key facts

Cardiovascular disease

Cardiovascular disease is a leading cause of disease and injury burden for Queenslanders. Despite significant reductions in cardiovascular death rates, almost 1 in 3 deaths, and 1 in 20 hospitalisations are due to cardiovascular disease. It also accounts for around one tenth of hospital spending.

Having cardiovascular disease has a major impact on quality of life and self-reported health. Those with a cardiovascular disease were four times more likely to report poor health than those without—higher than any other long-term condition including diabetes.

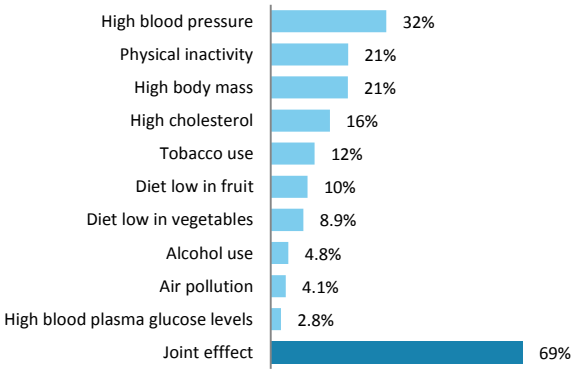
Encouragingly, much of cardiovascular disease is preventable—this means there is a large potential for continued gains. Recent reductions in cardiovascular death and hospitalisation rates can be accelerated through continued pressure on the modifiable risk factors.

This factsheet consolidates and builds upon the cardiovascular disease related content of *The health of Queenslanders 2016*.[1]

Burden of disease

- Cardiovascular disease caused 14% of the total disease and injury burden in Queensland in 2011. It followed cancer as the second leading cause of burden.[2]
- Coronary heart disease and stroke were the leading specific causes of cardiovascular burden accounting for 54% and 20% of cardiovascular burden respectively.
- Queensland had the second highest cardiovascular disease burden rate, after the Northern Territory.
- Driven by reductions in cardiovascular mortality, the total cardiovascular burden in Australia decreased by 9.5% between 2003 and 2011. After removing the effect of the change in population size and age distribution, there was a 30% decrease in cardiovascular burden rate.
- Indigenous Queenslanders experienced cardiovascular disease burden at a rate 2.4 times that of non-Indigenous Queenslanders.
- Over two-thirds of Australia's cardiovascular disease burden was attributed to the joint effect of ten modifiable risk factors with high blood pressure the leading cause (Figure 1).

Figure 1: CVD burden due to selected risk factors, Australia 2011



Lifetime health

Health and wellbeing

- In 2011–12, adults with a heart condition were 4 times more likely to report poor health than those without such a condition. This was higher than adults with other long term conditions including diabetes, mental and behavioural disorders, arthritis, back pain, deafness or asthma. [3]

Developing disease

- In 2014, the Queensland incidence rate of acute coronary events (heart attacks) was 20% higher than the national rate, and was second highest among the jurisdictions after the Northern Territory.[4]
- The incidence rate of heart attacks in Queensland decreased by 32% between 2007 and 2014.
- Based on a self-reported survey in 2014–15, the prevalence of hypertension was 1 in 10, and of a heart, stroke or vascular condition was 1 in 20. [5]
- The lifetime risk of developing cardiovascular disease was about 1 in 3 for males and 1 in 5 for females.
- Lifetime risk of cardiovascular disease is increased by 92% among men with diabetes, by 47% among men with high blood pressure and by 19% in obese men.[6] However, for men with none of the above risk

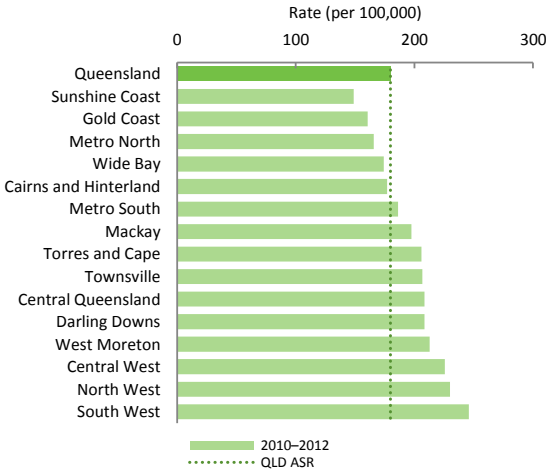
factors, the likelihood of developing a cardiovascular disease is reduced by up to 85%.

- For women, having diabetes increases the lifetime risk of cardiovascular disease threefold; high blood pressure increases the risk by 50%, while obesity has little impact. Being free of the known cardiovascular risk factors reduces by half the likelihood of disease development.
- After adjustment for other co-morbidities, the risk of a cardiovascular event was 31% higher for those with depressive symptoms.[7] However, this risk was attenuated after adjusting for physical activity and other lifestyle factors.

Death and dying

- Cardiovascular diseases caused 8,330 deaths in 2014—29% of total deaths in Queensland. [8]
- The number of cancer deaths exceeded those due to cardiovascular disease for the first time in 2013, reflecting the substantial gains that have been achieved in preventing and treating cardiovascular diseases over past decades.
- Compared to national rates, the Queensland cardiovascular death rate was 5% higher 2014: [8]
  - Coronary heart disease death rate was 9% higher
  - Stroke death rate was 8% higher.
- Coronary heart disease and stroke were the most common specific causes of cardiovascular disease death responsible for 3,912 and 2,042 deaths respectively in 2014.

Figure 2: CVD death rates by HHS, 2010–12



- Death rates for cardiovascular disease varied by about 65% between HHSs in 2010–2012. The highest age adjusted rates were in South West and lowest in Sunshine Coast (Figure 2).

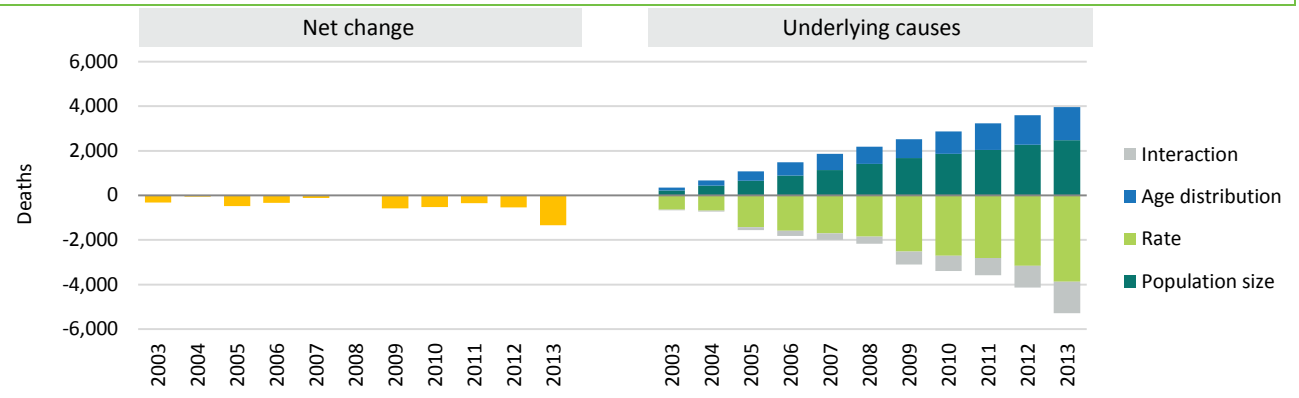
Early death

- Around 1 in 5 premature deaths (aged less than 75 years) were due to cardiovascular diseases in 2012.
- The risk of a Queensland male dying from cardiovascular disease before the age of 75 years was 7% increasing to 19% by age 85 years (2007–2011).[9] For females, the risk of dying before 75 years was 4%, rising to 15% by age 85 years. The annual risk of death has decreased in the past decade, from one cardiovascular disease death for every 400 people in 2002 to one per 500 people in 2011.

Trends

- Substantial gains have been achieved in cardiovascular disease with death rate decline evident across the state (by 34% from 2002 to 2012) and in the majority of the HHSs (by about 20% to 40%). Although North West HHS has high rates, there has been a strong downward trend over the past 10 years. Sunshine Coast also achieved a strong decline.
- There was a 40% reduction in the cardiovascular disease death rate for Indigenous Queenslanders from 2002 to 2011. This was greater than the rate decline for the non-Indigenous population (28%).
- Despite a growing and ageing population, there were 1,334 fewer cardiovascular related deaths in 2013, compared to 2002 (Figure 3).

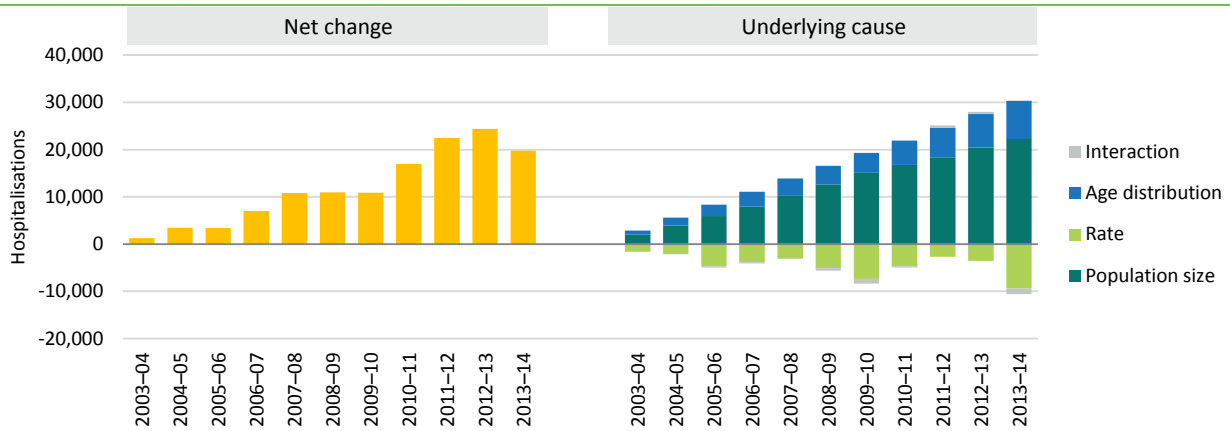
Figure 3: Impact of demographic and epidemiologic factors on change in number of CVD deaths compared to 2002



Hospitalisations

- 1 in 20 (5.0%) hospitalisations and 1 in 13 (7.9%) patient days were due to cardiovascular diseases in 2013–14.
- 28% of cardiovascular disease hospitalisations of Queensland residents in 2013–14 were attributable to high blood pressure, 25% to high body mass index, and 13% to tobacco use.
- Driven primarily by population growth, the number of cardiovascular disease hospitalisations increased 24% between 2002–03 and 2013–14 (Figure 4).
- After removing the effect of aging and population growth, the rate of cardiovascular disease hospitalisation decreased by 6% between 2002–03 and 2013–14.

Figure 4: Impact of demographic and epidemiologic changes on the number of CVD hospitalisations compared to 2002–03



Cost of delivering services

- Cardiovascular disease was the leading cause of admitted patient hospital spending in Queensland and nationally
- More than one-tenth of hospital spending in Queensland, and nationally, was for cardiovascular disease (11% in 2012–13).
- In 2008–09, one-tenth of total national health spending was for cardiovascular disease.[10] It was the second largest cause of admitted patient expenditure, the third largest for out-of-hospital medical services and the largest cause of spending on prescription pharmaceuticals.
- Of the total health expenditure associated with cardiovascular disease, costs associated with admitted patient hospitalisations were the largest component (58%), followed by prescription pharmaceuticals (22%), and out of hospital medical expenses (20%).
- Cardiovascular disease expenditure was projected to increase by 2.4 times between 2002–03 and 2032–33, and be responsible for 8.2 percent of the overall $161 million increase.[11] This is lower than the projected relative increase for all causes (2.9 times).
- 12% of the cost of admitted patient services in Queensland in 2012–13 was due to cardiovascular disease

Risk and protective factors

Smoking

- Of the 33,973 hospitalisations due to smoking in 2013–14, 41% were for cardiovascular disease.

BMI

- Of the 83,500 hospitalisations attributable to high body mass, 33% of were for cardiovascular disease.

Alcohol

- Of the 36,779 hospitalisations attributable to alcohol, 7.6% were for cardiovascular diseases.
- The cardiovascular effects of risky alcohol use increase with age, and are the major outcome of risky alcohol consumption in older age groups.

Food and nutrition

- Cardiovascular disease was the main disease outcome arising from the burden of poor diet (35%), followed by endocrine disease (33%) and cancers (7%).
  - A diet low in fruit contributed to coronary heart disease (47% of attributable DALYs), stroke (29%), lung cancer (14%) and the remaining 11% was for cancers of the oesophagus, mouth and larynx.[2]
  - The burden due to a diet low in vegetables was associated with coronary heart disease (55%) and stroke (38%) and cancers of the mouth and larynx (7%).
- 86% of the 6,904 hospitalisations due to low fruit consumption, and 91% of the 5,581 hospitalisations due to low vegetable consumption, were for cardiovascular diseases.

Physical activity

- There have been some improvements in the prevalence of regular physical activity over the last decade and this has had a positive effect on the health of Queenslanders by contributing to a decrease in the burden of cardiovascular disease.
- In 2013–14, there were about 20,000 hospitalisations in Queensland due to physical inactivity, involving about 77,000 patient days–1% of the 2 million hospitalisations in Queensland in that year.[12] Of these hospitalisations, 70% were for coronary heart disease and stroke, 17% were for breast and colorectal cancer and 13% for diabetes.

Blood pressure and cholesterol

- In 2013–14 there were about 32,000 hospitalisations due to high blood pressure in Queensland, 1.6% of the 2 million hospitalisations for all causes in that year.[12] Of these, over 80% were for coronary heart disease and stroke.
- For high cholesterol there were about 11,000 hospitalisations (0.5% of total), entirely associated with coronary heart disease and stroke.[12]
- In 2014–15, 23% of Queensland adults had high blood pressure[5], and 31% of had high total cholesterol.[13] This excludes those who were taking medication that effectively controlled the condition.

For more information:
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