



The health of Queenslanders 2014

Fifth report of the Chief Health Officer Queensland



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Fifth report of the Chief Health Officer Queensland
Published by Queensland Health November 2014.
ISSN: 1837-865X [online: 1837-8668]



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Suggested citation: Queensland Health. *The health of Queenslanders 2014. Fifth report of the Chief Health Officer Queensland*. Queensland Government. Brisbane 2014.

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About this report

This is the fifth report from Queensland's Chief Health Officer. The series *The health of Queenslanders* began in 2006 and is released every two years to report on the health status and burden of disease of the Queensland population.

Data and terminology

The most recent data is included in this report. Data sources are cited and statistical methods summarised on page 173 with definitions and abbreviations on page 174. Unless otherwise indicated, all data refers to the total population of Queensland. All rates for deaths, hospitalisations, cancer incidence and burden of disease are age standardised (reference population: Australia 2001). Disease prevalence, notifications, risk and protective factor prevalence are not age standardised, although for comparative purposes, age standardised rates are used where available.

Aboriginal and Torres Strait Islander peoples: These populations are referred to as Indigenous Queenslanders or Indigenous Australians throughout this report.

Burden: a frequently used term with two meanings, usually evident from the context:

- technical use — burden of disease analyses using the disability adjusted life year (DALY)
- general use — for example, health burden or disease burden or relative burden.

Hospital and Health Services (HHSs): 16 geographically defined HHSs and one specialist population based HHS (Children's Health Queensland) were established in July 2012. Subsequently, in July 2014 the separate entities of Torres Strait–Northern Peninsula HHS and Cape York, were amalgamated. This report is based on the 16 original geographically defined HHSs.

Median age of death: This metric is more widely used in the 2014 report than in previous reports. The median age of death within sociodemographic populations and HHSs is reported. It is a metric subject to limitations—the age distribution and size of the population in a selected area may influence the median age of death, and its comparability with other areas. Unusual and unexpected events such as a bus accident may result in a larger than average number of deaths and this would have a greater impact on estimates from areas with smaller populations than others. In this report, median age of death is based on year of death to ensure comparability with Indigenous Queensland death statistics and aggregated years are reported to minimise year-to-year variability.

Premature death: a term used in two contexts:

- a category in burden of disease analyses — this refers to years of life lost (YLL).
- deaths that occur before the age of 75 years — a term consistently used in chapters 3 and 5.

Significance: Within this report, the term significant is used to reflect a level of importance as well as the statistical difference. However, the reporting of difference between categories is only noted when the difference is statistically significant (based on non-overlap of 95% confidence intervals).

Acknowledgements

Advisory group: Jeannette Young (Chair), Sonya Bennett, Michael Cleary, Mary Corbett, Sandra Daniels, Liz Drake, Rachelle Foreman (Heart Foundation Queensland), Catherine Harper, Mike Horan, Jacqui Heywood, Trisha Johnston, Catherine Katz, Bron Nardi, Kay Pearse, Kaye Pulsford, Tony Russell (Queensland Clinical Senate), Cathie Schnitzerling, Michelle Trute (Diabetes Australia-Queensland), Dorothy Vincenzino, and Paul Woodhouse.

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From the Chief Health Officer

This is my fifth report on the health of Queenslanders and it comes at a time when we, as a state, stand at the cross-roads of choosing change or potentially losing the battle with our greatest health challenge.

I'm talking about obesity—arguably the most confronting public health issue of this century. A global pandemic of a different kind: the by-product of prosperous times, technological advances, convenience and poor lifestyle choices.

While there are many factors as to why people become overweight or obese, including the environment we live in overwhelmingly the evidence points to Queenslanders eating too much of the wrong food and moving too little. However, the simplicity of this statement belies the gravity of the situation.

The evidence is clear that obesity is fuelling the prevalence of other chronic diseases, some of which can't be turned back. Conditions like stroke, hypertension, heart attack, some cancers and a rapid escalation of type 2 diabetes.

In truth, Queenslanders have a much distorted view of their weight, particularly as big, bigger and huge is now our norm.

Tellingly, you would be hard pressed to find a Queenslanders who doesn't have someone in their family, or someone they know, if not themselves, who is overweight or obese. It's not surprising, when you consider Queensland now has the sad mantle of being the 'heaviest' state, spending about 42 cents in the dollar on eating food outside the home. The cost factor aside, takeaway food and eating out often means bigger portions and more calorie dense foods, high in fat and sugar.

On current trends, about three million Queenslanders will be overweight or obese by 2020.

Frankly, the situation has surpassed being a crisis. It's devastating. Whether you look at this public health dilemma from a global perspective, a national one or even at the state level, it's bleak.

Australia's obesity rates have skyrocketed in the past 20 to 30 years with the OECD now placing Australia in the top five most obese developed nations. Just as disturbing, Queensland's obesity rates are now approaching those of the US.



“...obesity—arguably the most confronting public health issue of this century.”

Already there are Queensland hospitals equipped with beds to hold patients weighing 250kg, as opposed to the 150kg maximum capacity beds of the past. Our student doctors and nurses are being trained on the world's largest bariatric dummies to get them used to working on larger patients of ever increasing dimensions. Bigger ambulances are being built and equipment, like hoists and blood pressure cuffs, are also being super-sized.

Obesity is one of the key contributors to Queensland's rising rates of type 2 diabetes. Every day, about 50 Queenslanders are diagnosed with this insidious disease for which there is no cure.

Type 2 diabetes has traditionally been regarded as an adult condition, but more children are now being diagnosed, putting them at earlier risk of serious complications. In the US, where the increase in adolescent type 2 cases is of particular concern, sedentary lifestyles and poor food choices, including too much junk food, are blamed as major factors.

“...within the pages of this report lies the evidence to generate momentum for much-needed change...”

Therefore, we must act now. However, to succeed the fight can't be for health professionals alone, or just left to governments for that matter. Everyone—absolutely everyone—has a role to play. We need conscripts from every corner of the community. Decision-makers, politicians, governments of all levels, planners, food producers, retailers, transporters, builders, businesses, social commentators and educators—all have a stake. We can't be passive.

I believe that within the pages of this report lies the evidence to generate momentum for much-needed change and evidence to affirm why obesity can't be an issue lost in the 6pm news cycle.

And while the current situation might be bleak, I don't believe for a minute that it can't be won if we're all committed to a shared goal. Take heart from the good things already happening here and elsewhere in the world. Take for example, the emergence of activity-based workplaces as more and more employers understand the importance of stepping up to ensure staff move throughout the day to counter increasingly sedentary lifestyles. This means moving not just before or after work, as highlighted by the Australian Medical Association in its policy statement released in June this year.

We're seeing great initiatives through workplace wellness programs (exercise breaks, staff gyms) and structural change (non-designated work stations, standing desks and even under-desk elliptical exercise devices). It's also encouraging that many workplaces have replaced 'junk food' vending machines with healthier choices like fruit bowls and better equipped staff kitchens.

The sky really is the limit when it comes to workplace change and commitment on both sides—employers and employees. This is why I'm delighted that the Queensland Government has moved to fund the continuation of the healthy workplace program, established under the Australian Government's national partnership agreement.

With every problem there is opportunity, and tackling obesity should be no different. It may manifest in fresh thinking and new ways of doing things. New ideas, better urban design and supportive communities, food reformulation, social marketing and education, smart policy and legislation around issues like improved food labelling and junk food, underpinned by individual behaviour change might just be among some of the ways we overcome this epidemic. And it begins with communities, industry and the health sector working hand-in-hand. Ultimately, this could influence how we think, eat, work and play. But there can be no room for deterrents, such as a GST on fresh fruit and vegetables or any other measure that could undermine progress.

While obesity is a key plank to this report it is obviously not the whole report, so it would be a shame for it to overshadow Queensland's health achievements. I'm pleased to say there has been steady progress in many quarters and, as a result, more Queenslanders are enjoying better health.

“...there has been steady progress in many quarters and, as a result, more Queenslanders are enjoying better health...”

Most noticeably, smoking rates have continued to fall with the rate of decline similar for both men and women. Teenagers and young men, aged 18–29, have led the way and given hope that this will result in fewer young people taking up the smoking habit in the future.

It's estimated, however, that there are still about 500,000 adult smokers in Queensland and that's 500,000 too many. We've had great wins with those wanting to quit, the 'contemplators' and those who just needed a nudge, but the real challenge will lie in getting those hard-core smokers to quit once and for all—not just for themselves and their families, but for the community's benefit as well.

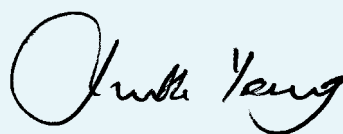
After all, one in 10 people who die from smoking-related diseases never smoked themselves.

Universally, there is a groundswell of anti-smoking support. However, as success can sometimes create a false sense of security, it is important we don't think the battle is over or we could lose the gains we've made. That's why the emergence of products like electronic cigarettes and personal vaporising devices that mimic smoking (need to be addressed) pose such a threat. We can't let these or anything else normalise smoking again or we risk creating a new market of nicotine users.

Immunisation is definitely a Queensland success story. Queensland continues to have higher rates than nationally, and, at 92 per cent, I believe we are on track to meet the end goal of 95 per cent. To help achieve this, the Queensland Government is creating a \$3 million incentive scheme for the Hospital and Health Services (HHSs). Incentive programs are traditionally the ambit of primary care initiatives, so to have two state-funded incentive schemes focussing on prevention is a move in the right direction. As a longer life expectancy doesn't necessarily equate to a gain in healthy years, prevention is definitely the key to our future.

It is also worth noting a small but very welcome change in the state's alcohol consumption rates. While Queenslanders still drink more than the national average, it is young men, once again in the 18–29 age bracket, who have made a difference by achieving an encouraging decline in 'risky' drinking levels. Small steps but ones with big potential.

Finally, this is the first time in this series of reports that I have included an analysis of the population health status within individual HHSs. It's a good move. Not only does it support transparency and increased accountability, it gives HHSs real insight to the challenges and opportunities within their catchments. Importantly, the data provides a solid evidence base from which to identify priorities, inform decision-making and guide best use of funds and resources.



Dr Jeannette Young
Chief Health Officer, Queensland

November 2014

At a glance

This fifth report of the Chief Health Officer Queensland captures a broad range of information at state and regional level about the health status of the population. Its purpose is to identify key causes of health burden, how these are changing and where health can be improved.

Good health and wellbeing is fundamental to a prosperous state, thriving communities and for Queenslanders to reach their full potential. Most, but not all, are healthy by national and international standards.

Reducing preventable diseases and improving health behaviours will advance health, and decrease health disparity across the state.



We are making progress:

- life expectancy increase
- death rates for many causes decrease
- Indigenous death rates decrease
- smoking rates decrease
- physical activity increase.

Challenges ahead:

- diseases of ageing increase
- hospitalisation rates increase
- impact of rising obesity on diabetes and heart disease burden
- large regional health disparities
- socioeconomic health inequalities continue.

We are a healthy state:

- outliving much of the world—of 187 countries, Queensland ranked among top 10
- living longer—a gain of about two years in the past decade
- death rates going down—14% decrease in a decade, and a larger decline in premature deaths
- smoking less, breathing easier—over a decade, smoking decreased by 26% and male death rates for chronic obstructive pulmonary disease (COPD) and lung cancer decreased by about 20%
- very good health outcomes for some—median age of death of 81 years in four HHSs.

But not in every way:

- diabetes increasing—prevalence increased by 25% over the past 12 years
- gaining weight—average adult Queenslanders gained about 3kg in a decade and obesity rates increased 2.5 times over two decades—by measurement 28% of children are overweight or obese and 65% of adults
- dementia rising—the number of cases likely to increase more than fivefold by 2050
- young minds troubled—anxiety and depression a leading cause of disease burden, with suicide the leading cause of death in young people
- poor diet choices—more than one-third of daily energy intake derived from energy-dense, nutrient-poor foods such as sugary drinks, snack foods and confectionery.

And not every person is healthy:

- death by disadvantage—about 2500 premature deaths associated with socioeconomic disadvantage
- high Indigenous Queenslanders death rates—about 60% higher than the non-Indigenous rate
- smoking during pregnancy—15% smoked at some time and about 40–50% of teenagers and Indigenous Queenslanders women doing so
- wide disparity in outcomes—21-year difference in median age of death across HHSs.

We can do better:

- risk factors impact on total burden of ill health—joint effects of modifiable risks about one-third of total disease burden and 43% of premature deaths
- high risk of cardiovascular disease—some risk for more than two-thirds of adults and high risk for 14%
- silent disease risk—untreated high cholesterol in 50% of adults and inadequate treatment for 8%, untreated high blood pressure for 13% and inadequate treatment for 6%, 20% of diabetes cases undiagnosed and 54% inadequately treated.

We are spending more and doing more:

- increased spending on healthcare—4.1% per year increase in recurrent expenditure per person over the past decade
- escalating hospitalisation rates—about 66,000 more hospitalisations each year
- increased spending on general practitioner (GP) services and number of visits—34% increase in primary healthcare spending nationally in past five years.

Looking ahead:

- more people, greater demand for services—average population increase of 90,000 persons per year over a decade with marked increase in the proportion of older people
- economic pressure to meet healthcare needs with greater demand for hospital and aged care—higher level of disability due to diseases of ageing
- increasing number of people living with cancer as a result of improved survival and more cases due to population ageing and growth
- increasing obesity driving up diabetes rates—leading to increased incidence of cardiovascular disease, adding to health system pressures and with potential to constrain life expectancy gains
- pressure on productivity—attributable to lifestyle diseases and risk factor burden, specifically increasing prevalence of obesity.

The health of Queenslanders 2014

The health of Queenslanders continues to improve, and compares well nationally and internationally. However, as in many developed countries, the burden of disease in Queensland is shifting towards greater disability and away from early death. In addition to an ageing population, the drivers for a longer, but not necessarily healthier life are:

- increases in chronic diseases
- shifts towards disabling conditions and away from fatal causes
- changes in risk factors, particularly the influence of obesity.

Queenslanders, similar to other Australians have one of the longest life expectancies in the world. In 2012, life expectancy for Queensland males was 79.5 years and 84.0 years for females, an increase of 2.3 years and 1.6 years respectively over the previous decade. In 2010, compared to 186 other countries, Australia was among the top five performing countries across many of the major health conditions.⁸ Among OECD countries, Australia has risen in ranking, moving from eleventh highest life expectancy in 1990 to fourth highest in 2010—and for health adjusted life expectancy from ninth to fifth highest. Australia out-performed many countries including the United States (US), United Kingdom (UK), Canada, New Zealand and the Scandinavian countries.^{9,10}

Improved health outcomes in Queensland showcase the strong performance of Australia:

- Death rates are declining for major causes—by 39% over a decade for coronary heart disease, 30% for stroke and 7% for all cancers.
- More people are surviving cancer—now 7 in 10 people diagnosed with cancer survive for at least five years after diagnosis, while 20 years ago about 5 in 10 survived five years.
- There has been significant progress in healthy lifestyles among young people—melanoma incidence rates are declining among 15–29 year olds due to improved risk awareness and childhood sun protection, smoking rates among teenagers and younger adult males have decreased more than for any other age group, and in recent years the riskiest alcohol consumption has markedly declined among 18–29 year olds but not among older people.

While there have been gains in life expectancy, about half the two-year gain in the past decade was spent in poor health, principally due to chronic diseases. Chronic disease (non-communicable disease), caused about 80% of deaths, hospitalisations and allocated expenditure. Ongoing improvements in health and wellbeing, and life expectancy gains depend on investment in the prevention of chronic disease.¹¹ Furthermore, there are substantial disparities in Queensland—socioeconomic disadvantage has the greatest impact on poor health outcomes, and in 2009–2010 resulted in an excess 2500 premature deaths per year. Life expectancy of Indigenous Queenslanders was about 10 years less than for non-Indigenous people and median age of death 23 years earlier.

Obesity, now considered a global pandemic, is rising steeply in Queensland. This state had the highest rate of adult obesity in Australia, and over the past five years increased at double the national rate with 1 in 3 adults measured obese and another 1 in 3 overweight. For children, rates have plateaued nationally, however, 28% of Queensland children were overweight or obese in 2011–12. The number of overweight or obese Queenslanders is projected to increase from about 2.5 million in 2014 to 3 million in 2020 based on measured estimates. Obesity is leading to significant consequences for the health of affected individuals, an increasing burden on health services and social supports, and potentially constraining economic productivity. It is a major risk factor for diabetes, cardiovascular disease and some cancers. It reduces quality of life and life expectancy. Rising levels of obesity in Queensland are part of the global challenge, and over the past 33 years there have been no national success stories.¹²

The health status and risk factor profile for the population of each HHS is included in this report series for the first time. This analysis shows that among the HHSs there are:

- very divergent outcomes with high rates of death evident
- substantially large gaps in median age of death—21-year difference
- high variability in hospital rates and burden
- many opportunities to reduce the hospital burden by addressing preventable conditions including those that could have been treated in a primary healthcare setting
- HHSs with greater risk factor burden which will increase the likelihood of disease development, disability and early death.

What does the future hold?

A healthy economic future for Queensland will be shaped by the health and wellbeing of the population.¹¹ Looking ahead, the demographic factors of population growth and ageing will be dominant influences on future health system pressures in Queensland and nationally. The current population of 4.7 million is projected to be 7.1 million by 2036, with a 50% increase in the percentage aged 65 years and older and a doubling of those 85 years and older. There are escalating pressures on the economy as the proportion of workers to support an ageing population diminishes, and there is increasing demand in all major categories of health service delivery and spending due to the rising number of older people.¹³

People are living longer, but living longer with disease. The major causes of the loss in healthy life in Australia are cardiovascular disease, cancers and diabetes. Diabetes is the main driver of the projected expansion in morbidity, a consequence of increasing levels of obesity.¹⁴ A number of degenerative conditions will contribute to economic pressures within the health system and associated services. These include dementia, Parkinson's disease and arthritis. Although people with illnesses are living longer, Queenslanders value quality of life and wellbeing at every stage including that period that precedes death.^{15,16}

Health spending, as a proportion of GDP, is projected to almost double in the 40-year period up to 2049–50. In 2011–12, it cost about \$6200 per person (\$5916 in recurrent expenditure) to provide healthcare services to Queenslanders and over the previous decade there had been a 4.1% per year increase in recurrent spending per person.¹⁷ Reducing the level of illness across the life course, including among older people, is an important strategy for reducing future economic and health burden. The major causes of loss of healthy life are also the causes that are more expensive to treat and have the most potential for prevention—cardiovascular disease and diabetes in particular. Diabetes expenditure—the largest single cause of anticipated proportional expenditure increase—is projected to increase fivefold over the 30 years to 2032–33.¹⁸ It has already increased by 86% in the eight years up to 2010, and hospitalisation expenditure has more than doubled.

Preventing disease and addressing risk factors in the population has dual benefits. It will reduce the burden of ill health both now and in the future. It will also improve wellbeing and reduce the incidence of chronic disease, providing economic benefits through savings in the health system and improved productivity:

- Promoting healthy lifestyles will improve the health and wellbeing of the population. Queensland adults with the least number of risk factors report the highest levels of quality of life and satisfaction with their health. In 2012, with each additional chronic disease risk factor a person carried, there was a 70% reduction in quality of life, self rated health and satisfaction with health, irrespective of sociodemographic variables.¹⁹
- Reducing the prevalence of risk factors is achievable, and will deliver significant health improvements. One-third (31%) of burden in Queensland and 43% of premature deaths are associated with 13 modifiable risk factors. Cardiovascular disease, as the largest cause of death and the most expensive to treat, is important to prevent. Gains will come from a renewed focus on treating and preventing high blood pressure, high cholesterol, high blood glucose, obesity, smoking and physical inactivity.
- Reducing the incidence of disease has the potential to lower health system costs and improve productivity. Productivity losses from obesity comprise 44% of the \$8.3 billion in financial costs nationally.²⁰ For heart attacks and chest pain, productivity losses are 50% higher than the \$4.3 billion healthcare system costs.²¹ The recent slowing of the decline in deaths due to coronary heart disease in younger age groups in Queensland and nationally, is likely to jeopardise future gains in healthcare cost reduction and productivity improvement.²²

The Queensland Plan: Queenslanders' 30-year vision is a long-term vision for the state.¹⁶ In 2013, the people of Queensland contributed to this plan. Preventing disease and reducing lifestyle related diseases were widely embraced by Queenslanders. Their vision was to lead an active and healthy life which included children building healthy habits and adults taking more responsibility for their health and wellbeing. What matters to them is a health system that supports those most in need, and specifically results in better outcomes for Indigenous Queenslanders. They seek to balance investments in prevention and treatment. *The Queensland Plan* includes targets and measures of success for health as well as other foundation areas.

Summary

Health outcomes

Of the 26,922 deaths of Queenslanders in 2010, 1 in 3 was premature, that is, occurring before the age of 75 years, representing 46% of male deaths and 30% of female deaths. At least three-quarters of all premature deaths were due to cancer, cardiovascular disease and injuries in 2010. Queensland public and private hospitals recorded 1.9 million hospitalisations in 2011–12 with hospitalisations projected to more than double to 4.13 million in 2031–32, the largest projected increase being for renal dialysis. Information in this section is derived from the relevant chapters of the report where sources are cited.

Avoidable deaths and potentially preventable hospitalisations

- The rate of avoidable deaths has decreased by 22% in 10 years, yet still one-quarter of all deaths (7048), were avoidable in 2010. The avoidable death rate in Queensland was 7% higher than national, leading to about 400 excess deaths. Avoidable deaths are either preventable or treatable. The decrease in the treatable death rate was about 50% greater than the preventable rate decrease. Preventable death rates showed the greatest difference across population groups in the state. Rates in disadvantaged areas were about double those in advantaged areas. Treatable and preventable death rates varied markedly across HHSs, from twice the state rate to 20% lower.
- At 7.6% of all hospitalisations, the rate of potentially preventable hospitalisations in Queensland was similar to national. Diabetes complications were the largest specific cause. The rate was 69% higher in the most disadvantaged areas, where socioeconomic disadvantage represented about 29,000 excess hospitalisations per year. Rates for HHSs varied from more than twice the state rate to about 20% lower. This equates to about 1800 excess hospitalisations across the three HHSs with the highest rates and about 7600 fewer across the four with the lowest rates.

Cancer

- Over their lifetime, 1 in 2 males and 1 in 3 females will be diagnosed with cancer. Population growth and ageing are driving the 37% increase in the number of new cases diagnosed over the decade. Cancer was the second most

common cause of death, after cardiovascular disease, the cause of 1 in 3 of all deaths, and the largest cause of premature death (42%).

- Death rates for most cancers are declining. The five-year relative survival rate for all cancers increased 27% over two decades, with higher gains in prostate cancer and lower gains in lung cancer.
- One-third of the total burden of cancer was due to preventable risk factors where tobacco, physical inactivity, high body mass and alcohol consumption were the largest causes. The incidence and burden of cancer can be reduced with improved lifestyles and further participation in the population screening programs for breast, cervical and bowel cancers.

Cardiovascular disease

- Cardiovascular disease plays a key role in longevity and health inequalities across the state. It is the largest cause of death and health system expenditure, and a leading cause of disease burden. Of the 8602 deaths in 2010, 1 in 4 was premature. People died of cardiovascular disease about 15–20 years earlier in parts of north Queensland compared to the south-east.
- Coronary heart disease death rate was 9% higher than national, causing 350 excess deaths in Queensland. Stroke rate was 8% higher causing 150 excess deaths. Six HHSs had excess coronary heart disease death rates and three had lower rates than the state. If all rates were as low as the HHS with the lowest rate, there would have been about 1100 fewer deaths. The rate of premature death due to coronary heart disease for males was 3 times the female rate, and in disadvantaged areas it was double the rate for advantaged areas.
- Cardiovascular disease death rate decreased by 65% over 25 years, leading to substantial gains in life expectancy. Of concern, the decline has slowed in age groups up to 55 years. However, ongoing decline is predicted, and is projected to offset expenditure increases by 20%. Gains are achievable as over 80% of coronary heart disease burden and about 70% of stroke burden are due to modifiable factors. For the gains to be realised, the prevalence of diabetes, obesity, dyslipidaemia and hypertension must be reduced and effectively treated.

Males



3 in 10 of all deaths could have been avoided:

1 in 10 through treatment	2 in 10 through prevention
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Females



2 in 10 of all deaths could have been avoided:

1 in 10 through treatment	1 in 10 through prevention
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Diabetes

- About 1 in 12 adult Queenslanders has diabetes, with one undiagnosed case for every four diagnosed cases. Of those with diabetes, 54% were inadequately treated. Since 2000, about 17,000 new adult cases have been diagnosed each year. Two-thirds of the burden of type 2 diabetes was due to excess weight and physical inactivity. The incidence rate of type 1 diabetes for Australian children has not changed since 2004.
- The diabetes death rate was double in disadvantaged areas and 5% higher than national. Indigenous Queenslanders had 5.9 times the average Queensland death rate. The average age of hospitalisation varied across HHSs by about 15 years.

Mental health

- Mental health disorders are a leading cause of disability burden. In 2007, based on a clinical diagnostic survey tool, about 1 in 2 Queenslanders aged 18–65 years reported a mental health disorder at some time in their life and about 1 in 5 did so in the previous 12 months.
- About 1 in 7 Queenslanders self reported a long-term mental health problem, while about 1 in 8 adults reported recent psychological distress.
- Adults in disadvantaged areas were about 80% more likely to report poorer health, as were obese adults, smokers, those who were insufficiently active and the sedentary. Those with the least number of risk factors reported the highest levels of quality of life, wellbeing and satisfaction with health.

Injury

- Falls related injuries are common among people aged 65 years and older, with the number of deaths in this age group increasing by 46% in nine years and hospitalisations increasing by 87% due to the ageing population. Females are particularly vulnerable, accounting for 6 in 10 falls related deaths and 7 in 10 hospitalisations.
- Road transport injuries are much higher for males, accounting for about 8 in 10 road transport injury deaths and 6 in 10 hospitalisations. Rates of death in disadvantaged areas and in remote areas were fourfold those of advantaged areas and cities, and hospitalisation rates about double. Road transport injuries caused 18% of all deaths in 15–29 year olds (82 of the 450 deaths in this age group in 2010).

Respiratory conditions

- COPD is principally caused by smoking and this is reflected in excess deaths and hospitalisations for males, Indigenous Queenslanders and in disadvantaged areas. The death rate for COPD decreased by 19% in a decade, consistent with decreasing smoking rates.

- Asthma prevalence, at 10%, did not vary for children and adults or between other population groups, except for Indigenous Australians where prevalence was 90% higher. A management plan can reduce the impact of asthma, 24% of Australians with asthma have a written asthma action plan.
- Influenza and pneumonia death rates decreased by 53% in a decade while hospitalisation rates have been steady. Laboratory-confirmed influenza notification rates in 2013 were about one-third those in 2012. Pneumococcal notifications in 2013 were also lower than in the previous two years.

Communicable diseases

- Measles outbreaks due to international disease importation and subsequent local spread caused a 50% higher notification rate in 2013 than the previous peak in 2009, the last year where there was widespread community transmission.
- Staphylococcus aureus bloodstream infection rates in Queensland public hospitals have been below the national target since the target was introduced in 2011.

Other conditions

- Suicide was the cause of 569 deaths and 25% were of 15–29 year olds in 2010. The median age of death was 44 years. The male rate was 3 times the female rate, and 2.3 times higher in both disadvantaged and remote areas. The suicide rate in Queensland was 20% higher than national.
- Dental disease exacts a high cost with expenditure the second highest of all disease groups—1 in 3 hospitalisations for dental conditions, mostly decay, was for children aged 0–9 years.
- Musculoskeletal conditions affect 1 in 4 people and are a common chronic condition. They are a major cause of disability with employment restrictions for 80% of those with back problems, 74% with osteoporosis and 66% with arthritis.
- Dementia prevalence was estimated at about 3% for Australians aged 65–74 years, 10% for those aged 75–84 and 30% for those 85 years and older. Over the past 20 years, the burden in Australia has more than doubled. The number of cases in Queensland is projected to increase 5.5 times in 40 years in line with population ageing.
- Vision disorders and diseases of the eye affect 1 in 2 people. For those with type 2 diabetes 60% will develop some form of eye disease as a complication within 20 years of diagnosis.
- Deafness was experienced by about 1 in 10 Queenslanders in 2011–12, a decrease of 10% over a decade. Otitis media affects up to 5 in 10 Indigenous Australian children living in remote communities.

Adults



1 in 3 healthy weight

1 in 3 overweight

1 in 3 obese

Children



7 in 10 healthy weight

2 in 10 overweight

1 in 10 obese

Risk and protective factors

About one-third (31%) of the total burden of disease and injury in Queensland in 2007 and 40% of deaths were due to the joint effect of 13 modifiable risk factors (43% of premature deaths). The leading risk factor for Australia in 2010 was related to diet (10.5%), followed by high body mass (8.4%) and smoking (8.3%).

Very few Queenslanders are free of disease risk, increasing their likelihood of disease development, disability and early death. More than two-thirds of adults had one or more of the four physiological risks for cardiovascular disease and 1 in 5 reported at least three of five lifestyle-related risks for chronic disease. One in 12 adults (8%), was of a healthy weight and had a healthy lifestyle, while the remainder, over 90%, were either overweight or obese or had an unhealthy lifestyle: 55% were overweight or obese and had an unhealthy lifestyle, 27% were a healthy weight but had an unhealthy lifestyle and 10% were overweight or obese although their lifestyle was healthy.

Overweight and obesity

- About 1.1 million adults were obese by measurement and 1.2 million overweight. With 75,000 children obese and 146,000 overweight, a total of 2.5 million Queenslanders are of excess weight in 2014. Queensland had the highest adult obesity in the nation, 10% greater than Australia. The rapid increase in overweight and obesity during their twenties suggests that by 65 years, over 85% of males and 65% of females of excess weight will have been an unhealthy weight for 35 to 40 years. Self-perception is a concern with one-third of those who were overweight or obese considering themselves of acceptable weight.
- Obesity varied markedly across the state. In disadvantaged areas, over the past decade the obesity rate for adults was about 60% higher than in advantaged areas, where the average woman weighed 5.5kg more and average man 1.8kg more in 2011–12. For children, the prevalence of obesity was double in disadvantaged areas. Remote areas and Indigenous Queenslanders had excess obesity. The average weight of adults varied by 9.2kg across HHSs, with excess obesity rates varying from 14% to 77% higher than the state.

- Adult obesity increased 22% in four years with an annual increase of about 40,000 cases per year over a decade. By 2020, it is anticipated that about 1.5 million adults will be obese (measured estimation). In contrast, children's obesity levels appear to have plateaued nationally and by self report the rate of increase of adult obesity appears to be slowing in Queensland.
- Obesity reduces life expectancy and may have a greater impact on health adjusted life expectancy. About half of the financial cost of obesity is due to lost productivity. The total cost of obesity was \$11.614 billion in 2008, and was estimated to cause 5.4% of hospital expenditure and indirectly cause 3200 deaths in 2010.

Food and nutrition

- Dietary factors were the leading risk of disease burden in Australia at 10.5%, excluding any impact of over-consumption of energy-dense food. About one-quarter of all deaths were directly or indirectly associated with dietary risks.
- Discretionary foods, that is, energy-dense, nutrient-poor foods, provided 37% of energy intake, about three times the recommended amount for healthy weight, active people. The proportion was 35% in 2–3 year olds, peaking at 45% in 14–18 year olds, and reducing to about 33% for those aged 50 years and older. Cereal based foods such as cakes, biscuits, pizza and other takeaway foods provided 17% of energy for 2–3 year olds decreasing to 11% for those aged 71 years and older, with a third of adults and half of all children having takeaway food at least weekly. Confectionery provided 6% of energy for teenage girls and sugary drinks provided 8% of energy for boys. Alcohol provided about 7% of energy for male adults.
- While about 60% of adults and children ate the recommended daily serves of fruit, only about 7% ate enough vegetables. There has been little change in a decade. Health sector costs associated with inadequate fruit and vegetable consumption, are estimated to drop by 34% with the consumption of an additional two serves of fruit or vegetables per person per day.
- About 25% of infants are exclusively breastfed to four months and 1.8% to six months, with solids introduced by four months for one-third of infants.

Hypertension



7 in 10 normal blood pressure (70%)

1 in 10 successfully treated BP (11%)

1 in 10 inadequately treated BP (6%)

1 in 10 untreated high BP (13%)

Dyslipidaemia



3 in 10 normal cholesterol levels (36%)

1 in 10 successfully treated (5%)

1 in 10 inadequately treated (8%)

5 in 10 untreated high cholesterol (51%)

Physical activity and sedentary behaviour

- Physical activity is increasing and the difference between socioeconomic groups is decreasing. For adults, 60% achieved recommended physical activity and for children, 41%. The prevalence of adult activity increased by 39% over the decade, 7.3% per year in 2004 to 2008, slowing to 1.5% per year thereafter. This increase was 2.6 times greater in disadvantaged areas, with a diminishing gap in the prevalence of activity between advantaged and disadvantaged areas.
- Sedentary behaviour has adverse health effects. One in 8 adults usually sits for seven or more hours each day. One in 3 children spend two or more hours of recreational screen time per day, with older children twice as likely as younger children to do so.

Smoking

- Daily smoking prevalence is now at 14% for adults. It has reduced by 26% over the decade since 2004 with a slowing evident in recent years. Smoking rates in teenagers and younger male adults are decreasing faster than other age groups. Adults in disadvantaged areas continue to smoke at about double the rate of advantaged areas. Indigenous Australians smoke at 2.5 times the rate of non-Indigenous people, with no change in this excess since 2002.
- The percentage of women smoking at some time during their pregnancy varied from 10% to 50% across HHSs—the state prevalence was 15%. Indigenous Queenslanders, teenagers and women from disadvantaged areas smoked during pregnancy at about 3 to 6 times the rate of others.
- Smoking accounts for 1 in 7 deaths in Queensland with 3700 Queenslanders dying annually from tobacco related conditions. About one-third of these were of working age. The variation in smoking rates explains a substantial proportion of differences in life expectancy among populations.

Alcohol consumption

- About half the adult population are exceeding the NHMRC guidelines for safe consumption.
- One in 6 adults (17%) drink alcohol at the riskiest levels, that is exceeding the average two standard drinks a day every day and consuming more than four drinks on a single occasion at least monthly. In four years, rates decreased by 32% for young people but were unchanged for older people.
- Rates of risky drinking are about 16% higher in Queensland than national rates—this produces greater impacts for Queensland, including the 34,000 alcohol related hospitalisations each year.

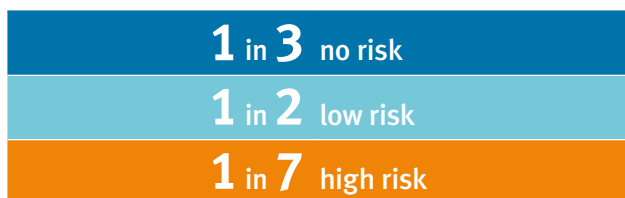
High blood pressure and cholesterol

- Hypertension contributed to 4900 deaths in 2010. One in 3 adults is hypertensive, increasing to 4 in 5 of those aged 75 years and older—13% have untreated high blood pressure and 6% are inadequately treated.
- Two in 3 adults are dyslipidaemic, increasing to 4 in 5 in those aged 65–74 years. Half had untreated high cholesterol and other lipids (51%) and 8% were inadequately treated—about 1700 deaths in 2010.
- Between 1990 and 2010 the burden of both these conditions halved in Australia, delivering gains in life expectancy not achieved in many OECD countries.

Other risk and protective factors

- Cancer screening rates vary markedly among population groups—34% participation rate for bowel cancer screening, although lower for males and younger people, 58% for BreastScreen Queensland but lower for women in major cities and in advantaged areas, and 56% for cervical screening but lower in regional or remote areas and in advantaged areas.
- Sun protection behaviours, that is, 3 of 5 behaviours, were practised by 52% of adults in summer, yet 54% of adults and children were sunburnt in the previous year. In summer, 6% of adults were vitamin D deficient and in winter 15%, about half the national rate.
- Tooth decay experience was found in the primary teeth of 50% of children—10% higher than national—and 30% had decay experience in permanent teeth. Lower levels of decay were found in children in areas of long-term water fluoridation. In 2014, 80% of Queenslanders have access to fluoridated water.
- Illicit drug use in the previous 12 months was reported by 15% of those aged 14 years and older, with 1 in 10 using cannabis. Rates and frequency of use varied with age, with higher rates in those aged 18–29 years, and more frequent use among those aged 30 years and older.
- Fully immunised coverage is now consistently over 90% for one-year, two-year and five-year cohorts, although there are geographic areas and subpopulations where coverage needs to be improved to reach the aim of 95% coverage.

Cardiovascular disease risk: of the deadly quartet*



* High blood pressure, high cholesterol, high plasma glucose, obesity

Hospital and Health Services

Population health status varies markedly across HHSs. Much of the data relates to the period prior to the establishment of the HHSs in July 2012. It shows there are clear opportunities for local stakeholders to reduce the hospital burden in HHSs and improve health outcomes by addressing preventable conditions, including those that could have been treated in the primary healthcare setting. In addition, the HHSs with greater risk factor burden have greater potentially preventable disease, disability and death:

- Premature deaths: 1 in 2 deaths was avoidable in Torres Strait–Northern Peninsula, Cape York and North West, decreasing to 1 in 4 in Metro North, Metro South, Sunshine Coast and Gold Coast.
- Median age of death: varied markedly with a 21-year difference between Torres Strait–Northern Peninsula and Gold Coast. There was wide variation among Indigenous and non-Indigenous populations within most HHSs. In Metro North, Indigenous Queenslanders were 29 years younger at death on average than non-Indigenous. In contrast, in Torres Strait–Northern Peninsula, Indigenous Queenslanders were 3.5 years older at death on average than non-Indigenous.
- Hospitalisation rates: were higher than the state for at least six key selected conditions in North West, South West and Central West. Gold Coast had lower rates for many conditions. Potentially preventable hospitalisation rates varied markedly from at least double the state in Cape York, Torres Strait–Northern Peninsula and North West, and were lower in some south-east HHSs.
- Risk factors—such as obesity, smoking and excess alcohol—cluster in Cape York, Central Queensland, Townsville and Darling Downs although other HHSs have substantial exposure. Obesity and daily smoking cluster most, and these two risks have the greatest impact on health outcomes, posing significant challenges to these HHSs and across Queensland.
- Perinatal risks: smoking during pregnancy and higher rates of teenage pregnancy cluster in Wide Bay, West Moreton, Darling Downs and Central Queensland for non-Indigenous Queenslanders. Gold Coast and Metro North had a less risky profile. Risks for Indigenous Queenslanders were more dispersed.