The cost of delivering health

7

- Health is the largest component of state government expenditure and accounted for 36% of Queensland Government expenditure in 2017–18.
- $35.7 billion from all funding sources was spent on health in Queensland in 2015–16, about one-fifth of national spending on health.
- Government (State and Commonwealth) spending accounted for two-thirds of health funding, out-of-pocket costs for individuals 15%, health insurance funds 8% and 7% from other sources.
- Nationally, health spending as a proportion of GDP reached 10.3% in 2015–16.
- Australia was ranked 13th highest of 34 OECD countries for total health spending in 2016, with the United States highest followed by Switzerland and Germany.
- Australia is among the top 20% of OECD countries that have achieved relatively high life expectancy for moderate cost.
- Total health expenditure is continuing to increase faster than GDP, but the relative increase year on year has slowed.
- Hospitals account for 41% of recurrent spending in Queensland, GP and specialist consultations 18%, pharmaceuticals 12% and public health 1.3%.
- Cardiovascular disease accounted for 11% of recurrent health spending nationally and was the largest contributor to the average annual increase over the past eight years.
- Costs for admissions for symptoms, infections and skin disorders have grown relatively quickly over the past eight years and accounted for 16% of the total dollar increase.
- More than half of total spending is for people in the age range 45 to 84 years and the greatest increase has been for those aged 50 to 74 years, although per capita health costs are highest for the oldest cohort (85 years and older).
- Per capita spending for Indigenous Queenslanders is more than double that for non-Indigenous, and is consistent with the relatively higher disease burden (2.2 times).
- Investment in prevention generates dividends both now and in the future. For every dollar invested in selected public health interventions in high income countries, there was a $14 yield.

Health system expenditure

A total of $35.7 billion from all sources, including federal and state governments, was spent on health in Queensland in 2015–16.[80] Expenditure in Queensland was 21.5% of Australian health expenditure ($170.4 billion), reasonably consistent with Queensland's population share (20.0% in December 2016).[9]

The Queensland Government spent $16.9 billion on health in 2017–18. It was the largest component of state government expenditure (36%) followed by education (20%).[81] In 2018–19, health is budgeted to cost $17.3 billion.

Per capita recurrent spending (all sources) in Queensland ($6900 per person) was similar to national spending in 2015–16 ($6671 per person) and fourth highest of the jurisdictions (Figure 9a).[80]

About one-third of all state government tax revenue is spent on health (31% in 2015–16). The Queensland proportion was second highest after ACT in the seven-year period since 2008.[80] Nationally, as a proportion of Australian Government tax revenue, health spending was steady at about 26% over this period.

National spending on health accounted for 10.3% of GDP in 2015–16, having increased from 8.7% a decade ago.[80] While national health expenditure grew at the rate of 5% per year in this period, GDP grew more slowly, 2.8% per year. Annual growth in health spending has fluctuated over the past decade with some slowing evident. The same is true for growth in GDP.

$35.7 billion

from all sources was **spent on health** in Queensland in 2015–16.

Who pays?

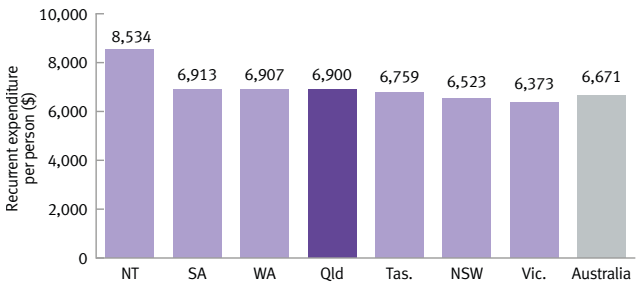
Government was responsible for two-thirds of health spending in 2015–16 in Queensland with the Australian Government accounting for 40% and the Queensland Government 29% (Table 15).[80] Health insurance funds were the source of 8%, individuals 15% and the remaining 7% was from other sources. The distribution of source funding was similar across all states and territories in Australia.

Table 15: Health expenditure, by source of funding, Queensland, 2015–16[80]

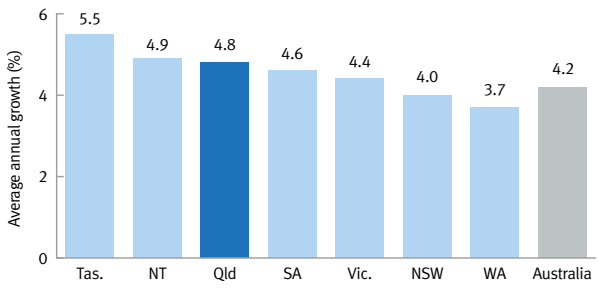
Source	$m	% of total
Government	24,658	69.1
Australian	*14,318*	40.1
State/territory and local	*10,340*	29.0
Non-government	11,015	30.9
Individuals	*5,410*	15.2
Health insurance funds	*2,988*	8.4
Other	*2,617*	7.3
Total	35,672	100

Figure 9: Per capita recurrent health expenditure, by jurisdiction[80]

a. 2015–16



b. Average annual growth, 2004–05 to 2015–16



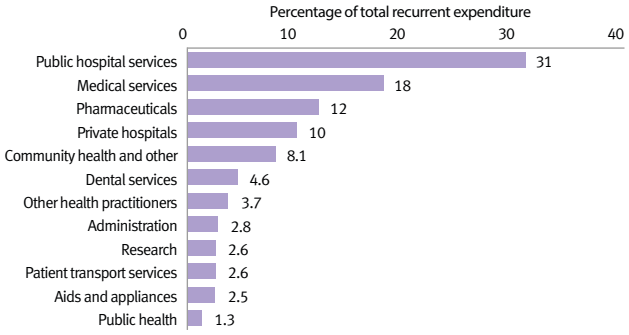
How was the health dollar spent?

More than 40% of recurrent spending in Queensland in 2015–16 was for hospital services, 31% for public hospitals and 10% for private hospitals (Figure 10).[80] GP and specialist consultations accounted for almost one-fifth (18%), with pharmaceuticals (benefit paid and other medications) 12%.

Dental services accounted for 4.6% of recurrent spending. This includes services provided by registered dental practitioners with services funded by health funds, state government and individual 'out of pocket' payments.

Public health spending (includes screening, immunisation, communicable disease control, environmental health, food standards and hygiene, selected health promotion programs, prevention of hazardous and harmful drug use and public health research) accounted for 1.3% of total recurrent expenditure in 2015–16 having peaked at 2.3% in 2007–08.

Figure 10: Recurrent spending on goods and services, Queensland, 2015–16[80]



Cost by disease group

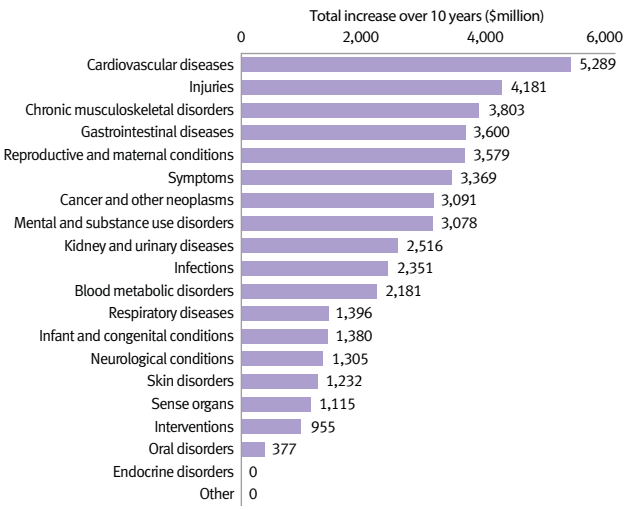
Nationally, cardiovascular disease was the leading cause of admitted patient expenditure in 2012–13 (11% of total), followed by injuries (9.0%), reproductive and maternal conditions (7.8%), gastrointestinal diseases (7.8%) and chronic musculoskeletal disorders (7.7%).[82]

When considering change in admitted patient expenditure, it is important to consider the absolute increase as well as the relative increase. Cardiovascular disease, injuries and chronic musculoskeletal conditions accounted for almost one-third of the total or absolute increase in admitted patient expenditure between 2004–05 and 2012–13 (Figure 11a). In contrast, expenditure for conditions which grew the most, that is, had the highest relative increase were admissions associated with symptoms, infections and skin disorders (Figure 11b). The size and growth of spending on chronic musculoskeletal conditions is noteworthy. Costs associated with admissions for these conditions increased by about 70% over the decade and were the third largest contributor to the absolute increase in this period.

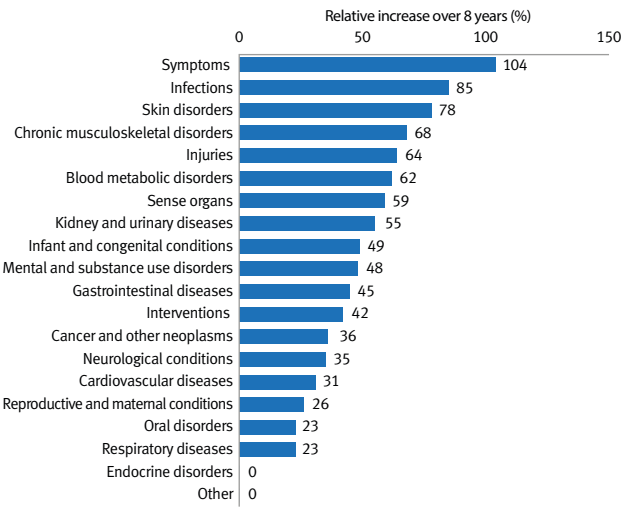
1.3% of **total recurrent health expenditure** was for public health services.

Figure 11: Change in admitted patient hospital expenditure by disease group, Australia, 2004–05 to 2012–13[82]

a. Absolute increase



b. Relative increase



Selected trends

- Total health expenditure increased by 69% in Queensland over the decade up to 2015–16, compared with 59% nationally, based on constant prices for this period:[80]
  - Recurrent spending increased by 39%, equivalent to a real increase of $194 per person per year
  - Queensland had the second highest increase in per capita recurrent expenditure among the jurisdictions after Tasmania (42%), while nationally it was 34%
  - Capital spending averaged 7.3% in the six-year period up to 2015–16 but varied from year to year. Overall, government was the source of two-thirds of capital expenditure in Queensland in this period
  - Admitted patient hospital expenditure increased by 49% in Queensland in the eight-year period up to 2011–12, compared with 46% nationally.[82] For spending on public hospitals alone this represented a real increase of $69 per person per year—nationally it was $72 per person per year.
- National health spending as a proportion of GDP increased by 18% over 10 years (from 8.7% in 2005–06 to 10.3% in 2015–16).
- Over the decade up to 2015–16, the contribution of individuals, state government and health insurance funds to total health expenditure increased by 79%, 78% and 77% respectively, while the increase in the contribution of the Australian Government was lower at 58%.
- One-eighth (12%) of the increase in expenditure nationally for admitted patient services between 2004–15 and 2012–13 was associated with cardiovascular disease, while admissions for symptoms have grown the most (doubled).

Per capita **recurrent spending on health increased by 39%** in Queensland in a decade, about

$190 more per person per year.

Spending over the life course

Per capita admitted patient spending increased with age, averaging $11,300 per Queenslander for those aged 85 years and older in 2012–13 (Figure 12a). However, more than half of admitted patient hospital expenditure was for people aged 45–84 years—less than 10% was for those aged 85 years and older (Figure 12b). Furthermore, the biggest increases in per capita spending (admitted patients) over the past eight years occurred in those aged 50–74 years.

Health costs in future

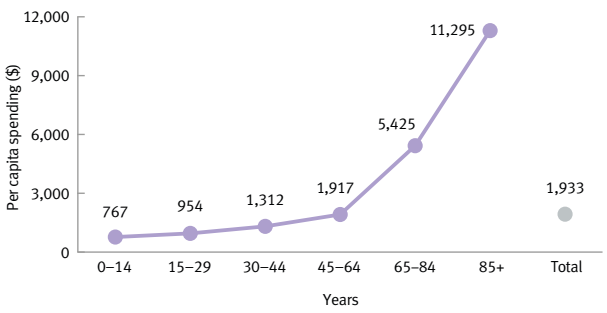
The most recent national forecasts in health expenditure were published in 2008.[83] At the time it was estimated that total health and residential aged care expenditure would almost triple between 2003 and 2033, with spending accounting for 12.4% of GDP in 2033 (9.3% in 2003). The 2033 forecast is likely to be an underestimate given that health spending alone in 2015–16 was 10.3%, about half way through the forecast period.

Demographic factors, that is, population growth and ageing were estimated to account for 44% of the projected increase nationally.[83] Treating people more often was, however, the biggest driver, accounting for 50% of total. Health price inflation had minimal impact (5% of the increase) while changing disease rates were estimated to reduce spending by 1.5%.

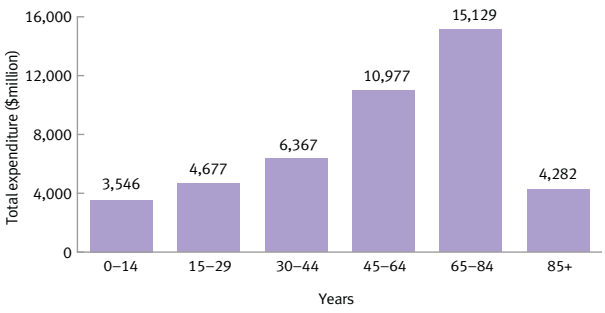
Based on the modelling[83], the disease groups projected to contribute most to overall health expenditure in the 30-year period were neurological conditions (mainly dementia), respiratory, cardiovascular, digestive and musculoskeletal conditions. Diabetes was projected to increase five-fold, although only accounting for 4% of the total increase.

Figure 12: Total hospital admitted patient expenditure, Australia, 2012–13[82]

a. Per capita (Queensland estimated from national)



b. By age group



Expenditure on health for Indigenous Queenslanders

In 2010–11, per capita health spending by state government for Indigenous Queenslanders was 2.2 times that for non-Indigenous Queenslanders ($4784 compared to $2141).[84] This recognises the relatively higher burden of disease for Indigenous Queenslanders (2.2 times in 2011).[25,26] Relative spending on health in Queensland for Indigenous people was fifth highest among the jurisdictions with Western Australia highest at 3.5 times.[84]

More than 90% of health funding for Indigenous Australians was by government, 45% by the Australian Government and 47% by state and territory governments in 2010–11.[84] Out-of-pocket payments by individuals, health insurance funds and other non-government sources accounted for 9% of total.

Genitourinary diseases (includes renal disease and dialysis) accounted for 11% of admitted patient expenditure for Indigenous Australians, mental and behavioural disorders was 11%, with unintentional injuries and maternal conditions accounting for 8% each.[85] These were also the leading causes of disease burden for Indigenous Australians in 2011.[26]

Rationale and economic benefits of prevention

Investment in prevention today generates health dividends tomorrow and into the future. There is an economic rationale for investing in prevention. Gathering evidence points to very high returns with gains evident in society at large and in the health system through reduced incidence and severity of disease. Not all benefits are measured—they are evident in better quality of life and wellbeing and the beneficiaries are Queensland families and communities.

There is broad scope for prevention as about one-third of the disease burden can be attributed to the combined effect of modifiable risk factors—these same risk factors account for about 15% of hospital admissions in Queensland.

Improvements in the health of Queenslanders over recent decades can in part be attributed to success in reducing risk factors such as smoking, high blood pressure and physical inactivity.[86]

- 90% of the decline in all-cause death rates over the past decade was associated with declining rates of lifestyle related chronic diseases such as coronary heart disease, stroke, lung and other cancers and chronic respiratory disease.
- Hospitalisation rates for lifestyle related chronic conditions are decreasing or steady and this is in marked contrast to increasing rates for most other causes.

Looking ahead, there is ongoing potential to reduce pressure in the health system:

- Healthcare costs peak across the middle to older years. These are also the peak age groups for total hospitalisations as the incidence of chronic diseases rises along with signs of bodily wear and tear. Increasing the period of good health, wellness and vitality has the potential to delay the onset of illness and infirmity and potentially compress it to a very short period before death. If this can be achieved, health system costs will be constrained.[61] In an ideal world, we live long healthy lives with health decline occurring at the point of death or very close to it. Promoting healthy lifestyles is essential to achieving this outcome. It cannot be achieved with improvements in treatment alone.
- Many of the larger causes of disease burden in Queensland have relatively high levels of preventability, for example, cardiovascular disease, type 2 diabetes, selected cancers, some chronic respiratory diseases.[25] The economic impact of this burden will be evident in the health sector, including primary healthcare as well as hospitals and allied services. It will also be evident in reduced productivity and will have flow-on effects for welfare and other support payments.
- Some of the largest causes of hospitalisation can be reduced or prevented:
  - Renal dialysis is the largest cause of hospital admission and while acknowledging the complexity of treatment, preventing its progression to this outcome through body weight reduction, healthier food choices and increased physical activity should be the goal
  - Preterm birth has a substantial impact on the incidence of hospitalisations for children, accounting for 1 in 4 patient days. Improvement is possible in the antenatal period by reducing maternal smoking and providing support for regular antenatal check-ups.
- Successful prevention could contribute to better use of health system resources. If the population were healthier, the need for services to treat chronically unwell people could be reduced, providing more resources for restorative services.
- Australia is carrying a relatively larger disability burden compared to other high income countries[25], which suggests that we need to invest more in growing a healthier population. In recent decades, substantial progress has been achieved in reducing early deaths and Australia has moved up the life expectancy rankings among similarly developed nations. We are lagging however, close to the bottom of the OECD ladder for disability burden. The consequence of high disability burden is that more treatment services are required and there will be other impacts on the economy and society. A sustained focus is needed in Australia to continue to reduce preventable diseases through

lifestyle and behavioural change, but also to prevent and manage chronic conditions which are the cause of the high disability burden. These include age related musculoskeletal and neurological conditions and also mental disorders. Furthermore, it will be critical that we make good health and wellbeing the goal for every Australian.

Public health interventions can be highly cost effective. A recent systematic review and analysis of existing public health interventions delivered in the United Kingdom, Western Europe, United States, Canada, Japan, Australia and New Zealand showed that for Australia, for every dollar invested there was a return of $14, in addition to the return of the original investment back to the wider health and social economy.[87]

The analysis considered a range of benefits and showed that the return on investment varied across type of intervention:

- Upstream interventions delivered on a broad scale generally achieved greater returns, particularly legislation (average return on investment of 46:1).
- Return was lower for healthcare public health interventions (median return on investment of 5:1)
- Health promotion interventions had the lowest return (median return on investment of 2:1).

The benefits of population-level public health expenditure accrue over the long term, unlike those of clinical treatments which have an immediate impact with less certain long-term impacts.

Reductions in common behavioural risk factors may provide substantial benefits to society. Simulation models for the Australian population showed that potential cost savings from reducing six behavioural risk factors including intimate partner violence, high risk alcohol consumption, poor diet, physical inactivity, tobacco smoking, high BMI was $8.9 billion in Australia—$3.5 billion in productivity gains and $5.3 billion in health sector savings.[88] This represents a potential cost savings of 2% of annual health expenditure in Australia.

Spending on health is an investment in people and the systems that sustain them. The Queensland Government has recognised the importance of improved wellbeing as a core priority of *My Health, Queensland's future: Advancing health 2026*. Sustained investment in prevention of ill health, particularly addressing the key risks of smoking, poor diet, inactivity, obesity and sun exposure will be essential to achieving the *Health and Wellbeing Strategic Framework* targets for 2026. Success in this area will help to constrain health system pressures.

Australia is in the

top 20%

of **OECD countries** for **long life expectancy** at moderate cost.

International comparisons

Australia was ranked 13th highest of 34 OECD countries for total health spending (per capita) as a proportion of GDP in 2016.[71] The United States was highest, followed by Switzerland and Germany. Considering only government spending, Germany was top spender followed by Sweden, Japan and Norway. Australia was 18th. Voluntary (that is, all non-government) spending on health as a proportion of GDP was highest in the United States and more than double that of any other country. Australia was ranked seventh.

Considering the relative ranking of health expenditure and life expectancy among OECD countries, Australia performs very well and is among the top 20% to achieve long life expectancy at moderate cost. This contrasts with the United States where moderate life expectancy is achieved at relatively greatest cost.

Data sources and methods: expenditure

In this chapter, national and state health expenditure data was primarily derived from the AIHW reports which are cited.

Expenditure data includes spending on:

- health goods such as medications, health aids and appliances
- health services such as hospital, dental and medical
- public health activities including immunisation and screening
- other activities that support health systems such as research and administration.

Capital consumption or depreciation is included as part of recurrent expenditure. Investment in new buildings is included as capital expenditure.

Data are reported in constant prices (adjusted for inflationary effects).

OECD comparisons are based on most recent online statistics release and cited.