes may lead to greater demand for government services that may limit reduction in fiscal pressures.
Commonwealth grants	1–4 % GSP	Could have a large effect, depending on Commonwealth's approach. Maintaining growth of Commonwealth grants with inflation and Victoria's population will result in a fall in their share of Victoria's GSP. This increases Victoria's fiscal pressure. Alternatively, maintaining Commonwealth grants relative to expenditure on government services will greatly ease this pressure.
Labour force participation	<1% GSP	Increased labour force participation can increase government revenue and reduce government expenditures leading to a reduction in fiscal pressure.
Immigration	0<1% GSP	Increased immigration could reduce fiscal pressure depending on the age, skills and health of the immigrants compared to the existing population.

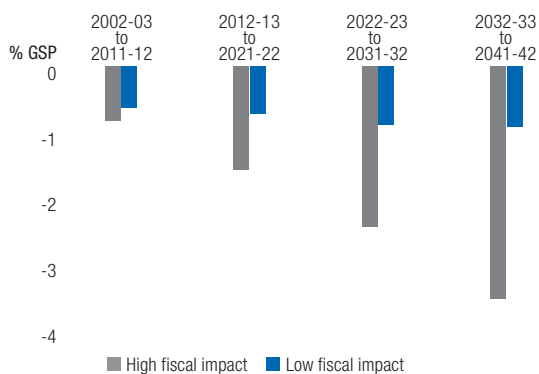
### 3.3.2 The Victorian position

Figure 10 reports the fiscal gap in each of the four decades to 2041–42 under the two scenarios. The figure shows a steady increase in the gap under both scenarios. In the high fiscal impact case it rises from under one per cent of GSP in the first decade to 3.3 per cent of GSP by the fourth decade. In the low fiscal impact case it rises from 0.5 per cent in the first decade to around 1 per cent in the fourth decade.

Figure 10: Projection of Victoria's fiscal gap<sup>(a)</sup>

Note: (a) The 'fiscal gap' is defined as the fiscal deficit before net interest costs (as defined in the ABS Government Finance Statistics). This enables analysis of the pressures on the budget without the distorting effects of compounding interest costs.

Sources: Victorian Department of Treasury and Finance and Access Economics.



It is useful to trace the factors affecting the path of the gap over the four decades.

#### Present to the early 2010s (the first decade)

Fiscal pressure in the early years is largely driven by factors on the revenue side, particularly lower conveyancing duty revenue as property market activity eases to long-term trends and Commonwealth grants to Victoria fail to keep pace with economic growth. Fiscal pressure from expenses is less significant than from the revenue side, although increasing in health and aged care. Community expectations of government services grow as private incomes increase. These pressures are partly offset by the relative decline in the number of children entering school age.

#### 2010s to the 2030s (the second and third decades)

Much of the economic impact of population ageing occurs in this period, as the baby boomers reach retirement and pension age. As we show in Part C, the largest labour market adjustments occur in the 2010s. At the same time, pressures on the health system build due to the increasing number of elderly persons and the continuing introduction of expensive new medical technologies. As retired persons are less likely to move dwellings and as population growth slows, housing activity slows, reducing conveyancing duty revenue. The offsetting fiscal pressure from fewer school-aged children weakens in this period.

## 2030s to the 2040s (the fourth decade)

Fiscal pressures on the budget begin to accelerate. By these years, the baby boomers have reached their late 70s, the period when they are most in need of health care. At the same time, health costs continue to increase as expensive new medical technologies and treatments become available. State revenues struggle to keep pace with economic growth.

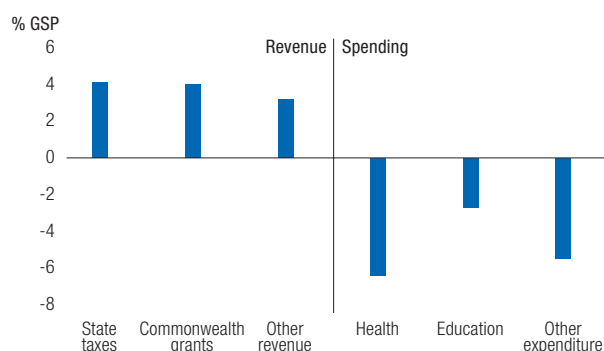
### 3.3.3 Key fiscal pressures

Fiscal pressures are projected on both the spending and revenue sides. The Victorian fiscal gap emerges because revenue does not keep pace with expenditure. In Figure 11 we show the relative contribution of various expenditure and revenue sources under the high fiscal impact case.

Figure 11 shows that in the decade to 2041–42 both state own-sourced taxes and Commonwealth grants are expected to contribute about 4 per cent of GSP. Other sources of state income include user charges and contribute about 3.1 per cent of GSP, bringing total revenue to around 11.4 per cent of GSP.

**Figure 11: Victoria's key fiscal pressures, decade to 2041–42, high fiscal impact scenario**

Sources: Victorian Department of Treasury and Finance and Access Economics.



Under our high fiscal impact case health demands are likely to grow considerably faster than revenue so that in the decade to 2041–42 they comprise around 6.4 per cent of GSP.<sup>7</sup> However, growth in education and training expenditure is projected to slow to around 2.6 per cent of GSP by the final decade to 2041–42. Remaining expenditure categories are expected to comprise a further 5.7 per cent of GSP, leading to a total level of spending of 14.7 per cent of GSP and a gap of 3.3 per cent of GSP in the decade to 2041–42.

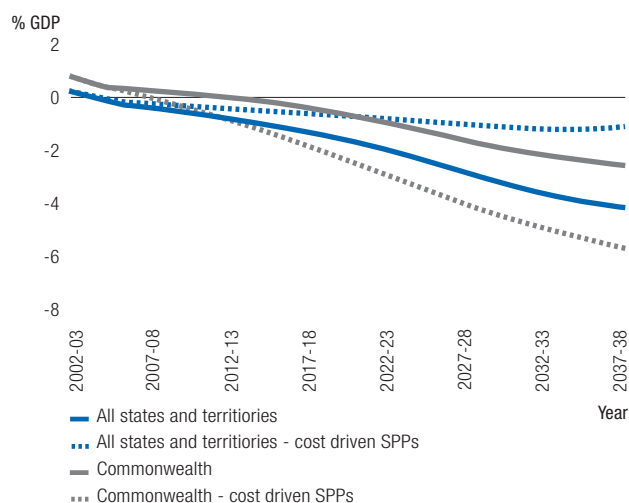
### 3.3.4 All governments

In Figure 12 we report the gap for all of the states and territories combined, and for the Commonwealth, expressed as a percentage of Gross Domestic Product (GDP) in each year to 2041–42 under the high fiscal impact scenario. The unbroken lines show the gap under high fiscal impact assumptions for disbursement of Commonwealth revenues to the states and territories. The bold line traces the fiscal gap for all states and territories, which follows the same pattern as for Victoria described above.

Over the years to 2041–42 the fiscal balance changes from an initial small surplus (the current situation) to a substantial deficit of around 4 per cent of GDP. The plain unbroken line traces the model's measure of the Commonwealth balance over this same period. It changes from close to zero to a deficit of about 2.5 per cent over the period. Therefore, under our high fiscal impact case assumptions, the balance for all governments at the end of the 40-year period will be a deficit of close to 7 per cent of GDP.

**Figure 12: Projection of jurisdiction fiscal gaps**

Sources: Victorian Department of Treasury and Finance and Access Economics.



The dashed lines show the situation if different assumptions are made in relation to how funds are distributed to the states and territories, for example, if states and territories were completely reimbursed by the Commonwealth through increased SPPs to meet increased demand from state and territory hospital spending. This is the same assumption used in the low fiscal impact case but here we do not use the two optimistic views about health expenditure utilisation and costs since our aim is to highlight the importance of the arrangements for Commonwealth transfers to the states. The outcome of these arrangements would be that the state and territory deficits would only rise to about one per cent of GDP while the Commonwealth deficit would rise to just under 6 per cent of GDP.

<sup>7</sup> The expenditure categories used in the model include activities associated with the provision of health services that are offsets to sales and user charges. In some assessments these offsetting effects would be netted out. This would have no effect on the fiscal gap but the size of health expenditure would be reduced by about 0.8 per cent of GSP and be balanced by a corresponding reduction of 0.8 per cent of revenue from user sales.



## 4 Expenditure Impacts

Expenditure pressures – largely health-related – represent the primary fiscal risk to Victoria which will not be offset by reduced demand for services to the young.

### KEY ISSUES

- Health expenditure presents the primary fiscal pressure for Victoria over coming decades, driven by population ageing, rising community expectations and the cost of new health technology. Any aggregate fiscal savings from other areas of government service delivery is unlikely to meet future increases in health costs.
- Continued focus on securing and building on the health of the Victorian community— through preventative health and early intervention strategies—will be central to slowing the growth of chronic diseases associated with advancing age and managing associated demand for health services.
- Another key priority will be the continued development of an integrated national system of community-based care for chronic disease and other measures to increase the efficiency with which health services are delivered. Greater cooperation between Commonwealth and state governments will be critical to meeting this challenge.
- Ongoing investment in the education and training of young and adult Victorians will be a fundamental element of the Victorian Government's approach to managing the economic and fiscal challenges of ageing, by supporting increased labour force participation, increased productivity growth and responding to emerging skill shortages. In line with this imperative, population ageing will result in a shift in demand for education and training services from younger cohorts to adult and mature age workers undertaking ongoing skill development.
- As a disproportionately large number of offences are perpetrated by young cohorts, an ageing population may coincide with a decline in the total level of criminal offences and associated fiscal demands in the administration of justice. However, the increasing level of vulnerability associated with growing numbers of older Victorians may increase need for civil law protection and advocacy services.
- As the population ages the provision of transport (including public transport networks, road and pedestrian networks) infrastructure will need to accommodate the changing safety, access and lifestyle needs of an older population.
- Population ageing is likely to produce significant additional demand for Victorian Government concessions. As eligibility for state government concessions is primarily determined by eligibility for Commonwealth concession cards, the Commonwealth and states and territories will need to work together to better target support for low-income households.
- Growth in living standards (driven by productivity and economic growth) will increase future capacity to accommodate projected expenditure pressures. These gains are not certain, however, and strategies to maximise this growth through prudent fiscal management and precautionary policy settings in critical and uncertain areas will therefore be critical to ensure effective management of future pressures.

### 4.1 Health

The health and well-being of our population underpins the productivity of our economy and the living standards of our communities. Individuals generally value their health, and the prospect of safe, speedy recovery from illness and injury, above most other things in modern society.

The ageing of the Australian population, as well as rising community expectations and the cost of available health technology is likely to lead to significant increases in health costs over the next four decades. As health costs represent a very significant component of ongoing state government expenditure, this is expected to place substantial pressure on Victorian Government finances.

While future generations will have greater capacity to accommodate and make informed choices about the allocation of resources across competing demands, to allow this to occur effectively the management of projected pressures must start now. In particular, the various trends and possibilities examined in this section suggest the need for action in three key areas:

- Greater efforts in health education and early intervention to slow the growth of chronic diseases associated with advancing age
- Development of an integrated national system of primary and community health care, shifting the balance of care from hospitals to community based (lower cost) settings
- Continued pursuit of improvements in hospital efficiency.

Underpinning efforts in all of these areas is the need for effective cooperation and coordination between Commonwealth and state governments. Fiscal pressures associated with an ageing population will be exacerbated if the existing disjuncture of Commonwealth and state health policy and funding responsibilities encourages cost shifting and undermines the efforts of all levels of government to manage future demand for health services. Governments must cooperate to limit the fiscal risks by managing costs and minimising the duplication of services.

#### 4.1.1 Projected aggregate future health expenditure

Long-term projections of health expenditures provide valuable insight into the likely impact of population ageing and related factors. This report presents projections for both a high and low fiscal impact scenario, which vary primarily on the basis of assumptions about health costs and the way Commonwealth SPPs to states are maintained over time. As discussed in Section 3.2.1, there are three distinguishing assumptions: the way in which health utilisations rates vary by age; whether health unit costs relate to age or proximity to death; and the way in which Commonwealth shares of hospital expenditure are maintained over time.

In Table 4 we show the individual effect of each of these three influences on the fiscal gap in the final decade of the projections.

**Table 4: Effect of key health assumptions on the projected fiscal gap in the decade to 2041–42**

Health assumption	Effect on projected fiscal gap as a share of GSP
More optimistic health utilisation age group weights	Reduces fiscal gap by 0.4 % pts
Health unit costs based on proximity to death	Reduces fiscal gap by 0.4 % pts
Specific purpose payments to hospitals maintained at constant share of hospital costs	Reduces fiscal gap by 1.6 % pts
All three assumptions	Reduces fiscal gap by 2.4 % pts

The first column of the table describes the health assumptions. The second column shows the effect on the fiscal gap as a share of GSP in the decade to 2041–42. The first row shows that the use of the more optimistic health utilisation rates (i.e. individual use of health services does not grow by as much as people age) leads to a fall in the projected fiscal gap of 0.4 per cent of GSP. The second row shows that by adopting an assumption that health costs are related to proximity to death, rather than age, projected health expenditures rise more slowly and the fiscal gap is reduced by 0.4 per cent of GSP, relative to the high fiscal impact assumptions. The third row shows that when the Commonwealth maintains its share of hospital expenditures the projected fiscal gap falls by a further 1.6 per cent of GSP. When all three assumptions are made together the projected fiscal gap is reduced by 2.4 per cent of GSP. Consequently, the low fiscal impact case produces a fiscal gap of 0.9 per cent of GSP in the decade to 2041–42.

This analysis indicates that, even using more optimistic assumptions, population ageing will be associated with significant health expenditure pressures and, with unchanged policies, will lead to fiscal deficits. However, the size of the deficit is dependent on some crucial assumptions about health costs and funding from the Commonwealth. The key drivers of this pressure, as well as expected ameliorating factors, are explored below.

#### 4.1.2 Health impacts in detail

The impact of population ageing will vary across a number of segments of the health system including acute care (such as hospitals), primary and community health, aged care services and mental health services.

The impact of ageing on these costs will be determined by factors that impact on both the demand for, and the supply of, health care services. Demand-side factors include:

- An increase in the number of older Victorians
- Improved life expectancy and morbidity
- Changes in health status
- Consumer expectations.

Supply-side factors include:

- The impact of new technology and pharmaceuticals
- Commonwealth–State relations
- Health workforce issues (also discussed in Part C).



### 4.1.3 Demand-side drivers

#### Increase in the number of older Victorians

Older people generally consume more health-related services than younger people. From the teenage years through to the mid-40s the health care costs of most individuals are relatively low. They begin to increase at about the age of 45 and accelerate further from the age of around 75 years. The health utilisation of the average 75-year-old is about three times that of the average 25-year-old.<sup>8</sup> The health care costs of an 85-year-old male today are four times that of a 50-year-old male.

Growth in the absolute number of older people, assuming that both service delivery mechanisms and the per capita demand for services remain constant, can therefore be expected to increase total demand for health services and associated costs.

The health and health care needs of future Victorians are, however, likely to vary significantly from those of the same age today: they are likely to live longer, be healthier at most ages and are more likely to survive and recover from ill-health.

#### Changes in life expectancy

Today, Victorians are living longer than ever before, supported by healthier lifestyles, safer living and working conditions, disease prevention initiatives, increasing education and affluence and the availability of new treatments for existing conditions. While in the first half of the 20th century increases in life expectancy were driven by rapid declines in peri-natal, infant and maternal mortality and deaths from infectious diseases, life expectancy gains in recent decades have been principally due to the mortality rate reductions associated with conditions affecting older people. For example:

- Death rates from coronary heart disease, the biggest single cause of death in Australia, have declined annually by 6 per cent since 1996
- Death rates from stroke, the second largest cause of death, have declined annually by 5 per cent since 1970
- Death rates from chronic obstructive pulmonary disease, another common cause of death, have declined annually by 5 per cent since 1995.<sup>9</sup>

#### Box 2: Future life expectancy gains and health expenditure

The central population projections that underpin this report assume that the increases in life expectancy that have occurred over the past 30 years will gradually diminish. However, should these gains not taper off, but instead continue according to past trends, by 2040 the proportion of people in Victoria aged 65 and over will rise slightly faster than in current projections, and the proportion of people aged 85 and over will rise from 1.5 per cent now to 7 per cent (instead of 5 per cent in the standard projections).

If these extra years in life expectancy are healthy, there will be few extra demands on health services. If they imply more years of ill-health and disability the demands on the health services provided by Government will be further increased.

#### Mortality rates

As part of the trend towards living longer, and probably healthier lives, standardised death rates and age-specific death rates will continue to fall.<sup>10</sup>

Based on the medium life expectancy assumptions in the latest Australian Bureau of Statistics (ABS) population projections, the number of deaths each year of people aged 65 and over is expected to double between now and 2040. Under the alternative assumption of the life expectancy gains of recent years continuing unabated, the number of deaths will rise by only around 60 per cent (See Box 2).

Further, some of the high health expenditures that are incurred in the last year or so of a person's life are related to expectations that 'everything medically possible must be done to stave off death' irrespective of the quality of life that people may reasonably expect. In Victoria, about 15,000 deaths occur in hospitals every year (one half of all deaths): making decisions about the provision of care towards the end of a person's life something that many doctors confront on a daily basis. This often presents major dilemmas, and a key strategy for dealing with this has been to improve and expand palliative care services. For example, Victorian Government funding for palliative care services has grown by around 10 per cent annually in recent years. To the extent that increased availability of high quality palliative care services, improved palliative care awareness and skills among all health care professionals, and changing community attitudes (as more people live in better health to older ages) leads to a reduction in inappropriate medical intervention, this may reduce the cost of end-of-life care.

8 Australian Institute of Health and Welfare (2002), *Australia's Health 2002*, AIHW Cat. No. AUS 25.

9 Ibid.

10 The latest ABS series B population projections assume that the fall in age-specific death rates will taper off. However, given the lack of evidence for this scenario, the ABS has included, for the first time, a scenario that entails the continued decline in age-specific mortality rates, largely unabated (as they have since the 1970s) over the projection horizon.

## Changes in health status

Future Victorians are likely to enjoy better health than those of the same age in previous generations. Many causes of ill-health are not age-related, but are associated with factors such as social circumstances (e.g. mental health), drug usage (e.g. lung cancer) or past occupational circumstances and hazards. That is, the health status of an age cohort at a given point in time is a product of all such factors over their lives, rather than solely of their age. This implies that current age-specific health service usage patterns may not necessarily continue for the next 40 years.

A changing disease profile (see Box 3) will dramatically change the mix of service and care types. For example, a healthier population in the future may require less hospital services throughout their life than the present aged cohort, but may have an increased need for residential aged care towards the end of life.

The projected increase in the incidence of dementia as people increasingly survive to older ages is a clear example. Not only is dementia a disease that generates more demand for residential care than hospital care but also, in a rationed health care system, older people with no prospect of being restored to good health may receive less intensive medical treatment than those with better health prospects. However, even with relatively intractable diseases such as dementia, medical advances are likely to substantially change the long-term outlook, particularly through the development of vaccines and other pharmacological treatments.<sup>11</sup>

### Box 3: Victorian Burden of Disease Study

The Victorian Burden of Disease study (1996) provides a comprehensive assessment of the amount of ill-health (the 'burden of disease') in Victoria in 1996 as well as projecting the likely future burden of disease by 2016. For example:

- Tobacco smoking was the risk factor responsible for the greatest burden of disease in Victoria in 1996, with physical inactivity, hypertension and obesity also significant contributors. In 2016, tobacco smoking is projected to cause a similar proportion of the overall burden of disease.
- Cardiovascular disease was the largest cause of ill-health in 1996, with cancer projected to replace it by 2016 as improvements in cardiovascular health are expected to outpace slower improvements in cancer treatments.
- Degenerative diseases will form a larger proportion of the burden of disease in 2016 due to ageing of the population including neurological, sense and musculoskeletal disorders.

One uncertainty associated with these cohort-related variations in health status and associated health costs is the extent to which the additional years of life that most people can expect on current trends will be mainly lived in a state of ill-health, or whether, on average, people will increasingly experience only a short period of ill-health prior to death (compression of morbidity). Section 4.1.1 explores the effect of assuming health costs related to distance to death rather than chronological age.

## Consumer expectations

Victorians have come to expect a high level and quality of government service provision in the health care sector.

Victorians of the future are likely to be more affluent and better educated than earlier generations. More keenly aware of the perceived benefits of improved medical treatments and technologies, these Victorians are likely to demand more health services and rapid access to new technology. This is likely to be accompanied by increasing community expectations about the range, quality and availability of services provided by government. In the context of other fiscal pressures imposed by population ageing and technological cost increases, such expectations may be unrealistic. However, since improved health outcomes are also likely to generate higher labour force participation and productivity, the community as a whole may well have an increased capacity to meet increased expectations.

It is also possible that community expectations could adapt as the community becomes more affluent. Notably, as incomes rise, individuals may have greater capacity and willingness to make some financial contribution towards the cost of the services they receive. This would allow governments to focus on targeting and improving services for the most disadvantaged in the community. Management may be required to promote such changes in expectations, including communication of the fiscal challenges facing our community, and possible policy options to alleviate it. It may also be necessary to shape expectations about the way in which health services are delivered, with increasing emphasis on self-management of health, with greater education to facilitate this self-management.

<sup>11</sup> See, for example, Access Economics (2003), *The Dementia Epidemic: Economic impact and positive solutions for Australia*.

#### **Box 4: Preventative health for older Victorians: influenza and pneumococcal vaccination**

In 1997 Victoria commenced funding the influenza vaccine for those aged 65 years and over, an initiative followed by the Commonwealth Government in 1998. In 2003, almost 78 per cent of Victorians aged 65 years and over received influenza vaccination.

The impact of influenza vaccination on disease incidence is difficult to assess, as there are wide fluctuations in the incidence and severity of influenza infections from year to year depending on the nature of the circulating influenza viruses. Also, morbidity and mortality resulting from influenza infection is often due to complications such as bacterial or other pneumonia, and the initial influenza infection is frequently undiagnosed. However, influenza vaccination has been 30–70 per cent effective in preventing hospitalisation for influenza and pneumonia in people aged 65 years and over living in the community.

For older people living in nursing homes, the influenza vaccine can be 50–60 per cent effective in preventing

hospitalisation and 80 per cent effective in preventing death due to influenza and pneumonia. Studies assessing the economic benefits of influenza vaccination suggest that vaccination is highly cost-effective.

In 1998 Victoria commenced funding pneumococcal vaccine for those aged 65 years and over—the only Australian jurisdiction to do so (the Commonwealth Government will commence funding pneumococcal vaccine for those aged 65 years and over from January 2005). Since 2001 Victoria has also funded the pneumococcal vaccine for patients in public hospitals aged less than 65 years who have risk factors for pneumococcal disease (e.g. chronic disease such as heart, respiratory, renal or liver disease, diabetes or conditions associated with lowered immunity).

Following the introduction of these programs, there was a 36 per cent reduction in the rate of invasive pneumococcal disease in people aged 65 years and over. This was estimated to be equivalent to an annual reduction of 112 cases and 14 deaths in this age group.

#### **4.1.4 Addressing demand-side drivers: the role of preventative health**

While future Victorians are likely to enjoy better overall health throughout their lives, a continued focus on addressing the determinants of health is critical to securing and building on these gains.

Future health outcomes will depend on maintaining timely access to services, continuing development of preventative programs and services (e.g. screenings, vaccinations, preventive therapies) and continuing public health programs. The re-emergence of past risk factors and the emergence of new issues pose significant threats to the future health of our population. For example, while reductions in selected population risk factors such as tobacco use, blood pressure and cholesterol have resulted in decreases in coronary heart disease, this benefit is offset by the emerging and adverse trends of physical inactivity, obesity and diabetes. Arresting such trends through health promotion and prevention strategies will need to be a continuing focus of policy.

The value of investing in health promotion and ill-health prevention is now well established, providing direct quality of life benefits for individuals and a significantly more efficient means of managing disease than the treatment of chronic conditions (see Box 4). For this reason, a comprehensive and effective program of preventative health interventions is a critical tool for the management of fiscal pressures associated with population ageing.

Further, while the causal relationships are not straightforward, the link between socio-economic status and health is well established. This reinforces the importance of targeted health promotion strategies to ameliorate potential divergent trends in morbidity, as well as broad population-based approaches and equitable access to health care and maintenance.

To maximise effectiveness, such strategies need to target 'at-risk' groups as early as possible, as, while the need for hospital treatment is concentrated among older ages, the causes of much ill-health can be traced to circumstances in the early years of life. For example, suicide, drug abuse, depression, and obesity, while occurring widely among older people, are also serious problems among the young. These problems often have their roots in serious social disadvantage. A 2001 workshop, convened by the Australian Institute of Family Studies and attended by some of Australia's key researchers in child health and development, highlighted that:<sup>12</sup>

***'In spite of Australia's wealth and generally high level of education, many indicators of developmental health and well-being are showing adverse trends amongst children and adolescents. Rising rates are being observed for low birth weight, neurodevelopmental disorders, asthma, type 1 diabetes, inflammatory bowel disease, autism, mental health morbidities, child abuse and neglect, adolescent suicide, obesity, eating disorders, learning disabilities, behavioural disorders, aggressive behaviours and violence, school drop out and truancy, juvenile crime, illicit drug and alcohol use, teenage births. Some of these problems (such as asthma and suicide) have trebled over the last 30 years and are higher than at any time in Australian history.'***

In addition to the range of early childhood services provided by the Victorian Government such as pre-school, and maternal and child health services, the Best Start project has been established with the aim of improving the health, development, learning and well-being of all children across Victoria from pregnancy through transition to school. This program provides a model of targeted preventative health intervention.

<sup>12</sup> Stanley, F (2001) 'Towards a national partnership for developmental health and well-being', *Family Matters* No. 58, Australian Institute of Family Studies.

#### 4.1.5 Supply-side drivers

##### The impact of new technology and drugs

The introduction of new and improved health technologies and practices contribute significantly to projected health costs growing faster than overall prices in the economy.

Technological advancements may be expected to achieve better health outcomes and reduce costs in the longer term. For example, advances in the understanding of life and disease (e.g. the human genome project) offer the possibility of prevention and effective cure replacing palliative and modestly effective curative care for many chronic diseases.

Technology may also be expected to decrease the costs of treatment of many conditions (see Box 5). Recent US work considered prospects for, and the impact of, a range of potential technological developments on future health care costs of the elderly. The report identified 33 key potential breakthroughs for further review. These breakthroughs spanned the areas of improved disease prevention, more precise risk stratification and earlier detection of subclinical diseases through: improved imaging and genetic profiling; better treatment for established diseases through biomedical engineering, cell biology, and genetic engineering; and changes in lifestyle and care management.

The work included the development of a model examining how some of these breakthroughs may affect future costs, including consequential effects on the rise in prevalence of other conditions.<sup>13</sup> However, despite these ameliorating effects, technological advancements that extend the range of possible treatments (including those that make it possible to treat patients at older ages) create new demand and substantial pressures on government expenditure.

Given this complexity, the Victorian Government welcomes the recent commencement of a study by the Productivity Commission into the impact of advances in medical technology on healthcare expenditure in Australia, providing a detailed analysis of these types of issues.

##### Box 5: Changing health prevention and treatment: the case of cardiovascular disease

Cardiovascular disease is the leading cause of death among Australians. In 2002, coronary heart disease and stroke accounted for approximately 30 per cent of all deaths. In 2000–01, \$5.4 billion (or 11 per cent of total allocated health expenditure) was spent on treating cardiovascular disease.

From the time of its development until 1997, the leading surgical treatment for coronary heart disease was open-heart surgery. Today it is angioplasty. In 1994–95, only 12 per cent of angioplasty procedures involved the implantation of stents.<sup>14</sup> By 2001–02, this had risen to 91 per cent.<sup>15</sup> In the future, drug-coated stents may replace bare metal stents as the leading treatment.

Pharmaceutical treatments for cardiovascular disease have followed a similar path, and currently present the prospect of a 'polypill' that, administered to all individuals aged 55 or over without contra-indications, could reduce cardiovascular disease by at least 80 per cent.<sup>16</sup>

A further development recently reported in the US related to the results of a study involving a substance that mimics high-density lipoprotein (which removes cholesterol from arteries). After five weekly infusions, heart attack patients who received the experimental drug had a 4.2 per cent decrease in the volume of plaque in their coronary arteries. By contrast, the most powerful statins (cholesterol lowering medication) take years to show more modest effects.<sup>17</sup> If these results were confirmed by larger studies, it could have a dramatic impact on the treatment of cardiovascular disease.

The public health system does have mechanisms to manage demand for new technology and services—capped budgets, clinical protocols and government policy to ration access to new technology and attempt to allocate these to those areas/patients where they will deliver the greatest health gains. The efficiency of these frameworks for allocating health resources, and the public expectations that surround them, will be central to the capacity of government to manage health expenditure pressures.

13 Goldman et al. (2004), *Health status and medical treatment of the future elderly*, Rand Corporation.

14 A stent is a small metal mesh tube inserted into a narrowed vessel, commonly coronary arteries (after angioplasty), to prevent obstruction.

15 Australian Institute of Health and Welfare (2004), *Procedures for Heart Disease*.

16 Professor Nick Wald (2003), *The Health Report*, 30 June 2003, Australian Broadcasting Commission. Transcripts can be accessed at <http://www.abc.net.au/rn/talks/8.30/healthrpt/stories/s892011.htm> 6/10/2004

17 Nissen et al (2003), 'Effect of recombinant ApoA-1 Milano on coronary atherosclerosis in patients with acute coronary syndromes' *Journal of American Medical Association*, Issue 290 pp. 2292-2300.



## Health services workforce

Over the past four decades the health services workforce has increased at a much faster rate than population growth.<sup>18</sup>

The health industry is highly labour intensive. It is estimated that 75 per cent of all expenditures can be attributed to labour costs such as wages and salaries and employer contributions to workers' compensation and superannuation for health workers. This is likely to rise with increasing levels of service provision due particularly to the demand-side factors of ageing and new technologies. Increased demand for health professionals could also lead to wage increases. Issues associated with the ageing of the health workforce are further explored in Part C.

## Commonwealth–State division of responsibilities

Some of the financial pressures facing the health system can be traced to the way the system is funded, particularly the Commonwealth–State split in the funding and provision of services. The current system of health care, which splits funding and provision responsibilities between the Commonwealth and the States, creates the potential for duplication and cost shifting. This is an undesirable outcome for both the Commonwealth and the States.

The funding split creates additional costs to the sector through bureaucratic and programmatic duplication in areas such as primary health care, acute care, and community-based aged care services. The funding split also leads to cost shifting. Declining access to and affordability of general practitioner services has impacted on presentations by primary care type patients at emergency departments of public hospitals. The range of reasons for the access decline includes inadequate remuneration for general practitioners visiting patients in residential aged care facilities, lack of availability of general practitioners delivering after hours care or practicing in rural and outer metropolitan areas, and the decline in bulk-billing generally.

The net effect is the treatment of patients in high cost hospital settings when treatment by a general practitioner is a more efficient, and often more effective, method of service provision. In the absence of efforts to arrest these trends, the growth in the population of the very elderly will exacerbate these pressures. However, recent steps by the Commonwealth Government to increase the Medicare rebate for general practitioners, through incentives to lift bulk billing and increase access to after hours services, through the Medicare safety net and through the introduction of GP clinics co-located with public hospitals will help address access to primary care services.

The underlying complexity of overall health funding remains. This leads to inefficiencies by restricting the capacity of resources to shift between different program areas in response to need or evidence of cost-effectiveness, or to foster innovation in service provision. More importantly, however, is the detrimental effect on patients' health care to the extent that patients are encouraged to, or only able to, access certain health services on the basis of how they are funded, rather than the most effective service for their health care needs.

A significant area of uncertainty in projecting long-term pressures on the public hospital system is the extent to which increased levels of private health insurance will alleviate demand for public hospital services. This has not occurred to date, as is outlined in a recent report prepared for the Victorian Government by the Melbourne Institute of Applied Economics and Social Research.<sup>19</sup>

The increase in the health insurance rebate for older people (to 40 per cent) recently announced by the Commonwealth Government may alter this, but equally it may do little more than stop older people dropping their cover in the face of higher premiums driven by rising costs of private treatment. The risk for the State Government is that this increased subsidy will put pressures on the Commonwealth budget that may lead the Commonwealth Government to seek offsetting savings elsewhere, such as through cutting growth in public hospital funding. Under these circumstances, the high fiscal impact scenario outlined here becomes more probable.

Greater collaboration and coordination between all levels of Government in health provides a primary opportunity to manage the pressures posed by population ageing for the greater wellbeing of all Australians.

18 This growth has been maintained over recent years: between 1995 and 2000 the health industry workforce increased by 12.1 per cent, compared with a 9.6 per cent increase in the total civilian workforce.

19 Melbourne Institute of Applied Economics and Social Research. (2004). *Recent PHI Policies In Australia: Health Resource Utilisation, Distributive Implications and Policy Options*.

## 4.2 Aged care

Apart from public hospital services, the two main aged care expenditure areas for the Victorian Government are residential aged care services and home and community-based services.

As with all areas, the long-term demand for government funded aged care services will be influenced by many factors, including:

- Future levels of disability, most of which relate to age
- Technological developments, for example, remote in-home monitoring of personal health and safety (e.g. personal alert systems)
- Availability of informal carers, including family, friends, neighbours, and other volunteers
- Wealth effects, including the capacity of people to purchase care from private providers
- Individual preferences, particularly the likelihood that the majority of people will want to continue living in their own homes, rather than with their children or in residential aged care.

In Victoria publicly funded home and community-based aged care services are provided through two main funding streams. Community aged care packages (CACPs) are wholly funded by the Commonwealth, while services provided through the HACC (Home and Community Care) program are funded jointly with the states and territories and local government. Most of the funding flows through the HACC program with the Victorian budget currently contributing 45 per cent of HACC funding in Victoria.<sup>20</sup>

In recent years Victoria, along with a number of other states, has faced a shortage of residential aged care places. This places significant pressure not only on home and community-based services, but also on acute beds in public hospitals. For example, a study for the Australian Health Ministers' Advisory Council (AHMAC) found that across Australia around 10 per cent of older patients surveyed had been recommended for transfer to a residential aged care facility, and that around 40 per cent of these patients stayed in hospital for much longer than was appropriate.<sup>21</sup> This not only results in less appropriate care for older people but also in inefficient use of acute hospital beds which cost significantly more than nursing home beds.

The Commonwealth allocates residential aged care places in line with population benchmarks set out in guidelines under the *Aged Care Act 1997*. The current target is 88 places per 1000 people aged 70 and over. The allocation of places to Victoria now exceeds this target. However, it is interesting to consider how population ageing affects the way the target is set. For example, although the target is based on the population of people aged 70 and over, only 4 per cent of the population aged 70–84 are residents of aged care facilities. However, one in four people aged 85 and over are residents of aged care facilities, and more than half of all residents are aged 85 or over.

Table 5 illustrates how many beds would be allocated in Victoria if the present benchmark were retained, compared with the target allocations if a new benchmark was used that gave the same number of places in 2003 but that was based on the population of people aged 85 and over (554 places per 1000).

Table 5 also shows that if the growth in residential aged care places fails to meet the underlying demand, growth in the population of the very elderly will exacerbate pressures on community-based services and on acute hospitals. The earlier discussion of Commonwealth–State division of responsibilities for health also pointed to ways in which constrained access to services flows through to pressures on other parts of the system, and inefficient allocation of health resources. This highlights the need for better integration of service planning across the range of health and aged care services. It also highlights the importance of investing in prevention and early intervention measures to tackle the growth in chronic diseases of the elderly, such as dementia.

The average unit cost associated with HACC services—the biggest aged care expenditure area for the Victorian Government—is affected by the balance of service types necessary (e.g. nursing versus personal care) and client characteristics (e.g. culturally and linguistically diverse populations). While these factors are common to all jurisdictions, they will have differential impacts in the various states. For example, while Victoria has a relatively smaller population of older people of indigenous origin than other states, it has a higher population of people from different ethnic and cultural backgrounds (see Box 6).

**Table 5: Residential aged care bed allocation: present and alternative benchmarks**

Source: ABS population projections Series B.

	2003	2012	2022	2032	2042
Population aged 70 and over	468 795	570 610	795 653	1 051 381	1 244 360
Population aged 85 and over	74 885	117 156	153 298	223 362	317 294
Places based on 70+ benchmark	41 254	50 214	70 017	92 522	109 504
Places based on 85+ benchmark	41 254	64 541	84 452	123 050	174 797

<sup>20</sup> Local government is also a significant contributor to HACC funding in Victoria and, in this context, pressures on delivery of HACC services are likely to affect local government.

<sup>21</sup> AHMAC Working Group on the Care of older Australians (2003), *Examination of length of stay for older persons in acute and sub-acute sectors, Final Report*.

#### Box 6: Aged care needs of culturally and linguistically diverse Victorians

By 2011, the culturally and linguistically diverse (CALD) older population living in Melbourne is projected to reach 194 200—a 73 per cent increase from 1996. Of all Australia's capital cities, Melbourne is projected to have the largest proportion of its older population from CALD backgrounds: 38 per cent by 2011, up from 29 per cent in 1996.<sup>22</sup> Ageing within such communities presents specific service delivery challenges.

Linguistic and cultural barriers may reduce the access of people from diverse backgrounds to government programs and services, including health and aged care services, life-long learning, public transport and cultural activities.

Language barriers are particularly challenging as CALD seniors may never have become fluent in English, or may revert to their first language as they age. The risk of isolation is compounded for those CALD seniors separated from their families overseas and with limited community networks to meet their care needs and support their ongoing involvement in the community.

#### Aged care needs of Indigenous Victorians

Indigenous Victorians have particular needs when it comes to the provision of aged care services:

- Indigenous Victorians have, on average, a much shorter lifespan than non-Indigenous Victorians, and therefore may require aged care type services at a relatively younger age.
- Indigenous Victorians place significant cultural importance on access to aged-care facilities and supported accommodation options near to their own communities.

Responding to these challenges and providing effective access to services for these communities as they age will require the provision of information and service delivery models sensitive and appropriate to the language and cultural backgrounds of various groups. It may be necessary, for example, to use bilingual employees in key service delivery activities such as health and aged care. Support of this nature will increase the average unit cost of providing a given service and place further fiscal pressure on government as the CALD population ages.

The availability of informal carers is another key uncertainty in projecting the future need for HACC services. A growing number of active, healthy people of around retirement age may provide a pool of people able to take on a caring role for other family members, though this outlook is complicated by the changing and diverse decisions of people approaching retirement age (i.e. whether to remain in paid work for longer). These carers are likely to require support in their caring role, expanding the need for appropriate support services.

The ageing of current carers may also present challenges for how some groups will be cared for in the future. Particular consideration needs to be given to interventions that may assist older carers (usually parents) of people with disabilities. The impact of ageing on the demand and supply of carers is further explored in Part C.

Depending on how responsive SPPs are to increasing costs and increasing demand in this sector, the states may face significant fiscal pressure in the provision of aged care services. For example, in recent years the extent to which Commonwealth funding allowed for cost increases has been significantly lower than the real increases in costs in a sector that is already highly dependent on relatively low-paid labour.

### 4.3 Disability Services

Disability services provide a range of support and services for people with intellectual, physical, sensory and dual disabilities, neurological impairments and acquired brain injury. Services funded include accommodation support, respite, individual support and services to promote community participation and inclusion including employment services. The Victorian Government provides most funding (approximately 75%) for support services for people with disabilities under the Commonwealth State/Territory Disability Agreement.

Population ageing will be a significant driver of future demand for disability services and associated fiscal pressures. Factors driving projected growth in this area include growth in the number of people with a severe or profound disability, ageing of the existing disability services client population and the ageing of carers providing informal care to Victorians with support requirements.

<sup>22</sup> Australian Institute of Health and Welfare (2004), *Diversity among older Australians in capital cities*.



#### 4.3.1 Growing population of disabled Victorians

Growth in the numbers of older Victorians is likely to result in significant growth in the population of Victorians with a severe or profound disability, as prevalence of disability is strongly related to age. It is estimated that 20 percent of those currently aged 75-79 years have a profound or severe disability, compared with 10 per cent of those aged 65-69 years and 3 per cent of individuals aged 0-4 years. These patterns suggest that, over coming decades, the number and proportion of Victorians requiring disability services or support is likely to expand substantially.

#### 4.3.2 Ageing of current disability services client population

The ageing of the current disability service client population will also have an impact on the growth in demand for services. In 2003-04, 8.7 per cent of the client population was aged 65 or over. Given that growth in clients within the 55 - 64 year age group has been projected to account for almost three quarters of growth in total client population over the period from 2001 to 2011, a significant ageing of this population may be expected over coming decades.

Unlike most other older people who become disabled with age or through disease, and who may then access home and community-based services or residential aged services, disability services clients acquire the same kinds of age-related disabling conditions that affect other people but generally remain in their cared environment as they age. This increases the cost of providing these services.

#### 4.3.3 Ageing of carers and demand for services

Ageing is also likely to impact on demand for government provided services through its impact on the available supply of informal carers. Informal carers play an important role in providing support and care for those with disabilities. Like the community more broadly, current carers are becoming older, and this may be expected to eventually limit their capacity to undertake this role.

The 2003 Survey of Disability Ageing and Carers found that carers are both relatively older, and experience a relatively high incidence of disability themselves. Twenty-four per cent of primary carers were aged 65 years and over and, of those living in households, 40 per cent of primary carers, 35 per cent of all carers and 20 per cent of non-carers reported a disability. This indicates the capacity of current carers to undertake a primary support role will become increasingly critical for many households, with significant implications for service demand, particularly in accommodation support, community access services and respite services. The impact of ageing on the demand for and supply on carers and other volunteers is further examined in Part C.

### 4.4 Public and community-run housing

Projections of the impact of population ageing on the need for public and community-run housing are affected by many factors, principally the extent to which the private rental market is able to meet the needs of particular disadvantaged groups and low income earners generally. Fiscal impacts on the states will be influenced by the level of Commonwealth funding made available for public housing. As the level of this funding has declined substantially in real terms over the last 10 years it is difficult to establish a base from which to project the future fiscal impact of population ageing.

Housing market conditions in Victoria have changed significantly in recent years, with home purchases becoming less affordable for many households and low-cost private rental accommodation becoming less available, particularly in inner regions of Melbourne and certain localities in regional Victoria. Remaining affordable rental properties are predominantly located in outer metropolitan areas and major regional centres, with seventy-five per cent of low cost rental housing in Melbourne located in the outer western and north-western suburbs of Melbourne and on the Mornington Peninsula. In the short term, the reduction in and spatial concentration of low cost private rental supply means older low income Victorians in inner metropolitan areas are increasingly likely to turn to the social housing sector to provide affordable housing within their communities. At the same time it is also likely to be increasingly difficult for public housing authorities to acquire housing in these areas.

The ageing of our population is likely to exacerbate existing challenges associated with public housing infrastructure. With older tenants more likely to have limited transport options, the location of housing stock with respect to infrastructure such as public transport and community services will become more critical. The social and community context for public housing will also be vital to the continued engagement of older low-income Victorians. Community housing provides an important vehicle for building social capital through appropriate housing development.

Population ageing is also likely to accentuate the mismatch between existing public housing stock and tenant requirements. In particular, declining household size creates demand for one and two bedroom dwellings (in contrast to the larger family oriented housing that has dominated stock in the past).

The Victorian Government also supports older, low-income Victorians in private rental and owner-occupied housing with basic living costs, including municipal rates and utilities. Such assistance is likely to be significant for those older Victorians who are asset rich (i.e. own their residence) but income poor. Pressures associated with this assistance are further explored in Section 4.8.

## 4.5 Education and training

Demand for education and training services can be expected to shift significantly in the decades ahead. The ageing structure of the Victorian population is likely to produce declining school enrolments in early and middle years and an increasing emphasis on the ongoing learning of all Victorians throughout their lives.

It is not realistic to assume that there will be offsetting reductions in fiscal pressures in education and training, given that a relatively smaller workforce will be required to accommodate the pressures of a larger dependent population through productivity and economic growth. Ongoing investment in education and training will be a critical factor in facilitating improvements in the labour force participation and productivity of Victorians of all ages and responding to emerging skills shortages and labour supply constraints across all industries. In any case, even if per student education costs remained the same, the resultant fiscal savings would fall well short of what would be needed to meet future health costs.

### 4.5.1 Projected aggregate future education and training expenditure

In our high fiscal impact case projections we have calculated education spending from estimates of current average costs per person by age and gender. The highest costs to government are incurred by children and young adults in full-time education.

Since ageing leads to a smaller proportion of children and young people in the population it is not surprising that, over a 40-year period, the total share of education in the projected Victorian budget falls. However, over a very long period, with a falling workforce relative to the population as a whole, there is likely to be greater demand for older people to retrain to remain in the workforce. Also, with higher real incomes the demand for further education and training is likely to rise. While adults undertaking further education and training may be expected to make some financial contribution towards this, it is likely state governments will be required to increase the overall level of public spending on education and training in order to meet the fiscal challenges of an ageing population by supporting increased labour force participation, increased productivity growth and responding to emerging skill shortages.

## 4.5.2 Changing demand for education and training

### Young people (up to 24 years)

Over the 15 years to 2019 there is likely to be a decline in early and middle years student enrolments, reflecting a decline in the share of these cohorts in the population. Early years enrolments are expected to decline by about 6 per cent and middle years enrolments by about 1 per cent.

Over the same period, however, it is anticipated that there will be *growth* in post-compulsory enrolments of about 5.6 per cent on a no policy change basis.

Increasing the rate of post-compulsory attainment among young people will become even more critical as our population ages. With fewer young people entering the labour force it will be increasingly important that all young people gain the skills and training needed to participate in employment. In order to support future growth in the productivity of our labour force, education and training for young people will need to focus on the development of higher skill levels and the types of skills necessary to support new and emerging industries. Young people who are currently disengaged or at risk of disengaging from education and training should be a particular focus of government policy if future labour force performance is to be maximised.

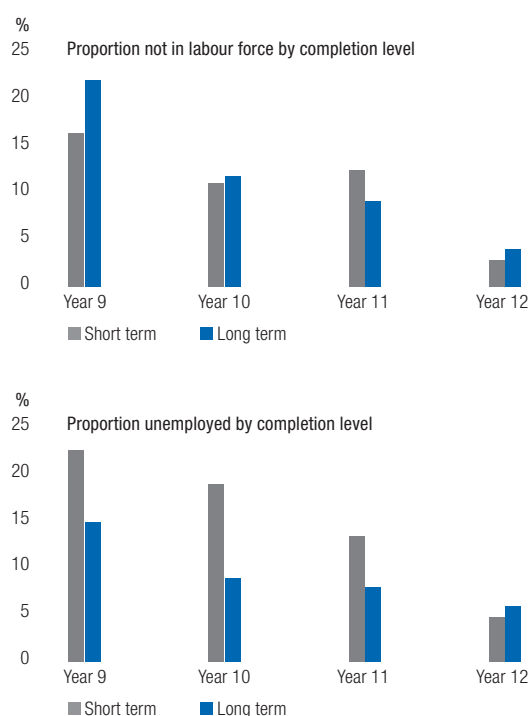
The Victorian Government's vision for education and training, as articulated in Growing Victoria Together, is that by 2010, 90 per cent of young people in Victoria will successfully be undertaking completion of their studies to year 12 or equivalent. An ongoing focus on year 12 or equivalent as a minimum foundation qualification level will remain critical to achieving ongoing productivity improvements.

Early school leavers are more likely to be unemployed, and less likely to be in the labour force. These are both immediate and persistent consequences of leaving school early. Figure 13 shows that those who leave school at year 9 have about a 22 per cent chance of joining the short-term unemployed and a 15 per cent chance of joining the long-term unemployed. By comparison, those completing year 12 have a 4 per cent chance of becoming short-term unemployed and a 6 per cent chance of becoming long-term unemployed. Those who disengage from education and training at the early stages will face a widening skills gap and are at risk of becoming more socially and economically disadvantaged over time.

**Figure 13: Labour force outcomes of school leavers**

*Note: The long-term figures are based on a longitudinal study that examined the labour force outcomes of school leavers seven years after they left school.*

*Source: Short term – Applied Economics, 2002; Long term – Lamb and McKenzie, 2001.*



Poor educational outcomes not only cost individuals, they have spill-over effects on the economy, society and on the State's fiscal balance. These include increased reliance on a range of government services, lower productivity, and lower tax revenues.

### Adults and mature-aged workers

Population ageing is likely to shift the current balance between new and/or younger entrants to the workforce and existing workers. There will be a greater reliance on adults and mature-aged workers to provide the skills needed to support a knowledge-focused economy and meet the skills requirements of emerging industries. For many adults, this will mean training and retraining across jobs and industries throughout their working lives.

The increasing imperative for workers of all ages to undertake ongoing skill development is likely to increase demand for education and training services among mature age workers, an effect that is already being observed (see Box 7).

Any increases in immigration will also create a need for additional English as a second language services and qualification recognition for newly arrived migrants. Costs associated with education and training for non-English speaking migrants are higher than for other forms of education and training.

### Box 7: Current mature age participation in VET

Between 1998 and 2003, the number of people aged 25 years or over participating in Vocational Education and Training (VET) in Victoria increased from 270 900 to 319 300, an increase of 17.9 per cent. In 2003, 60 per cent of all Victorian VET students were aged 25 or over. In 2002, approximately 9 per cent of the total Victorian population aged 25 and over were participating in VET in 2002.

To date, increases in the demand for education and training from adults and mature-aged workers have been met by their take-up of entry-level training designed for young people, such as apprenticeships and traineeships. The growth in VET participation in Victoria for people aged 25 years or over is largely attributable to the dramatic growth in New Apprenticeships for this age group. In the five years to 2003 commencements of New Apprentices for people aged 25 years and over grew from 9 700 to 52 000, an increase of 435 per cent. Over half (54 per cent) of commencing Victorian New Apprentices in 2003 were aged 25 or over.

New Apprenticeships (and other entry-level training schemes) are not designed to support the training needs of mature-aged workers. Alternative forms of training and qualifications need to be developed, including more flexible education and training options that provide opportunities for people to develop knowledge and skills for ongoing workforce participation throughout their lives.

Adults and mature age workers will require education and training geared to supporting their needs, including greater access to:

- Tertiary qualifications through university
- Vocational education and training and adult and community education
- Improved basic literacy, numeracy and English language skills
- Support to enhance and/or maintain their technological literacy
- Training in generic and industry specific competencies, and relevant work placements.

Industry and individuals will have a role to play in financing these services.

### **Older people (post-retirement)**

Those Victorians no longer in the labour force may also contribute to increased future demand for education and training. Current older Victorians are likely to be more affluent and better educated. In the future this age group is likely to want to continue participation in learning beyond retirement.

In Victoria, learners aged 65 and over are already a significant and growing group. People who have left the workforce wish to remain engaged in learning and community activities, most notably in the Adult and Community Education (ACE) sector. This is demonstrated by strong participation in the (self-funded) University of the Third Age, with 64 centres and 17 000 members in Victoria.

The ACE sector delivers a broad range of programs with work, personal, social and community outcomes for adult learners across the State. Ongoing learning also supports the significant economic and social contributions that older people make through voluntary work, unpaid caring and broader community participation.

In line with their experiences to date, these groups may well have higher expectations of access to government-provided education and training than previous cohorts, compounding fiscal challenges within this portfolio. As incomes rise, however, these individuals may well have greater capacity and willingness to contribute towards these services.

#### **4.5.3 Education and disadvantage**

As outlined above, education and training have a key role in providing young people with the skills to facilitate economic participation. Without this educational foundation young people risk increasing marginalisation.

Population ageing will have differential impacts across regions. The impact of population ageing will be more significant in some rural communities, particularly small towns. Education and training can help ameliorate this situation by attracting and retaining young people and adults in rural areas, as students and workers. Education and training can also help communities to remain economically and socially viable through industry and enterprise development ventures.

#### **4.5.4 Future education infrastructure**

While the number of young people will decline in the longer term, demographic changes will mean that there will continue to be growth areas for education and training across the State.

Further, while there may be a reduction in enrolments in some areas, responses to declining cohorts of young people will need to be more sophisticated than simply closing schools, which could severely damage the social and economic fabric of a local community.

Infrastructure will need to be maintained across the State to ensure equitable access to education and training for all Victorians. The challenge for governments will be to reinvent the role of schools and other education services as broader-use facilities within communities (e.g. using schools as community hubs), particularly in rural and regional areas where there are declining student populations.

New and flexible configurations will also be necessary to support an integrated and connected set of life-long learning options, rather than separate approaches within different education sectors. Investments in non-school sector training providers will be required, to ensure that there is adequate infrastructure to provide for an ageing cohort. Infrastructure decisions have a significant lead-time, which makes it imperative that these issues are considered now.

## **4.6 Justice**

The demands on the services provided by Victoria's justice system, and associated costs, are likely to experience several countervailing trends due to the ageing of the population. The most common view is that, as a disproportionately high number of offences are perpetrated by a young cohort, an ageing population would coincide with a decline in the total level of offending, thereby driving costs downwards. However, it is likely that the pattern of offending will change, raising new challenges and community expectations. The increasing level of vulnerability of the population is one of the key factors likely to produce this change in offending patterns and it may partly offset any decreases in the cost of service provision.

### **4.6.1 Justice and police**

Traditionally, young offenders account for a higher proportion of property offences, while older offenders account for a higher proportion of offences of a sexual or violent nature and so-called 'white-collar' crime (e.g. fraud). Given these factors, it is possible that a change in offending patterns will occur. With population ageing and increasing levels of dependency there is potential for growth in offences relating to financial fraud, particularly associated with retirement income planning.



#### 4.6.2 Civil law protections and advocacy

The ageing of Australia's population will result in a growing number of older, more vulnerable people requiring civil law protection and advocacy from governments and their agencies. This will potentially create the need for more and different forms of court system protection, consumer protection, and other advocacy mechanisms (see Box 8).

These additional demands will arise from the vulnerabilities that are concomitants of ageing, such as mental illness, dementia, and frailty. Increased vulnerability also arises from the loss of independence and increased reliance upon others. As a result, there is likely to be a need for more complex support services to maintain independent living.

Increased fear of crime or deteriorating perceptions of personal safety is an additional dimension of this increased vulnerability. Addressing confidence in safety/fear of crime requires distinct and possibly new strategies.

##### Box 8: Public advocacy and population ageing

The Office of the Public Advocate represents the interests of Victorians with disabilities, providing advocacy in support of their rights, dignity and position in the community.

Over two-thirds of Victorian Public Advocate guardianship clients are 61 years or older. Dementia is the principal type of disability and dementia-related guardianship cases are expected to increase at a rate of 10 per cent per annum.

The Public Advocate also deals with cases of elder abuse, including financial, physical, psychological, social, and sexual abuse and issues of neglect. Elderly people with physical or cognitive disabilities are at risk and abuse currently affects an estimated 3 per cent of people aged 65 years or older.

The magnitude of the effects of such problems may well increase with the ageing of the population increasing the demand for services.

#### 4.7 Transport and other infrastructure

As the population ages, public infrastructure will need to accommodate the changing safety, access and lifestyle needs of older people. The effects of ageing in this area will be shaped by the future health of Victorians. To the extent that people remain healthier up until the final few years of their lives, many of the effects associated with ill-health or declining physical capacity may be significantly delayed.

The likely implications of these trends are uncertain with regard to future health, future lifestyle preferences, and the extent to which markets will anticipate and respond to the changing needs of a growing group of older consumers. However, some general observations can be made about expected trends in these areas.

#### 4.7.1 Transport infrastructure

Availability of, and access to, an integrated transport network is essential to the economic and social participation of Victorians of all ages. An older population, however, is likely to have significantly different transport requirements from the current population. A larger proportion of the population is likely to have mobility restrictions and the pattern of demand for public transport services is likely to shift towards local transit (relative to commuter transport). Consideration of safety aspects may also become more important.

Safety challenges that may increase as the population ages include:

- **Pedestrian safety:** Safe footpaths and other pedestrian facilities (smooth, with safety refuges at crossing and public transport stops, well lit and with places to rest) are an important determinant of access to public transport. Older people have a relatively high representation in trauma associated with pedestrian activity. Success of efforts to encourage 'active transport' (modes of transport such as walking and cycling) with associated health benefits will also depend on the extent to which urban environments are 'pedestrian friendly'.
- **Road safety:** The number of Victorian drivers aged over 75 (167 000 in 2004) is expected to increase as the baby boom generation (which is both larger in size and has greater uptake of licences, especially among women) ages. The number of crashes per year increases with age beyond the age of 40 (standardised for distance travelled).<sup>23</sup> Should this trend continue, ageing could result in increasing road accidents (with associated economic, social and fiscal costs).
- **Alternative transport services:** Rural and regional Victoria will have relatively higher proportions of elderly people. The mobility needs of elderly people in these areas and in low-density metropolitan settings are not well served by conventional public transport (see Box 9). Alternatives options to meet these needs will require consideration of, for example, flexible and innovative transport options.

The affordability of public transport services for older Victorians will also be important to their mobility. As discussed further in section 4.8, the Victorian Government provides substantial concessions on public transport fares to low income Victorians, and older (60+) partly or fully retired individuals, to enhance their access to public transport.

<sup>23</sup> Steer Davies Gleave (2001), *Understanding Travel by Older People*, Report prepared for Road System Management VicRoads, March.

### Box 9: Community Transport services for older Victorians

The majority of Local Government Authorities in Victoria directly, or indirectly, provide Community Transport services to assist older people and those with disabilities to participate in a range of activities. The demand for these services has grown significantly in the past ten years and will continue to expand as the population ages.

In many communities community transport is an essential component of the local transport infrastructure. The types of trips these community transport services are used for has expanded from a predominantly social focus to include essential day-to-day trips to medical, therapy, rehabilitation and other such services. Special vehicles are increasingly being used to accommodate older persons with varying levels of mobility, including those in wheelchairs and with walking frames.

In some communities community transport services are provided using volunteer drivers. However, there is an increasing trend towards the employment of paid drivers with the skills to work with special needs passengers. This shift is expected to continue in the future as the number of passengers with mobility problems increases.

Older people also look to community transport options as age-related conditions impinge upon their ability to drive. The regular testing of older drivers to improve road safety will also lead to an increase in demand for alternative transport opportunities. Further, not all communities have access to public transport. Even where public transport is available, often it does not meet the needs of older persons due to mobility problems, timetabling and route constraints.

### 4.7.2 Planning for an older population: Melbourne 2030

As our population ages and changes, Melbourne's housing and infrastructure requirements will change. Sound and forward looking urban planning will be critical to providing the community, economic and environmental contexts necessary to support the healthy, safe and productive lives of Victorians of all ages.

As discussed in Section 2.5, population ageing will be associated with the continued decline in average household size. This will create a need for greater diversity in housing types and options, as well as a larger number of homes to accommodate the same number of individuals. Development will also need to reflect the economic and social infrastructure requirements of future communities, including access to employment and markets, and to social services.

*Melbourne 2030* establishes a long-term framework for the growth and development of Melbourne over the next 30 years, outlining a broad strategy for responding to these and other changes in the diverse needs of those who live and work in metropolitan Melbourne and the surrounding region.

In order to promote housing choice in local communities, *Melbourne 2030* will encourage development in activity centres and strategic redevelopment sites. Activity centres, places where Victorians already want to live, shop, work, access services and enjoy leisure time, will be further developed as centres for these activities. Coordinated, high quality development will include:

- Different types of housing (including forms of higher-density housing)
- Provision of community facilities related to public administration, education and training, health, emergency services and recreation
- An expanded and integrated public transport system.

Supporting access to and choice in transport is a key focus of *Melbourne 2030*. As discussed in Section 4.7.1, improvements in public transport and creating 'walkable' neighbourhoods will be important to maximising choice and opportunities for Victorians of all ages to engage in employment and social interaction and access appropriate services. To this end, a Principal Public Transport Network (PPTN) has been defined, building on existing train and tram services with cross-town bus services between activity centres in metropolitan Melbourne. The network will be supported by local public transport services.

### 4.8 Concessions

Population ageing is likely to create significant additional demand for Victorian Government concessions. Almost one-third of Victorian adults are eligible for a wide range of concessions provided by the Victorian Government to assist low-income households with the basic costs of living. Commonwealth Pensioner Concession Cardholders comprise a large and growing group of eligible recipients, driving the projected increase in the total number and share of the population eligible for this assistance. This, in turn, is expected to produce increases in demand and associated expenditure.

Moves by the Commonwealth to extend eligibility for Pensioner Concession cards (PCC) and Health Care cards (HCC) to part-pensioners have significantly increased the State's fiscal exposure to population ageing in this area.

**Table 6: Key Victorian Government concessions**

Concession	Form
Energy	Discount on various energy charges
Water and sewerage	Discount on water and sewerage charges
Property	Discount on municipal rates
Motor vehicle	Discount on motor vehicle registration fee Discount on Transport Accident Compensation fee
Public transport	Discount on metropolitan and regional public transport fares Provision of discounted 60+ ticket, selected free travel
Multi-purpose taxi	Rebate on cost of taxi charges
Health concessions	Waiver of charges for emergency ambulance transport Waiver of charge for school dental service (dependents of cardholder) Other health concessions including discount on prescriptive glasses
Education and training	Education maintenance allowance (payment) to assist with costs of schooling Discount on TAFE and CAE course fees Subsidy to assist with cost of pre-school fees

#### 4.8.1 Concessions in Victoria

Concessions involve direct budget outlays and reductions in government charges with the effect of reducing the cost of a good or service to the targeted concession recipient. The Victorian Government offers a broad range of concessions to assist low-income Victorians with the basic costs of living, including utilities, transport and education and health expenses. Key Victorian Government concessions are listed in Table 6.

#### 4.8.2 Growth in eligible population

##### Eligibility for Victorian Government concessions

As in other states and territories, eligibility for most Victorian concessions is primarily determined by recipients' eligibility for one of three concession cards issued by the Commonwealth Government.<sup>24</sup>

To this extent, the Victorian Government's control over targeting available concessions is constrained by the eligibility criteria applied by the Commonwealth Government to these cards.

##### Current cardholding population

In August 2003 there were 774 479 PCCs, 408 148 HCCs and 111 920 Department of Veteran's Affairs Gold Cards (DVA Gold)<sup>25</sup> on issue in Victoria,<sup>26</sup> with almost one-third of Victorian adults (aged 15+ years) holding one of these cards. It is estimated that more than 700 000 Victorian households claim concessions, based on the eligibility of at least one resident individual.

This eligible population includes low-income individuals and families, students and those receiving pensions (aged, DVA and disability). The predominance of PCC in determining eligibility for concessions suggests that, on a no policy change basis, population ageing will significantly increase the number and proportion of households eligible for state concessions. Notably, all pension cardholders are eligible for full concession entitlement irrespective of their level of pension entitlement.

##### Future cardholding population

Research commissioned by the Victorian Government in 2003 further explored these long-term trends.<sup>27</sup> This analysis forecast that the share of the Victorian population entitled to concessions is likely to grow significantly.

As illustrated in Figure 14 virtually all of the growth in eligibility is forecast to come from increased uptake of pensioner concession cards as the share of the Victorian population aged 65 and over grows from 13 per cent in 2002 to 26 per cent by 2042.

<sup>24</sup> These are the PCC, the HCC and the Department of Veteran Affairs Gold Card (DVA Gold).

<sup>25</sup> DVA Gold Card holders are, in general, entitled to the same Victorian concessions as PCC holders.

<sup>26</sup> Centrelink data.

<sup>27</sup> Conducted by the National Centre for Social and Economic Modelling.



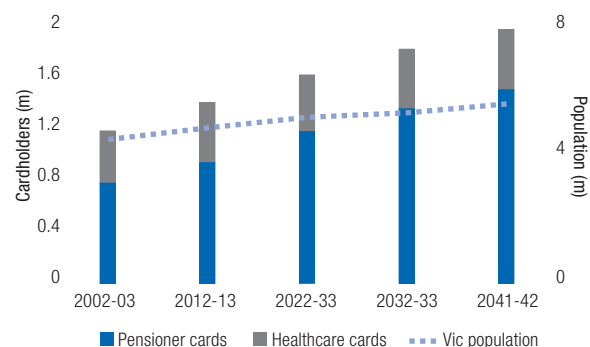
These projections indicate the number of Victorian PCC holders will increase by 92 per cent (around 710 000) in the period to 2042. HCC holders are expected to increase by only 9 per cent (around 35 000) in the same period. In total, the number of concession cardholders is projected to increase by 63 per cent<sup>28</sup> (compared with total population growth of 25 per cent) and 61 per cent of Victorian households could have access to a concession card by 2042.

As this analysis assumed that eligibility for concession cards was unchanged over the period, the actual growth in concession eligibility could be underestimated if eligibility for Commonwealth concession cards were to be broadened, as has occurred in the past.

The increase in concession cardholders is not directly translatable into a dollar amount, largely because of the paucity of information about the costs and take-up of particular concessions. However, a substantial increase in concession costs can be expected.

**Figure 14: Growth in Victorian concession cardholders relative to population growth**

Source: Victorian Department of Treasury and Finance.



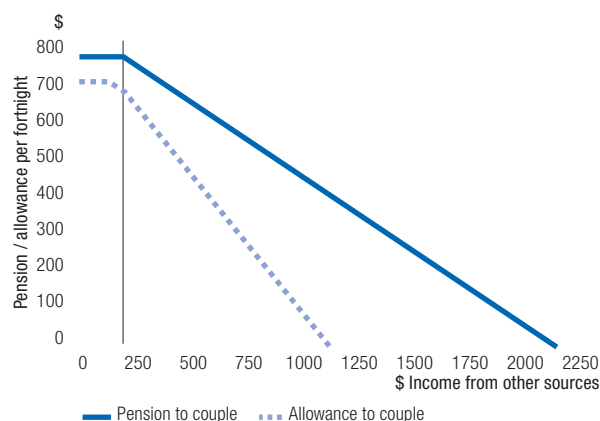
#### 4.8.3 Access to concessions

While the states can control which concession cards grant access to which concessions, the Commonwealth controls the eligibility criteria for the issue of concession cards.<sup>29</sup>

Figure 15 shows current Commonwealth income tests for eligibility for PCC and HCC. This chart shows that access to concession cards and allowances for HCC holding couples ceases when their income from other sources reaches more than \$1000 per fortnight, while pensioners are able to earn almost twice that amount before their pensions are withdrawn and concession eligibility removed.

**Figure 15: Commonwealth income tests for eligibility for PCC and HCC, 2003**

Source: Victorian Department of Treasury and Finance.



The Commonwealth asset test for access to concession cards exempts the family home and has a higher threshold for pensioners (many of whom own their homes) than low-income earners. This treatment of low-income households distorts access to state concessions and exacerbates the expenditure pressures associated with population ageing.

The Commonwealth, states and territories will need to work cooperatively to better target support provided to low-income households if these costs are to be managed effectively and fairly.

<sup>28</sup> Excludes Commonwealth Seniors Health Care Card and Victorian Seniors cards.

<sup>29</sup> With the exception of State Seniors Cards. In Victoria these only entitle holders to specific public transport concessions.

## 5 Revenue Impacts

The growth of the Victorian Government's revenue is expected to slow relative to economic growth due to the effects of population ageing on the State's tax base and on Commonwealth transfers.

### KEY ISSUES

- On a no policy change basis, revenues can be expected to rise or fall by about one per cent of GSP in the 40 years to 2041–42, based on alternative high and low fiscal impact scenarios.
- Commonwealth transfers of GST are likely to fall by about 0.4 per cent relative to GSP (in both scenarios).
- If Commonwealth transfers to the states for SPPs are only maintained at current dollar values per capita, adjusted for inflation, then SPPs will fall by about 1.1 per cent of GSP, and revenue overall will fall by about one per cent of GSP (in the high fiscal impact scenario).
- If Commonwealth transfers to the states through SPPs remain constant as a share of health expenditure, then SPPs will increase as a share of GSP, and over the next 40 years, revenue will rise by about 1 per cent of GSP (in the low fiscal impact scenario).
- Own-sourced revenue is expected to increase relative to GSP. Own-sourced taxes are likely to fall by about 0.25 per cent, offset by increases in revenue from the sale of goods and user charges of between 0.4 per cent (low fiscal impact scenario) and 0.9 per cent (high fiscal impact scenario).

### 5.1 Victoria's State revenue

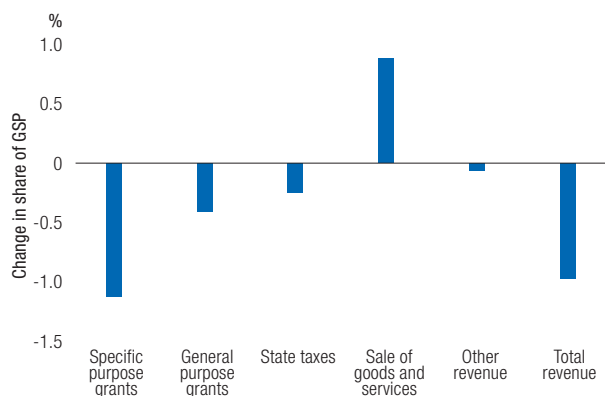
Projections undertaken using the DTF–Access Economics model show that, over the next four decades, growth in the two largest revenue sources of the Victorian Government—state taxation and Commonwealth general purpose grants (primarily distribution of Goods and Services taxation revenue)—will be less than growth in Victoria's GSP.

As explained in Section 3.2, this report presents projections for both high and low fiscal impact scenarios. In both scenarios, unchanged policy for state tax rates means that tax rates and the tax base (coverage) remain unchanged. Unchanged policy in relation to GST payments means that the tax rate remains constant at 10 per cent of the value of eligible consumption spending. However, these two scenarios vary in their treatment of growth in the third largest revenue source of the Victorian Government—Commonwealth SPPs.

Under the high fiscal impact scenario (Figure 16), SPP payments are only maintained in line with increases in population and general levels of inflation. SPPs decline as a share of GSP and consequently, the Victorian Government's total revenue as a share of GSP decreases by 1 per cent between 2003–04 and 2041–42.

**Figure 16: Projected changes in share of GSP of Victorian government revenue sources (change between 2003–04 and 2041–42) –High fiscal impact scenario**

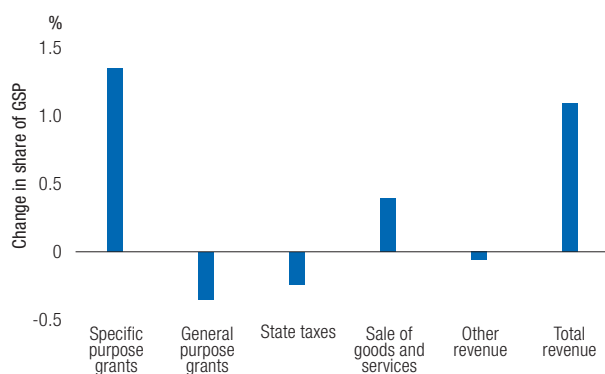
Source: DTF–Access Economics model.



Under the low fiscal impact scenario (Figure 17) Commonwealth SPPs are maintained relative to health expenditure. Since health expenditure grows relative to GSP, SPPs are also projected to grow relative to GSP.

**Figure 17: Projected changes in share of GSP of Victorian government revenue sources (change between 2003–04 and 2041–42)–Low fiscal impact scenario**

Source: DTF–Access Economics model.



Further, and as discussed in Section 3.2.1, the low fiscal impact scenario uses more optimistic assumptions regarding health utilisation and its association with proximity to death (rather than age). These mean that health costs grow at a slower rate than in the high fiscal impact case (although still faster than GSP). The lower growth of health costs implies lower growth in the sale of hospital and other health services, the main component of sales of goods and services. Consequently, in the low fiscal impact scenario the income from sales of goods and services is less: only 0.4 per cent of GSP, compared with 0.9 per cent in the high fiscal impact case.

All other revenue sources are the same as in the high fiscal impact case. The net results of those effects is that in the low fiscal impact case total revenue rises by about one per cent of GSP between 2003-04 and 2041-42, compared with a decrease of around one per cent of GSP in the high fiscal impact scenario.

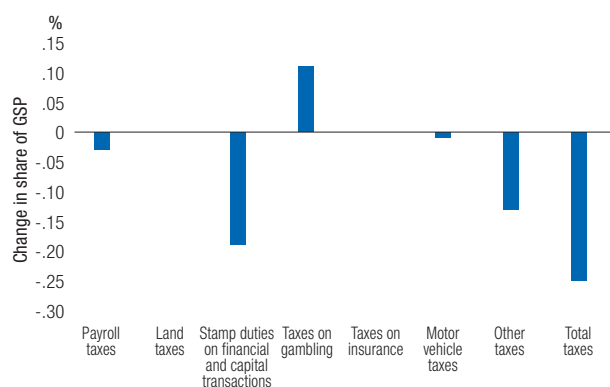
### 5.1.1 State taxation revenues

The Victorian Government derives most of its own-source revenue from stamp duties on financial and capital transactions and taxes on payrolls, gambling, motor vehicles, insurance and the unimproved value of land (Figure 7).

Projections undertaken by the DTF–Access Economics model, on a no policy change basis (see Section 3), indicate that Victoria's tax revenue will not increase as quickly as its GSP over the next four decades, resulting in a 0.25 per cent reduction in the share of this revenue to GSP by 2041–42 (Figure 18).

**Figure 18: Projected changes in the share of GSP of Victorian own tax revenue (change between 2003–04 and 2041–42)**

Sources: Victorian Department of Treasury and Finance and Access Economics.



The projected decline in revenue from stamp duties on financial and capital transactions arises because population ageing is expected to reduce both the rate of housing turnover and dwelling investment over the next few decades. This arises as retirees are less likely to move house and there is a smaller share of young families in the population buying houses. These effects are expected to more than offset falling average household size.

Revenue from financial institutions' transactions taxes declines because of an agreement between the states and the Commonwealth to abolish these taxes by 2005.<sup>30</sup>

Offsetting these declines is a projected increase in gambling taxes. Population ageing largely drives this result, as current consumption data identifies older age cohorts as having a higher propensity to consume gambling products. However, there is a possibility that technological change, such as Internet gambling, could impact adversely on this revenue base.

### 5.1.2 Commonwealth grants

The decline in general purpose grants as a share of GSP is driven by demographic change and GST exemptions. Since health expenditures are exempt from GST, and health expenditure is projected to grow relative to other forms of expenditure, GST revenue—and associated general purpose payments to the states—is likely to fall relative to GSP.

As discussed above, the high and low fiscal impact scenarios employ different assumptions about how SPPs to the states are maintained over time. The decline in SPPs as a share of GSP in the high fiscal impact scenario is driven by the maintenance of growth in these grants with the level of growth in inflation and population. This is consistent with the terms of the current Intergovernmental Agreement on Commonwealth – State financial relations. However, as real per capita GSP is increasing, maintaining Commonwealth grants in real per person terms means Commonwealth grants decline relative to GSP.

The increase in SPPs as a share of GSP in the low fiscal impact scenario is driven by the maintenance of growth in these grants relative to growth in portfolio expenditure. As this expenditure is projected to grow faster than GSP, specific purpose grants increase as a share of GSP. This arrangement means the distribution of those costs between the Commonwealth and the states remain the same. This reduces the fiscal gap faced by the states but widens the gap at the Commonwealth level.

## 5.2 Wealth and an ageing population

An ageing population will result in a significant increase in public expenditure on older Australians primarily through expenditure on health care. At the same time, the contribution of older Australians to government taxation revenue is likely to decline relative to younger Australians as older citizens tend to have lower incomes.

There are sound intergenerational equity reasons why this transfer of income from the young to the old should continue—in particular, because the consumption needs of the old (e.g. for health services) relative to their incomes is greater. Vertical equity considerations would nevertheless support the case for relatively wealthy older people contributing relatively more to their own and the wider society's consumption needs than low income people of all ages.

Part of the reason for older Australians' declining share of contributions to government revenue is the relative weight placed on different tax bases in Australia. Australian taxes tend to be levied on income and consumption, while assets are lightly taxed. Certain asset holdings, in particular the family home, are also substantially disregarded in determining eligibility for aged pensions and for access to state concessions. In contrast, older Australian's income and consumption are likely to decline relative to younger Australians, and their share of assets is likely to increase.

30 Intergovernmental Agreement on Commonwealth–State Financial Relations as part of the *A New Tax System (Goods and Services Tax) Act 1999*.

**Table 7: Australian taxation revenue 2003–04**

Source: ABS National Accounts: National Income, Expenditure and Product (Cat. No. 5206.0)

	Revenue (\$m)	Share of total taxation revenue (%)
<b>Non-asset linked taxes</b>		
Taxes on income	140 138	56
Goods and services tax	33 604	13
Excise taxes	21 914	9
Payroll taxes	10 841	4
Taxes on international trade	5 647	2
Taxes on gambling	4 046	2
Fringe benefits taxes	3 624	1
<b>Total non-asset linked taxes</b>	<b>219 814</b>	<b>88</b>
<b>Asset linked taxes</b>		
Taxes on financial & capital transactions	12 670	5
Municipal & metropolitan improvement rates	7 640	3
Motor vehicle taxes	5 016	2
Taxes on insurance	3 318	1
Land taxes	2 716	1
<b>Total asset linked taxes</b>	<b>31 360</b>	<b>12</b>
<b>Total tax revenue</b>	<b>251 174</b>	<b>100</b>

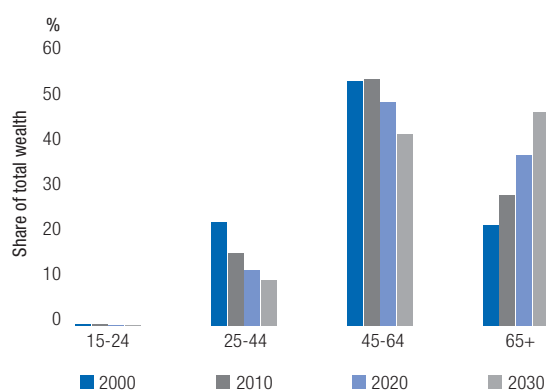
### 5.2.1 Changing distribution of assets

Older Australians' share of assets is likely to grow relative to younger Australians. Since assets are built up over a lifetime of saving and investing, older Australians typically have more assets than younger Australians, and their proportion in the population is increasing.

The growth in the share of assets held by older Australians from 2000 to 2030 has been estimated by NATSEM.<sup>31</sup> These estimates show that the share of wealth held by families headed by someone aged between 25 to 64 years is likely to decline between 2000 and 2030, while the share of wealth held by families headed by someone over 65 years is estimated to double (Figure 19).

**Figure 19: Share of total estimated family wealth by age group and year, 2000–30**

Source: Kelly (2003), NATSEM.



### 5.2.2 Australia's tax bases

Australia's taxes tend to be levied on income and consumption rather than assets. In 2003–04, only 12 per cent of Australian taxation revenue came from taxes directly linked to assets, while the remaining 88 per cent comes from taxes linked to income and expenditure (Table 7).

In addition to assets being relatively lightly taxed, many older Australians are fully or partially exempted from paying some of these asset-linked taxes. For example, most state and territory governments provide a principal place of residence exemption from land tax, protecting most older Australians from paying this tax on their major asset. Likewise, state and territory governments provide concessions on motor vehicle taxes and municipal rates for many older Australians.

31 S. Kelly, (2003) *Forecasting wealth in an ageing Australia—an approach using dynamic microsimulation*, Paper presented at the 7th Nordic Seminar on Microsimulation Models, Helsinki, Finland, NATSEM, University of Canberra, June.

# 6 Intergenerational Equity

Contemporary policies will shape the ability of future Victorians to meet the challenges of population ageing.

## KEY ISSUES

- While population ageing is likely to be associated with slower economic growth over the next 40 years, standards of living (measured by average per capita incomes) will be much higher than they are today due to ongoing productivity growth.
- Principles of intergenerational equity do not imply that current generations should forgo current consumption to finance projected future increases in costs associated with population ageing.
- While future fiscal pressures are most appropriately managed by future generations, contemporary policies will shape the nature and extent of future challenges and the capacity of future populations to manage them effectively.
- Government and community responses to the future fiscal and economic pressures posed by population ageing must commence today. These pressures are already becoming evident, particularly in health and aged care.

Intergenerational equity refers to the equitable or fair distribution of economic well-being or living standards between generations. The projected ageing of the Australian population has raised fears that the living standards of future generations will be unduly burdened by the costs of caring for a growing cohort of older people. That is, ageing may have adverse implications for intergenerational equity.

There appears to be widespread concern in Australia, and elsewhere, that the projected increase in the proportion of older people will jeopardise living standards in the future. It is not uncommon to see statements that living standards will actually fall over time because of the increasing burden of supporting growing numbers of older people.

While population ageing is likely to slow economic growth in the future due to its impact on labour supply, ongoing productivity growth can be reasonably expected to result in a general standard of living that is substantially higher than it is today.

Consequently, the fiscal implications of population ageing do not necessarily have negative implications for intergenerational equity. While future fiscal pressures are most appropriately managed by future generations, contemporary policy settings shape the extent to which this can occur efficiently and effectively.

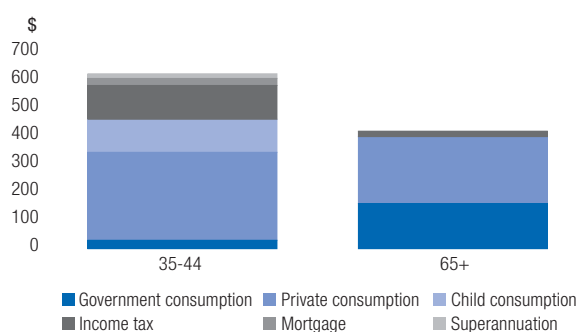
## 6.1 Intergenerational comparison of living standards

Principles of intergenerational equity are implicit in the current and longstanding redistribution of economic resources from young (working age) to older generations. Research commissioned by the Victorian Government provides an illustration of this distribution.<sup>32</sup> Figure 20 compares the 1998–99 expenditure patterns,<sup>33</sup> (private and government) of individuals aged 35 to 44 age years and 65 years or older.<sup>34</sup>

As seen in this figure, those aged 65 years or older expend only small amounts on income tax, superannuation, mortgage payments or children, compared with younger adults. Thus, while having lower incomes than younger cohorts (approximately 42 per cent of that for those aged 35 to 44 years) their private consumption level can be as much as 77 per cent of the private consumption levels of younger adults.

Figure 20 also indicates that government consumption or outlays (almost entirely health expenditures) are 16.5 per cent higher for those aged 65 years or older than for those aged 35 to 44 years. That is, there is a considerable redistribution of resources from young to old, through consumption by older people of publicly financed services.

**Figure 20: Expenditures per adult by age group, 1998–99, Australia**



<sup>32</sup> Ian McDonald (2004) *What does intergenerational equity mean?*, unpublished work commissioned by DTF.

<sup>33</sup> Total consumption includes both private and government consumption. Private consumption is that financed from individual income, such as wages, allowances or pensions. Government consumption refers to public expenditure on goods and services consumed by the individual (and not government transfer payments).

<sup>34</sup> Private consumption data is based on the ABS Household Expenditure Survey. The calculation of the data for government consumption by age is based on the data from the Commonwealth Department of Community Services and Health survey conducted in 1990, adjusted to 1998–99 values on the basis of the increase in total government outlays in education and health over this period. Private consumption is calculated as total household consumption divided by the number of effective adults. The latter is the number of adults plus half the number of children. Expenditure on all the children in a household is calculated as the number of children multiplied by expenditure per child. In order to calculate expenditure on all children per adult (child expenditure), expenditure on all children in a household is divided by the number of adults. It is assumed that one child is equal to half an adult and those 65 years or older do not have children living at home.



### 6.1.1 Living standards in the future

Consideration of intergenerational equity for current and future generations raises two key comparisons:

- How will living standards of future age groups compare with the living standards enjoyed by people of similar age groups today?
- How will relative living standards between young and old people in the future compare with relative levels today? Will there be a decrease in the living standards of old people relative to younger people or visa versa?

These questions cannot be answered definitively. The future is inherently uncertain. However, notwithstanding this uncertainty, there appear to be good grounds for anticipating higher living standards for all in the future.

#### Projections of the changes in general living standards

Holding current *relative* living standards by age constant and taking into account the expected change in GDP, this discussion considers the likely future change in living standards of different age groups.

As Part C will demonstrate, living standards (measured by average per capita incomes) are projected to rise steadily over the next 40 years. By 2041–42 standards of living are projected to be around 85 per cent higher than in 2001–02.

The large projected increase in living standards is driven mainly by assumed labour productivity growth of 1.75 per cent per year.<sup>35</sup> This rate of labour productivity growth is not an unreasonable assumption, equal to Australia's experience over the past 30 years and comparable to other high-income countries. There is no compelling reason to expect a growth slowdown and outcomes could even exceed this baseline projection if annual average rates of productivity growth above 1.75 per cent can be obtained (discussed in Part C). However future economic prosperity is not certain, mainly because there are risks to the natural environment that could foreseeably impede future economic growth (e.g. climate change). In light of these uncertainties prudent fiscal management and more broadly 'precautionary' policy settings in critical areas where errors could prove irreversible are appropriate.

### 6.1.2 Intergenerational equity and long-run fiscal policy

Under the assumption of a growing economy where living standards are increasing over time, it may be unreasonable to require current populations to make sacrifices now for the benefit of wealthier populations of the future. This implies that future revenue requirements are best assessed and met by future generations (see Box 10). That is, it is not necessarily consistent with intergenerational equity to forgo current consumption in order to finance future costs associated with population ageing.

On the other hand, although population ageing does not, in itself, pose significant issues for intergenerational equity, this does not suggest that Australian governments need not be

concerned with future fiscal pressures posed by population ageing. Indeed, these pressures are already becoming evident, particularly in the areas of health and aged care. Unless there are significant changes in current policy settings, escalating dependency ratios will produce asymmetrical pressures on government expenditure and revenue. This implies that it is increasingly critical that policy frameworks be developed to support the efficient allocation of resources.

Government and community responses to these pressures must commence today, for instance to:

- Ensure sustainable management of environmental resources<sup>36</sup>
- Remove barriers to labour force participation and other impediments to economic growth
- Create a healthier population through preventative and integrated care
- Ensure our health system allocates resources efficiently
- Ensure community expectations of government service provision align with what the community as a whole is willing to pay for these services.

#### Box 10: Meeting future revenue requirements

It is often argued that, on efficiency grounds, fluctuations in government spending caused by temporary events should not be accompanied by variations in tax rates. Instead, tax rates should be set at constant levels such that the government budget is balanced on average over time. This implies that it is best for governments to run budget surpluses when government spending is low, building up a stock of revenue to be used to partly finance budget deficits when government spending is high.<sup>37</sup>

In the context of population ageing, the tax smoothing argument could imply that tax rates should be increased ahead of the demographically induced increase in government spending so that future increases in expenditure can be financed by revenue built up during the period of budget surpluses. This in turn would imply that tax rates would not have to be increased by as much when government spending increases, reducing deadweight costs. This is the rationale behind the New Zealand Superannuation Fund.

Although there are favourable efficiency implications of a pre-emptive increase in tax rates, these need to be balanced against the unfavourable *equity implications*. Clearly, by bringing tax increases forward to help finance later spending, consumption possibilities are being transferred from earlier to later generations. Given that, even when allowing for ageing, it is likely that later generations will be better off than earlier generations, pre-emptive increases in taxation would be a transfer from the (less well off) current population to wealthier future generations.<sup>38</sup>

35 The Victorian Government DTF–Access Economics model assumes 1.75 per cent growth of labour productivity per year, in line with the Commonwealth Intergenerational Report.

36 As reflected in the Victorian Government's Environmental Sustainability Framework, currently under development.

37 This argument for smoothing tax rates is independent of the Keynesian argument for running surpluses when the economy is booming in order to finance aggregate demand-expanding deficits when the economy is in recession.

38 Ian McDonald (2004) *What does intergenerational equity mean?*, unpublished work commissioned by DTF.

# PART C

## Economic Impacts

### Overview

Population ageing will have important implications for economic growth, creating both challenges and opportunities. The strength and flexibility of our economy will significantly affect the capacity of the Victorian Government and the broader community to manage these issues.

Economic growth is underpinned by the efficiency with which we produce goods and services from the community's various resources (*productivity*), the extent to which the community is engaged in these productive processes (*participation*) and growth in the level of economic activity (driven by *population growth*). The next three sections explore possible implications of population ageing for these three elements and identify critical areas for the states and the Commonwealth to collaborate to maximise future prosperity.

Improving productivity is likely to be the primary means by which state governments manage the emerging 'fiscal gap'. Section 7 discusses the significance of productivity growth in shaping future living standards, and examines the role of the Victorian Government in determining future productivity growth through further investment in microeconomic reform, and in human, physical and natural capital.

Section 8 identifies the likely impact of population ageing on future labour force participation rates, and examines the possible impacts of various policy changes.

Section 9 examines the role of population policy in shaping the future working age population and determining labour force productivity. Skilled overseas migration is identified as a key area for collaboration between Commonwealth and state governments, particularly with regard to the skill requirements of regional areas.

# 7 Productivity

Increased productivity will provide future generations with more resources and options to address the impacts of an ageing population.

## KEY ISSUES

- Improving productivity is likely to be the primary means by which state governments manage the emerging 'fiscal gap'.
- Productivity growth is a major contributor to increased living standards. If Victorian productivity growth is 1.75 per cent per annum living standards will increase, by 85 per cent over the next 40 years.
- Additional productivity growth of 0.25 per cent over the period would result in living standards rising by an additional 20 per cent, so that in 2041–42 they would be double current levels.
- Productivity growth can be influenced by state policy levers, particularly in education and training, research and development, infrastructure investment, and in legal and institutional arrangements such as natural resource allocation frameworks and a regulatory framework that fosters competition and innovation.

In the short term, average material living standards (measured by per capita GSP) depend on a stable and predictable economic environment and sufficient flexibility to foster full employment and high rates of labour force participation. However, in the long run, productivity is the main determinant of overall living standards and improving productivity is likely to be the primary means by which state governments manage the emerging 'fiscal gap'.

In Australia, responsibility for economic policy is shared between the Commonwealth and state governments. All governments should be proactive in ensuring productivity growth including efficient government service delivery. However, not all of the economic and fiscal benefits can be contained within the State that boosts its productivity growth.<sup>39</sup> This then reduces the incentive for states to increase economic efficiency and growth. In addition, incentives are not always apparent for states to manage public service delivery efficiently. These distortions are displayed in the current approach to Horizontal Fiscal Equalisation, under which GST revenue is shared between states.

The modernisation of the Australian economy should not be restrained by a system of funding arrangements that slows the momentum of growth by distorting public policy settings and providing perverse incentives for the states to develop public policy with reference to potential grant share implications. The current system reduces the incentive for states to improve the way in which they deliver government services. In some cases, it rewards jurisdictions that continue to use outdated and expensive ways to provide services.

These issues require urgent attention to ensure that all governments can manage appropriately the challenges and opportunities presented by an ageing population.

## 7.1 Impact on productivity

There is little conclusive evidence to suggest an ageing of the population will change productivity, since although older people may experience a decline in physical and cognitive abilities, their greater experience can outweigh this.<sup>40</sup>

A literature survey on individual productivity and age, suggests that productivity follows an inverted U-shaped profile, significantly declining from around age 50. This is in contrast to wages, which tend to increase throughout a worker's life. An important reason for this decline could be changing cognitive abilities, with the greatest age-related productivity impact in jobs requiring problem solving, learning and speed, as opposed to experience and verbal abilities.<sup>41</sup> Other research suggests that for most jobs, work performance does not deteriorate with age (at least up to the age of 70)<sup>42</sup> as experience, interpersonal skills, and motivation tend to offset a loss in speed, strength and memory. Where average work performance of older people is lower, this is driven by the deterioration of some individuals as opposed to an across-board decline.<sup>43</sup>

The contribution of the older population to the productivity of the economy is likely to depend in part on the nature of employment undertaken by this group. If the majority of older workers are engaged in physical employment, the economy may experience a decrease in productivity over time. If, however, older people are employed in less physical positions (e.g. supervisory roles), the ageing of the population is unlikely to lead to a decrease in productivity and may, in fact, raise overall productivity levels.

39 A state's access to the fiscal dividend from a productivity boost depends on its taxing capability. Under present arrangements the Commonwealth has control of the most extensive and robust tax bases. The return of all GST revenues to the states should ensure that states share in any fiscal dividend from increased economic growth. However, tax takings are not disbursed to states in the same geographical proportions as they were extracted. In fact, positive discrimination under Horizontal Fiscal Equalisation redistributes the fiscal 'rewards' to jurisdictions independently of their contribution to productivity growth and incidentally reduces the incentive for some states to encourage productivity growth.

40 It should also be recognised that there are difficulties when measuring the productivity of a particular age cohort over time as the more productive tend to remain in employment (pushing up the average).

41 V. Skirbekk (2003), *Age and individual productivity: A literature survey*, Max Planck Institute for Demographic Research, August.

42 There is virtually no evidence on work performance after age 70, as few people beyond this age are employed.

43 P. Meadows (2003), *Retirement ages in the UK: a review of the literature*, Employment Relations Research Series No. 18.

As our population is both ageing and becoming more educated, productivity in the professional and technical occupations may be higher with an older workforce due to higher educational attainment and experience.<sup>44</sup>

The impact of advances in technology on the productivity of our ageing workforce is also unknown. On the one hand, technological change puts a premium on adaptability, and a discount on experience.<sup>45</sup> On the other, technological change may allow older workers to remain productively employed in physically demanding industries for longer.

In light of these uncertainties, it is assumed that productivity does not vary with age. As a result, annual labour productivity growth going forward is set in the DTF–Access Economics model at 1.75 per cent per annum, the long-term national average recorded over the past 30 years (and as reported in the Intergenerational Report).

## 7.2 Increasing productivity to manage the impacts of population ageing

Productivity growth made a much larger contribution to growth in national living standards in the 1990s, compared to the 1980s. In the 1980s, almost one-half of national per capita GDP growth was attributable to a rise in the employed share of the population, partly reflecting the growth in female labour force participation and a declining relative price of labour, with the remainder due to growth in labour productivity. In Victoria and nationally, the employed share of the population has been broadly stable during the 1990s and per capita GDP growth has been mostly attributable to productivity growth.

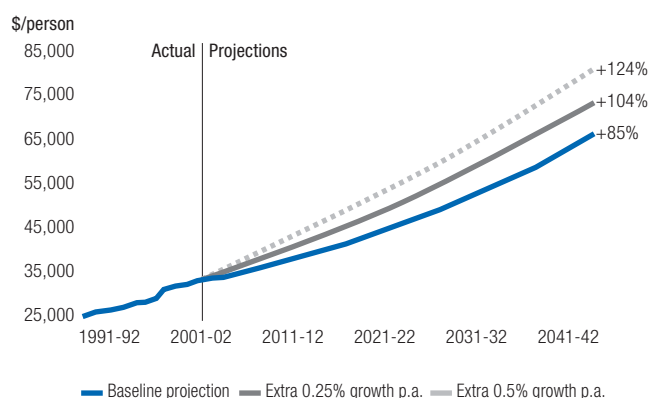
With an ageing population expected to place downward pressure on the employed share of the population, Victorian annual economic growth rates will be heavily reliant on continued productivity growth.

Our baseline projection is for Victorian real GSP per capita to increase by around 85 per cent by 2041–42. However, if Victorian annual labour productivity growth is 0.25 percentage points per year higher than that projected, our living standards will more than double over the next 40 years (Figure 21). This stronger productivity and economic growth would provide even higher real incomes, thereby providing a greater capacity for the community to make choices to meet future challenges.

**Figure 21: Impact of stronger productivity growth on Victorian real GSP per capita**

*Note: 2000-01 prices.*

*Sources: Victorian Department of Treasury and Finance and Access Economics.*



## 7.3 Approaches to boosting productivity growth

Government policy can significantly influence productivity growth either directly, where governments are involved in the production of goods and services or indirectly, where governments set the ground rules for production by individuals and businesses. In the short term, productivity gains are likely to be made by the removal of impediments to business activity and by implementation of world's best practice in existing industries. Over the longer term, however, productivity gains will mainly occur through innovation and research.

The drivers of productivity growth can be influenced by state policy levers. Particular areas of influence include education and training, research and development, infrastructure investment, and legal and institutional arrangements such as natural resource allocation frameworks and a pro-innovation regulatory framework.

State governments have an important role in encouraging the development of knowledge and skill through the provision or funding of education and training services and by fostering skill development and knowledge more generally. Governments also have a key part to play in supporting research, new ideas and inventions, and new ways of doing things. This includes the provision of funding for knowledge activities, linking businesses with researchers and new ideas and, most importantly, fostering an environment in which researchers have incentives to sell their ideas to businesses.

<sup>44</sup> *The Economist* (2004), 'Over 30 and over the hill' 26 June, argues in general that the more education you have, the more productive your old age will be.

<sup>45</sup> *Ibid.*

Government can help remove impediments to knowledge activities in two broad ways: by appropriately setting the framework for the application of knowledge processes and by implementing discretionary initiatives. When government intervention is limited to creating an overall enabling environment for innovation, policy causes less distortion and private sector investment is encouraged rather than crowded out. Discretionary initiatives are designed to make innovation easier for firms—through removing competitive barriers, reducing business costs, and facilitating domestic and international flows of information—in effect, removing specific impediments to knowledge processes.

Government can also seek to ensure the most competitive environment for businesses by removing impediments to their activities, or, in some cases, judicious regulation to bring about quasi market conditions in circumstances where they do not currently exist. While liberalisation of the economy has removed many barriers to productivity growth, there remain important issues concerning property rights, innovation, competition policy and regulation. To this end, Victoria has already established some mechanisms that encourage good regulatory practice, for example, it:

- Was the first jurisdiction to introduce Regulatory Impact Statements (RISs) on subordinate legislation in 1984
- Is a leader in undertaking and implementing National Competition Policy reviews
- Has introduced sunset provisions applying to subordinate legislation necessitating periodic reviews
- Has established the Victorian Competition and Efficiency Commission, which is currently undertaking a public inquiry into ‘regulatory barriers to regional economic development’
- Fostered productivity improvements in natural resource industries with the establishment of secure, tradeable property rights (e.g. in the water sector).

Governments can further assist productivity growth by improving the efficiency of their own service provision in education and training, health and community services, administration, and police and judicial functions.

There is also an important role for policies that strengthen communities (e.g. supporting communities to achieve higher levels of social engagement and build support networks).



## 8 Participation and labour market impacts

Boosting the labour force participation of Victorians will assist in meeting the challenges associated with population ageing.

### KEY ISSUES

- Population ageing is expected to produce a significant decline in participation rates from 63.1 per cent in 2003–04 to 54.4 per cent by 2041–42.
- If labour force participation were increased from the projected 54.4 per cent to 65.1 per cent in 2041–42, average per annum GSP growth would be 0.5 per cent points higher.
- The most immediate labour market effects of population ageing over the next 15 years will be on the supply side, through labour and skills shortages. In the longer term, labour market pressures will be felt more on the demand side, with increased demand in some sectors flowing from larger numbers of older people.
- While population ageing could lead to an increase in the unpaid/voluntary labour force, some areas of activity that currently depend heavily on unpaid labour (like caring for disabled elderly relatives) may also face increased demand.
- The states contribute to several important determinants of labour force participation—in particular health, education and training and workplace regulation. They are also a major employer.

### 8.1 Participation

Population ageing will inevitably reduce the proportion of the population participating in the labour force unless there are significant changes in age-specific patterns of labour force participation. Since older people have lower rates of labour force participation, overall participation rates are set to decline as the proportion of older people in the population increases. Estimating just how much participation rates will decline depends on what assumptions are made about future patterns of participation not only of older people, but also of younger individuals, for example women of child-bearing age. For the purposes of this submission, the high fiscal impact case assumes a decline in Victorian labour force participation rates to 54.4 per cent by 2041–42. This assumption underpins the key economic and labour market implications of population ageing included in the submission.

The Victorian Government is committed to increasing the labour force participation rate to counter the impact of an ageing population. The Government is already responding to workforce participation issues and intends to develop a whole of Victorian Government Workforce Participation Strategy. However, to be successful the Commonwealth and State governments will need to cooperate in:

- Coordinating policy initiatives that increase labour force participation, with the aim of encouraging those currently employed, but nearing retirement, to remain in the labour force, and those currently out of the labour force, to enter or re-enter the labour force
- Providing incentives to encourage all states to adopt policies that improve labour force participation.

#### 8.1.1 Victorian labour force participation rates

Since 1978–79 Victorian and Australian labour force participation rates<sup>46</sup> have increased from 61.1 per cent to 63.1 per cent and 60.8 per cent to 63.5 per cent respectively. Recent projections commissioned by the Victorian Department of Treasury and Finance, however, suggest that under current trends with unchanged policies, population ageing will cause Victorian labour force participation rates to decline to an estimated 54.4 per cent by 2041–42.<sup>47</sup> This downturn will reflect Australia-wide conditions, as the Victorian population is only slightly more aged than the Australian average.<sup>48</sup>

The DTF–Access Economics model estimates that a fall in labour force participation rates of this magnitude would result in GSP per capita increasing by 85 per cent between 2001–02 and 2041–42, compared with 101 per cent if participation rates had remained unchanged.

While the focus of such analysis is generally on participation in the formal or paid economy, it is also important to consider the contribution of Victorians outside the formal economy. The impact on population ageing on participation in (and demand for) volunteer work is explored in Section 8.3.

46 Original data, June year averages.

47 This is based on the ABS methodology (as described in Cat no.6260.0 *Labour Force Projections*) of fitting a logistic trend to historical participation rates (using non-linear least squares) and then extrapolating the fitted trend. The advantage of this method is that it ensures the projected rates stay within certain bounds and that the trend converges asymptotically to an appropriate rate. Variations to this approach adopted for some age-cohorts are described in greater detail in the ABS publication.

48 The population in Victorian regional areas is generally more aged.

### 8.1.2 Value of increasing labour force participation rates

Changes in policy (both Commonwealth and Victorian) need only result in modest improvements in labour force participation rates to counter the projected demographically driven decline over the next 40 years. For instance, the Melbourne Institute has suggested a set of policy measures in five areas, to prevent long-term decline in the average participation rate.<sup>49</sup> Table 8 presents the estimated potential increase in participation rates associated with education, delayed retirement, improved child-care services, improved health and welfare reform for the period to 2041–42.

Improved educational attainment is assumed to increase the participation rate of the youngest impacted age cohort<sup>50</sup> (aged 20–24) by 0.25 percentage points per year from 2016–17 (roughly when someone starting school now leaves school and becomes a member of the labour force). It affects the next age cohort from 2017–18 and so on.

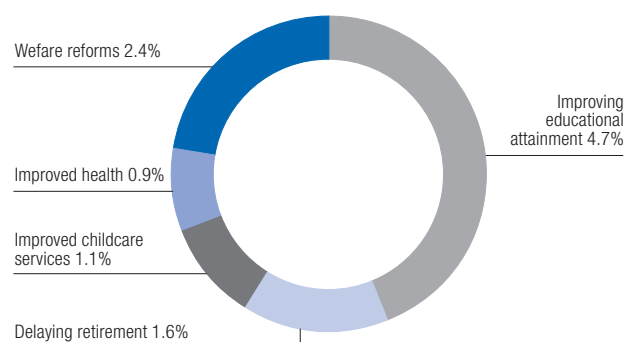
If the policies described in Table 8 were implemented and affected labour force participation rates as projected, the 2041–42 projected labour force participation rate would be 65.1 per cent, compared with 54.4 per cent without any such measures (an increase of 10.7 percentage points). Figure 22 shows the cumulative impact of these measures on the 2041–42 aggregate labour force participation rate.

**Table 8: Labour force participation scenario**

*Note: The main impact is from increasing participation rates of men aged 55+ and women aged 25+*

Policy	Scenario
Improving educational attainment	Increases participation rates of men/women aged 20+ by 5% pts from current aggregate participation rates, starting 2016–17
Delaying retirement	Increases participation rates of those aged 55+ by between 3–6% pts from current aggregate participation rates, starting 2018–19 <sup>51</sup> Note: improvement in men's participation decreases with age, and the improvement in women's participation for those aged 60–64 is assumed to be higher than men's
Improved child-care services	Increases participation rates of women aged 25–54, by 5% pts from current aggregate participation rates, starting 2003–04
Improved health	Increases the participation rates of men and women aged 35+, by 0.5–2.0% pts from current aggregate participation rates, starting 2011–12 <sup>52</sup> Note: improvement increases with age
Welfare reforms	Increases participation rates of men aged 35+ by between 1 to 5% pts and women aged 25+, by between 2 to 4 % pts from current aggregate participation rates, starting 2003–04 Note: The main impact is from increasing participation rates of men aged 55+ and women aged 25+

**Figure 22: Policy contribution towards improved aggregate labour force participation rate outcome in 2041–42**



49 Melbourne Institute (2004), unpublished research commissioned by DTF.

50 The full range of age cohorts is 15–19, 20–24, 25–34, 35–44, 45–54, 55–59, 60–64, 65+.

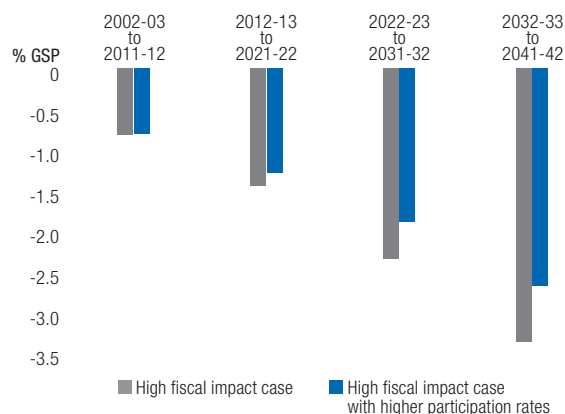
51 On our demographic assumptions, this is when working age population growth will fall below 0.5 per cent.

52 Allows sometime for attitudes and lifestyle practices to change.

Figure 23 illustrates the impact of an improvement in labour force participation rates of this magnitude (10.7 percentage points) on the fiscal gap, using the high fiscal impact scenario to compare outcomes with and without this change. This analysis indicates that the increase in participation would give rise to a fiscal gap of 2.8 per cent of GSP in the decade to 2041–42, compared with 3.3 per cent without this improvement.

**Figure 23: Fiscal gap projections**

Sources: Victorian Department of Treasury and Finance and Access Economics.



### 8.1.3 Victoria's role in increasing labour force participation

Governments internationally are responding to the projected decline in labour force participation by focusing on the need to build knowledge and skills, reduce workforce exclusion and provide better choices for people in balancing work and family.

In Australia, the Commonwealth has jurisdiction over some of the most significant influences on labour force participation—including tax, social security and retirement income policies and, in Victoria's case, negotiating workplace relations. However, the states also control or contribute to a number of important determinants of labour force participation, in particular, health, education and training and occupational health and safety regulation. In addition, as a major employer in its own right (around 10 per cent of the Victorian workforce) the Victorian Government has considerable capacity to influence labour market outcomes by developing workplace policies that encourage and support labour force participation by all age groups and serve as benchmarks for other employers.

Victoria also runs employment programs under the 'Jobs for Victoria' initiative, which aims to increase the engagement and participation of people in their communities and in the workforce, particularly young people and disadvantaged job seekers.

### 8.1.4 Education

There is mounting evidence that increased educational participation will lead to higher levels of labour force participation in the future.

Work commissioned by the Victorian Department of Treasury and Finance uses data from the Household, Income and Labour Dynamics in Australia Survey (HILDA) to analyse the marginal effects of education levels and (self-reported) health of men and women aged 30 (younger) and 50 years (older) on predicted labour force participation rates.<sup>53</sup>

This analysis identified successful completion of year 12 (or equivalent) as having the largest single positive influence on individual labour force participation, with participation rates increasing between 3 and 13 percentage points compared with early school leavers (i.e. someone who left school without completing year 12 or equivalent).

This effect was found to vary between groups. Any additional (post compulsory or year 10) educational attainment was found to have relatively smaller impact for older males—largely because their participation rates are already very high. However completion of year 12 or equivalent still resulted in a noticeable increase (between 3 and 5 percentage points) to predicted participation rates compared with early school leavers.

The marginal effect of education for older females was found to be of a similar magnitude to the younger female groups—resulting in a difference in labour force participation of 12 to 13 percentage points between those leaving school early and completing of year 12 or equivalent. For both age groups, the average effects were similar for Melbourne and non-Melbourne Victorian residents.

### 8.1.5 Health

The HILDA data was also used to examine the link between health and labour force participation. The marginal effects of health were found to be more modest than those of education: being in good health raises participation rates relative to poor health, but by less than 1 percentage point for men and by around 2 percentage points for women. Likewise, feeling better now than previously leads to increased participation regardless of reported health status, but again, these effects are small, at around 1 percentage points or less for men and between 2 and 3 percentage points for women.

These results on the marginal effects of health status on participation among older workers may well be conservative relative to some other studies.<sup>54</sup>

<sup>53</sup> Melbourne Institute (2004), unpublished report commissioned by DTF.

<sup>54</sup> See, for example, Cai, L. and G. Kalb (2004), *Health Status and Labour Force Participation: Evidence from the HILDA Data*, Working Paper No. 4/04, Melbourne Institute.

### Box 11: Nursing workforce in Victoria

A recent study by the Victorian Department of Human Services examined nursing supply and demand in the next 10 years (2003–04 to 2011–12), and highlighted the ageing of this workforce as a significant driver of potential workforce shortfalls in the future. The average age of the nursing workforce is increasing, with:

- The relative proportion of older nurses in the workforce increasing relative to the proportion of new graduates in the workforce (only 4 per cent each year)
- The average age of new graduates increasing
- Re-entry of a substantial number of qualified nurses aged 50+.

Between 1998–96 and 2003–04, the average age of Division 1 nurses increased from 38.6 to 41.2 years in 2002–03, while that of Division 2 nurses increased from 38.7 to 42.9 years. From 1999–01, the average age of all net additions to the nurse register was nearly 55 years.

Results of the supply and demand suggest that overall, there is currently a balance between nursing supply and demand in Victoria. However, additional hours worked by staff, along with use of bank<sup>55</sup> nurses, does currently contribute to this balance. Analysis to date suggests that the hours worked by nursing staff reduce as they age, and thus judgements will need to be made regarding a sustainable level of additional hours and overtime work.

To take such factors into account, along with the current workforce's increasing preference for part time work, a number of supply scenarios were considered in forecasting future nursing workforce requirements. Depending on the underlying assumptions used, these forecasts indicate that the combined impacts of workforce ageing and increasing service demand could result in a net shortage of between 9,000 and 14, 000 nurses by 2011–12 (although the latter seems unlikely as it assumes no nurse works more than 38 hours a week).

The situation is complex, and thus no single policy response is likely to achieve a balance between future nursing supply and demand. Both short and medium-term imbalances need to be addressed, recognising the time and resource constraints that impact how many additional nurses can be trained and when they would enter the workforce.

A robust and realistic strategy to achieve longer term balance between nursing supply and demand will involve a range of initiatives to improve retention, increase migration, expand the number of graduates and adjust the skill mix, taking into account the need for solutions to be attractive to the changing demographics of the nursing workforce.

#### 8.1.6 State as regulator

State regulation, where possible, should encourage and not inhibit labour force participation. This may be through greater labour market flexibility such as: flexibility in employment options, through family friendly policies and practices that help parents with family responsibilities remain active in the workforce; supporting older workers to continue to work, or return to work, or improving career pathways for older workers; or targeting discriminatory employment practices. State government regulation of the workplace should focus on promoting good occupational health and safety outcomes while not limiting the flexibility of working arrangements. Similarly state government regulation of child-care should not stifle any increase in the quality of child-care places, and therefore prevent those parents who wish to access child-care and return to work, from doing so.

#### 8.1.7 State as employer

Governments can influence the impact of an ageing workforce on their ability to deliver services.

Retention policies are important, particularly in hard to fill, highly skilled jobs. The Victorian Government has started to explore policies that improve recruitment and retention of its own workforce. The nurses' recruitment and retention strategy, launched in 2002, was particularly successful. It included retraining and refresher courses for nurses who had been out of the workforce for a number of years, and improved workplace conditions (Box 11).

Studies have shown that improved work–life balance is particularly important for older workers. In November 2003, the Victorian Government released an *Action Agenda for Work and Family Balance*. Part of the aim of this initiative is enhancing the 'availability of a wider pool of labour, particularly among...older workers'.<sup>56</sup>

Targeted skilled migration in specialist fields such as teaching and nursing, already occurs. Increasing the inflow of people with skills in areas of shortage, both in the public and private sector, is another strategy to deal with labour shortages.

<sup>55</sup> Bank nurses are employees of a hospital, employed on a casual basis. The nurses notify the hospital when they are available and as vacancies in rosters exist, they are 'booked' for those shifts.

<sup>56</sup> The Action Agenda can be found at: [www.irv.vic.gov.au](http://www.irv.vic.gov.au)

## State superannuation schemes

State governments do not control retirement incomes policy in Australia, and therefore have limited capacity to influence the retirement benefits of the broader community. However, they can shape the incentives inherent in State government-run superannuation schemes. The rules of some of Victoria's defined benefit funds can act as a disincentive for members to continue in the workforce, in particular:

- The design of the resignation and retirement benefits in the Revised Scheme of the State Superannuation Fund (SSF) encourages people to resign from work just prior to turning 55, when the real value of their benefits peaks. Although some of these members return to employment on contract, this is not ideal.
- Victorian defined benefit funds do not allow members to accrue further benefits after age 65, which means that there is only very modest growth in their benefit after this time through salary growth or some form of indexation. (However, the employer contributions required under the Commonwealth's Superannuation Guarantee legislation are paid into an accumulation fund for the employee.)
- Generally, even by age 65, a person must retire in order to receive their benefit. This acts as a disincentive for employees to continue beyond age 65, even on a part-time basis.

While defined benefit schemes are no longer offered to new employees, there remains a long backlog of existing employees in such schemes. Nevertheless it may be worthwhile reviewing the rules of some long-established public sector defined benefit funds to determine whether existing disincentives for public sector employees to continue in the workforce could be removed. Any such review would, however, need to consider the financial costs of adopting this approach.

## 8.2 Other labour market impacts

### 8.2.1 Labour market

It is expected that the impact of population ageing will vary across industries and workforces, and over the short and longer term. These impacts will affect both the demand and supply of labour.

In the short term, the predominant labour market effects will be on the supply side, with critical skills shortages occurring for professional workers across a range of industries. These shortages are due to various factors, including increases in the rate of retirements and in the number of people living with chronic health conditions. Key industry groups likely to be affected include accountants, nurses, aged care workers, therapists, pharmacists, teachers, social workers and lawyers.

In addition, there will be a critical need for on-the-job skills and knowledge transfer in key industries. This needs to be understood and planned for now or it will have potentially significant impacts, including on key state infrastructure.

Demand-side effects will be felt most in the later years of the projection period, with increased demand in some sectors flowing from increased demand for certain goods and services by larger numbers of older people in the population. For example, there may be shortages in the aged care sector and other service industries as a result of increased demand for care.

There are also likely to be skills shortages in industries that support adults and mature-aged workers to participate in the workforce. For example, an increased number of adults participating in the workforce may see increased demand for child-care places, which could result in shortages of child-care workers.

In addition, any major expansion of the vocational education and training (VET) sector resulting from increased demand is likely to lead to (at least temporary) shortages of VET teachers.

Although work-aligned labour shortage problems in metropolitan and large regional areas of the State will ultimately be solved by the operation of the labour market, there is nevertheless a role for government as:

- Training takes time and leaving adjustment solely to the market can lead to unnecessary periods of labour shortages
- The notion of historical comparability in pay between occupations can lead to 'stickiness' in wages
- There are often information failures
- Labour markets may not be sophisticated enough in regional areas to solve the problems associated with labour shortages.

A primary concern for Victoria is the manufacturing sector and specific industry sub-sectors, which have reported skills gaps and shortages already and have high concentrations of older workers who are likely to cease participation in the workforce (or in those sectors) in the coming decade.<sup>57</sup>

### 8.2.2 Public sector employment

Since the Victorian Public Sector (VPS) labour force has an older age profile than the Australian labour force, the impact of ageing will be felt earlier and more significantly by the Victorian Government. Under existing trends, an ageing workforce and a shrinking pool of new entrants are likely to lead to wage pressures and could compromise the Government's ability to deliver quality services.

The Victorian Government recognises that by promoting recruitment and retention strategies it may be able to limit the fiscal risk of an ageing workforce. State governments, as employers, also have a large superannuation liability going forward. Victoria's defined benefit funds (with the exception of the Emergency Services Superannuation Scheme) have been closed for a decade. However, a large cohort of members will be retiring over the next decade, meaning that accrued benefits are yet to peak and that benefit payments will remain at high levels over that time.

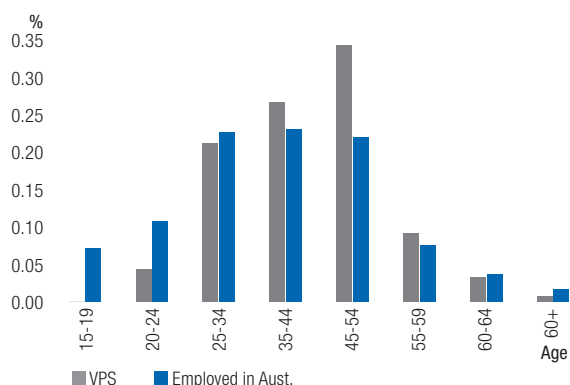
<sup>57</sup> The Victorian Department of Industry, Innovation and Regional Development during its 2001–02 industry audits found particular issues with the availability of skilled workers in Precision Engineering; Textiles, Clothing, Footwear and Leather; Medical and Scientific Equipment; Automotive; and Metal Fabrication.



The VPS has a median age of 42.7 years, higher than that of the Australian labour force, which has a median age of 38.6 years. As Figure 24 shows, there is a much higher proportion of the VPS workforce in the 45–54 years age group, and more workers approaching retirement, than for the Australian labour force as a whole.

**Figure 24: Employed in public sector and Australia by age group**

Source: OWD Workforce Data Collection June 2003 and ABS Cat. No. 6105.0. OWD data excludes casual employees, organisations with less than 50 employees and police.



Within the VPS there are different age profiles for each sector. The education sector (schools and TAFE) has the highest median age in the VPS (44.1 and 45.4 years, respectively). Hospital employees, the largest group of state government employees, have a median age of 41.6 years.

Under existing trends there will be future labour shortages. The 'bulge' of VPS workers in the 45–54 age group (see Figure 24) is the baby boomer generation who will start retiring in the next 15 years. As these workers exit the labour force, there will not be enough new workers to replace them.

There is already evidence of a global shortage in some professions such as nurses and teachers.<sup>58</sup> State governments, as major employers of these professions, face international competition for scarce labour.

The impending exit of over 13 per cent of the Victorian public service (the proportion of those aged over 55 years), in areas where there is already an existing tight labour market, has potentially significant fiscal and service delivery implications for the Victorian Government, particularly when coupled with increased demand for government services.

### 8.2.3 Institutional impacts: workers' compensation and accident compensation

The findings of the Intergenerational Report and the changing nature of working arrangements indicate that a range of factors will influence future personal injury compensation arrangements, either through workers' compensation schemes or personal accident compensation schemes. These include:

- An increase in labour market participation of mature aged workers, including beyond the traditional retirement age
- A continuing increase in part-time and/or casual working arrangements, corresponding with a decrease in full-time workforce participation
- An increase in older workers with other income, notably superannuation
- Improvements in the health of mature aged people due to medical advances.

An increase in the proportion of older workers is likely to have an impact on the cost of implementing workers' compensation schemes, which would also have flow-on effects for business costs. In particular, the injury incidence rates for 2001–02 show that workplace injuries and diseases increase with age, with the 55 and over age group having the highest incidence of compensated injuries compared with other age groups. This could increase the cost of doing business if premiums under workers' compensation schemes increase due to the greater risk associated with older employees.

On current estimates, each year around 36 000 people affected by workers' compensation payments receive social security at a cost to the Australian Government of \$289 million per annum. An additional (unquantified) number of people ill and injured in the workplace and not covered by statutory schemes, self-insurers or private insurance also turn to the income support system for assistance. The increasing age of the workforce could have a major impact on costs associated with rehabilitation support and return to work. It could also affect the income support systems available to injured workers (including workers' compensation and personal accident, e.g. Transport Accident claims), and the interface with Centrelink, although it is difficult to estimate the extent of these effects at this stage.<sup>59</sup> Further, greater longevity may mean permanently incapacitated workers will need to be supported for a longer period of years.

58 See for example OECD Policy Brief (2004), *The Quality of the Teaching Workforce*.

59 For example, TAC & WorkCover claimants' entitlements to benefits under the respective schemes cease on reaching retirement age. Claimants would then be expected to access Centrelink benefits. Therefore, the impact of the aging population on both the TAC & WorkCover schemes and Centrelink will depend on the applicable retirement age.

## Victoria's role

Currently, except for Queensland, workers' compensation schemes have some form of retirement provision for eligibility of benefits. Although the restrictions vary across jurisdictions most schemes impose a restriction on benefits when a worker reaches the age of 65. Private insurance arrangements for the self-employed and contractors are also generally limited to those aged 65 or less. This inhibits participation of those aged 65 and over. However, if workers' compensation and personal accident compensation schemes were to extend compensation benefits and entitlements to workers or claimants beyond the age of 65 this could have implications for the viability of the various schemes' benefit structures and premiums charged.

Any modifications to workers' compensation schemes need to consider the costs to business and the viability of the schemes under new arrangements. They should also consider the flow-on effects to the other income support systems available to injured workers, as there is a high level of interaction between them.

## 8.3 Volunteerism

While the main focus tends to be on participation in the formal or paid economy it is important to take adequate consideration of the contribution of Victorians outside these formal parameters.

The older population makes significant and varied contributions to the community, with substantial social and economic value. As well as building and strengthening communities and supporting civic institutions, through their unpaid work, volunteers create and transfer value within families and to the community at large.<sup>60</sup> This contribution is also highly relevant to the fiscal impacts of ageing, with volunteers supporting a wide range of government activities. Volunteering is more than a complementary unpaid service workforce, but part of a broader community capacity infrastructure and civic participation which has direct and indirect positive impacts on local economies and thus Victoria's economy.

Population ageing could lead to an increase in the unpaid/voluntary labour force. Activities that currently depend heavily on this unpaid labour (like caring for disabled elderly relatives) may also face increased demand.

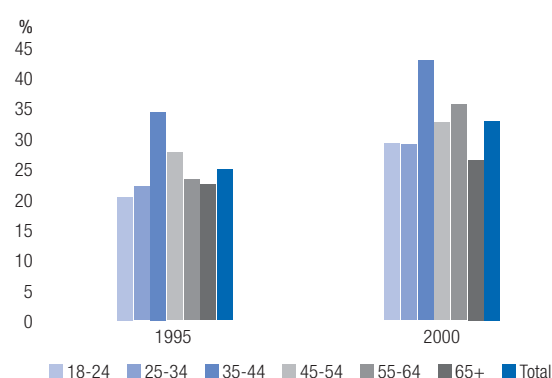
Age influences participation in volunteer work. It follows a bell-shape, peaking in the middle stages of a person's life, and declining after retirement.<sup>61</sup> People on higher incomes and with greater educational attainments are more likely to participate in some form of volunteering. Likewise people in paid work are also more likely to volunteer than those outside the labour market.<sup>62</sup>

This, however, is not based on the amount of time spent performing volunteer activities, as although having a lower participation rate, the elderly tend to donate more of their time when they do volunteer.<sup>63</sup>

The high participation rates of those currently aged 35–44 and 45–54 years suggest that as these cohorts age, volunteerism among older age groups (65+) may be higher than that today, as the healthier, more active older people of the future continue their volunteer activity. Also the baby boomers may volunteer more, as they should on average, have greater educational attainment than their predecessors and be much better off than the elderly generation of today. Table 9 shows that volunteer rates have increased over time.

**Figure 25: Volunteer rates for Victorians, 1995 and 2000**

Source: ABS, *Voluntary Work, Victoria*, (Cat. No. 4441.0.55.001).



**Table 9: Volunteer rates over time, Victoria, 1982–00<sup>64</sup>**

Sources: Source: ABS, *Provision of Welfare Services by Volunteers, Victoria* (Cat. No. 4401.2); ABS, *Voluntary Work, Victoria* (Cat. No. 4441.0.55.001).

Year	Men	Women	Total
1982	26.9%	29.5%	
1995	23.9%	25.7%	24.8%
2000	32.7%	33.0%	32.8%

<sup>60</sup> Volunteer activity may be defined as that which takes place through not-for-profit organisations or projects and provides benefits to the community, of the volunteer's own free will and without coercion, for no financial payment; and in designated volunteer positions only (Volunteering Australia; accessed at <http://www.volunteeringaustralia.org>)

<sup>61</sup> Knapp, M. and Davis Smith, J. (1995), *Who Volunteers and Why? The key factors which determine volunteering*, The Volunteer Centre UK, United Kingdom.

<sup>62</sup> Davis Smith, J. (1998) *The 1997 National Survey of Volunteering*, Institute for Volunteering research, UK.

<sup>63</sup> Ibid.

<sup>64</sup> Although 1995 was the first national survey on volunteering, a survey for Victoria was conducted in 1982 that is consistent with the ABS time-use surveys.

### 8.3.1 Demand and supply-side impacts of ageing

A wide range of the services and activities essential to the Victorian community depend critically on the support of volunteers. Below we consider the possible impact of population ageing on the demand and supply of unpaid personal carers.

The ageing of the Victorian population will affect both the number of people requiring personal care, and how this care is provided. The role of carers is paramount in providing this assistance, with the bulk of care currently performed by unpaid family and friends, in the person's home.

In 1998, when the more recent ABS survey was undertaken, over 711 000 people aged over 65 years were living at home supported by unpaid carers, either with or without support from formal services. By comparison, only 127 900 people were living in residential aged care. The need for informal carers is expected to increase, driven by a number of factors including:

- The increasing number of elderly Victorians
- Uncertain trends in disability, particularly the effect of increased longevity on disability trends
- Changes in living arrangements for older age groups
- Changes in the availability of formal aged care services.

Modelling undertaken by the National Centre for Social and Economic Modelling (NATSEM) forecasts that between 2001 and 2031 the number of older Australians likely to need assistance due to severe or profound disability will increase by 160 per cent (from 539 000 to 1 390 000), while the *proportion* of persons with a severe or profound disability aged 85 or over is projected to increase from 14 per cent to 25 per cent. The number of carers providing informal care to older persons is forecast to grow by 57 per cent between 2001 and 2031, a lower rate than the increase in those likely to demand such assistance. The ratio of older persons needing care to persons likely to provide care was projected to fall from 57 primary carers for every 100 persons needing care in 2001, to 35 carers for every 100 persons in 2031.<sup>65</sup>

On average, carers are also projected to be older, with the largest growth in the numbers of informal carers projected to occur amongst older persons. As reported by NATSEM:

***'Between 2001 and 2031, carers aged less than 65 years will grow by some 22 000 persons (19 per cent) while those aged 65 and over will grow by 91 000 (110 per cent). As a result, by 2031, older carers will constitute 56 per cent of all carers, up from 42 per cent from 2001.'***<sup>66</sup>

There is great elasticity in the supply of family carers, and a wide range in the extent of practical care that people actually offer. Projecting trends based on today's patterns is inherently difficult due to the interplay of factors that may determine the size of the potential pool of carers.

### 8.3.2 Volunteers in regional Victoria

The challenges associated with maintaining a volunteer base will be heightened in regional areas that are faced with a rapidly ageing population. While the demand for volunteers in regional areas is likely to grow as the population ages (for example, more community transport, delivery of Meals on Wheels), there will be increasing demand for new volunteers to replace those ageing members of the community who previously volunteered in physical activities such as firefighting (see Box 12). In the absence of young people to replace the ageing volunteers of today, pressure will be placed on all levels of government to maintain this essential service provision.

#### Box 12: Volunteers and Victoria's Emergency Services

Victoria's emergency services are critically reliant upon a volunteer base, particularly in rural and regional areas of the State. The Country Fire Authority (CFA) services rural, regional and outer Melbourne metropolitan areas of the State, relying on a volunteer base of approximately 58 500 in 2003–04. The Victorian State Emergency Services (VICSES) operates a statewide service, with approximately 5 500 volunteers.

The majority of volunteers in emergency services are aged between 15 and 44 years. These services specifically rely on a relatively 'young' volunteer base (capable of meeting the physical demands of service provision), and a mix of longer serving members with knowledge and skill, and younger volunteers with the capability to attend/respond to incidents.

An ageing population (and particularly its impact in rural and regional areas) raises significant issues about the sustainability of these volunteer bases that rely on a 'younger' age range of volunteers.

<sup>65</sup> Modelling prepared by Australian Institute of Health and Welfare (AIHW) suggests that the availability of informal carers can vary considerably depending on the underlying assumptions of the forecast. The AIHW notes that under the baseline propensity to care scenario (which assumes constant carer rates in the context of changing population structure, living arrangements and labour force participation) the ratio of primary carers per 100 people with a severe or profound restriction only declines marginally. The AIHW concludes that contradicts the commonly held perception that future social and demographic changes will dramatically alter carer-care recipient ratios.

<sup>66</sup> The AIHW observes that projections about the availability of informal carers presume carer accessibility in terms of geographic location. There is an assumption that additional primary carers arising from population growth and ageing will be available in a practical sense. However, the phenomenon of geographic ageing and the tendency of many people to retire to coastal locations will also play a part in future patterns of informal care.

### 8.3.3 Supporting volunteerism and strengthening communities

Volunteer activity builds strong communities and is facilitated by such networks. The resources inherent in the social networks of these communities, or social capital, in turn, provide an important support to individual participation in the formal economy.

In recognition of the importance of volunteering, the Victorian Government has committed \$20 million over the next three years to a Volunteering Strategy. This Strategy will provide funding to support the existing network of volunteer centres and develop new centres to link volunteer charities, community groups and other volunteering organisations.<sup>67</sup>

More broadly, government investment in social infrastructure has the capacity to produce a broad range of positive social and economic outcomes and is an important addition to more traditional approaches to boosting economic participation. Evidence drawing links between policy interventions that strengthen social connectedness, demand for government services (e.g. in education, health, community services and justice) and social and economic outcomes provide strong support for collaborative efforts to strengthen communities.<sup>68</sup> For example there is strong evidence that increased social capital is linked to:

- Improved health status and high levels of volunteering
- Supporting migration, or the ability of communities to tolerate, absorb and value social diversity
- Boosting productivity (through link to improved educational and economic outcomes).<sup>69</sup>

67 Of this \$20 million funding, \$9 million is for building up networks of resources and support that volunteers and organisations need, \$1 million of small grants will be directed to community groups with practical ideas that support local communities, and \$10 million towards developing the work of Victorian volunteers and community groups.

68 For example, the Victorian Population Health Survey shows that people who rated their health as either fair or poor were more likely to be socially isolated, not feel valued by society and be untrusting of others; and research undertaken by VicHealth (2002) has found that young people without networks and mentors are up to 30 per cent more likely to develop mental illness.

69 Arguments supporting the link between social capital and economic growth put forward by Richard Florida (2002), *The Rise of the Creative Class*.

# 9 Population

Victoria can grow its population and its economy by supporting family friendly policies and attracting skilled migrants.

## KEY ISSUES

- The decline in growth of the working-age population in coming decades is the greatest challenge to economic growth posed by population ageing.
- Increasing fertility (although typically resulting in a rising dependency ratio in the short to medium-term) provides for strong growth in future working age populations, and can be supported by policies that assist parents to balance paid work and family responsibilities.
- Migration can have a more immediate impact in helping to boost the working age population. Migration programs can be targeted to address labour requirements in specific regions—particularly important for regional areas that struggle to attract and retain labour.

The primary challenge to future economic growth from population ageing is the projected decline in growth of the working age population growth, from about 40 000 persons per year today to an average of about 8000 per year during the 2020s. With less of the population engaged in work and a growing number who are dependent (an increasing *dependency ratio*), economic growth is expected to slow and fiscal pressures will emerge as the revenue base (i.e. income and other taxes) declines and demands on government expenditure increase.

One solution is to increase the size of the working age population. While population growth does not, in itself, necessarily raise living standards, increasing the size of the working age population is one means by which governments can stimulate economic growth, and moderate the fiscal impact of population ageing. Such measures are particularly critical in regional Victoria, which is currently older, and projected to age faster than Melbourne. Regional areas attract fewer overseas migrants and tend to lose younger people to Melbourne and larger regional centres.

More broadly, increasing fertility (while typically resulting in a rising dependency ratio in the short to medium-term) provides for strong growth in future working age populations.

Many of the government levers with the potential to influence population, however, fall within the Commonwealth Government's sphere of influence.

## 9.1 Natural increase

Achieving a natural increase in Australia's population will help to ameliorate the impact of population ageing in the long term, despite increasing the dependency ratio in the short to medium term. Children born in the next decade will enter the workforce and contribute to the revenue base as the peak fiscal impact of population ageing takes effect (i.e. when the baby boomers have retired and begin drawing more heavily on health services).

Research indicates<sup>70</sup> that Australian families are having fewer children than they would like to have. The Victorian Government views this finding as an opportunity to improve our population age structure and economic growth in the long run by improving the capacity of Australian families to make choices about the number of children they have. With a future workforce likely to be better educated and more reluctant to remain out of the workforce for long periods, policies which assist parents to balance paid work and family responsibilities are likely to be more effective in influencing fertility rates than those which encourage women to leave the workforce to raise their families.

<sup>70</sup> See for example De Vaus, D (2002) *Fertility decline in Australia: a demographic context*. (<http://www.aifs.gov.au/institute/pubs/fm2002/fm63/dd.pdf>), or Quesnel-Valee, A. & Morgan, S.P. (2002), *Do women and men realise their fertility intentions?* Paper presented at the Annual Meeting of the American Sociological Association.



## 9.2 Immigration

Overseas immigration, particularly skilled immigration, is one of the key policy levers that could be used more effectively to manage the impacts of declining workforce population growth and increasing dependency ratios.<sup>71</sup>

### 9.2.1 Importance of working age immigration

An increase in immigrants of working age would help offset any decline in working age population growth caused by the ageing population, and would also have a positive impact on dependency ratios. In turn, this would boost the level of economic activity and help to offset other economic and fiscal impacts of population ageing.

Skilled immigrants also contribute to productivity improvements by adding to the stock of human capital and supplying, with immediate effect, skills which Victoria (or specific regions of Victoria) may have in short supply. Figure 26 illustrates this point, showing alternative two scenarios for the impact on the Victorian economy of additional migration of 20 000 to the State. The first scenario illustrates the effects of increasing the population through immigration, while the second shows the effects of targeting immigration to those age groups with the highest labour force participation rates.

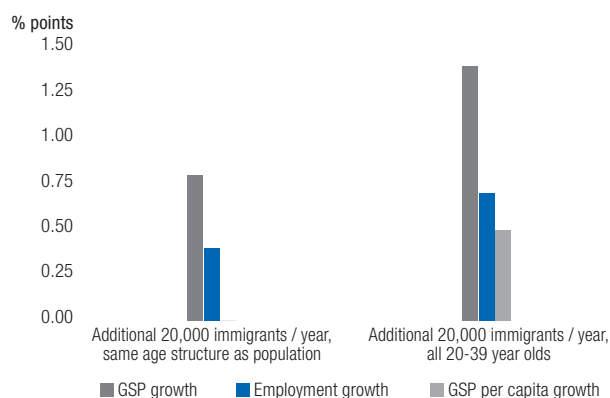
The figure indicates that an immigration program that attracts migrants aged 20–39 years to Victoria yields greater economic benefits than a general immigration program, as the age profile of these immigrants produces faster employment growth than in the population.

**Figure 26: Long-term impact on the Victorian economy of additional immigration**

Notes:

- (a) Deviation in annual average growth rate relative to high fiscal impact case, 40 years to 2041–42.
- (b) Immigrants are assumed to have the same age structure as the domestic population at that time (according to Victoria in Future 2004 projections). This is a 'scale shock', effectively increasing the size rather than age structure of the population.
- (c) Immigrants are assumed to all be in the 20–39 year age range (with 5000 in each cohort from 20–24 to 35–39). Within each age cohort, the age structure is as per Victoria in Future 2004.

Sources: Victorian Department of Treasury and Finance and Access Economics.



Like the general population, immigrants age and retire and, in doing so, add to the number of elderly Victorians in the long term. While applicants who are at or nearing retirement age should not be excluded from migrating to Australia, any attempt to address the impact of population ageing should take into account the issue of future employment contribution.

### 9.2.2 Immigration and regional Victoria

Skilled immigrants of working age are particularly important to ensuring thriving labour markets in regional Victoria. Many parts of regional Victoria are already facing skill shortages caused by a shrinking working age population as a proportion of total population and the general ageing of their permanent residents. There is a growing demand for workers in key service delivery roles in regional areas, such as health care workers. Immigrants able to meet this demand could provide a solution to the labour shortages experienced by regions faced with population ageing.

Australian governments use skilled entry programs to ensure the timely entry of migrants with skills and qualities required by local labour markets. Victoria is committed to working with the Commonwealth to maximise Victoria's share of the national skilled migrant intake and attracting new arrivals to regional Victoria, thereby accessing the benefits of skilled and business migration programs.

### 9.2.3 Proactive national immigration policies

While Victoria has had significant success in attracting a larger share of skilled migrants in recent years, the State will increasingly be affected by growing competition for these immigrants both from interstate and overseas. Countries such as the United States, the United Kingdom, Germany and Canada face age and workforce pressures similar to those of Australia.

In this competitive environment a proactive national immigration policy is critical to the capacity of Victoria and other states and territories to continue to attract skilled migrants. To this end, the Victorian Government supports and will continue to urge the Commonwealth Government to maintain and increase existing levels of overseas immigration.

Australia also needs to explore flexible approaches to attracting and selecting migrants appropriate to the economic and social goals of individual states and territories. Precedents exist in other federal systems (e.g. Canada) for allowing individual states to identify and attract migrants with specific skills or other qualities of significant benefit to economic development of that jurisdiction.

Through the new Skilled Independent Regional Visa scheme, the Commonwealth Government has recently begun to extend such a capacity to those states that wish to attract more migrants. The Victorian Government welcomes this change and is capitalising on the opportunity by committing an additional \$6 million over four years to its Skilled Migration Strategy. A major focus of this commitment will be on 'settlement' support to regional communities wishing to attract skilled migrants.

<sup>71</sup> At a Victorian level, interstate immigration (attracting migrants from interstate, or reducing the numbers leaving to other states) is another potential approach to minimising population losses and ageing. Interstate migration is the most variable aspect of Victoria's population growth, driven largely by the movement of younger people.

# 10 Conclusion

The implications of population ageing are not all in a distant future that can be ignored. Our population has been ageing for a century already. This submission highlights the broad range of possible economic and fiscal implications associated with the ageing of our population. Many of the impacts will be felt in the short to medium term. While future Victorians will enjoy greater wealth and live longer, healthier lives, they will need to manage a number of significant challenges associated with having an older population.

Importantly, however, there is a great deal the Victorian Government and community can do today to equip future generations for these challenges. As outlined throughout this submission, contemporary policies will shape the size of future pressures and our capacity to manage them effectively over coming decades. Ongoing community discussion of these issues, effective cooperation across all tiers of Australian government, and foresighted, integrated policy responses will ensure we can meet the challenges and seize the opportunities posed by population ageing for the benefit of all Victorians.



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