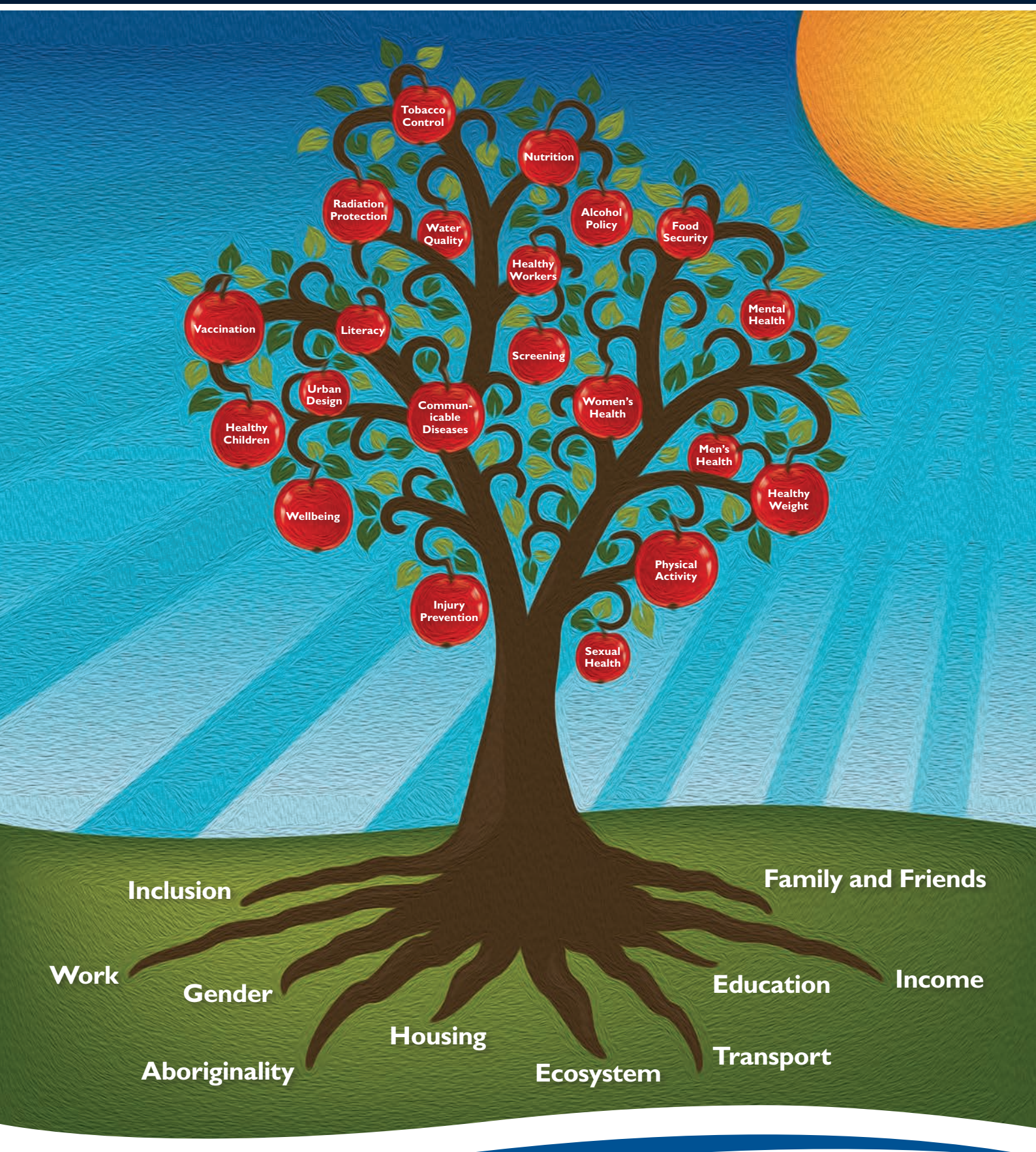


State of Public Health 2013



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Foreword

It is my pleasure to submit this report through the Minister for Health to both Houses of Parliament, as required by the *Public Health Act 1997* every five years.

This is the third such report on the status of public health in Tasmania. It builds on commentary in earlier reports relevant to our understanding of the influences on health and wellbeing in Tasmania.

The *Public Health Act* does not specify the form these reports should take. I have taken the approach that Members of the Tasmanian Parliament will be most interested in a frank appraisal of key trends and performance across the many frontiers of public health, including interpretation of contributory factors and a description of the strategies used or recommended to promote and improve health status in Tasmania.

The first report in 2003 provided a context and overview of the nature of contemporary public health practice, as well as a brief description of Tasmanian health trends and determinants. It highlighted the need to see our health status in the context of socio-economic influences.

The second report focused further on these “causes behind the causes” of population health outcomes, including an analysis of how social determinants of health are strongly influencing health trends in Tasmania. The 2008 Report provided recommendations for consideration by Government on strategic approaches to support a healthier Tasmania. Several of these recommendations still need action to enable the Director of Public Health to more effectively undertake the statutory role of developing and implementing strategies to promote and improve public health.

Serious health issues are emerging in our population – many of them preventable. But there are also grounds for some optimism with exciting opportunities ahead for Tasmania to flourish, reduce health inequities and improve health and wellbeing. These opportunities must be converted into sustained strategies and progressed to the fullest extent. In the same way that doctors would not accept a partial or watered-down treatment for their patient, the community and Members need to question partial action to avert or delay health harms.

Once again this report is accompanied by the document *Health Indicators Tasmania 2013*, which has been expanded from previous editions and contains detailed health statistical information across a broader range than presented here.

I thank the dedicated staff of the Population Health Group who I have the privilege of leading within the Department of Health and Human Services and acknowledge the efforts and contributions of the many individuals, organisations and institutions – including Parliament itself – who collectively support the organised endeavour by society that we call public health, and which is so important to advancing the health and wellbeing of our whole community.



Dr Roscoe Taylor
Director of Public Health

Executive Summary

The health of Tasmanians is improving with longer life expectancy and generally good self-reported health.

While prevention and health care are steadily driving Tasmania's mortality rates down, potentially avoidable mortality remains significantly higher than the national average.

The life expectancy gap between Tasmanian and Australian women is widening, with higher smoking rates among females in this state likely to be a key factor.

Tasmania's overall health status more closely parallels that of regional Australia than Australia as a whole. This is in keeping with the fact that 98% of Tasmania's population falls within the "inner regional" or "outer regional" national population categories (with the remaining 2% being "remote" or "very remote"). The population health status in interstate major metropolitan areas is significantly better than that experienced by regional Australia.

Health differences associated with regionality are in large part linked to socio-economic and cultural conditions. These contribute in turn to health inequalities that are preventable, and therefore represent health inequities.

It is a challenge – but not insurmountable – for Tasmania to bring its health status into line with larger states' metropolitan populations, over time.

The challenge, however, is made more difficult by the ageing demographic pattern in this state.

Hospitalisation rates are increasing, with the numbers requiring hospital treatment particularly increasing in people aged over 65 years with chronic conditions.

Significant increases in cancer case numbers are expected to continue over the next decade in line with the increasing numbers of older people in Tasmania.

Despite these significant stressors, the health care system is not 'in crisis' and is generally performing well. However demand for treatment and care for chronic conditions will continue to increase, fuelled by relatively poor poorer risk factor profiles in Tasmania as well as the ageing population.

A major tension arises from the fact that significant growth in health care system funding will divert resources away from other social goods in order to expand a care system that – for a variety of reasons – has difficulty defining its boundaries. From a public health perspective, this limited view of health as "health care" is slowing more effective progress in those things that predominantly determine overall population health and wellbeing outcomes, and that are mostly outside the direct influence of the health care system.

Obesity continues to increase, with adverse implications for Tasmania's health care system. Given the poor evidence for sustained weight loss once obesity is established, prevention of overweight in children has to be a major priority for preventive action before they go on to face a shortened lifetime complicated by the health risks of obesity.

The so-called "behavioural" risk factors of physical inactivity, over-nutrition, smoking and harmful alcohol consumption continue to be major contributors to the burden of preventable disease.

Multiple strategies to address these risk factors are required, including the means to more regularly measure progress against them.

Many of the strongest interventions and policy levers to reduce health risk factors are national. Tasmania has much to gain from supporting concerted national endeavour in areas such as food system regulation, tobacco control and alcohol harm reduction, where tremendous scope exists to redress existing market failures. The public interest case for this is stronger than ever.



To reduce Tasmania's excessively high smoking rates, increased resourcing for tobacco control measures including social marketing is required.

It is appropriate to change Tasmania's liquor licensing legislation to include the objective of minimising public health harms when liquor licence applications. Re-introduction of alcohol wholesales data collection, as occurs in other states, is required to better monitor population consumption patterns.

Health inequities are evident across many specific health outcomes in Tasmania with clear evidence of social gradients and disparities in health status. These are avoidable in many cases because they relate to the conditions in which people are born, grow, live, work and age – including inequities in power, money and resources that give rise to these conditions.

These powerful underlying influences are collectively known as the social determinants of health, which need to be systematically addressed to achieve lasting change. The focus for prevention cannot be on health risk factors alone. Policy and regulatory engagement by non-health sectors is also needed to address the underlying social and environmental causes of unhealthy behaviours and inequitable health outcomes.

As equity is a strong attribute of a healthy society, Governments would do well to make health equity a central goal. To achieve this requires policy coherence and intersectoral work across the whole of government, with systematic consideration of the equity effects of government policy, systems and processes on the population. This is a "healthy public policy" approach, meaning that policies and actions across key government departments are consciously developed so they do no harm to health or, preferably, improve health and health equity.

Incorporating equity into a government policy framework aimed at improving the economy, investing in the next generation and in place-based approaches to healthy communities is an excellent basis for significant and sustained health

improvements. In doing so, it needs to be recognised that targeting interventions to particular places only, or basing funding models solely on providing care and protection services only for the most disadvantaged groups, does not necessarily alter the structural forces or social determinants of health impacting on those groups. We need to broaden the focus from targeting marginalised groups, towards systems and processes and how they are socially inclusive and equitable.

A tangible expression of healthy public policy would be the development of a State Policy for Healthy Community Design through the Tasmanian Planning Commission framework to guide future development and town planning in ways that promote active and healthy living.

A stronger emphasis on population-based primary health approaches and population health strategies is needed. The benefits to the community from an improved investment in prevention are real: improved health and wellbeing including mental health, reduced or delayed chronic disease, reduced work absenteeism and improved workforce productivity all deliver positive gains.

The final chapter of this report provides an overview of those areas of public and environmental health action in Tasmania that fall within the category of "health protection", and for which there is commonly a statutory basis. The existing programs and services can be highly regarded and valued by the Tasmanian community for their professionalism and effectiveness. Given the capacity, more could be achieved through this approach.

Overall, the public health status of Tasmania is good, but the state faces undoubted challenges in improving or even maintaining this situation. There is also good cause for optimism for the future, with some evidence of re-thinking and highly positive developments underway.

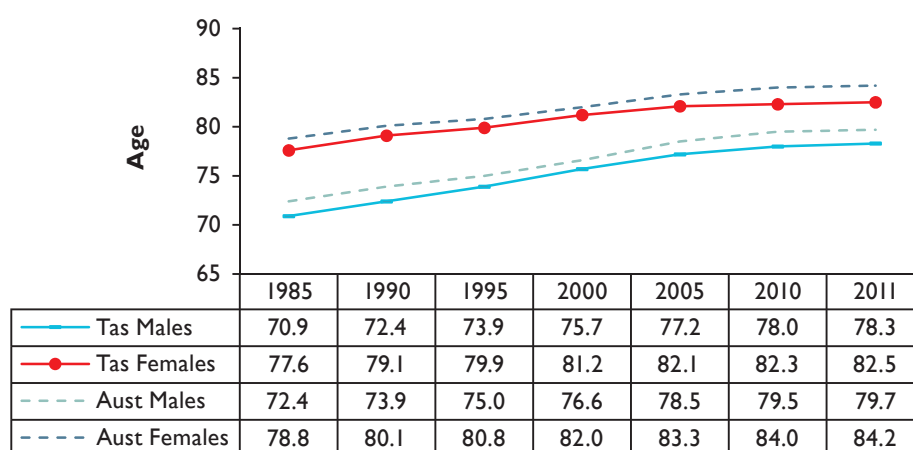
With community and government will to do so, tremendous opportunities exist to do things differently and promote a thriving and healthier Tasmania.

Health Trends in Tasmania¹

The health of Tasmanians is improving with longer life expectancy and good self-reported health

- The past 25 years have seen further increases in life expectancy. Life expectancy for Tasmanian males has increased by over seven years and for females by about five years since 1985.

Figure: Life expectancy at birth, Tasmania and Australia 1985-2011



ABS, Deaths Australia 2011, November 2012

- Most of the life expectancy year increases across Australia have been in “healthy” years, plus years lived with some disability, with only a small increased component of years of life associated with profound disability. However, ageing of the population and increasing longevity are leading to larger numbers of older people with disability and severe or profound activity limitation.
- In 2011-12, the proportion of Tasmanians aged 15 years and over who reported their health was good or very good/excellent was 81.6%, slightly lower than the Australian proportion of 85.6%, and not significantly different from 2007-08.

¹ For more detailed statistical information than is provided in this overview please refer to *Health Indicators Tasmania 2013*. I thank my colleagues in the Epidemiology Unit within Population Health in the Department of Health and Human Services for their excellent work in producing that resource.

While prevention and health care are steadily driving mortality rates down, Tasmania's mortality rates remain significantly higher than the national average

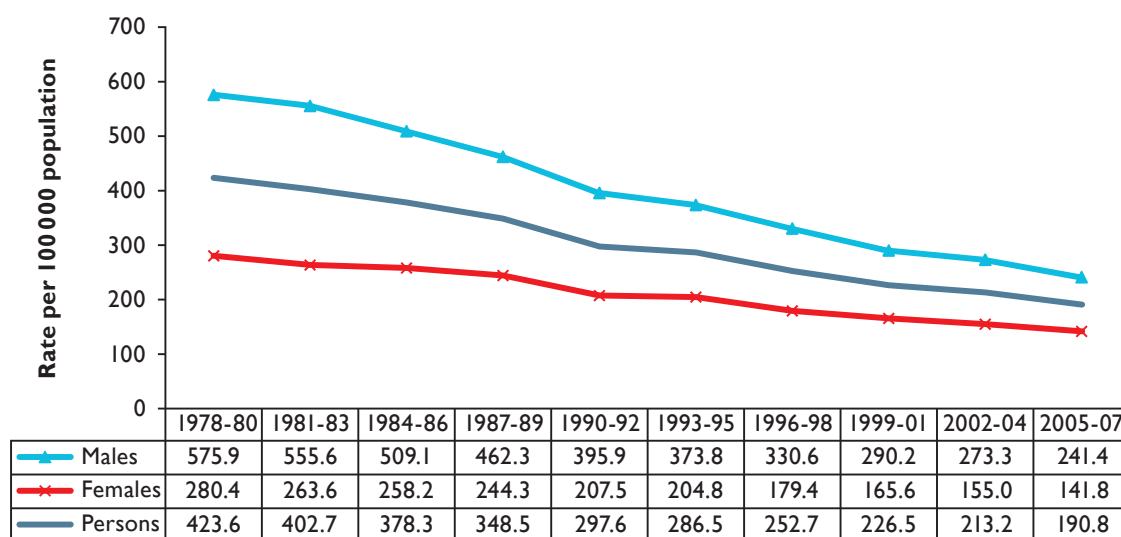
- Tasmania's age standardised mortality rate in 2011 was 6.5 deaths per 1 000 population, down from 7.6 in 2001. The Australian standardised mortality rate was 5.6 deaths per 1 000 population in 2011.²
- Tasmania's mortality rate in 2011 was the same as that for all "outer regional" areas of Australia (using the Australian Bureau of Statistics remoteness classification) and was the highest of all jurisdictions apart from the Northern Territory (7.3).
- As predicted in the 2008 State of Public Health Report, the life expectancy gap between women in Tasmania and Australia as a whole has continued to widen – from 1.2 years in 2005 to 1.7 years in 2011.
- In 2010, the most common causes of death in Tasmania were cancer (28.3% of all deaths) and ischaemic heart disease (15.6% of all deaths).
- Tasmania's age-standardised mortality rates are higher than Australia's for a number of conditions. These include cancer, diabetes mellitus, ischaemic heart disease, strokes and intentional self-harm.
- The Tasmanian age-standardised mortality rates for ischaemic heart disease and cerebrovascular accident (stroke) have declined by about two-thirds for both males and females between 1978 and 2010.
- The very substantial decline in coronary heart disease death rates is attributable to a number of factors; prominent among them are declining levels of tobacco smoking and the availability of better primary health and hospital care. Evidence from other countries attributes improvements in risk factors and treatments in about equal proportions.³
- "Avoidable mortality" refers to causes of death before the (arbitrarily chosen) age of 75 that could potentially have been avoided or delayed either through effective prevention or treatment of specific diseases. Since death is, after all, inevitable, this concept is helpful from a prevention perspective in monitoring health outcomes for conditions that are amenable to prevention and treatment, and there is a nationally agreed approach to the calculation of avoidable mortality rates.
- Over the period 1978 to 2007, there has been a steady decline in potentially avoidable deaths by about 55%.



² Australian Bureau of Statistics. Deaths, Australia, 2011 (cat. no. 3302.0), November 2012.

³ Australian Institute of Health and Welfare 2011. Cardiovascular disease: Australian facts 2011. Cardiovascular disease series. Cat. no. CVD 53. Canberra: AIHW.

Figure: Potentially avoidable mortality, population 0-74 years, Tasmania, 1978-2007



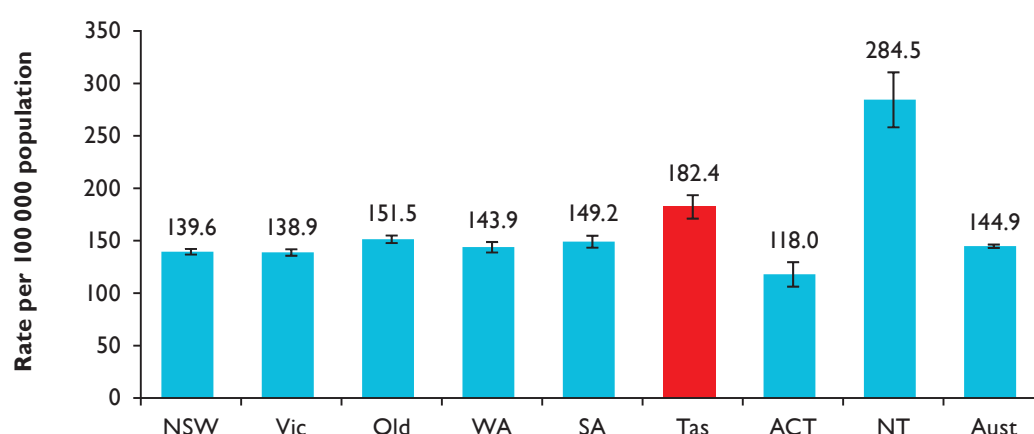
Notes: 1. Rates are age-standardised to the Australian 2001 population

2. Avoidable deaths were estimated using disease codes developed by the New South Wales Department of Health (2010)

3. Average annual percentage change for males: -3.3% ($P < 0.01$); for females: -2.6% ($P < 0.01$); for persons: -3.0% ($P < 0.01$)

- However, Tasmania still has significantly higher rates of potentially avoidable deaths than Australia (In 2009, 182.4 per 100 000 population compared with 144.9 for Australia as a whole) – indicating this should be a major focus and that Tasmania has a lot of scope for improvements in healthy life expectancy.

Figure: Potentially avoidable mortality from all-causes, under 75 years, Australia, 2009



Notes: 1. Rates are age-standardised to the Australian 2001 population

2. The error bars represent the 95% confidence intervals of the rate

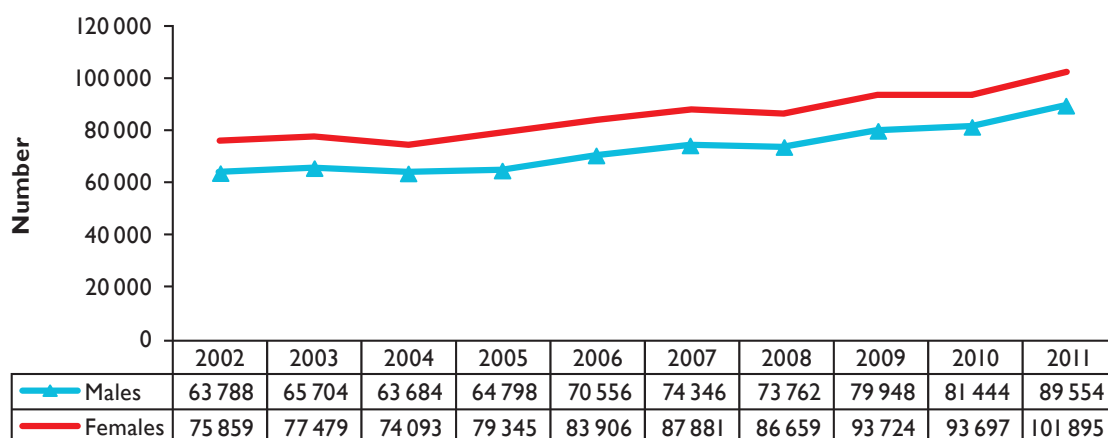
3. COAG Reform Council 2012, *Healthcare 2010-11: Comparing performance across Australia*, COAG Reform Council, Sydney

- The infant mortality rate in Tasmania was 4.5 deaths per 1 000 live births in 2011, and over time has consistently remained comparable with or better than the Australian rate.

Hospitalisation rates are increasing, but progress is also occurring through prevention and early disease detection with low rates of potentially preventable hospitalisations, as well as high levels of participation in cancer screening and primary care consultations

- Hospitalisations data are an important health status indicator, but should be interpreted with caution. Hospitalisations refer to hospital separations or episodes of care in a hospital. A person can have more than one separation per hospital visit and more than one separation per year.
- In 2011 there were around 191 449 hospital admissions to Tasmanian hospitals. The number of patients being treated in both public and private hospitals each year continues to rise, at a significantly higher rate than the percentage increases observed for the Tasmanian population overall during this time period.
- From 2002 to 2011, hospitalisations due to all causes have increased by 25 766 separations (40%) for males, and by 26 036 separations (34%) for females. Hospitalisation rates in females were higher than in males between 2002 and 2011.
- Hospitalisation rates are increasing for diabetes and arthritis/musculoskeletal conditions.

Figure: All-cause hospitalisations by sex, Tasmania, 2002-2011



Statewide Morbidity Database, Tasmania

- A significant component of the overall increase in hospitalisations has been in the number of hospitalisations in persons aged over 65.
- The likely impact of Tasmania's ageing population on hospitalisations is that demand for hospitalisation in Tasmania will continue to increase.
- **Potentially preventable hospitalisations** are conditions where hospitalisation is believed to be avoidable through the primary prevention, early detection and the provision of timely and adequate primary care for established conditions.

- Potentially preventable hospitalisations have not increased over the last decade and appear to compare favourably with the rates of other jurisdictions. In 2010-11 Tasmania had the second lowest rate of such admissions of all the states and territories, with a rate of 20.2 compared with the Australian average of 27.7 per 1 000 population – perhaps signifying in part the strength of our primary health care sector in this state. According to the method applied, only 6.7% of all hospitalisations in Tasmania were potentially preventable in 2010-11 – however, it is likely this proportion would be significantly higher were a broader definition to be used.
- It is important to note that the definitions used for calculation of preventable hospitalisation rates take into account only some of the factors that underlie hospital bed utilisation or demand. Beyond access to primary health care, strong influences on rates of hospitalisation include socio-economic status, age, ethnicity, comorbidity, continuity of care, rurality and mental health problems.⁴ Some of these aspects are touched upon later in this Report.
- Tasmania has amongst the highest participation rates across states and territories in breast cancer screening (58.4%) and in the National Bowel Cancer Screening Program (42.5%). However, there is clearly room for improvement – for example of all Tasmanians aged 60 years and over in 2009, only 38.7% reported to have undergone bowel cancer screening during the previous two years. The population target for breast cancer screening among 50-69 year-old women is 70%.
- Data from the 2009 ABS Health Services: Patient Experiences in Australia survey indicate the proportion of Tasmanians consulting health professionals is similar to Australia as a whole, with 82.2% of Tasmanians aged 15 years and over reporting to have seen a general practitioner during the preceding 12 months compared to 80.8% of Australians.

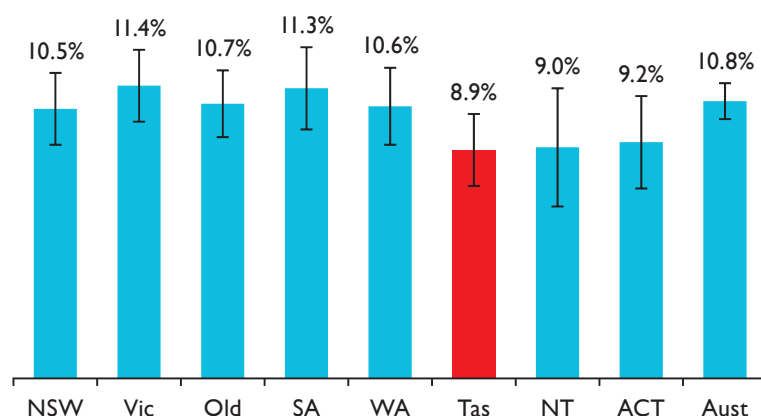


Chronic conditions including mental health issues are highly prevalent in Tasmania, but psychological distress is relatively low

- More than three in 10 Tasmanian adults are affected by arthritis or some other musculoskeletal condition, and more than one in seven is diagnosed with hypertension (13.6%).
- In 2011-12, 15% of the Tasmanian population reported having been diagnosed with a mental health or behavioural problem at some time in their life (compared with 13.6% for Australia).
- Despite this, the proportion of Tasmanian adults who reported to have experienced high to very high levels of psychological distress in the four weeks prior to interview (8.9%) was lower than for the other jurisdictions and Australia as a whole (10.8%).

⁴Katterl R, Anikeeva O, Butler C, Brown L, Smith B, Bywood P. (2012). *Potentially avoidable hospitalisations in Australia: Causes for hospitalisations and primary health care interventions. PHC RIS Policy Issue Review*. Adelaide: Primary Health Care Research & Information Service. July 2012.

Figure: Prevalence of high/very high psychological distress by jurisdiction, 18 years and over, Tasmania 2011-2012



Australian Health Survey First Results, 2011-12, cat. No. 4364.0

- Suicide and self-inflicted injury were registered as the underlying cause of death for 64 persons in Tasmania in 2010. The Tasmanian age-standardised mortality rate for deaths due to suicide in 2010 was 13.1 deaths per 100 000 persons, higher than the Australian rate of 10.5 deaths per 100 000 people. Between 1978 and 2010, the age-standardised mortality rates for suicide appeared relatively stable in both sexes.
- There were 3 148 new cases of cancer (excluding non-melanoma skin cancers) diagnosed among Tasmanian residents during 2009 (1 856 males and 1 292 females). The overall age-standardised incidence was 650.3 per 100 000 for males and 412.2 per 100 000 for females. The risk of developing any cancer (excluding non-melanoma skin cancer) by age 75 years was one in two for males and one in four for females, and by age 85 years was one in two for males and one in two for females.⁵
- Despite a gradual increase in age-standardised cancer incidence over the past decades (much of which relates to improved methods of diagnosis and early detection through screening) there has not been an increase in age-standardised cancer death rates. Improved medical and surgical treatments and earlier diagnosis methods enabling more successful treatment outcomes have played a large part in this success.
- Reflecting the substantial reduction in smoking prevalence amongst Tasmanian males between 1986 and 2009, the male lung cancer incidence rate has decreased by about 38% in this time period. Conversely, the lung cancer incidence rate for Tasmanian females, while still lower than for males, has increased by 25% during the same period.
- Significant increases in cancer cases are expected over the next decade, due primarily to the increasing numbers of older people in Tasmania (discussed later in this Report).

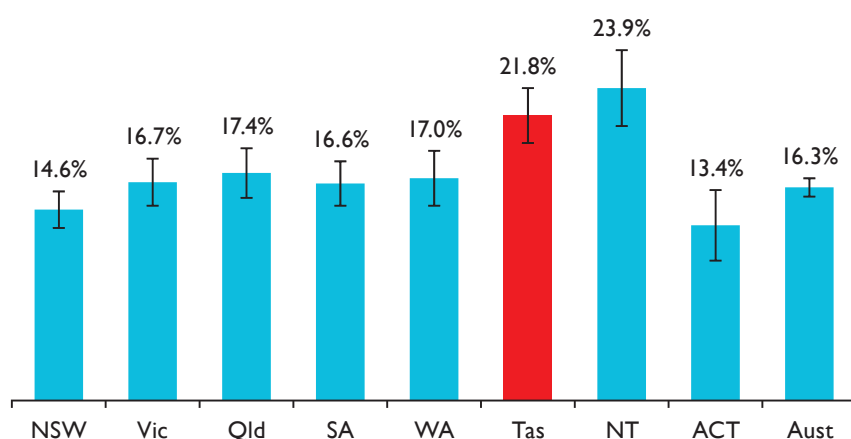
⁵ Dalton M, Venn A, Albion T, Otahal P. Cancer in Tasmania: Incidence and Mortality 2009. Menzies Research Institute, Hobart, 2012.

The picture of progress towards healthier lifestyles in Tasmania remains mixed, and behavioural risk factors continue to contribute to a burden of preventable disease

Smoking rates remain Tasmania's single most preventable risk factor

- With 21.8% of adults smoking daily, Tasmania continues to have higher rates of smoking than all other states and territories except the Northern Territory.

Figure: Daily smokers 18 years and over by Jurisdiction, 2011-2012



Australian Health Survey First Results, 2011-12, cat. No. 4364.0

- In 2011-12, over 30% of young Tasmanians aged 18-24 years were current (daily or occasional) tobacco smokers, compared with about 7% of older Tasmanians aged 65 years and over.
- 23% of Tasmanian women continue to smoke during pregnancy, with the rate among teenage mothers in 2010 being 46.8%.⁶
- Smoking rates for secondary students have declined significantly since 1984, from 22% down to 6% for 12-15 year olds in 2011, and from 31% down to 16% among students aged 16-17 years.

Alcohol-related harms

- Alcohol consumption at levels increasing the short-term risk of harm (more than four standard drinks on a single occasion) was higher in Tasmania (48.9%) than at the national level (44.7%), and higher for younger age groups and males.
- Alcohol consumption at levels averaging more than two standard drinks a day is associated with increased risk of long-term harms (NHMRC 2009 Guideline). In Tasmania the proportion of the adult population exceeding this guideline is 22.7% – comprising 35.9% among males (compared to 29.1% of males at the national level) and 10.2% in females (compared to 10.1% nationally).

⁶Tasmanian Council of Obstetric & Paediatric Mortality & Morbidity. Annual Report 2010. DHHS, August 2012.



- Alcohol consumption during pregnancy has halved, from 18.3% in 2005 to 9.2% in 2010, with the majority of these women reporting less than one drink per day on average.

Physical inactivity

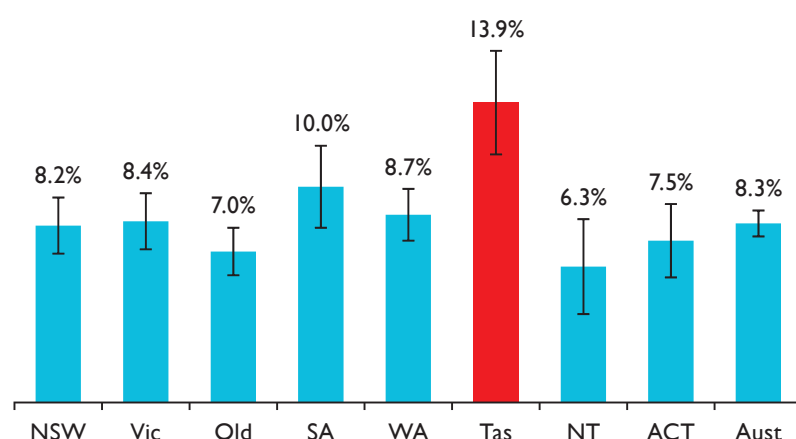
Being sedentary, or insufficiently physically active, is a powerful risk factor associated with cardiovascular disease, type 2 diabetes, some types of cancer and mental health problems.

- Physical activity levels remain low with 69.4% of Tasmanian adults reporting inadequate levels of activity, comparable to the Australian figure of 67.5%. The National Physical Activity Guidelines recommend at least 30 minutes of moderate physical activity for adults on at least five days of the week for a total of 150 minutes a week.
- Similarly, Tasmanian secondary school students are insufficiently active, with less than 20% of students reporting adequate levels of physical activity. Australia's physical activity recommendation for children and adolescents up to the age of 18 years is to engage for at least 60 minutes in moderate to vigorous activity seven days a week. In Tasmania in 2011 only 18% of students aged 12-15 years and 17% of students aged 16-17 years met this recommendation.

Nutrition

- Only one in seven Tasmanians (13.9%) meet the national nutrition guidelines recommending at least five serves of vegetables per day – significantly higher than the national average but clearly also there is large scope for improvement.

Figure: Adequate vegetable consumption (>5 serves daily), 18 years and over by jurisdiction, 2011-2012



Australian Health Survey First Results, 2011-12, cat. No. 4364.0

- The proportion of Tasmanian adults eating at least two pieces of fruit a day has fallen from 53.7% in 2004, to 43.1% in 2011.

- Breastfeeding initiation rates have been reasonably stable over time, with almost 80% of Tasmanian mothers reporting their intention to breast feed at the time of maternal discharge – but “fully breastfed” rates drop to around half that by the age of four months. Greater effort is required to address the early cessation of breastfeeding particularly among young mothers and lower socio-economic groups. In Australia, it is recommended infants are exclusively breastfed until around six months of age when solid foods are introduced, and breastfeeding is continued until 12 months of age and beyond, for as long as the mother and child desire. Introducing solid foods at around six months is necessary to meet the infant’s increasing nutritional and developmental needs.⁷
- Iodine nutritional status among children is within the optimal range for the first time in some years (see later in this Report).

Overweight/obesity

- Between 2007-08 and 2011-12 the combined prevalence of obesity and overweight in Tasmanian children aged five to 17 years increased significantly, from 18.6% to 28.8% – a rate exceeded only by the Northern Territory.
- The rate of overweight/obesity in Tasmanian adults in 2011-12 was 65.6%, which is higher than the Australian rate of 63.4% but the difference was not statistically significant, including after adjusting for age. Since 2007-08, the prevalence of measured overweight/obesity has increased by about 2% for both Tasmania and Australia as a whole. The crude Tasmanian rate for overweight (BMI 25 – 25.9) in 2011-12 was 37.2% and for obesity (BMI 30 or higher) 28.5%.
- 50.8% of Tasmanian women in the 18-34 year age group were found to be either overweight or obese based on measurements during the 2011-12 Australian Health Survey. Around one in four pregnant women are obese at the time of conception.
- Given the many complications associated with this condition, there are considerable implications for Tasmania’s health care system (this issue is discussed later in this Report).

Regional variations within Tasmania in key health outcome indicators are generally not significant, and are less relevant than the disparity between Tasmania as a whole and Australia. Tasmania’s health status overall is more comparable to that of regional Australia, than Australia as a whole

- It is important for Tasmania to take a whole-of-state population perspective in considering the entire health system as well as prevention strategies, rather than attempt to match health care services to perceived regional differences in health outcomes in the South, North or North-west.
- Unsurprisingly, given our dispersed regional population, Tasmania’s pattern of social and health indicators in general is more comparable with regional Australia than with the larger states, where overall health outcomes are strongly influenced by the better socio-economic and health status of populations living in major metropolitan areas.
- The Australian Bureau of Statistics (ABS) classification divides Australia into major cities, inner regional, outer regional, remote and very remote categories (with none of Tasmania fitting into the major cities category).
- 98% of Tasmania’s population falls within the “inner regional” or “outer regional” categories, 1.5% is “remote” and 0.5% “very remote” – a very different pattern from all other states and territories except the NT.

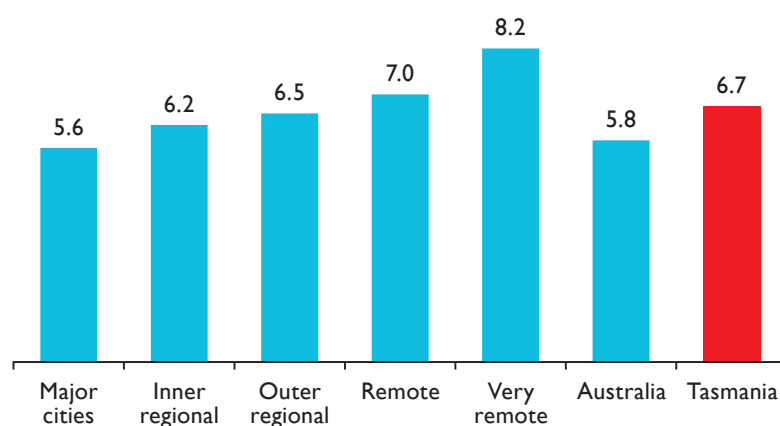
⁷NHMRC 2013 Australian Dietary Guidelines.

Table: Population distribution by remoteness category, 2011

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
Major cities	73.1%	73.5%	59.8%	71.2%	72.8%	0.0%	99.8%	0.0%	68.8%
Inner regional	20.2%	20.0%	22.0%	13.6%	12.3%	64.8%	0.2%	0.0%	19.7%
Outer regional	6.2%	4.6%	15.2%	8.9%	11.2%	33.1%	0.0%	56.1%	9.3%
Remote/very remote	0.5%	0.1%	3.0%	6.3%	3.7%	2.0%	0.0%	43.9%	2.2%

ABS, Regional Population Growth Australia, March 2012

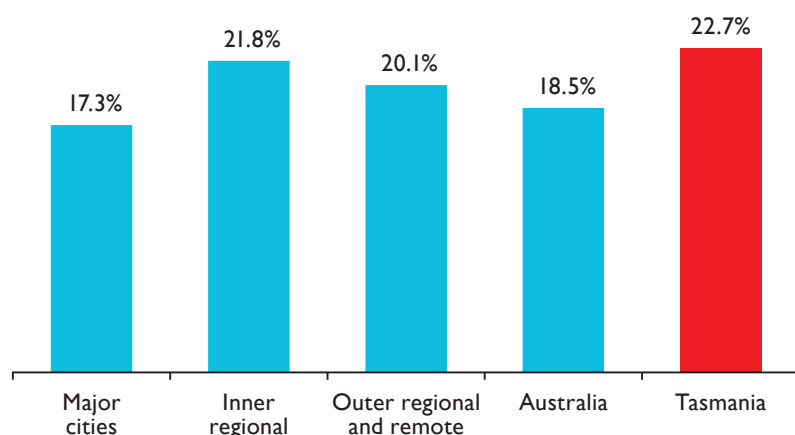
- In terms of interpreting Tasmania's health outcomes, such as death rates, it can be helpful to benchmark against inner and outer regional data for Australia (in addition to age-adjusting).
- Tasmania's three-year average mortality rate of 6.7 per 1 000 population (as shown in the Figure below – the three-year period is used by the ABS for comparison purposes with remote areas) is slightly higher than the national inner and outer regional rates, which would indicate a poorer health status than expected on the basis of Tasmania's predominantly inner regional status. The standardised death rate for 2011 alone in Tasmania was 6.5 deaths per 1 000 population.

Figure: Standardised mortality rates* (all-cause) per 1 000 population by remoteness classification, 2009-2011

ABS, Deaths Australia 2011 Table 7.1; *3-year averaged standardised rate per 1 000 population for all areas

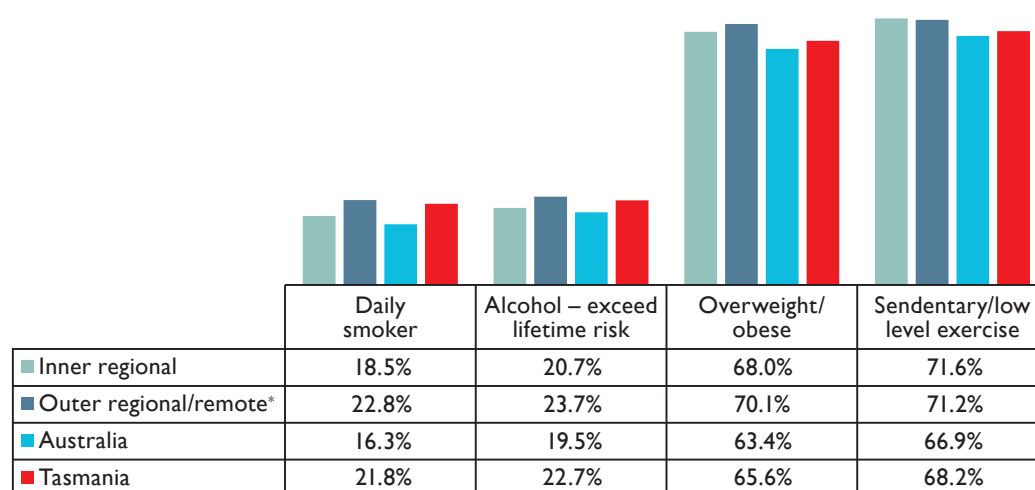
- Disability rates also increase by level of remoteness, with lower rates in major cities compared to inner and outer regional/remote areas. Tasmania's disability rate of 22.7% in 2009 was higher than the disability rate for both inner (21.8%) and outer/remote (20.1%) regions. As these rates are not age standardised, Tasmania's higher than (regionally) expected disability rate may be partly explained by Tasmania's older population and therefore higher rate of disability.

Figure: Disability rates by remoteness classification, 2009



ABS, Disability Australia 2009, 2011

- Tasmania's average annual avoidable mortality rate for 2003-07 at 198.6 per 100 000 population was well above the overall rate for Australia at 167.6, and more approximate to – but still higher than – the Australian avoidable mortality rates for outer regional (195.3 per 100 000 population) areas and inner regional areas (176.4 per 100 000 population) nationally.
- On average, people who live in regional and remote areas are more likely to engage in behaviours associated with poorer health outcomes, such as smoking and physical inactivity. Tasmania's rates are comparable with and sometimes better than the inner and outer regional area rates shown below.



Australian Health Survey: First Results 2011-12, Table 5.3; *outer regional and remote areas combined, excludes very remote areas

Health differences associated with regionality are in large part linked to socio-economic and cultural conditions, contributing in turn to health inequalities that are preventable, and therefore represent **health inequities** – which is the subject of the following section.



While the above interpretations are helpful to our understanding, this is **not** to say that Tasmania has to accept the health inequities associated with regionality. It is not a reason for Tasmania to “aim lower”. On the contrary, the knowledge that major Australian city populations can and already are achieving significantly better health status than Tasmania should cause a redoubling of effort to strive for at least equivalent health status.

A limitation of the indicators available to describe health determinants in this Report is that they do not encompass a fundamental component, which is our culture, and how we feel about ourselves, our families and our community.

This is central to our mental health and wellbeing, and to our motivation to create a better, more inclusive and more sustainable Tasmania for the future.

Social Gradients and Determinants of Health: “The Causes Behind the Causes” in Tasmania

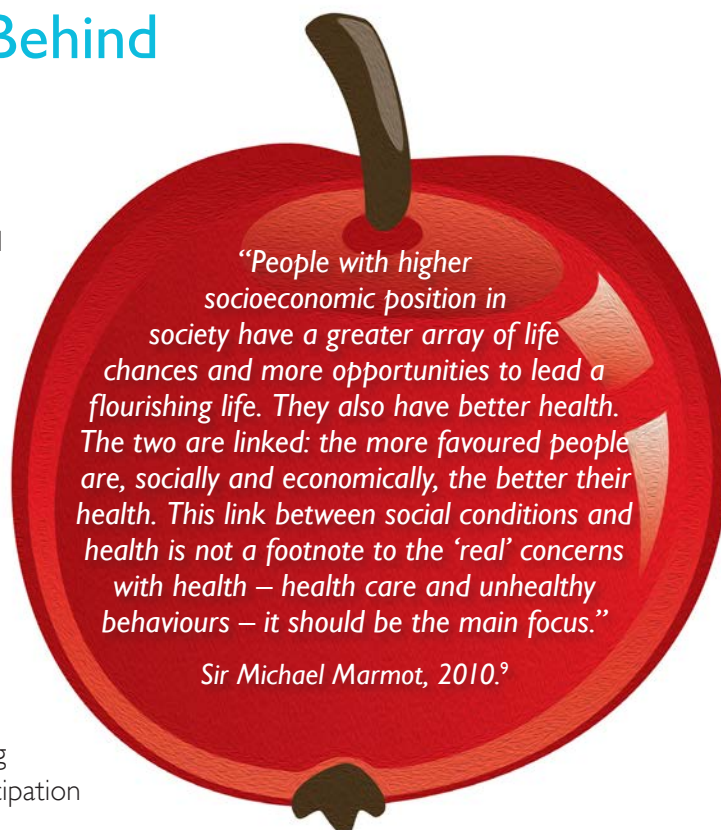
The previous State of Public Health Report highlighted the link between inequalities in income and social position, and inequalities in health – and the evidence for this continues to strengthen. Internationally, Marmot and others have shown that a substantial proportion of differing life expectancies between population groups is attributable to social position.⁸ This goes beyond poverty and extends across a whole spectrum of social factors – although clearly, poverty plays an important role.

While research has demonstrated the correlation between relative lower socio economic status and poorer health outcomes, it has also shown that to live healthy lives is not solely reliant on monetary wellbeing and that other factors that create barriers to full participation in, and engagement with, the community have serious consequences for health and wellbeing.¹⁰

Social factors can have adverse health implications for individuals irrespective of social position. For example, involuntarily unemployment is a deeply corrosive experience even when it is not associated with significant material deprivation, and is linked to increased rates of suicide, adverse mental and physical health, negative social behaviour and increased strain on family life and personal relationships.¹¹ Social factors impacting on health outcomes can be experienced by anyone at any time – but it is the most disadvantaged within the community who are more likely to experience more negative factors for longer periods. When a person is born into generational poverty it further limits the skills and resources necessary to improve their lives, and reduces opportunity to be healthy and resilient contributors to sustainable communities.¹²

There is strong evidence demonstrating social gradients in health within Tasmania, across a wide spectrum of key indicators from risk and protective factors, the incidence and prevalence of many diseases and conditions, the outcomes of health care and, ultimately, death rates.

Following is a brief summary of some of this evidence.



⁸ Marmot M., Allen J., Bell R., Bloomer E., Goldblatt P. WHO European review of social determinants of health and the health divide. *Lancet* 2012; 380: 1011–29.

⁹ Marmot M. Fair Society, Healthy Lives. Strategic Review of Health Inequalities in England post-2010. <http://www.instituteofhealthequity.org/projects/fair-society-healthy-lives-the-marmot-review> (accessed 23 March 2013).

¹⁰ National Council of Welfare “*The Dollars and Sense of Solving Poverty*” National Council of Welfare Reports, Autumn 2011, Volume 130, Her Majesty the Queen in Right of Canada (2011) p25.

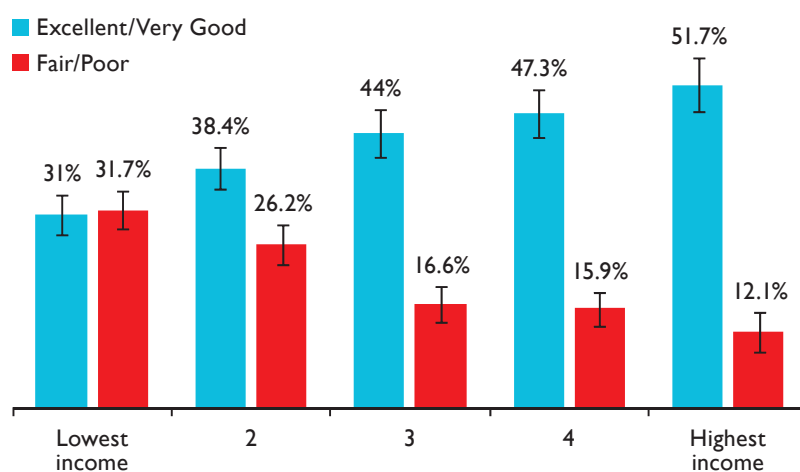
¹¹ Harvey Philip (Associate Professor of Law, Rutgers School of Law – Camden), “*Designing Policies to Combat Joblessness*,” University of Missouri – Kansas City Department of Economics, Center for Full Employment and Price Stability, Seminar Paper No. 3 (2000) p2.

¹² Payne R.K, De Vol P.E. and Smith T.D. “*Bridges out of Poverty – Strategies for Professionals and Communities*” AHA Process Inc. 2006 p45.

Self-rated health

There is a marked difference in how people rate their own health, depending on their household income category. Tasmanians in the lowest income household group were significantly less likely to experience very good or excellent health and reported significantly higher rates of fair/poor health than Tasmanians in the highest income household.

Figure: Self-assessed health by household income quintiles, population 18 years and over, Tasmania 2009

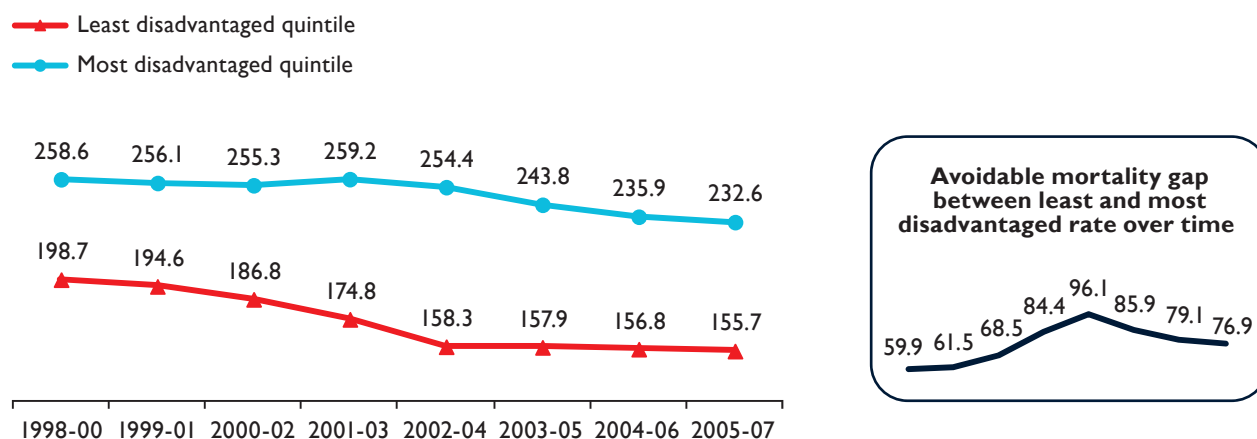


Tasmanian Population Health Survey, 2009

Avoidable deaths

Avoidable mortality rates by socio-economic status are a good measure of health inequities. The graph opposite compares avoidable death rates in people living in the highest SEIFA quintile areas in Tasmania, with those in the most disadvantaged quintile. Of concern is that the gap between the two groups was greater in 2005-07 than in 1998-2000.

Figure: Avoidable mortality by socio-economic status (SEIFA), age 0-74 years, age standardised rates per 100 000 population, Tasmania 1998-2000 – 2005-2007



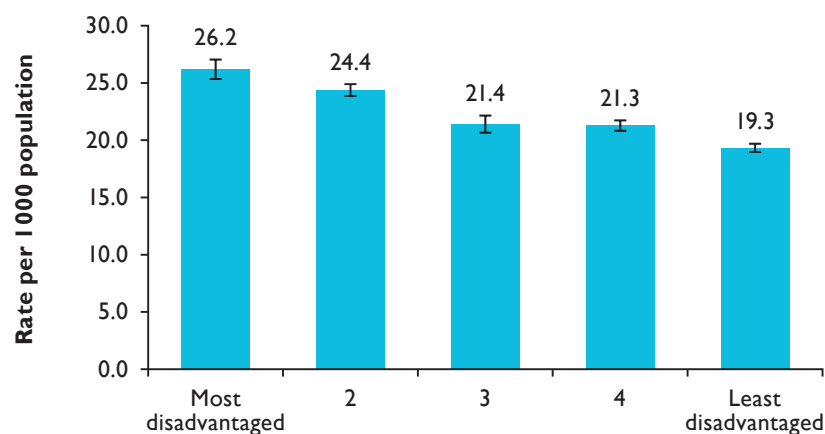
DHHS, Epidemiology Unit; Rates age standardised to the 2001 Australian population

Preventable hospitalisations

Potentially preventable hospitalisations (where hospitalisation is believed to be avoidable through the primary prevention, early detection and the provision of timely and adequate primary care for established conditions) are significantly affected by socio-economic disadvantage.

Potentially preventable hospitalisation rates for the most disadvantaged SEIFA quintile in 2009-11 were 26.2 per 100 000 population – almost 30% higher than for the least disadvantaged quintile at 19.3 per 100 000 population, with a clear gradient across quintiles.

Figure: Potentially preventable hospitalisations by socio-economic status (SEIFA), Tasmania 2009-2011



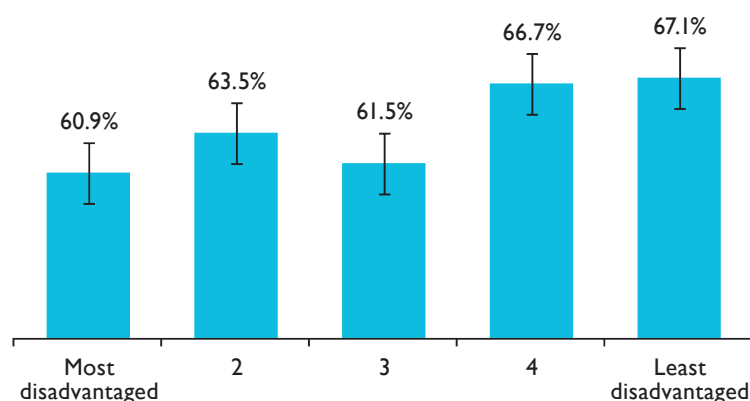
- Notes:
1. Rates are age standardised to the Australian 2001 population
 2. The error bars represent the 95% confidence intervals of the rate
 3. Both private and public hospitalisations are included

Cancer survival times vary between population groups

Over the past three decades there have been significant improvements in survival times for people diagnosed with cancer. The estimated five-year survival rate for Tasmanians diagnosed with cancer in 2003-07 was 64% overall, with a slightly higher survival for males and Tasmanians aged less than 65 years at the time of diagnosis.

However Tasmanians living in areas of least socio-economic disadvantage at the time of their cancer diagnosis have significantly higher cancer survival rates than those living in areas experiencing the most disadvantage. Poor survival outcomes in areas of greater socio-economic disadvantage may be due in part to a higher proportion of cases being diagnosed at a more advanced stage of cancer. For some conditions such as breast cancer there is evidence that good psychosocial support improves survival.

Figure: Five-year cancer survival rates* by socio-economic status (SEIFA), Tasmania 2003-2007



Menzies Research Institute, 2010 (unpublished data) *using survival estimates

Nationally, in the five years from 2006 to 2010, the five-year relative survival from all cancers combined was significantly higher for people living in the highest (71 per cent) compared with the lowest (63 per cent) socio-economic status areas; and higher in major cities (67 per cent) and lowest in remote and very remote areas (63 per cent).¹³ Due to timing differences these figures are not directly comparable to those shown above for Tasmania.

Cancer incidence rates nationally are higher for people living in lower than those in higher socio-economic status areas, and significantly higher in Inner regional (504 per 100 000) than other remoteness areas.¹⁴

Avoidable mortality, preventable hospitalisations and cancer survival times discussed above are just three of many potential illustrations of how preventable disease burden falls most heavily on lower socio-economic groups. These differences in health outcomes are to a significant extent mediated by differential patterns of health risk factors across the social gradient, and it is argued that the social gradient itself contributes directly to adverse outcomes for those lower down the scale of income, status and control.

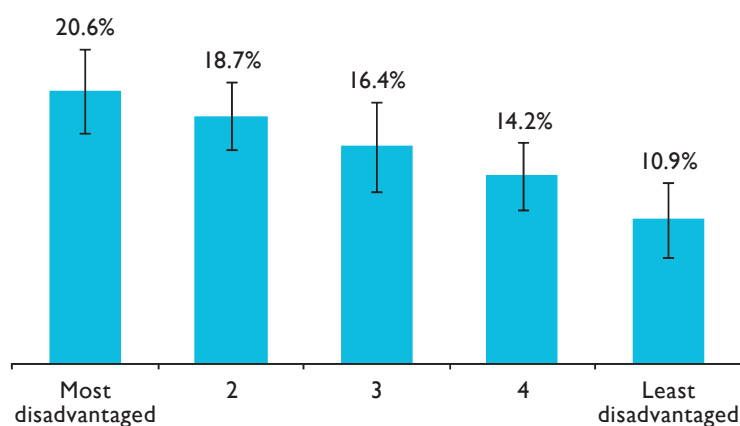
¹³ Australian Institute of Health and Welfare & Australasian Association of Cancer Registries 2012. Cancer in Australia: an overview, 2012. Cancer series no. 74. Cat. no. CAN 70. Canberra: AIHW.

¹⁴ Australian Institute of Health and Welfare & Australasian Association of Cancer Registries 2012. Cancer in Australia: an overview, 2012. Cancer series no. 74. Cat. no. CAN 70. Canberra: AIHW.

Health risk factor gradients

Based on the 2009 Tasmanian Population Health Survey (which had a large sample size of over 6 000 subjects) smoking is about twice as prevalent within the most disadvantaged communities compared to the least disadvantaged areas, with a clear gradient in between. Note that the daily smoking rates shown in the Figure below are not the same as (lower than) those obtained from the Australian Health Survey, described earlier.

Figure: Daily smoking prevalence by socio-economic status (SEIFA), population 18 years and over, Tasmania 2009



Tasmanian Population Health Survey, 2009

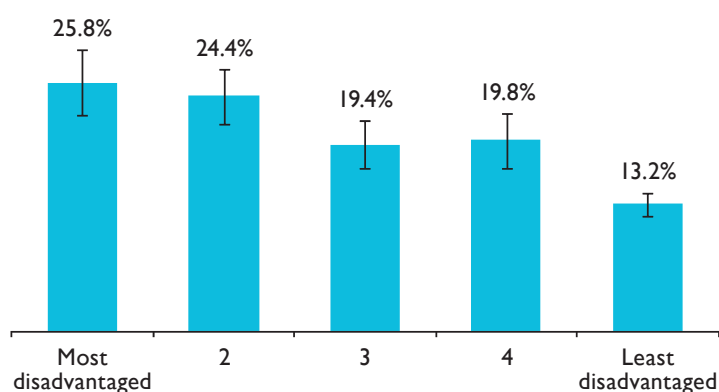
Body fat is not uniformly distributed

The proportion of Tasmanian adults living in areas with the greatest disadvantage who were obese (25.8%) was almost twice that of adults living in areas with the least disadvantage and reporting to be obese (13.2%).

Self-reported data on height and weight are less reliable than measured data, and it should be noted that the rates shown below (from the telephone-based Tasmanian Population Health Survey 2009) will understate the true prevalence, given that the more reliable measured data from the Australian Health Survey (AHS) 2011-12 found that the prevalence of obesity in Tasmanian adults was 28.5%.



Figure: Obese BMI by socio-economic disadvantage (SEIFA), population 18 years and over, Tasmania 2009



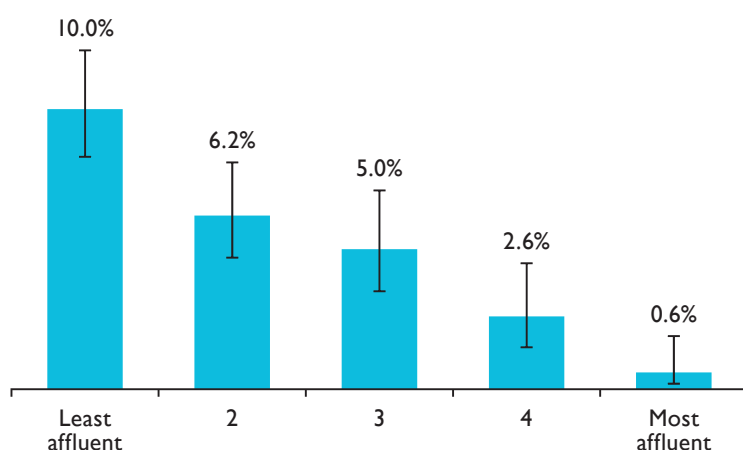
Tasmanian Population Health Survey, 2009

Available measured data from the AHRS also show that there is a clear gradient nationally in the prevalence of obesity/overweight, which increases from 58.9% of adults in the most advantaged SEIFA quintile up to 67.2% in the most disadvantaged quintile. This association between socio-economic disadvantage and obesity is likely to be strongly influenced by patterns of food purchasing as well as levels of physical activity. A related factor is that energy dense (high fat/high sugar) foods are the cheapest to purchase, on a cents per kilocalorie basis.

Food security (the ability to purchase adequate food) not surprisingly is significantly associated with income – but can also be influenced by factors such as local availability and transport.

The 2009 Tasmanian Population Health Survey (TPHS) showed a substantial gap in food security between “rich” and “poor” households. Overall, five per cent of Tasmanian adults reported to have run out of food in the last 12 months and were unable to purchase more – with this figure being 10% in the least affluent households compared with less than 1% of adults in the most affluent households.

Figure: Proportion of adults who experienced food insecurity by household income quintiles, Tasmania, 2009



Tasmanian Population Health Survey, 2009

The reasons for this difference are more complex than cost alone. People living in low income households are more likely to rely on the public transport network, the quality of which will affect access to shops and essential services. In 2009 low income Tasmanians were over five times more likely not to purchase nutritionally adequate food due to unreliable or inadequate public transport than high income Tasmanians. The cost of these foods, while significant, was not as important a factor as *access*.

The health of Tasmanian Aboriginals

In 2011, 19 626 residents or four per cent of Tasmania's population identified as being of Aboriginal, Torres Strait Islander, or both Aboriginal and Torres Strait Islander origin. This was the highest proportion of all states and territories other than the Northern Territory (26.8%) and well above the national figure of 2.5%.

Reliable health data for the reporting of Aboriginal and Torres Strait Islanders' health status are generally limited in Tasmania to information collected through national Aboriginal and Torres Strait Islander Surveys, as Aboriginal and Torres Strait Islander status is significantly under-reported in Tasmanian administrative datasets, and deaths and hospital data remain of insufficient quality to monitor and report on Aboriginal health issues.

There are significant health inequities between the Indigenous and non-Indigenous populations. Aboriginal and Torres Strait Islander people have higher prevalence rates of many health conditions, particularly circulatory diseases (including heart disease), diabetes, respiratory diseases, and kidney disease. They also have a lower life expectancy and more disability. Many of these inequities find their origin in greater socio-economic disadvantage, with Indigenous people generally being worse off than non-Indigenous people when it comes to the social determinants of health.

On average Aboriginal Australians report having lower incomes, higher rates of unemployment, lower educational attainment, and more overcrowded households than other Australians.¹⁵

For Aboriginal and Torres Strait Islander populations, issues such as cultural connectedness, colonisation, and racism have also been identified as having a unique influence on mental health and social and emotional wellbeing.¹⁶ (Similarly, for people from culturally and linguistically diverse (CALD) backgrounds the process of immigration, connection with culture, and discrimination can play a significant role in health and mental health outcomes.)

The self-assessed health of Indigenous Tasmanians continues to compare unfavourably with that of non-Indigenous Tasmanians, with Tasmanian Aboriginal and Torres Strait Islander people being significantly more likely than non-Indigenous Tasmanians to rate their health as only fair or poor (28.3% vs 16.1%).

The proportion of Indigenous Tasmanians adults who reported a profound or severe core activity limitation in 2008 (12%) was significantly higher than that reported by non-Indigenous Tasmanians (4.7%).¹⁷ Similarly, Census 2011 data show that 6.6% of all Aboriginal and Torres Strait Islander people in Tasmania required assistance with core activities due to disabilities (affecting self-care, mobility and communications), compared to 5.8% of non-Indigenous Tasmanians.

Reliable estimates of Aboriginal and Torres Strait Islander life expectancy in Tasmania are also confounded by identification issues such as uncertainty regarding Indigenous identification in deaths data and Census data collections, but some broad national estimates are available.

¹⁵ Australian Institute of Health and Welfare, Australia's Health 2010.

¹⁶ Statewide and Mental Health Services, Tasmania. Submission to the Joint Select Committee on Preventative Health Care, 2013.

¹⁷ AIHW, Aboriginal and Torres Strait Islander Health Performance Framework Report, Tasmania, 2010.





Aboriginal and Torres Strait Islander peoples continue to have a lower life expectancy than the general population. In the period 2005 to 2007 the life expectancy at birth for Indigenous Australians (nationally) was estimated to be 67.2 years for males and 72.9 years for females – a gap of 11.5 years for males and 9.7 years for females compared with Australia as a whole. Although this inequity is trending in the right direction compared with the average life expectancy gap of 17 years that existed in the period 1996-2001, much remains to be done.

Socio-economic trends in Tasmania

Social indicators present a mixed picture of progress, with some improvements in education and incomes, but also higher unemployment noted since 2006. However, levels of income and education remain, for the most part, well below the average recorded for most other jurisdictions. Previously projected increases in the average age and the influence of an ageing population demographic on welfare needs have continued to occur. More details are found in *Health Indicators Tasmania 2013*.

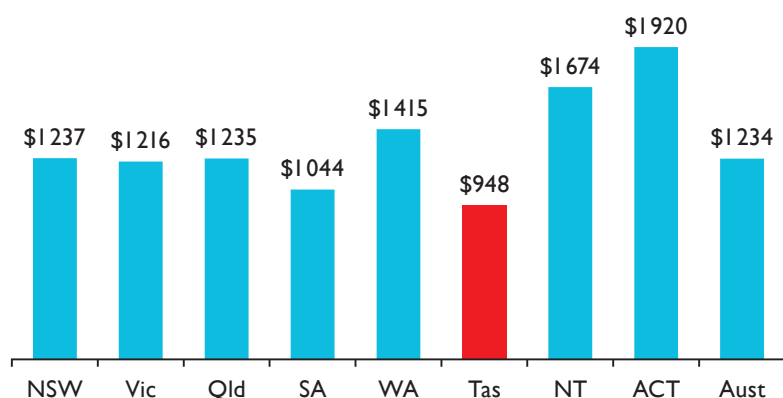
- Tasmania's median age is expected to continue to increase and remain the highest of all jurisdictions, with a median age of over 44.4 years by 2050. The table below shows how the gap in median age between Tasmania and Australia is expected to increase a little further over this period, from 2.6 years in 2011 to 3.1 years in 2050. The challenges presented by this ageing demographic are discussed later in this Report.

Table: Actual and projected median age, Tasmania and Australia, 2006-2050

	2006	2011	2020	2030	2040	2050
Tasmania	38.0	40.0	40.8	42.2	43.7	44.4
Australia	37.0	37.4	37.9	39.3	40.6	41.3

- In December 2012, Tasmania had the highest rate of unemployment (7.3%) of all jurisdictions.
- Additionally, the estimated long-term unemployment rate for Tasmania (1.5%) was the highest in the country, as was the estimated under-employment rate (9.3%).
- Tasmania has the highest proportion of people living below the poverty line, as a result of very low median incomes and a high reliance on government income support payments (see opposite).

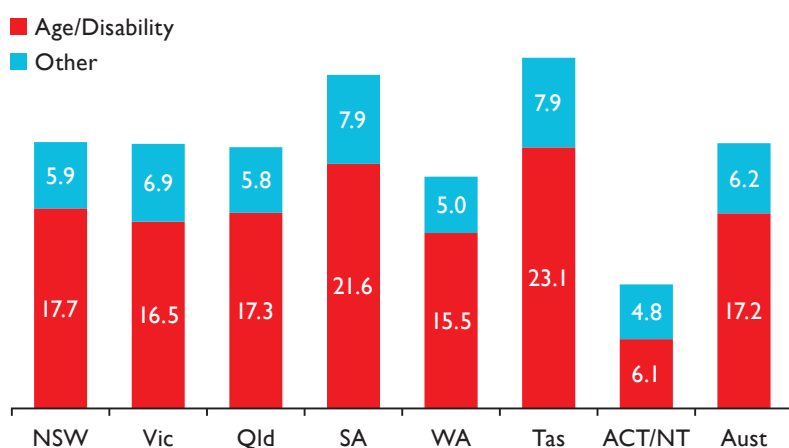
Figure: Median weekly gross household income* by jurisdiction, 2011



ABS, Census 2011; *15 years and over

- The total proportion of Tasmanian households relying on income support payments is 31%, the highest proportion of any jurisdiction. Of these households, 23% are recipients of either an age pension or a disability pension. The impact from Tasmania having an older population is clearly evident.

Figure: Income support payments as a proportion of all households by jurisdiction, 2011



NATSEM, Cost of Living Indicators for Tasmania, June 2011

- In 2011, Tasmania had the second highest proportion (after the Northern Territory) of single parent families (17%) among the jurisdictions, with the national average rate being 15.9%. The higher proportion of sole parents also contributes to Tasmania's higher poverty rates.
- Education levels have increased in Tasmania, from 31.3% of Tasmanians aged 15 years and over completing Year 12 in 2006 to 36.5% in 2011. However, Tasmania is still behind other jurisdictions and Australia in Year 12 school retention rates.

What do these patterns of social determinants mean for the health sector?

Tasmania's health and community service care providers must respond to the needs of communities and individuals adversely affected by socio-economic disadvantage, and provide care that of course is also a determinant of health.

Since health starts in our homes, our communities, our schools, our workplaces and our cultural, commercial and physical environments, health care services have only limited influence on the social determinants of health. However, there is a stewardship role for the health sector more broadly in helping to ensure policy coherence and intersectoral collaboration for gains in health and wellbeing.

Targeting interventions to particular places only, or basing funding models solely on providing care and protection services only for the most disadvantaged groups does not necessarily alter the structural forces or social determinants of health impacting on those groups.

A stronger emphasis on population-based primary health approaches and population health strategies is required, and policies and regulations in non-health sectors are needed to address the underlying social causes of unhealthy behaviours and inequitable health outcomes.

The World Health Organization outlined the key structural components countries need to integrate in implementing a social determinants approach¹⁸ and described four broad, interrelated functions through which the health sector can make a useful contribution to governance for action on social determinants and health equity:

- *First, the health sector has a key role in advocating for a social determinants approach and explaining how this approach¹⁸ is beneficial both across society and for different sectors. In particular, the health sector needs to articulate why health inequities are a high-priority indicator of a society's lack of well-being that justifies an integrated response.*
- *Second, the health sector has particular expertise in and responsibility for monitoring health inequities and the impact of policies on social determinants.*
- *Third, through marshalling of evidence and successful advocacy, the health sector can play an important role in bringing sectors together to plan and implement work on social determinants – for example, identifying issues that require collaborative work, building relationships, and identifying strategic allies in other sectors as potential partners.*
- *Fourth, the health sector has an important role in the development of capacities for work on social determinants. An important caveat is that the health sector should avoid claiming any of these roles as its exclusive function.*

Importantly, it is this caveat – 'the health sector should avoid claiming any of these roles as its exclusive function' – that is the tipping point for change and progress. Implicit in this is the requirement that other sectors recognise lasting structural change comes with their accepting contributory responsibility for the social determinants of health.

Nationally, a Senate Community Affairs Reference Committee this year tabled a report on Australia's domestic response to the World Health Organization's (WHO) Commission on Social Determinants of Health report "Closing the gap within a generation"¹⁹, and recommendations included the following:²⁰

¹⁸ WHO, Closing the Gap: Policy into Practice on Social Determinants of Health, World Conference on Social Determinants of Health, 2011 WHO. Access at www.who.int/sdhconference/Discussion-Paper-EN.pdf

¹⁹ Commission of the Social Determinants of Health, Closing the Gap in a Generation: Health equity through action on the social determinants of health, World Health Organization, Geneva, 2008.

²⁰ The Senate – Community Affairs Reference Committee. Australia's domestic response to the World Health Organization's (WHO) Commission on Social Determinants of Health report "Closing the gap within a generation". Commonwealth of Australia, March 2013.

- *The committee recommends that the government adopt administrative practices that ensure consideration of the social determinants of health in all relevant policy development activities, particularly in relation to education, employment, housing, family and social security policy.*
- *The committee recommends that the government place responsibility for addressing social determinants of health within one agency, with a mandate to address issues across portfolios.*

Future policy directions for action on social determinants

The Tasmanian Parliament in December 2012 established a Joint Select Committee on Preventative Health Care with a particular emphasis on the social determinants of health and assessing the need for preventative health measures, including the detection and intervention of chronic diseases and economic funding models to ensure positive outcomes.²¹

The issues under consideration by the Joint Select Committee are highly pertinent to the matters contained in my report, and the interest being shown through this Inquiry is very welcome.

Health inequities are evident across a number of health outcomes in Tasmania. There is clear evidence of social gradients and disparities in health status likely to be avoidable in many cases because they relate to the conditions in which people are born, grow, live, work and age – including inequities in power, money and resources that give rise to these conditions.

Tasmania's health status is being significantly impacted by the combined effects of an ageing population, socio-economic circumstances and adverse social determinants of health.

From a national perspective, Tasmania is an entirely “regional” state (with a small “remote” population component), and its pattern of health outcomes is largely comparable with those for regional Australia. The gap in health outcomes between Tasmania and Australia as a whole is approximately equivalent to the gap between regional Australia and Australia as a whole.

This health gap is largely preventable, and as such represents an inequity.

Equity is a strong attribute of a healthy society, and governments should aim for health equity as a central goal.

To achieve this requires policy coherence and intersectoral work across the whole of government, with systematic consideration of the equity effects of government policy, systems and processes on the population. This is a “healthy public policy” approach, meaning that policies and actions across key government departments are consciously developed in such a way that they do no harm to health or – preferably – improve health and health equity. There are already good examples of this approach, such as the way housing and homelessness reforms are now being addressed in Tasmania (see Appendix). But there is still a need to extend this policy approach more broadly.

A strong international, national and state movement towards a “health in all policies” approach has been gathering momentum. Whether this would be called “health in all policies” in Tasmania, or “health equity in all policies” or more simply “equity in all policies” will depend on what best suits the Tasmanian environment. It seems likely most government departments would relate more readily to equity as a component of policy impact assessments than they would to something called “health equity impact assessment”, which might be seen as out of their realm of knowledge and expertise.

²¹ Parliament of Tasmania, 2012. <http://www.parliament.tas.gov.au/ctee/joint/PHC.htm>



An “equity in all policies” approach integrated into a government policy framework aimed at improving the economy, investing in the next generation and in preventive health is an excellent basis for contributing over time to significant and sustainable improvements in health and wellbeing.

In doing so, there is a need to broaden the focus from targeting marginalised groups alone towards systems and processes and the degree to which they are socially inclusive and equitable.

A policy response that endeavours to reduce health inequalities by targeting only the most disadvantaged is not recommended for the following reasons:

- inequities in health are not confined to the poorest or most marginalised.²² Health follows a social gradient such that inequities exist right up the social scale. This has profound implications for population health and the overall burden of disease
- focusing only on the health of the most disadvantaged addresses only a part of the problem and misses out on major opportunities for population health improvement
- population-wide approaches based on sound public health principles are frequently less costly and more sustainable than measures or interventions targeted at individuals
- moving towards a social gradient approach means policies and programs will have greater potential reach to a wider population, thereby improving the health of more people
- a social gradient approach will mean reformulating policy and action to improve the health of all but have proportionately more impact further down the social hierarchy where the need is greatest²³
- a focus on the gradient and not the gap will provide the basis for a more equitable and more sustainable Tasmania
- it is fundamental that all Tasmanians have equal opportunity to make choices that lead to good health. Greatest progress occurs when the forces of individual and family responsibility and effort combine with enabling systems supported by government.

²²Friel, S. Health equity in Australia: A policy framework based on action on the social determinants of obesity, alcohol and tobacco. Report to the Australian National Preventative Health Taskforce, 2009.

²³Ibid.

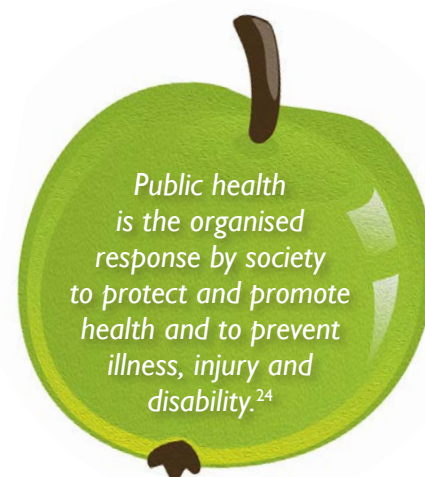
Public Health Successes

Improvements in the health of our population

The past century has seen a dramatic improvement in our health, including reduced infant mortality and deaths from infectious diseases, and a major increase in average life expectancy at birth.

Many different areas of organised public health action to protect and promote health have contributed to the improved health and wellbeing we enjoy in Tasmania today.

The Australian National Preventive Health Agency recently reviewed the major achievements in public health in Australia across the past century. Tasmania has benefited greatly from (and sometimes has been at the forefront of) these endeavours, summarised below.



The outstanding public health successes of the last hundred years:²⁵

Control of Infectious diseases: 1901 onwards	<ul style="list-style-type: none"> • Sanitation and hygiene • Screening and infectious disease surveillance • Organised mass immunisation • Aseptic procedures and antimicrobial medicines
Maintaining a safe environment: 1901 onwards	<ul style="list-style-type: none"> • Environmental lead reduction • Reduced exposure to environmental asbestos • Reducing the health effects of passive smoking
Improved maternal, infant and child health	<ul style="list-style-type: none"> • Safer birthing practices • Improved survival and health of infants • Promotion of breastfeeding • Preventing infant deaths from SIDS
Better food and nutrition: 1901 onwards	
Preventing injury: 1970s onwards	<ul style="list-style-type: none"> • Road traffic safety • Preventing injuries in the home • Preventing suicide • Gun control and reduction in gun-related deaths
Reducing risk factors and chronic diseases: 1960s onwards	<ul style="list-style-type: none"> • Decreased tobacco smoking • Decreased alcohol-related harm • Sun safety measures • Needle and syringe exchange programs • Reduction in fatal heart attacks • Stroke prevention and high blood pressure reduction • Organised screening for certain cancers
Improving health and safety at work	
Universal access to healthcare, pharmaceuticals and technology: 1948 onwards	
Improving public health practice	<ul style="list-style-type: none"> • Training the public health workforce • Aboriginal Community-Controlled Health Services • Research into public health • Monitoring the public's health

²⁴National Public Health Partnership. *Public health in Australia: the public health landscape: person, society, environment*, NPHP, Melbourne, 1998.

²⁵Australian National Preventive Health Agency. *Advocacy in Action in Public Health: Lessons from Australia over the 20th Century*. Commonwealth of Australia 2013. <http://anpha.gov.au/internet/anpha/publishing.nsf> (accessed 12 February 2013).



There are a number of common elements to effective public health actions such as those listed in the table on the previous page:

- a concerted focus on a public health problem adversely affecting a significant number of Australians
- implementation at a national level, or across the whole population, through government action
- leadership, stewardship and informed advocacy by public health practitioners and champions
- approaches that were complex and required action across a number of different fronts
- sustained efforts to effect change, often over many years
- support of the wider community.

A crucial success factor is the capacity and will to invest significant resources in complex multifaceted public health ventures, often over lengthy periods of time, to ensure their success.

The establishment of the Australian National Preventive Health Agency (ANPHA) by the Australian Government, which started in 2011, has in itself been a landmark achievement for public health. It provides for the first time in Australia a focus for leadership and well-informed collective action by jurisdictions and non-government organisations. This followed on from the National Partnership Agreement on Preventive Health by the Council of Australian Governments (COAG) as well as a series of major reports with recommendations for prevention strategies from a National Preventative Health Taskforce commissioned by the Australian Government. ANPHA has three priority areas for action: obesity, alcohol and smoking. Substantial progress has already been made over the past two years, and over time the benefits of the groundwork presently being undertaken will become more manifest and appreciated. Many of the strongest interventions and policy levers to address our most difficult public health problems are those in the national arena, and Tasmania has much to gain from supporting concerted national endeavour in population-wide approaches.

Public health advances in Tasmania over the past decade

In Tasmania over the past decade during my time as Director of Public Health I have been privileged to have initiated or be associated with a number of significant advances, some of which are highlighted below.

I have chosen to cover this period of a decade partly because it coincides with my own tenure as Director of Public Health, but more importantly because in many cases the preparatory work for these achievements has taken that long to reach fruition. This illustrates the point above that in the complex world of prevention, sustained effort is needed – particularly when resources available for prevention strategies are scarce and hard-won.

Tasmanian Food and Nutrition Policy

In 2004 the Tasmanian Government adopted the Tasmanian Food and Nutrition Policy, which lays out a 10-year plan for improving food and nutrition in Tasmania. The policy covers key focus areas of environment, food safety, promoting healthy eating, breastfeeding, food security, primary production, distribution, retail and wholesale, food service, labelling, media, marketing and advertising, technology and workforce development. This policy provided a rather unique (in Australian terms) platform for action across a wide range of sectors from producer to plate that has guided a number of successful strategies – some mentioned below. The policy is necessarily ambitious in its scope but provides Tasmania with an opportunity to improve population health in a sustainable manner involving partnership with industry. There is an intention to redevelop the policy in 2014.

Tasmanian Food Security Strategy

The establishment of the Tasmanian Food Security Council by the Premier in 2011-12 led the way nationally in examining and fostering ways to improve food security. About 5-10% of Tasmanians do not have food security, which in its fullest sense means having ongoing access to food that is safe, healthy, acceptable and affordable. The prevalence of food insecurity increases markedly in population sub-groups with low income, those who are homeless, or have mental illness, disability, or who are socially isolated or from different cultural backgrounds.

There is a key distinction to be drawn between measures aimed at emergency food relief and those that help build ongoing food security for those experiencing difficulties, best summarised by the expression “a hand up, rather than a hand-out”.

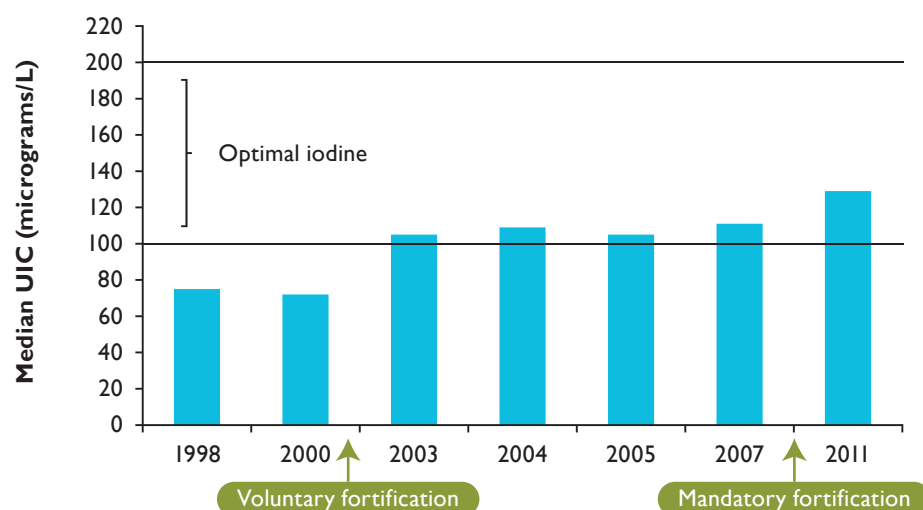
Improved iodine nutrition

Iodine is an essential nutrient for normal thyroid function throughout life, and development of the brain during infancy is particularly sensitive to even mild deficiency – with subtle but potentially profound implications at the population level for educational performance in later life. Tasmania has a long history of iodine deficiency due to the nature of the state's soil and a range of strategies have been used to address this, overseen by a highly committed ministerial Thyroid Advisory Committee. During the 1990s evidence re-emerged that iodine levels had fallen in children.

Previous State of Public Health Reports have described this issue and I am pleased to report finally the iodine status of Tasmanian children is adequate and the mechanism used to achieve this is both sustainable and equitable (see Figure below). This followed nine years of concerted effort by Tasmania at the national level through the Australian and New Zealand Food Regulation Ministerial Council, which mandated iodine fortification of salt used in baking bread in 2009.



Figure: Progressive improvement in iodine nutrition status (determined by median urinary concentration) in Tasmanian school children, 1998-2011



DePaoli, KM, Seal JA, Burgess JR, Taylor R. Improved iodine status in Tasmanian School children after fortification of bread: a recipe for national success. *Medical Journal of Australia* 2013; 198: 492-494

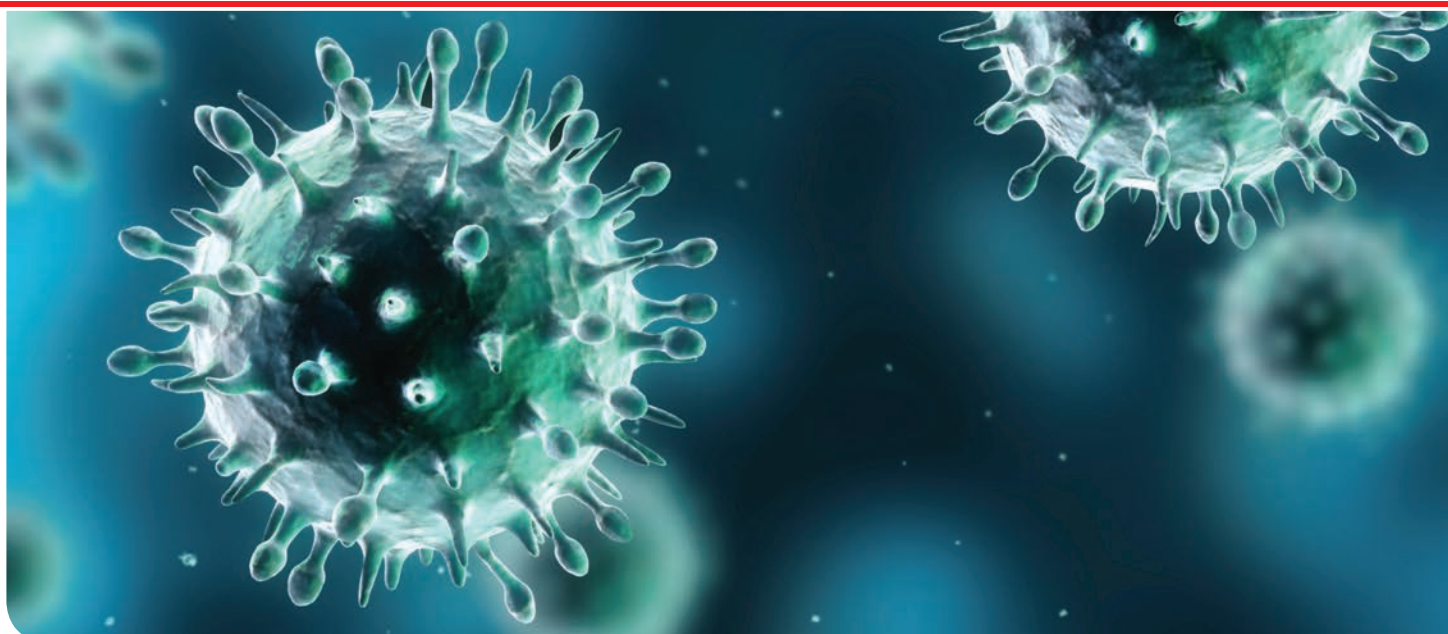
Pregnant and breast feeding women need more iodine than they will get from food alone, and there is an ongoing need to ensure they receive adequate supplements to ensure optimal development of their baby.

Healthcare associated infections

Healthcare associated infections (HAIs) occur while a patient is receiving care in a health facility. In Australia and internationally up to 80% of hospitalised patients will acquire an infection during their hospital stay; a number of these can be very serious for the patient in addition to prolonging their stay and being expensive to manage. In Tasmania there are an estimated 2 300 HAIs each year. HAIs will always be a potential risk for patients; however, there is good evidence to show many of these infections can be prevented through careful attention to infection control procedures and processes.

In 2008 the Tasmanian Infection and Prevention Control Unit was established by the Department of Health and Human Services within Population Health following some years of case-building and advocacy. This small unit has successfully developed a system of monitoring and surveillance for a range of HAI indicators, including *Staphylococcus aureus* bacteraemia (a serious bloodstream infection), *Clostridium difficile* infection, hand hygiene compliance rates and others. A range of guidance, policies and protocols have been developed in consultation with hospitals and health care facilities to reduce the incidence of these preventable causes of harm to patients, and the unit coordinates a network of clinical staff and infection control professionals.

In December 2008 to improve the quality and certainty of data I declared *Staphylococcus aureus* bacteraemia to be a notifiable disease under the Public Health Act, making Tasmania the first and only jurisdiction to do so and placing it at the forefront of surveillance systems for this condition. Tasmania was also the first state to transparently publish the rates of HAIs and hand hygiene compliance in its public hospitals and the Department, through the unit, has been a strong contributor to the work of the Australian Commission on Safety & Quality in Healthcare in this area.



Public health emergency planning and preparedness

In 2003 the first Tasmanian Health Action Plan for Pandemic Influenza was established, and since then there has been continued improvement in planning and preparedness for major public health events such as an influenza pandemic.

As one of a number of State Special Plans established in recent years under the Tasmanian Emergency Management Plan, the Department of Health and Human Services now has a Public Health Emergencies Management Plan that provides for a systematic and structured approach with clear lines of governance in responding to a range of major public health events. Similarly, the Department more broadly is better equipped with an emergency management framework, thanks to the work of the Emergency Preparedness and Coordination Unit within the Office of the Chief Medical Officer. Work is still needed to ensure a collective and organised response across Tasmania following the disaggregation of the Department with the establishment of three Tasmanian Health Organisations in 2012.

The emergence of the 2009 influenza pandemic – the first designated as such by the World Health Organization for 40 years and caused by a novel H1N1 strain of influenza Type A – even though by no means as severe as initially feared – significantly stretched the health system's capacity to manage large numbers of cases over a very short period. Most of the public health countermeasures used, including educational material for the public on ways to protect themselves and family, were contemplated and developed in readiness well beforehand. This had included updating and expanding laboratory testing equipment at the Royal Hobart Hospital, since early detection and diagnostic confirmation are fundamental to early containment and control. Despite this, human resources were strained during the event. The experience also highlighted the need for an overhaul of a statewide approach to Tasmania's public pathology services, including specimen transport systems.

The very real difficulties of successfully delaying such a contagious infection from becoming widespread throughout the state for more than just a couple of weeks rapidly became evident during this pandemic, particularly given the key resources of a very small communicable diseases team to undertake case identification, contact, tracing and containment efforts. Should a more serious threat emerge in the future, as seems inevitable, the community would need to accept more significant impositions and rapid control measures if the public health approach is to have a chance of succeeding in this era of mobility and global air travel.



Reduced public health harms from opioid drug prescribing and diversion

The use of prescription opioids internationally, nationally and locally has grown rapidly in the past 15 to 20 years. Although opioid pain-relieving drugs such as morphine (and more recently oxycodone) have a well-established place in the treatment of cancer-related and acute pain, their role in the management of chronic non-malignant pain can be less clear and evidence of harm is growing.

In Australia, and in particular Tasmania, the growth in opioid prescribing has also been associated with large increases in opioid-related deaths.

A review of these deaths was undertaken by Population Health in 2005 and found in the period January 2001-September 2004, 64 deaths (at an average age of 38.6 years) had occurred that were associated either directly with opioid misuse or from opioids in conjunction with other drugs, with illegal diversion of legally-prescribed opioids being a frequent factor.

Opioid prescribing for chronic pain from causes other than cancer is a complex matter that relates to the nature of clinical practice and services (including pain management support services), education of doctors, and community and medical expectations, with the pharmacy industry also having a strong influence.

To help reduce the risks of these harms occurring and to ensure opioid analgesics are prescribed appropriately, the Department of Health and Human Services commissioned national experts from the National Drug and Alcohol Research Centre, based at the University of NSW, to review the benefits and risks, clinical and prescribing practices, assessment protocols, education systems and regulatory framework surrounding the prescription of pharmaceutical opioids.

The review resulted in a major report of national significance, 'A review of Opioid Prescribing in Tasmania – A blueprint for the future' that will shape the approaches (including clinical, regulatory and at a population level) for best practice safe use of opioids in the management of chronic pain not caused by cancer.

Concurrently, over this time the Pharmaceutical Services Branch of the Department has developed a Drugs and Poisons Information System that now includes online access for clinicians to ensure they have appropriate information at the time of prescribing to support their decision to prescribe an opioid. The system has been licensed to the Commonwealth and is in the process of being rolled out by the Commonwealth to all jurisdictions.

Recent data show Tasmania's rate of prescribing morphine and oxycodone has now declined to levels below the national average, after years of being significantly higher.

Challenges

Reflecting on previous sections of this report, some of the problems we face in Tasmania have deepened – and predictably so. In some cases this can be attributed to inadequate investment in known prevention strategies. In others the problems are by their very nature more profound, more complex and more “wicked” – meaning there is no easy answer, and the effort to solve one aspect may reveal or create other problems.²⁶

This is nowhere more obvious than efforts directed towards reversing the current epidemic of obesity and overweight in Tasmania and Australia generally through changing behavioural patterns. The development of effective interventions to change behaviour at the population level is not rocket science – as Salmon (2003) pointed out:

“Behaviour change is much more sophisticated, complex and unpredictable than rocket science and if people behaved as predictably as rockets then the solutions would be relatively simple.”²⁷

With some notable exceptions, population health approaches do not directly address individual behaviour change but tend to work through policy, legislation and programs with organisations, community sectors, decision-makers and leaders who influence the factors that shape health behaviours.

Ageing demographic

The 2011 Census confirmed Tasmania now has the highest median age of all states and territories, reflecting Tasmania's high proportion of people aged 65 years and over.

Table: Median age by jurisdiction, 2011

NSW	Vic	QLD	WA	SA	Tas	ACT	NT	Aust
38	37	36	36	39	40	34	31	37

ABS, Census 2011



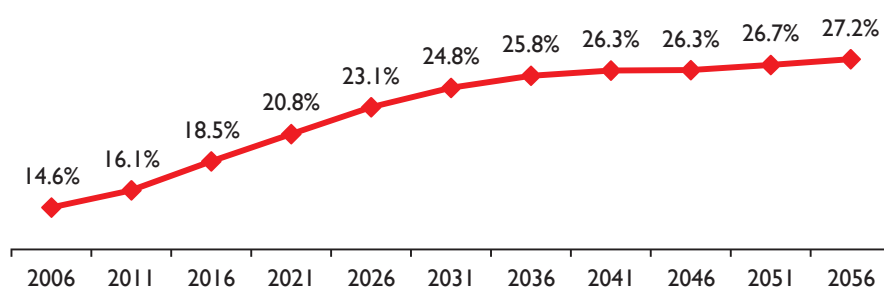
The proportion of Tasmanians aged 65 years and over is projected to grow further over the next 45 years, from around 16% in 2011 to 27% by 2056. This shift has profound implications for the health care system, a number of which are already being experienced.

²⁶http://en.wikipedia.org/wiki/Wicked_problem

²⁷Salmon J (2003). A review of potential strategies for reducing inactivity in Tasmania. Report prepared for the Department of Health and Human Services.



Figure: Actual and projected population aged 65 years and over as a proportion of the total population (Series B), Tasmania, 2011-2056



ABS, Population Projections Australia 2006-2056, cat. no. 3222.0

In the ABS Survey of Disability in 2009, 22.7% of Tasmanians (all ages combined) reported one or other type of disability (broadly-defined and including some common conditions such as back problems, arthritis and asthma) compared with 18.1% for Australia as a whole. These data are not age-adjusted, but illustrate how the age structure is influencing likely patterns of health care needs in Tasmania.

People living with a disability usually have a specific limitation or restriction, such as an impairment restricting their mobility, ability to communicate, undertake self-care activities or a restriction with schooling or employment. The 2011 Census showed 5.8% of all Tasmanians reported a need for assistance with core activities – up from 5% in 2006.

Dementia was recently added to the National Health Priority Area list for Australia because of the significance of the increase in prevalence that is occurring. In 2011, an estimated 298 000 people were living with dementia in Australia. Among Australians aged 65 and over, almost one in 10 (9%) had dementia. And among those aged 85 and over, three in 10 (30%) had dementia. There are a number of different types and causes of dementia, and although dementia is more common in older people, it is not a “normal” part of ageing.

Given the potential for prevention of vascular forms of dementia through the same protective factors that help avoid heart disease, and the likelihood the numbers of Tasmanians needing care for dementia will at least double in years to come, more effort and resources should be directed towards prevention and management strategies. Tasmania has the opportunity – and the imperative – to become a leader in this field.

An increase in cancers will likely become particularly noticeable in Tasmania due to the sharp increase in cancer rates in later years.

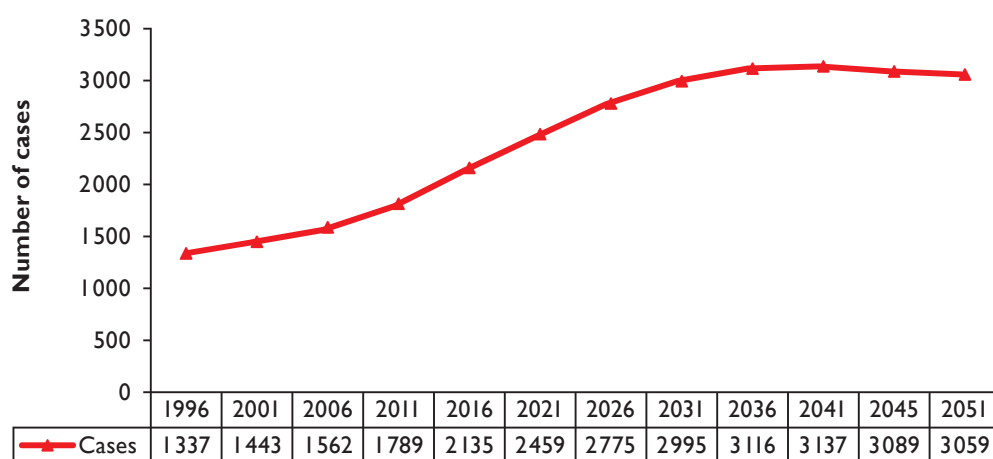
The impact of an ageing population on cancer prevalence in Tasmania

Because the average population age is increasing and people are living longer, cancers are more prevalent than before and are now overtaking all other conditions in disease burden.

In Tasmania this translates to a significantly greater health care burden for the community than is generally appreciated. The median age in Tasmania (40.0 years in 2011) is 2.6 years higher than that for Australia. This may not appear great, but means about 20% more (around 500 additional) cases of cancer are diagnosed each year in Tasmania than would be the case if our population age distribution matched that of Australia as a whole – assuming all other risk factors remain comparable.

The graph below shows the projected doubling in all-cause cancers for Tasmania's population aged 65 years and over, to over 3 000 cases by the year 2051.

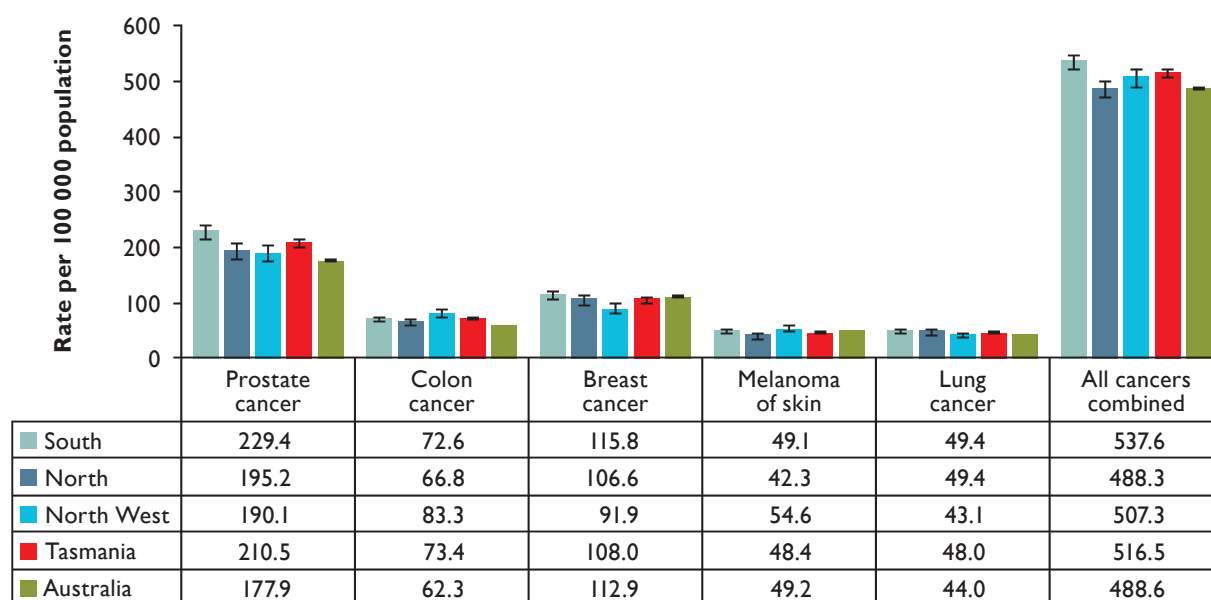
Figure: All causes cancer* incident case projections, population 65 years and over, Tasmania, 1996-2051



*Excludes non-melanocytic cancer; projections use 2004 incident rates derived from the Tasmanian Cancer Registry

Apart from an extra burden due to age differences, there is also a statistically significant difference in age-standardised cancer incidence rates between Tasmania and Australia when all cancer types are combined. As shown in the following Figure there is also a significant difference between Tasmania and Australia for three of the five top cancer types: prostate, colon and lung cancer.

Figure: Age-Standardised Incidence Rates for top five cancers in Tasmania and Australia, 2005-2009



Notes: 1. Rates are age-standardised to the Australian 2001 population.
 2. The error bars represent the 95% confidence intervals of the rate.
 3. All cancers combined includes cancer coded in ICD-10 as C00-C43, C45-C97, D45-D46, D47.1 and D47.3 . Sources: Tasmanian Cancer Registry and AIHW: Australian Cancer Incidence and Mortality

Tasmania's higher prostate cancer rate (age-adjusted) is more likely to be associated with higher rates of diagnosis arising from Prostate-Specific Antigen (PSA) testing than any other particular factor; despite the known issues with this test as a cancer screening tool.

However, the higher rates of colon and lung cancer are related to Tasmania's poorer health risk factor profile – these rates are influenced by Tasmania's higher smoking rates, together with (in the case of colon cancer) inadequate physical activity and insufficient fruit and vegetable consumption.

Tasmania's ageing demographic means it is indeed the bellwether state for other jurisdictions, which will face similar issues over time. The opportunity is there for the Tasmanian community to develop new ways of working to manage this transition.

Is escalating health care expenditure putting health beyond our means?

Total expenditure on health goods and services in Australia in 2010-11 (including all sources: public, private, NGO and individuals) was estimated at \$130.3 billion, which was 9.3% of GDP.²⁸

Over the decade from 2000-01 to 2010-11, national expenditure on health grew in real terms at an average of 5.3% per year (4.6% in Tasmania) compared with an average annual real growth in GDP of 3.1%. Over the same time in Tasmania, the average per capita health cost has fluctuated around the national average and in 2010-11 was \$5 580 in Tasmania (noting this figure is not adjusted for age) and \$5 502 across Australia.

²⁸ Australian Institute of Health and Welfare 2012. Health expenditure Australia 2010-11. Health and welfare expenditure series no. 47. Cat. no. HWE 56. Canberra: AIHW.

From 2000-01 to 2010-11, total recurrent funding of public hospitals in Australia increased in real terms by \$15.9 billion to reach \$38.3 billion a year. The largest increase was by state and territory governments (\$8.4 billion or 53.2% of total increase) comprising 6.1% average annual real growth.

In contrast, in real terms between 2000-01 and 2010-11, estimated government expenditure on public health activities (which includes prevention activities such as organised immunisation programs and vaccines, communicable diseases control, food standards and safety, screening programs, prevention of hazardous and harmful drug use, environmental health, selected aspects of health promotion and public health research) grew at an average rate of 3.8% a year, with a significant component of that growth in costs of new vaccines.

In 2010-11 national expenditure on public health related activities totalled \$1.9 billion or 1.6% of recurrent health expenditure.²⁹

With the current design and culture of the health system, our acute and chronic care hospital systems readily absorb all funding received, even when new efficiencies are achieved, because it is a system built upon compassion and maximising the care provided to all recipients. This is certainly not a criticism of that ethos, but this characteristic combined with community expectations mean that it has become increasingly difficult for the care system to determine when it has provided “enough” care, or received sufficient funding.

Population ageing and increasing prevalence of chronic disease combined with technological advances bringing new forms of diagnosis and newer ways to intervene and treat ailments, are creating perfect conditions for a burgeoning health industry – so long as a trained workforce is available and funds keep coming to pay staff – but also a perfect storm for treasury coffers.

Limited resources mean any funding growth is effectively being diverted away from other social goods to expand a care system that for a variety of reasons has difficulty defining its boundaries. From a public health perspective, this limits progress in those things that determine population health and wellbeing, and constrains effective prevention activity. The community as well as health professionals, including the powerful associations that represent the interests of some of those professionals, should have very real concerns about the sustainability of this situation.

National Health Reforms

Major efforts are underway to improve the quality and performance of the health care system in Australia, with a focus on hospitals. It will take some years to determine whether or how these are benefiting the public in overall health outcomes.

This report does not attempt to analyse hospital bed demand management, patterns or pathways of care or other related aspects of health care provision in Tasmania. Analysis by the Commission on Delivery of Health Services in Tasmania³⁰, currently underway, and the work of the Tasmanian Medicare Local using funding from the Tasmanian Health Assistance Package³¹, is relevant to these issues.

However, one aspect of the new national funding model hospital services, Activity-Based Funding, warrants attention as it comes with the potential risk that hospital care and procedural throughput may be rewarded without due regard for effectiveness of that care, or those procedures, or for overall population health outcomes. This may be a particular issue for those with chronic conditions needing an integrated approach to care across the primary health care and hospital sectors.

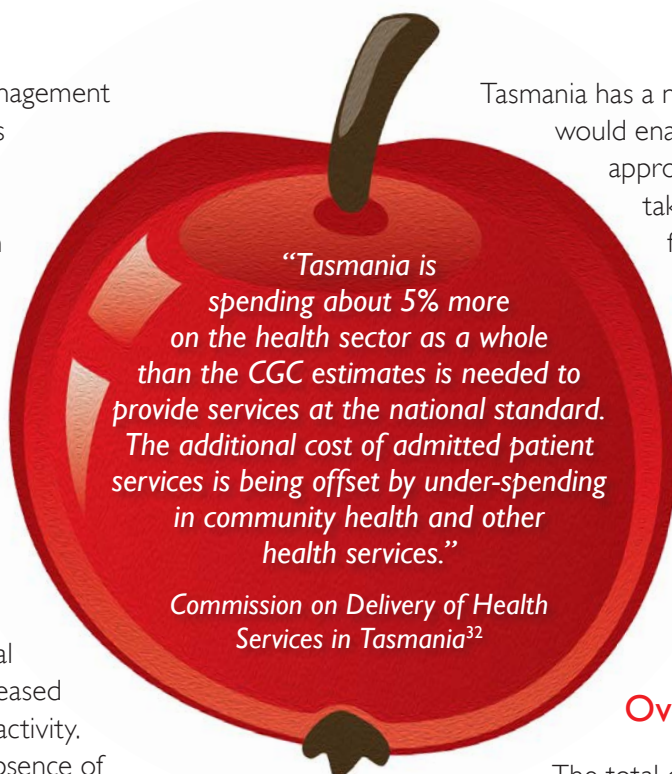
²⁹ Australian Institute of Health and Welfare 2012. Health expenditure Australia 2010-11. Health and welfare expenditure series no. 47. Cat. no. HWE 56. Canberra: AIHW.

³⁰ <http://www.tasmaniahealthcommission.gov.au/internet/tascomm/publishing.nsf/Content/prelimreport>

³¹ <http://www.health.gov.au/tashealthassist>

Good clinical management underpins what is termed “tertiary prevention”, that is, the prevention of complications arising from established conditions (such as type 2 diabetes). The system of national health financing now in place provides significant financial incentive for increased “efficient” acute activity. But there is an absence of direct incentives to keep people out of hospital through improved models of care in the community, or through prevention of illness to reduce demand on acute care services. It remains to be seen whether at the Local Hospital Network (Tasmanian Health Organisation) level activity-based funding acts as a positive or negative force to working more closely with primary health and other sectors to pursue preventive health measures and actions.

The need to re-orient and strengthen approaches to primary health in Tasmania, as envisioned in the Tasmanian Health Plan 2007, was one of the recommendations made in the previous State of Public Health Report. While good progress was made by DHHS in implementing the Primary Health Services Plan component of that overall Plan, the current reforms may risk losing sight of that objective.



Tasmania has a number of advantages that would enable it to pilot a whole-of-system approach to integrated care that takes account of activity based funding and, more importantly, demonstrate ways of giving the primary health sector greater input into pathways of care to better manage and divert demand for acute services. The Tasmanian Health Assistance Package provides a unique opportunity for the Tasmanian Medicare Local to develop such approaches.

Overweight/obesity

The total costs of obesity and obesity-related illnesses in 2008-09 were estimated to be \$37.7 billion annually, including the indirect cost of the loss in productivity due to obesity, estimated as \$6.4 billion.³³

Results from the Australian Health Survey show the prevalence of overweight/obesity in adults has been steadily increasing over time, rising nationally from 38% in 1989-90 to 63.4% in 2011-12. Even more pronounced, the prevalence of obesity in adults aged 18 years and over in Australia has tripled in just over 20 years, from 9% in 1989-90 to 28% in 2011-12.

25.3% of Australian children aged five to 17 years were measured as overweight or obese – 17.7% were overweight and 7.6% were obese. There was no significant increase in the proportion of Australian children overweight or obese between 2007-08 and 2011-12 although a 2% difference was observed (this is in marked contrast to the change between 1995 and 2007-08 when the proportion of overweight and obese combined, increased by 18%, made up of a 10% increase in the proportion overweight and a 44% increase in obesity).

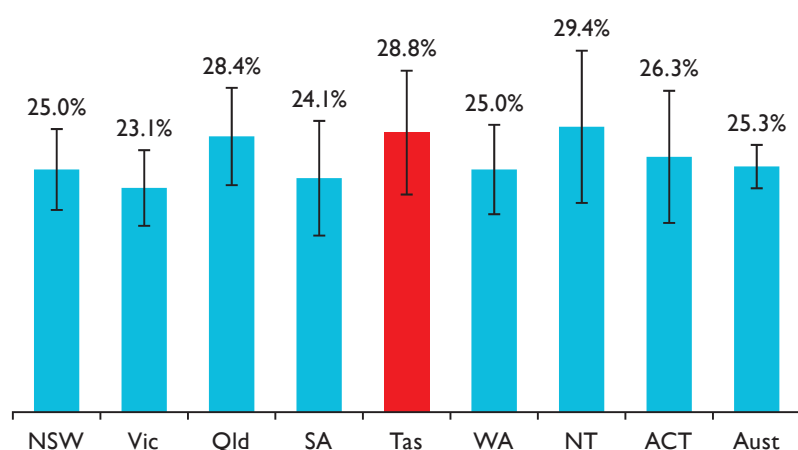
³² Commission on Delivery of Health Services. Preliminary Report to the Australian Government and Tasmanian Government Health Ministers – December 2012. p13.

³³ Medibank Health Solutions, Obesity in Australia: financial impacts and cost benefits of intervention, March 2010.

However, in Tasmania there has been a significant increase in the prevalence of childhood overweight and obesity from 18.6% in 2007-08 to 28.8% in 2011-12 (comprising 18.3% overweight and 10.5% obese). This was the largest increase of all jurisdictions over the three-year period, and the Tasmanian prevalence of overweight/obesity combined in children is the second highest of all jurisdictions after the Northern Territory. These figures are based on national surveys of children aged five to 17 years using measured data.

These data are highly concerning and should sound an alarm bell throughout the community. Preventing children becoming overweight in the first place before they go on to face a lifetime of obesity, with all its complications, has to be a major priority for preventive action.

Figure: Overweight/obese prevalence in children aged 5-17 years, by jurisdiction, 2011-2012



Australian Health Survey First Results, 2011-12, cat. no. 4364.0 based on measured height and weight

The Tasmania Council of Obstetric & Paediatric Mortality & Morbidity made the following observation about evidence that one in every four women in Tasmania is now obese (BMI 30 or higher) at the time of conception:

*"The role of maternal weight at conception is now firmly established with its increasing contribution to multiple complications in pregnancy. These include congenital anomalies such as spina bifida, pre existing and gestational hypertension, diabetes both pre-gestational and gestational, preterm birth, foetal death and an increased rate of caesarean section and resulting complications. It is recommended that efforts are made within the community to reverse this trend where this community health issue has been presented to the community extensively in recent years by health authorities."*³⁴

The scientific evidence has strengthened to indicate that once obesity is established in an individual it becomes a chronic condition with no "fix" sustained over time.

³⁴Tasmanian Council of Obstetric & Paediatric Mortality & Morbidity. Annual Report 2010. DHHS, August 2012.

Even the more effective forms of bariatric surgical procedures (such as laparoscopic gastric banding), while beneficial in selected extreme cases of obesity, do not prevent gradual regain of some weight over time. As a remedy for a population-wide problem, bariatric surgery is unsustainable and akin to the classic scenario of investing in keeping an ambulance in waiting at the bottom of a cliff, rather than investing in a fence at the top to stop people falling off.

For those with established obesity/overweight, there are major health benefits from increased physical activity even in the absence of any weight loss. Evidence suggests sustained weight loss should not be the prime indicator of success or object of improved physical activity and healthy nutrition, but a positive side effect if it happens – adding to the much more certain objective of better overall health and wellbeing.

The need to acquire good exercise habits at a young age is vital to prevent the long-term harms of obesity and everything possible to promote and support this for all children should be done by parents, schools and the broader community.

Given the association between soft drink consumption and obesity in school students, it is appropriate for schools to ban soft drink sales in school canteens (building on the momentum already in many schools in Tasmania, voluntarily). More needs to be done nationally to disincentivise soft drinks and juices containing sugar additives – despite the inevitable counterarguments from the food industry and some other sectors, who will claim that increasing physical activity or reducing fatty food consumption should be the priority.

Clearly, measures across many such areas are urgently required. In public health terms, the market has failed and it is time to intervene.

The National Preventative Health Strategy – the roadmap for action prepared by the National Preventative Health Taskforce³⁵ provides a well-considered blueprint to progress actions to reduce harms from obesity, tobacco and alcohol across Australia.

Reducing the harms from tobacco

Tobacco smoking remains the single most preventable risk factor for chronic disease prevention in Tasmania. A reduction in smoking rates is likely to lead rapidly to improved health outcomes, and the importance of doing more to reduce Tasmania's high smoking rates cannot be over-emphasised.

Over the past 10 years Tasmania has been highly innovative in introducing a series of amendments to the *Public Health Act* to improve public health protection measures against environmental tobacco smoke, and to minimise the marketing of tobacco products. In a number of cases these reforms have led the nation, for example, with the introduction of smoke-free pubs and clubs, the extension of smoke free areas to include motor vehicles containing children as well as all types of sporting events, the requirement for display of a graphic warning at the point of sale, and the banning of display of cigarettes by retailers.

Any arguments against the imposition or costs of such measures have given way over time to community acceptance and appreciation of the benefits (including commercial in some cases), and there has been a high degree of compliance. The support of all political parties with this legislation has been much appreciated.

It remains a challenge that despite these achievements, smoking rates have remained far too high in Tasmania. The results from the most recent Australian Health Survey 2011-12 (showing 21.8% of Tasmanian adults are still daily smokers) are particularly disappointing given that two previous surveys in 2009 and 2010 (using different methodologies) had suggested daily smoking rates in Tasmania of just over 16%, which were more in keeping with national trends.

³⁵National Preventative Health Taskforce. Australia: The Healthiest Country by 2020 – National Preventative Health Strategy – the roadmap for action. Commonwealth of Australia 2009.

In the 2008-09 state budget, \$2.7 million dollars was allocated over four years to implement the Smoking Cessation Project. This enabled an increase in social marketing of Quit advertisements up to levels that evidence at the time suggested should help reduce smoking rates, particularly when supplemented by national campaigns. In addition, strong training in brief interventions to prompt smoking cessation at the first point of client contact was provided to health care workers with over 13 000 e-learning or face-to-face training sessions provided by the end of 2012. An innovative training program in brief interventions was also developed and provided to assistants in commercial pharmacies.

But more must be done. In particular there is a need to further increase resources for and diversification of social marketing measures against smoking in Tasmania as it appears the states with the greatest declines in smoking rates in recent years have been those that invested the most in sustained social marketing campaigns. Other strategies are required to reduce smoking rates among younger pregnant women and young people in general. Tasmania's prisons should move rapidly towards becoming smoke-free for the protection of warders and inmates alike.

The *Tasmanian Tobacco Action Plan 2011-2015* provides an excellent framework for systematically tackling these and other issues.

Federal measures such as increases in tobacco excise in 2010 and plain packaging in December 2012 have been very welcome, and further strong increases in tobacco tax will help accelerate reductions in Tasmania's smoking rates.

In addition, new tobacco product content regulation and content disclosure requirements are needed to ensure Australia's tobacco control program is the most comprehensive it can be.

Tasmania has little control over manufacturing and therefore supports a national approach to the removal of additives and flavourings from tobacco products that improve palatability

(such as menthol). This would help prevent smoking uptake by young people and encourage present smokers to quit, leading to reduced smoking prevalence over time.

Greater investment in health data collection is needed to better understand smoking prevalence in the Tasmanian population and to allow annual monitoring of progress.

Alcohol

Alcohol poses significant public health and safety risks. In Tasmania, as elsewhere, a substantial proportion of people drink at levels that increase their risk of alcohol-related harm. The harms are not limited to drinkers, but also affect families and the broader community.

The culture that surrounds drinking in Australia is largely driven by the ready availability of alcohol and a tolerance that has developed in the community over time for alcohol related problems.

In Tasmania there is an Inter Agency Working Group on Drugs and a subsidiary Alcohol Advisory Group involved in the implementation of the *Rising Above the Influence: Tasmanian Alcohol Action Framework 2010-2015* working collaboratively with the community sector and local government to reduce the prevalence of risky drinking. But there is also a need to take a stronger regulatory approach in line with greater evidence of public health harms from alcohol consumption and the revised drinking guidelines issued by the National Health & Medical Research Council in 2009.

Tensions between deregulation and public health objectives are not uncommon, but there are times when the deregulation principle must give way to the need to reduce harm – this is one of them. Alcohol is no ordinary commodity, with properties that disinhibit behaviour, produce dependence and are harmful to physical and mental health. Tasmania has made some sensible decisions in this area over the years and still has the chance to avoid some of the pitfalls experienced in other jurisdictions.



There is a need to ensure the public is better informed about the health risks of alcohol. Effective progress in this area at the national level has been slow and there are limited prospects of adequate self-regulation by the alcohol industry. An anti- “nanny state” media polemic has already begun and can be predicted to become louder over time from various interests.

Mandated signage to inform consumers about drinking during pregnancy is discussed elsewhere in this report. Tasmania can lead the way in this aspect of alcohol harm minimisation, consistent with the *Our Children, Our Young People, Our Future* approach by government.

Given the consistent links between alcohol outlet density and rates of violence, a liquor licensing regime serving the interest of public health and social order should factor outlet density into licensing decisions. Liquor Licensing Boards need the discretionary power to consider public health when approving liquor licences. This brings up the interplay between National Competition Policy (NCP) principles, which in this case may militate against public health good because the effect of the NCP is to put pressure on state and territory governments (responsible for the content and administration of Liquor Acts) to replace needs-based tests for new licenses with public-interest tests.³⁶ Unless legislation specifically spells out the need for public health harm reduction as an objective informing decision-making, sensible liquor licensing can be challenged on the grounds of being anti-competitive.

The availability of alcohol through a wide range of outlets has been considerably freed up in Australia over the past decade. The Figure below illustrates the steady increase in liquor licences over the past decade in Tasmania.

Figure: Total number of annual liquor licences issued, Tasmania, 2002-2012



Department of Treasury and Finance, Licensed Premises in Tasmania

The available data on personal drinking patterns are obtained through national surveys and have recognised limitations in assessing overall consumption trends or the influence of licensing patterns. Tasmania's capacity to collect and analyse wholesale alcohol consumption data was discontinued some years ago and should be reinstated as a government priority to enable monitoring and assessment of trends.

³⁶Livingston M et al 2007. Changing the density of alcohol outlets to reduce alcohol-related problems. *Drug and Alcohol Review* (September 2007), 26, 557 – 566.

Climate change and the public health response

Ecosystem degradation and climate change through anthropogenic activity is the most profound of human health threats this century and represents an intergenerational inequity.

Climate modelling suggests while Tasmania may not experience quite the same increases in mean temperatures or extreme weather events as on the mainland, such events will significantly increase.³⁷ There are likely to be many other more subtle impacts on public health.³⁸

Specific public health actions in Tasmania have been limited and consist primarily of adaptive responses, including some that improve preparedness and overall population resilience to the range of potential threats arising from climate change.

Actions to date include:

- enhanced all-hazard health emergency planning and preparedness as part of the overall DHHS Emergency Management Plan, including the development of a Public Health Emergency Management Plan and its endorsement as a State Special Plan under the Tasmanian Emergency Management Framework
- a DHHS Heat Stress Response Plan by Population Health and Ambulance Tasmania will be finalised in 2013
- a Tasmanian Food Security Strategy developed by Population Health and the Department of Premier and Cabinet's Social Inclusion Unit was launched by the Premier in 2012. Over time this will improve local food supply systems and resilience that will help stand the community and vulnerable groups in better stead during times of food supply disruption



- a real-time online public health air quality advisory system began in February 2012 in collaboration with the Environmental Protection Authority using a fine particle air monitoring network. This is helping people with asthma and other respiratory problems, and has also proven a valuable aid in providing broader public health advice when recent bushfires affected air quality. Increased bushfire risk can be expected into the future from prolonged drought periods and altered rainfall patterns in some areas
- the drinking water quality management system put in place in Tasmania over the past eight years will provide additional protection against other potential climate-related changes (such as increased floods, drought, and blue-green algal blooms in stagnant rivers impacting on water quality)
- participation in the development of a national climate change health adaptation framework by the Australian Health Protection Principal Committee in 2013 will support nationally consistent responses to shared threats.

³⁷White CJ, Grose MR, Corney SP, Bennett JC, Holz GK, Sanabria LA, McInnes KL, Cechet RP, Gaynor SM & Bindoff NL 2010. *Climate Futures for Tasmania: extreme events technical report*, Antarctic Climate and Ecosystems Cooperative Research Centre, Hobart, Tasmania.

³⁸Hughes L and McMichael M 2011. *The Critical Decade: Climate change and health* (Climate Commission) Commonwealth of Australia (Department of Climate Change and Energy Efficiency).

Where to Next: The Opportunities

Despite frequent portrayal in the media, the health care system is not in crisis and viewed from a population health perspective is generally performing well.

However, Tasmania's ageing population, regionally-ranked socio-economic status and chronic disease risk factor profile mean the care system is already grappling with increased demand for services that other states will almost certainly face in due course.

Making a virtue out of necessity, there are leadership opportunities for Tasmania in developing ways to mitigate demand through improving health and wellbeing and some extremely positive developments are underway.

The benefits to the community from more investment in prevention are real – improved health and wellbeing including mental health, reduced or delayed chronic disease, reduced absenteeism and improved workforce productivity all deliver positive gains and go towards supporting a thriving Tasmania.

Long timeframes may be needed before the returns on investment in preventive health strategies result in measureable improvements in health outcomes at the population level. With many strategies, however, benefits begin within months or several years.

To achieve a population shift in health and wellbeing requires a whole of life course approach with many coordinated strategies informed by the same general principles and values.

There is no better place to start than with our children and young people. Tasmania's future prosperity and the wellbeing of our community depend on all children and young people having the chance to achieve all they can throughout their lives.

Our Children Our Young People Our Future

The Tasmanian Government's Agenda for Children and Young People, describes a 10-year plan to ensure Tasmanian children are at the centre of all government decisions affecting their wellbeing and life chances. It sets out a collaborative approach harnessing the expertise within the community and government sectors to build on the vital role of parents and families. At every age there needs to be a stronger focus on promotion, prevention and early intervention.

Taking a social determinants and health equities approach, a particular issue for Tasmania is reflected in this observation:

*"Sustainable reduction of health inequities requires action to prevent relative and absolute disadvantage of parents being passed to their children, their grand children, and subsequent generations. The strongest devices to break such vicious circles of disadvantage lie at the start of life."*³⁹

A Healthy Tasmania and the Health and Wellbeing Advisory Council

In 2010, the Minister for Health, the Hon. Michelle O'Byrne MP, initiated the *Fair and Healthy Tasmania Strategic Review*, led by Population Health Group in the Department of Health and Human Services to find the best ways of improving health outcomes and reducing avoidable health inequities in Tasmania.

The review recommended implementing *leadership across sectors and place-based approaches* as the best ways for Tasmania in driving intersectoral action at all levels (local, state, national) to shape the daily conditions that determine health and wellbeing in Tasmania.

³⁹Marmot M et al. Consortium for the European Review of Social Determinants of Health and the Health Divide. WHO European review of social determinants of health and the health divide. Lancet 2012; 380: 1011–29.

The Tasmanian Government responded with *A Healthy Tasmania* as its strategic policy direction for a fairer and healthier Tasmania.⁴⁰ It outlines a long term approach for building good health and wellbeing in collaboration with communities, and identifies six areas of focus: leadership; health intelligence; supportive environments and policies; community-driven approaches; healthy messages; and vulnerable Tasmanians. Potential actions are identified under each of these areas to be implemented as support and resources allow.

To guide these actions the Health and Wellbeing Advisory Council was appointed to lead, inform and champion new solutions and approaches. The Advisory Council has undertaken analysis of health and wellbeing activities in Tasmania, which has informed interim recommendations included in its annual report for 2012 and submitted to the Minister for Health and Cabinet for consideration.

The recommendations span four overarching themes (supported by a range of potential actions to drive change): communication and empowerment, securing children's wellbeing for life, building connections across sectors, and investing in systems to create sustainable capacity and enable ongoing monitoring. These recommendations will be consolidated when the Advisory Council completes its sitting term at the end of 2013.

An Interagency Working Group has been established and has begun developing a Place-Based Approaches Framework that will include the tools, resources, guidelines, governance and communications to support Tasmanian Government agencies implement place-based approaches.

Tasmanian Health Assistance Package⁴¹

This funding initiative announced by the Australian Government in 2012 contains aspects that could contribute strongly to prevention and public health goals throughout the health system in Tasmania.

The overall aim of the \$325m Assistance Package is to ease pressures and better equip Tasmania's health system to meet future challenges. As one component of this package, the Tasmanian Medicare Local organisation has been funded \$13.3m across four years to contribute to reducing inequalities in health and improving health outcomes across Tasmania through addressing the social determinants of health and targeting known lifestyle-related health risk factors to help improve Tasmanian health system efficiency and reduce health system pressure.

Given flexibility, and following the evidence and principles outlined earlier in this report, there is opportunity for the Tasmanian Medicare Local to make a very real difference using these resources to shift the focus of the primary health system in an even more positive direction.

Re-orienting our primary health care services and hospitals towards health promotion: is it possible?

While this and previous reports and many researchers consistently make the point that much of what "causes" population health is determined by forces outside the health care sector, it is also the case that much can be done by health care providers – including within acute hospitals, provided appropriate systems, understanding and attitudes are in place.

⁴⁰DHHS, 2012. *A Healthy Tasmania*. http://www.dhhs.tas.gov.au/about_the_department/our_plans_and_strategies/a_healthy_tasmania

⁴¹ <http://www.health.gov.au/tashealthassist>

Working in Health Promoting Ways: A Strategic Framework for DHHS.⁴² developed by Population Health in conjunction with many care providers, outlines how to reorient health and human care services in Tasmania to achieve better health outcomes for clients and communities. The resource materials provide evidence-based actions and support for providers in understanding how the determinants of health, including those that are beyond the direct remit of health care services, are impacting upon clients directly and indirectly – to support changing things that make people ill in the first place.

There are seven priorities identified for action over the next few years.

- Promoting physical activity and active communities.
- Improving access to nutritious, safe and affordable food.
- Promoting mental health and wellbeing.
- Reducing use and minimising harm from tobacco, alcohol and other drugs.
- Preventing injury.
- Promoting sexual health and wellbeing.
- Improving the prevention and management of chronic conditions.

Successful implementation of the **Working in Health Promoting Ways Framework** requires services to reorientate towards a health promotion approach in sustainable and effective ways, including supporting service providers with training and resources. It also requires managers to provide leadership and allocate resources, and to take part in evaluation to continually improve practice. Appendix 2 shows this framework and how a set of health indicators can be used to measure overall performance in relation to it, over time.

Physical activity

Physical inactivity accounts for 6.6% of the overall health burden in Australia in the number of years lost to ill-health, disability or early death. Physical inactivity contributes to high blood pressure and cardiovascular disease, high blood glucose and type 2 diabetes, being overweight or obese, and some cancers.⁴³

Tasmania's low levels of physical activity (summarised earlier in this report) are concerning. There are many opportunities for Tasmania to improve in this area, perhaps more so than with food and nutrition because of the powerful national and international market forces driving food choices.

In my 2008 report I stated that the ... “causes of health and illness ... lie outside of the health care system and are embedded in the social, political, economic and environmental contexts in which people find themselves”. This view remains unchanged. There is a strong relationship between the built environment and public health. Individual transportation choices and environmental exposures result from different built environment patterns. These choices (for example, whether to use a car, public transport, cycle or walk between destinations) and exposures (such as proximity to public transport or fast food outlets) impact our health as a population and as individuals. A whole of government approach is required to bring a consistent policy focus to improving population health. A state policy concerning the design for healthy communities under the *State Policies and Projects Act 1993* is a positive and available mechanism for providing the appropriate level of policy to provide that consistency from which many of the underlying causes of health and illness can be addressed. This could also be underpinned by better incorporating health and wellbeing considerations, including equity, into regulatory impact assessment processes by government.

⁴² DHHS, 2010. Working in Health Promoting Ways: A strategic framework for DHHS 2009-2012. Background Paper. <http://www.dhhs.tas.gov.au/healthpromotion/wihpw>

⁴³ World Health Organization 2010, Global recommendations on physical activity for health, accessed at www.who.int/dietphysicalactivity/factsheet_recommendations



Creating built and natural environments to support active living is one of four goals outlined in the Premier's Physical Activity Council (PPAC) *Tasmania's plan for physical activity 2011-2021*.

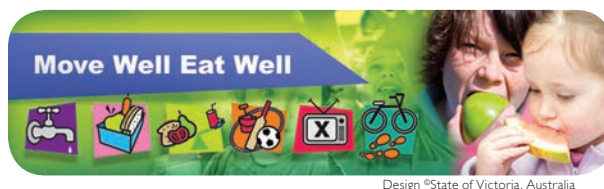
The joint PPAC/Heart Foundation production of *Healthy by Design – A guide to planning and designing environments for active living in Tasmania* provides an excellent basis for this work and it is pleasing to see some local Councils already taking this approach.

National Partnership Agreement on Preventive Health (NPAPH)

The NPAPH is an Australian, State and Territory Government initiative agreed by the Council of Australian Governments and funded by the Australian Government to reduce the prevalence of lifestyle-related chronic disease, including type-2 diabetes, heart disease, lung disease and some forms of cancer and arthritis. The NPAPH changes the way chronic diseases are tackled, by working within the settings in which Australians live, learn, work and play to make healthier choices easier choices during our daily lives.

Strategies include national social marketing campaigns as well as direct action across three main settings: the Healthy Children's Initiative, Healthy Workers Initiative and Healthy Communities Initiative.

The program examples outlined below are fully funded by the Australian Government or jointly funded with the Tasmanian Government through the NPAPH. Funding is provided to states and territories on a per capita basis and runs from July 2010 to June 2018.



Move Well Eat Well

Activities through the Healthy Children's Initiative include the Move Well Eat Well program in early childhood settings and primary schools, Family Food Patch and the Healthy Young People secondary school pilot.

At February 2013, 146 schools with a primary enrolment have joined the Move Well Eat Well Schools program. This represents 65% of eligible Tasmanian schools. Of these 31 (21%), have received a Move Well Eat Well Award in recognition of their organised and sustainable approach to the promotion of healthy eating and physical activity.

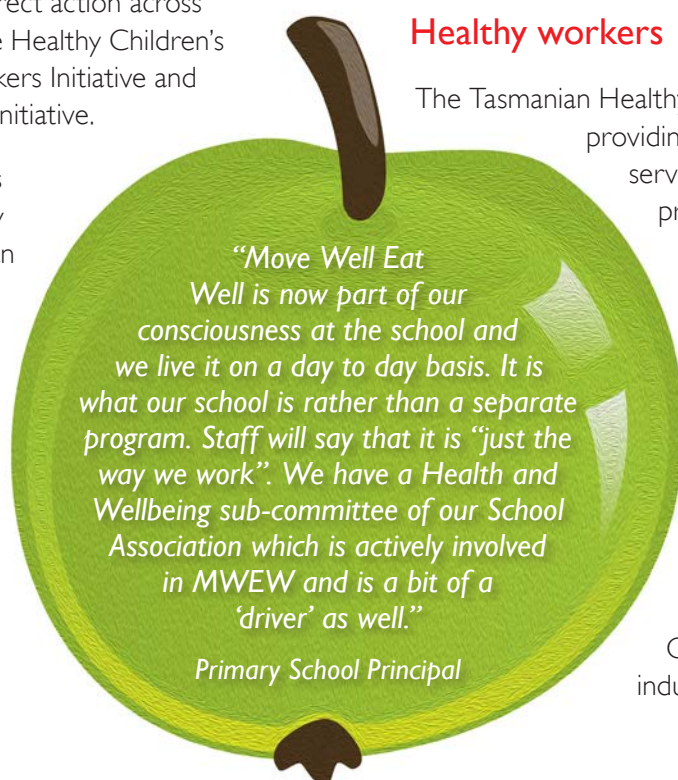
The MWEW Award program was extended from Primary schools to the Early Childhood sector in February 2012 under funding received under the National Partnership Agreement on Preventive Health.

Resource materials were designed to align with the new National Quality and Early Years Learning Framework introduced for the early childhood sector. By the end of 2012, 90 services had joined as members, with coverage of around 60% of Long Day Care centres in Tasmania.

Healthy workers

The Tasmanian Healthy Workplace Initiative is providing a high quality advisory service and evidence-based, practical resources and tools to help businesses develop and implement a health promoting environment for their employees.

Tasmania is progressing this work through partnerships with organisations including WorkCover Tasmania, Menzies Research Institute, Premier's Physical Activity Council, and union and industry representatives.



In August 2011 the health and wellbeing advisory service for workplaces was established as a result of a strategic partnership between the Department of Health and Human Services and WorkCover Tasmania. This built on WorkCover Tasmania's existing client relationship tools and processes for its health and safety advisory service and aligned the benefits of workplace health and wellbeing with health and safety requirements.

Support from the advisory service goes beyond face-to-face interaction to include a suite of online tools and resources such as *Your simple guide to workplace health and wellbeing* and *Going Smoke-Free: Your workplace kit*, business to business networking sessions, regular newsletters and the use of social media with a health and wellbeing Facebook page.

A Population Health approach to end-of-life issues

In recent years the opportunity to fundamentally shift community attitudes and expectations about end-of-life care has arisen because of an unprecedented increase in public interest in the issue. Coupled with this is the need to improve the take-up and delivery of palliative care.

A healthier approach to dealing with death is for the community to be empowered to discuss and address the topic in a more direct, open and "healthy" way. Paradoxically, a "healthy dying" initiative taking a population health promotion approach is needed. As with health promotion principles generally, the goals of a healthy dying strategy are to provide education and information for health, death and dying to provide personal and social supports to patients and families, to encourage interpersonal reorientation towards "natural death", including among clinicians, and to combat "death denying" health policies and attitudes.

Tasmania is fortunate to have excellent leadership in taking this area forward, with strong support from the Tasmanian Association for Hospice and Palliative Care.

Positive mental health

Positive mental health can be seen as a population-wide attribute that creates resilience. Fundamental to a positive concept of mental health is the distinction between "mental health" and "mental illness", and understanding the place of mental health as an overall component of health. The presence of positive mental health also influences outcomes such as healthier lifestyles, better physical health, improved recovery, fewer limitations in daily living, higher educational attainment, greater productivity, employment and earnings, better relationships, greater social cohesion and engagement, and improved quality of life.^{44, 45, 46}

There is compelling evidence that treatment approaches alone are not sufficient to reduce the prevalence of mental illness and that attention needs to be given to implementing effective prevention and promotion approaches.^{47, 48}

DHHS' Statewide and Mental Health Services released Tasmania's first Mental Health Promotion, Prevention and Early Intervention Framework in October 2009 followed by Tasmania's first suicide prevention strategy *Tasmania's Suicide Prevention Strategy 2010-14* in December 2010.

Related to this is the Tasmanian Alcohol Tobacco and Other Drugs *Promotion, Prevention and Early Intervention Strategic Framework: Everybody's Business*, which was developed under the auspice of the Tasmanian Inter Agency Working Group on Drugs and which sets the agenda for further harm reduction measures against alcohol and other drugs.

⁴⁴Barry, M. & Jenkins, R. (2007). *Implementing Mental Health Promotion*. Elsevier.

⁴⁵World Health Organization (2004b). op. cit.

⁴⁶Jané-Llopis, E., Barry, M., Hosman, C. & Patel, V. (2005). Mental health promotion works: A review. *Promotion and Education*, IUHPE Special Issue 2, 9-25.

⁴⁷World Health Organization (WHO) (2004b). *Promoting Mental Health: Concepts, emerging evidence, practice: Summary report*. Geneva: WHO.

⁴⁸World Health Organization (2004a). op. cit.

Report on the Statutory Functions of Public Health

Legislation is a keystone of effective public health action and is constantly evolving in response to changes in circumstance, including the evidence for public health risks and appropriate means to control or reduce them.

The statutory position of Director of Public Health is established by the *Public Health Act 1997*, the object of which is “to protect and promote the health of communities in Tasmania and reduce the incidence of preventable illness”. One of the functions of the Director of Public Health is “to advise the Minister on any changes to this Act that may be necessary or appropriate” (Section 7 (1) (c)).

Legislation administered by the Director of Public Health includes:

- *Public Health Act (1997)*
- *Radiation Protection Act (2005)*
- *Food Act (2003)*
- *Fluoridation Act (1968)*
- *HIV/AIDS Preventive Measures Act 1993 (by delegation from the Secretary)*

Other relevant Tasmanian legislation involving the office of the Director of Public Health includes:

- *Poisons Regulations 2008 issued under the Poisons Act 1971* (in relation to authorisation of nurse immunisers)
- *Burial and Cremation Act 2002*
- *Environmental and Pollution Control Act 1994* s74(5) provides that, if required by the Director of Public Health, an environmental impact assessment must include the impact of the proposed environmentally relevant activity on public health.

- *Local Government Act 1993* s72 requires that councils must provide their Annual Report to the Director of Public Health, and that report shall state the extent to which the council has carried out its functions under the *Public Health Act 1997* and the *Food Act 2003*; state the resources allocated to public health; and state the extent to which its goals, objectives, policies and programs in relation to public health met the needs of persons within its municipal area.

Under the Commonwealth *Quarantine Act 1908* the Director of Public Health is Chief Quarantine Officer of Tasmania by delegation from the Chief Medical Officer of Australia (the Australian Government is drafting a Biosecurity Bill to replace and modernise the *Quarantine Act 1908*).

At the national level Tasmania actively participates in a range of mechanisms to ensure consistency of relevant legislation, including the Legislative and Governance Forum on Food Regulation (convening as the Australian and New Zealand Food Regulation Ministerial Council, which establishes food standards), the National Drugs and Poisons Scheduling Committee and other forums.

Under the *Public Health Act 1997* a number of Guidelines have been issued, that are also statutory instruments:

- Drinking Water Quality Guidelines
- Recreational Water Quality Guidelines
- Guidelines for the Sale of Tobacco
- Guidelines for Notification of Notifiable Diseases, Human Pathogenic Organisms and Contaminants
- Guidelines for Acupuncture
- Guidelines for Ear and Body Piercing
- Guidelines for Legionella
- Guidelines for Paint
- Guidelines for Tattooing
- Guidelines for Places of Assembly
- Guidelines for the Operation of Solaria.



Over the past 10 years there has been a series of amendments to the Public Health Act, many of which have been to progressively tighten legislation on smoke-free areas and restrictions governing the sale of tobacco:

Table: Summary of main legislative amendments to the *Public Health Act 1997* (2004-2012)

<i>Public Health Amendment Act 2004</i>	Incrementally banned smoking in all nightclubs, cabarets, gaming areas, bars and 50% of all outdoor dining areas.
<i>Public Health Amendment Act 2006</i>	Clarified the distinction between tobacco and a tobacco product, and prohibited the sale of split packs of cigarettes.
<i>Public Health Amendment Act 2007</i>	Created an offence for a person to smoke inside a vehicle if a child is present and additional restrictions in the display of tobacco.
<i>Public Health Amendment Act 2008</i>	Minor miscellaneous amendments including the prohibition of the display of fruit and confectionary flavoured cigarettes. Extension of period of a public health emergency declaration from two to seven days.
<i>Public Health Amendment (Cervical Screening) Act 2009</i>	Refined the provisions of Part 7 of the Act relating to a register maintained by the Director of Public Health to assist in the screening, care and prevention of cervical cancer.
<i>Public Health Amendment Act 2010</i>	Clarified and expanded the operation of existing provisions regarding the display of tobacco and tobacco products.
<i>Public Health Amendment Act 2011</i>	Providing for new smoke-free areas, extending tobacco display-bans to specialist tobacconists, removing tobacco from shopper loyalty programs and banning the sale of tobacco at public events.

Other Acts introduced or amended over the past decade include:

<i>Food Act 2003</i>	Introduced nationally consistent framework for the regulation of food safety.
<i>Radiation Protection Act 2005</i>	Adopted the regulatory elements of the National Directory for Radiation Protection, putting Tasmania at the forefront of a national approach to the regulation of radiation protection in Australia.
<i>Food Amendment Act 2008</i>	Introduced nationally agreed food safety auditing and reporting provisions.
<i>Fluoridation Amendment Act 2009</i>	Amendments consequent to the Water and Sewage reform package.

A significant body of work is entailed in developing and implementing the necessary subordinate legislation to the above-mentioned Acts, as follows:

<i>Public Health (General) Regulations 2005</i>
<i>Public Health (General) Amendment Regulations 2006</i>
<i>Public Health (Infringement Notices) Amendment Regulations 2006</i>
<i>Public Health (Tobacco Seller's Licence) Amendment Regulations 2007</i>
<i>Public Health (Infringement Notices) Regulations 2008</i>
<i>Public Health (Tobacco Seller's Licence) Regulations 2009</i>
<i>Public Health (Tobacco Seller's Licence) Amendment Regulations 2011</i>
<i>Public Health (Infringement Notices) Amendment Regulations 2011</i>
<i>Public Health (General) Rescission Regulations 2011</i>
<i>Public Health (Exemption) Revocation Order 2012</i>
<i>Public Health (Tobacco Advertisements) Order 2012</i>
<i>Public Health (Infringement Notices) Regulations 2012</i>
<i>Therapeutic Goods (Exemption) Order 2011</i>
<i>Fluoridation (Interim) Amendment Regulations 2009</i>
<i>Fluoridation (Interim) Regulations 2009</i>
<i>Food Regulations 2003</i>
<i>Food Amendment Regulations 2007</i>
<i>Food Amendment Regulations 2008</i>
<i>Food Amendment Regulations 2009</i>
<i>Radiation Protection Regulations 2006</i>
<i>Radiation Protection Amendment Regulations 2007</i>
<i>Radiation Protection Amendment Regulations 2008</i>
<i>Radiation Protection Amendment Regulations (no. 2) 2009</i>
<i>Radiation Protection Amendment (Disposal) Regulations 2012</i>

How well does the Department administer this legislation and how does it ensure public accountability?

With a couple of exceptions, the above-mentioned Acts and Guidelines are managed through the Public and Environmental Health Service, located within the Population Health Group in the Department of Health and Human Services and overseen by the Director of Public Health.

⁴⁹<http://www.dhhs.tas.gov.au/peh/water/drinking/guidelines> accessed 10 February 2013.

⁵⁰<http://www.energyregulator.tas.gov.au/domino/otter.nsf/water-v/005> accessed 10 February 2013.

A range of means for assuring performance or compliance by authorities with these Acts and Public Health Guidelines are discussed below.

Public Health Act

Local governments are responsible for a range of fundamental public and environmental health functions including the *Public Health Act 1997* and the *Food Act 2003* and must each year provide copies of their Annual Reports to the Director. As these reports often tended to be brief summaries of their environmental health aspects, new reporting arrangements have been agreed where a standardised reporting template is completed and submitted each year to enable the Public and Environmental Health Service to better monitor trends in services and requirements.

In relation to public drinking water quality, responsibility for providing the necessary monitoring and performance information to the Director shifted from local governments to the Regional Water Corporations following their establishment in 2009. A detailed annual Drinking Water Quality Report is produced and made public by the Director,⁴⁹ and key aspects are also integrated into public reporting by the Office of the Tasmanian Economic Regulator.⁵⁰



The restructuring of Tasmania's drinking water management system, which began in 2009, has benefitted the Tasmanian population in public health risk management. Significant improvements in monitoring performance have occurred and the increased critical mass of the water corporations has enabled new levels of technical expertise. A range of water quality issues have surfaced through more systematic monitoring in smaller communities that can now be addressed. The number of communities with unsatisfactory water supplies is slowly being reduced with an asset management planning approach required to give greater surety for the future. In some cases, hard decisions will need to be taken on the future viability of maintaining reticulated supplies of water that meet contemporary national public health standards.

Annual reports on recreational water quality are required under that Guideline from those councils with recognised public swimming areas. These are collated into an annual summary report and made available on the DHHS website.⁵¹ Performance of councils has generally been adequate in this area.

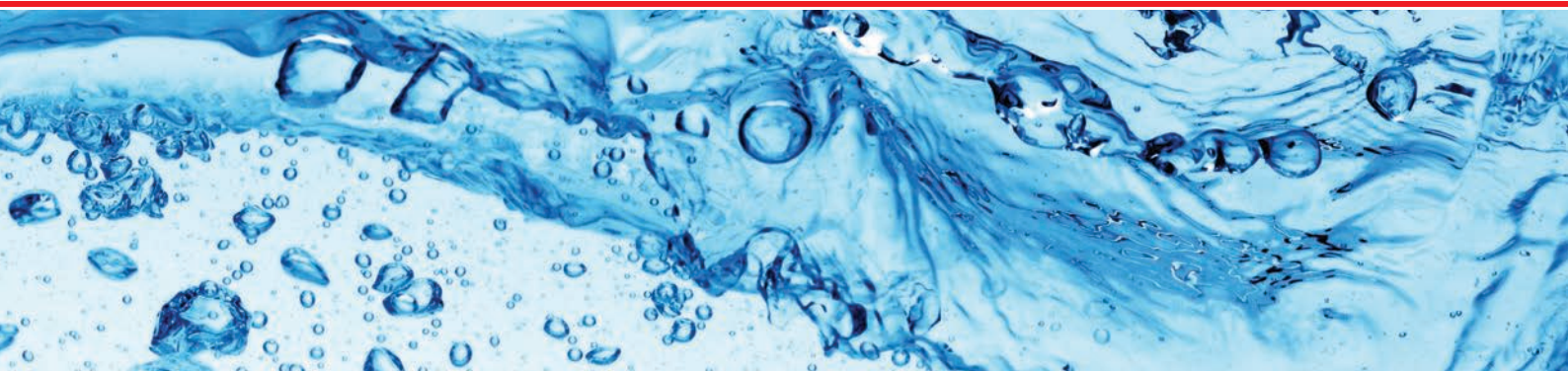
A significant concern from the turn of this century has been the decline in environmental health officers employed by councils, particularly as this coincided with an increase in responsibilities under other state environmental legislation. These officers are effectively the eyes and ears of Public Health as well as its arms and legs, carrying out vital functions that protect communities against communicable diseases and environmental hazards. In turn they are supported day-to-day with technical advice and back-up from a small number of staff within the Public and Environmental Health Service.

A survey in 2005 indicated numbers of environmental health officers within councils had fallen from an already marginal 43.7 full-time equivalent positions (FTE) in 2000 to a low point of 38.4 FTE.

A range of strategies were put in place to reverse this decline, including establishment of a new degree course in partnership with the University of Tasmania that allows for significant work placements with councils, advocacy with General Managers of Councils, increased marketing of the profession at state and national levels, DHHS funding of several cadetships to assist trainees associated with smaller councils in particular, the introduction of university scholarships for students entering the degree course and establishment of regional interest groups for professional support. The ability of local government to recruit new staff appears to have improved and while numbers have increased by nearly 40% over recent years to 52.75 FTE EHOs across 29 councils in some areas there is an inadequate environmental health officer presence.

The recent bushfires in southern Tasmania illustrate this point. Sorell Council, while stretched, effectively performed many valuable public and environmental health functions during and after the fires. The Tasman peninsula does not have an ongoing environmental health officer presence (the Tasman Council contracts this service, with a visiting environmental health officer physically present only one day a week) and urgent arrangements had to be struck with the contracted service providers who were very fortunately available and willing to be transported into the area by boat and who again promptly performed essential services appreciated by a community facing major disruptions and environmental health issues.

⁵¹ <http://www.dhhs.tas.gov.au/peh/water/recreational/guidelines> accessed 10 February 2013.



While DHHS Public and Environmental Health Service staffing levels have improved to some extent over the past 10 years, the range and complexity of issues to be dealt with has increased considerably. The Service comprises several small multidisciplinary units with high levels of technical expertise who work together very effectively to provide additional capacity in dealing with emergent public health risks (such as the recent toxic algal blooms affecting a range of shellfish, bushfires, lead contamination of incorrectly constructed stainless steel rainwater tanks, norovirus contamination of oysters leading to an outbreak of gastroenteritis, and epidemics such as pertussis). However, I remain concerned about the capacity to deal with these matters at the same time as managing the ongoing work and progressing initiatives to further improve public health protection.

The workforce situation requires ongoing attention by state and local governments to further strengthen this fundamental cornerstone of public health.

Tasmania throughout the past decade has consistently ranked at or near the top of all states or territories in vaccination coverage rates for children from infancy through to six years of age.

In 2010-11 the rate of hospital admissions for vaccine-preventable conditions in Tasmania was only 0.4 admissions per 1 000 population. This compares favourably with the Australian average of 0.8 admissions and was the lowest rate among all jurisdictions.

This is a tribute to the excellence of the primary care system, to ongoing efforts by some of our local governments in this age bracket, and to the vital coordination and support function played by the Communicable Diseases Prevention Unit within the DHHS Public and Environmental Health Service. These achievements were underpinned by national incentives introduced by the Australian Government, as well measures such as the introduction of nurse immunisers in Tasmania from 2003. This follows the successful amendment of the *Poisons Regulations* so trained nurses can prescribe and initiate vaccination using scheduled vaccines, and establishment of a nurse immuniser training program in partnership with the University of Tasmania. This led to significant expansion of the immuniser workforce, which has been very necessary to implement several major vaccination campaigns (eg following introduction of new vaccines against meningococcal group C infection and Human Papilloma Virus). This workforce was also drawn upon during Tasmania's intense vaccination campaign against the 2009 pandemic H1N1 strain of influenza to prevent a "second wave" in the community, when over 163 000 people (or around one third of the entire population) were vaccinated using a wide range of strategies and settings.

Tasmania has not performed quite so well with vaccination rates among school-aged children. Various factors included inconsistency of delivery systems across the state, with some children being vaccinated in Year 6 and others in Year 7 depending upon local council practice, followed by further vaccination during Year 10. Low levels of government funding support to offset vaccine administration costs incurred by councils also meant Tasmania lagged behind other jurisdictions in per capita payment rates. Significant improvements are underway in 2013 in a collaborative partnership effort involving DHHS, the Australian Government, local governments, Education Department and all secondary schools including the independent schools sector, so that by 2015 all nationally-scheduled vaccines for this age group will be administered during Year 7 in a simplified program, and councils will be better incentivised. At the same time, the existing Human Papilloma Virus (HPV) vaccine program introduced for schoolgirls in 2007 will be extended to boys in 2013. It is estimated about two-thirds of 12-17-year-old girls in Tasmania received all three doses of HPV vaccine between 2007 and 2011. The benefits from this new vaccine are already being measured in Australia, and in the longer term will lead to much lower rates of cervical cancer and other conditions caused by HPV.

The amount of notifications of notifiable diseases under the Act has steadily increased, with improved testing for diseases such as Chlamydia infection, influenza, and gastroenteritis in aged care facilities and hospitals leading to better case identification and reporting. In general the response to emergent communicable disease threats has been swift and effective, but over the past year an ongoing epidemic of pertussis (whooping cough) has been a particular concern due to the limitations of the control measures available for this disease.

Advances in tobacco control legislation and an increasing range of public areas designated as smoke free have placed considerable pressure on the Department's limited capacity for tobacco administration and enforcement. While the objective is to maximise self-enforcement by the community, there is need for further resources in this area for education to achieve compliance.

Cancer notifications are made under the *Public Health Act* and are managed through the Tasmanian Cancer Registry housed within the Menzies Research Institute; the purpose is to help state and national efforts to understand the causes of cancer, to plan health services and assist prevention efforts and treatment decisions. There has been a steady increase in numbers of notifications each year due to the ageing demographic of our population. Annual reports are overseen by an advisory committee, employ methodologies consistent with national practice and are made publicly available by the Cancer Registry.⁵²

A notable deficiency in the present system is that Tasmania – unlike any other state or territory – does not fund a regular health survey of the Tasmanian population. Apart from being a significant concern for my position as Director of Public Health in the role of advising government, establishing accessible, meaningful and timely population and social health information and information sharing systems is also fundamental to understanding how the social determinants influence the health and wellbeing outcomes of Tasmanians. I recommend this deficit be addressed immediately in order to inform policy responses and service planning that meets the needs of local communities and decision makers.

⁵² <http://www.menzies.utas.edu.au/article.php?Doo=ContentView&id=920> accessed 10 February 2013.

Food Act

Administration of this Act occurs through local government, DHHS Public and Environmental Health Service, and the Department of Primary Industries, Parks, Water and Environment. The safety and quality of food is regulated and monitored by the Public and Environmental Health Service in conjunction with local councils. The service develops, implements and interprets Statewide policy and legislation as well as coordinating food recalls. Responses to food safety issues commonly operate in conjunction with powers under the *Public Health Act*, and have proven timely and effective at minimising public health risks from contaminants in food.

Summary details of food safety regulatory activities are included in annual reports and operational plans by councils, supplemented by additional information provided in template form to the Public and Environmental Health Service.

Radiation Protection Act

The Radiation Protection Unit within the Public and Environmental Health Service administers this Act, including development of codes of practice, assessment of radiation safety management plans, licensing, compliance inspections and other radiation risk management activities. A statutory Radiation Advisory Council is appointed by the Minister for Health to advise the Minister and the Director of Public Health on radiation protection and nuclear safety matters and on matters around the administration of the Act. The Director provides an annual report to the Minister for tabling in each house of Parliament, as well as placing the report on the Department's website.⁵³ The information presented indicates the present management system is highly effective at minimising public health risks from exposure to radiation.

Fluoridation Act

Oversight of the administration of the *Fluoridation Act 1968* occurs through a fluoridation committee comprising members with specific expertise, appointed by the Minister for Health. In consultation with the water industry, a revised Code of Practice for the Fluoridation of Public Drinking Water Supplies is being finalised with performance reporting arrangements in place that enable close monitoring of compliance. An annual report is submitted to the Office of the Tasmanian Economic Regulator for inclusion in the Regulator's annual public report.⁵⁴

Around 88% of the Tasmanian community consistently receives fluoridated drinking water at optimal levels, which is a very sound achievement given the dispersed regional population, the number of smaller supply systems and the number of Tasmanians on rainwater tank systems.

Environmental and Pollution Control Act 1994

Section 74(5) of this Act provides that, if required by the Director of Public Health, an environmental impact assessment must include an assessment of the impact of a proposed environmentally relevant activity on public health. This work is ongoing around permissible Level 2 activities with significant input from the Public and Environmental Health Service into the processes of the Environment Protection Authority. This is generally an effective mechanism for identifying potential public health hazards arising for communities close to planned developments, and providing input on their prevention or mitigation.

⁵³http://www.dhhs.tas.gov.au/peh/radiation_protection/publications2/reports accessed 10 February 2013.

⁵⁴<http://www.energyregulator.tas.gov.au/domino/otter.nsf/water-v/005> accessed 10 February 2013.



Recommended future directions for legislative reform

Further amendments to the *Public Health Act 1997* are scheduled for introduction into Parliament during 2013, largely as a consequence of the proposed repeal of the outdated *HIV/AIDS Preventive Measures Act 1993*. These are aimed at clarifying and modernising the notifiable diseases provisions while ensuring appropriate powers are retained to control public health risks, for example, those caused by people who intentionally or recklessly place others at risk of significant disease.

In addition:

- given the potential range of permanent disorders caused by pre-natal exposure to alcohol (known collectively as Foetal Alcohol Spectrum Disorders) the *Public Health Act* could be amended to enable the Director of Public Health to introduce a new Guideline requiring display of health warning signage by retailers on the consumption of alcohol during pregnancy, with some additional capacity provided (preferably to the Liquor Licensing Commission) to enable enforcement
- solaria in Tasmania became regulated in 2009 following a guideline issued under the *Public Health Act 1997*, limiting the exposure of the public to UV radiation in response to evidence indicating significantly increased risk of melanoma skin cancers from solarium use. While the number of solaria in use in Tasmania has drastically declined (from around 150 commercial units in 2006 to about nine solaria businesses), a coordinated state and territory approach to banning solaria should now be supported.

Other state legislation reforms relevant to the work of Population Health that would contribute either directly or indirectly to improved health and wellbeing for Tasmanians include:

- modernisation of pregnancy termination legislation to take it out of the criminal code
- amendment of the Liquor Licensing Act to include an objective to minimise the harm from the misuse of alcohol, which was one of the outcomes from a recent multiagency review of alcohol-related legislation in Tasmania
- improved legislation regulating the sex work industry in Tasmania, which as it stands does not support best practice for safeguarding either sex workers or their clients as it effectively criminalises a managed approach by the industry, leading to greater uncertainty about rights and forcing an unnecessary degree of isolation on workers.

Appendix I – Case Study

Improving social determinants through housing and homelessness services reform

Since 2011 Housing Tasmania has been progressively reforming Housing Tasmania's internal structures and processes and the provision of public housing, including encouraging the growth of community housing providers.

Housing Tasmania has recognised that healthy communities lead to better individual and social outcomes, and that it is possible to prevent cycles of disadvantage caused by poor housing and subdivision designs of the past. In 2010, the Minister for Human Services asked the State Architect work with Housing Tasmania and the Housing Innovations Unit (HIU) to develop a Residential Development Strategy for Tasmania.

This Strategy applies liveability principles and best-practice in urban design to enhance community cohesiveness, provide green public spaces, improve safety and to build resilience and energy efficiency into housing design. Since late 2010, all tenders for new builds or refurbishment of existing Housing Tasmania assets have been required to demonstrate adherence to the principles of the strategy, including how they will improve the liveability and quality of life in these areas, while developing a greater sense of community.

The Support and Accommodation Assistance Review is a key component of the transformation of housing and homelessness services in Tasmania. The purpose of the review is to assess and redesign or further improve aspects of the support and accommodation assistance service systems so that it easy to use, accessible, responsive, efficient, and allows for a better matching of support and assistance to need.

The new system to be known as Housing Connect will connect Tasmanians on low incomes and in crisis, with long-term stable housing and support where it is needed, and homelessness and social housing services will be integrated through one front door.

The integrated social housing and homelessness system is to be implemented from 1 July 2013.

Housing Tasmania is also progressively rolling out energy efficiency upgrades to an estimated 6000 low-income households, demonstrably improving health outcomes for tenants, whose homes are warmer and have the added benefit of saving an estimated \$300 a year on the average electricity bill.



Appendix 2 – Health and Wellbeing Indicators*

WiHPW Vision: All Tasmanians are born and remain well

- Proportion of population aged 15-74 with adequate health literacy levels
- Proportion of adults with poor or fair self-assessed health status
- Proportion of babies born of low birth weight
- Life expectancy at birth
- Infant mortality rate.

Improving access to nutritious, safe and affordable food:

- Proportion of adults who eat 5+ serves of vegetables daily
- Proportion of adults who eat 2+ serves of fruit daily
- Proportion of mothers exclusively breastfeeding at 4 months
- Proportion of adults that ran out of food and could not afford to buy more.

Promoting mental health and wellbeing:

- Proportion of adults with high or very high levels of psychological distress
- Hospitalisations for mental and behavioural disorders
- Deaths due to mental and behavioural disorders.

Reducing use and minimising harm from tobacco, alcohol and other drugs:

- Proportion of adults who are daily smokers
- Proportion of adults at risk of long term harm from alcohol
- Proportion of population aged over 14 who use illicit drugs
- Self-reported tobacco smoking during pregnancy.

Promoting physical activity and active communities:

- Proportion of adults who are physically inactive
- Proportion of adults who are sedentary.

Improving the prevention and management of chronic conditions:

- Selected potentially preventable hospitalisations
- Proportion of adults who are overweight or obese
- Proportion of adults with multiple chronic conditions.

Promoting sexual health and wellbeing:

- Chlamydia notifications
- Teenage fertility rate.

Preventing injury:

- Hospitalisations for injury and poisoning
- Deaths due to injury and poisoning.

*Purpose of these indicators

The Working in Health Promoting Ways Framework includes seven priority areas. The indicators listed in the coloured boxes are used to report population health outcomes for adults in each priority area. Recent data for each indicator is available in the 2013 Health Indicators Tasmania report. Refer to the 2013 Kids Come First Update for data on children.

Working in Health Promoting Ways Framework





Population Health

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