ACT Government
Health

Australian Capital Territory Chief Health Officer's Report 2014

ACKNOWLEDGEMENTS

This publication has been prepared by the Epidemiology Section, Population Health Division of ACT Health for the ACT Minister for Health, the ACT Legislative Assembly and the ACT community.

The Chief Health Officer, Dr Paul Kelly, together with the staff of the Epidemiology Section, wish to acknowledge the many contributors from ACT Health, other government agencies, non-government agencies and individuals who have provided their time and expertise in the preparation of this document.

Editorial committee:

Dr Paul Kelly

Joanne Greenfield

Cathy Baker

Louise Freebairn

Carol Kee

Suggested citation: ACT Health: (2014), *Australian Capital Territory Chief Health Officer's Report 2014,* ACT Government, Canberra, ACT.

ISBN number 978-0-646-92177-8

Chief Health Officer
Level 2, 11 Moore Street, Canberra City ACT 2601
GPO Box 825 Canberra ACT 2601
Phone: (02) 6205 0881 Fax (02) 6205 1884

Katy Gallagher MLA
Minister for Health
ACT Legislative Assembly
London Circuit
CANBERRA ACT 2601

Dear Minister

I am pleased to present you with this report, which provides an account of the health and wellbeing of the ACT population during the period 1 July 2010 to 30 June 2012, as required under Section 10 of the *Public Health Act 1997*. The Act requires that the Chief Health Officer reports biennially on the following:

- trends and indicators in health status
- potential public health risks
- morbidity and mortality
- notifiable conditions
- health promotion activities
- harm minimisation activities
- access and equity indicators relevant to health
- social indicators relevant to health
- health service performance against minimum standards of care
- intersectoral activities relevant to health
- any other matter considered appropriate by the Chief Health Officer.

Section 10 of the Act also requires that you present the report to the Legislative Assembly within 6 sitting days of receiving it.

Yours sincerely

Paul Kelly
Chief Health Officer
28 May 2014

TABLE OF CONTENTS

List of figures

List of tables

FOREWORD

This is the eighth biennial Chief Health Officer's Report, released as a requirement under Section 10 of the *Public Health Act 1997*. It covers the two-year period from July 2010 to end of June 2012 and outlines the health status of ACT people both during that period and compared to previous years.

Health is affected by many factors such as clean and safe housing, nutritious food, physical exercise, healthy weight, education, quality hospital and medical services, employment, and sufficient money to access social and other activities. Consequently, ACT Health collaborates with many other disciplines and agencies to encourage programs and behaviours to promote good health. In this report, I am therefore reporting on more than health services.

Data presented in the report have been analysed from a range of sources including: mortality and hospital records; notifiable disease data, screening program and immunisation registers; survey data; and published statistical reports and journal articles.

We are fortunate that the reporting period coincides with both the national Census (2011) and the Australian Health Survey 2011-12. Although only early, limited results are available at this stage, combining these with our ACT General Health Survey and other data sources provides a clearer picture of the health status in the ACT. Analysing and comparing data from various sources can be problematic, especially with respect to the ACT. Apart from differences in survey methodologies, the ACT's small population base means there are often small numbers of cases of a disease or condition. This can cause rates to fluctuate from year to year. Data are therefore often combined over a number of years to develop a more accurate health profile.

I am pleased to report a continuing trend of good health in the ACT. Our Territory enjoys a relatively clean climate, good employment, affluence of income, education and housing, has excellent social, community and health services and has the highest life expectancy of all states and territories in Australia. Good news in this report includes the continued decrease in cigarette smoking, illicit substance use and alcohol drinking among high school students. Cardiovascular disease, whilst rising in prevalence, shows an encouraging decrease in both hospitalisation and death rates. Rates of childhood immunisation and breastfeeding continue to be amongst the highest in the country, and hospital admissions for asthma are declining.

While these statistics are encouraging, there are still areas where health gains can be made. There are pockets of severe poverty in our community where improving health status is challenging. We live in an ageing society and have already noticed an increase in age-associated chronic disease. The continued rise of obesity, its determinants (including suboptimal physical activity and high energy nutrient poor diets), and consequences (including diabetes, cardiovascular disease, arthritis and some types of cancer) give rise for concern. There is an encouraging reversal in this trend for physical activity in adults, but not in children. Urgent, sustained, inter-sectoral action is required to address this problem at the societal level.

Consistent with national trends, risky alcohol consumption especially in the 18-24 year age group is emerging as an issue, as is a decrease in safe sex and an increase in human immunodeficiency virus infections in men who have sex with men. Injury is also a prominent health concern, in particular falls in the elderly and non-fatal injuries associated with land transport. The rate of cycling injuries is twice the national average, only partially explained by higher bicycle usage. The sun-smart message appears to be failing, in particular with teenagers. In mental health, there is a mixed picture with prevalence higher than elsewhere in Australia, but with higher than average access to specialist services and to out-of-hospital follow-up care. Food safety remains a population health concern in the ACT and notifications for salmonella reached a new high in 2012. A number of health gaps remain to be addressed in the Aboriginal and Torres Strait Islander population, most noticeably smoking in young pregnant women and low-birthweight babies in the same sector of the population.

This report highlights the progress the ACT has made on health-related issues and identifies challenges representing opportunities for health gains. Findings will serve as a valuable resource to inform the development of health-related policy and programs.

Dr Paul Kelly, MBBS, DTM&H, PhD, FAFPHM
ACT Chief Health Officer

1. EXECUTIVE SUMMARY

The Australian Capital Territory Chief Health Officer's Report 2014 has been prepared to meet the requirements of the *Public Health Act 1997*, for the reporting period 1 July 2010 to 30 June 2012. This report provides an overview of the health of the ACT population during this two year period.

DEMOGRAPHY

- The estimated resident population of the ACT was 374,912 persons at June 2012, spread across 100 suburbs. The Territory's population is projected to reach 557,443 persons by 2059, representing an increase of approximately 49% over the projection period.
- The Aboriginal and Torres Strait Islander population in the ACT in 2011 was 5,185, accounting for 1.5% of the total ACT population.
- An important implication of the shift towards an older population is an expected increase in the number of people with age-related chronic conditions and a consequent increase in demand for health services.

SOCIAL INDICATORS RELEVANT TO HEALTH

Due to the homogeneity of ACT housing, pockets of disadvantage can be masked. Although the ACT had an overall high socio-economic status, it had 6 census collection districts falling within the bottom 10% of Australian rankings for relative social disadvantage, with one of these ranking in the bottom 2% and one in the bottom 4%. Using individual socio-economic index calculations, 40,400 residents fell into the most disadvantaged 20% of all Australians.

HEALTH STATUS

Life expectancy

- Life expectancy continues to be high in the ACT and is expected to increase slightly over the next 10 years. The Territory has the highest life expectancy of all jurisdictions (males 81.2 years; females 85.1 years in 2012).

Mortality

- The age-standardised death rate has declined over time. In 2012, there were 1,706 death registrations for ACT residents.
- In 2012, the leading underlying causes of mortality for ACT residents were: cancer (29%), cardiovascular diseases (28%), respiratory diseases (9%), accident and injury (7%) and dementia (4%).
- The infant mortality rate in the ACT continues to decline.

Morbidity

- In 2011-12, 88.6% of adults 15 years and over reported their health as good to excellent.
- Persons 45 years and over were most likely to be hospitalised for a chronic disease.
- Those under 45 years were more likely to be hospitalised as a result of asthma, oral disease (including dentistry) and depression.

LIFESTYLE RISK FACTORS

Physical activity

- In 2011-12, more than half (59.6%) of ACT residents 18 years and over were sufficiently physically active (males: 66.2%, females: 53.3%), a significant improvement from 2009-10.
- Between 20-23% of children aged 5-17 years old met physical activity recommendations, which is similar to previous years.

Nutrition

- In 2011-12, 11.0% of ACT adults aged 18 years and over reported eating sufficient vegetables on a daily basis (9.9% in 2009-10); and less than half (49.4%) reported eating sufficient fruit, a significant decrease from 2009-10 (57.1%). Males were less likely to comply than females.
- In 2011-12, 70.5% of 2-15 year olds met the minimum dietary requirements of fruit consumption and 37.0% met the minimum guidelines for vegetable consumption.

EXECUTIVE SUMMARY (Continued)

Healthy weight

- In 2011-12, 63.0% of the ACT adult population was overweight or obese (males: 70.8%, females: 54.7%), with 25.5% being obese (males: 25.9%, females: 25.1%).
- Proportions of children being overweight or obese ranged from 15.7% for kindergarten children (2012) to 26.3% of ACT children aged 5-17 years (2011-12).

Tobacco use

- Adolescent and adult smoking rates, in the ACT and nationally, are continuing to decrease.
- In 2011-12, 15% of ACT residents aged 18 years and over reported being current smokers (Australia: 18.1%). Males reported smoking rates higher than those of females.
- In 2011, 5.8% of 12-17 year olds reported current smoking and 1.4% reported smoking daily.

Alcohol consumption

- In 2011-12, 21.0% of ACT adults drank alcohol at risky/high risk levels (Australia: 19.5%).
- ACT males (31.4%) drank at risky levels significantly more than ACT females (10.9%).
- There was a downward trend in alcohol consumption among ACT secondary students aged 12-17 years. From 2008 to 2011, the proportion of students who reported ever drinking dropped from 85.9% to 73.2%.

Illicit substance and other drug use

- In 2010, 13.9% of ACT residents aged 14 years and over used an illicit drug in the previous 12 months. As in all other jurisdictions, ACT males (17.9%) had higher proportions of recent illicit drug use than females (10.0%).
- With the exception of tranquiliser use, there was a steady and statistically significant decline in lifetime use of illicit substances and use in the past week since 1996 for children 12-17 years.

Sun protection

- There was a downward trend in sun protective behaviour in both children and adults.
- In the two year period 2009-10, the majority of adults (86.4%) reported that they usually/always adhere to some form of sun protective behaviour. This is a significant decline from 89% in 2007-08.
- For students aged 12-17 years, there was a decrease in students wearing a hat (52.5% in 1996 to 29.3% in 2011) and in wearing clothing covering most of their body (27.7% in 1996 to 21.4% in 2011). Students reported using sunscreen less.

HARM MINIMISATION

- Results from the Canberra Gay Community Periodic Survey show that there has been an increase in unprotected anal intercourse with casual partners from 2000 to 2011.

HEALTH AND THE ENVIRONMENT

- The overall ambient air quality and drinking water quality in the ACT was good.
- Several changes to the *Food Act 2001* were made under the *Food Amendment Act 2012.*
- There were two deaths from death-cap mushroom poisoning at a private function in 2012.

TRENDS AND INDICATORS IN HEALTH STATUS

Cardiovascular disease

- While ACT population estimates have increased, especially for females, and are now higher than national estimates, there has been a continued decline in hospital separations, deaths and age-standardised mortality rates for cardiovascular disease (CVD).
- An estimated 18.4% of the ACT population had a disease of the circulatory system expected to last or having lasted for 6 months or more in 2011-12 (Australia: 16.9%).
- ACT people had the highest proportion of heart, stroke and vascular disease (5.7%) of all jurisdictions (Australia: 4.5%).
- During 2012, 485 deaths (28.4% of all deaths) in the ACT were due to cardiovascular disease.

EXECUTIVE SUMMARY (Continued)

Cancer

- The crude incidence rates for cancer in 2005-09 were 404 per 100,000 population for males and 370 for females, the most common types being prostate cancer, colorectal cancer, melanoma of the skin and lung cancer in males and breast cancer, colorectal cancer, melanoma of the skin, and lung cancer in females.
- In 2012, 501 ACT residents died of cancer (55% males and 45% females).
- The most common cancer-related deaths for males were prostate, lung, and colorectal and for females, lung, breast and colorectal.

Mental health

- In 2011-12, 15.5% of the ACT population had mental and behavioural problems, the highest proportion of all states and territories (Australia:13.4%) and an increase from previous years.
- There were 2,970 hospital separations for ACT residents with a primary diagnosis of mental or behavioural disorder in 2011-12.
- The ACT recorded the highest rate of community follow up for people within the first seven days of discharge from hospital and continues to lead the country with post-discharge direct contact.

Injury

- The age-standardised rate of hospital separations for injury has increased over time.
- Leading causes of these separations were: falls (34.6%), complications of care (15.3%), exposure to inanimate mechanical forces (12.1%), and land transport accidents (11.1%).
- In 2012, 21.8% of adults 60 years and over, reported having a fall in the last 12 months.
- There were 8,312 traffic crashes reported in the ACT in 2012, with 10.7% of people involved requiring medical treatment or admission to hospital or dying.
- In 2008-09, the ACT had lower rates of high threat to life injury among motor vehicle drivers and passengers, motorcyclists and pedestrians, but the highest rate of high threat-to-life injury among pedal cyclists of all the jurisdictions.

Diabetes

- An estimated 3.8% of the ACT population had diabetes in 2011-12 (Australia ; 3.7%).
- Projections indicate that by 2020 there will be between 15,000 and 22,000 people with diabetes in the ACT, an increase of approximately 50% from 2005 estimates.

Asthma

- An estimated 10.2% of the ACT population had current asthma in 2011-12.
- There was a decline in the number of hospital separations with a principal diagnosis of asthma between 2001-02 and 2011-12 at the rate of 0.8% per annum.

Immunisation

- The ACT maintained or increased childhood immunisation coverage rates for all age groups and consistently had higher coverage rates than national rates during the reporting period.

Notifiable communicable diseases

- During the 2011 and 2012 calendar years, there were 7,743 reports of notifiable conditions, a slight increase on previous years.
- The most commonly notified communicable disease was chlamydia (33% of all notifications), followed by pertussis (16%), campylobacter (13%), influenza (12%), and salmonella (5%).
- Salmonella notifications in 2012 represented the largest ever count of cases reported for a single year in the ACT, representing an increase of 47% on 2011 notifications.
- Notifications of gonococcal infections increased in 2011 and 2012 from preceding years, consistent with national trends. ACT notification rates were still below the national average.
- There were 28 notifications of HIV infections in the ACT in the two years 2011 and 2012. This is a significant increase from previous years (average: 10.8 cases per year in 2007-11).

EXECUTIVE SUMMARY (Continued)

Maternal and child health

- The number of women giving birth in the ACT decreased by 3% between 2009 and 2011.
- In 2011, 5,584 women, 15% of whom were non-ACT residents, gave birth to 5,702 babies.
- With the exception of Aboriginal and Torres Strait Islander women, the percentage of women who smoked tobacco during pregnancy was significantly lower in the ACT than nationally.
- The ACT proportion of low-birthweight babies was significantly higher in 2011 than 2009, and was no longer significantly lower than Australia's proportion as a whole.
- The 2011 infant mortality rate for the ACT was 2.9 deaths per 1,000 live births, slightly lower than the Australian rate of 3.8 deaths per 1,000 live births.

ACCESS AND EQUITY INDICATORS RELEVANT TO HEALTH

- The ACT had the lowest number of bulk-billed GP attendances of all states and territories, due to the low availability of these services.
- The ACT had the highest proportion of people who felt that they waited longer than was acceptable to get a GP or public dentist appointment and the highest proportion who deferred accessing a GP or obtaining prescribed medicines due to cost.

ACT Aboriginal and Torres Strait Islander people

- 79.5% of Aboriginal and Torres Strait Islander residents reported their health to be good to excellent in 2012-13.
- Tobacco use by Aboriginal and Torres Strait Islander residents is consistently significantly higher than that reported by non-Aboriginal and Torres Strait Islander residents.
- Aboriginal and Torres Strait Islander people had significantly more potentially preventable hospital admissions (33.7 per 1,000 population) than their non-Aboriginal and Torres Strait Islander counterparts (17.4), but this rate was much lower than for NSW, Vic, Qld, WA, SA & NT combined (137).

People with disabilities

- 63% of ACT people with disabilities were in the labour force, which was a higher participation rate than those for other states and territories (Australia: 52.8%).

HEALTH SERVICES

- ACT rates of potentially preventable hospitalisations have not changed significantly since 2006-07, remaining lower than national rates.
- In 2012, the ACT continued to have the highest proportion of private health insurance holders in the country.
- Public hospital capacity continues to increase, with bed numbers increasing from 907 in 2009-10 to 937 in 2011-12.
- Of the 97,455 ACT public hospital separations in 2011-12, 21.6% were for non-ACT residents, slightly lower than in previous years.
- Australia's first nurse-led Walk-in-Centre, based at The Canberra Hospital had 17,450 presentations in 2011-12 with 9% of presentations redirected to their GP and 5% to the emergency department.
- An increase from 2010-11 of 6% in emergency department presentations resulted in 118,389 presentations and a major challenge to resources, but waiting times for emergency treatment were at or above national benchmarks for categories 1 and 5.
- There were 26 residential aged care facilities in the ACT as at June 2012, catering for 1,886 persons (males: 537, females: 1,349; including 6 Aboriginal and Torres Strait Islander people).
- Quality and safety: In 2011-12 there was a 20% increase in the number of episodes of bacteraemia diagnosed at The Canberra Hospital.

INTERSECTORAL ACTIVITIES RELEVANT TO HEALTH

- Collaborating with other directorates and sectors ensures a seamless approach to holistic health initiatives. For example, in December 2010, a whole of government response to key health issues raised in the 2010 Chief Health Officer's report was developed and implemented.

2. ACT Profile

2.1. The Australian Capital Territory

The Australian Capital Territory (ACT) is the smallest state or territory in Australia, covering an area of approximately 2,400 square kilometres. It is surrounded by the state of New South Wales (NSW) (Figure 1), with the majority of the population residing in Canberra, which covers an area of approximately 806 square kilometres. The ACT is situated on the traditional lands of the Ngunnawal people.

Canberra is the major health referral centre for the Greater Southern Region of NSW. ACT Health plans, manages and delivers public sector health services to ACT residents and provides specialist services to some residents in the NSW surrounding region. The total catchment population (titled the Australian Capital Region) was 617,071 persons, including 17,568 Aboriginal and Torres Strait Islander people, as at June 2012.[1]

The estimated resident population of the ACT was 374,912 persons at June 2012, spread across 100 suburbs. Fewer than 1,000 other people lived in the areas surrounding the city. The Territory's population is projected to reach 557,443 persons by 2059, representing an increase of approximately 49% over the projection period.[2] Natural increase (births minus deaths) is expected to contribute approximately 62% of this growth, with migration representing the remainder (approximately 38%).

The total fertility rate (babies born per woman) in the ACT was 1.80 in 2010 and 1.76 in 2011, slightly lower than the national rate (1.88).[3]

The ACT is expected to experience significant changes in its demographic profile over time. Between 2012 and 2059:

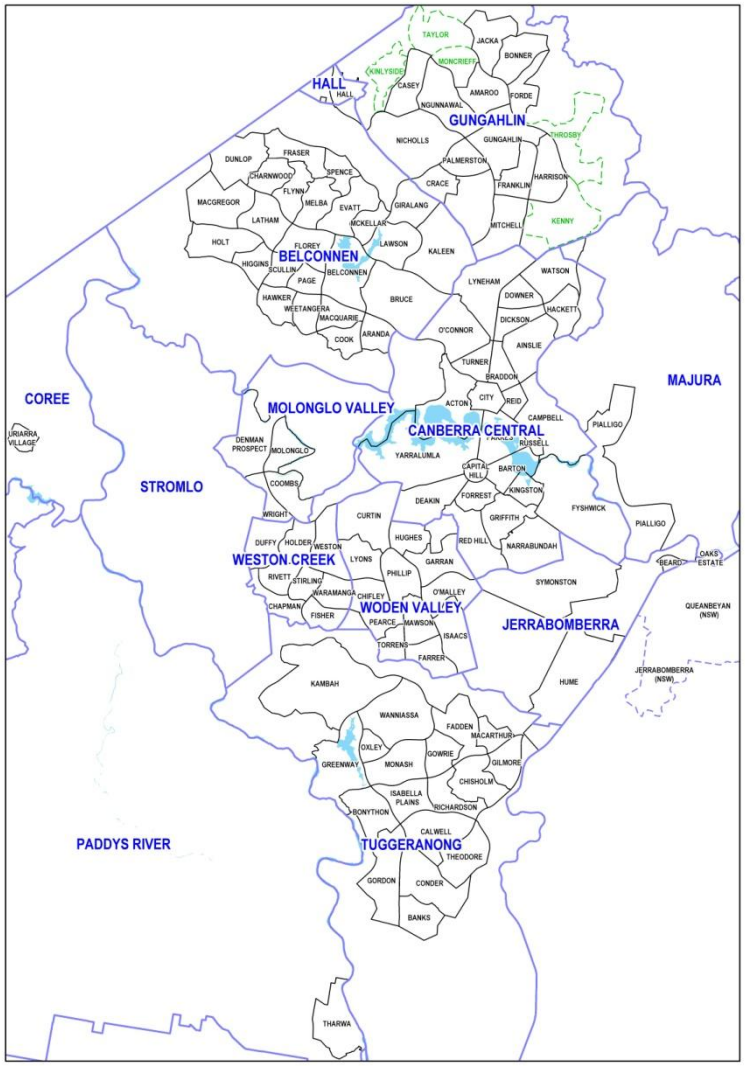
- The median age is expected to increase from 34.0 years in 2010 to 39.9 years in 2056.
- The proportion of persons aged 65 years and over is projected to increase from 11.2% of the population to 21.9%.
- The proportion of late school to working age population aged 15 to 64 years is projected to decrease from 70.5% of the population to 61.5%.
- The proportion of children aged 14 years and under is projected to decrease from 18.3% of the population to 16.6%.[4]

The usual resident Aboriginal and Torres Strait Islander population in the ACT in 2011 was 5,185, accounting for 1.5% of the total ACT population. Some 3,322 Aboriginal or Torres Strait Islander people were aged less than 30 years, accounting for 64% of their population.[1] In addition, there were at least 3,000 Aboriginal and Torres Strait Islander people living in the surrounding region who may access ACT health services.

The demographic profile of the population and projected demographic shifts have implications for health and planning in the ACT. An important implication of the shift towards an older population is an expected increase in the number of people with age-related chronic conditions and a subsequent increase in demand for health services.

Refer Table 27 and Figure 37 for more details.

Figure 1: Maps of the Australian Capital Region including Canberra districts & surrounding NSW



Source: ACT Planning and Land Authority 2011

2.2. Social indicators relevant to health

At a glance

During the reporting period:

- ACT income and education levels were higher than national levels.
- The ACT unemployment rate was lower than national rate.
- A smaller proportion of ACT residents received income support than nationally.
- More ACT families (single and couple) with children had the adults working than nationally.
- ACT residents were more likely to be victims of assault and more likely to be victims of an actual or attempted break-in than nationally. Unlike the rest of Australia, the ACT rates increased from 2010.
- The ACT continued to have the highest proportion of private health insurance holders in the nation.
- Unlike the rest of Australia, the ACT experienced an increase from 2010 in the percentage of people aged 65 years and over who lived alone.
- In 2011, the ACT had six census collection districts falling within the bottom 10% of Australian rankings for relative social disadvantage, with one of these ranking in the bottom 2% and one in the bottom 4%.
- Socio-economic calculations across geographical areas estimate that 712 residents fell into the most disadvantaged 20% of all Australians. Using individual calculations however, this number increased to approximately 40,400 individuals.

Many social factors influencing health are related to the economic and social conditions under which people live and work. Social disadvantage is associated with potentially avoidable poor health outcomes, and in the ACT as for other jurisdictions, indicators of material disadvantage have been linked to higher levels of risky health behaviours, poorer health status and lower levels of service utilisation and service access.[5] Social factors impacting on health are generally more favourable in the ACT compared to Australia, but the ACT has pockets of social disadvantage that may be masked by the homogenous make-up of the Territory (as discussed under socio-economic indices below).

As 2011 was an Australian Census year, information presented below is accurate rather than estimates based on previous censuses. For more detailed information refer Table 28.

In 2011:

- The unemployment rate for the ACT (3.5%) was lower than the national rate (5.1%).
- ACT income levels were high compared to national levels. The average weekly full-time earnings were $1,505, above the national average ($1,307).
- The proportion of people working in the lowest skill occupations was 13.1% compared to 18.1% nationally.
- The proportion of people working in the highest skill occupations was 40.2% compared to 29.7% nationally.
- ACT residents received less income support (aged pension, disability pension, single parent support) than other Australians, but they received similar support in the area of Youth Allowance.
- Education levels in the ACT were high compared to Australian levels. 47.7% of ACT adults had tertiary qualifications (Australia: 27.9%) and ACT school students continued to have higher year 12 retention rates (89.4%) than overall national rates (79.3%).

- Single parent families with children under 15 years of age comprised 15.2% of ACT families with children (Australia: 20.8%).
- More ACT couple families with children under 15 years of age had both parents working (71.0%) than nationally (62.6%).
- More ACT single adult families with children under 15 years of age had the adult working (63.8%) than nationally (55.8%).
- Of ACT persons aged 65 years and over, 28.3% lived alone (Australia: 24.2%), an increase from the 2010 estimate (23.6%). Australia did not experience such an increase.
- ACT residents were more likely than other Australians to have home computers (ACT: 90.9% of households, Australia: 82.6%) and have internet access at home (ACT: 88.1% of households, Australia: 78.9%).
- Safety from crime and physical or threatened violence is important to wellbeing. ACT residents were more likely to be victims of assault in the previous 12 months (ACT: 7.0%, Australia: 5.6%) and were more likely to be victims of an actual or attempted break-in (ACT: 4.1%, Australia: 2.8%). Unlike Australia, the ACT rates increased from 2010.
- The ACT continued to have a higher rate of passenger vehicles per 1,000 population (ACT: 599, Australia: 556).
- The ACT (56.8%) continued to have the highest proportion of private health insurance holders in the country (Australia: 46.9%), reflecting the Territory's relatively high socio-economic status (refer Table 46).

Socio-Economic Indices for Areas

Socio-Economic Indices for Areas (SEIFA) 2011, compiled by the Australian Bureau of Statistics (ABS), gave an indication of an area's relative advantage and disadvantage in relation to income, educational attainment, employment and skill of occupation based on information collected in the 2011 Census.[6] Overall, ACT residents ranked above the national average for most socio-economic indicators based on broad geographic levels such as statistical sub-divisions and statistical local areas.

The relatively high SEIFA indices at the broad geographic levels for the ACT reflected the socio-economic homogeneity of the ACT's urban planning and design, which can mask pockets of disadvantage. Canberra, unlike other cities, had suburbs or even collection districts with diverse pockets of high and low levels of disadvantage. Analysis of census data at the smaller collection district level showed that the ACT had six collection districts falling within the bottom 10% of Australian rankings for relative social disadvantage, with one of these ranking in the bottom 2% and one in the bottom 4%. These areas typically feature high levels of public tenement housing and generally accommodate people in receipt of social welfare.

Recent research by ACT Government in conjunction with the ABS into the Socio-Economic Indexes for Individuals (SEIFI) suggests that SEIFA data, even taken at the collection district level, chronically under-reports disadvantage in the ACT. Suburbs or collection districts where high numbers of both the most and the least advantaged people live do not identify the number of seriously disadvantaged individuals, due to the averaging of high and low components of the index.[7]

The research revealed that, using 2006 Census data and SEIFA, the ACT had 712 residents who fell into the most disadvantaged 20% of all Australians. Using SEIFI calculations, this number escalated to approximately 40,400 individuals. Investigation into recalculating the SEIFI using 2011 Census data is underway.

Homelessness

Homelessness, an indicator of extreme disadvantage, is difficult to measure. Information collected from the 2011 Census estimated that there were 1,785 ACT people who were homeless in 2011 (56% male, 44% female). The rate of homeless people was 5.0 per 1,000 population on Census night (Australia: 4.9 per 1,000 population). This was the second highest rate of homelessness (after the Northern Territory), but included the highest rate of homeless people in supported accommodation for the homeless (62% of ACT homeless compared to 10% of Australian homeless).

3. Health status

At a glance

The demographic profile of the population and projected demographic shifts have implications for health and planning in the ACT. An important implication of the shift towards an older population is an expected increase in the number of people with age-related chronic conditions and a subsequent increase in demand for health services.

Life expectancy

- Life expectancy continues to be high in the ACT and is expected to increase slightly over the next 10 years. The Territory has the highest life expectancy of all jurisdictions (males 81.2 years; females 85.1 years in 2012).

Mortality

- In 2012, there were 1,706 death registrations for ACT residents.
- The age-standardised death rate has declined over time.
- The median age at death was 78.4 years for males and 84.8 years for females in 2012, a steady increase since 2002.
- In 2012, the leading underlying causes of mortality for ACT residents were: cancer (29%), cardiovascular diseases (28%), respiratory diseases (9%), accident and injury (7%) and dementia (4%).
- The infant mortality rate in the ACT continues to decline.

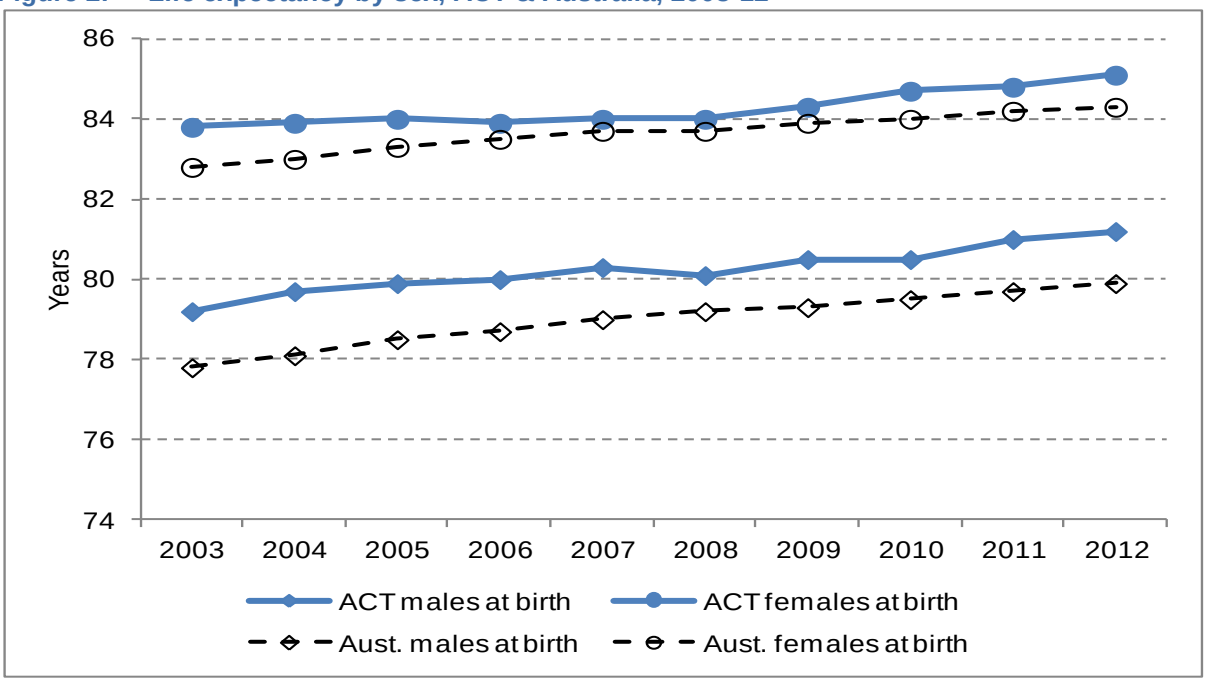
Morbidity

- In 2011-12, 88.6% of ACT adults over 16 years reported their health as excellent, very good or good.
- ACT residents reported similar levels of long-term conditions to respondents nationally, with the exception of hayfever and allergic rhinitis, short-sightedness and mental and behavioural problems, where the ACT had higher proportions of these conditions; and long-sightedness, where the ACT had a lower proportion than nationally.
- Persons 45 years and over were most likely to be hospitalised for a chronic disease as a result of chronic obstructive pulmonary disease; coronary heart disease; lung cancer; cerebrovascular disease; osteoarthritis; and chronic kidney disease in 2011-12.
- Those under 45 years were more likely to be hospitalised as a result of asthma (especially those aged 0-14 years), oral disease (including dentistry and especially those 15-24 years) and depression (predominantly 25-44 years).
- The average length of stay in public hospitals, including same day separations, was 3.4 days, the same as the national figure.

3.1. Life expectancy

Life expectancy in Australia (refer glossary) has increased steadily since the early 1900s and is now one of the highest in the world. Life expectancy continues to be high in the ACT and is expected to increase slightly over the next 10 years. In 2012, the ACT recorded the highest life expectancy at birth for males (81.2 years) and for females (85.1 years) of all jurisdictions. (Figure 2).

Figure 2: Life expectancy by sex, ACT & Australia, 2003-12



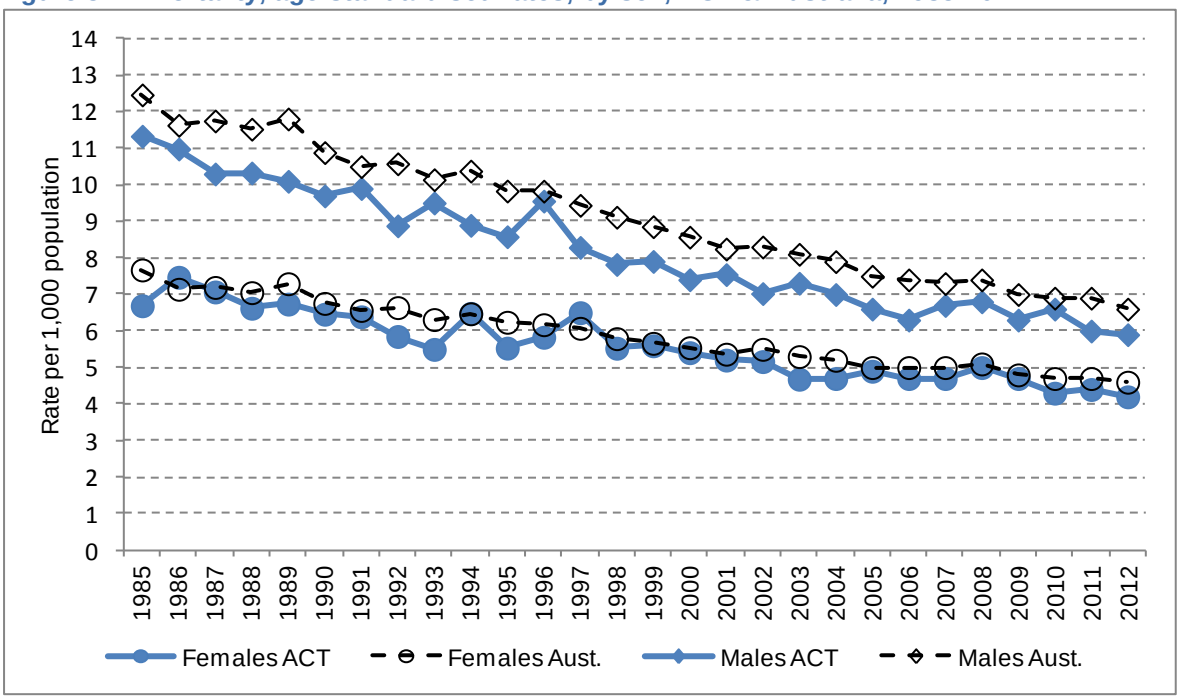
Source: ABS 2013, *Deaths Australia 2012,* cat. no. 3302.0, ABS, Canberra

3.2. Mortality

In 2012, there were 1,706 death registrations for persons whose usual state of residence was the ACT (852 males, 854 females).[8] There has been an increase in the number of registered deaths over the past 10 years due to an increasing and older population.

There was a decline in age-standardised death rates in the ACT. This decline was more pronounced in males than females and largely reflects advances in health care technologies, therapies and disease prevention measures, especially for those conditions where male rates have historically exceeded female rates (e.g. chronic diseases such as cardiovascular disease and lung cancer) (Figure 3).

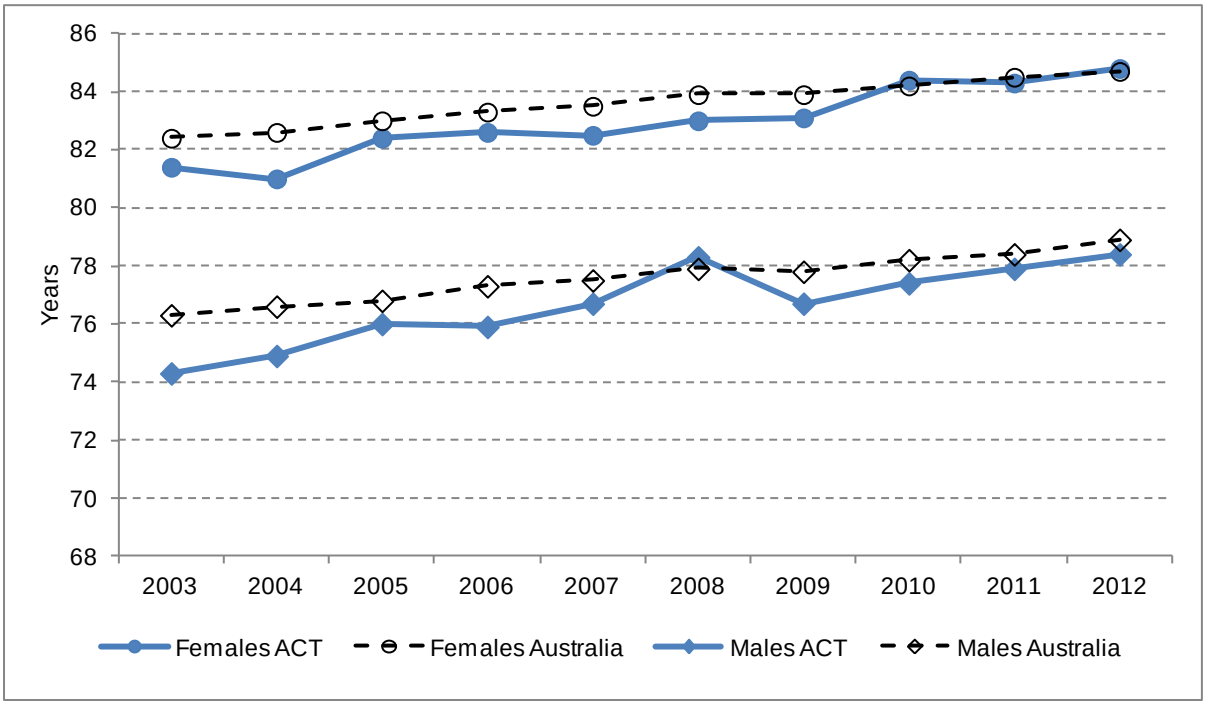
Figure 3: Mortality, age-standardised rates, by sex, ACT & Australia, 1985-2012



Source: ABS 2013, *Deaths Australia 2012*, cat. no. 3302.0, ABS, Canberra
Note: 2012 ABS deaths data are preliminary and should be treated with caution.

The median age at death was 78.4 years for males and 84.8 years for females in the ACT in 2012. This compares to 78.9 years for males and 84.7 years for females nationally. Since 2003 the ACT median age of death has steadily increased for males (2003: 74.3 years) and females (2003: 81.4 years).

Figure 4: Median age at death, by sex, ACT & Australia, 2003-12



Source: ABS 2013, *Deaths Australia 2012*, cat. no. 3302.0, ABS, Canberra
Note: 2012 ABS deaths data are preliminary and should be treated with caution.
.

In 2012, the leading underlying causes of mortality for ACT residents were: cancer (29%), cardiovascular diseases (28%), respiratory diseases (9%), accident and injury (7%) and dementia (4%).[9]

The level of avoidable mortality in a population indicates the theoretical scope for future health gain through disease prevention and management. An avoidable or premature death is defined in this report as a death at age less than 80 years that could have been avoided given current understanding of causation, prevention strategies and disease management. The years of potential life lost reflect theoretically premature deaths (Table 1 and Table 30)

The high years of potential life lost, but low standardised death rates for external causes and intentional self-harm indicate that deaths from these causes were at a younger age than other causes such as cancer and circulatory diseases.

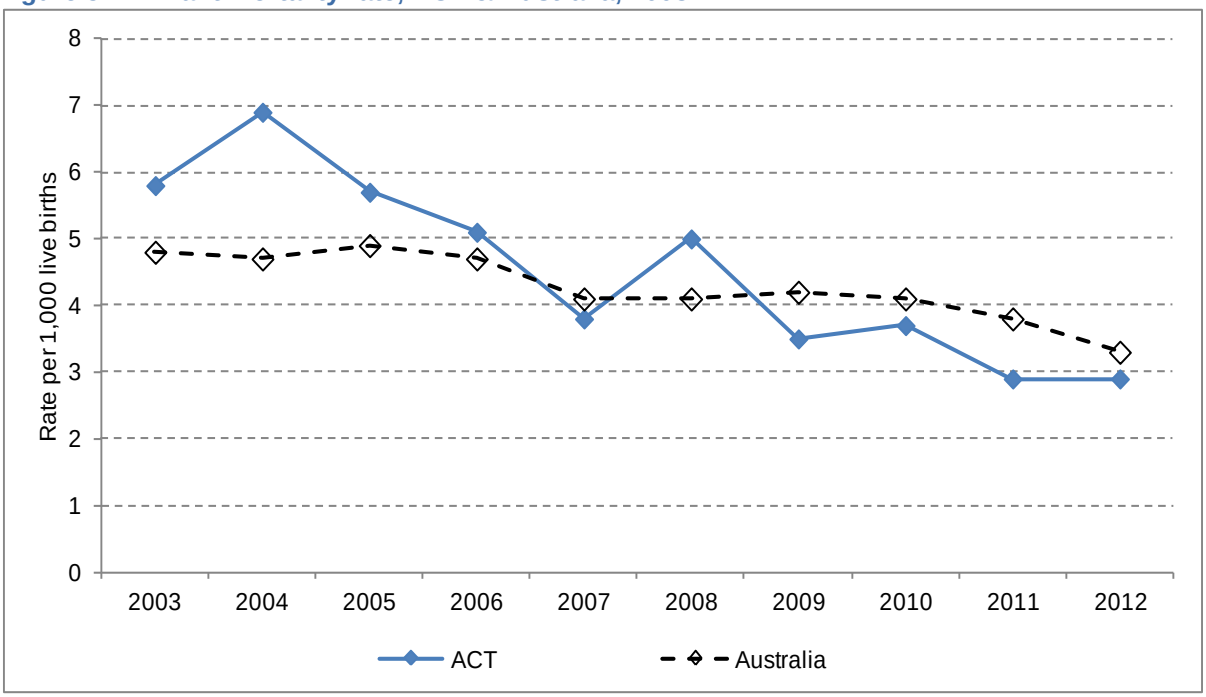
Table 1: Selected causes of death, age-standardised rates & years of potential life lost, ACT, 2012

	Number	Standardised death rate			Years of potential life lost		
Cause of death	Persons	Males	Females	Persons	Males	Females	Persons
External causes	116	35.2	27.8	31.6	1,352	704	2,054
Transport accidents	20	np	np	5.4	434	164	600
Intentional self-harm	24	np	np	6.2	536	210	741
Falls	65	17.2	18.3	18.1	349	279	630
Accidental poisoning	7	np	np	np	np	np	208
Diseases of circulatory system	485	164.7	120.6	141.4	1,369	439	1,783
Ischaemic heart disease	221	86.9	47.4	65.1	713	91	787
Cerebrovascular disease	125	37.8	33.8	36.2	331	123	446
Cancers	501	186.9	116.5	147.0	2,358	2,267	4,598
Diseases of digestive system	68	21.9	18.8	20.5	351	208	555
Diseases of respiratory system	145	56.9	31.9	42.0	386	207	591
Diseases of nervous system	82	25.0	22.8	24.0	144	242	377
Diabetes mellitus	56	20.0	11.5	16.0	232	12	238
Mental & behavioural disorders	89	25.9	24.6	25.0	174	88	259
Infectious & parasitic diseases	24	np	np	6.6	120	50	165

Source: ABS, 2014, *Causes of death, Australia* 2012, cat. no. 3303.0
Note: 2012 ABS deaths data are preliminary and should be treated with caution.
Standardised death rate is per 1,000 population.
np not published.

Infant deaths are defined as deaths that occur before one year of age. The infant mortality rate in the ACT continues to decline, largely due to advances in antenatal and neonatal care, and education and disease prevention activities. The number of infant deaths in the ACT is low, and as a result mortality rates can fluctuate with only small changes in numbers and should be interpreted with caution. For example: in 2009 it was 3.5 deaths per 1,000 live births (Australia; 4.2); in 2011 it was 2.9 (Australia: 3.8); and in 2012 it was 2.9 (Australia; 3.3).[9] ACT rates have been consistently lower than national rates.

Figure 5: Infant mortality rate, ACT & Australia, 2003-12



Source: ABS 2013, *Deaths Australia 2012*, cat. no. 3302.0, ABS, Canberra
Note: 2012 ABS deaths data are preliminary and should be treated with caution.

3.3. Morbidity

Self-rated health is a strong and independent predictor of subsequent illness and premature death.[10] Results from the 2009 and 2010 ACT General Health Surveys (ACTGHS) indicate that 82.2% of adults over 16 years reported their health as excellent, very good or good.

Estimates derived from the 2011-12 ABS Australian Health Survey provide the most recent information on long-term health conditions within the ACT and national populations. This survey included the topics of the superseded National Health Survey and estimates are therefore comparable over the years.

As would be expected of an ageing population, the proportion of chronic, age-related conditions increased in the ACT and nationally over the two survey periods. This was particularly noticeable with diseases of the circulatory system and mental and behavioural problems.

ACT respondents reported similar levels of long-term conditions to respondents nationally, with a few exceptions:

- the ACT had higher proportions of hayfever and allergic rhinitis, short-sightedness, mental and behavioural problems and diseases of the circulatory system; and
- the ACT had lower proportions of long-sightedness. (Table 2).

Table 2: Selected long-term conditions, % of ACT residents, 2007-08 & 2011-12, Australia, 2011-12

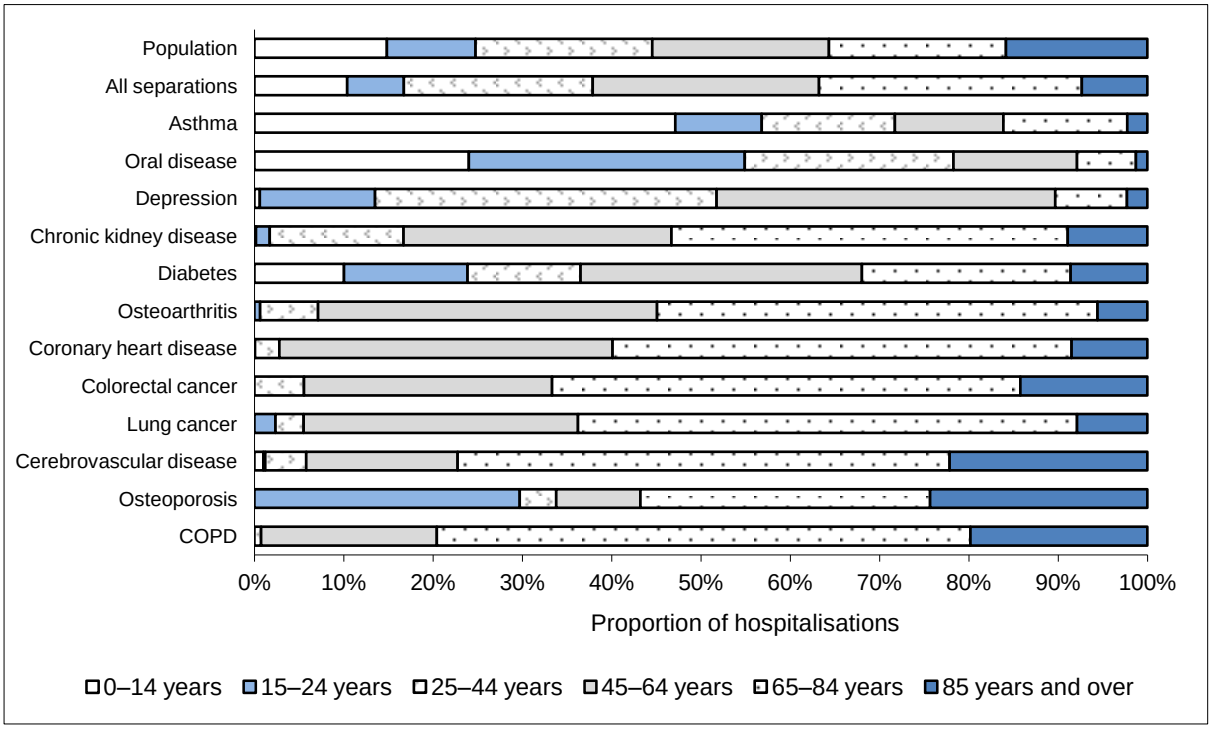
	ACT		Australia
	2007-08	2011-12	2011-12
Short-sightedness	25.9	27.6	22.9
Long-sightedness	23.1	20.9	26.4
Hayfever & allergic rhinitis	21.0	22.1	16.8
Diseases of the circulatory system	15.2	18.4	16.9
Back pain/problems neck/disc disorders	13.9	13.1	12.3
Arthritis (including osteoarthritis)	13.0	14.5	13.8
Mental & behavioural problems [(a)]	11.8	15.5	13.4
Deafness (complete/partial)	8.2	9.6	10.0
Asthma	9.6	10.2	10.2
Diabetes/high blood sugar	3.1	3.8	3.7
Osteoporosis	2.9	3.6	3.1
Bronchitis/emphysema	1.8	2.2	2.3
Cancer	1.9	1.7	1.4

Sources: ABS, *National Health Survey 2007-08*, cat. no. 4368.0 &
ABS, *Australian Health Survey: First results, 2011-12*, cat. no. 4364.0
Note: (a) Includes depression.

Hospitalisations provide an insight into acute levels of ill-health. Hospitalisation data in 2011-12 show that hospitalisations due to certain diseases varied across the life course (Figure 6).

For chronic diseases, persons 45 years and over were most likely to be hospitalised as a result of chronic obstructive pulmonary disease (COPD); coronary heart disease; lung cancer; cerebrovascular disease; osteoarthritis; and chronic kidney disease. Those under 45 years were more likely to be hospitalised as a result of oral disease including dentistry (especially 15-24 years); asthma (especially those aged 0-14 years); depression (predominantly 25-44 years) and diabetes.

Figure 6: Major chronic diseases, hospital separations, % by age group, ACT residents, 2011-12



Source: ACT Health Admitted Patient Care Collection, confidentialised unit record file, 2011-12
Note: Osteoporosis for persons aged 15-24 years related to 22 separations for only five patients, three of whom had a secondary code of 'cerebral palsy, unspecified'.

The average length of stay in public hospitals, including same day separations, was 3.4 days, the same as the national figure.[11]

Consistent with other jurisdictions, ACT Aboriginal and Torres Strait Islander people had a much higher separation rate (722.0 separations per 1,000) than other ACT residents (384.3 per 1,000).[11] Refer Section 8.2 for further information on Aboriginal and Torres Strait Islander people.

Potentially preventable hospitalisations (PPHs) are those conditions where hospitalisation is thought to be avoidable if timely and adequate non-hospital care had been provided. Although the ACT had lower rates than the national average, these rates have not changed significantly since 2002-03. Of all ACT hospitalisations, 6.3% were potentially preventable (Australia: 7.3%). In 2011-12, over 40% of the PPHs were for chronic diseases (43.3%). (Table 3 and Section 9.1).

Table 3: Potentially preventable hospitalisations for chronic conditions, age-standardised rates, ACT & Australia, 2009-12

	2009-10		2010-11		2011-12	
Select chronic conditions [(a), (b)]	ACT	Aust	ACT	Aust	ACT	Aust
Diabetes complications[(c)]	4.0	7.1	2.3	3.7	2.0	3.6
Congestive cardiac failure	1.9	1.9	2.0	2.0	1.6	2.0
Chronic obstructive pulmonary disease	2.0	2.6	2.0	2.7	2.4	2.8
Asthma	1.1	1.8	1.2	1.7	1.2	1.8
Angina	0.9	1.4	0.7	1.3	0.7	1.3
Hypertension	0.2	0.3	0.1	0.3	0.2	0.3
Total chronic conditions[(d)]	10.4	16.0	9.1	12.9	9.1	13.0
Total potentially preventable hospitalisations[(d)]	20.7	30.4	20.0	27.7	21.0	28.6

Source: AIHW, *Australian Hospital Statistics* 2009-12

Notes: (a) Conditions are defined using ICD-10-AM codes as defined in *Australian Hospital Statistics*.
(b) Rate per 1,000 population was directly age-standardised to the Australian estimated resident population as of 31 December 2006.
(c) The sharp decrease in diabetes complications between 2009-10 & 2010-11 reflects changes in coding practices.
(d) Totals exclude multiple diagnoses for the same separation within the same group.

4. Lifestyle risk factors

There are many risk factors that influence the health of populations, including biological, environmental, social and lifestyle factors, each with varying degrees of preventability. Lifestyle factors are implicated as major preventable causes of chronic disease and include activities such as physical activity, smoking, alcohol and food consumption. Lifestyle factors are the product of both the choices people make and the factors that influence these choices such as socio-economic status and accessibility to healthy environments. Refer to Sections 9.9 and 10 for initiatives to encourage healthy lifestyles.

4.1. Physical activity

At a glance

- In 2011-12, more than half (59.6%) of ACT residents 18 years and over were sufficiently physically active.
- Between 20-23% of children aged 5-17 years old met physical activity recommendations, representing no change from previousyears.
- Half (50.4%) of children aged 5-15 years use electronic media for entertainment at home for more than two hours a day.

Results from the ACT General Health Survey (ACTGHS), which were self-reported, show the percentage of ACT residents 18 years and over who were sufficiently physically active (in accordance with national guidelines)[12] in 2011-12 was 59.6% (males: 66.2%, females: 53.3%). This is a statistically significant improvement from 2009-10, when 56.9% (males: 59.4%, females: 54.5%) were sufficiently physically active.

For children aged 5–17 years, *National physical activity guidelines*[13] recommend:

- at least 60 minutes of moderate to vigorous physical activity every day
- a maximum of two hours screen-based activity for entertainment/non-educational purposes a day.

Results from the 2011-12 ACTGHS indicate that 22.9% of children aged 5-15 years of age (males: 24.8%, females 20.9%) participated in 'one or more' hours of physical activity outside school hours. Activity levels dropped off with age (Table 4). This has remained constant over the last several years (22.8% in 2007-10).[14]

Table 4: One or more hours of physical activity outside of school, by age, children 5-15 years, ACT, 2011-12

Age (Years)	Males (%)	Females (%)	Persons (%)
5 to 8	24.0	33.4	28.7
9 to 15	25.1	14.0	19.6
All	24.8	20.9	22.9

Source: ACTGHS data collection 2011-12

Although a wider age range and measured slightly differently (ACTGHS measures activity as 'usually does in a week' whereas AHS refers to the 'seven days prior to the survey being conducted'.), these results are supported by the 2011-12 Australian Health Survey (AHS), where 19.4% of 5-17 year olds met 'physical activity recommendations' (males: 20.2%, females 18.5%). As with the ACTGHS, activity levels reduced with age.

The results from the 2011-12 ACTGHS indicate that 50.4% of children aged 5-15 years use electronic media for entertainment at home (males: 51.8%, females: 49.0%) for more than 2 hours a day. This is an increase (although not significant) from 2007-10 when 46.2% of ACT children (55.2% males and 36.7% females) used electronic media (TV/DVD/computer games) for more than two hours a day.[14]

4.2. Nutrition

At a glance

- In 2011-12, 11.0% of ACT adults 18 years and over reported they were eating sufficient vegetables on a daily basis (in accordance with national guidelines), which is a slight increase from 9.9% in 2009-10.
- Less than half (49.4%) of ACT adults reported they were eating sufficient fruit (in accordance with national guidelines), a significant decrease from 2009-10 (57.1%).
- Males were less likely than females to be meeting the vegetable and fruit guidelines.
- In 2011-12, 70.5% of 2-15 year olds met the minimum dietary requirements of fruit consumption and 37% of them met the minimum recommended dietary guidelines for vegetable consumption.
- As children increased in age, their compliance with the guidelines reduced.

Adults

The following data have been measured against the *NHMRC Dietary guidelines for Australian Adults* (2003) as these were the current guidelines when the data were collected. These guidelines have been revised and replaced with the *Australian Dietary Guidelines (2013).*

In 2011-12, based on ACTGHS survey results, 11.0% of ACT adults 18 years and over reported they were eating sufficient vegetables on a daily basis (in accordance with national guidelines),[15] which is a slight increase from 9.9% in 2009-10. Males (8.0%) were less likely to report this than females (14.0%). The mean number of daily serves of vegetables for adults from ACTGHS results was 2.37 serves in 2011 and 2.61 serves in 2012.

The consumption of sufficient fruit according to national guidelines[15] has decreased significantly from 57.1% in 2009-10 to 49.4% in 2011-12. Males (46.5%) were less likely to report this than females (52.3%). The mean number of daily serves of fruit for adults from ACTGHS results was 1.61 serves in 2011 and 1.77 serves in 2012.

Results from the AHS indicate that 7.5% of adults 18 years and over consumed five or more serves of vegetables a day (males: 5.2%, females: 9.7%), thus meeting the guidelines.[16] For fruit consumption, 53.2% of ACT adults consumed two or more pieces of fruit a day (males: 48.2%, females: 58.2%), thus meeting the guidelines.

Both surveys showed a similar trend, with males less likely than females to meet the guidelines.

Children

Results from the 2011-12 ACTGHS indicate a slight, though not significant increase, with 70.5% of 2-15 year olds meeting the minimum dietary requirements of fruit consumption (2007-10: 69.7%) (Table 5).

Similar to previous years, younger children were significantly more likely to be meeting the minimum requirements than older children, with 95.8% of younger children (2-11 years) eating one or more serves a day (96.5% of males and 95.1% of females) and only 19.3% of 12-15 year olds eating three or more serves a day (23.8% of males and 14.8% of females).

Table 5: Fruit consumption, serves per day, percentage of children 2-15 years, ACT, 2007-12

Serves	2007-10 2-11 years	2011-12 2-11 years	2007-10 12-15 years	2011-12 12-15 years
Less than 1 serve	3.5	4.2	15.3	9.8
1-2 serves	65.6#	66.1#	64.7	71.0
3 or more serves	30.9#	29.7#	20.0#	19.3#

Source: ACTGHS data collection 2007-12
Notes: # denotes the percentage meeting the minimum recommended number of serves for this age group.
Percentages may not add to 100% due to rounding.
One serve of fruit is calculated as a medium piece or two small pieces of fruit.

With regard to vegetable consumption, 37.0% of ACT children aged 2-15 years met the minimum recommended dietary guidelines for vegetable consumption, a slight though not significant decrease from previous years (2007-10: 39.7%). Younger children were significantly more likely to meet the daily requirements than older children, with 58.0% of 2-7 year olds consuming two or more serves of vegetables (50.3% of males and 65.7% of females); 30.4% of 8-11 year olds (28.2% male and 32.7% female) eating three or more serves and 16.0% of 12-15 year olds eating four or more serves (14.9% males and 17.0% of females) (Table 6).

Table 6: Vegetable consumption, serves per day, percentage of children 2-15 years, ACT, 2007-12

	2007-10	2011-12	2007-10	2011-12	2007-10	2011-12
Serves	**2-7 years**		**8-11 years**		**12-15 years**	
Less than 1 serve	8.4	4.0	7.2	5.2	5.9	6.0
1 serve	30.7	38.1	23.9	24.6	25.8	29.1
2 serves	35.0#	31.8#	31.2	39.8	32.1	25.5
3 serves	18.2#	14.7#	22.4#	17.6#	18.9	23.4#
4 or more serves	7.7#	11.5#	15.4#	12.8#	17.4#	16.0#

Source: ACTGHS data collection 2007-12
Notes: # denotes the percentage meeting the minimum recommended number of serves for this age group.
Percentages may not add to 100% due to rounding.
One serve of vegetables is calculated as half a cup of cooked vegetables or one cup of salad vegetables.

The AHS results indicate that 65.7% of ACT 2-17 year olds were eating one to two serves of fruit a day (compared to 65.1% nationally). Similarly, vegetable consumption rates indicate 73.1% of ACT 2-17 year olds were eating one to two serves of vegetables (62.7% nationally).

4.3. Healthy weight

At a glance

- In 2011-12, over half of ACT adults 18 years and over were either overweight or obese.
- Overweight and obesity levels in young children in 2012 have returned to the levels measured in 2010, but still are a concern.

In 2011-12, 52.3% of ACT adults 18 years and over reported being either overweight or obese (Body Mass Index, BMI, of 25 or higher) based on results from the ACTGHS. Males (56.4%) were more likely to report being overweight or obese than females (48.2%). These results are similar to those in 2009-10, where 52.9% of ACT adults 18 years and over were either overweight or obese (males: 59.9%, females: 46.1%). These results appear to be remaining stable.

However, results from the same survey indicate that 19.8% of the ACT adult population are obese (BMI of 30 or higher) (males: 21.1%, females: 18.5%) in 2011-12 compared to 17.5% of the population in 2009-10 (males: 18.2%, females: 17.0%), which is a statistically significant increase. It is important to note that these results are 'self-reported', unlike other surveys, such as the Australian Health Survey (which incorporates the National Health Survey), where height and weight are measured.

Of the 19.8% of obese adults, the majority (72.8%) are considered obese Level I (BMI 30.0 to 34.9), 19.1% are obese Level II (BMI 35.0 to 39.9) and 8.2% are obese Level III (BMI 40 and above). Canberra Hospital and Health Services is establishing an Obesity Management Service (OMS) to commence in early 2014. The service will target people with Level III obesity, as these people have a much higher risk of co–morbidities and need for complex care than people at other levels.

2011-12 AHS results were similar to the self-reported ACTGHS results, but are probably a more accurate reflection of the situation. According to the results of this survey, 63.6% of the ACT adult population was overweight or obese (males: 70.8%, females: 54.7%) with 25.5% being obese (males: 25.9%, females: 25.1%) (2007-08: 59.0%).[17]

The rate of overweight and obesity in children varies across age groups and is difficult to compare. This variation can be due to developmental changes, such as height still increasing and body composition and adiposity changing over time. Therefore any calculation of BMI must be adjusted for age and sex.[18] Variations can also be due to different data collection methods. For example, data on ACT kindergarten children, year 6 primary school children and the Australian Health Survey are based on measured height and weight. In contrast, data collected from the Australian Secondary School Alcohol and Drug (ASSAD) survey and ACTGHS are based on self-reported height and weight, which is subject to response biases that can lead to an under-estimation of overweight and obesity.

Although survey results are varied due to the different data collection methods used, they are all highlighting that overweight and obesity continue to be an issue. For example:

- 15.7% of kindergarten children in the ACT in 2012 were measured as overweight or obese (ACT Kindergarten Screening Program) compared to 17.3% in 2011 and 15.7% in 2010.
- 25.0% of children in year 6 in ACT primary schools were measured as either overweight or obese in 2009. This proportion has not changed from 2006 (25.8%) (2009 and 2006 ACT Year 6 Physical Activity and Nutrition Surveys).
- 15.7% of ACT secondary school students aged 12-17 years were overweight or obese (ASSAD) in 2011 compared to 19.3% in 2008 (self-reported). This decrease was statistically significant.
- 22.8% of children aged 2-15 years were overweight or obese according to the ACTGHS 2007-10.[14]
- 26.3% of ACT children aged 5-17 years were overweight or obese according to the 2011-12 AHS.

4.4. Tobacco use

At a glance

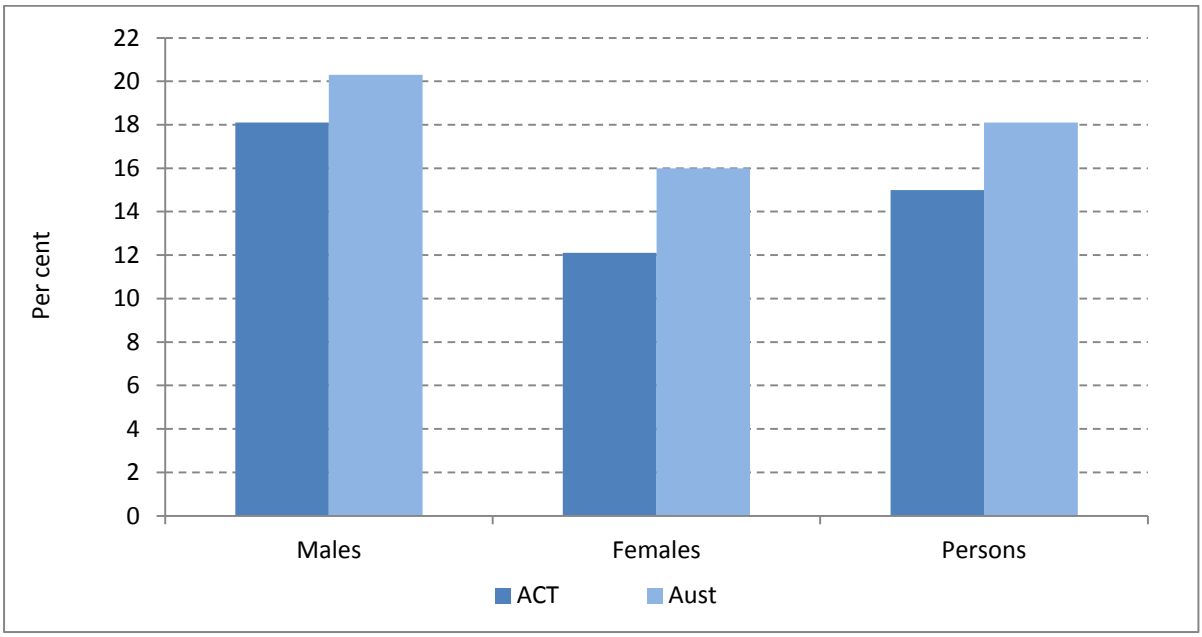
- Smoking rates, both in the ACT and nationally, are continuing to decrease.
- In 2011-12, 15% of ACT residents aged 18 years and over reported being current smokers compared with 18.1% of adult Australians.
- Smoking rates among ACT secondary school students are continuing to decline. In 2011, 5.8% of 12-17 year olds reported being current smokers and 1.4% reported smoking daily.
- In 2011 ACT women were significantly less likely to smoke during pregnancy (9.3%) than nationally (13.2%).
- Smoking during pregnancy was significantly higher for Aboriginal and Torres Strait Islander women: 68.0% of Aboriginal and Torres Strait Islander women aged under 20 years and over half (59.2%) of those aged 20 to 24 years reported that they smoked during pregnancy.
- 44.4% of non-Aboriginal and Torres Strait Islander women under the age of 20 years and 28.6% of those aged 20 to 24 years reported smoking during pregnancy.

ABS data suggest that smoking rates, both in the ACT and nationally, are continuing to decrease. In the 2011-12 Australian Health Survey (AHS), the figure for ACT residents aged 18 years and over who reported being current smokers was 15.0%, compared with 18.1% of adult Australians. Results from the previous survey (conducted in 2007-08) showed 18.6% of adult ACT residents and 20.1% of Australians were current smokers. In both the surveys, males reported smoking rates which were four to five percentage points higher than those of females (Figure 7).

It is important to note that smoking data presented in the 2012 ACT Chief Health Officer's Report were from the 2010 National Drug Strategy Household Survey and reported on daily smoking. These figures are therefore not directly comparable with the current data, as they originate from a different

survey and measure daily smoking, rather than current smoking (the latter also includes people who smoke, but not daily).

Figure 7: Current smoker status, % of people aged 18 years & over, ACT & Australia, 2011-12



Source: ABS, Australian Health Survey: First results, 2011-12, cat. no. 4364.0

Smoking during pregnancy

Smoking during pregnancy is an important risk factor for adverse perinatal outcomes. Self-reported data on cigarette smoking were collected from women who gave birth in the ACT from 2000 to 2011. In 2011 ACT resident women were significantly less likely to smoke during pregnancy (9.3%) than nationally (13.2%).

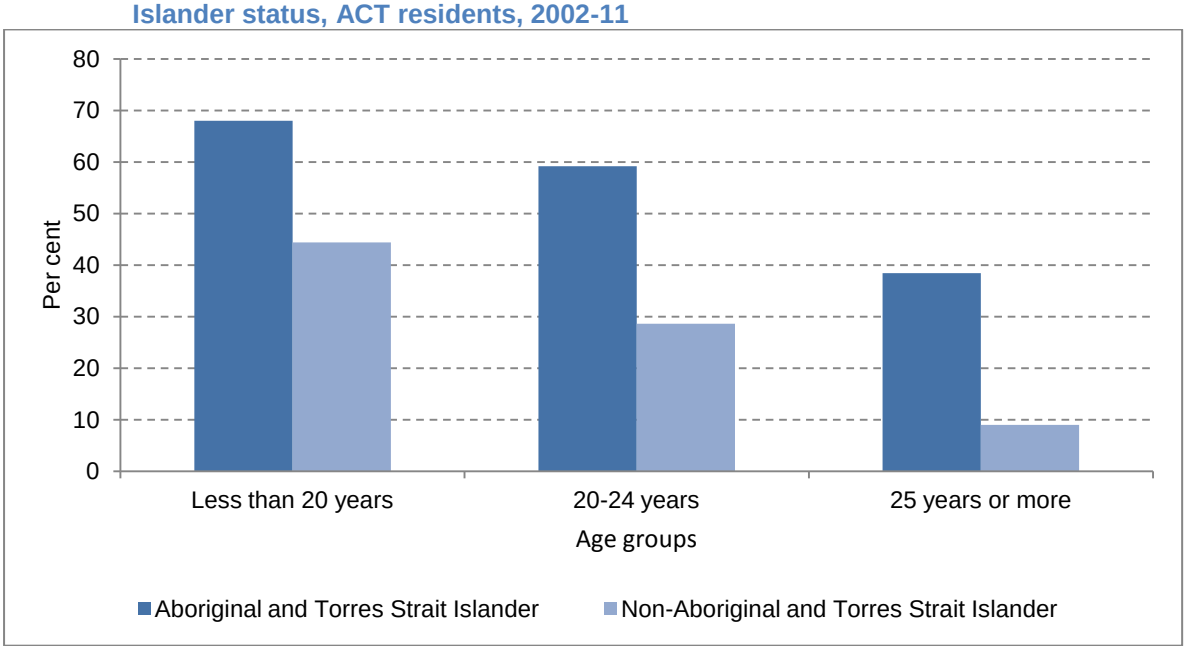
Smoking during pregnancy decreased significantly with maternal age (Figure 8). Women in younger age groups were significantly more likely to use tobacco during pregnancy, with 44.4% of teenage women who gave birth in the ACT reporting they smoked during pregnancy.

Smoking during pregnancy was significantly higher for Aboriginal and Torres Strait Islander women (refer Section 8.2).

68.0% of Aboriginal and Torres Strait Islander women aged under 20 years and over half (59.2%) of those aged 20 to 24 years reported that they smoked during pregnancy. Comparatively, just under half (44.4%) of non-Aboriginal and Torres Strait Islander women under the age of 20 years and just under one-third (28.6%) of those aged 20 to 24 years reported smoking during pregnancy.

The average birthweight for singleton babies of ACT resident women who smoked during pregnancy in 2011 was significantly lower (3,146 grams) than babies of women who did not smoke (3,422 grams).

Figure 8: Smoking during pregnancy, % by maternal age group & Aboriginal & Torres Strait Islander status, ACT residents, 2002-11

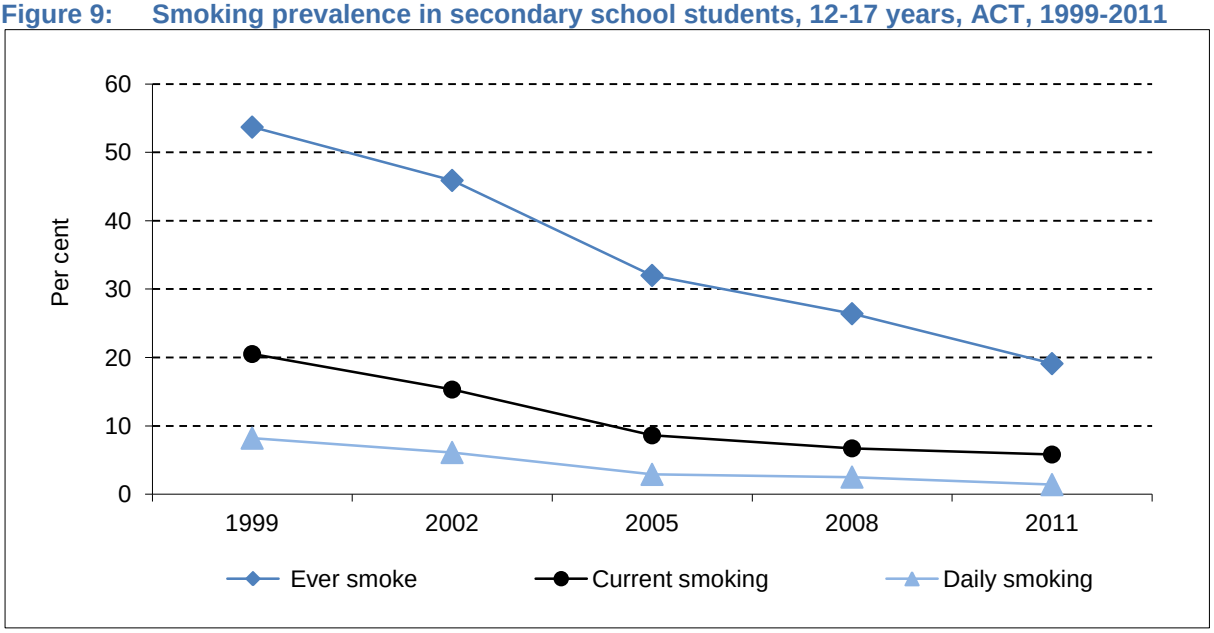


Source: ACT Maternal Perinatal Data Collection, 2002-11

Student smoking

Results from the ACT Secondary School Alcohol and Drug Survey (ASSAD) indicate that smoking rates among ACT secondary school students are continuing to decline. In the 2011 ASSAD, 5.8% of 12-17 year olds reported being current smokers and 1.4% reported smoking daily. The 2008 ASSAD figures for current and daily smoking were 6.7% and 2.5% respectively (Figure 9).

Figure 9: Smoking prevalence in secondary school students, 12-17 years, ACT, 1999-2011



Source: ACT Health, ASSAD, confidential unit record files, 1999-2011

4.5. Alcohol consumption

At a glance

- 21.0% of ACT adults consumed alcohol at risky/high risk levels (Australia: 19.5%).
- ACT males (31.4%) consumed alcohol at risky levels significantly more than ACT females (10.9%).
- There was a downward trend in alcohol consumption among ACT secondary students aged 12-17 years. From 2008 to 2011 the proportion of students who reported ever drinking dropped from 85.9% to 73.2%, those who reported drinking in the last week decreased from 24.2% to 14.0% and single occasion risky drinking in the last week (consuming more than four standard drinks on one day) dropped from 8.1% to 4.3%.
- There were 19 deaths in 2010 and 14 deaths in 2011 where the underlying cause of death was due to alcohol consumption in the ACT.

Adult consumption

In February 2009, the *2001 Australian Alcohol Guidelines*[19] were replaced with the *Australian Guidelines to Reduce Health Risks from Drinking Alcohol*[20], which were based on modelling the lifetime risk of harm from drinking. For healthy men and women, drinking no more than two standard drinks on any day reduces the lifetime risk of harm from alcohol-related disease or injury. Results from the most recent Australian Health Survey[17] have been analysed using both sets of guidelines. Table 7 shows that under previous guidelines 12.4% of ACT residents consumed alcohol at risky/high risk levels compared to 11.7% nationally. Under the revised guidelines 21.0% of ACT residents exceeded the guidelines for lifetime risk from alcohol consumption (Australia: 19.5%). These results are consistent for males and females, with ACT residents (males: 31.4%, females: 10.9%) exceeding the 2009 guidelines whereas nationally, 29.1% of males and 10.1% of females exceeded the guidelines. This is a concern for healthcare providers in the ACT (refer Section 7.4.2 Alcohol-related injury).

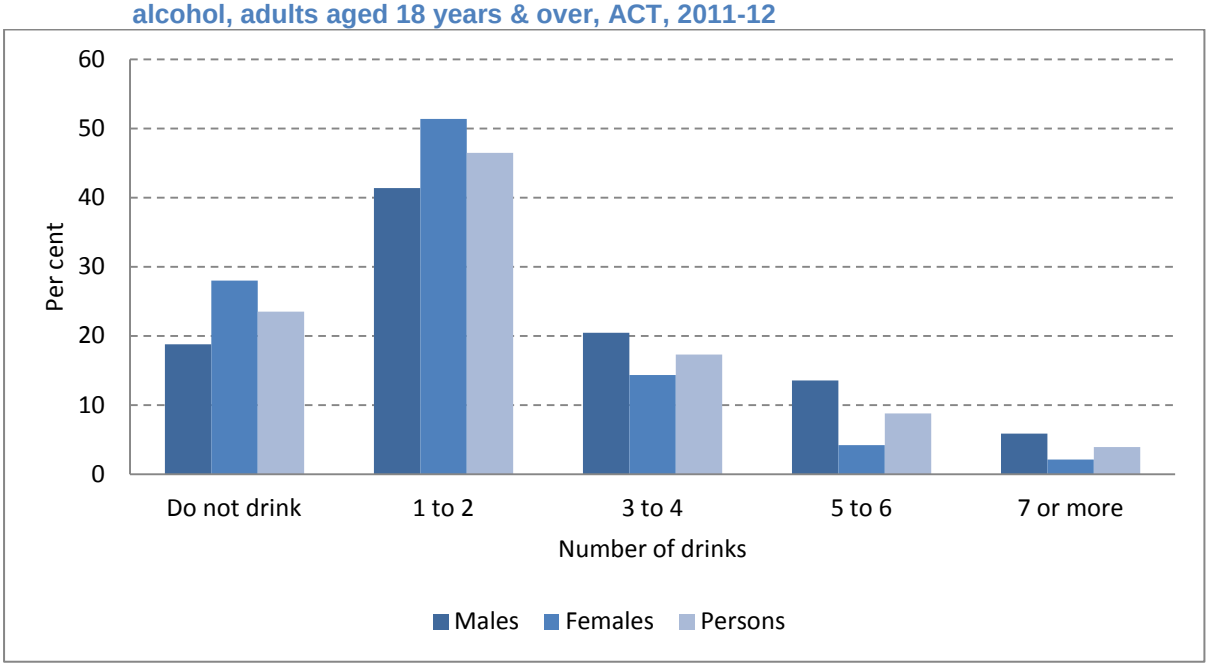
Table 7: Alcohol consumption, longer term/lifetime risk, % of people aged 18 years & over, ACT & Australia, 2011-12

	ACT			Australia		
	Males	Females	Persons	Males	Females	Persons
Consumed alcohol in the last week						
2001 NHMRC guidelines						
Low risk	57.1	46.8	51.9	55.5	40.6	48.0
Risky	7.2	8.8	8.0	6.9	7.2	7.1
High risk	6.7	**2.1	4.4	6.4	2.9	4.7
Risky/High risk	13.9	10.9	12.4	13.4	10.1	11.7
Total [(a)]	**71.0**	**57.7**	**64.3**	**69.0**	**50.8**	**59.8**
2009 NHMRC guidelines						
Did not exceed guidelines	39.5	46.8	43.2	39.8	40.6	40.3
Exceeded guidelines	31.4	10.9	21.0	29.1	10.1	19.5
Total[(a)]	**71.0**	**57.7**	**64.3**	**69.0**	**50.8**	**59.8**
Did not consume alcohol in the last week but did less than 12 months ago	20.0	28.0	24.0	18.6	26.4	22.6
Consumed alcohol 12 or more months ago	5.5	6.6	6.1	6.0	8.9	7.5
Never consumed alcohol	3.5	6.9	5.2	5.8	12.1	9.0
Total[(b)]	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: ABS, *Australian Health Survey: First Results, 2011–12*, cat. no. 4364.0, 2012
Notes: ** estimate has a relative standard error of 25% to 50% and should be used with caution.
(a) Includes risk level not known.
(b) Includes persons who did not remember when they last consumed alcohol.

The Australian Health Survey results show a similar trend to those from the 2011-12 ACTGHS, which show that 23.5% of the ACT population over the age of 18 do not drink alcohol (23.2% in 2009-10), 46.5% drink at the acceptable level (up to two drinks on any day) (46.8% in 2009-10), with 30.1% of adults drinking to levels considered to be harmful (30.0% in 2009-10). A significantly higher proportion of males (39.8%) consumed more than two drinks on a day when they drank alcohol, compared to 20.6% of females (Figure 10).

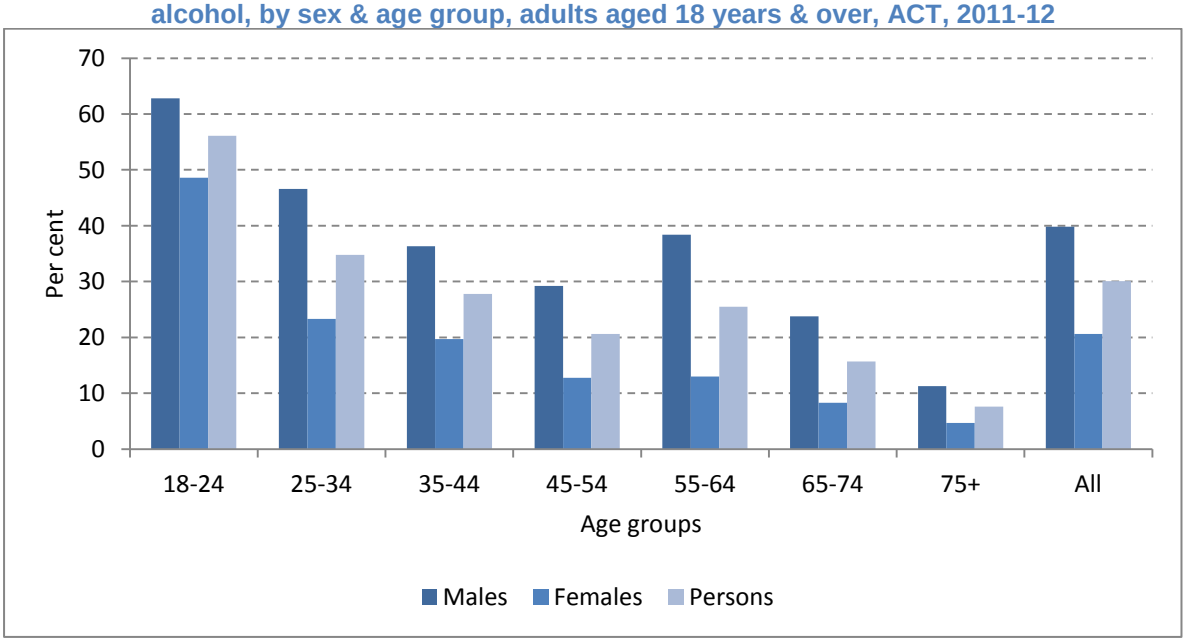
Figure 10: Alcohol consumption, number of standard drinks on a day when consuming alcohol, adults aged 18 years & over, ACT, 2011-12



Source: ACT General Health Survey, 2011 & 2012

Rates of drinking levels that risk long-term harm have not significantly changed over time in either males (2009-10: 41.3%, 2011-12: 39.8%) or females (2009-10: 19.4%, 2011-12: 20.6%). The amount of alcohol consumed by 18-34 year olds remains a concern, especially among males (Figure 11).

Figure 11: Alcohol consumption, more than two standard drinks on a day when consuming alcohol, by sex & age group, adults aged 18 years & over, ACT, 2011-12



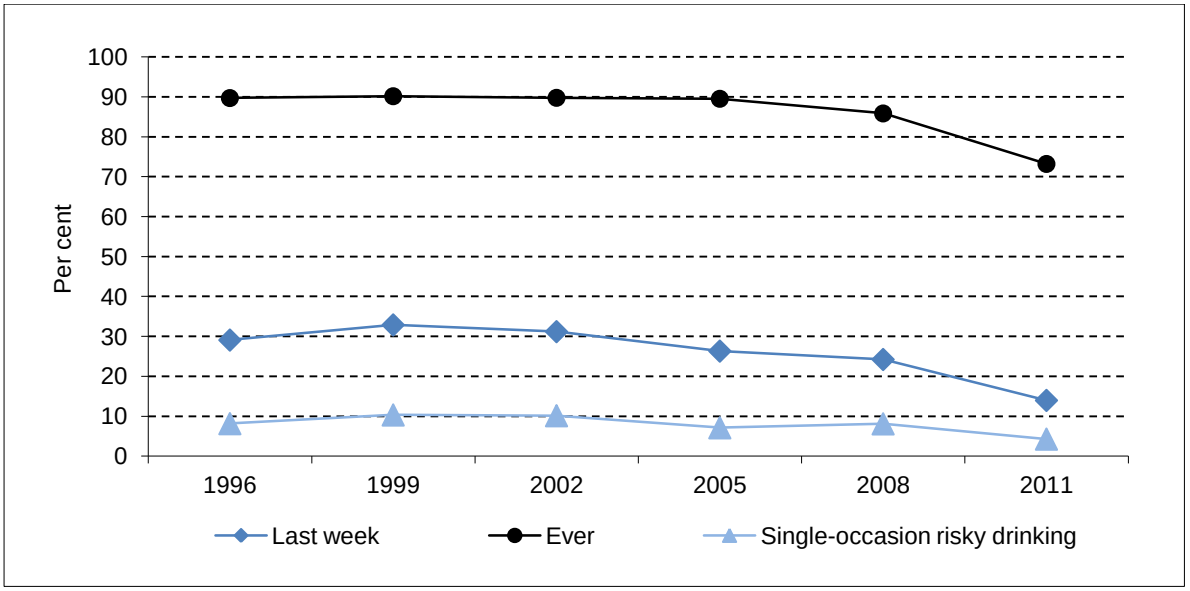
Source: ACT General Health Survey, 2011 & 2012

(Refer Section 5.1 for harm minimisation activities.)

Student consumption

ASSAD data indicate a downward trend over recent years in alcohol consumption among ACT secondary students aged 12-17 years. The most significant decrease was from 2008 to 2011 when the proportion of students who reported ever drinking dropped from 85.9% to 73.2%, those who reported drinking in the last week from 24.2% to 14.0% and single-occasion risky drinking in the last week (consuming more than four standard drinks on one day) dropped from 8.1% to 4.3% (Figure 12).

Figure 12: Alcohol consumption, prevalence, secondary school children, 12-17 years, ACT, 1996-2011



Source: ACT Health, ASSAD, confidential unit record files, 1996-2011

Mortality

In 2010, there were 19 deaths in the ACT where the underlying cause of death was due to alcohol consumption. In 2011, there were 14 deaths in this category.[9] In both years, alcoholic liver disease caused the bulk of these deaths (63.2% in 2010 and 85.7% in 2011).

4.6. Illicit substance and other drug use

At a glance

- In 2010, 13.9% of ACT residents aged 14 years and over used an illicit drug in the previous 12 months. As in all other jurisdictions, ACT males had higher proportions of recent illicit drug use than females (males: 17.9%, females: 10.0%).
- The age groups most commonly reporting having used illicit drugs in the previous 12 months in most jurisdictions were those aged 18-19 years (20.4%) and 20-29 years (25.7%).
- In 2011, 12.7% of ACT students (significantly lower than Australian students; 15.6%) reported having used at least one illicit substance in their lifetime and 4.1% reported having used one at least once in the last seven days.
- With the exception of tranquiliser use, there has been a steady and statistically significant decline in lifetime use and use in the past week since 1996.
- Regarding lifetime use, the drugs most commonly used in 2011, apart from painkillers, were tranquilisers, followed by inhalants and cannabis.

In 2010, 13.9% of ACT residents (Australia: 14.7%) aged 14 years and over used an illicit drug in the previous 12 months. Although ACT rates have not changed significantly (2007: 13.8%), national rates show a significant increase (2007: 13.4%).[21]

Although there was a slight increase between 2007 and 2010 in ACT individuals reporting drug use in the previous 12 months, over the longer term there has been a decline from 23.9% in 1998 to 13.9% in 2010.[21]

Table 8 shows selected drug use from the 2007 and 2010 surveys. (The 2013 survey was conducted between July and November 2013 with results unavailable at the time of publication).

Table 8: Selected illicit drug use in previous 12 months, % persons, ACT & Australia, 2007 & 2010

Drug	ACT 2007	Australia 2007	ACT 2010	Australia 2010
Cannabis	9.1	9.1	9.5	10.3*
Ecstasy	4.7	3.5	2.3**	3.0
Methamphetamine	2.3	2.3	1.2**	2.1

Source: AIHW 2011, *2010 National Drug Strategy Household Survey report*, Drug statistics series no. 25. Cat. No. PHE 145. Canberra

Notes: * Statistically significant *(p<0.05).*

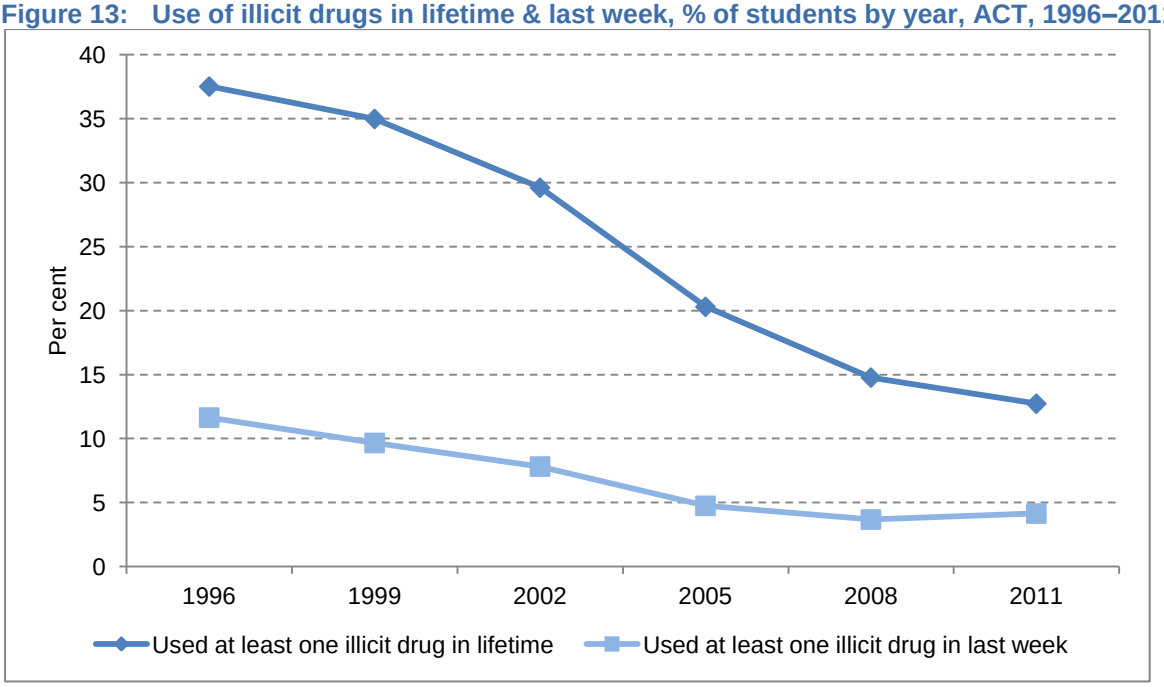
*** estimate has a relative standard error (RSE) of 25% to 50% and should be used with caution.*

In the ACT, as in all other jurisdictions, males had higher proportions of recent illicit drug use than females (males: 17.9%, females: 10.0%). The age groups most commonly reporting having used illicit drugs in the previous 12 months in most jurisdictions were those aged 18-19 years (20.4%) and 20-29 years (25.7%).[21]

Student use

In 2011, 12.7% of ACT students aged 12-17 years (significantly lower than Australian students at 15.6%) reported having used at least one illicit substance in their lifetime and 4.1% reported having used one at least once in the last seven days. With the exception of tranquiliser use (refer Glossary), there has been a steady and statistically significant decline in lifetime use since 1996. Again, with the exception of tranquiliser use, substance use in the last week has also declined significantly since 1996, but the differences between 2005 and 2008, and 2008 and 2011, were not statistically significant (refer Figure 13 and Table 10).

Figure 13: Use of illicit drugs in lifetime & last week, % of students by year, ACT, 1996–2011



Source: ASSAD confidentialised unit record files, 1996-2011, ACT Health

Regarding lifetime use, the drugs most commonly used in 2011, apart from painkillers, were tranquilisers, followed by inhalants and then cannabis. In 2011:

- 19.2% of students reported having ever used tranquilisers other than for medical reasons, with 2.3% reporting use in the last week.
- 14.9% reported that they had ever used inhalants, with 3.9% reporting use in the last week.
- 11.9% of students reported that they had ever used cannabis, with 3.6% reporting use in the last week.

(Refer Section 5.1 for harm minimisation activities.)

Table 9: Use of illicit drugs & other drugs at least once in lifetime, % of students by year, ACT, 1996-2011

	1996	1999	2002	2005	2008	2011
Illicit drugs						
Cannabis	36.4	33.5	28.1	16.9	13.2	11.9
Hallucinogens	8.0	7.1	4.0	4.1	2.4	2.0
Amphetamines	6.1	7.7	6.1	5.8	3.3	2.5
Ecstasy	4.5	4.5	5.3	5.0	3.8	1.9
Heroin or other opiates	4.6	4.0	2.5	2.3	1.8	**0.9
Cocaine	4.2	4.7	3.4	3.4	1.6	1.6
Other drugs						
Painkillers	98.5	96.6	93.3	95.4	96.1	96.5
Inhalants	26.7	25.1	19.6	17.6	17.7	14.9
Tranquilisers	20.6	19.1	15.1	14.7	19.4	19.2
Steroids	2.5	3.7	4.1	2.8	2.4	2.0

Source: ASSAD confidentialised unit record files, 1996, 1999, 2002, 2005, 2008 & 2011, ACT Health
Note: * * Estimate has a relative standard error between 25% and 50% and should be interpreted with caution.

Table 10: Use of illicit drugs & other drugs at least once in last week, % of students by year, ACT, 1996-2011

	1996	1999	2002	2005	2008	2011
Illicit drugs						
Cannabis	10.7	8.8	7.6	3.7	2.7	3.6
Hallucinogens	2.3	1.7	1.1	**0.9	**0.4	**0.5
Amphetamines	1.9	2.0	2.0	1.7	1.1	**0.5
Ecstasy	1.3	1.5	1.5	1.6	1.1	**0.5
Heroin or other opiates	1.8	1.3	**0.9	**0.7	**0.7	**0.6
Cocaine	1.8	1.6	**0.7	**1.1	**0.6	**0.6
Other drugs						
Painkillers	43.0	41.0	42.4	40.1	42.6	38.0
Inhalants	6.5	6.4	6.2	5.2	3.6	3.9
Tranquilisers	2.6	2.4	1.7	2.1	2.5	2.3
Steroids	1.5	1.3	2.4	1.5	**0.9	**0.5

Source: ASSAD confidentialised unit record files, 1996, 1999, 2002, 2005, 2008 & 2011, ACT Health
Note: ** Estimate has a relative standard error between 25% and 50% and should be interpreted with caution.

4.7. Sun protection

At a glance

- There was a downward trend in sun-protective behaviour in adults aged 18 years and over from 2007-08 to 2009-10.
- In 2009-10, the most common forms of sun protection reported were wearing sunglasses (64.3%), wearing a hat (58.1%), seeking shade from the sun (55.4%) and using SPF 30 sun protection (51.9%).
- There was a decrease in students wearing a hat (52.5% in 1996 to 29.3% in 2011) and in wearing clothing covering most of their body (27.7% in 1996 to 21.4% in 2011).

In the two-year period 2009-10, results from the ACTGHS indicate that the majority of adults (86.4%) aged 18 years and over reported that they usually/always adhere to some form of sun-protective behaviour. This is a significant decline from 89% for the two-year period 2007-08. The most common form of sun protection reported in the two-year periods 2007-08 and 2009-10 was wearing sunglasses (65.4% and 64.3% respectively), followed by wearing a hat (60.9% and 58.1%), seeking shade from the sun (55.7% and 55.4%) and using SPF 30 sun protection (50% and 51.9%). One in five (20.6%) adults reported adhering to all four of these sun-protection behaviours. Questions regarding sun protection were not asked in the subsequent two years, 2011-12.

2011 ASSAD survey results for students 12-17 years show a number of trends:

- Since 2002 there was a steady decline in the proportion of students reporting a preference for a suntan. In 2002, 77.8% of students reported liking to get a suntan (62.1% in 2011).
- There was a decrease in students wearing a hat from 52.5% in 1996 to 29.3% in 2011 and in wearing clothing covering most of their body from 27.7% in 1996 to 21.4% in 2011.
- There was an increase in the number of students deliberately wearing less protective clothing from 14.2% in 1996 to 23.6% in 2011.
- Sunscreen use decreased from 65.6% in 1996 to 45.2% in 2011.
- SPF 30 use in 2011 was 45.2% (not a significant change from 2008).

Despite fewer students reporting a preference for a suntan, there was a steady decrease in sun-protection behaviours from 1996. Results from both surveys highlight the decline in ‘sun smart’ behaviour.

5. Harm minimisation

At a glance

- Harm minimisation refers to policies and programs designed to minimise the harmful effects of some behaviours, in particular those related to drug use and sexual health. Programs to promote harm minimisation associated with drugs include: professional learning for teachers to support drug education in schools; police diversion programs; pre- and post-sentencing court drug diversion options; and needle and syringe programs.
- Over the two-year reporting period the Illicit Drug Diversion (IDD) program referred 277 people, of whom 248 (90%) were recommended for, and completed treatment; 413 pre- and post-sentencing treatment assessments were undertaken, with 75% of clients undertaking treatment and 89% of those clients completing that treatment**.**
- The Canberra Gay Community Periodic Survey showed that in 2011, nearly 60% of men in relationships reported having unprotected sex.
- There was an increase in unprotected anal intercourse with casual partners from 2000 to 2011, with a corresponding fall in the proportion of participants who always used condoms with casual partners.

Harm minimisation refers to policies and programs designed to reduce the harmful effects of some behaviours, in particular those related to drug use and sexual health. The ACT Government is committed to supporting harm reduction principles to minimise the transmission of blood borne viruses (BBVs) and sexually transmissible infections (STIs).

ACT Health *HIV/AIDS, Hepatitis C Sexually Transmissible Infections: A Strategic Framework for the ACT 2007-2012* identifies local priorities, actions and strategies to improve outcomes for notifiable blood borne viruses and sexually transmissible infections.

Harm minimisation represents a three-pillared approach that aims to improve health, social and economic outcomes for the community and individuals by encompassing a wide range of approaches, including supply reduction, demand reduction and harm reduction.

5.1. Alcohol and drugs

Harm minimisation is a key guiding principle of the ACT Alcohol, Tobacco and other Drug Strategy 2010-2014 and associated policies and service provision within the ACT. ACT Health provides funding to the Education and Training Directorate towards the costs of professional learning for teachers within schools to ensure that the drug education component of the curriculum is delivered effectively and to support students to make well-informed health decisions in their lives in relation to alcohol and other drug use.

The ACT's police and court drug diversion system includes three police diversion programs: Simple Cannabis Offence Notice scheme (SCON), the Youth Alcohol Diversion (YAD) program and the Illicit Drug Diversion program (IDP), and two court diversion programs: the Court Alcohol and Drug Assessment Scheme (CADAS) and the Youth Drug and Alcohol Court.

These programs allow those apprehended by police and/or those appearing before the court for offences relating to drug use to be diverted away from the criminal justice system and/or into treatment. The SCON scheme allows the police to consider fining those who are apprehended in possession of 50 grams or less of cannabis, avoiding a criminal conviction. For all other drug diversions, referrals are made to the Police and Court Drug Diversion Service within ACT Health's Alcohol & Drug Services for a comprehensive assessment and then to an approved service for drug treatment which may include education, counselling or rehabilitation. Over the two-year reporting period from July 2010 to June 2012, the Illicit Drug Diversion program referred 277 people, of whom 248 (90%) were recommended for, and completed treatment.

The ACT Government has in place both pre- and post-sentencing treatment options for those charged with alcohol and other drug-related offences under CADAS. The goals include reducing recidivism and engaging clients in treatment. During the two-year reporting period CADAS completed 413 assessments, and of these, 310 (75.1%) were recommended for treatment, 236 (57.1%) engaged in a treatment plan, and 211 (51.1%) completed treatment.

Needle and syringe programs

Needle and syringe programs (NSPs) aim to protect the health, social and economic welfare of the community by preventing the transmission of blood-borne viruses such as HIV and hepatitis B and C, by encouraging behaviours to prevent injecting-related injury and disease; and by facilitating access to other health and related services.

The ACT program provides injecting equipment and education through a range of outlets, including pharmacies, community health centres and 24-hour vending machines.

The total individual needle and syringe units distributed in the ACT remained relatively stable between 2010 and 2012, showing a 1% decrease overall. Equipment supplied via community pharmacies increased by almost 5% while syringe vending machine distribution decreased by almost 16%. In 2011-12, three of the five NSP vending machines in the ACT experienced periods of non-operation, due to vandalism.

Table 11: Individual needle and syringe units distributed, number, ACT, 2010-12

Financial year	NSP outlets (primary, secondary and silent)	Syringe vending machines	Pharmacies	Total
2010-11	473,251	66,800	77,400	617,451
2011-12	472,926	56,400	81,200	610,526

Source: Directions ACT Performance Reports 2010-12

(Refer Sections 4.5 and 4.6 for more information.)

5.2. Sexual health

Sexual activity can be associated with health risks. Unprotected sexual intercourse can transmit infections such as chlamydia, gonorrhoea, HIV and syphilis, as well as being associated with an increased risk for specific cancers such as cervical and anal cancer. Sexually transmissible diseases (STIs) are increasing over time. For information on STIs refer Section 7.8.

5.2.1. Canberra Gay Community Periodic Survey

The Canberra Gay Community Periodic Survey (CGCPS) is a cross-sectional survey of gay and homosexually active men. Participants are recruited from gay venues and community events. The purpose of the survey is to provide information on sexual, drug use and testing practices related to the transmission of HIV and other STIs among gay men. The survey is funded by ACT Health and coordinated by the AIDS Action Council of the ACT. The project now runs on a biennial basis, with the most recent survey being conducted in 2013.[22]

Findings from the 2011 CGCPS[22] (sample of 270 men recruited with an 82.3% response rate) show:

- Monogamous relationships have become the most commonly reported relationship type over time. Over 60% of men surveyed said they had a regular male partner.
- Nearly half the men (45.6%) in relationships had no agreement about casual sex.
- Nearly 60% of men in relationships reported having unprotected sex.
- Use of condoms for anal intercourse remained more likely with casual partners than with regular partners.
- In 2011, 33.8% of men with casual partners reported having any unprotected anal intercourse, while nearly half (44.8%) reported always using condoms. The proportion of men who reported having any unprotected anal intercourse with casual partners has increased significantly between 2000 (22.2%) and 2011 (33.8%), with a corresponding fall in the

proportion of participants that always used condoms with casual partners (2000: 52.9%, 2011: 44.8%).

- The 2011 survey showed a significant increase in the proportion of HIV-negative men reporting having any unprotected anal intercourse with casual partners between 2000 and 2011.[23]

5.2.2. HIV Seroconversion Study

The HIV Seroconversion Study, conducted by the Kirby Institute at the University of New South Wales and the Australian Research Centre in Sex Health and Society at La Trobe University, has informed Australia's HIV response since the mid-1990s, providing key information about risk factors and current beliefs about HIV risk and risk-reduction behaviours. The study includes both men and women recently diagnosed with HIV. It has been conducted in the ACT since 2009 and will continue until 2015.

Selected results from the 2011 HIV Seroconversion Study data collected in the ACT[24] are:

- 'Not wanting to know' and not believing they had put themselves at risk were the two most common reasons men gave for delaying testing.
- HIV testing should be convenient, appropriate and sensitive.
- The newly diagnosed should be provided with information on treatment advancements, with options and control.

5.2.3. Health and education partnership

In line with priorities under the National Sexually Transmissible Infections Strategy 2010, ACT Health's Population Health Division formed a collaborative partnership with the Education and Training Directorate to better integrate the delivery of sexual health and sexuality education for young people. It is hoped that this partnership will help reduce the burden of sexually transmissible infections in this group. In 2011, more than 120 teachers attended a Health and Physical Education Teachers' Association dinner which promoted the optimisation of the health and education sectors' efforts to provide sexual health and sexuality education to young people.[25]

5.2.4. Other research activities

Other initiatives providing information on sexual practices and health are currently underway. They include:

- **The Canberra Hospital Chlamydia Screening in the Walk-in Centre (CWiC) study**

  This pilot study was developed during the reporting period, but was not administered until August 2012. Results will be detailed in the next report.

- **Australian Research Council (ARC) Linkage Grant: Sexual health and relationships in young Aboriginal and Torres Strait Islander people (GOANNA)**

  This national study collected data from 2011 to 2013 on knowledge, risk practices and health service access in relation to sexually transmissible and blood-borne viruses among young Aboriginal and Torres Strait Islander people. The survey findings will be analysed by urban, regional and remote settings rather than by states and territories.

- **The MYRIAD Project: The 10,000 Men Project**

  The MYRIAD Project is an online cohort study of evolving sexual risk and risk-reduction practices among gay men in Australia. The project aims to strengthen existing HIV behavioural surveillance and research in relation to gay men and increase understanding of evolving sexual and risk reduction practices to guide effective prevention responses into the future. The project began in April 2012 and will continue until 2018. Data from this study are currently being processed.

(Refer Section 7.8.2 for more information.)

6. Health and the environment

At a glance

- The overall ambient air quality in the ACT is good. During 2010-12 the Ambient Air Quality National Environment Protection Measure goal was met.
- In 2010-12 treated water quality parameters as reported by ACTEW were within the Australian Drinking Water Guidelines and therefore safe for consumption.
- Several consultations, projects and initiatives were developed to encourage compliance with food safety practices in 2010-12.
- There were 3,708 inspections of food premises during 2010-12. Of these, 79% were considered compliant in 2010-11 and 67% in 2011-12. A total of 69 prohibition orders were served on food businesses during the two years.
- Several initiatives were developed and implemented to encourage the reduction of tobacco use during the reporting period. These included legislative action regarding smoking in cars with children, smoke-free public places and point-of-sale restrictions.
- The number of radiation licences and registrations continued to grow during 2010-12. As at 30 June 2012 there were 536 registered radiation sources and 1,001 current radiation licences in the ACT.
- There were no radiation safety incidents caused by non-compliant radiation sources and no legal proceedings or prosecutions during the reporting period.
- The regulation of commercial UV tanning units (solaria) was introduced in November 2010, resulting in an approximate 75% reduction in the number of commercially available solaria, with only four ACT businesses offering solaria services as at June 2012. Inspections conducted in November 2011 revealed a high level of compliance with the new requirements.

The Health Protection Service (HPS), Population Health Division of ACT Health, is responsible for monitoring environmental factors that have the potential to influence public health within the ACT. The monitoring includes development and implementation of a range of environmental programs, including regulatory control of some activities within the community. Activities undertaken include monitoring and regulation of public health, food safety, water surveillance, radiation safety and communicable disease control. The HPS also has policy responsibility for tobacco control.

6.1. Air quality

The presence of pollutants may degrade air quality. Many people, such as those with chronic respiratory conditions, are at greater risk of experiencing adverse health events when exposed to poor quality air.

The HPS monitors the air quality of the ACT, with particular regard to the concentrations of known pollutants including carbon monoxide, nitrogen dioxide, ozone and particulate matter less than 10 (PM_{10}), 2.5 ($PM_{2.5}$) and 1 (PM_1) microns in diameter. In the reporting period 2010-12, the concentrations of these pollutants were generally compliant with the standard set out in the Ambient Air Quality National Environment Protection Measure (NEPM).

There were no breaches of the NEPM standards for carbon monoxide, nitrogen dioxide, ozone or PM_{10} concentrations.

The NEPM Particulate Matter reporting has two criteria - the PM2.5 Standard and PM2.5.Goal. During the two-year period there were six occasions when $PM_{2.5}$ concentration exceeded the NEPM advisory standard of 25µg/m3, all of which occurred in either late autumn or early winter. As there were fewer than five breaches of the standard per year, the NEPM PM2.5 goal was met. While there are some health concerns regarding wood smoke pollution in the Tuggeranong Valley during winter, based on the monitoring data across Canberra indicates that the overall ambient air quality in the ACT is good. (refer Figure 39 and Figure 40.)

6.2. Water quality

ACT Health regulates the supply of drinking water in the ACT and licenses operators of drinking water systems under the *Public Health Act 1997*. The Public Health (Drinking Water) Code of Practice 2007 (DWCoP) provides the technical requirements for the supply, quality, monitoring and reporting on drinking water by a water utility.

ACTEW Water manages and operates the water network in Canberra. In 2010-12 treated water quality parameters, as reported by ACTEW, were within the *Australian Drinking Water Guidelines* and therefore safe for consumption. The treated water parameters reported included chlorine, pH, turbidity, fluoride, blue-green algae and any detection of *Cryptosporidium*, *Giardia* and *Escherichia coli*.

The DWCoP also requires that a number of specified events or incidents must be notified to the Chief Health Officer within the appropriate timeframes. In 2010-12, nine notifications were made by ACTEW to ACT Health. The notifications were in relation to blue-green algae, *Cryptosporidium*, *Giardia* and chemical levels. ACT Health is satisfied that the investigations and actions taken by ACTEW were appropriate in reducing the public health risk to the ACT drinking water supply.

ACT Health is also involved in the monitoring of recreational water quality with the aim of preventing public health risks. A framework for testing and responding to blue-green algae and microbial pathogens in ACT waterways is set out in the *ACT Guidelines for Recreational Water Quality*. The National Capital Authority (NCA) is responsible for all aspects of water quality for Lake Burley Griffin. The Environment Protection Authority (EPA) is responsible for monitoring microbial quality, blue-green algae and any hazardous conditions in the other ACT waterways, including the Murrumbidgee River. Parks and Recreation within the Territory and Municipal Services Directorate also undertakes monitoring of waterways.

The HPS provides advice to the NCA and the EPA on the appropriate action to take, based on water sampling results. The HPS also provides advice on possible health effects from exposure to reported algae or microbial levels.

If blue-green algae growth, microbial pathogens or pollutants compromise recreational water quality, ACT Health collaborates with the NCA and ACT Government agencies to close or limit the use of the waterways as appropriate.

Lake Burley Griffin recreational water quality

The regular water sampling season conducted by the NCA runs from mid-October to mid-April. Eight sampling sites on Lake Burley Griffin are currently tested: East Basin, Central Basin, Ferry Terminal, Lotus Bay, Yarralumla Beach, Black Mountain Beach, Weston Park East and Weston Park West.

During the 2010-11 recreational season, the NCA conducted water quality testing from 5 October 2010 to 18 April 2011. The lake was fully or partially closed on 8 occasions due to elevated microbiological levels (5 occasions) or blue- green algae levels (three occasions).

Lake Burley Griffin was open to recreational users for 77% of the 2011-12 recreational season. Exceptionally high levels of blue-green algae were recorded during this season, with a peak of 66,522,540 cells per millilitre at Central Basin on 21 May 2012. (The level at which an extreme alert is issued is 125,000 cells per millilitre). The persistent blue-green algae levels resulted in an extension of the sampling season from 28 to 42 weeks. Elevated microbiological levels were also experienced on several occasions in the season.

During lake closures, health warnings were posted at the water entry areas to indicate the risk to recreational activities at the site. Relevant media messages were also issued. Testing of the water quality occurred regularly and the waterways were re-opened only when acceptable standards were met. (Refer Table 52 and Table 53 for further information.)

6.3. Food safety

The regulation of food services in the ACT is essential to minimising public health risk. Food businesses are routinely inspected to ensure that food is safe, including that it is prepared and sold in accordance with the *Australia New Zealand Food Standards Code* (the Code). The *Food Act 2001* incorporates the Code. Inspection programs scrutinise all facets of food safety that have a direct influence on public health, including cleanliness, temperature control and personal hygiene.

Other food surveillance activities include fit-outs of premises, responding to complaints, initial registration of new food businesses and the inspection of refurbished premises.

Compliance

Public Health Officers are authorised to take actions when non-compliance with the Food Act or the Code is identified in order to minimise public health risks. These actions may include:

- providing advice or guidance to educate a proprietor of a food premises
- issuing an improvement notice
- issuing a prohibition order for serious breaches that may pose a threat to public health
- proposing a prosecution.

The number of inspections reported below represents individual occasions and may include multiple inspections of individual businesses. Therefore inspection compliance rates cannot be directly compared to business compliance rates. Public health officers completed 1,333 inspections of food premises during the 2010-11 financial year (2,013 in 2011-12), 78.6% of which were considered compliant (67.3% in 2011-12). For critical non-compliance, 27 prohibition orders (refer Glossary) were served on food businesses in 2010-11 and 42 in 2011-12.

The majority of registered food businesses continued to meet the requirements of ACT food legislation. However, the overall decline in compliance saw an increase in the following findings:

- inaccessible hand-washing facilities and issues with the provision of hand soap and hand-drying facilities
- incorrect food storage and temperature control
- issues with cleanliness of premises, fixtures, fitting and equipment
- inadequate pest control
- lack of temperature-monitoring devices within the premises.

In light of the gaps identified in food safety practice, skills and knowledge, ACT Health reviewed its enforcement approach and proposed a number of changes to the *Food Act 2001*. These changes included a requirement for trained food safety supervisors at registered food businesses, a proposal to establish a public register of proven food offences, the display of closure notices at food businesses served with a prohibition order and the display of registration certificates by registered food businesses. These changes, made by the *Food Amendment Bill 2011,* were passed by the Legislative Assembly on 21 February 2012.

The public Register of Food Offences serves to increase regulatory transparency of food safety activities. It contains details of people or businesses found guilty of food-handling offences under the *Food Act 2001* for up to two years. Established in March 2012, it is freely available on the ACT Health website. The names of two food premises were published on the Register of Food Offences within the reporting period.

The commencement of the food safety supervisor requirement was delayed by 18 months to allow further consultation with food businesses and to provide them with sufficient time to comply.

In 2011, the ACT Auditor-General's Office undertook a performance audit of ACT Health's administration of food safety regulation in the ACT. The audit report made 10 recommendations, nine of which were accepted, and one accepted in part. These recommendations included increasing the availability of information to food businesses, working closely with food businesses and re-prioritising the use of internal resources. ACT Health undertook several process improvement measures to implement the recommendations.

Consultations

ACT Health undertook a public consultation in 2011 on the food safety initiatives introduced by the *Food Amendment Act 2012*. The consultation also examined options to introduce a food hygiene rating system to increase regulatory transparency in food safety. A regulatory impact statement assessing the implications of introducing a food hygiene rating scheme was prepared and is available from the ACT Health website.

A separate consultation was undertaken in 2012 to establish a program to support the introduction of food safety supervisors from 1 September 2013.

Outbreaks

There were 16 outbreaks of food-borne illness between 1 July 2010 and 30 June 2012. Two were caused by food eaten at private residences, one each from a catered event and a festival, while the rest were traced to registered food businesses.

The largest outbreak occurred in October 2010 and involved 47 people who had eaten assorted salads from a local take-away outlet. The most commonly identified causative agent linked to the outbreaks was salmonella typhimurium, implicated in nine outbreaks. Campylobacter was involved in one outbreak from a private residence. In five outbreaks the responsible microorganism or toxin remains unknown.

There were two fatalities from amanita phalloides (death-cap mushroom) poisoning in January 2012. The mushrooms were picked at a Canberra park and had been mistaken for edible straw mushrooms. The mushroom meal was then prepared for private consumption. ACT Health strongly advises against picking, preparing or eating wild mushrooms, no matter where they are growing. Even for experts, it can be extremely difficult to tell the difference between edible and poisonous wild mushrooms. ACT Health undertook various measures to increase the community's awareness of these toxic mushrooms. They included writing to all food businesses, distributing pamphlets and flyers to Canberra households and public places, updating information on the ACT Health website and updating the signage in areas identified as sites for growth of death cap mushrooms.

Kilojoule displays

ACT Health was tasked with implementing the *Food (Nutritional Information) Amendment Act 2011* following its passage by the Legislative Assembly. This law requires certain food businesses to display the kilojoule (kJ) content of their standard items on menus and price tags from 1 January 2013. Kilojoule displays may encourage consumers to make healthier food choices and promote dietary awareness.

Publications

ACT Health has developed and distributed various pieces of food safety advice and information to food businesses. Food safety posters and booklets have been translated into 11 languages.

A new food safety guide for businesses has also been finalised, which provides comprehensive information about the most common food safety requirements. The food safety guide is also available in 11 languages from ACT Health.

6.4. Tobacco control

The ACT Government is committed to reducing both the level of tobacco use and the resultant impact of its use on the health of the community. The National Preventive Health Strategy 2009 and the National Tobacco Strategy 2012-2018 outline the resolve of the Commonwealth, state and territory governments to work together in collaboration with non-government agencies to address the health and social costs of tobacco use in Australia.

The Population Health Division accomplished a number of tobacco control initiatives during the reporting period 2010-12. These included:

- prohibiting smoking in cars with children under the age of 16 from 1 May 2012 under the *Smoking in Cars with Children (Prohibition) Act 2011*. This initiative was accompanied by a public education campaign to raise awareness of the negative health effects of tobacco on children.

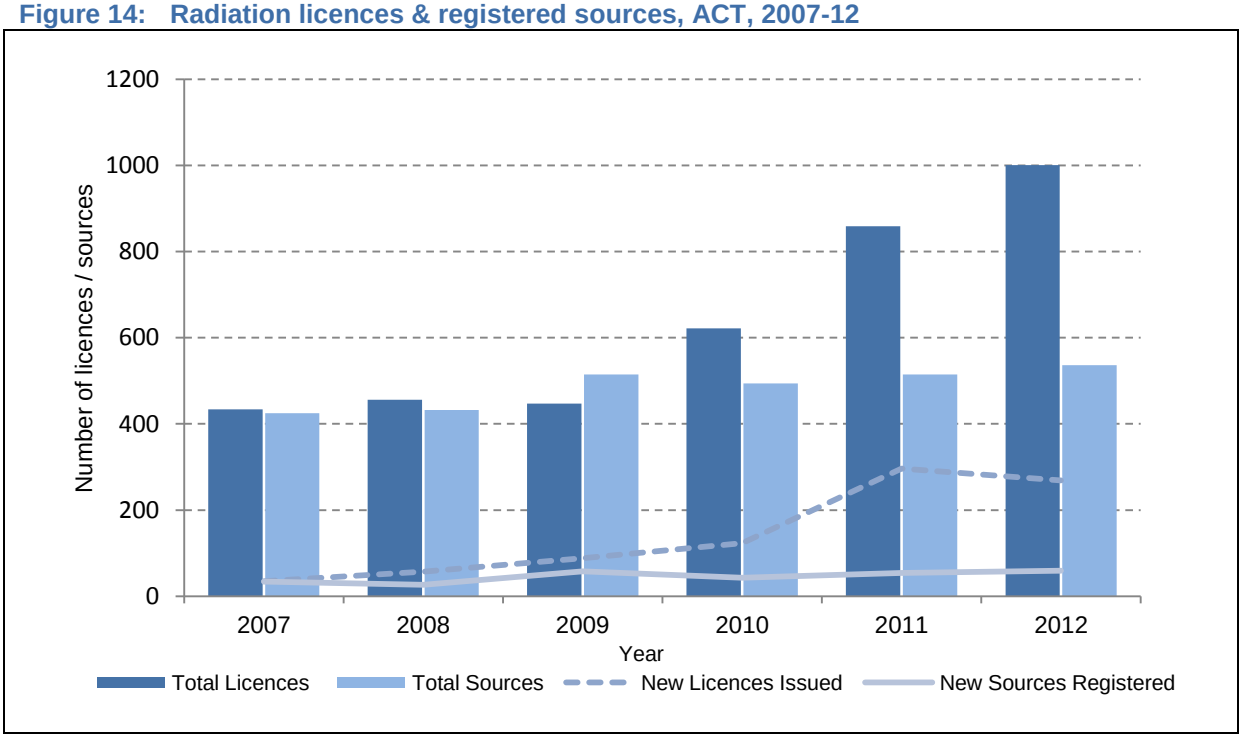
- prohibiting smoking in ACT outdoor eating and drinking areas and at organised children's events from 9 December 2010 under the *Smoke-Free Public Places Act 2003.*
- prohibiting point-of-sale tobacco displays under the *Tobacco Act 1927* in retail tobacconists from 1 January 2010. This restriction was expanded on 1 January 2011 to include specialist tobacconists.
- reviewing tobacco compliance-testing procedures in July 2011 under the *Tobacco Act 1927* with the aim of identifying tobacco merchants selling tobacco products to minors.
- policy work on developing a strategy for future tobacco control measures in the ACT. The strategy *Future directions for tobacco reduction in the ACT 2013-2016* was launched in 2013.

6.5. Radiation safety

Radiation is used in a wide range of applications in the ACT, including therapeutic and diagnostic applications such as in dentistry and medicine and at veterinary practices. It is also used in industrial applications, including soils and material analysis. The *Radiation Protection Act 2006* (the RPA) and *Radiation Protection Regulation 2007* (the RPR) set important controls in place to ensure that radiation is used safely. The ACT Radiation Council issues radiation licences, registers radiation sources and provides advice to the minister. Enforcement of the RPA is a function of ACT Health.

The number of licences and registrations continued to grow during the 2011 and 2012 financial years. As of 30 June 2012 there were 536 registered radiation sources and 1,001 current radiation licences in the ACT (Figure 14). This increase was due to a number of factors, including changes to regulatory approaches and improved engagement with industry and the community. Since 2009 the Radiation Safety Section has developed and provided high quality information and resources and greatly improved its use of technology to enhance its interactions with the public.

Figure 14: Radiation licences & registered sources, ACT, 2007-12



Source: Health Protection Service, ACT Health

Exposure to ultraviolet (UV) radiation is the single major risk factor for the development of skin cancer, and exposure to UV light during adolescence is strongly associated with later development of melanoma. As a public health initiative, the regulation of commercial UV tanning units (solaria) was introduced in November 2010 to reduce risks associated with UV light exposure, particularly among adolescents. Subsequently amendments were made to the RPR that introduced stringent requirements on solaria, including a prohibition on persons under the age of 18 and persons with pale

white skin (Fitzpatrick skin type 1) from using solaria. The amendments also required all tanning units to be registered with each operator to be licensed and trained, and introduced equipment safety requirements. Prior to the regulation commencing there were 17 known businesses operating tanning units in the ACT. The introduction of the new regulations saw a reduction of approximately 75% in the number of commercially available solaria, with only four ACT businesses offering solaria services as of June 2012. The HPS has established an inspection schedule for all solaria in the ACT. Inspections conducted in November 2011 revealed a high level of compliance with the new requirements and no major issues were found.

The HPS also manages the inspection of all radiation sources prior to initial registration to ensure that a device complies with relevant radiation safety requirements. These compliance checks confirm that a source has been properly installed, shielded and calibrated, is well maintained, and meets relevant standards. The checks also verify important details such as the model, type and identification details. Any device that fails to meet the inspection requirements is not registered, and cannot be used, until the outstanding issue has been resolved. This service is currently provided to the HPS by qualified contractors.

There were 86 compliance inspections in the financial years 2010-11 and 72 in 2011-12. This is an increase from 55 and 51 inspections in 2008-09 and 2009-10 respectively. This increase was partially due to an increased number of licences and registrations, and also included routine inspections of solaria that were not previously regulated.

There were no radiation safety incidents caused by non-compliant radiation sources and no legal proceedings or prosecutions during the reporting period.

7. Trends and indicators in health status

7.1. Cardiovascular disease

At a glance

- An estimated 18.4% of the ACT population had a disease of the circulatory system expected to last or having lasted for 6 months or more in 2011-12 (Australia: 16.9%). This is an increase from previous findings and was predominantly due to an increase in disease in females.
- ACT people had the highest proportion (5.7%) of heart, stroke and vascular disease of all jurisdictions (Australia: 4.5%).
- In 2010-11, age-standardised rates for hospital separations for cardiovascular disease were more than two times higher for males than for females. Both rates were lower than in the previous decade.
- During 2012, 485 deaths (28.4% of all deaths) in the ACT were due to cardiovascular disease, the main causes being coronary heart disease (CHD) (45.6%) and cerebrovascular disease (25.8%).
- Age-standardised mortality rates for CHD in males and females in the ACT and nationally have continued to decline since the early 1980s. While males were more likely to die from CHD than females, they were less likely to die from cerebrovascular disease.

Cardiovascular disease (CVD) refers to diseases of the heart and blood vessels. Within this broad group, coronary heart disease (CHD or ischaemic heart disease) is the leading cause of disease burden, followed by cerebrovascular disease (including stroke). The burden of disease due to CHD was higher in males while the burden of disease due to stroke was higher in females. Nearly 80% of total cardiovascular disease burden was due to mortality.[26]

7.1.1. Morbidity

Based on self-reports from the 2011-12 Australian Health Survey (AHS), an estimated 18.4% of the ACT population reported having a disease of the circulatory system expected to last or having lasted for 6 months or more.[17] This is higher than the national average of 16.9% and higher than results from the 2007-08 National Health Survey (ACT 15.2%; Australia 16.4%). The increase is predominantly attributable to females, whose rate increased to 20.9% in 2011-12 compared with 16.8% in 2007-08 (males: 15.9% in 2011-12 and 13.5% in 2007-08).

The most frequently reported circulatory condition was hypertensive disease with 10.3% of ACT residents reporting this condition, and this was similar for males and females. Females were more likely to report circulatory conditions such as low blood pressure, varicose veins and other diseases of the circulatory system (females: 7.1%, males: 2.7%). Female respondents were also slightly more likely to report other signs and symptoms of circulatory disease such as cardiac murmurs and sounds and irregularities of heartbeat (females: 3.6%, males: 1.7%). However, these estimates should be interpreted with caution due to the small sample size for the ACT.

The main risk factor for CVD is age. The major preventable risk factors are tobacco smoking, high blood pressure, high blood cholesterol, insufficient physical activity, overweight and obesity, poor nutrition and diabetes.[27] Unalterable risk factors include gender, ethnicity and a family history of heart disease.[28]

Results from the 2011-12 AHS[17] showed that ACT people had higher incidence of CVD and risk factors for CVD than in the comparable survey results of 2007-08, with the exception of sedentary/low exercise levels:

- ACT people had the highest proportion (5.7%) of heart, stroke and vascular disease of all jurisdictions (Australia: 4.5%), (ACT: 4.0% in 2007-08).
- 11.0% of ACT people had hypertensive disease (Australia: 9.6%), (ACT: 8.4% in 2007-08).

- 63.6% of ACT respondents aged 18 years or over were classified as overweight/obese (Australia: 63.2%), (ACT: 52.6% in 2007-08).
- 59.8% of ACT respondents were classified as sedentary/low exercise level (Australia: 67.6%), (ACT: 68.2% in 2007-08).
- 7.8% of ACT respondents had high cholesterol (Australia: 6.8%), (not included in the 2007-08 survey).

Findings from the 2012 Heart Foundation HeartWatch Survey[29] of 1,345 ACT residents aged 30-65 years revealed that 29.3% had spoken to their GP or other health care professional in the last two years about their risk of developing heart disease, with significantly more men (34.5%) than women (25.0%) reporting this. Furthermore, of all adults surveyed, 90.9% had a blood pressure check, 71.2% had a test for cholesterol, and 28.6% had a heart health check-up conducted by a doctor or other health professional in the last two years. Of these, 3.8% were told by a doctor that they had heart disease; 13.4% had a high risk of developing heart diseases; 32.6% had high cholesterol; 34.6% had high blood pressure; and 7.8% had diabetes.

In 2010-11, age-standardised rates for hospital separations for CVD were more than two times higher for males (757.7 per 100,000) than for females (308.5 per 100,000). Rates were lower than in the previous decade (males: 1035.7 per 100,000, females: 410.2 per 100,000 in 2000-01).

The most common procedures performed for CHD in ACT hospitals included coronary angiography, coronary angioplasty and coronary artery bypass grafting. The condition was also commonly treated under the category 'generalised allied health interventions' such as physiotherapy and nutritional advice.

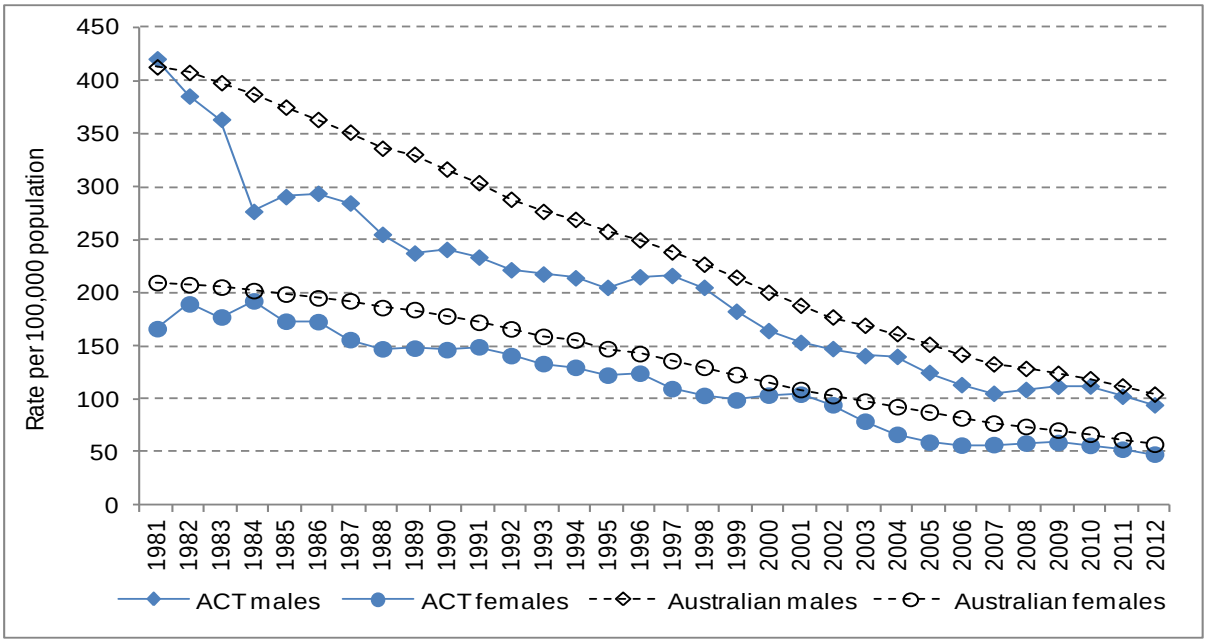
7.1.2. Mortality

During 2012, 485 deaths (28.45% of all deaths) in the ACT were due to cardiovascular disease.[30] Of these, the main causes were CHD (45.6%) and cerebrovascular disease (25.8%), with the remainder due to a range of hypertensive and pulmonary conditions and other forms of heart disease. Mortality increased with age (with age-specific mortality rates increasing from 32.9 per 100,000 in persons aged 55-64 years to 1,992.9 in those aged 85-94 years for CHD, and from 20.3 per 100,000 in persons aged 55-64 years to 1,216.7 in those aged 85-94 years for cerebrovascular disease).

While males were more likely to die from CHD than females, they were less likely to die from cerebrovascular disease than females.

Age-standardised mortality rates for CHD in males and females in the ACT and nationally have continued to decline since the early 1980s (Figure 15). This decline was more marked in males than females and rates of CHD in the ACT for both sexes have remained lower than national rates. Despite these trends, CHD remains a leading cause of mortality both in the ACT and nationally.

Figure 15: Coronary heart disease mortality, age-standardised rates, by sex, ACT & Australia, 1981-2012



Sources: AIHW, 2010, State & Territories GRIM Books. AIHW: Canberra (1981-2007 data)
ABS, *Causes of Death Australia*, cat. no. 3303.0, (2008-12 data)

Notes: (a) Rates adjusted to the Australian Standard Population 2001.
(b) Three-year leading averages were used to smooth age-standardised mortality rates for CHD deaths in the ACT, to better discern trends by removing year- to- year fluctuations due to the relatively small numbers. E.g. the 3-year moving average for 2012 was calculated from the average age-standardised mortality rates for 2012, 2011 and 2010.
(c) Underlying cause of death is coded to ICD-9 codes from 1979 to 1996 and to ICD-10 codes from 1997 to 2012. The GRIM data (refer list of abbreviations) are reported by year of death to 2006, after which by year of registration of death.
(d) 2012 deaths data are preliminary and should be treated with caution.

7.2. Cancer

At a glance

- In 2009, 1,473 new cases of cancer were diagnosed in ACT residents (53% males and 47% females).
- The overall crude incidence rate for 2005-09 was 404 per 100,000 population for males and 370 per 100,000 population for females.
- The most common cancers for 2005-09 in males were prostate cancer, colorectal cancer, melanoma of the skin and lung cancer.
- The most common cancers for 2005-09 in females were breast cancer, colorectal cancer, melanoma of the skin, and lung cancer.
- In 2012, 501 ACT residents died of cancer (55% males and 45% females).
- The age-standardised mortality rate was 186.9 per 100,000 population for males and 116.5 per 100,000 population for females in 2012. The risk of dying from cancer before the age of 85 years was 1 in 5 for males and 1 in 8 for females for the period 2005-09.
- The most common cancer-related deaths for males were prostate, lung and colorectal, and, for females, breast, lung and colorectal.
- The median age at death was 74 years for males and 72 years for females in 2009.

Cancer is a major cause of morbidity and mortality and is recognised as a major contributor to the total burden of disease in the ACT (19%).[26] Cancer will continue to be a leading contributor to the burden of disease as the population ages.

Cancer is a notifiable disease under the *ACT Public Health Act 1997*. The ACT Cancer Registry (ACTCR) collates information on cancer in ACT residents and reports biennially on the incidence and

mortality of cancer in the ACT. The ACTCR also provides data to the Australian Institute of Health and Welfare for reporting on cancer statistics nationally.

The ACTCR contracts the processing of cancer incidence and mortality to the NSW Cancer Institute. The development of a new NSW Cancer Registries system in recent years has resulted in a delay in processing cancer data for the ACT for 2010 onwards. Consequently, data presented in this report are for 2009.

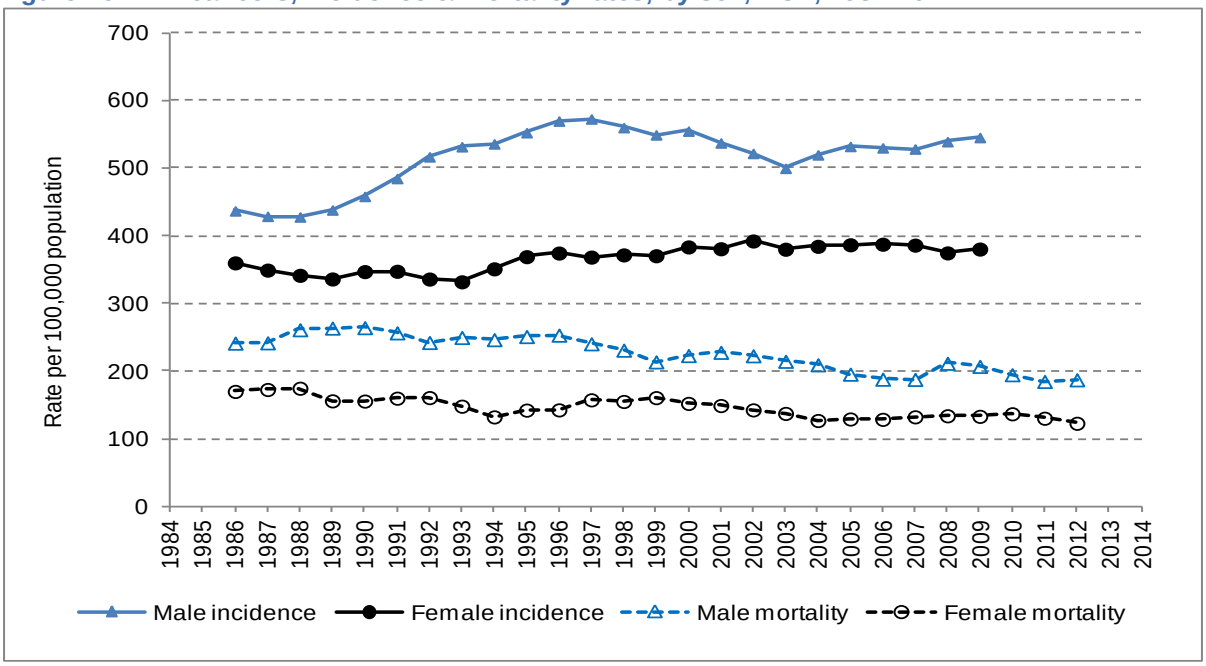
7.2.1. Incidence

In 2009, 1,473 new cases of cancer were diagnosed in ACT residents (53% males and 47% females). For the period of 2005-09, an average of 1,380 new cases of cancer were diagnosed per year. The overall crude incidence rate for 2005-09 was 404 per 100,000 population for males and 370 per 100,000 population for females.

The trend in incidence of all cancers combined is markedly different for males and females (Figure 16). For males, it increased steadily until the mid-1990s, followed by a decline, before increasing again from the early 2000s. The trend in male incidence rates is strongly influenced by changes in the incidence rate of prostate cancer (largely due to PSA testing).[31]

For females, the incidence rate rose steadily during the early 1990s, and has remained fairly stable since then. The rate has been strongly influenced by breast cancer incidence rates.[32]

Figure 16: All cancers, incidence & mortality rates, by sex, ACT, 1984-2014



Source: ACT Cancer Registry, (all years incidence & mortality 1984-2008) & AIHW National Mortality Database (mortality 2008-09) & *ABS Causes of Death Australia*, cat. no. 3303.0 (mortality 2010-12)

Notes: (a) Rates are age-standardised to the 2001 Australian Standard Population & presented per 100,000 population.
(b) Rates are calculated as 3-year leading averages i.e. the average of the year reported and the two previous years.
(c) Mortality data for 1984-2007 were sourced from the ACT Cancer Registry, then from 2008-09 from the AIHW National Mortality Database and in 2010-12 from *ABS Causes of Death Australia*, cat. no. 3303.0.
(e) The incidence data for 2008 & 2009 does not yet include cases which were diagnosed from death certificate only.

Table 12: All cancers, incidence, rates & lifetime risk, ACT, 2005-09

All cancers (a)	Crude rate	ASR (b)	Lifetime risk
	(per 100,000)	(per 100,000)	To age 85
Male	440	535	1 in 2
Female	370	384	1 in 3
Persons	404	451	1 in 2

Source: ACT Cancer Registry

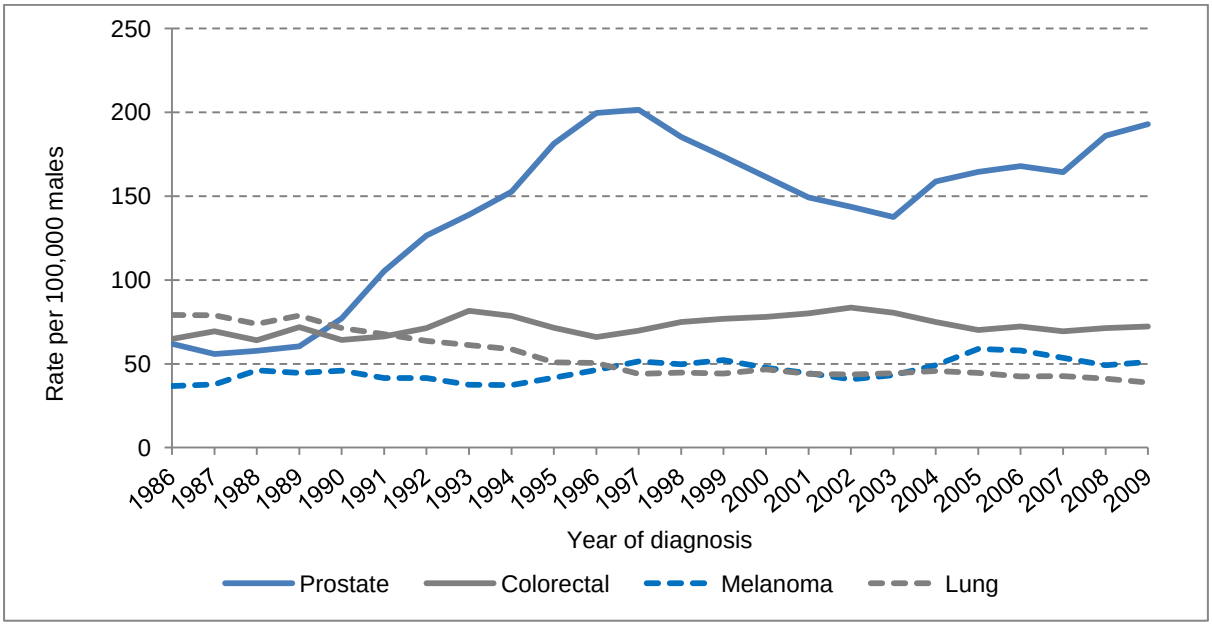
Notes: (a) All cancers excluding non-melanocytic skin cancers.
(b) ASR: age-standardised rate using Australian population 2001 as the standard.

The most common cancers for 2005-09 in males were prostate cancer, colorectal cancer, melanoma of the skin and lung cancer. The risk of developing cancer before the age of 85 years in males was 1 in 2 and the median age at diagnosis was 65 years.

The most common cancer for 2005-09 in females was breast cancer, followed by colorectal cancer, melanoma of the skin, and lung cancer. The risk of developing cancer before the age of 85 years in females was 1 in 3 and the median age at diagnosis was 61 years.

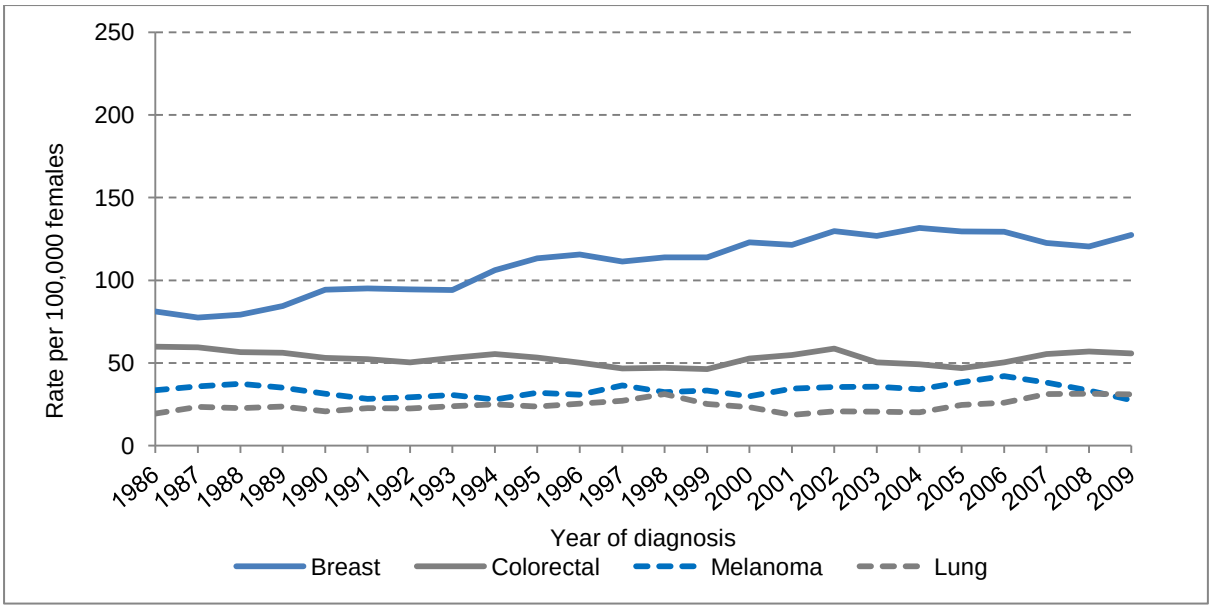
Over the period 1986 to 2009 there was an increase in prostate cancer in males (Figure 17) and breast cancer in females (Figure 18).

Figure 17: Common cancers in males (prostate, colorectal, melanoma & lung), incidence, 1986-2009



Source: ACT Cancer Registry
Notes: (a) Rates are age-standardised to the 2001 Australian Standard Population and presented per 100,000 population.
(b) Rates are calculated as 3-year leading averages i.e. the average of the year reported and the two previous years.

Figure 18: Common cancers in females (breast, colorectal, melanoma & lung), incidence, 1986-2009



Source: ACT Cancer Registry
Notes: (a) Rates are age-standardised to the 2001 Australian Standard Population and presented per 100,000 population.
(b) Rates are calculated as 3-year leading averages i.e. the average of the year reported and the two previous years.

7.2.2. Mortality

In 2012, 501 ACT residents died of cancer (55% males and 45% females). The most common cancer-related deaths for males were prostate, lung, and colorectal and for females were lung, breast, and colorectal.[9]

Mortality rates for both males and females have decreased over time (Figure 16). In 2012, the age-standardised mortality rate for all cancers combined in the ACT was 186.9 per 100,000 population for males and 116.5 per 100,000 population for females.

7.2.3. Selected cancers

Breast cancer

Breast cancer was the most common cancer occurring in females for the period 2005-09, and the second highest cause of cancer-related death in 2012 in females in the ACT.[32, 9]

In 2009, 265 new cases of female breast cancer were diagnosed in ACT residents. In 2005-09, with 1,086 cases, the crude incidence rate was 126 cases per 100,000 population per year. The median age at diagnosis was 58 years (2005-09). In 2012, the age-standardised mortality rate for female breast cancer in the ACT was 14.7 per 100,000 population.

As with most cancers, incidence and mortality of female breast cancer increased with age. Only 7% of cases were diagnosed in females under 40 years of age; 19% from 40-49 years of age, 55% from 50-69 years (which is the current target group for the BreastScreen program); and 19% from 70 years and above. One in 8 females in the ACT developed breast cancer before the age of 85 years.

Prostate cancer

Prostate cancer was the most common cancer occurring in males for the period 2005-09, and the highest cause of cancer-related death in males in the ACT in 2012.[32,]

In 2009, 276 new cases of prostate cancer were diagnosed in ACT male residents. There was an average of 251 new cases per year for the period of 2005-09. In 2005-09, the crude incidence rate was 148 cases per 100,000 population per year. The median age at diagnosis was 66 years.

Age-specific incidence increased sharply from 50 years of age. This rise was partly due to age and to increasing awareness of prostate cancer among the population and health professionals.

Incidence of age-standardised prostate cancer has increased steadily over time (an average of 16% per year from 1985 to 1995), with peaks thought to be due to PSA (prostate-specific antigen) testing becoming available in 1987 and changes in diagnostic procedures in 2008. An increase in incidence since 2002 was also seen nationally.[33]

Age-specific mortality increased gradually with age and rose steadily from 60 years and over. In 2012, the age-standardised mortality rate for prostate cancer in the ACT was 26.6 per 100,000 population. The age-standardised mortality rate has been stable over time.

Colorectal cancer

Colorectal cancer was the second most common cancer in both males and females for the period 2005-09, and the third highest cause of cancer-related mortality in the ACT in both males and females in 2012.

Incidence rates for colorectal cancer have remained fairly stable over time, with incidence higher for males than for females. This may be related to differences in behaviours that increase the risk of colorectal cancer and the differing effect of obesity in males and females. In 2009, there were 107 new cases of colorectal cancer in males and 87 in females. There was an average of 99 new cases per year in males for the period 2005-09 and an average of 86 new cases in females. In 2005-09, the crude incidence rate was 58 cases per 100,000 population per year for males and 50 cases per 100,000 for females. The median age at diagnosis was 67 for males and 70 for females.

Mortality rates have decreased over time, possibly due to earlier detection of pre-cancerous polyps and improved treatment.[32] In 2012, the age-standardised mortality rate for colorectal cancer in the ACT was 11.8. per 100,000 population.[9]

Melanoma

Melanoma of the skin was the third most common cancer in both males and females for the period 2005-09, and the fourth highest cause of cancer-related deaths in both males and females in the ACT in 2009.

Age-standardised incidence rates for melanoma have increased over time. This increase is more marked in males than in females. In 2009, there were 80 new cases of melanoma in males and 37 in females. There was an average of 77 new cases per year in males for the period 2005-09 and an average of 57 new cases in females. In 2005-09, the crude incidence rate was 46 cases per 100,000 population per year for males and 33 cases per 100,000 population per year for females. The median age at diagnosis was 61 for males and 54 for females. The mortality rate for melanoma has remained stable over time (for both males and females) and is low. In 2012, the age-standardised mortality rate for melanoma in the ACT was 8.6 per 100,000 population.[9]

Lung cancer

Incidence and mortality rates for lung cancer in the ACT are the lowest in the country and in recent years the differences between ACT rates and Australian rates have been statistically significant.

Lung cancer was the fourth most common cancer in both males and females for the period 2005-09, and the second most common cause of cancer-related deaths in males and females in the ACT in 2009.

In 2009, there were 50 new cases of lung cancer in males and 43 in females. There was an average of 52 new cases per year in males for the period 2005-09 and an average of 49 new cases in females. In 2005-09, the crude incidence rate was 31 cases per 100,000 population per year for males and 28 cases per 100,000 population for females. The median age at diagnosis was 71 for males and 69 for females. In 2009, the age-standardised mortality rate for lung cancer in the ACT was 22.5 per 100,000 population for males and 21.9 per 100,000 population for females.

Overall patterns of incidence and mortality from lung cancer have declined from the early 1990s, with ACT males having decreasing age-standardised rates and ACT females increasing age-standardised rates. Similar trends were observed for Australia. The difference between the sexes was probably due to different histories of tobacco smoking, with an earlier decline in smoking seen in males.

Mortality rates also show differences between sexes (age-standardised mortality rate of 25.6 per 100,000 population for males and 16.2 per 100,000 for females).[9] There has been a significant decrease in mortality rates for males, with a much smaller decrease for females.

Cervical cancer

Incidence and mortality rates of cervical cancer have declined markedly since the late 1980s and especially since 1991 following the introduction of the National Cervical Screening Program.

Cervical cancer almost always develops from cell changes caused by the human papillomavirus (HPV), which is spread during sexual activity.[34] There is a national school-based vaccination program for HPV. It has been in operation since 2007 for girls and 2013 for boys.

In 2009, 12 new cases of cervical cancer were diagnosed in ACT residents. In 2005-09, with 44 cases, the crude incidence rate was 5.1 cases per 100,000 population per year. The mortality rate is not published because of small numbers.

The median age at diagnosis was 44 years and the median age at death was 56 years.

Mesothelioma

The Australian Mesothelioma Register (AMR) was established in 2011 to collect data on new diagnosis of mesothelioma cases from state and territory cancer registries, and deaths from state and territory cancer registries and the National Death Index. Malignant mesothelioma is an uncommon cancerous tumour of the lining of the lung and chest cavity (pleural) or lining of the abdomen (peritoneum) that is typically due to long-term asbestos exposure. The AMR also collects asbestos exposure information from consenting mesothelioma patients through postal questionnaire and telephone interview, resulting in more consistent collection of exposure data. Mesothelioma is a cancer that can occur 20 to 40 years after exposure to asbestos.

Mesothelioma diagnoses are uncommon in the ACT, with a total of 29 new cases reported in the

five-year period between 2005 and 2009. The age-standardised rate for the ACT was 2.0 new cases per 100,000 population per year during this time.

During 2005-09, the risk of being diagnosed with mesothelioma in the ACT before the age of 85 years was 1 in 194 in males and 1 in 2,516 in females.

In the ACT, there were nine new cases and seven deaths in 2012 compared with nine cases and four deaths in 2011.[35] Nationally there were 619 new cases in 2012 and the age-standardised rate was 2.4 new cases per 100,000 population.

Nationwide, mesothelioma mostly affects men, with 82.6% of notified cases in 2012 occurring in males. The majority are older people, with 79.6% of cases in 2012 diagnosed in those aged 65 years or older. This is due to the long latency period between exposure to asbestos and the development of disease.[35]

7.2.4. Cancer screening

Screening facilitates the identification of apparently healthy persons at elevated risk of disease who may benefit from follow-up investigation and care. The Australian Government has developed a Population Based Screening Framework based on the World Health Organization principles of screening. Population screening for specific cancers is offered to all individuals in a target group, usually defined by age, as part of an organised program.[36]

There are currently three national population-based screening programs in Australia: BreastScreen Australia, the National Cervical Screening Program, and the National Bowel Cancer Screening Program.

Breast cancer screening

BreastScreen Australia aims to reduce mortality and morbidity from breast cancer by actively recruiting and screening women for early detection of the disease. BreastScreen ACT provides free biennial mammographic screening and follow-up of any suspicious lesions identified at screening to the point of diagnosis. During the period of this report (2010-12) BreastScreen targeted asymptomatic women aged 50-69 years of age with a target participation rate of 70%.

The age-standardised ACT participation rate remained between 52-58% for most years during 2007-11, lower than the target participation rate. These results are consistent with national results. The age-standardised rate for the ACT for 2010-11 was 52.1% (Australia 54.6%) compared with 52.8% for 2009-10 (Australia 55.0%).[37]

On 1 July 2011, BreastScreen ACT became a single entity, no longer providing screening or assessment services for NSW Health. This has resulted in increased capacity to serve ACT residents, with a significant reduction in waiting times for appointments. The total number of women screened increased from 11,666 in 2010-11 to 15,019 in 2011-12 and the waiting time for an appointment reduced from 55 days to seven days over the same time.[25]

Since BreastScreen was introduced in 1991 there has been a decrease in the age-standardised mortality rates for women in the target age group of 50-69 years. The decrease has been attributed in part to the early detection of breast cancer through screening mammography, together with advances in the management and treatment of breast cancer.[37]

Cervical cancer screening

The National Cervical Screening Program aims to reduce incidence and death from cervical cancer, in a cost-effective manner, through an organised approach to cervical screening. The program promotes routine screening with Pap smears (refer Glossary) every two years for women between the ages of 18 (or two years after first sexual intercourse, whichever is later) and 69 years.[36]

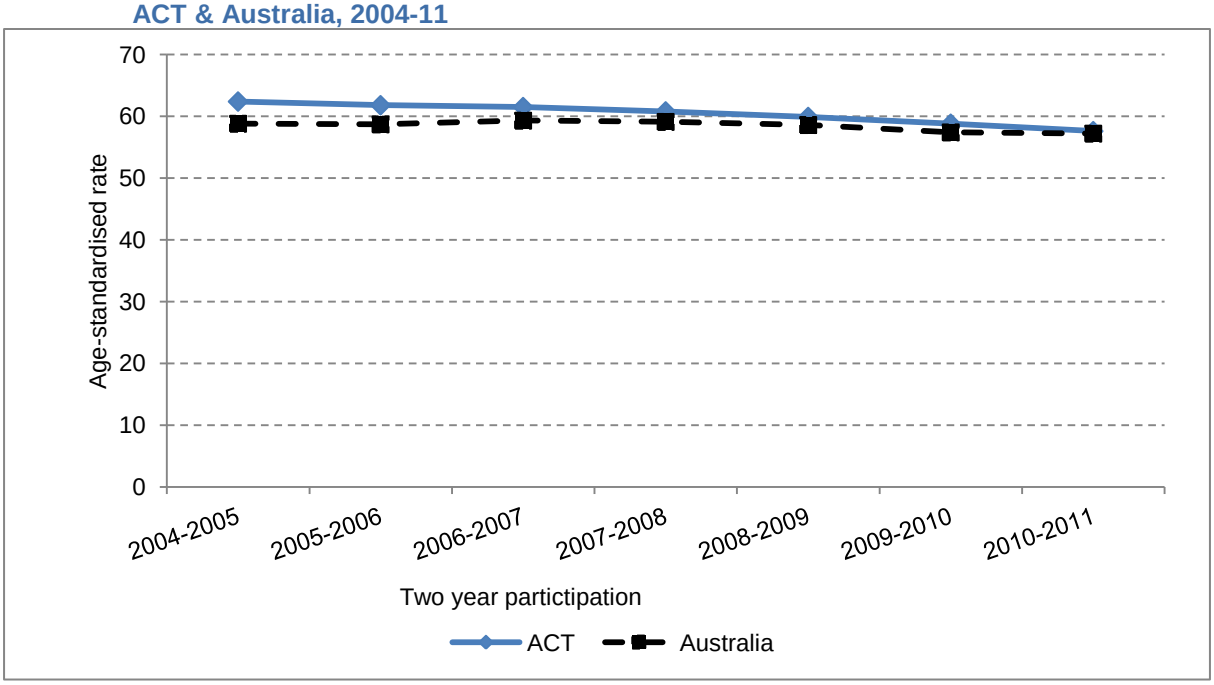
The ACT Cervical Cytology Register is a central and confidential list of ACT women's Pap test results for those who have chosen to store their results on the register. Women are reminded when their Pap test is overdue and are followed up when there are significantly abnormal results.[38]

During 2010-11 the age-standardised participation rate for Pap smears in the ACT for women aged 20-69 years was 57.6%, which was similar to the Australian rate of 57.2% (Figure 19).[34] Participation

in two-yearly Pap smears in the ACT has progressively declined, from 62.4% in 2004-05 to 57.5% in 2010-11, a reduction of 4.9 percentage points. This pattern appears to be consistent with national trends, and the introduction of the National Human Papillomavirus (HPV) Vaccination Program in 2007 may have resulted in lower participation in screening in the ACT in recent years.

After 20 years of operation of the National Cancer Screening Program, the evidence-base underpinning the program is being reviewed to ensure that all Australian women have access to a cervical screening program that promotes best clinical practice. The review is expected to be completed by mid-2014.

Figure 19: National Cervical Screening Program, participation rates, women aged 20-69 years, ACT & Australia, 2004-11



Source: AIHW analysis of state and territory cervical cytology register data
Notes: (a) Age-standardised rates are in overlaping 2-year periods.
(b) Crude rates are for the number of women as a proportion of the eligible female population. The eligible population is the average of the ABS estimated resident population, adjusted to include only women with an intact cervix using age-specific hysterectomy fractions. Reporting periods 2003-04 to 2009-10 use hysterectomy fractions derived from the AIHW National Hospitals Morbidity Database. Data from before 2004-05 should not be directly compared with those after this period because a different method is used to derive the hysterectomy fractions.
(c) These data exclude women who have opted to go off the cervical cytology register.

Colorectal screening

In 2006, the Australian Government implemented The National Bowel Cancer Screening Program (NBCSP) which aims to reduce the incidence, illness and mortality related to bowel cancer in Australia. The program aims to detect cancers and pre-cancerous lesions in their early stages, when treatment will be most successful. People are invited to screen in cohorts of age (for this report, those turning 50, 55 or 65 between July 2011 and June 2012). The test used for screening purposes is the faecal occult blood test (FOBT), a non-invasive test which detects microscopic amounts of blood in bowel motions. Participants who test positive are then advised to seek further medical advice.

In 2011-12, the ACT crude participation rate was 38.2% (males 36.4%; females 39.9%) which was higher than the Australian rate (35.0%). Females had a higher participation rate than males in all jurisdictions. All jurisdictions showed a reduction in their participation rates since the last report, possibly due to a pause in the program between January and June 2011 due to uncertainty around the continuation of the program.[39] However, as part of the 2012-13 Federal Budget, the Australian Government announced an expansion of the National Bowel Cancer Screening Program to include Australians turning 60 years of age from 2013 and those turning 70 from 2015. The Program will be further expanded in 2017-18.[36]

7.3. Mental health

At a glance

- The main contributors to the burden of disease due to mental illness were anxiety and depression (60%), substance use disorders (14%), and personality disorders (11%).
- In 2011-12, 15.5% of the ACT population had mental and behavioural problems, the highest proportion of all states and territories (Australia: 13.4%) and an increase from previous years.
- People reporting mental health problems were more likely to be current smokers and to be undertaking inadequate physical activity.
- Females were more likely than males to report symptoms of high to very high psychological distress.
- There were 2,970 hospital separations for ACT residents with a primary diagnosis of mental or behavioural disorder in 2011-12.
- There was an increase in separations due to psychoactive substance use from the last reporting period.
- The ACT had 89 deaths attributed to mental or behavioural disorders (36 males and 53 females). Dementia was the cause for more than 84.3% of these deaths.
- The ACT age-standardised rates for suicide have remained fairly steady over time and are comparable to national rates. (ACT: 9.6 per 100,000 population, Australia: 10.5 per 100,000 population in 2009-11).

Mental and behavioural disorders include depression, anxiety, dementia, substance use disorders and psychotic disorders such as schizophrenia. People with moderate to severe forms of these disorders are often subjected to social isolation, poor quality of life and increased mortality.[40]

The latest available data shows that mental health disorders were responsible for 15% of the total burden of disease and injury in the ACT in 2003, slightly higher than the national figure of 13.3%.[41] The main contributors to this disease burden were: anxiety and depression (60%), substance use disorders (14%), and personality disorders (11%).

7.3.1. Morbidity

Results from the Australian Health Survey[17] estimate that three in 20 ACT people (15.5%) have mental or behavioural problems, the highest proportion of all states and territories (Australia: 13.4%). This proportion has increased over time (8.7% in 2001; 11.6% in 2007-08).

Results from the 2011-12 ACT General Health Survey (ACTGHS) show that persons who reported having been diagnosed with a mental health problem in the previous 12 months were more likely than the rest of the ACT adult population to report current smoking (17.8% compared to 14.1%) and inadequate physical activity levels (49.5% compared to 38.7%). Of those who were diagnosed in the previous 12 months with a mental health disorder, 47.6% were currently receiving treatment.

Information collected through the 2011-12 ACTGHS also showed that:

- 8.9% of ACT residents 18 years and over reported symptoms of high to very high psychological distress over the previous four weeks using the Kessler Psychological Distress Scale (K10), compared to 9.8% in 2009-10. This decrease was not statistically significant.[42]
- Females (9.5%) were more likely to report symptoms of high to very high psychological distress than males (8.2%).
- 28.9% of females and 21.6% of males who reported high to very high levels of psychological distress attributed their stress to physical problems either most of the time or all of the time (29% of females and 17.7% of males in 2009-10). The changes over the years were not statistically significant.

In 2011-12, there were 2,970 hospital separations for ACT residents with a primary diagnosis of mental or behavioural disorder (2009-10: 2,935 separations). Of these, 31.4% involved a diagnosis of

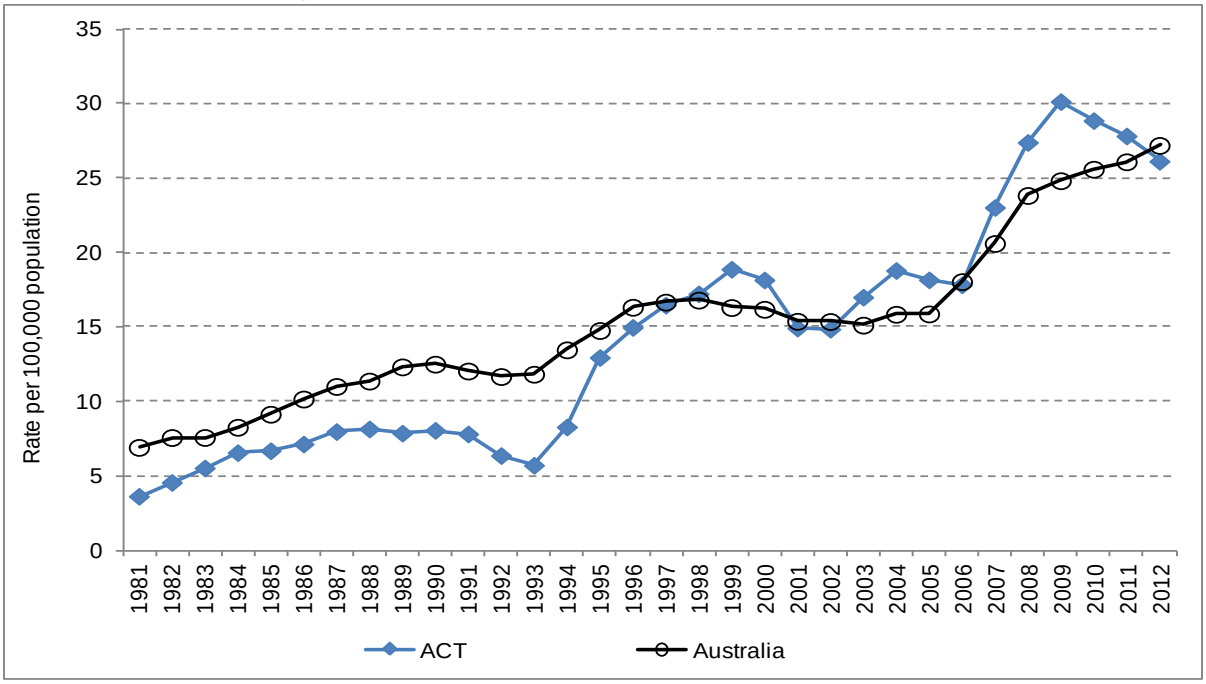
mood (affective) disorder, 16.4% involved psychotic disorders such as schizophrenia, 18.5% involved a diagnosis of neurotic, stress related or somatoform disorders and 21.3% involved a mental and behavioural disorder due to psychoactive substance use.[43] The proportion of separations due to psychoactive substance use appears to be increasing (2009-10: 16%).

7.3.2. Mortality

During 2012, 89 (5%) of ACT death registrations were attributed to mental or behavioural disorders (36 males and 53 females). Dementia was the cause of 84.3% of these deaths.

The age-standardised ACT mortality rates for mental and behavioural disorders fluctuate due to small numbers, but have been increasing in both the ACT and Australia for both males and females, largely due to the increasing proportion of deaths due to dementia in older persons (Figure 20).

Figure 20: Mortality, mental & behavioural disorders, age-standardised rates, ACT & Australia, 1981-2012



Sources: AIHW, 2010, States & territories GRIM Books, Canberra (1981-2007 data)
ABS, *Causes of Death Australia*, cat. no. 3303.0, 2001-2012

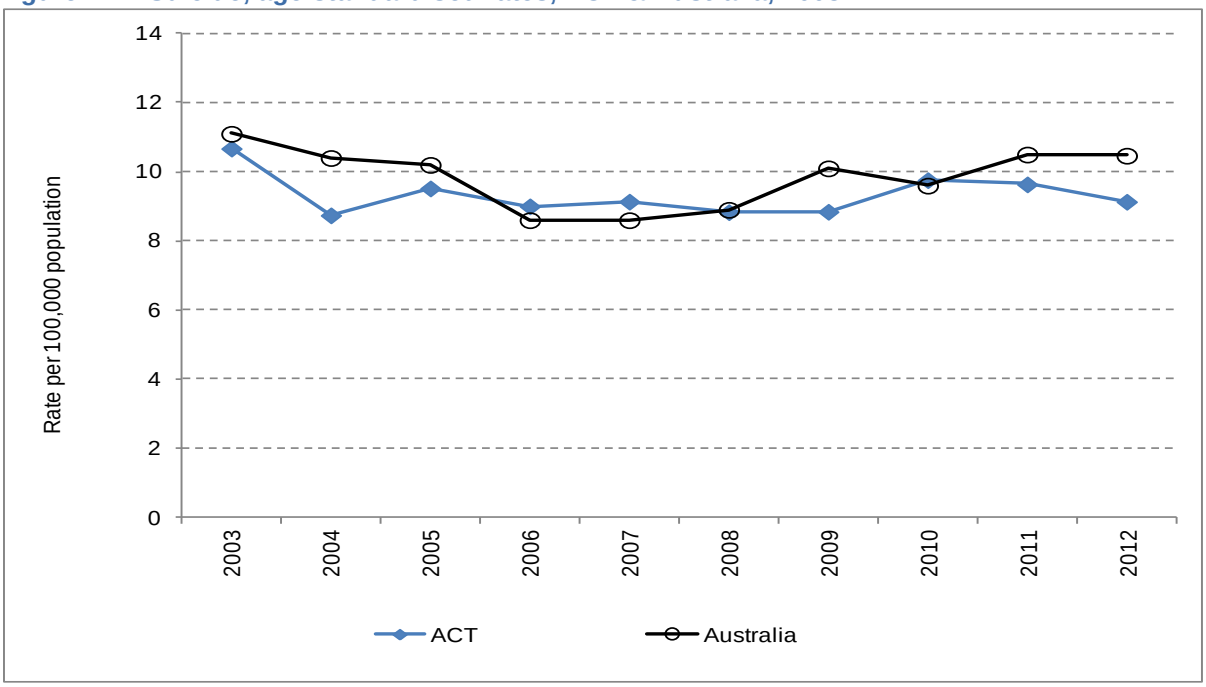
Notes: (a) 2012 ABS deaths data are preliminary and should be treated with caution.
(b) Rates are adjusted to the Australian Standard Population 2001.
(c) Three-year leading moving averages used to smooth ACT age-standardised mortality rates to better discern trends by removing fluctuations due to relatively small numbers (e.g. The 3-year leading average for 2012 was calculated from the average rates for 2012, 2011 & 2010.
(d) Underlying cause of death is coded to ICD-9 codes from 1981-96 & to ICD-10 codes thereafter.
(e) The GRIM data (refer list of abbreviations) are reported by year of death to 2006 and by year of registration thereafter.

Suicide

Building a Strong Foundation: A Suicide Prevention Strategy for the ACT 2009-2014 sets out the ACT Government's commitment to suicide prevention in the Territory. The strategy recognises that suicide prevention is everybody's business and takes a whole-of-government and whole-of-community approach to suicide prevention.

There were 24 deaths from intentional self-harm in 2012.[9] The ACT age-standardised rates for suicide have remained fairly steady over time and are comparable to national rates (ACT: 6.2 per 100,000 population, Australia: 11.0 per 100,000 population) (Figure 21).

Figure 21: Suicide, age-standardised rates, ACT & Australia, 2003-12



Source: ABS, *Causes of Death Australia,* cat. no. 3303.0, 2003 -12
Note: ACT data: the value for each year is a three-year average of the year listed and the two years before. This methodology has been adopted to better discern trends by removing year-to-year fluctuations due to relatively small numbers.

7.4. Injury

At a glance

- The rate of hospital separations for injury has increased over time.
- In 2011-12, the leading causes of injury-related hospital separations were: falls (34.6%), complications of care (15.3%), exposure to inanimate mechanical forces (e.g. power tool and machinery injuries, being struck by objects such as sporting equipment) (12.1%), and land transport accidents (11.1%).
- Females were more likely than males to be hospitalised for falls injuries and intentional self-harm. Males were more likely to be hospitalised for inanimate mechanical forces and transport accidents.
- In 2012, 21.8% of adults aged 60 years and over reported having a fall in the last 12 months. Of these, nearly 30% reported a fall that required medical attention and 22.4% had been admitted to hospital for a fall in the previous 12 months.
- People over 65 years experienced considerable increases in the age-specific rate of hospitalisation for a fall between 2002-03 and 2011-12.
- Of the 8,312 traffic crashes reported in the ACT in 2012, 10.7% of people involved received medical treatment, were admitted to hospital or died. About 46% of all casualties were for people younger than 30 years of age.
- The number of alcohol-attributable injuries to people aged 15 years and over being treated in ACT hospital emergency departments during 2011-12 was estimated at 5,574 or 18.5 per 1,000 population, an increase on previous years.
- In 2012, there were 116 deaths with an underlying cause of injury in the ACT. The main causes were falls (25.9%), intentional self harm (20.7%) and transport accidents (17.2%).

Injury is a leading cause of premature mortality and accounts for an estimated 7% of the total burden of disease in the ACT and Australia.[44] Injuries can result in a range of physical and mental disabilities that can impact on longer-term quality of life.

In 2011-12, 7,101 injuries resulted in hospitalisation in the ACT. The age-standardised rate of hospital separations with injury as a primary diagnosis was 1,981 per 100,000 persons in 2011-12. This rate has increased over time from 1,243.7 per 100,000 in 2001-02.

The leading causes of injury-related hospital separations in 2011-12 were: falls (34.6%), complications of care (15.3%), exposure to inanimate mechanical forces (e.g. power tool and machinery injuries, being struck by objects such as sporting equipment) (12.1%), and land transport accidents (11.1%). The proportion of these hospitalisations differed by sex.

Hospitalisations due to injury from a fall (females: 43.7%, males: 27.3%) and for intentional self-harm (females: 7.5%, males: 2.8%) were more common in females than in males. Hospitalisations due to injury from exposure to inanimate mechanical forces (males: 16.0%, females: 7.2%) and land transport accidents (males: 13.9%, females: 7.5%), were more common in males than females.

In 2011-12, ACT residents aged 65 years and over had the highest age-specific rates for hospital separations at 4,971.2 per 100,000. Falls comprised 61.5% of these hospital separations, followed by complications of medical and surgical care (21.7%). The second highest rates occurred in those aged 15-19 years (2,187.4 per 100,000 population), where the leading causes were falls (16.3%), land transport accidents (15.0%) and intentional self-harm (12.8%).

Most people with injuries requiring treatment present to emergency departments, but are not admitted into hospital. In 2011-12, 27,953 ACT residents (males: 57.7%; females: 42.3%) presented with an injury to ACT hospital emergency departments. Injuries accounted for more than a quarter (27.2%) of all ACT resident emergency department presentations in the Territory.

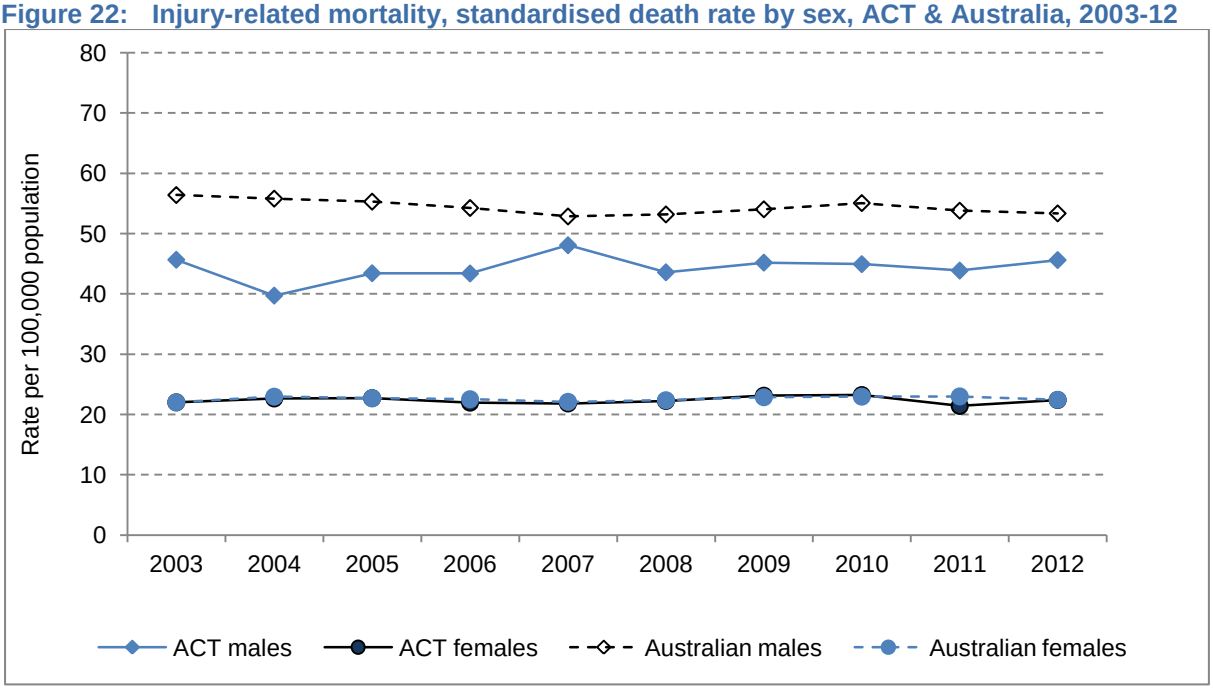
7.4.1. Mortality

In 2012, there were 116 deaths with an underlying cause of injury in the ACT.[30]

The age-standardised mortality rates from injury-related causes for males in the ACT fluctuated over the past 10 years, but current rates remain lower than those recorded in 2002. The injury-related mortality rates for ACT males were consistently lower than those for Australian males, while mortality rates for ACT females were similar to those for Australian females in 2010-12 (Figure 22).

In 2012, the leading underlying cause of injury-related mortality in the ACT was falls (25.9%), followed by intentional self harm (20.7%) and transport accidents (17.2%). (For further information on self-harm and suicide, refer Section 7.3).

Figure 22: Injury-related mortality, standardised death rate by sex, ACT & Australia, 2003-12



Source: AIHW, 2010, ABS, *Causes of Death Australia*, cat.no. 3303.0, (2008-12)

Notes: (a) Rates adjusted to the Australian Standard Population 2001.
(b) Three-year leading averages are used to smooth ACT age-standardised mortality rates to better discern trends by removing fluctuations due to relatively small numbers (e.g. The 3-year leading average for 2012 was calculated from the average rates for 2012, 2011 & 2010.
(c) Underlying cause of death is coded to ICD-9 codes from 1981-96 & to ICD-10 codes thereafter. The GRIM data (refer list of abbreviations) are reported by year of death to 2006 and by year of registration thereafter.

7.4.2. Selected causes of injury

Falls injury

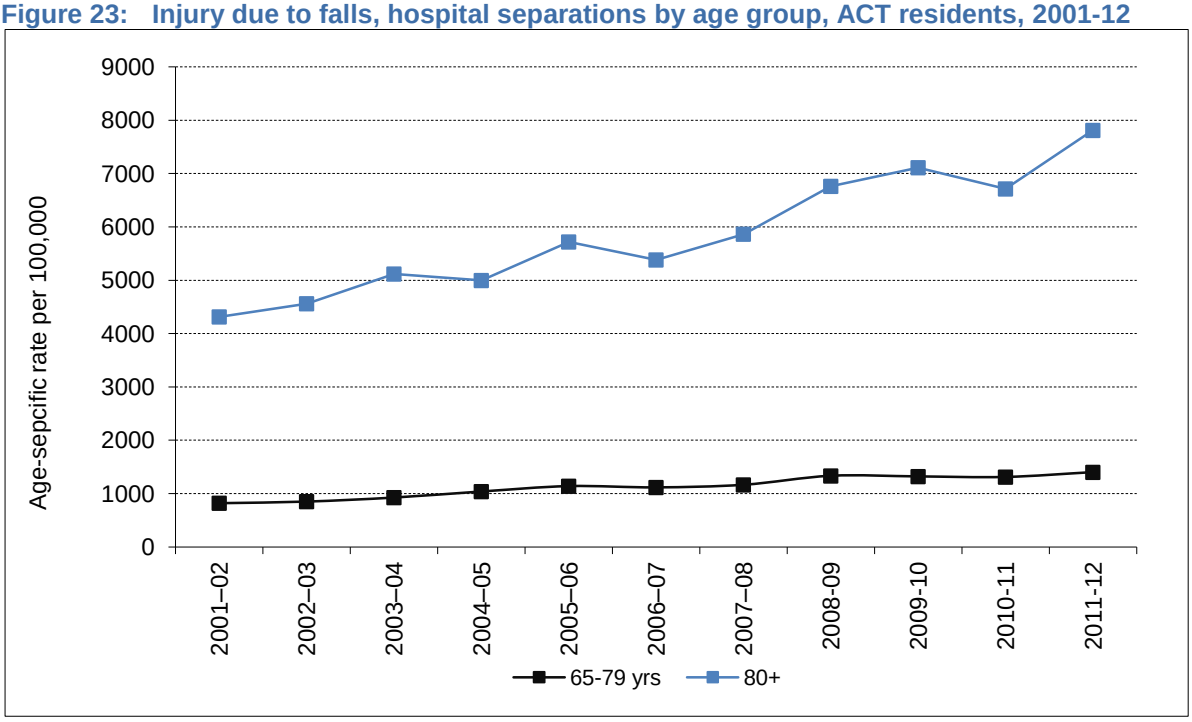
Falls are a leading cause of musculoskeletal trauma in the elderly and can lead to adverse long-term outcomes. In 2012, 21.8% of adults aged 60 years and over reported having a fall in the last 12 months. Of these, 29.4% reported a fall that required medical attention and 22.4% had been admitted to hospital for a fall in the previous 12 months.[45]

In 2011-12, 1,183 ACT residents aged 65 years and over were hospitalised as a result of a fall-related injury. People aged in their eighties were more likely to be hospitalised for a fall than people aged 65-75 years (Figure 23). The age-specific hospital separation rates of injury from falls resulting in hospitalisation have increased in both age groups over time: from 850.7 per 100,000 in 2002-03 to 1,399.5 per 100,000 in 2011-12 in residents aged 65-79 years, and from 4,561.1 per 100,000 in 2002-03 to 7,809.5 per 100,00 in 2011-12 in those aged 80 years and over; representing a 64.5% and 71.2% rise in age-specific rates for the respective age groups.

The most common body sites injured as a result of a fall in people aged 65 years and over in 2011-12 were the hip and thigh (27.3%), the head (20.7%), the elbow and forearm (11.7%), the abdomen, lower back, lumbar spine and pelvis (10.4%) and the shoulder and upper arm (9.6%).

The age-specific death rates in people aged 65 years and over due to falls increased from 19.6 per 100,00 in 2000-02 to 65.5 in 2006-08 and then decreased to 49.4 in 2009-11.[30]

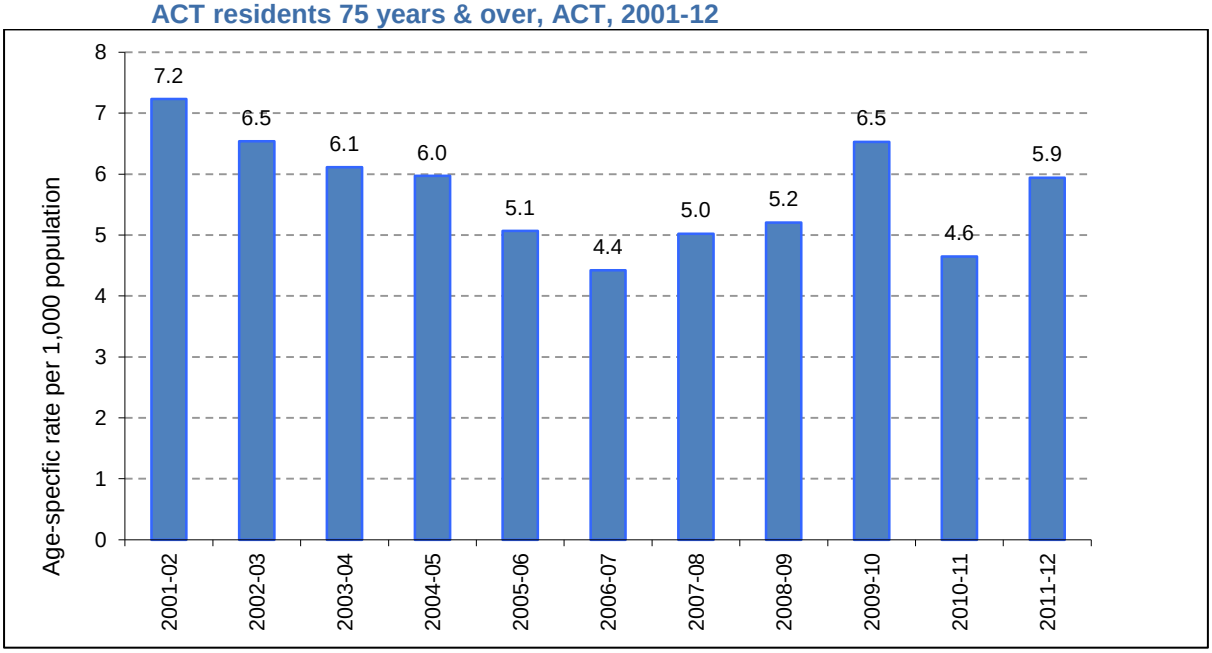
Figure 23: Injury due to falls, hospital separations by age group, ACT residents, 2001-12



Source: ACT Health, Admitted Patient Care Data Collection, confidentialised unit record file, 2001-02 to 2011-12
Note: Hospitalisations due to falls are based on separations with a primary diagnosis of an injury and with a secondary diagnosis of external cause for falls (ICD-10-AM codes S00.0 to T98.99 and W00.00 to W19.99). Statistical discharges and transfers have been excluded.

Rates of neck of femur (hip) fractures are an important indicator of serious injury from falls in the elderly. In 2011-12, the age-specific hospital separation rate for these fractures in ACT residents aged 75 years and over was 5.9 per 1,000 (Figure 24). Rates of hip fractures declined steadily from a high of 7.2 per 1,000 in 2001-02 to 4.4 per 1,000 in 2006-07 and have ranged from 4.6 to 6.5 per 1,000 since, remaining lower than the 7.2 per 1,000 reported in 2001-02.

Figure 24: Hip (neck of femur) fracture due to falls, hospital separations, age-specific rates, ACT residents 75 years & over, ACT, 2001-12



Source: ACT Health, Admitted Patient Care Data Collection, confidentialised unit record file, 2001-02 to 2011-12
Note: Falls- related NOF fracture hospitalisations are based on separations with a diagnosis of an injury with a secondary diagnosis of external cause for falls (ICD-10-AM codes S72.0 & W00.00 to W19.99). Statistical discharges & transfers have been excluded.

Road transport injury

The social cost of serious casualty road traffic crashes (where at least one person was killed or admitted to hospital) was estimated at $11.42 million per 100,000 population in the ACT in 2010.[46] Based on ACT Government Territory and Municipal Services (TAMS) data, of the people involved in the 8,312 traffic crashes reported in the ACT in 2012, 892 (10.7%) received medical treatment, were admitted to hospital or died. About 46% of all casualties were for people younger than 30 years of age (49% males, 51% females). The single most vulnerable group, accounting for 17% of all casualties, were young people aged 20 to 24 years. Of all road traffic crash casualties in 2012, 51% were males.[47]

The latest available nationally compiled data on injury due to road transport accidents show that 613 ACT residents sustained a serious injury, and 136 sustained a high threat to life injury due to road vehicle traffic crashes in the Territory in 2008-09. The ACT had a higher age-standardised rate for serious injury from road crashes than the national rate (ACT: 168.2 per 100,000; Australia: 156.7 per 100,000), but a similar rate to the national rate for high threat to life injury (ACT: 37.6; Australia: 40.1). Rates of serious injury and high threat to life injury from road vehicle crashes have increased across Australia, including in the ACT, since national reporting began in 2000-01.[48]

In 2008-09, the ACT had lower rates of high threat to life injury among motor vehicle drivers and passengers, motorcyclists and pedestrians than national rates (Table 13). However, the ACT had the highest rate of high threat to life injury among pedal cyclists of all the jurisdictions.[48]

Table 13: Road vehicle transport crashes, high threat to life injury rates by road user type, ACT & Australia, 2008-09

Road user type	ACT	Australia
	Rate per 100,000	Rate per 100,000
Drivers	11.5	13.6
Passengers	4.0	7.4
Motorcyclists	8.6	9.0
Pedal cyclists	8.0	4.2
Pedestrians	4.1	4.3

Source: Henley G & Harrison JE 2012, *Trends in serious injury due to land transport accidents, Australia 2000-01 to 2008-09.*
Notes: (a) High threat to life injury cases are selected on the basis of having an ICD-based Injury Severity Score of < 0.941.
(b) Rates per 100,000 population, adjusted by direct standardisation to the Australian population in June 2001.

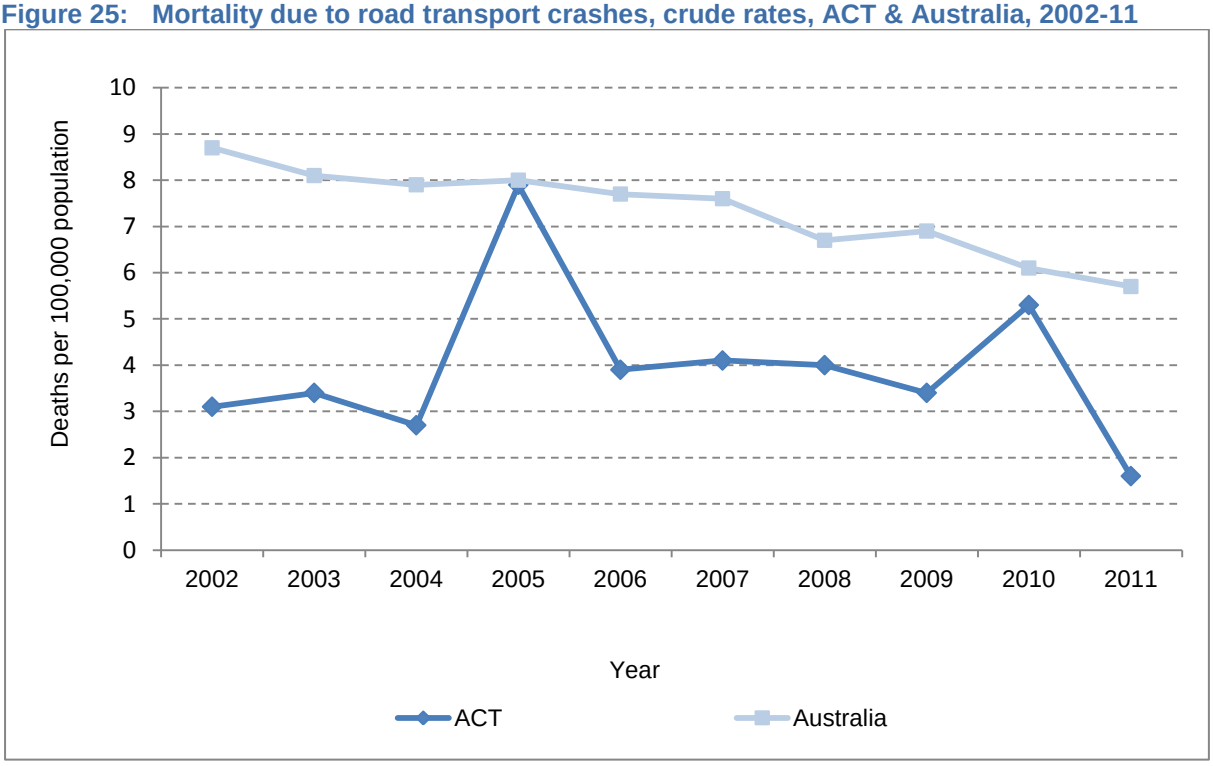
ACT Government Territory and Municipal Services data show that in 2012 there was a total of 110 casualties from pedal cycle accidents, including one fatality, 26 hospital admissions and 83 people receiving medical treatment.[46] Pedal cyclists accounted for 12.3% of all on-road causalities in 2012. Most of the reported injury from crashes involving cyclists and vehicles occurred in the city and inner suburbs. In 2012, 15% of these crashes occurred in the CBD, 12% in Turner and 10% in Braddon.

Results from a cross-sectional study of injured adult cyclists presenting to emergency departments in ACT hospitals show more than half (58.4%) of the injuries sustained were minor. However the severity depended on the riding environment, with more severe injuries occurring on shared paths and in traffic compared with bicycle lanes.[49]

The high incidence of injury due to pedal-cycle accidents is most likely due to the popularity of cycling and the availability of cycling paths in the ACT. Survey data on participation in sport and physical recreation collected by the ABS show that participation in cycling in the ACT increased from 11.5% in 2009-10 to 15.3% in 2011-12, which is higher than the national participation rate of 6.5% in 2009-10 and 7.6% in 2011-12.[50]

In 2012, there were 20 registered deaths for ACT residents with an underlying cause of death due to a road transport injury.[9] Since 1988, rates of death per head of population from road transport crashes have been lower than the national average (Figure 25). Overall, the ACT's rate of persons killed has also been consistently the lowest among all states and territories. This is thought to be because of the better road system, the urbanised environment, and the relatively modern vehicle fleet in the ACT compared to other states and territories.[51] The male to female ratio of deaths from road transport injury was 1.6 during the period 2002-11.[52]

Figure 25: Mortality due to road transport crashes, crude rates, ACT & Australia, 2002-11



Source: Roads ACT, Road and Public Transport, *2012 Road traffic crashes in the ACT,* Traffic Management and Safety, April 2013
Note: Rates are crude rates per 100,000 population.

Alcohol-related injury

Alcohol abuse is estimated to account for two per cent of the total burden of disease in Australia.[26] Alcohol-related injuries occur in many situations, including motor vehicle accidents, falls, assault and intentional self-harm. The risk of death or hospitalisation due to injury is increased if alcohol is involved, with this risk being proportional to the number of drinks consumed.[20]

The number of alcohol-attributable injuries (from any level of drinking) in people aged 15 years and over being treated in ACT hospital emergency departments during 2011-12 was estimated at 5,574 or 18.5 per 1,000 population. These estimates have been increasing over the last three years (Table 14). The estimates have been calculated by applying population alcohol-attributable fractions of Emergency Department injuries (based on Australian studies to the number of Emergency Department presentations for injuries). This is necessary because Emergency Department data is limited to primary diagnosis only and does not directly capture alcohol-related injuries.

Table 14: Alcohol-related injury, emergency department presentations, estimated no. & rates, ACT residents aged 15 years & over, 2009-12

Year	Number of ED presentations for injuries	Number of ED presentations for alcohol-attributable injuries	ED presentations for alcohol-attributable injuries, rate per 1,000
2009-10	17,062	5,084	17.7
2010-11	17,090	5,093	17.4
2011-12	18, 706	5,574	18.5

Source: ACT Health, ACT Hospital Emergency Department data collection as cited in draft submission: two-year review following the introduction of new liquor laws, November 2013

Note: The estimated no. of alcohol-attributable injuries uses abstainers as the reference group & 2007 drinking prevalence.

7.5. Diabetes

At a glance

- An estimated 3.8% of the ACT population had diabetes (type 1 or type 2) in 2011-12 (Australia: 3.7%).
- Projections indicate that by 2020 there will be between 15,000 and 22,000 people with diabetes in the ACT, an increase of approximately 50% from 2005 estimates. For type 2 diabetes, this increase is likely to be driven by rising obesity, the ageing population, dietary changes and sedentary lifestyles.
- In 2012, there were 56 deaths of ACT residents where diabetes was recorded as the underlying cause (16.0 deaths per 100,000 population), similar to previous years.
- Diabetes is a contributing factor in a number of deaths, particularly where the underlying cause is reported as cardiovascular or renal disease.

Diabetes is a progressive chronic disease that contributes to significant illness, disability and premature mortality. It contributes approximately 4% of the total disease burden in the ACT.[26]

7.5.1. Morbidity

In 2011-12, the Australian Health Survey[17] results showed that the proportion of people with diabetes (type 1 and type 2 inclusively) in the ACT (3.8%) was similar to the national figure (3.7%).

The ACT Health Kindergarten Health Check Program, found that on average, 0.1% of children in each year's cohort in the eight years 2005-12, were reported by their parents as having diabetes. There has been no increase for the six years 2005-10.

Projections indicate that by 2020, there will be between 15,000 and 22,000 people with diabetes in the ACT, an increase of approximately 50% from 2005 estimates (Table 15). For type 2 diabetes, this increase is likely to be driven by rising obesity, the ageing population, dietary changes, and sedentary lifestyles.[53] Obesity is a major contributor to type 2 diabetes, with estimates showing that eliminating obesity from a population can potentially reduce the incidence of type 2 diabetes by over 40%. Therefore, prevention initiatives aimed at reducing the prevalence of diabetes risk factors present an important opportunity to reduce future prevalence of the disease.

Table 15: Diabetes prevalence, estimates & projections, persons, ACT, 2005-20

	2005	2010	2015	2020
High estimate	15,482	17,433	19,650	22,286
Medium estimate	12,827	14,460	16,336	18,494
Low estimate	10,172	11,486	13,022	14,701

Source: ACT Health, 2008, *Diabetes Services Strategic Plan 2008-2012*

Note: Projections are based on extrapolations from age-specific rates, derived from the National Health Survey series & the AusDiab study. National rates have been applied to the ACT population.

Gestational diabetes

Gestational diabetes occurs during pregnancy and is a health risk for both mother and the developing foetus. Although gestational diabetes usually abates following birth, both mother and baby remain at an increased risk of developing type 2 diabetes later in life. The proportion of ACT resident women who gave birth in the Territory with a diagnosis of gestational diabetes has remained stable over the last five years, varying from 4.9% (234 women) in 2009 to 5.6% (268 women) in 2011.

In 2010 the International Association of Diabetes and Pregnancy Study Groups recommended that new gestational diagnostic criteria be based on a single diagnostic procedure and a lower cut-off for an abnormal fasting glucose level. These changes in the diagnostic criteria are expected to increase the incidence of gestational diabetes.

Diabetes management

Questions regarding diabetes were not asked in the 2011 or 2012 ACTGHS, but were reinstated in the 2013 survey.

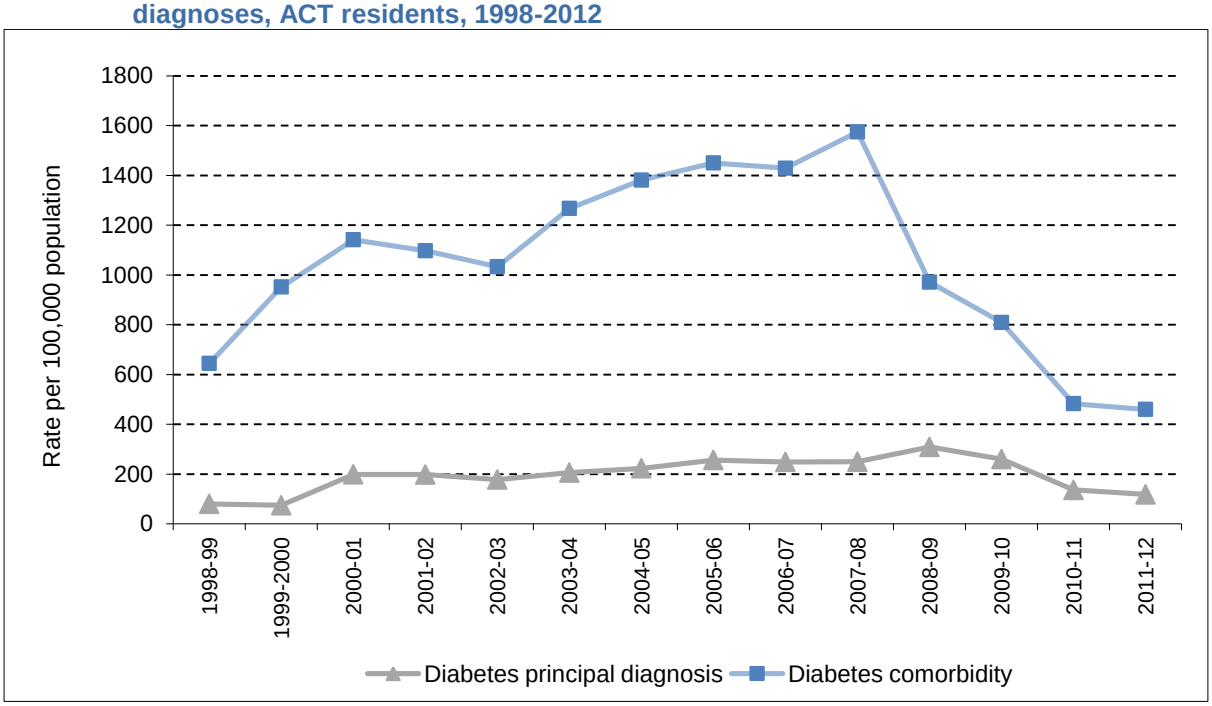
The latest results from the ACTGHS (2009-10) show that, of persons reporting to have diabetes:

- 59.4% also reported being on a special diet, 33.2% reported exercising on most days, 23.3% reported having injections and 58.7% were on oral medication.
- only 6.4% reported losing weight, despite 73.1% being overweight or obese.

As diabetes is a chronic progressive disease, the disease burden is reflected in service utilisation information. The ACT hospital separation rate for ACT residents where the primary diagnosis on the hospital record was diabetes has remained relatively constant since 2000-01. Separation rates for other conditions where there is a secondary diagnosis of diabetes, increased gradually over time until 2008, and decreased notably since that time (Figure 26). The decrease was due to a change in coding practices (from 2008, diabetes was recorded as a comorbidity only if treatment was given for diabetic symptoms at the time of hospitalisation) and this change in practice is being monitored.

In 2011-12, of those separations with a principal diagnosis of diabetes, the most common secondary diagnosis (co-morbidity) was circulatory system disorders (14%), followed by endocrine disorders (13%), respiratory disorders (8%), musculoskeletal conditions (8%), digestive system disorders (5%) and cancer (5%).

Figure 26: Diabetes hospital separations, age-standardised rates, by principal & secondary diagnoses, ACT residents, 1998-2012



Source: ACT Health, Admitted Patient Care Collection, confidentialised unit record file, 1998-2012

Note: Decrease in comorbidity from 2007-08 was due to a change in coding practices.

7.5.2. Mortality

In 2012, there were 56 deaths of ACT residents where diabetes was recorded as the underlying cause (16.0 deaths per 100,000 population). There have been no major changes in the age-standardised death rate from diabetes since 1980. However, diabetes is a contributing factor in a number of deaths, particularly where the underlying cause is reported as cardiovascular or renal disease.[30]

7.6. Asthma

At a glance

- An estimated 10.2% of the ACT population had current asthma in 2011-12.
- There was a decline in the number of hospital separations with a principal diagnosis of asthma between 2001-02 and 2011-12 at a rate of 0.8% per annum.
- There has been an ongoing decline in the asthma mortality rate over the last two decades in both the ACT and Australia. There were fewer than five deaths due to asthma in the ACT in 2012.

Australia has one of the highest prevalence rates of asthma in the world, with approximately 40% of all Australians having respiratory symptoms consistent with asthma at some time in their lives. Asthma accounts for approximately 3% of the total burden of disease in the ACT compared to 2.4% nationally. In 2003, it was the leading specific cause of disease burden in children under 15 years.[26]

7.6.1. Morbidity

In 2011-12, the Australian Health Survey results estimated that 36,300 (10.2%) of ACT residents had current asthma.[17] This is a decrease from the 2001 survey (12.4%), but similar to the 2004-5 survey.

There was little difference in the prevalence of asthma between population groups. People aged 65 years and above had a slightly lower prevalence (9.4%) compared to other age groups (0-24 years: 10%; 25-44 years: 10.3%; 45-64 years: 10.4%). However, females (11.2%) had higher prevalence rates than males (9.0%).[17]

The ACT Health Kindergarten Health Check Program found that on average 11.1% of children in each year's cohort in the eight years 2005-12, were reported by their parents as having asthma.

Results from the 2009-10 ACT General Health Survey (ACTGHS) showed that:

- 43.0% of people with asthma were sedentary or had low exercise levels.
- 59.4% of asthmatics were overweight or obese at the time of survey.
- 8.2% of adults (18 years or over) were current smokers.
- 14.5% of adults with asthma reported that this condition interfered with their daily living.

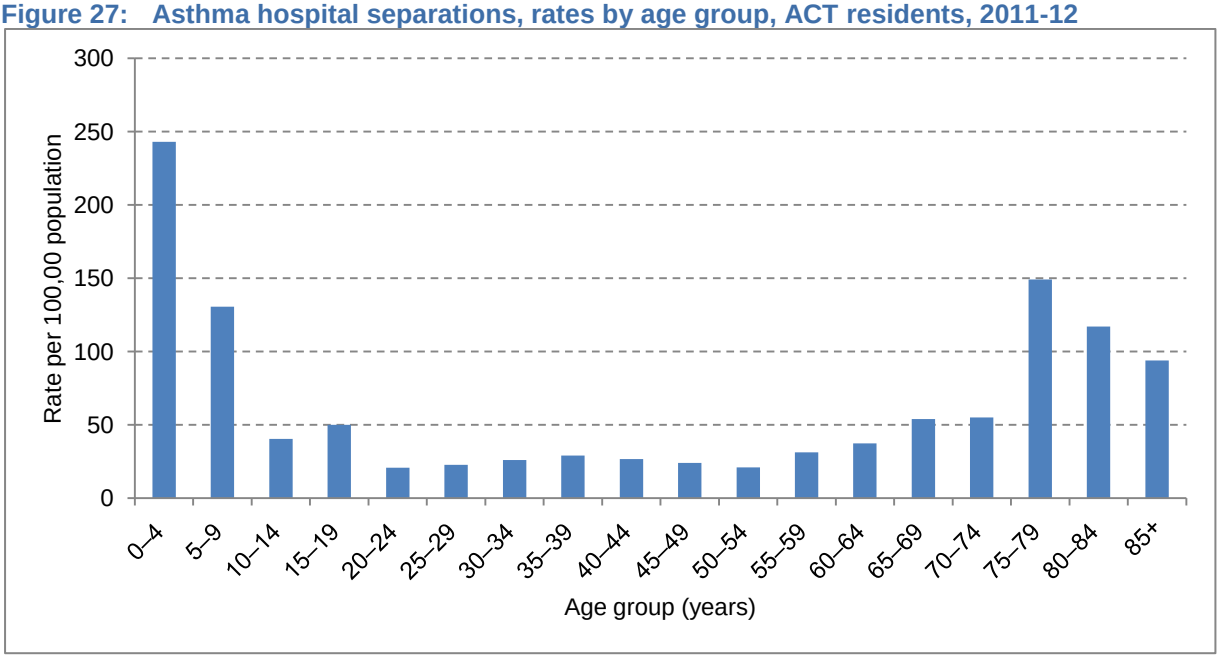
(Note: Questions regarding asthma were not asked in the 2011 or 2012 ACTGHS, but were re-instated in the 2013 survey.)

Regular review by a general practitioner and the use of a written asthma management plan are effective in preventing hospital admissions and attendance at emergency departments for asthmatic episodes. Results from the 2009-10 ACTGHS indicate that around 32.1% of people with asthma in the ACT had a written asthma plan.[45]

Hospitalisation data show a decline in the number of separations with a principal diagnosis of asthma between 2001-02 and 2011-12 at the rate of 0.8% per annum. This decrease may reflect the continuing improvement of asthma management in the community. In 2011-12, asthma separations for ACT residents accounted for 0.4% of all hospitalisations in the ACT.

Hospital separation rates are not evenly distributed across the population. Serious asthma morbidity is more common among young children and older people. The highest rate in 2011-12 was for infants and very young children (0-4 years), accounting for 29.0% of all asthma separations from ACT hospitals by ACT residents. Older people (60 years and over) accounted for 19.6% (Figure 27).

Figure 27: Asthma hospital separations, rates by age group, ACT residents, 2011-12



Source: ACT Health, Admitted Patient Care Data Collection, confidentialised unit record file, 2011-12

7.6.2. Mortality

There has been an ongoing decline in the asthma mortality rate over the last two decades in both the ACT and Australia. ACT rates have fluctuated due to the low number of cases. There were fewer than five deaths due to asthma in 2012.[9]

7.7. Immunisation

At a glance

- The ACT maintained or increased childhood immunisation coverage rates for all age groups and consistently remained above the national immunisation coverage rates during the reporting period.

Immunisation is the main primary-prevention strategy for the control of communicable diseases. Immunisation protects individuals from infectious diseases for which they are vaccinated. In addition, high numbers of vaccinated people in the community can also reduce the spread of disease, slowing or preventing transmission to others. The *ACT Immunisation Strategy 2007-2010* was reviewed in 2010 in preparation for the development of a new strategy. The Strategy consisted of five key objectives, with each objective comprising a range of activities. The review identified that all current activities in the strategy should continue, as some major achievements were made during the life of the strategy.

Some of the key achievements of the Strategy were:

- the ACT's childhood immunisation rates being consistently above the national average and often the highest, or among the highest, of all states and territories in Australia
- implementation of the Human Papilloma Virus (HPV) vaccination program, the Rotavirus vaccination program, the H1N1 Panvax vaccination program and the seasonal influenza vaccine new at-risk cohort program in the ACT
- placement of Aboriginal and Torres Strait Islander identification on the ACT Childhood Immunisation Record
- development of a health care worker screening and immunisation policy
- drafting of detailed cold chain policies/procedures for internal use by ACT Health staff
- increasing the provision of immunisation through general practice. In June 2010 general practices were administering 57% of childhood vaccine compared to 35% in January 2005
- a professional development program for immunisation providers
- production and development of promotional materials
- implementation of outbreak control measures for pandemic influenza.

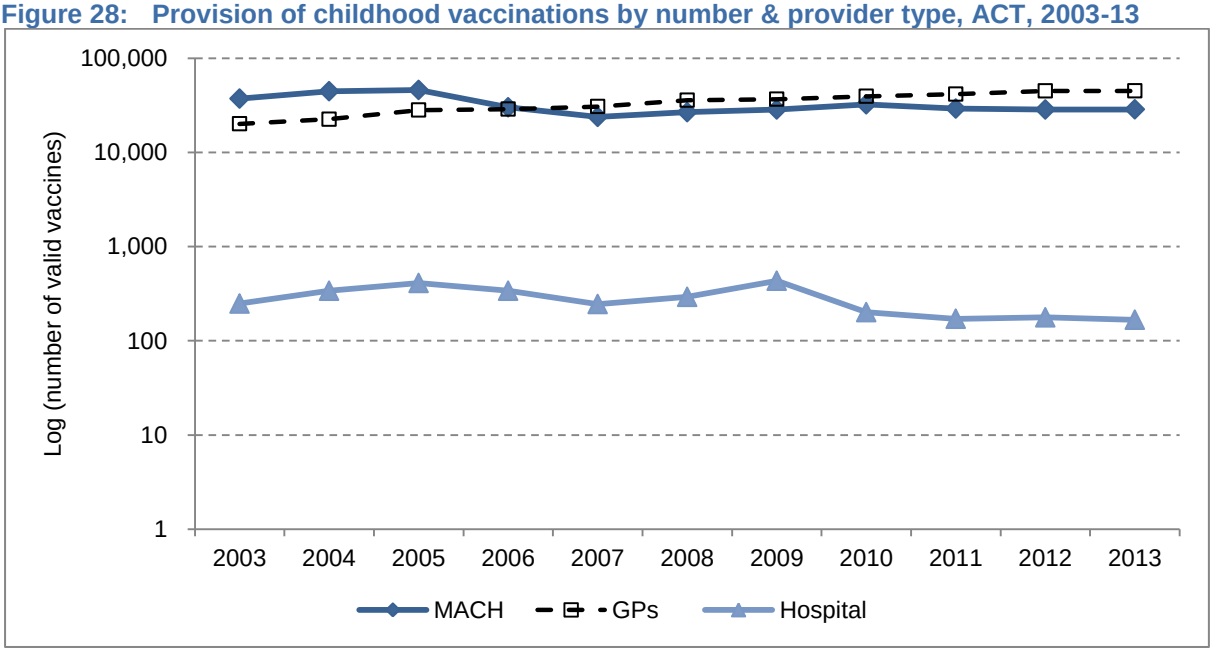
Childhood immunisation

Effective immunisation programs are essential in protecting the community from diseases that can have major and life-threatening impacts on a large scale.[54] The emphasis in immunisation delivery has changed from predominantly Maternal and Child Health (MACH) Service immunisation clinics to general practice. There has been an increasing trend for vaccinations to be provided by GPs (Figure 28). MACH nurses continue to play an important role in the provision of immunisation services across the ACT, providing up to 45% of immunisation to children under seven years of age. MACH has a greater emphasis on services that support children from vulnerable families and children with health development and behavioural difficulties.

The ACT maintained or increased childhood immunisation coverage rates for all age groups and consistently remained above the national immunisation coverage rates during 2010-12 (Table 16).[55]

The average rate of immunisation coverage for Aboriginal and Torres Strait Islander children from 1 July 2010 to 30 June 2012 was 84.7% for children at 12-15 months, 94.8% at 24-27 months and 89.0% at 60-63 months. The very low numbers of Aboriginal and Torres Strait Islander children in the ACT means that coverage data for this group should be interpreted with caution. Coverage rate fluctuations occur between cohorts and between reporting periods. The Health Protection Service (HPS) has actively pursued different strategies to increase immunisation rates for Aboriginal and Torres Strait Islander children, including phone contact with parents of children identified as overdue for immunisations, liaising with Winnunga Nimmityjah Aboriginal Health Service and investigating immunisation promotion opportunities with the Aboriginal and Torres Strait Islander community.

Figure 28: Provision of childhood vaccinations by number & provider type, ACT, 2003-13



Source: Australian Childhood Immunisation Register Statistics, 2003-13

Table 16: Immunisation coverage in children, %, ACT & Australia, 2004-12

	2004	2005	2006	2007	2008	2009	2010	2011	2012
12-15 months									
ACT	92.5	93.9	91.4	93.4	93.6	94.0	93.2	93.3	92.8
Australia	91.1	90.9	90.7	91.2	91.2	91.7	91.5	91.5	91.7
24-27 months									
ACT	90.8	93.6	93.4	93.0	95.0	93.7	94.0	93.4	93.2
Australia	91.8	91.9	92.3	92.5	92.7	92.3	92.3	92.3	92.6
72-75 months									
ACT	85.0	89.1	86.8	89.0	na	na	na	na	na
Australia	83.5	83.6	85.2	88.0	na	na	na	na	na
60-63 months									
ACT	na	na	na	na	86.2	85.4	89.4	91.4	91.7
Australia	na	na	na	na	79.4	82.0	88.0	89.5	90.8

Source: Australian Childhood Immunisation Register Statistics, 2004-12

Notes: (a) The figures quoted are averages of quarterly figures.
(b) In 2008 the assessment age for cohort three was reduced from 72-75 months to 60-63 months.
(c) na = not available.

School-based immunisation program

The school-based immunisation program continued to offer vaccines to high school students. All students in year 7 were offered vaccination against hepatitis B and varicella (chickenpox) and year 7 girls were offered Human Papilloma Virus vaccination. The booster dose of diphtheria, tetanus and pertussis vaccination was offered to students in year 9.

Influenza

Influenza vaccine funded under the National Immunisation Program is available for all people 65 years and older, Aboriginal and Torres Strait Islander people over 15 years of age, pregnant women and people from six months of age with underlying medical conditions which predispose them to the risk of complications from influenza. The number of seasonal influenza vaccines distributed has increased annually. In 2011, 40,030 doses were distributed, increasing to 43,917 doses in 2012.

In April 2010, following reports of increased adverse reactions in children who had received the 2010 seasonal influenza vaccine, the influenza vaccination program for children under five years was temporarily suspended nationally. Following extensive investigations, it was found that the increased adverse reactions were associated with FLuvax®, a particular brand of influenza vaccine. The program recommenced in July 2010 with the use of other brands of influenza vaccines. FLuvax® influenza vaccine that caused fevers and febrile convulsions in children is no longer registered for children less than five years of age and is not recommended for children under 10 years. Immunisation providers have been informed of the changes and recommendations.

For information regarding influenza, refer Section 7.8 following.

7.8. Notifiable communicable disease

At a glance

- During the 2011 and 2012 calendar years, there were 7,773 reports of notifiable conditions, a slight increase on previous years.
- The most commonly notified infectious disease was chlamydia (33% of all notifications), followed by pertussis (16%), campylobacter (13%), influenza (12%), and salmonella (5%).
- Salmonella notifications in 2012 represented the largest ever count of cases reported for a single year in the ACT, representing an increase of 47% on 2011 notifications.
- Notifications of gonococcal infections increased in the ACT in 2011 and 2012 from preceding years, consistent with the national trend. However, ACT notification rates (35.6 and 24.6 per 100,000 population in 2011 and 2012 respectively) were still below the national rates (54.2 and 59.7 in 2011 and 2012 respectively). During 2011 and 2012, 89% of notifications were in males. In 2011, 59% of all cases reported having sexual exposure from a same-sex partner, compared with 73% of all cases in 2012.
- Although there was an increase in influenza notifications in the ACT in 2012, there were still significantly fewer notifications than in 2009 during the global pandemic of H1N1 Influenza.
- There were 11 notifications of HIV infections in the ACT in 2011 and 17 in 2012. This is a significant increase compared to the number of cases diagnosed over the previous five years (average of 10.8 cases per year in 2007-11).

In the ACT, there are a number of conditions that are notifiable to the Chief Health Officer (CHO) under the *Public Health Act 1997*. Notifiable conditions are communicable diseases or medical conditions determined by the minister or declared by the CHO. Cancer is a notifiable condition and is detailed separately at Section 7.2

Reporting to the CHO, the HPS within the Population Health Division of ACT Health receives and analyses notifications of all notifiable communicable diseases in the ACT. HPS assesses notifications in line with national guidelines and implements a timely and appropriate public health response. These responses may include recommending issuing public health advice, immunisation and/or treatment of contacts to prevent the further spread of disease. HPS also manages outbreaks of communicable diseases.

Through participating in national committees, HPS liaises with the federal government and other state and territory health departments to monitor disease patterns and outbreaks and to develop and implement national communicable disease control strategies.

7.8.1. Status and trends

Notifications of communicable diseases are generally an underestimate of the number of cases that actually occur in the community. However, they provide valuable information on disease patterns.

During the 2011 and 2012 calendar years, 7,773 reports of notifiable conditions were made to the HPS. This is a slight increase on previous years (7,528 in 2009-10 and 5,115 in 2008-09).

The most commonly notified infectious disease was chlamydia (33% of all notifications), followed by pertussis (16%), campylobacter (13%), influenza (12%), and salmonella (5%).

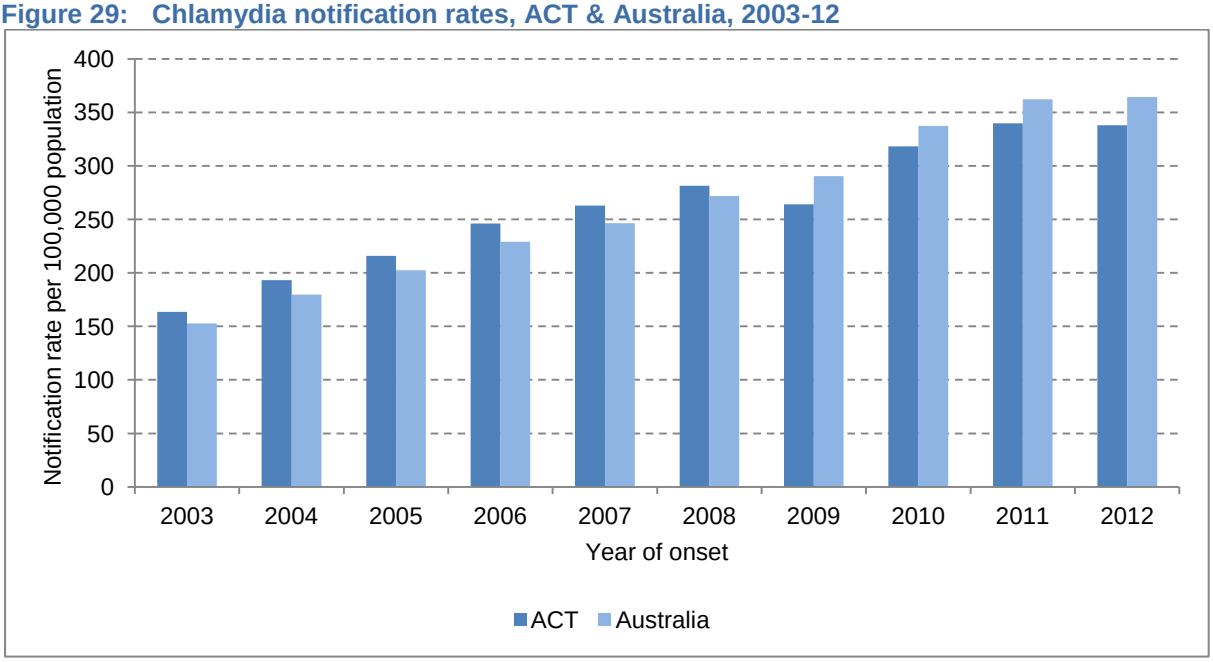
During 2011 and 2012, HPS led the management of outbreaks of gastroenteritis in child care facilities, outbreaks of gastroenteritis and respiratory illness in residential care facilities, gastroenteritis outbreaks associated with restaurants and a measles outbreak.

7.8.2. Sexually transmitted infections (STIs)

Chlamydia

Chlamydia was the most commonly notified communicable disease in the ACT in 2011 and 2012, representing 33% of all communicable disease notifications during this time. There were 1,283 notifications of chlamydia in 2012, a 1.7% increase compared with the 1,261 cases notified in 2011 and consistent with the continued upward trend in notifications nationally. (refer Section 5.2 for further information.)

Figure 29: Chlamydia notification rates, ACT & Australia, 2003-12



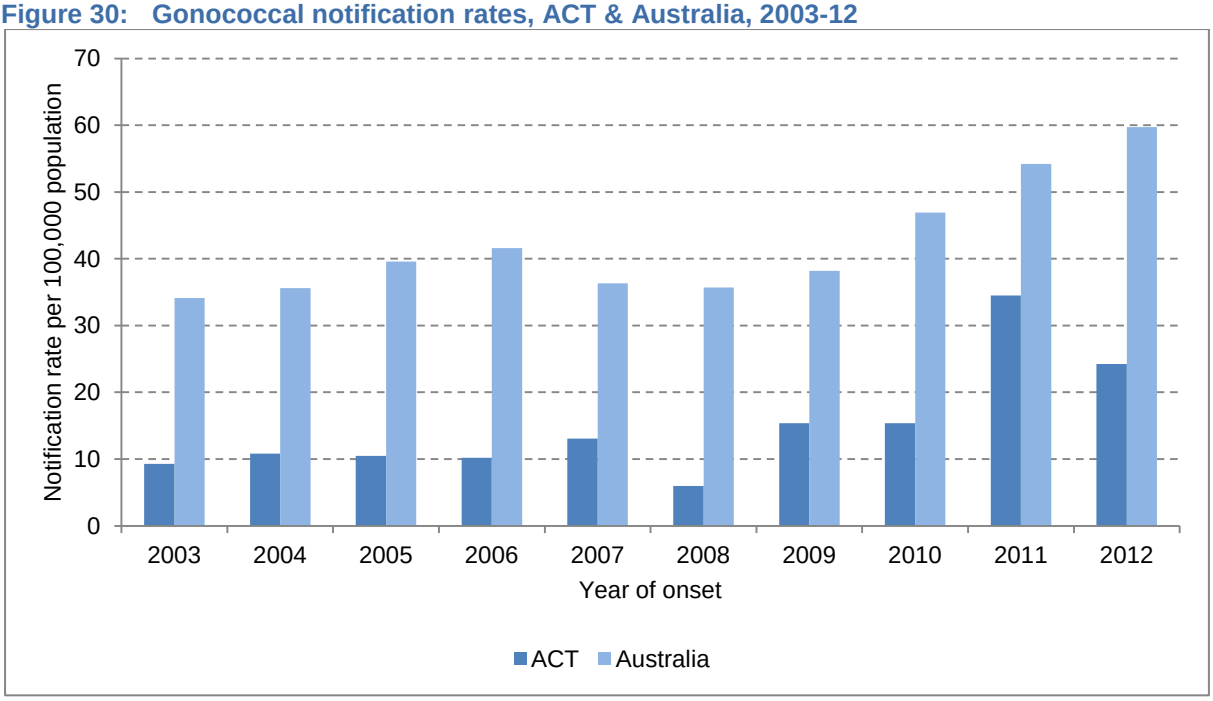
Source: National Notifiable Diseases Surveillance System (DoH), ACT Notifiable Diseases Surveillance System

Gonorrhoea

Notifications of gonococcal infections increased in the ACT in 2011 and 2012 compared to preceding years, consistent with the national trend, which has seen increases from 2008 onwards. However the rates of notifications in the ACT (35.6 and 24.6 per 100,000 population in 2011 and 2012 respectively) were still below the national average (54.2 and 59.7 in 2011 and 2012 respectively).

Nationally, the incidence of gonococcal infections has increased steadily in men who have sex with men between 2001 and 2011.[56] This is consistent with trends observed in the ACT, a trend which has continued into 2012. During 2011 and 2012, 89% of notifications were in males. In 2011, 59% of all cases were in men who have sex with men, compared to 73% of all cases in 2012. The median age of cases notified as having gonococcal infection cases was 27 years for men and 26 years for females. (refer Section 5.2 for more information.)

Figure 30: Gonococcal notification rates, ACT & Australia, 2003-12



Source: National Notifiable Diseases Surveillance System (DoH), ACT Notifiable Diseases Surveillance System

HIV

An increase in new HIV diagnoses was noted in the ACT in 2012, with 17 cases reported in 2012 compared to 11 cases in 2011. This is a significant increase compared to the number of cases diagnosed over the previous five years, which averaged 11 cases per year (2007-11). While the exact cause of this increase is unknown, it is possible that an increase in new diagnoses of HIV infections in ACT residents or an increase in testing in at-risk populations has contributed.

Nationally there was a 10% increase in the number of new diagnoses observed from 2011 to 2012. Numbers of newly diagnosed HIV infections have steadily increased annually over the past 13 years, with only 724 cases in Australia in 1999 compared to 1,253 cases in 2012.[56]

When HIV cases are newly diagnosed, it can be difficult to ascertain when infection was acquired without evidence of a previous negative HIV test. In 2011 in the ACT, only 27% (n = 3) had laboratory evidence of a recent (<12 months) negative test for HIV, indicating their infection was acquired in the 12 months prior to diagnosis. In 2012, 53% (n=9) had laboratory evidence of recent (<12 months) acquisition of HIV. Nationally, the proportion of new HIV diagnoses where the infection has been acquired in the preceding 12 months has gradually increased, from 26% in 2007 to 32% in 2012.[56]

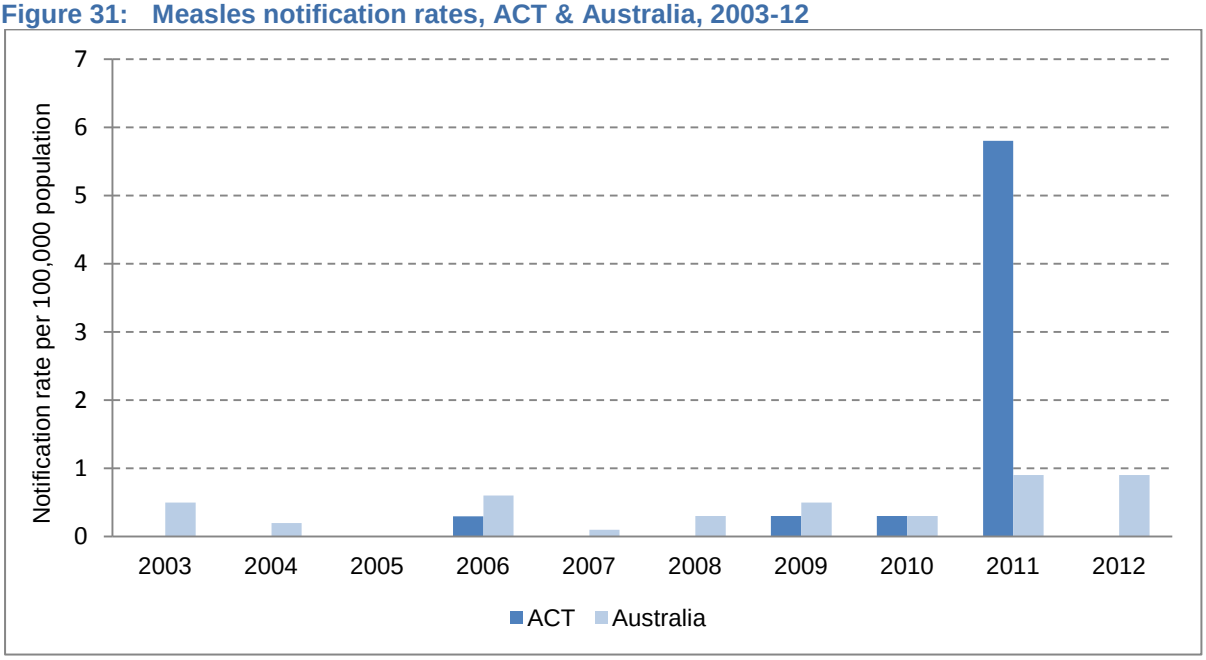
(Refer Section 5.2 for more information.)

7.8.3. Other notifiable diseases

Measles

In 2011, 21 cases of measles were reported in the ACT, 13 of which were attributed to an outbreak linked to an ACT school with low immunisation rates. The source of the outbreak was suspected to be an unvaccinated child who had travelled overseas to an area with a known outbreak. The other six cases included two siblings who had acquired their infections overseas, three siblings from the same family, and three community cases with no identified links to other measles cases. No cases of measles were reported in 2012.

Figure 31: Measles notification rates, ACT & Australia, 2003-12



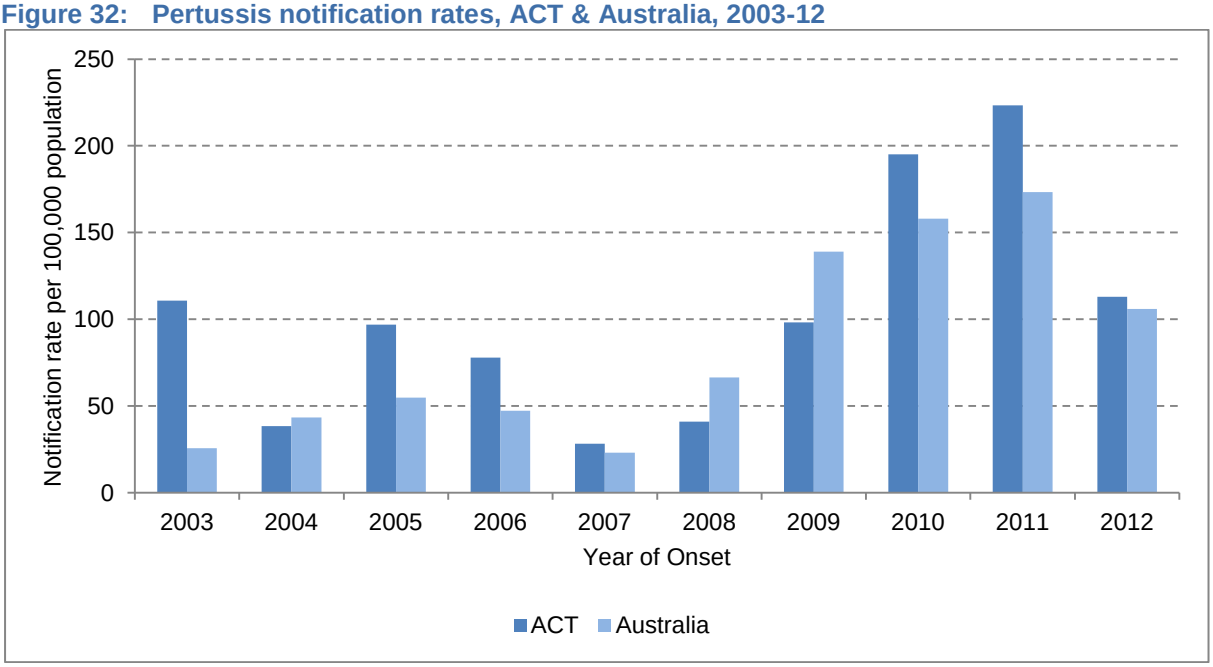
Source: National Notifiable Diseases Surveillance System (DoH), ACT Notifiable Diseases Surveillance System

Pertussis

Pertussis (whooping cough) is one of the most commonly notified vaccine-preventable diseases both in the ACT and in Australia, with national epidemics occurring approximately every three to four years. The ACT experienced increasing levels of pertussis activity beginning in 2009, coinciding with the large nation-wide epidemic. Notification rates in the ACT peaked in 2011 at 231 per 100,000 population (n=829). In 2012 there were 429 notifications of pertussis, a 48% decrease compared with 2011.

The ACT Targeted Adult Pertussis Vaccination Program was implemented in response to the increase in pertussis notifications. Between April 2009 and December 2011 the program offered free pertussis vaccine to parents of babies less than 12 months of age and grandparents who had regular contact with them.

Figure 32: Pertussis notification rates, ACT & Australia, 2003-12



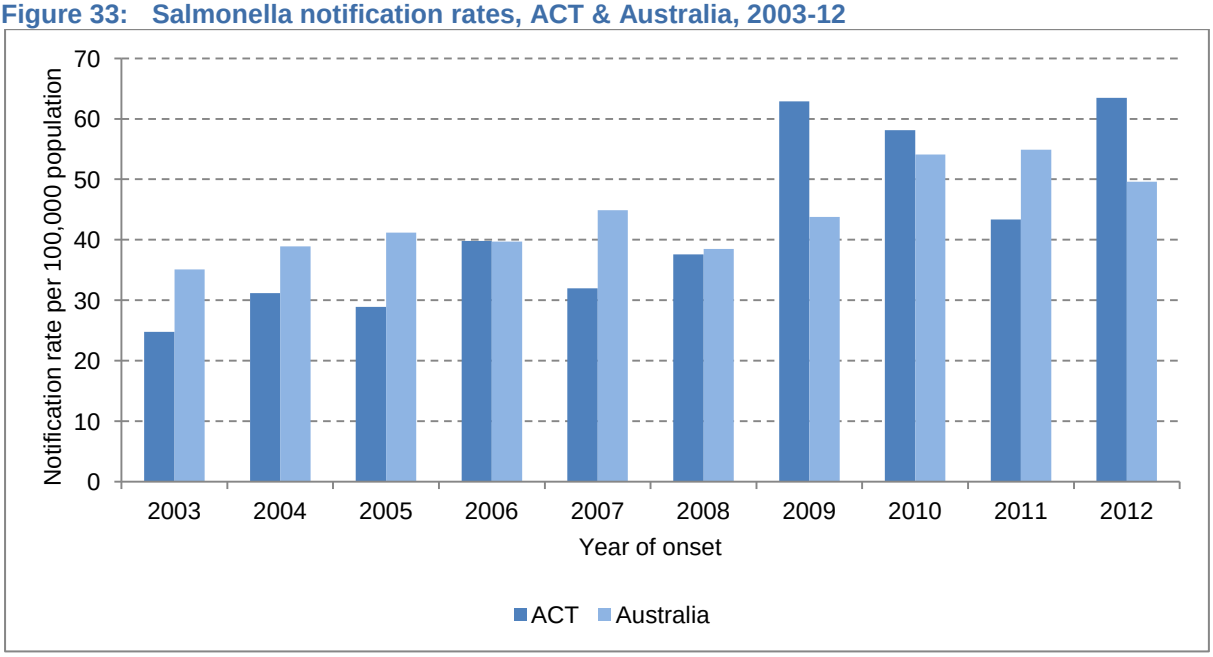
Source: National Notifiable Diseases Surveillance System (DoH), ACT Notifiable Diseases Surveillance System

Salmonella

Salmonella notifications in 2012 represented the largest ever count of cases reported for a single year in the ACT. There were 233 notifications in 2012, an increase of 47% when compared to 2011, and a 42% increase above the expected five-year mean for 2007-11.

A number of months had higher than expected notifications during 2012, especially the period from January through to May. During this period a number of foodborne salmonella outbreaks were detected, while a larger than expected spike in case numbers was also observed during December. Increases in notifications are not unexpected at these times, reflecting both the seasonality associated with salmonellosis in Australia and its potential as an outbreak agent. During 2011 and 2012 there were eight outbreaks of foodborne salmonellosis in the ACT. These events affected 125 persons, with 17 associated hospitalisations. Five of these outbreaks saw eggs identified as the probable food vehicle.

Figure 33: Salmonella notification rates, ACT & Australia, 2003-12

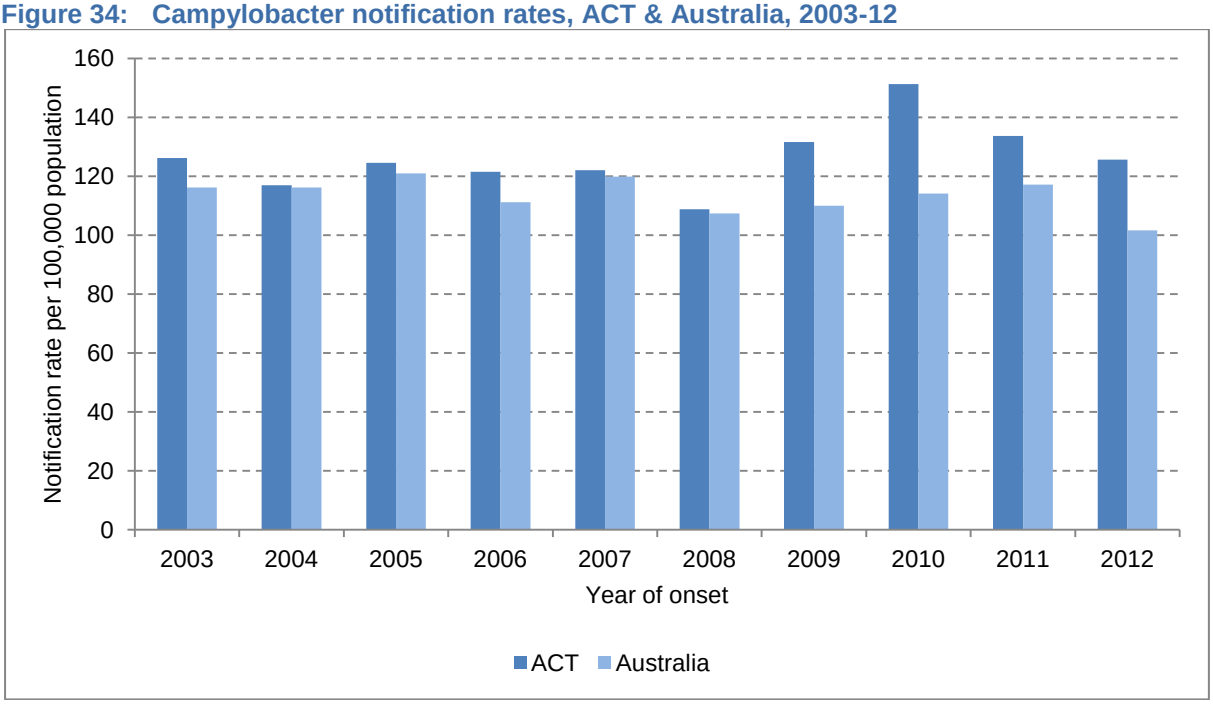


Source: National Notifiable Diseases Surveillance System (DoH), ACT Notifiable Diseases Surveillance System

Campylobacter

Campylobacter infections were the third most commonly notified infection in the ACT in 2011-12. This finding was consistent with trends observed in 2009-10. During 2009 and 2010, an ongoing increase in the rate of campylobacter notifications occurred, due in part to identification and correction of a laboratory under-reporting issue involving a large NSW-based pathology provider. Outbreaks caused by campylobacter occur less frequently than salmonella outbreaks, with the vast majority of cases being regarded as sporadic infections.

Figure 34: Campylobacter notification rates, ACT & Australia, 2003-12

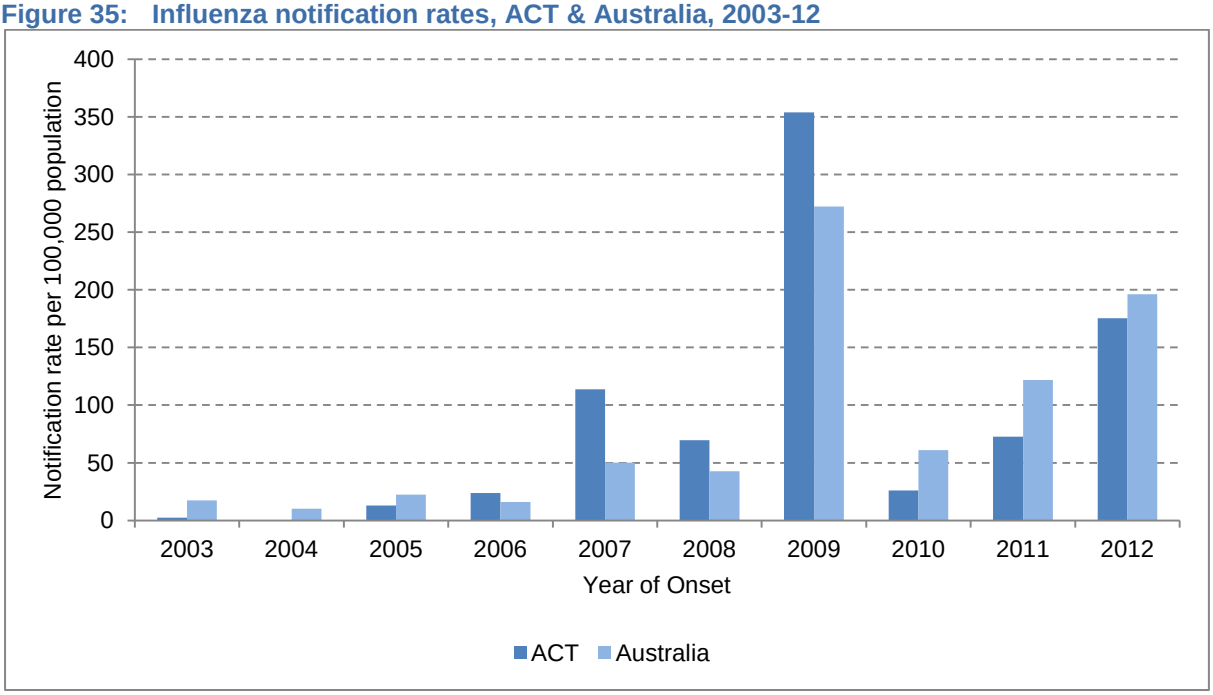


Source: National Notifiable Diseases Surveillance System (DoH), ACT Notifiable Diseases Surveillance System

Influenza

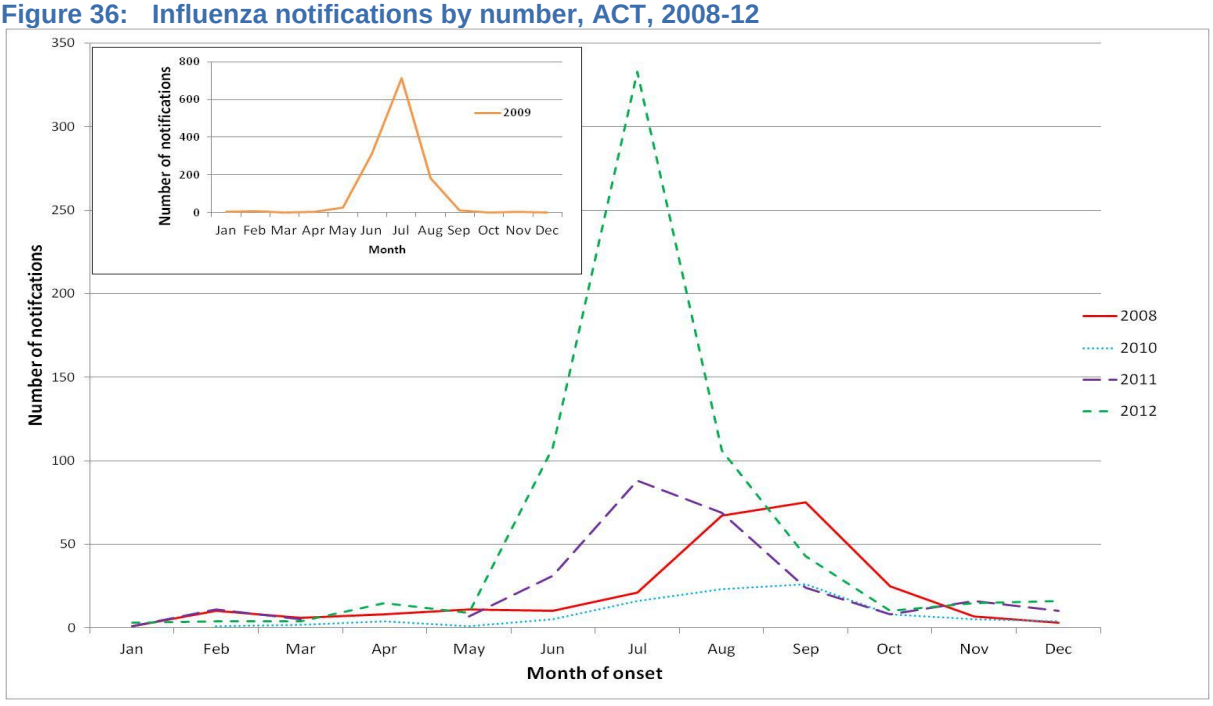
Influenza notifications peaked in July in both 2011 and 2012. This is consistent with the expected seasonal pattern of influenza, with epidemics seen in the winter months. There were 270 notifications of laboratory-confirmed influenza in 2011 and 666 notifications in 2012. In both years, 80% (217 in 2011 and 532 in 2012) of notifications were Influenza A. Although there was an increase in influenza notifications in the ACT in 2012, there were still significantly fewer notifications than in 2009 during the global pandemic of H1N1 Influenza, when 1,266 notifications were received.

Figure 35: Influenza notification rates, ACT & Australia, 2003-12



Source: National Notifiable Diseases Surveillance System (DoH), ACT Notifiable Diseases Surveillance System

Figure 36: Influenza notifications by number, ACT, 2008-12



Source: ACT Notifiable Diseases Surveillance System, 2008-12

7.9. Maternal and child health

At a glance

- The number of women giving birth in the ACT decreased by 3% between 2009 and 2011.
- In 2011, 5,584 women gave birth to 5,702 babies. 15% of the women who gave birth in the ACT were non-ACT residents, many of whom access specialist obstetric services in the ACT for high-risk and multi-fetal pregnancies.
- The ACT was significantly less likely to have teenagers giving birth during 2011 than nationally.
- With the exception of Aboriginal and Torres Strait Islander women, the percentage of women who smoked tobacco during pregnancy was significantly lower in the ACT than nationally.
- The ACT proportion of low-birthweight babies was significantly higher in 2011 than 2009, and was no longer significantly lower than nationally.
- There was a significant increase in the percentage of women giving birth in public hospitals between 2009 and 2011.
- The ACT had a higher proportion of infants that were exclusively breastfed than their national counterparts in all months for the first 6 months of life.
- There were 11,295 and 11,559 ACT hospital separations for ACT resident children aged 0-14 years during the 2010-11 and 2011-12 financial years. Excluding live births and conditions arising in the perinatal period, which accounted for approximately half of hospital separations for this age group, the leading causes of hospitalisation were respiratory disorders (11.3%), digestive system disorders (7.5%) and injuries and poisonings (7.4%).
- Over the two-year period 2010 and 2011, there were 45 deaths of children aged 14 years or under. The majority of these (75.6%) were for infants aged less than one year.
- The 2012 infant mortality rate for the ACT was 2.9 deaths per 1,000 live births, slightly lower than the Australian rate of 3.3 deaths per 1,000 live births.

The number of women giving birth in the ACT decreased by 3% between 2009 and 2011 (Table 17). In 2011, 5,584 women gave birth to 5,702 babies. 15% of the women who gave birth in the ACT were non-ACT residents. Around 98% of these women were from the surrounding regions of NSW, many of them accessing specialist obstetric services in the ACT for high-risk and multi-fetal pregnancies.

Table 17: Women who gave birth by maternal state of residence, ACT, 2007-11

	2007	2008	2009	2010	2011
Number of women who gave birth	**5,420**	**5,589**	**5,738**	**5,826**	**5,584**
ACT residents	4,547	4,713	4,823	4,899	4,769
Non-ACT residents	873	876	915	927	815
Number of babies born	**5,536**	**5,705**	**5,853**	**5,946**	**5,702**
to ACT residents	4,624	4,794	4,895	4,978	4,855
to non-ACT residents	912	911	958	968	847

Source: ACT Maternal & Perinatal Data Collection, 2007-11
Note: Refer expanded Table 38.

7.9.1. Key maternal and perinatal indicators, ACT and Australia

Summary perinatal health information for the ACT and Australia for 2011, is presented in Table 18.

Key points for the ACT include:

- The ACT was significantly less likely to have teenagers giving birth during 2011 than nationally.
- The percentage of women who smoked tobacco during pregnancy was significantly lower in the ACT than nationally.

- However, the percentage of ACT Aboriginal and Torres Strait Islander women who reported smoking during pregnancy was six times higher (55.9%) than the overall ACT percentage.
- While the proportion of first time ACT mothers aged 35 years and over was significantly higher than Australia in 2009, the difference in 2011 was no longer significant.
- In past years the proportion of ACT mothers who gave birth in public hospitals was significantly lower than that for Australia, but this is no longer the case. There was a significant increase in the percentage of women giving birth in public hospitals between 2009 and 2011.
- Women were significantly more likely to have a spontaneous onset of labour and/or an instrumental birth in the ACT than nationally. In 2011 they were no longer significantly less likely to have a caesarean section.
- The ACT proportion of low-birthweight babies was significantly higher in 2011 than 2009, and was no longer significantly lower than that for Australia as a whole.

The ACT perinatal (20 weeks gestation to 28 days after birth) death rate was low and similar to the national rate.[57]

Table 18: Selected maternal & perinatal summary indicators, 2009-11, ACT & Australia

	ACT		Australia	
	2009	2011	2009	2011
Maternal age				
Percentage of mothers who were teenagers (less than 20 years)	2.4	2.2	4.0*	3.7*
Percentage of first-time mothers aged 35 years and over	15.6	15.4	13.7*	14.2
Aboriginal status				
Percentage of women who identified as Aboriginal or Torres Strait Islander	1.4	1.6	3.8*	3.9*
Smoking				
Percentage of women smoking during pregnancy	10.6	9.3	14.5*	13.2*
Percentage of ATSI women smoking during pregnancy (a)	52.4	55.9	na	na
Mothers country of birth				
Percentage of women born in Australia	76.4	71.1	72.8*	70.4
Hospital sector				
Percentage of women who gave birth in public hospitals (b)	64.1	70.1	69.9*	71.0
Multiple pregnancy				
Percentage of women who had a multiple pregnancy	1.5	1.8	1.6	1.5
Onset of labour				
Percentage of women who had a spontaneous onset of labour	64.5	60.9	56.1*	54.8*
Induction of labour				
Percentage of women who had an induced onset of labour	20.1	21.9	25.3*	26.0*
Instrumental vaginal birth				
Percentage of women who had an instrumental (forceps or vacuum extraction) birth (a)	12.9	13.7	11.7*	12.1*
Caesarean section				
Percentage of women who had a caesarean section (c)	26.9	32.1	31.5*	32.3
Maternal postnatal stay				
Median length of hospital stay (days) for women who were discharged home	3.0	3.0	3.0	3.0
Preterm birth				
Percentage of all births that were less than 37 weeks gestation	6.9	7.6	8.2*	8.3
Low birthweight				
Percentage of liveborn babies weighing less than 2,500 grams at birth	5.0	6.5	6.2*	6.3
Apgar scores				
Percentage of liveborn babies with an Apgar score of less than 7 at 5 minutes	1.7	2.2	1.5	1.6*

Sources: ACT Maternal & Perinatal Data Collection, 2009 & 2011
AIHW, *Australia's Mothers and Babies, 2011*, AIHW, 2013

Notes: (a) Aboriginal & Torres Strait Islander women smoking during pregnancy are calculated using three years of data.
(b) Percentage calculated excluding births occurring in the birth centre or any other non-hospital location.
(c) For multiple births, the method of birth of the first born baby was used.
* Significantly different at p<0.05.
na not available.

7.9.2. Breastfeeding

The results of the 2010 Australian National Infant Feeding Survey (ANIFS) (refer Section 13 for details) are provided below, with both ACT and Australian comparisons. Due to the different methodologies used, these results are not comparable to the data collected from the ACT Maternal and Child Health Program.

Exclusive breastfeeding

The ANIFS shows that the ACT has a higher proportion of infants that were exclusively breastfed than their Australian counterparts in all months for the first 6 months of life (Table 19).

Table 19: Duration of exclusive breastfeeding (to each month of age), Australia & ACT, 2010

	ACT	Australia
Month [(a)]	%	%
1 month	68.9	61.4
2 months	65.6	55.8
3 months	58.3	48.0
4 months	50.7	39.2
5 months	39.5	27.0
6 months	17.8	15.4

Source: AIHW, 2010 Australian National Infant Feeding Survey-Indicator results

Notes: (a) '*To*' indicates an infant's age the month before a fluid other than breastmilk was introduced. This is effectively the month *before* another fluid was introduced. E.g. a child who was introduced to water when they were aged 4 months (in their fifth month of life) was exclusively breastfed *to* 4 months of age (i.e., they had 4 completed months of exclusive breastfeeding). Similarly, a child who was introduced to water at age 1 month (in their second month of life) was exclusively breastfed *to* 1 month. Or, a child who was introduced to water at 0 months (in their first month of life) was exclusively breastfed *to* 0 months (or for less than 1 month).

Currently breastfeeding

The ANIFS asked all respondents whose children had ever been breastfed to report whether the child was currently receiving any (as distinct from exclusively) breast milk. This included expressed breast milk or breast milk from a donor. Table 20 shows that the ACT sits above the national rate for children currently being breastfed (or receiving 'any' breast milk) across the first 12 months of life. Once children moved into the 13-18 month age group there was a reduction in breast milk consumption across both the ACT (24.4%) and Australia (18.2%).

Table 20: Proportion of children currently breastfed, by current age, Australia & ACT, 2010

	ACT	Australia
Month	%	%
1 month	82.6	74.6
2 months	80.9	72.7
3 months	74.5	70.3
4 months	80.9	68.7
5 months	71.7	62.9
6 months	76.1	60.1
7-12 months	60.1	42.2

Source: AIHW, 2010 Australian National Infant Feeding Survey-Indicator results

Introduction of soft/semi-solid food

The ANIFS collected data on the age at which soft/semi-solid/solid foods were introduced to infants. Table 21 shows that the ACT is similar to the Australian rate over the first five months of life.

Table 21: Proportion of children who were introduced to soft/semi-solid/solid food, by month of age, Australia & ACT, 2010

	ACT	Australia
Month [(a)]	%	%
1 month	na	0.1
2 months	na	0.8
3 months	2.3	4.3
4 months	26.5	28.4
5 months	57.9	56.2
6 months	93.1	91.6

Source: AIHW, 2010 Australian National Infant Feeding Survey-Indicator results
Notes: (a) Infants age at which soft/semi-solid/solid food was introduced.
na not available.

7.9.3. Key indicators of child health and wellbeing, ACT and Australia

In 2005, the Australian Health Ministers' Conference (AHMC) and the Community and Disability Services Ministers' Conference (CDSMC) approved a project to develop a set of nationally agreed Headline Indicators to monitor the health, development and wellbeing of Australian children and to explore processes to facilitate ongoing data collation, analysis and reporting.

In 2013, the AIHW released a report on the Children's Headline Indicators. The following information is sourced from updates to that report and includes headline indicators that are not reported in the maternal and perinatal health section above. ACT results were similar overall to national results, but a higher proportion of students met the national minimum standards for reading (94.9% compared with 91.6% nationally).

Table 22: Headline indicators for child health & wellbeing, ACT & Australia, 2009-12

	Year[(a)]	ACT	Australia
Infant mortality			
Mortality rate for infants less than one year of age (deaths per 1,000 live births)	2012	2.9	3.3
Immunisation			
Proportion of children on the ACIR fully immunised at two years of age (%)	2012	93.4	92.8
Overweight and Obesity			
Proportion of children aged 5-14 years who were 'overweight' or 'obese' (%)	2011-12	25.1	26.0
Dental Health			
Mean number of decayed, missing or filled teeth (DMFT) among primary school children aged 12 years	2009	0.7	1.0
Injuries			
Age-specific death rates from all injuries for children aged 0-14 years (deaths per 100,000 population)	2009-11	3.1	5.2
Transition to primary school			
Proportion of children developmentally vulnerable on one or more domains of the Aust. Early Development Index (AEDI) (%)	2009	22.2	23.5
Literacy			
Proportion of Year 5 school children achieving at or above national minimum standards for reading (%)	2012	94.9	91.6
Numeracy			
Proportion of Year 5 school children achieving at or above national minimum standards for numeracy (%)	2012	95.8	93.3
Family economic situation			
Average real equivalised disposable household income for households with children aged 0-12 years in the 2nd and 3rd income deciles ($ per week)	2009-10	448	439

Source: AIHW (2013). *Headline indicators for children's health, development and wellbeing, 2013* [58]
Note: (a) latest available data.

7.9.4. Morbidity

During the 2010-11 and 2011-12 financial years there were 22,854 ACT hospital separations for ACT resident children aged 0-14 years (11,295 and 11,559 respectively). Excluding live births and conditions arising in the perinatal period, which accounted for approximately half of hospital separations for this age group, the leading causes of hospitalisation were respiratory disorders (11.3%), digestive system disorders (7.5%) and injuries and poisonings (7.4%).

7.9.5. Mortality

In 2012, there were 26 deaths of children aged 14 years or under, 62% of whom were infants aged less than one year.[9] The infant mortality rate for the ACT was 2.9 deaths per 1,000 live births, slightly lower than the Australian rate of 3.3 deaths per 1,000 live births.

The 2012 age-specific mortality rate for ACT children aged 1-14 was 15.8 per 100,000 population, higher than the Australian rate of 11.8 per 100,000.

8. Access and equity indicators relevant to health

At a glance

- The ACT had the lowest number of bulk-billed GP attendances of all states and territories, due to the low availability of these services.
- The ACT had the highest proportion of people who felt that they waited longer than was acceptable to get a GP or public dentist appointment and the highest proportion who deferred accessing a GP or obtaining prescribed medicines due to cost.

ACT Aboriginal and Torres Strait Islander people

- 79.5% of Aboriginal and Torres Strait Islander residents reported their health to be good to excellent in 2012-13.
- Tobacco use by Aboriginal and Torres Strait Islander residents is consistently significantly higher than that reported by non-Aboriginal and Torres Strait Islander residents.
- Significantly more Aboriginal and Torres Strait Islander students reported having ever smoked than non-Aboriginal and Torres Strait Islander students.
- Significantly more Aboriginal and Torres Strait Islander secondary students reported having ever used an illicit substance in their lifetime than their non-Aboriginal and Torres Strait Islander counterparts.
- Both Aboriginal and Torres Strait Islander males and females were hospitalised for chronic kidney disease at around four times the rate of non-Aboriginal and Torres Strait Islander people in the ACT, but hospitalisation rates for dialysis and chronic kidney disease were lower in the ACT than nationally.
- Aboriginal and Torres Strait Islander people were hospitalised at almost four times the rate of their non-Aboriginal and Torres Strait Islander counterparts for diabetes, and almost twice the rate for circulatory diseases. They were hospitalised at twice (2.2 times) the rate for chronic conditions, 1.7 times the rate for acute conditions, and 1.6 times the rate for vaccine-preventable conditions.
- Aboriginal and Torres Strait Islander people had significantly more potentially preventable hospital admissions (33.7 per 1,000 population) than their non-Aboriginal and Torres Strait Islander counterparts (17.4), but this rate was much lower than for NSW, Vic, Qld, WA, SA & NT combined (137).
- Low birthweight is more than twice as common among babies born of Aboriginal and Torres Strait Islander mothers as among babies of non-Aboriginal and Torres Strait Islander mothers in the ACT (13% compared with 5%) during 2007-11.

People with disabilities

- 63% (63.8% males and 63.6% females) of ACT people with disabilities were in the labour force. This was a higher participation rate than for other states and territories (Australia: 52.8%). Of people with disabilities in the labour force, 93.7% were employed (Australia: 90.4%) although 6.3% of those employed reported that they were underemployed (Australia: 8.9%).
- Most ACT people with disabilities (73.8%) had face-to-face contact with ex-household family or friends 'in the previous week' or travelled to a social activity 'in the last two weeks' (93.4%), similar to other state and territory results.
- A third (35.8%) of carers of ACT people aged 0-64 years with disabilities, reported that they needed further assistance in their caring roles, a higher proportion than for other state and territory carers (Australia: 26.7%). They also recorded the lowest proportion of carers who were satisfied with the range of formal services available to help them in their caring roles (ACT: 29.1%, Australia: 33.7%) and who were satisfied with the quality of formal services received (ACT: 60.2%, Australia: 69.0%).

Australians are able to obtain general medical care through the Medicare system. However, issues that can impact negatively on access and equity include GP and specialist shortages, transportation barriers, perceptions of care, quality and costs.[59]

Information concerning health service usage can be found in Section 9.

8.1. Barriers to health care use

In 2011-12, as in previous years, the ACT had the lowest number of bulk-billed GP attendances of all states and territories, due to the low availability of these services.[60] This was compounded by the highest proportion of people who felt that they waited longer than was acceptable to get a GP

appointment and the highest proportion of people who deferred accessing a GP due to cost.[61] (refer Table 45 for more information.)

Furthermore, the ACT had the highest proportion of people who experienced delays of more than one month in seeing a public dentist. The ACT did, however, have a much lower proportion of people who waited one or more years.[61] (refer Table 45 for more information.)

Unlike the states, the ACT and Northern Territory had an increase in the proportion of people who deferred access to prescribed medications due to cost over the three years 2009 to 2011-12. The ACT had the highest proportions in all those years (refer Table 45 for more information.)

8.2. Aboriginal and Torres Strait Islander people

The ACT Aboriginal and Torres Strait Islander population at Census 2011 was 5,185 (51.2% males and 48.8% females).[62] This represented 1.5% of the ACT population and 1.0% of the total Aboriginal and Torres Strait Islander population of Australia. The Australian Bureau of Statistics (ABS) estimates that this population could increase to between 6,101 and 6,148 persons by 2021, with an average annual growth rate of 2.4%.[63]

The ACT Aboriginal and Torres Strait Islander population had a much younger age structure than the total population in the ACT, with over half (55%) of Aboriginal and Torres Strait Islander people aged 24 years and under compared to 33% of the non-Aboriginal and Torres Strait Islander population. The median age for the Aboriginal and Torres Strait Islander ACT resident population was 22 years, 13 years younger than that for non-Aboriginal and Torres Strait Islander ACT residents (35 years).[62] The Territory had the lowest proportion of Aboriginal and Torres Strait Islander people aged 65 years or over of any state or territory (2.1%). ACT Aboriginal and Torres Strait Islander people, although having a median weekly personal income ($644) nearly twice that of their national counterparts ($362), had a lower income than their non-Aboriginal counterparts ($921).[6] It is well documented that Aboriginal and Torres Strait Islander people experience significantly more ill-health than other Australians.

The small population of Aboriginal and Torres Strait Islander people in ACT limits the extent to which statistics can be reported without compromising confidentiality of individuals and the extent to which reliable rates can be calculated. For example, the ABS has determined that the population is too small to calculate life expectancy tables specific to the ACT.[64]

Survey results give some indication of health status. Almost half (45.6%) of respondents aged 15 years and over to the Australian Aboriginal and Torres Strait Islander Health Survey 2012-13 (AATSIHS) reported their health to be excellent or very good compared to 39.2% at the national level.[65] A further third (33.9%) reported their health to be good.

The percentage of ACT respondents aged 15 years and over to the 2012-13 AATSIHS that reported they had three or more long-term health conditions (such as diabetes, asthma, cancer and osteoporosis) was 46.0%, which was higher than that for their national counterparts.

Lifestyle risk factors

The prevalence of self-reported overweight and obesity in ACT Aboriginal and Torres Strait Islander residents aged 15 years and over was 58.3% compared with 65.6% at the national level.[65]

Almost all (96.0%) ACT Aboriginal and Torres Strait Islander residents aged 15 years and over had inadequate daily vegetable consumption (according to the 2013 NHMRC guidelines),[16] which was similar to the national figure (95.1%), whereas 68.2% of ACT respondents reported inadequate fruit consumption (according to the 2013 NHMRC guidelines) compared with the national figure of 57.2%.

Tobacco use

Tobacco use by ACT Aboriginal and Torres Strait Islander residents is consistently significantly higher than that reported by non-Aboriginal and Torres Strait Islander residents across both survey and administrative data collections.[66,67] Four in 10 Aboriginal and Torres Strait Islander ACT adult residents reported using tobacco daily in national surveys.

In the 2008 National Aboriginal and Torres Strait Islander Social Survey (NATSISS), 38.5% of males and 33.8% of females reported being current smokers.[68] Proportions of Aboriginal and Torres Strait Islander adults who smoked were significantly higher (29.8%) than for non-Aboriginal and Torres Strait Islander adults (16%) in the ACT.[69] In the AATSIHS 2012-13, 28.6% of ACT Aboriginal and Torres Strait Islander people reported to be current daily smokers compared with 41.0% reported by their national counterparts.

According to the Australian Secondary Students' Alcohol and Drug Survey (ASSAD) 2011, 28.8% of ACT Aboriginal and Torres Strait Islander students reported having ever smoked, compared to 18.8% of non-Aboriginal and Torres Strait Islander students.[70] The difference between the two groups was statistically significant.

Alcohol use

According to the 2008 NATSISS survey, 72.5% Aboriginal and Torres Strait Islander residents in the ACT aged 15 years and over reported usual daily consumption of alcohol at low or medium risk levels in the 12 months prior to the survey, with 24.6% reporting never consuming alcohol in the last 12 months.[68]

Results from the AATSIHS 2012-13 showed that 14.3% of ACT Aboriginal and Torres Strait Islander residents aged 15 years and over had alcohol consumption exceeding the NHMRC 2009 lifetime risk guidelines (i.e. drinking no more than two standard drinks on any day) and 65.7% exceeded the NHMRC 2009 single-occasion risk guidelines (i.e. drinking no more than four standard drinks on a single occasion).

In the 2011 ASSAD survey, although there were some differences in alcohol use between students who were Aboriginal and Torres Strait Islander and those who were not, these differences were mostly not statistically significant. The exception was alcohol consumption within the last month, in that Aboriginal and Torres Strait Islander students were more likely to have consumed alcohol within the last month (42.0%) than other students (23.9%). However, the relative standard error of this estimate is between 25% and 50% and should be interpreted with caution.[70]

Table 23: Alcohol consumption, lifetime & current use, % of students by Aboriginal & Torres Strait Islander status, ACT, 2011

Consumed alcohol	Aboriginal & Torres Strait Islander	Non-Aboriginal & Torres Strait Islander
Ever	72.8	73.7
In last week	**23.5	13.7
In last month	42.0	*23.9
In last year	58.2	48.3

Source: ASSAD confidentialised unit record file, 2011, ACT Health
Notes: * Denotes a statistically significant difference between Aboriginal & Torres Strait Islander people & non-Aboriginal & Torres Strait Islander people.
** Estimate has a relative standard error of 25% to 50% and should be interpreted with caution.

Illicit substance use

In 2011, 30.8% of ACT Aboriginal and Torres Strait Islander secondary students reported having ever used an illicit substance in their lifetime compared with 12.1% of their non-Aboriginal and Torres Strait Islander counterparts. This difference was statistically significant.[71]

Kidney disease

Kidney disease, in particular end-stage renal disease (ESRD), contributes substantially to the high burden of ill health experienced by Aboriginal and Torres Strait Islander people. Renal failure was estimated to contribute 5% of the burden of disease for Aboriginal and Torres Strait Islander people in 2003.[72] Aboriginal and Torres Strait Islander people have very high levels of ESRD, due to a range of risk factors.[73]

Between July 2008 and June 2010, the age-standardised hospitalisation rate of dialysis and chronic kidney disease for Aboriginal and Torres Strait Islander people was lower in the ACT than in NSW, Vic, Qld, WA, SA & NT combined (244 compared with 453 per 1,000 population). Both Aboriginal and Torres Strait Islander males and females were hospitalised for chronic kidney disease at around four times the rate of non-Aboriginal and Torres Strait Islander people in the ACT.[73]

A quarter (25.8%) of all hospital separations for people identifying as Aboriginal and Torres Strait Islander during 2010-12 were for renal dialysis. This involved 864 separations for six patients.[74]

Health services

Since the introduction in 2008 of the National Partnership Agreement on Closing the Gap in Aboriginal and Torres Strait Islander Health Outcomes, there has been an increase in the rate of health assessments provided to ACT Aboriginal and Torres Strait Islander people aged 55 years and over between 2008-09 and 2009-10. There was also an increase in the total number and rate of allied health-care services claimed through Medicare between 2009–10 and 2010–11 (from 784 to 1,349 services; from 207 to 459 services per 1,000 population). This represented a larger increase than that observed nationally. Rates of general practitioner management plan claims (GPMP - total of 151) and team care arrangements (TCA - total of 114) were more than twice as high for Aboriginal and Torres Strait Islander people than for non-Aboriginal and Torres Strait Islander people in the ACT in 2010-11.[73]

Hospital service use

Between July 2008 and June 2010, ACT Aboriginal and Torres Strait Islander people were hospitalised (excluding dialysis) at 1.4 times the rate of their non-Aboriginal and Torres Strait Islander counterparts. This was consistent with NSW, Vic, Qld, WA, SA & NT combined comparisons (1.3 times).[73]

The most common principal diagnosis for hospitalisations among Aboriginal and Torres Strait Islander people in the ACT, excluding conditions involving dialysis, was injury and poisoning (9% of Aboriginal and Torres Strait Islander hospitalisations), followed by pregnancy and childbirth (6.5%), and diseases of the digestive system (5.7%).[73]

ACT Aboriginal and Torres Strait Islander people were hospitalised at almost four times the rate of their non-Aboriginal and Torres Strait Islander counterparts for diabetes, and almost twice the rate for circulatory diseases. They were hospitalised at twice (2.2 times) the rate for chronic conditions, 1.7 times the rate for acute conditions, and 1.6 times the rate for vaccine-preventable conditions.[73]

Between July 2008 and June 2010, 73% of hospitalisations of ACT Aboriginal and Torres Strait Islander people (excluding for dialysis) had a procedure reported, compared with 76% of hospitalisations of non-Aboriginal and Torres Strait Islander people. Nationally, these proportions were 60% and 81% respectively.

ACT Aboriginal and Torres Strait Islander people had significantly more potentially preventable hospital admissions (33.7 per 1,000 population) than their non-Aboriginal and Torres Strait Islander counterparts (17.4), but this rate was much lower than for NSW, Vic, Qld, WA, SA & NT combined (137).[73]

Between 2010-12, there were 3,344 hospital separations for ACT residents who identified as Aboriginal and Torres Strait Islander. In 2010-11 the average age at hospital separation, including for renal dialysis, was 37 years (51 years for non-Aboriginal and Torres Strait Islander people). Excluding dialysis, it was 30 years (48 for non-Aboriginal and Torres Strait Islander people).

Maternal and perinatal health

The percentage of ACT Aboriginal and Torres Strait Islander women who reported smoking during pregnancy was six times higher (55.9%) than the overall ACT percentage.

Low birthweight was more than twice as common among babies born of Aboriginal and Torres Strait Islander mothers as among babies of non-Aboriginal and Torres Strait Islander mothers in the ACT (13% compared with 5%) during 2007-11.

According to the NATSISS, in 2008 in the ACT, about 73% of Aboriginal and Torres Strait Islander infants aged 0–3 years had ever been breastfed, compared with 76% of Aboriginal and Torres Strait Islander infants of the same age nationally.[73] Immunisation coverage rates for Aboriginal and Torres Strait Islander children are now close to those for other ACT children.[73]

The Australian Early Development Index (AEDI) is a measure of young children's development in five domains (refer Section 14). Table 24 shows that Aboriginal and Torres Strait Islander children, in their first year of full-time schooling, have lower proportions of being developmentally on track in at least four of the five domains measured, than their non- Aboriginal and Torres Strait Islander counterparts, but have higher proportions than Aboriginal and Torres Strait Islander children nationally.

Table 24: Children in first year of full-time schooling, % developmentally on track, by Aboriginal & Torres Strait Islander status, 2009 & 2012

	2009		2012	
	ACT	Aust.	ACT	Aust.
Aboriginal & Torres Strait Islander				
No. of children	100	11,232	97	14,078
% developmentally on track	54.0	43.5	55.7	47.7
Non-Aboriginal & Torres Strait Islander				
No. of children	4,098	236,009	4,535	260,361
% developmentally on track	68.2	68.6	68.1	70.3

Source: Australian Early Development Index (AEDI), 2009 & 2012
Note: Developmentally on track refers to being on track for 4 or 5 of the domains.

Further information relating to the ACT Aboriginal and Torres Strait Islander population can be accessed through individual sections of this report.

8.3. People with disabilities

Disability can cause limitations in a person's ability to participate in normal activities such as social interactions, workforce participation and daily living activities. Severity of disability and access to services will impact on the quality of life of people with disabilities.

The ABS Disability, Ageing and Carers Survey 2012[75] estimated that there were 34,300 people aged 15-64 years with a disability in the ACT in 2012 who were not in residential care accommodation. Of these, 8,400 had a profound or severe disability.

63% (63.8% males and 63.6% females) of ACT people with disabilities were in the labour force. This was a higher participation rate than for other states and territories (Australia: 52.8%). Of people with disabilities in the labour force, 93.7% were employed (Australia: 90.4%), although 6.3% of those employed reported that they were underemployed (Australia: 8.9%).

Regarding daily activities, 6,000 ACT people with disabilities (15.4%) reported that they did not leave home as often as they would like, due to their disability. Over half of these people had profound or severe disabilities. Most ACT people with disabilities (73.8%) had face-to-face contact with ex-household family or friends 'in the previous week' or travelled to a social activity 'in the last two weeks' (85.4% of people with profound or severe disability; 96.0% of people with other disability), similar to other state and territory results.

A third (35.8%) of carers of ACT people aged 0-64 years with disabilities reported that they needed further assistance in their caring roles, a higher proportion than for other state and territory carers (Australia: 26.7%). They also recorded the lowest proportion of carers who were satisfied with the range of formal services available to help them in their caring roles (ACT: 29.1%, Australia: 33.7%) and who were satisfied with the quality of formal services received (ACT: 60.2%, Australia: 69.0%).

9. Health services

At a glance

- Public hospital capacity continues to improve, with bed numbers increasing from 907 in 2009-10 to 926 in 2010-11 and 937 in 2011-12.
- Of the 97,455 ACT public hospital separations in 2011-12, 21.6% were for non-ACT residents, slightly lower than in previous years.
- Australia's first nurse-led Walk-In-Centre, based at TCH had 17,450 presentations in 2011-12 with 9% of presentations redirected to their GP and 5% to the emergency department.
- An increase from 2010-11 to 2011-12 of 6% in emergency department presentations resulted in a major challenge to resources, but waiting times for emergency treatment were at or above national benchmarks for categories 1 and 5.
- ACT rates of potentially preventable hospitalisations have not changed significantly since 2006-07, remaining lower than national rates.
- In 2012, the ACT continued to have the highest proportion of private health insurance holders in the country.
- The ACT, like other jurisdictions, had ongoing difficulties in attracting trained health staff.
- There were 26 residential aged care facilities in the ACT as at June 2012, catering for 1,886 persons (537 males and 1,349 females; including 6 Aboriginal and Torres Strait Islander people).
- Mental health: ACT residents had higher proportions of access to specialised public health mental health services compared with other Australians, but lower proportions of access to Medicare-subsidised services. The ACT recorded the highest rate of community follow-up for people within the first seven days of discharge from hospital. The ACT continues to lead the country with post-discharge direct contact.
- Cancer services: Due to demand and the addition of an extra linear accelerator and associated staff and equipment, services were extended during 2010-12. This included a 1.2% increase in radiation oncology patients over the two years, a 4.6% increase in treatment courses, and an overall 5.7% increase in capacity for radiation therapy treatments.
- Quality & safety: In 2011–12 there was a 20% increase in the number of positive episodes of bacteraemia diagnosed at TCH. While there has been a sustained 70% decrease in the numbers of bloodstream infections caused by intravascular devices, there has been a noted increase in urinary tract infections related to urinary catheters.
- Current key health promotion priorities for ACT Health are reducing levels of obesity in the population (through promoting physical activity and healthy eating), reducing harm from tobacco and from alcohol, and promoting good mental health.

The provision of safe, timely and effective health care is a major priority for ACT Health. Monitoring performance to gauge progress of health initiatives over time and identifying health system gaps or shortcomings are critical to ensuring that health services in the ACT meet the needs of the population.

The performance of ACT health services is reported in a range of documents, including ACT Health annual reports and publications from ACT Health and agencies such as the Australian Institute of Health and Welfare, the Productivity Commission and the Australian Department of Health. This section reports on a number of key national performance indicators related to health services.

9.1. Potentially preventable hospitalisations

Potentially preventable hospitalisations (PPHs) are those conditions where hospitalisation is thought to be avoidable if timely and adequate non-hospital care had been provided. ACT rates of PPH have not changed significantly since 2006-07, remaining lower than national rates (Table 25).

In 2011-12, as for previous years, approximately half of the total potentially preventable hospitalisations were due to chronic diseases in the ACT and nationally.

Table 25: Potentially preventable hospitalisations, age-standardised rates, ACT & Australia, 2008-12

	2008-09		2009-10		2010-11		2011-12	
Conditions [a]	ACT	Aust.	ACT	Aust.	ACT	Aust.	ACT	Aust.
Vaccine-preventable conditions	0.5	0.7	0.5	0.8	na	0.8	0.7	0.8
Acute conditions[b]	11.5	13.5	9.8	13.8	na	14.2	11.3	14.9
Chronic conditions	11.7	16.5	10.4	16.0	na	12.9	9.1	13.0
All selected potentially preventable hospitalisations[a]	23.6	30.6	20.7	30.4	na	27.7	21.0	28.6

Source : AIHW Australian Hospital Statistics, 2008-12

Notes: Rates per 1,000 population, directly age-standardised to the 2001 Australian population.
na = not available.
(a) These conditions are defined using ICD-10-AM codes.
(b) Excludes multiple diagnoses for the same separation within the same group.

(refer also Section 3.3)

9.2. Health insurance

In 2012, the ACT continued to have the highest proportion of private health insurance holders in the country[76] (ACT: 56.8%, Australia: 46.9%), reflecting the relatively high socio-economic status (refer Table 46). However, the ACT had below national average rates of insurance utilisation, with only 6.9% of ACT public hospital patients using private health insurance during their admissions (Australia: 10.6%).

9.3. Health workforce

The ACT, like other jurisdictions, has ongoing difficulties in attracting trained health staff. Although it had the highest rate (423 per 100,000 persons) of employed medical practitioners in Australia in 2011, this includes the large number of hospital medical practitioners required to service surrounding parts of NSW, specialists and those working in non-clinical fields (such as educators and researchers) in Canberra-based universities and organisations.[60]

In 2011-12, the ACT had a lower full-time workload equivalent (FTE) GP rate (68.8 per 100,000 population) than the national average (95.3 per 100,000), but this is an improvement from 2007-08 (67.5). The ACT also had a lower rate of bulk billing (50.2% compared to 80.9% nationally) (refer Table 41). Nearly a quarter of medical practitioners were aged 55 years or more, which has implications for future workforce planning.

ACT public hospitals had a slightly lower rate of FTE nursing staff (1,229.1 per 100,000 population) than the national average (1,253.6 per 100,000 population) (refer Table 44).[60] ACT-employed nurses had an average age of 44.5 years, the same as nationally. Nearly one in four was 50 years of age or older.

The rates above do not take account of the non-ACT residents the GPs and nurses are required to service, especially in the hospital environment.

With regard to availability of public dentists, the ACT fared better than all jurisdictions except the Northern Territory (ACT: 7.7 dentists per 100,000 population, Australia: 5.7 in 2011) (refer Table 45).

9.4. Hospital service use

A number of widely-accepted performance measures are routinely utilised to gauge the effectiveness and efficiency of Australia's hospitals, as well as to compare how the hospital systems of the states and territories are performing in relation to one another and to the national average.

The ACT has two public teaching hospitals that provide emergency department, inpatient and outpatient services to ACT residents and people from surrounding regions of NSW. Both are teaching hospitals of the Australian National University (ANU) Medical School, the University of Canberra nursing and allied health schools and the Australian Catholic University nursing school. Hospital capacity continues to improve, with bed numbers increasing from 907 in 2009-10 to 926 in 2010-11 and 939 in 2011-12.

Together, these two facilities offer a range of health services that cover all but a small number of specialities (such as major burns and organ transplants) for which there is insufficient patient throughput for clinical units to be viable.

Australia's first nurse-led Walk-in-Centre, based at TCH, had 17,450 presentations in 2011-12 with 9% redirected to their GP and 5% to the emergency department.[25] The centre assists in diverting people with minor illnesses or injuries from the emergency department to a free one-off service from a specialist nurse (refer Table 43 for major types of services recorded).

The three private hospitals offer a range of services, including rehabilitation and orthopaedics (Calvary John James Hospital); maternity, surgery, mental health (Calvary Private Hospital); and medical and surgical services (National Capital Private Hospital).

In 2010-11, the public hospitals had a combined bed availability of 2.6 beds per 1,000 population (national rate of 2.5).[25] This excludes the population of the catchment area in NSW.

Of the 97,455 ACT public hospital separations in 2011-12, 21.6% were for non-ACT residents (20.7% for NSW residents, 0.9% for other persons), slightly lower than previous years. Only 4.8% of ACT residents accessed public hospitals outside the ACT in 2011-12.[43]

9.4.1. Relative Stay Index

The Relative Stay Index (RSI) is an indicator of hospital efficiency. It takes into consideration factors such as patient's age and the complexity of their care. The national average RSI is 1, while a figure above or below 1 indicates that a hospital's average length of stay was higher or lower than expected, given its patient mix. The ACT's public hospital RSI decreased from a high of 1.07 in 2002-03 to 0.91 in 2007-08, 0.90 in 2009-10 and nearly reached parity in 2010-11 (0.97).[60]

9.4.2. Emergency department activity

There was an increase from 2010-11 of 6% in emergency department presentations, reaching 118,389 in 2011-12 and resulting in a major challenge on resources. Of these presentations, 31,062 people were admitted to hospital, an increase of 16% on the previous year. Waiting times for emergency treatment were at or above national benchmarks for categories 1 and 5.[25]

9.4.3. Elective surgery procedures

The number of elective surgery procedures performed in ACT public hospitals was 11,032 in 2010-11 and 10,880 in 2011-12. Interstate patients accounted for 31% (2010-11) and 30% (2011-12) of these procedures. The separation rate (refer Glossary) of 29.8 per 1,000 population in 2011-12 was similar to those of the other smaller jurisdictions of the Northern Territory (30.6) and Tasmania (25.6), but considerably less than the national average (86.7).

The median waiting time for elective surgery decreased from 75 days in 2008-09 (34 days nationally) to 63 days in 2011-12 (36 days nationally).[11] The number of people waiting beyond the clinically recommended timeframe dropped from 1,431 in June 2010-11 to 898 in June 2011-12, a decrease of 37%.[25]

9.5. Aged care

There were 26 residential aged care facilities in the ACT as at June 2012, catering for 1,886 persons (537 males and 1,349 females, including 6 Aboriginal and Torres Strait Islander people). The majority

of these facilities (84.6%) were in the not-for-profit sector (comprising 8 charitable, 3 community-based and 11 religious organisations) and four private facilities.[77]

The provision of residential aged care (78.5 per 1,000 persons aged 70 years and over, in 2011), remained below that of the rest of Australia (86.9). The gap between the two rates is decreasing over time (from a gap of 14.4 per 1,000 persons in 2007 to 8.4 in 2011).[78] (refer Table 47.)

In 2012, the ACT had the second highest rate of persons aged 70 years and over in Australia receiving aged residential care, community aged care packages or extended aged care in the home packages (119.3 places per 1,000 persons aged 70 years and over).

9.6. Mental health

Mental health service use by total population is an indicator measuring equitable access to mental health services for all people who need them. ACT residents had higher proportions of access to specialised public health mental health services compared with other Australians, but lower proportions of access to Medicare-subsidised services. (Refer Table 48)

Mental health service use by selected community groups is an indicator that measures the provision of mental health services in an equitable manner. The proportion of Aboriginal and Torres Strait Islander people receiving clinical mental health services in the ACT has increased from 2007-08 to 2010-11 and remains consistently higher than the national proportion. (Refer Table 49)

Primary mental health care for children and young people is an indicator to measure the prevention of mental health problems and mental illness and to undertake early intervention for mental health problems and mental illness. It is defined as the proportion of young people aged under 25 years who had contact with primary mental health care services subsidised through the Medicare Benefits Scheme. The proportion of ACT children and young people aged <25 years was 4.0% (Australia: 4.6%) in 2011-12. High or increasing proportions are looked for, but as primary mental health care for children and young people can be accessed from services other than those that are MBS-subsidised such as community health centres, Aboriginal Health Services, school counsellors and health nurses and university and Technical and Further Education counselling services, these results should be interpreted with caution. (Refer Figure 38.)

The provision of adequate follow-up and support to mental health patients within the first 7 days post hospital discharge is recognised as crucial for patients, as their vulnerability for relapse and risk of readmission is highest during this time. The ACT recorded the highest rate of community follow-up for people within the first seven days of discharge from hospital (ACT: 78.6%, Australia: 54.3%). The ACT continues to lead the country with hospital post-episode discharge direct contact.
(Refer Table 50.)

9.7. Cancer services

The Capital Region Cancer Service (CRCS) is responsible for the provision of oncology, clinical haematology, radiation oncology, BreastScreen and immunology services to the ACT and surrounding region. The clinical services of CRCS integrate existing cancer services across the ACT and surrounding region to ensure a continuum of care for consumers, ranging from prevention and screening through to diagnosis, treatment, rehabilitation and palliative care. Services are provided on an area-wide basis and delivered at a number of locations, including hospital and community settings and the patient's home.

Selected achievements (other than BreastScreen – refer Section 7.2.4) include:

- The CRCS Department of Immunology enhanced its service with the establishment of a multidisciplinary Vasculitis Clinic in April 2012.
- Additional staff (including a medical oncology staff specialist, a radiation oncologist, radiation therapists and nursing staff) were appointed in early 2012, increasing the department's expertise and capacity in melanoma, colorectal cancer and lung cancer.

- Procurement and installation of major radiation therapy equipment to support expansion to a four linear accelerator (Linac) service was undertaken in 2011-12 with operation commencing in July 2012.
- Extended hours for radiation therapy treatment service have been implemented since November 2011 to accommodate increased demand in the lead-up to the four-Linac service. This has provided a 5.7 per cent increase in capacity for patients requiring treatment services.
- CRCS provided care for 1,525 new radiation oncology patients in 2011-12. This is a 1.2% increase on the 1,507 new patients referred to the service in the same period for 2010-11.
- CRCS also provided 1,286 courses of radiation therapy treatment to ACT and regional cancer patients in 2011-12, a 4.6% increase on the 1,229 treatment courses provided in 2010-11.
- Waiting times for radiotherapy services have remained relatively consistent (Table 35). Nearly 100% of all patients received care in line with reporting guidelines in 2011-12, compared with 93.4% in 2009-10.

9.8. Quality and safety in health care

The following three indicators are a selection of the patient safety and service quality indicators that are used to monitor ACT public hospital services. The targets provide an indication of the desired outcomes over time. The target rate for TCH is based upon similar rates for peer hospitals, and is defined by the Australian Council on Health Care Standards.[25]

1. *Rate of unplanned hospital re-admission*

   The proportion of people discharged from hospital who were readmitted to hospital within 28 days of their separation due to complications of their condition provides an indication of the effectiveness of hospital-based and community services in the ACT in the treatment of persons who receive hospital-based care.

2. *Rate of unplanned return to the operating theatre*

   The proportion of people who undergo a surgical operation and who require an unplanned return to the operating theatre with a single episode of care due to complications of their condition is an indication of the quality of the theatre and post-operative care.

3. *Hospital acquired infection rate (bacteraemia)*

   The number of people admitted to hospital per 100,000 occupied bed days who acquire a bacteraemial infection during their stay. This provides an indication of the safety of hospital-based services.

Table 26: Safety & quality indicators, % of separations, ACT, June 2010-July 2012

	Unplanned hospital readmissions within 28 days		Unplanned return to operating room		Hospital-acquired bacteraemia (rate per 10,000 non-same day occupied bed days)	
	Rate	Target rate	Rate	Target rate	Rate	Target rate
2010-11						
TCH	1.45%	<2.0%	0.46%	< 1.0%	6.71	< 7 per 10,000
Calvary	1.07%	<1.0%	0.23%	< 0.5%	2.03	< 3 per 10,000
2011-12						
TCH	1.4%	<2.0%	0.8%	< 1.0%	8.3	< 7 per 10,000
Calvary	0.8%	<1.0%	0.3%	< 0.5%	1.2	< 3 per 10,000

Source: ACT Government Health Directorate annual reports 2010-2011 & 2011-2012

In 2011-12 there was a 20% increase in the number of positive episodes of bacteraemia diagnosed at TCH.[52] ACT Health has had a program in place for continued monitoring of these infections since 1998, which is unique among Australian hospitals and which entails following up every patient with a positive blood culture to see why their infection occurred and what might be done in the future to prevent other infections.

This program has led to a sustained 70% decrease in the numbers of bloodstream infections caused by intravascular devices. However, in recent years there has been a noted increase in urinary tract infections related to urinary catheters. A number of interventions aimed at preventing the occurrence of many of these infections are being initiated across the hospital.

9.9. Health promotion

Health promotion is primarily focused on developing healthy public policy that addresses the prerequisites of health, for example, the quality of environments such as workplaces and where feasible, income, housing, food security and employment. Such work requires partnership outside the health sector and building intersectoral cooperation around common objectives.

Key health promotion priorities for ACT Health are reducing levels of obesity in the population (through promoting physical activity and healthy eating), reducing harm from tobacco and from alcohol, and promoting good mental health. These require a mix of interventions including policy development and implementation, health promotion and prevention programs, social marketing, and regulatory approaches.

Recognising that trying to reduce disease risk factors in individuals is not fully effective in improving population health outcomes, a settings-based approach has been adopted aimed at influencing policies and reshaping environments to bring about sustainable improvements in health for the ACT population. During the reporting period these settings included schools and early childhood settings, workplaces, and communities with high needs.

Social marketing, targeting adults

During the reporting period, local support was introduced for the national Measure Up campaign. This campaign encouraged Australians to make sustainable healthy lifestyle choices to support the reduction of morbidity and mortality due to lifestyle-related chronic diseases. Phase 2 of this campaign was launched in 2011 - *Swap It, Don't Stop It*. Key local support strategies included:

- the Get Healthy Information and Coaching Service, developed by NSW Health and launched in the ACT in July 2010
- funding the delivery of workplace seminars with the *Swap It* message
- development of a local tobacco cessation and healthy lifestyle campaign for Aboriginal and Torres Strait Islander communities titled Beyond Today, launched in December 2012.

Other initiatives

Other ACT initiatives and activities undertaken during the two-year period are detailed in Section 10, Intersectoral activies relevant to health.

10. Intersectoral activities relevant to health

At a glance

- ACT Health engages in cross-sectoral approaches to better understand and respond to social factors that influence health in the ACT and to ensure a holistic approach to encouraging good health.
- Collaborating with other Directorates and sectors ensures a seamless approach to holistic health initiatives.
- An example: In December 2010, a whole-of-government response to key health issues raised in the 2010 CHO report was developed, including responding to the rising rates of overweight and obesity in the ACT. Key areas of focus include transport planning, access to healthier food options and promotion of physical activity. Implementation is currently underway.

Lifestyle factors that have a strong influence on chronic diseases such as physical activity, nutrition, maintaining a healthy weight, tobacco use and alcohol can best be improved by collaboration between health and other sectors. ACT Health engages in cross-sectoral approaches to better understand and respond to social factors that influence health in the ACT and to ensure a holistic approach to encouraging good health. Some of the intersectoral activities assisting in improving lifestyles are summarised below.

10.1. Health promotion

(Refer Section 9.9 for further information.)

The reporting period saw the conclusion of the 2009-12 (financial years) ACT *Healthy Futures* budget initiative, which allocated $11 million over three years to support the *Healthy Future - Preventative Health Program*. This budget initiative positioned the ACT well to respond to commitments under the Australian Government's National Partnership Agreement on Preventive Health (NPAPH) signed by the Council of Australian Governments in November 2008. NPAPH is providing the ACT with $7.94 million in facilitation payments between 2010 and 2018.

The NPAPH brings together national, state and territory governments with the aim of reducing the prevalence of risk factors for preventable chronic disease, limiting the incidence and impact of these diseases and reducing morbidity and mortality rates associated with lifestyle-related risk factors such as smoking, overweight/obesity, poor nutrition and physical inactivity. In June 2012, the original funding 'envelope' was extended from 2009-15 to 2009-18 (financial years).

A range of initiatives was introduced or supported. The intersectoral initiatives are highlighted below.

- Intersectoral initiatives aimed at improving child health outcomes:
    - Kids at Play (KAP) - Active Play and Eating Well Early Childhood Project, a partnership between ACT Health, Economic Development Directorate and the Heart Foundation ACT.
    - Lifestyle Triple P program®: A structured group program to increase parents' skills and confidence to manage children's lifestyle behaviour, a partnership between ACT Health and the Community Services Directorate.
    - Tap into water every day® - Portable water distribution units made available at community events to support the campaign's message. This was a partnership between ACT Health and ActewAGL.
    - Healthy Food@School Phase 1 - training for ACT school canteen managers to support the implementation of the National Canteen Guidelines, a partnership between ACT Health, Nutrition Australia, and school canteens.
    - Healthy Food@Sport was launched in May 2012 and aims to increase healthy food options within canteens and food outlets at sporting venues for children and young people. This is a partnership between ACT Health, Economic Development Directorate and junior sporting clubs.
- Intersectoral initiatives aimed at improving adult health outcomes included:

- A needs analysis, undertaken with ACT workers and ACT Healthy@work, piloted in 5 workplaces during 2010-11.
- Pilot implementation of ACT Health's smoke-free policy in ACT alcohol and other drug, and mental health community-based services. This was a partnership with the Alcohol, Tobacco and Other Drug Association (ATODA), which delivered the project.
- Healthier Work Service - supported ACT workplaces to implement staff health and wellbeing programs. Launched in May 2012, it is a partnership between ACT Health and the Directorate of Justice and Community Safety, which delivers the service.

- Other intersectoral activities that were funded to encourage healthy lifestyles included:
  - Heartmoves program, a Heart Foundation program, aims to increase physical exercise for people with risk factors for chronic disease through gentle exercise.
  - Heart Foundation Walking in the ACT supports Canberrans to lead active, healthy lives by encouraging them to join or start Heart Foundation Walking groups.
  - Implementation of the Active Living project in collaboration with the Heart Foundation and sectors such as planning, environment, transport policy, and private industry. This project advocated for changes to the built environment that support active living and increased physical activity.
  - The ACT Cervical Screening Program conducted many recruitment activities throughout the period with community groups, government departments, medical practices, chemist shops and other retail outlets and NGO's that are happy to support the activities and promote them to clients.

In 2010-12, the ACT Health Promotion Grants Program provided funding for programs which facilitated healthy lifestyles and created healthy policies and environments across a variety of communities and sectors. Four funding rounds were offered each year. These were the Community Funding Round; Stay On Your Feet® Falls Prevention Funding Round; Healthy Schools Healthy Children Funding Round; and the Health Promotion Sponsorship Funding Round. In 2010-11, a total of 108 projects and sponsorships were funded across the four rounds, providing $2,288,767 to the ACT community. In 2011-12, a total of 93 projects and sponsorships were funded across the four funding rounds, providing $2,076,819.

The ACT Health Promotion Awards, held in December 2010, recognised a variety of innovative and best practice health promotion projects delivered between 2007 and 2010 in the ACT. OzHelp Foundation's *Tradies Tune Up* project won the overall award.

10.2. Other activities

- The ACT Ministerial Advisory Council on Sexual Health, HIV/AIDS, Hepatitis C and Related Diseases (SHAHRD) was formed to provide advice to the ACT Minister for Health from community and consumer perspectives on issues related to health and wellbeing in the areas of sexual health and blood borne diseases. Membership specifically includes individuals recruited for their experience, expertise and connection with relevant communities of interest. This approach values the participation of community organisations, affected communities and clinical communities in producing optimal health outcomes, and is based on a commitment to consultation and joint decision-making.

- During the reporting period, ACT Health provided ongoing funding support for various agencies participating in the 'PACT' project. PACT is a model of sexual health promotion which aims to reach people who would not readily access sexual health care or STI testing in mainstream clinic-based services. PACT helps to make clinical testing services more relevant and accessible by taking them out to the community. It also aims to: identify and target appropriate at-risk groups; create and normalise a culture of regular sexual health testing in at-risk groups; and provide an opportunity to deliver appropriate targeted health promotion. PACT depends on an effective partnership between community-based agencies and clinical services which have complementary skills, knowledge and resources. PACT's success has been enhanced by the formalisation of the responsibilities of each agency and development of an ongoing communication strategy among partner agencies. The ongoing success of

PACT was recognised when it was a winner in the November 2010 ACT Quality in HealthCare Awards, in the 'consumer participation' category.

- Research on sexual health is supported by ACT Health (refer Section 5.2).
- The Health Directorate liaised with ACT Policing and the Justice and Community Safety Directorate to successfully prohibit smoking in cars with children from 1 May 2012. The *Smoking in Cars with Children (Prohibition) Act 2011* was accompanied by a public campaign, with distribution assisted by the Education and Training Directorate, to raise awareness of the negative health effects of tobacco.
- The HPS continues to work closely with the Director of Public Prosecutions to pursue legal action against food handlers that have allegedly breached standards of the *Food Act 2001*. Collaboration with the ACT Magistrates Court and Director of Public Prosecutions has allowed the development and implementation of the Register of Food Offences which enables the Chief Health Officer to publish findings of guilt for food handling offences on the ACT Health website for up to two years. The Register of Food Offences was established in March 2012.
- In collaboration with the Office for Multicultural Affairs ACT Health selected 11 languages in which to translate food safety material. Translated food safety guides and fact sheets aim to assist persons with less than fluent English, meet the required food safety standards in the ACT. All food safety material is freely available from the ACT Health website.
- The HPS worked closely with the Office of Regulatory Services to implement bans prohibiting tobacco point of sale displays at specialist tobacconists. Point of sale tobacco displays became prohibited under the *Tobacco Act 1927* from 1 January 2011.
- In collaboration with the Office for Regulatory Services, ACT Health successfully implemented smoke-free initiatives under the *Smoke-Free Public Places Act 2003* to prohibit smoking at outdoor eating and drinking areas and at organised children's events from 9 December 2010.
- Population Health Division provides ongoing coordination with private and public health agencies and non-government agencies during extreme heat events (over 35 degrees celsius), through its ACT Extreme Heat Management Plan.
- Emergency management advice on aspects of potential emergencies at large events is provided to ensure that adequate mitigation of health risks has been undertaken in the planning of major events.
- A public health presence at major events in the ACT, such as the annual National Multicultural Festival, to ensure compliance with legislative and regulatory requirements.
- The HPS engaged with the ACT aged care sector to enhance emergency preparedness over 2011-12. Aged care facilities were asked to respond to a survey to establish the degree of current emergency preparedness for each facility, workshops to strengthen their preparedness were arranged and on-going support provided.
- The HPS continued to liaise with public and other agencies such as ACT Medicare Local (formerly ACT Division of General Practice), The Aboriginal Medical Service, Justice Health, The Refugee Medical Service, Youth Health Service and child care centres to promote immunisation in the ACT through education opportunities.
- The HPS worked collaboratively with organisations such as child care centres, aged care facilities, general practice and the education sector on the management of events such as measles, gastroenteritis and influenza outbreaks; and exposure to a case of hepatitis A in a food handler at an ACT high school in 2011.
- In December 2010, the Minister directed the Chief Health Officer (CHO) to develop a whole of government (WOG) response to key health issues raised in the 2010 CHO report, including the rising rates of overweight and obesity in the ACT. Key areas of focus include transport planning, access to healthier food options, and promotion of physical activity. The CHO developed a model for WOG action, outlining a three stage process: scoping areas for action on key health issues (2011); convening a Working Group to develop programs to address the scoped areas (2011/12), and convening Implementation Groups to implement actions developed by the Working Group (2013 onwards).

11. Health indicator tables

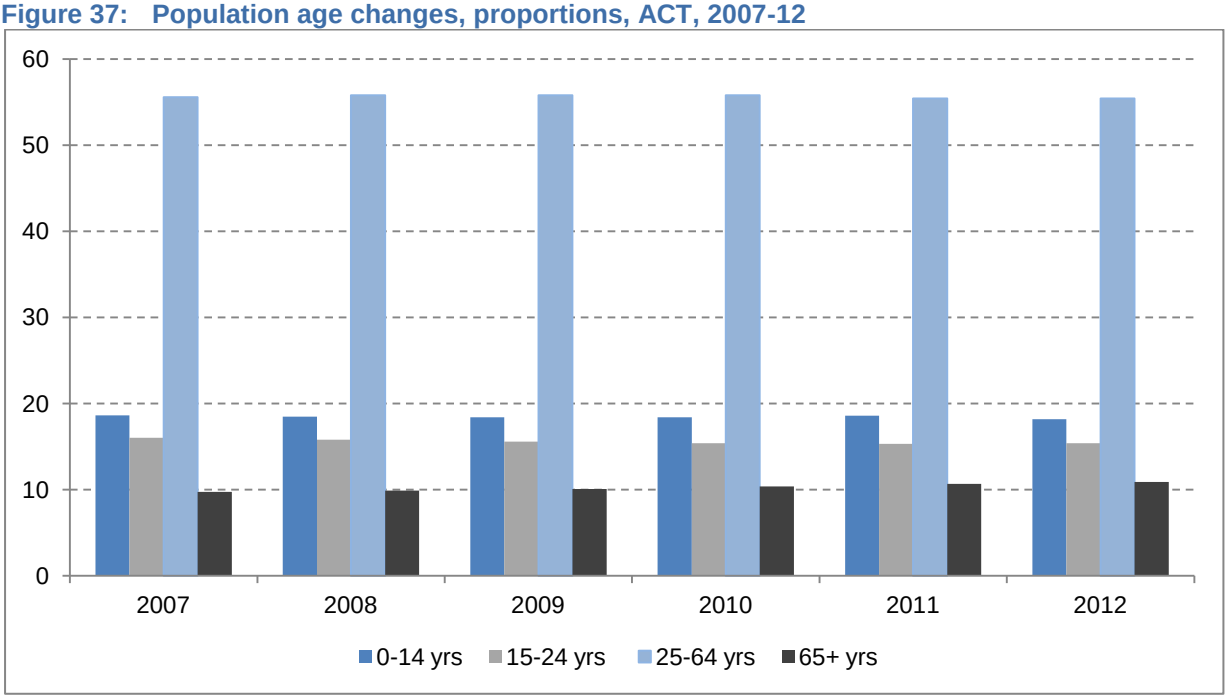
ACT PROFILE

Table 27: Population profile, by age group, ACT, 2007-12

Population	Units	Age group	2007	2008	2009	2010	2011	2012
Total population (estimated resident)	no.	all	339,761	346,294	352,189	357,958	365,621	374,658
Infants (as at 30 June each year)	no.	0<1	4,503	4,602	4,855	5,272	5,155	5,127
Young children (at 30 June)	no.	1-4	17,017	17,746	18,207	18,862	19,601	19,876
Children (at 30 June)	no.	0-14	63,292	64,098	65,027	66,077	67,423	68,177
Children	% pop.	0-14	18.6	18.5	18.4	18.4	18.4	18.2
Young people (at 30 June)	no.	15-24	54,522	54,743	54,961	55,247	55,391	57,670
Young people	% pop.	15-24	16.1	15.8	15.6	15.4	15.1	15.4
Younger adults (at 30 June)	no.	25-44	105,337	107,970	110,347	112,522	114,859	118,837
Adults (at 30 June)	no.	25-64	188,765	193,079	196,916	200,364	203,965	207,699
Adults	% pop.	25-64	55.6	55.8	55.8	55.8	55.8	55.4
Adults (at 30 June)	no.	45-64	83,428	85,109	86,569	87,842	89,106	88,862
Older people (at 30 June)	no.	65+	33,182	34,374	35,704	37,206	38,842	40,789
Older people	% pop.	65+	9.8	9.9	10.1	10.4	10.6	10.9
Older people (at 30 June)	no.	65-74	18,427	19,196	20,085	21,060	22,174	23,836
Elderly (at 30 June)	no.	75+	14,755	15,201	15,178	16,146	16,668	16,953

Sources: ABS *Australian Demography, 2007-12*, cat no. 3101.0 & 3101.8
ABS Census of Population & Housing, 2011
Note: 2006 & 2011 reflect Census year data & are therefore actual figures rather than estimates.

Figure 37: Population age changes, proportions, ACT, 2007-12



Sources: ABS *Australian Demography, 2007-12*, cat no. 3101.0 & 3101.8
ABS Census of Population & Housing, 2011
Note: 2006 & 2011 reflect Census year data & are therefore actual figures rather than estimates.

Table 28: Social indicators relevant to health, ACT & Australia, 2007-11

		ACT					Aust.
Indicator	Units	2007	2008	2009	2010	2011	2011
FAMILY FORMATION							
Registered marriages							
Number of marriages	'000	1.6	1.7	1.6	1.6	1.5	121.8
Crude marriage rate (per 1,000 population)	rate	4.7	4.8	4.4	4.4	4.1	5.4
Marriages, both partners married for the first time - of all marriages	%	68.8	68.8	69.8	73.2	72.3	71.3
Median age of males at first marriage	years	29.1	29.4	29.0	29.4	29.5	29.7
Median age of females at first marriage	years	27.6	27.7	27.8	27.8	28.1	28.0
Divorce							
Number of divorces	'000	1.3	1.4	1.4	1.4	1.4	48.9
Median duration of marriage until final separation	years	9.6	9.8	9.6	13.3	13	12.2
Divorces involving children aged under 18 years - of all divorces	%	51.8	48.2	51.0	52.5	52.2	48.3
Fertility							
Births	'000	4.8	4.8	4.9	5.1	5.1	301.6
Aboriginal and Torres Strait Islander births	no.	129	134	135	151	143	na
Total fertility rate (babies per woman)	rate	1.8	1.8	1.7	1.8	1.8	1.9
Births to mothers aged under 20 - of all births	%	2.6	2.0	2.4	2.0	2.1	3.8
Births to mothers aged 35 and over - of all births	%	23.7	26.0	24.5	25.8	25.2	22.7
LIVING ARRANGEMENTS							
Households							
Total households	'000	129	131	133	136	138	8,555
Families							
Total families	'000	94	94	97	100	102	6,400
Families with children aged under 15 years	'000	35	35	37	37	39	2,367
Couple families	'000	80	81	80	85	87	5,346
Couple-only families - of all couple families	%	43.3	42.8	43.4	42.3	43.0	46.8
Couple families with children aged under 15 - of all families with children aged under 15	%	80.1	81.9	78.8	83.1	84.7	79.3
Lone-father families with children aged under 15 - of all families with children aged under 15	%	**2.8	**3.2	**4.5	**3.1	**2.3	3.0
Lone-mother families with children aged under 15 - of all families with children aged under 15	%	17.0	14.8	16.7	13.8	12.9	17.8
Families with at least one child aged under 5 - of all families with children aged under 15	%	46.0	45.7	48.8	50.2	51.2	47.7
Persons							
Children aged under 15 living in one-parent families - of all children aged under 15	%	18.5	16.3	20.5	14.7	13.2	19.0
Persons aged 20-24 living with parents - of all persons aged 20-24	%	41.2	45.3	48.6	46.4	49.3	48.1
Persons aged 25-34 living with parents - of all persons aged 25-34	%	13.2	15.6	9.6	12.0	12.3	13.0
Persons aged 15-64 who live alone - of all persons aged 15-64	%	9.4	8.1	8.7	7.5	7.4	8.4
Persons aged 65 and over who live alone - of all persons aged 65 & over	%	22.4	24.1	24.0	23.6	28.3	24.2

(Table 28 continued on next page.)

Table 28: Social indicators relevant to health, ACT & Australia, 2007-11 (continued)

		ACT					Aust.
HOUSING	**Units**	**2007**	**2008**	**2009**	**2010**	**2011**	**2011**
Separate houses	%	na	78.6	na	78.7	72.8	75.6
Semi-detached houses	%	na	11.9	na	13.1	14.6	9.9
Flats	%	na	9.5	na	7.6	12.4	13.6
Average persons per household	%	na	2.5	na	2.6	2.6	2.6
Owner without a mortgage	%	na	30.6	na	29.1	28.4	32.1
Owner with a mortgage	%	na	40.3	na	40.9	39.0	34.9
Renter - Territory housing authority	%	na	8.5	na	6.4	na	na
Renter - private landlord	%	na	17.3	na	21.3	na	na
FAMILIES AND WORK							
Both parents employed - of all couple families with children aged under 15	%	71.1	76.0	72.1	75.4	71.0	62.6
One-parent families with children aged under 15, parent employed - of all one-parent families with children aged under 15	%	70.2	75.4	56.1	64.3	63.8	55.8
LABOUR FORCE (June)							
Participation, employed/unemployed (15+ years)	%	74.0	73.0	72.8	72.8	73.0	65.7
Employed part-time (of total employed)	%	24.5	24.5	24.7	25.2	25.4	29.6
Unemployment rate (15+ years)	%	3.0	2.6	2.9	3.5	3.5	5.1
Employed in highest skill occupations (of total employed)	%	39.3	40.9	41.6	43.3	40.2	29.7
Employed in lowest skill occupations (of total employed)	%	12.4	12.5	12.4	12.0	13.1	18.1
INCOME							
Ave. Weekly ordinary time earnings, full-time (May)	$	1,250	1,298	1,352	1,459	1,505	1,307
Age pension	%	5.3	5.5	5.7	5.6	5.7	9.8
Age pensioners - of persons of qualifying age	%	54.8	55.2	55.8	53.8	54.1	71.5
Disability support pension	%	2.0	2.1	2.1	2.2	2.2	3.6
Single parent	%	1.2	1.0	0.9	0.9	0.9	1.4
							2010 Aust.
Youth allowance	%	1.5	1.4	1.6	1.7		1.7
EDUCATION							**2011 Aust.**
Apparent retention, full-time students (Years 7, 8-12)	%	85.2	85.2	86.8	90.8	89.4	79.3
Bachelor degree or above (25-64 years)	%	41.9	42.4	46.9	44.6	47.7	27.9
COMMUNITY							**2010 Aust.**
Attended any sporting event (adults)	%	na	na	na	47.9	na	42.4
Participated in organised sport (adults)	%	na	na	na	34.7	na	24.4
Attended a live performance (adults)	%	na	na	na	64.4	na	51.9
							2009 Aust.
Organised sports activities (children, outside school hours)	%	na	na	71.3	na	na	63.1
Singing (children, outside school hours)	%	na	na	7.5	na	na	6.1
Playing a musical instrument (children, outside school hours)	%	na	na	22.2	na	na	19.7
COMMUNICATIONS							**2011 Aust.**
Household access to computer at home	%	83.9	86.4	87.5	na	90.9	82.6
Household access to the internet at home	%	73.4	80.5	81.5	na	88.1	78.9
CRIME AND SAFETY							
Victim of assault	%	na	na	7.1	4.8	7.0	5.6
Victim of actual or attempted break-in, last 12 mths	%	na	na	4.2	3.8	4.1	2.8
OTHER: Passenger vehicles per 1,000 population	no.	578	596	594	597	599	556

Sources: (a) ABS, *Australian Social Trends*, Data cubes, cat. no. 4102.0, 2012
(b) SCRGSP Report Vol. 2, 2010-13

Notes: (a) na not available.
(b) * * estimate has a relative standard error of 25% to 50% and should be interpreted with caution.
(c) 2011 figures are from the Australian Census and are therefore actual rather than estimates.

Table 29: Social indicators relevant to health, ACT & Australia, 2011

		ACT	Australia
Indicator	**Units**	**2011**	**2011**
COUNTRY OF BIRTH			
Australia	**%**	71.4	69.8
England	**%**	3.7	4.2
China	**%**	1.8	1.5
India	**%**	1.7	1.4
New Zealand	**%**	1.2	2.2
Vietnam	**%**	0.8	0.9
Other	%	19.4	20.9
BIRTHPLACE OF PARENTS			
Both parents born overseas	%	32.3	34.3
Father only born overseas	%	8.1	7.0
Mother only born overseas	%	6.2	4.9
Both parents born in Australia	%	53.4	53.7
MAIN LANGUAGE SPOKEN AT HOME			
Only English	%	77.8	76.8
Mandarin	%	1.9	1.6
Vietnamese	%	1.1	1.1
Cantonese	%	1.0	1.2
Italian	%	0.9	1.4
Spanish	%	0.8	0.5
ENGLISH LANGUAGE PROFICIENCY			
Speaks English only	% of migrants	44.3	37.3
Speaks English well or very well	% of migrants	48.3	42.9
Does not speak English well or not at all	% of migrants	6.7	18.6
Other, not stated	% of migrants	0.7	0.4
RELIGIOUS AFFILIATION			
No religion	**%**	28.9	22.3
Christian	**%**	55.2	61.1
Buddhism	**%**	2.6	2.5
Islam	**%**	2.1	2.2
Hinduism	**%**	1.7	1.3
Judaism	**%**	0.2	0.5
TRAVEL TO WORK			
Car, as driver	**%**	62.4	60.2
Car, as passenger	**%**	7.0	5.3
Bus	**%**	5.7	3.0
Walked	%	4.1	3.7
Bicycle	%	2.4	na
HOUSING			
Median rent payments	$ per week	380	285
Median mortgage repayments	$ per month	2,167	1,800
People per household	number	2.6	2.6

Source: ABS, *Census of Population & Housing 2011*, cat. no. 2049.0, 2012

MORBIDITY AND MORTALITY

Table 30: Selected mortality statistics, ACT, 2003-12

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Number of deaths										
Males	751	739	744	741	815	847	817	884	838	852
Females	663	684	747	743	782	850	831	795	862	854
Persons	1,414	1,423	1,491	1,484	1,597	1,697	1,648	1,679	1,700	1,706
Standardised mortality rate (deaths per 1,000 standard population)*										
Males	7.3	7.0	6.6	6.3	6.7	6.8	6.3	6.6	6.0	5.9
Females	4.7	4.7	4.9	4.7	4.7	5.0	4.7	4.3	4.4	4.2
Persons	5.8	5.7	5.7	5.5	5.6	5.8	5.4	5.3	5.1	4.9
Median age at death (years)										
Males	74.3	74.9	76.0	75.9	76.7	78.3	76.7	77.4	77.9	78.4
Females	81.4	81.0	82.4	82.6	82.5	83.0	83.1	84.4	84.3	84.8
Persons	78.3	77.5	79.2	79.5	79.6	80.3	79.9	81.1	81.4	81.7
Infant mortality rate (deaths at age less than 1 year, per 1,000 live births)										
Males	7.5	6.0	5.2	5.2	4.1	6.5	4.3	4.9	3.3	3.2
Females	4.0	7.9	6.2	5.0	3.4	3.4	2.6	2.4	2.5	2.6
Persons	5.8	6.9	5.7	5.1	3.8	5.0	3.5	3.7	2.9	2.9
Premature mortality rate (deaths per 1,000 population aged less than 80 years)										
Males	3.2	3.1	2.9	2.7	2.8	2.7	2.7	2.7	2.4	na
Females	1.8	2.0	2.0	1.7	1.9	2.0	1.8	1.6	1.7	na
Persons	2.5	2.5	2.5	2.2	2.3	2.3	2.3	2.2	2	na
Avoidable mortality rate (deaths per 1,000 population aged less than 80 years)										
Males	2.3	2.1	2.0	1.7	1.9	1.8	1.7	1.8	1.5	na
Females	1.2	1.3	1.3	1.1	1.3	1.3	1.3	1.1	1.1	na
Persons	1.7	1.7	1.7	1.4	1.6	1.6	1.5	1.4	1.3	na
Life expectancy (years) select ages										
Males										
0 years	79.2	79.7	79.9	80.0	80.3	80.1	80.5	80.5	81.0	81.2
65 years	18.3	18.6	18.8	18.9	19.2	19.0	19.3	19.3	19.7	19.7
85 years	5.8	6.0	6.1	6.1	6.1	5.9	6.1	6.0	6.4	6.2
Females										
0 years	83.8	83.9	84	83.9	84	84	84.3	84.7	84.8	85.1
65 years	21.4	21.5	21.9	21.7	21.6	21.6	21.9	22.1	22.0	22.3
85 years	7.0	7.0	7.2	7.1	6.9	7.0	7.1	7.2	7.1	7.2

Sources: ABS, *Deaths, Australia*, cat. no. 3302.0, Canberra, 2003-12
ABS deaths data 2003-12, confidentialised unit record files

Notes: (a) The data relates to ACT residents only, including those who died interstate or elsewhere, except for @ where data relates to ACT residents who died IN the ACT only (excludes those who died interstate or elsewhere).
(b) * Standardised to 2001 Australian population.
(c) 2012 ABS Deaths data are preliminary and should be treated with caution.
(d) na not available.

Table 31: Selected long-term conditions by age group, ACT, 2011-12

	Age group (%)						
Condition	0–24 years	25–44 years	45–64 years	65+ years	Males	Females	Persons
Respiratory diseases	28.3	34.2	35.6	32.5	28.9	35.8	32.4
Asthma	10.0	10.3	10.4	9.4	9.0	11.2	10.1
Back pain/problems nec, disc disorders	**4.3	15.7	22.9	22.3	15.5	13.4	14.4
Deafness (complete and partial)	**3.0	4.4	15.1	30.0	12.2	6.4	9.3
Diabetes	na	na	5.9	16.2	3.8	3.3	3.5
Hayfever and allergic rhinitis	19.6	24.1	25.0	17.4	19.8	24.4	22.1
Hypertensive disease	na	na	18.1	43.3	10.4	10.2	10.3
Diseases of the circulatory system	**4.2	9.7	30.3	62.1	15.9	20.9	18.4
Long sight/hyperopia	**5.1	11.7	46.1	40.6	18.1	23.9	21.0
Short sight/myopia	11.2	30.9	40.0	43.2	24.4	31.4	27.9
Neoplasms	na	na	**2.2	**6.9	**1.2	**2.1	1.6
Mental & behavioural	11.1	18.4	17.4	16.5	13.7	17.3	15.5
Musculoskeletal diseases	5.2	23.8	45.9	67.0	24.7	30.5	27.6
Arthritis (incl osteoarthritis)	**0.9	5.8	24	54.6	10.6	16.9	13.8

Source: ABS Australian Health Survey 2011-12: First results, state and territory tables, cat. no. 4368.0
Notes: (a) nec not elsewhere classified.
(b) na not available.
(c) ** estimate has relative standard error of 25-50% & should be used with caution.

Table 32: Selected long-term conditions, %, ACT 2001-12, & Australia, 2011-12

	ACT				Aust.
	2001	2004-05	2007-08	2011-12	2011-12
Short-sightedness	23.5	26.7	25.9	27.9	23.6
Long-sightedness	21.7	25.0	23.1	21.0	28.0
Hayfever & allergic rhinitis	25.3	21.6	21.0	22.1	16.7
Diseases of the circulatory system	17.4	18.9	15.2	18.4	16.9
Backpain/ problems nec/ disc disorders	22.8	14.2	13.9	14.4	12.7
Arthritis (includes osteoarthritis)	11.8	13.0	13.0	13.8	14.8
Mental & behavioural problems [(a)]	8.7	13.8	11.8	15.5	13.6
Asthma	12.3	10.2	9.6	10.1	10.2
Deafness (complete/partial)	10.6	8.7	8.2	9.3	10.4
Diabetes	3.1	3.2	2.8	3.5	4.0
Osteoporosis	1.7	2.9	2.9	3.3	3.3
Malignant neoplasms	1.8	1.7	1.9	1.6	1.5
Bronchitis/emphysema	4.4	2.1	1.8	2.1	2.4

Source: ABS 2001, 2004-05, 2007-08, 2011-12: Summary of results, state and territory tables, cat. no. 4368.0

Note: (a) includes depression.

HEALTH RISK FACTORS

Table 33: ASSAD, selected results, ACT, 1999-2011

	1999	2002	2005	2008	2011	Sig.[g]
Tobacco						
% Smoked at least part of a cigarette in lifetime	53.7	45.9	32.0	26.4	19.1	p<.05
% Current smokers (smoked at least once in last 7 days)	20.5	15.3	8.6	6.7	5.8	ns
% Daily smokers (smoked each day in last 7 days)[a]	8.5	6.9	3.1	2.2	1.4	ns
Alcohol						
% Drank at least a few sips of alcohol in lifetime	90.2	89.8	89.6	85.9	73.2	p<.05
% Current drinkers (drank at least once in last 7 days)	32.9	31.2	26.3	24.2	14.0	p<.05
% Single-occasion risky drinkers[b]	10.3	10.2	7.1	8.1	4.3	p<.05
Illicit substances						
% Used at least one illicit substance in lifetime	35.0	29.6	20.3	14.8	12.7	ns
% Used at least one illicit substance in last week	9.7	7.8	4.8	3.7	4.1	ns
% Used cannabis at least once in lifetime	33.5	28.1	16.9	13.2	11.9	ns
% Used cannabis at least once in last week	8.8	7.6	3.7	2.7	3.6	ns
% Used inhalants at least once in lifetime	25.1	19.6	17.6	17.7	14.9	ns
% Used inhalants at least once in last week	6.4	6.2	5.2	3.6	3.9	ns
% Used tranquillisers at least once in lifetime	19.1	15.1	14.7	19.4	19.2	ns
% Used hallucinogens at least once in lifetime	7.1	4.0	4.1	2.4	2.0	ns
% Used amphetamines at least once in lifetime	7.7	6.1	5.8	3.3	2.5	p<.05
% Used steroids at least once in lifetime	3.7	4.1	2.8	2.4	2.0	ns
% Used opiates at least once in lifetime	4.0	2.5	2.3	1.8	**0.9	p<.05
% Used cocaine at least once in lifetime	4.7	3.4	3.4	1.6	1.6	ns
% Used ecstasy at least once in lifetime	4.5	5.3	5.0	3.8	1.9	p<.05
% Injected drugs with needles in lifetime	4.2	4.1	3.8	3.9	na	na
% Used multiple substances in the last week[c]	5.2	4.4	2.3	1.4	2.2	ns
% Non-users (never tried tobacco, alcohol or any illicit in lifetime)	8.8	8.1	9.5	13.6	25.8	p<.05
Healthy weight[d]						
% Met the dietary guidelines for fruit consumption (3 serves)	-	-	41.7	41.7	44.8	ns
% Met the dietary guidelines for vegetable consumption (4 serves)	-	-	22.0	22.3	28.2	p<.05
% Met the dietary guidelines for cereal consumption (5 serves)	-	-	18.5	17.7	16.5	ns
% Met the physical activity guidelines for daily activity (60mins.+)	-	-	13.9	15.6	12.8	p<.05
% Met the physical activity guidelines for daily TV/computer use (<=2hrs)	-	-	29.9	25.0	26.3	ns
% Overweight or obese	-	-	22.5	19.5	15.7	p<.05
Sun protection[e] [f]						
% usually or always wear a hat	44.9	42.4	39.7	29.7	29.3	p<.05
% usually or always wear clothes covering most of your body	22.4	20.0	22.6	21.0	21.4	p<.05
% usually or always deliberately wear less or briefer clothing	18.1	22.6	19.4	19.1	23.6	p<.05
% usually or always wear maximum protection sunscreen	60.1	46.3	39.1	42.4	45.2	ns
% usually or always stay mainly in the shade	29.2	25.7	22.9	27.1	31.0	p<.05
% usually or always most of time inside	20.8	23.0	21.3	26.4	na	na

Source: ASSAD (Australian Secondary Student Alcohol & Drug Survey) confidentialised unit record files, 1999-2011, ACT Health

Notes: (a) Estimates for rates of daily smoking have changed slightly from previous reports due to coding changes.
(b) Any drinking by 12-17 year olds is considered risky drinking. For this report, single-occasion risky drinking was defined according to NHMRC guidelines for adults (more than 4 drinks on one occasion).
(c) Used alcohol, tobacco & at least one illicit in the week prior to the survey – not necessarily on the same occasion.
(d) Healthy weight questions changed between 2002 & 2005, so results are not comparable. No questions asked about healthy weight prior to 2002.
(e) Self-care practices usually or always adopted when out in the sun on a sunny day between 11am and 3 pm.
(f) Estimates of prevalence of sun protection activities have changed slightly from previous reports due to coding changes.
(g) ns not significant (p>0.05): na not applicable: p<0.05 = significant change between 2008 & 2011.
* * estimate has relative standard error of 25-50% & should be used with caution.

Table 34: Selected risk factors for chronic disease, %, adults 18 yrs & over, by sex, ACT, 2009-12

	2009-10			2011-12		
	Males	Females	Persons	Males	Females	Persons
Tobacco						
Current smoker	17.2	11.7	14.4	16.9	12.4	14.6
Alcohol						
Long-term harm from drinking [(a)]	41.3	19.4	30.0	39.8	20.6	30.1
Physical activity						
Sufficient physical activity [(b)]	59.4	54.5	56.9	66.2	53.3	59.6
Fruit and vegetable consumption						
Sufficient vegetable consumption [(c)]	6.3	13.4	9.9	8.0	14.0	11.0
Sufficient fruit consumption [(d)]	53.3	60.6	57.1	46.5	52.3	49.4
Overweight and obesity						
Percentage of adults who are overweight or obese	59.9	46.1	52.9	56.4	48.2	52.3
Sun protection						
Percentage of adults who use sun protection [(e)]	17.0	23.8	20.5	na	na	na

Source: 2009-12 ACT General Health Survey, unpublished data, ACT Health

Notes: 2009-10 refers to the 2 calendar years 2009 & 2010 combined and 2011-12 refers to the two calendar years 2011 & 2012 combined.

(a) The lifetime risk of harm from drinking alcohol increases with the amount consumed. For healthy men & women, drinking no more than 2 standard drinks any day reduces the lifetime risk of harm from alcohol-related disease or injury.
(b) 30 minutes each day or 150 minutes per week of moderate to vigorous physical activity.
(c) 5 or more serves of vegetables per day.
(d) 2 or more serves of fruit per day.
(e) Those who usually wear sunglasses, apply sunscreen, wear a hat and protective clothing. Questions regarding sun protection were not included in the survey in 2011-12.
(f) na not available.

CANCER SCREENING

Table 35: Radiation oncology waiting times, %, ACT, 2007-12

Category	2007-08	2008-09	2009-10	2010-11	2011-12
Urgent (commence treatment within 48 hrs) [(a)]	100.0	100.0	100.0	98.9	100.0
Semi-urgent (commence treatment within 4 weeks) [(b)]	83.5	90.0	92.9	100.0	99.8
Non-urgent category (commence treatment within 6 weeks)[(b)]	82.7	87.6	87.2	100.0	99.3

Source: ACT Government Health Directorate *Annual Report 2011-12*

Notes: (a) Percentages refer to those commencing treatment within ACT Health reporting guidelines (100%).
(b) Percentages refer to those commencing treatment within ACT Health reporting guidelines (95%) .

Table 36: Communicable disease notifications & rates, ACT 2008-12, Australia, 2012

	ACT	ACT					Aust.
	2012	2008	2009	2010	2011	2012	2012
	Number	Notification rate per 100,000 population					
Vaccine preventable diseases							
Pertussis	429	41.7	103.4	190.7	230.5	114.5	105.3
Pneumoncocal disease (invasive)	27	5.8	7.7	6.9	7.5	7.2	7.9
Meningococcal disease	1	0.9	0.6	0.3	0.6	0.3	1
Influenza (laboratory confirmed)	666	70.2	360.5	26	75.1	177.8	195.1
Measles	0	0	0.3	0.3	5.8	0	0.9
Mumps	6	0	0	0.3	0.3	1.6	0.9
Rubella	1	0	0	0.3	0.6	0.3	0.2
Rubella-congenital	0	0	0	0	0	0	0
Haemophilus influenzae type b	0	0	0	0	0	0	0.1
Tetanus	0	0	0	0	0	0	0
Diptheria	0	0	0	0	0	0	0
Poliomyelitis	0	0	0	0	0	0	0
Varicella zoster (chickenpox)	9	3.5	0.6	1.1	3.1	2.4	8.5
Varicella zoster (shingles)	51	2	3.1	8.8	7.8	13.6	19.3
Varicella zoster (unspecified)	121	29.3	19.1	24.3	27.8	32.3	37.3
Sexually transmitted diseases							
Chlamydial infection	1283	283.8	273.4	318.3	350.6	342.4	360.3
Gonococcal infection	92	6.0	15.7	14.6	35.6	24.6	59.4
Syphillis < 2 years	15	1.2	3.1	3.6	2.5	4.0	6.8
Syphillis > 2 years	13	9.2	5.7	4.4	6.7	3.5	5.5
Syphillis- congenital	0	0	0	0	0	0	0
Donovanosis	0	0	0	0	0	0	0
Bloodborne diseases							
Hepatitis (NEC)	0	0	0	0	0.6	0.3	0
Hepatitis B (incident)	2	0.3	1.1	1.1	0.6	0.5	0.8
Hepatitis B (unspecified)#,+	107	16.7	28.8	25.7	25.9	27.8	28.5
Hepatitis C (incident)	15	1.4	2.3	3.3	2.5	4.0	1.9
Hepatitis C (unspecified)#,+	130	56.1	44.7	58.3	50.0	35.2	42.5
Hepatitis D	0	0	0	0	0	0	0.1
Gastrointestinal diseases							
Campylobacteriosis	477	109.5	103.1	180.7	137.9	127.3	68.6
Salmonellosis	241	38	63.5	58.3	44.8	64.3	49.4
Cryptosporidiosis	19	3.2	29.6	4.1	3.6	5.1	13.8
Shigellosis	6	0.9	2.6	1.7	2.5	1.6	2.4
Hepatitis A	1	1.4	2.0	1.4	0.8	0.3	0.7
Listeriosis	0	0.3	0.3	0.8	0.3	0	0.4
Typhoid	1	0	0.6	0.6	0.6	0.3	0.5
SLTEC, VTEC	5	0	0	0	1.4	1.3	0.5
Haemolytic Uraemic Syndrome (HUS)	0	0	0	0	0	0	0.1
Hepatitis E	1	0	0	0.6	0.6	0.3	0.2

Continued on next page

Table 36: Communicable disease notifications & rates, ACT 2008-12, Australia, 2012 (continued)

	ACT	ACT					Aust.
	2012	2008	2009	2010	2011	2012	2012
	Number	Notification rate per 100,000 population					
Other bacterial diseases							
Tuberculosis	18	3.7	6.5	2.8	5.6	4.8	5.8
Legionellosis	2	1.2	0.9	1.4	1.1	0.5	1.7
Leprosy	0	0	0	0	0	0	0
Vectorborne diseases							
Malaria	11	4.3	1.1	0.6	2.2	2.9	1.5
Dengue	22	1.7	4.6	4.7	4.2	5.9	6.7
Ross River Virus infection	11	6	0.9	6.1	2.2	2.9	20.5
Barmah Forest Virus infection	2	2	0.9	0.8	0.6	0.5	7.5
Arbovirus infection (NEC)	0	0	0	0	0	0	0
Chikungunya Virus infection	nn	nn	nn	nn	nn	nn	0.1
Zoonotic diseases							
Q Fever	0	0.6	0	0.3	0.3	0	1.5
Ornithosis	0	0	0	0	0	0	0.3
Leptospirosis	0	0	0.6	0.3	0.3	0	0.5
Brucellosis	0	0	0	0	0	0	0.1

Sources: ACT Notifiable Diseases System 2008-12
Notifiable Diseases Surveillance System (NNDSS) 2008-12

Notes: nn not notifiable.
+ unspecified hepatitis includes cases with hepatitis in which the duration of infection cannot be determined.

Table 37: Cancer incidence & mortality, rates, ACT, 2005-09

		2005	2006	2007	2008	2009
Incidence						
All cancers	Males	528.0	508.5	549.4	560.6	526.8
	Females	402.1	376.8	380.7	367.6	393.9
	Total	455.9	435.8	454.2	454.0	452.0
Breast cancer	Females	124.6	127.9	115.4	117.9	149.2
Cervical cancer	Females	5.5	4.6	4.4	3.8	6.5
Prostate cancer	Males	152.2	155.5	185.0	217.4	176.3
Lung cancer	Males	41.2	42.2	44.3	37.1	35.1
	Females	34.0	27.0	32.9	34.4	25.9
	Total	36.5	33.9	37.7	35.6	30.3
Colorectal cancer	Males	71.3	72.8	64.0	77.1	75.5
	Females	50.9	54.9	60.6	55.4	51.6
	Total	60.5	62.9	62.2	65.9	62.5
Melanoma	Males	71.3	48.1	41.4	58.2	53.4
	Females	48.8	38.3	27.5	34.4	20.6
	Total	57.8	42.6	33.2	44.8	35.1
Mortality						
All cancers	Males	187.5	200.6	234.8	200.2	187.0
	Females	146.1	140.9	125.5	136.3	138.5
	Total	160.0	166.7	171.2	161.5	158.9
Breast cancer	Females	27.8	28.4	20.7	20.6	24.6
Cervical cancer	Females	0.0	n.p.	3.3	2.3	n.p.
Prostate cancer	Males	33.7	27.0	24.3	34.0	32.7
Lung cancer	Males	28.1	39.4	37.3	30.8	22.5
	Females	18.2	26.1	17.4	24.7	21.9
	Total	22.1	31.5	26.1	27.1	22.3
Colorectal cancer*	Males	12.9	22.8	30.8	16.3	18.2
	Females	17.5	14.0	16.9	13.3	16.7
	Total	16.5	18.0	23.5	14.8	17.4
Melanoma	Males	5.4	14.2	11.4	8.7	9.6
	Females	3.7	5.6	2.2	3.9	5.0
	Total	4.3	9.4	6.2	6.0	7.0

Sources: ACT Cancer Registry (incidence data)
AIHW National Mortality Database (mortality data), provided by registries of Births, Deaths & marriages & the National Coronial Information System

Notes: (a) Rate per 100,000 population was age standardised to the Australian Standard Population, 2001.
(b) The number of new cases and deaths change over time as more information is updated. Therefore, the number of cases/deaths varies according to time of publication.
(c) The data refer to people who died in any part of Australia and whose place of usual residence was the ACT.
(d) The year of death is the year of occurrence of death, not the year of registration of death.
(e) The table was compiled using all deaths registered up to and including 2011.
(f) The incidence data for 2008 and 2009 does not yet include cases which were diagnosed from death certificate only.
* The AIHW mortality rate for colorectal cancer may be an underestimate because many of the deaths attributed to C26 (other & ill-defined digestive systems) may be recoded to colorectal cancer deaths when the registry has been able to review them.
n.p. = not published due to small numbers.

MATERNAL AND PERINATAL HEALTH

Table 38: Women who gave birth, by state of residence, ACT, 2006-11 & Australia, 2011

	ACT						Australia
	2006	2007	2008	2009	2010	2011	2011
Number of women who gave birth	5,354	5,419	5,591	5,738	5,826	5,584	297,126
ACT residents	4,480	4,546	4,715	4,823	4,899	4,769	
Non-ACT residents	874	873	876	915	927	815	
Number of babies born	5,485	5,535	5,707	5,853	5,946	5,702	301,810
to ACT residents	4,576	4,623	4,796	4,895	4,978	4,855	
to non-ACT residents	909	912	911	958	968	847	

Source: ACT Maternal and Perinatal Data Collection, confidentialised unit record files, 2006-11

HEALTH SERVICES

Table 39: Public hospital summary indicators, ACT & Australia, 2009-12

	ACT			Australia
	2009-10	2010-11	2011-12	2011-12
No. of separations[(a)]	88,356	93,745	97,455	5,511,492
No. of overnight separations	40,729	43,849	45,138	2,704,699
No. of same-day separations	47,627	49,896	52,317	2,806,793
Same-day separations as a % of total	54	53	54	51
Separations per 1,000 population [(b)]	264	272	279	236
Ave. public cost weighted separations [(b)]	1	1	1	1
Cost ($) per casemix-adjusted separation (excluding depreciation)	4,989	5,401	6,384	5,204
No. of patient days	296,483	311,607	326,778	18,991,036
Patient days per 1,000 population [(c)]	897	916	949	801
Average length of stay (days)	3	3	3	3
- excluding same-day separations (days)	6	6	6	6
No. of available beds	907	926	939	58,420
No. available beds per 1,000 resident population	3	3	3	3
% of beds accredited	100	100	100	99
% of hospitals accredited	100	100	100	94

Source: AIHW 2010, *Australian Hospital Statistics, 2009-10 to 2011-12*

Notes: (a) Separations for which the care type was reported as newborn with no-qualified days & records for hospital boarders & posthumous organ procurement have been excluded.
(b) Separations for which the care type was reported as acute, or as newborn with qualified patient days, or was not reported. AR-DRG version 5.1 national public sector estimated cost weights 2007-08 were applied to AR-DRG version 5.1 DRGs for all rows in average public cost weight of separations.
(c) Figures are directly age-standardised as detailed in Appendix 1 of Australian Hospital Statistics 2011-12 (AIHW).

Table 40: Hospital separations by disease group & Aboriginal & Torres Strait Islander status, ACT, 2008-11

	Aboriginal & Torres Strait Islander	Non-Aboriginal or Torres Strait Islander
ICD-10-AM chapter	%	%
Factors & contact[(c)]	14.8	18.2
Injury & poisoning	12.8	8.5
Pregnancy & related	9.9	7.6
Digestive	9.7	12.2
Symptoms, signs, etc (includes cardiac murmers, dizziness, abnormal heart beat)	7.8	7.0
Mental & behavioural	6.7	3.6
Respiratory	5.4	5.5
Genitourinary	5.1	5.6
Musculoskeletal	4.7	6.6
Circulatory	4.6	6.8
Neoplasms	2.8	6.4
Endrocrine	2.7	1.9
Perinatal	2.7	1.4
Nervous system	2.4	2.4
Skin & subcutaneous	2.3	1.7
Infectious	1.8	1.6
Ear and mastoid	1.2	0.9
Congenital malformations	1.0	0.6
Blood & blood forming	0.9	1.6
Eye and adnexa	0.7	1.9
Total	100.0	100.0

Source: ACT Admitted Patient Care Collection 2008-11
Note: (a) Data is for financial years.
(b) Excludes dialysis.
(c) Factors & contact includes ICD-10 codes Z00-Z99, including live infants born in hospital, chemotherapathy, attention to artificial openings & rehabilitation procedures unspecified.

Table 41: GP full-time workload equivalents, rate, ACT & Australia, 2007-12

	ACT	Australia
2007-08	67.5	90.0
2008-09	67.2	90.7
2009-10	66.7	90.7
2010-11	65.6	91.5
2011-12	68.8	95.3

Source: SCRGSP, *Report on Government Services, 2013*
Notes: (a) Rate per 100,000 population.
(b) Full-time workforce equivalents (FWEs) are calculated for each practitioner by dividing the practitioner's Medicare billing by the mean billing of full-time practitioners for that reference period. For example, an FWE value of 2 indicates that the practitioner's total billing is twice that of the mean billing of a full-time practitioner.
(c) FWE data include vocationally recognised GPs & other medical practitioners (OMPs).
(d) FWE numbers are based on doctors' practice location postcodes at which services were rendered within the reference period.

Table 42: GP service use, rate, ACT, 2008-12

	ACT	Australia
2008-09	4,494.6	5,552.9
2009-10	4,621.9	5,678.9
2010-11	4,520.8	5,598.9
2011-12	4,308.9	5,763.4

Source: SCRGSP, *Report on Government Services, 2013*
Notes: (a) Date for 2011-12 are preliminary & are not age-standardised. They are NOT directly comparable with data from previous years.
(b) Rate per 1,000 population.

Table 43: Nurse-led Walk-in Centre, main conditions treated, ACT 2011-12

Condition	Number	% of presentations
URTI - common cold	2,052	11.8
Lacerations	1,116	6.4
Other - musculoskeletal	636	3.6
Wound dressing	508	2.9
URTI - sore throat	469	2.7
Ear condition - wax	462	2.6
URTI - tonsilitis	440	2.5
Other - skin condition	437	2.5
URTI - sinusitis	427	2.4
Ear condition - otitis media	419	2.4

Source: ACT Government Health Directorate *Annual Report 2011-12*
Note: URTI refers to upper respiratory tract infection.

Table 44: Employed nurses, selected characteristics, ACT & Australia, 2007-11

	Year	2007		2008		2009		2011	
		ACT	Aust.	ACT	Aust.	ACT	Aust.	ACT	Aust.
Number	total	4,192	263,331	4,448	269,909	4,493	276,751	4,701	283,577
Average age (years)	years	43.5	43.7	44.6	44.1	44.7	44.3	44.5	44.5
% male	%	7.5	9.6	8.0	9.5	8.3	9.6	8.9	9.9
% registered nurses	%	83.6	80.6	83.0	81.4	83.8	81.3	85.2	81.8
% clinical nurses [(a)]	%	92	91	88.2	90.9	87.5	90.6	77.3	79.4
Average hours	hours	34.2	33.3	34.6	33.4	34.8	33.3	34.7	32.8
Population rate[(b)]	rate	1,229.1	1,249.6	1,284.5	1,255.5	1,275.3	1,260.7	1,229.1	1,253.6
Population	number	341,054	21,072,452	346,294	21,498,540	352,285	21,951,736	365,421	22,620,554

Sources: AIHW *Nursing Labour Force Survey, 2007 to 2011*
Unpublished ABS estimated resident population data
Notes: (a) Clinical nurses includes clinical nurse managers & supervisors of new nurses.
(b) Nurses per 100,000 population.
(c) 2010 data are not available.
(d) 2012 data will be published in 2014.

Table 45: Health professional services & access issues, ACT 2010-12 & Australia 2011-12

		ACT	ACT	Australia
	%	2010-11	2011-12	2011-12
Bulk billing (GP & GP nurses)	%	48.1	50.2	80.9
Waiting time for GPs -people's perception that they waited too long				
	%	19.3	28.3	27.4
Waiting time for GPs for urgent appointment				
within 4 hours	%	56.1	48.0	63.6
within 4-24 hours	%	34.0	18.5	12.0
0-24 hours	%	90.1	66.5	75.6
People deferring access to GPs due to cost				
	%	14.9	12.9	7.2
People deferring access to prescribed medication due to cost				
	%	9.4	11.7	9.6
Availability of public dentists	rate	na	7.7	5.7
Waiting time for public dentists				
< 1 month	%	na	23.0	41.3
1-6 months	%	na	45.3	31.9
1 or more years	%	na	10.7	17.6

Source: SCRGSP, *Report on Government Services, 2013*
Notes: Rate per 100,000 population.
na not available.

Table 46: Private health insurance, selected statistics, ACT & Australia, 2006-12

		2006	2007	2008	2009	2010	2011	2012
% of population with private health insurance[(a)]								
	ACT	52.9	55.6	54.9	54.9	55.7	56.4	56.8
	Australia	43.4	44.2	44.4	44.6	45.1	45.7	46.9
% of public hospital admissions using private health insurance (ACT residents)[(b)(c)]								
Public hospitals	ACT	5.4	5.1	5.8	5.9	6.3	6.0	6.9
All hospitals (public & private)	ACT	29.5	28.6	28.3	28.9	30.9	30.1	na

Sources: (a) www.phiac.gov.au/for-industry/industry-statistics/annualsurvey/
(b) ACT Health Admitted Patient Care data (unpublished) 2006-10
(c) AIHW. *Australian hospital statistics 2011-12*, cat. no. HSE 134

Notes : Surveyed at 30 June each year.
na not available (for private hospitals).

Table 47: Residential aged care places & packages, persons 70 years & over, ACT & Australia, 2008-11

	2008	2009	2009	2010	2010	2011	2011
	Rate	Number	Rate	Number	Rate	Number	Rate
ACT							
Residential places	76.8	1,768	73.1	2,019	80.8	2,031	78.5
Community Aged Care packages	22.6	514	21.2	623	24.9	671	25.9
Extended Aged Care at Home packages	6.6	156	6.4	196	7.8	425	16.4
Transition Care Program packages	1.5	37	1.5	41	1.6	49	1.9
Total (places and packages)	107.5	2,475	102.3	2879	115.2	3,176	122.8
Australia							
Residential places	87.7	178,290	87.0	182,850	87.1	185,482	86.9
Community Aged Care packages	20.1	40,859	19.9	43,300	20.6	45,777	21.5
Extended Aged Care at Home packages	3.1	6,514	3.2	8,167	3.9	8,150	3.8
Transition Care Program packages	1	2,228	1.1	2,698	1.3	3,349	1.6
Total (places and packages)	111.9	227,891	111.2	237,015	112.9	246,753	115.6

Source: AIHW, *Residential Aged Care in Australia*, AIHW, 2008-11

Notes: (a) The national figures include places & packages provided by Multi-purpose Services & places & packages funded under the National Aboriginal & Torres Strait Islander Flexible Aged Care Program. Neither of these operates in the ACT.
(b) 2012 data has not been released in the same way as previous years. Refer Section 9.5 for information.
(c) Rates are per 1,000 population of people 70 years & over.

Table 48: Clinical mental health services, % of people receiving them, ACT & Australia, 2007-11

	ACT		Australia	
Year	Specialised public mental health services	Medicare-subsidised services	Specialised public mental health services	Medicare-subsidised services
2007-08	2.0	4.0	1.6	4.9
2008-09	2.1	4.8	1.6	5.8
2009-10	2.1	5.2	1.6	6.3
2010-11	2.2	5.7	1.6	6.9

Source: Steering Committee for the Review of Government Service Provision 2013, *Report on Government Services 2013,* Productivity Commission, Canberra

Note: *Rates are age-standardised to the Australian population as at 30 June 2001.

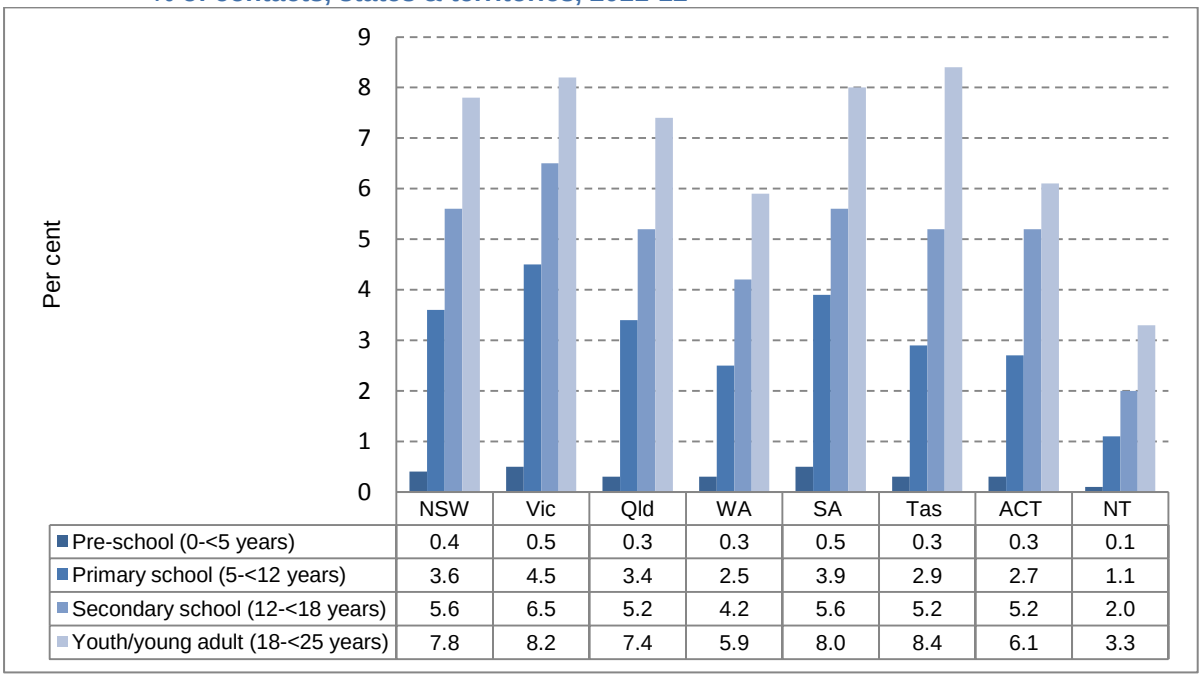
Table 49: Clinical mental health services, % of people receiving them by Indigenous status, ACT & Australia, 2007-11

Year	ACT		Australia	
	Aboriginal and Torres Strait Islander	Non-Aboriginal and Torres Strait Islander	Aboriginal and Torres Strait Islander	Non-Aboriginal and Torres Strait Islander
2007-08	5.1	1.6	3.8	1.3
2008-09	5.6	1.7	4.0	1.3
2009-10	5.8	1.8	4.3	1.3
2010-11	6.4	1.8	4.4	1.4

Source: Steering Committee for the Review of Government Service Provision 2013, *Report on Government Services 2013,* Productivity Commission, Canberra

Note: *Rates are age-standardised to the Australian population as at 30 June 2001.

Figure 38: Primary mental health care services subsidised through Medical Benefits Scheme, % of contacts, states & territories, 2011-12



	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Pre-school (0-<5 years)	0.4	0.5	0.3	0.3	0.5	0.3	0.3	0.1
Primary school (5-<12 years)	3.6	4.5	3.4	2.5	3.9	2.9	2.7	1.1
Secondary school (12-<18 years)	5.6	6.5	5.2	4.2	5.6	5.2	5.2	2.0
Youth/young adult (18-<25 years)	7.8	8.2	7.4	5.9	8.0	8.4	6.1	3.3

Source: Steering Committee for the Review of Government Service Provision 2013, *Report on Government Services 2013*, Productivity Commission, Canberra

Note: *Rates are age-standardised to the Australian population as at 30 June 2001.

Table 50: Mental health patients, post-hospital discharge, 7 day follow-up, ACT, 2005-11

Year	Percentage of follow-up contact within seven days post discharge	
	ACT Average %	Aust. Average %
2005-06	67.7	44.7
2006-07	69.0	46.2
2007-08	72.0	47.1
2008-09	73.1	47.2
2009-10	73.7	50.1
2010-11	78.6	54.3

Source: Steering Committee for the Review of Government Service Provision 2013, *Report on Government Services 2013*, Productivity Commission, Canberra

Table 51: ACT Government plans that influence health

ACT Health Plans	Other Directorate Plans
ACT Breastfeeding Strategic Framework 2010-2015	ACT Disability Policy Framework 2009-2014
ACT Strategy for Improving Care and Support for Living with Chronic Conditions 2012-2017	ACT Strategic Bushfire Management Plan
Adult Corrections Health Services Plan 2008-2012	ACT Strategic Plan for Positive Ageing 2010-14
Bilateral Primary Health Care Plan	Active Transport Plan
Cancer National Service Improvement Framework	A Picture of ACT's Children and Young People
Children's And Young People's Justice Health Services Plan 2008-2012	A Strategic Plan for Sport and Active Recreation in the ACT & Region 2011-2020
Diabetes Services Strategic Plan 2008-2012	Breaking the Cycle - The ACT Homelessness Strategy
Food And Nutrition Strategic Framework 2012 - 2018	Canberra City Area Action Plan 2010-2016
HIV Aids, Hepatitis C, Sexually Transmissible Infections Strategic Framework For The Act 2007-2012	Canberra Plan
Immunisation Strategy 2012-2016	Canberra Social Plan 2011
Improving Women's Access To Health Care Services And Information: A strategic Framework 2010-15	Children's Plan 2010-14
Living Is For Everyone (life): A Framework For Prevention Of Suicide And Self-Harm In Australia	Multicultural Strategy 2010 - 2013
Mental Health Services Plan 2009 - 2014	State of the Environment Report 2011
Mental Health - Building A Strong Foundation: A Framework For Promoting Mental Health And Wellbeing In The Act 2009-2014	The ACT Government's sustainability policy: People, Place, Prosperity
Physical Activity Strategic Framework 2012-2015	Weathering the Change: the ACT Climate Change Policy
Population Health Strategic Framework 2013-2015	Women's Plan 2010-15
Primary Health Care Strategy 2011-14	
Reconciliation Action Plan 2012-2015	
Regional Cancer Services Plan	
Renal Health Services Plan 2010-2015	
Safety And Quality Framework 2010-2015	
Suicide Prevention: Managing The Risk Of Suicide In The Act 2009-14	
Sustainability Strategy	

Table 52: Closures of Lake Burley Griffin, recreational seasons, 2010-12

Date	Closure	Reason for Closure
22 - 27 Nov 2010	Partial lake closure of East Basin to primary contact.	Microbiological quality
29 Nov - 2 Dec 2010	Complete lake closure to all recreational users (primary & secondary contact) (coincided with overflow from the Queanbeyan Sewerage Treatment Works).	Microbiological quality
3 Dec - 12 Dec 2010	Complete lake closure to all recreational users.	Microbiological quality
31 Jan - 6 Feb 2011	Partial lake closure of East Basin to primary contact.	Blue-green algae
17Jan - 6 Feb 2011	Partial lake closure of Black Mountain Beach & Weston Park West to primary contact.	Blue-green algae
7 Feb - 13 Feb 2011	Partial lake closure of Black Mountain Beach to primary contact.	Blue-green algae
14 Feb - 6 Mar 2011	Complete lake closure to all recreational users.	Blue-green algae
7 - 14 Mar 2011	Partial lake closure of Central Basin, Lotus Bay, East Basin & Yarralumla Beach to primary contact.	Blue-green algae
28 Nov - 11 Dec 2011	Partial lake closure to primary contact. Ferry Terminal, Weston Park East	Blue-green algae Microbiological quality
12 Dec - 2 Jan 2012	Partial lake closure of East Basin & Weston Park East to primary contact.	Microbiological quality
3 - 15 Jan 2012	Partial lake closure of Ferry Terminal & Weston Park West to primary contact.	Blue-green algae
16 Jan - 5 Feb 2012	Partial lake closure of Weston Park West to primary contact.	Blue-green algae
6 - 12 Feb 2012	Partial lake closure of Weston Park East to primary contact.	Microbiological quality
13 - 26 Feb 2012	Partial lake closure of Weston Park East & Weston Park West to primary contact.	Blue-green algae
20 Feb - 26 Feb 2012	Partial lake closure of Black Mountain Beach to primary contact.	Blue-green algae
27 Feb - 12 Mar 2012	Complete lake closure to all recreational users (coincided with possible sewage bypass from the Queanbeyan Sewerage Treatment Works following heavy rains).	Microbiological quality
13 - 18 Mar 2012	Partial lake closure of East Basin & Central Basin to all recreational users & closure of the rest of the sites to primary contact.	Microbiological quality
2 - 15 April 2012	Partial lake closure of Ferry Terminal & Weston Park East to primary contact.	Blue-green algae
16 - 22 April 2012	Partial lake closure of:Central Basin & Ferry Terminal Weston Park East	Blue-green algae Microbiological quality
23 Apr - 6 May 2012	Closure of all sites on Lake Burley Griffin except East Basin, Central Basin & Lotus Bay to primary contact.	Blue-green algae
7 - 13 May 2012	Closure of all sites on Lake Burley Griffin except East Basin & Black Mountain Beach to primary contact.	Blue-green algae
14 May - 3 Jun 2012	Complete lake closure to primary contact.	Blue-green algae & scum
4 - 17 Jun 2012	Closure of all sites to primary contact except East Basin.	Blue-green algae
18 - 24 Jun 2012	Closure of all sites except East Basin & Central Basin to primary contact.	Blue-green algae
25 - 30 Jun 2012	Closure of all sites except East Basin, Cental Basin & Ferry terminal to primary.	Blue-green algae

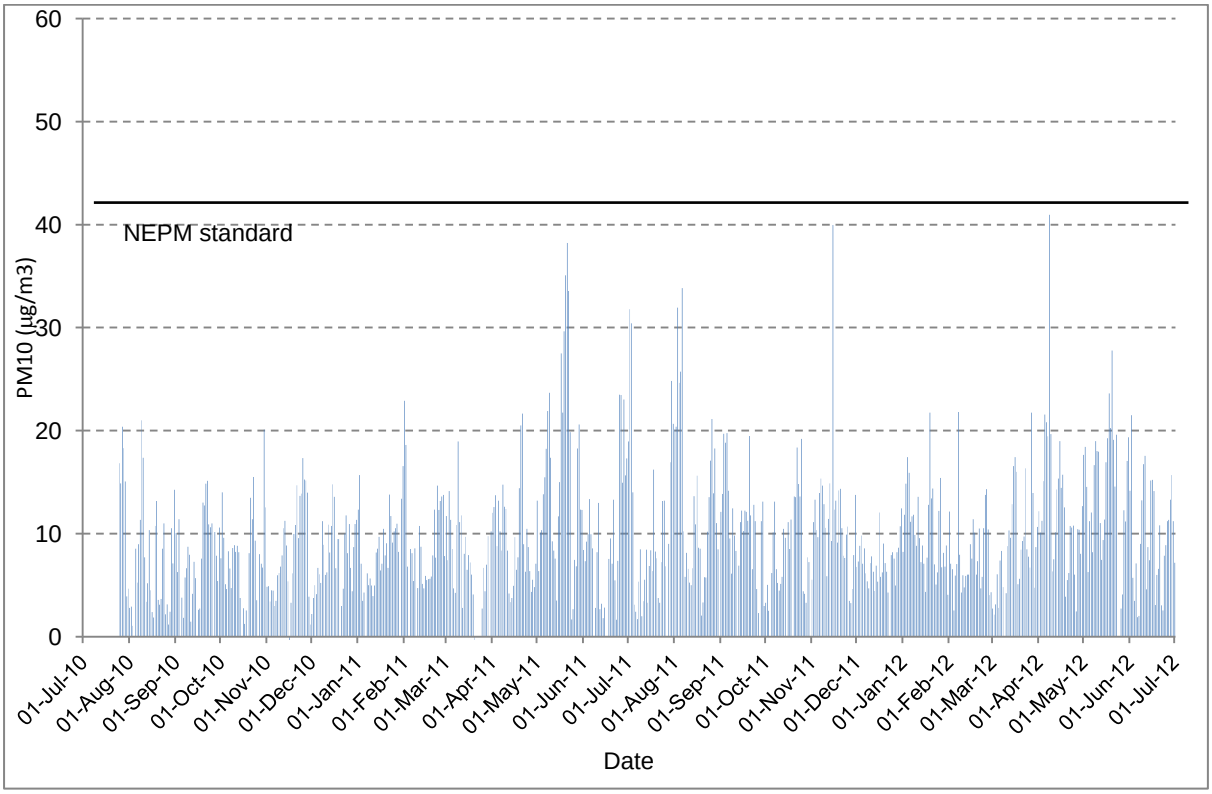
Source: Health Protection Service, ACT Health, 2013
Note: Primary contact involves whole-body contact in which the body or face & trunk are frequently immersed or the face is frequently wet by spray, & where it is likely that some water will be swallowed, inhaled, or come into contact with ears, nasal passages, mucous membranes or cuts in the skin (e.g. swimming, diving, waterskiing, windsurfing, white-water canoeing).
Secondary contact may involve incidental contact in which only the limbs are regularly wet & in which greater contact is unusual (e.g. boating, fishing, canoeing, & rowing).

Table 53: Closures, other waterways, recreational seasons, 2011-12

Date	Water body	Closure
10 Feb - 1 Apr 2011	Lake Tuggeranong*	Closed to primary contact
1 April - 16 June 2011	Lake Tuggeranong*	Complete closure
3 Jan - 29 March 2012	Lake Tuggeranong*	Closed to primary contact
3 Apr - 28 May 2012	Lake Ginninderra*	Closed to primary contact

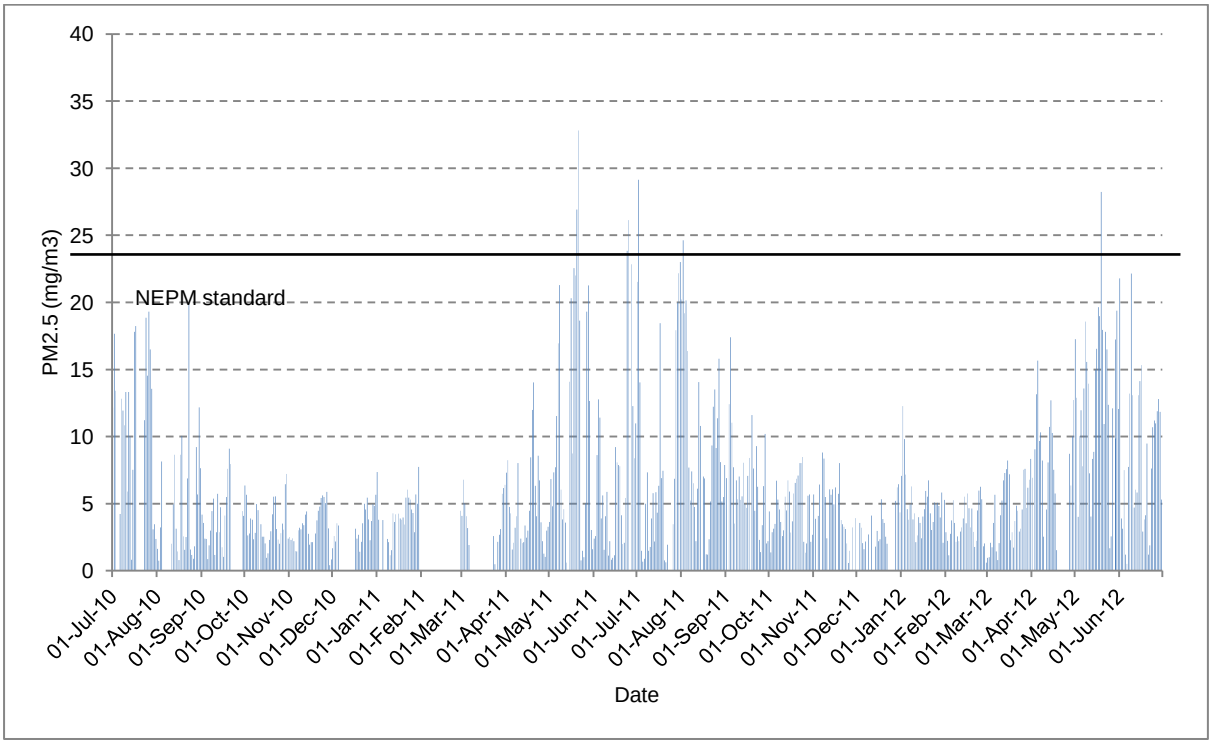
Source: Health Protection Service, ACT Health, 2013
Note: *Detailed data for cause of closure is not available for these sites.

Figure 39: Air quality, daily PM_{10} levels, Monash, ACT, 2010-12



Source: Health Protection Service, ACT Health, 2013

Figure 40: Air quality, daily $PM_{2.5}$ levels, Monash, ACT, 2010-12



Source: Health Protection Service, ACT Health, 2013

12. List of Abbreviations

AATSIHS	Australian Aboriginal and Torres Strait Islander Health Survey 2012-13
ABHI	Australian Better Health Initiative
ABS	Australian Bureau of Statistics
ACIR	Australian Childhood Immunisation Register
ACT	Australian Capital Territory
ACTEW	ACT Electricity and Water
ACTGHS	ACT General Health Survey
AEDI	Australian Early Development Index
AHS	Australian Health Survey
AIDS	Acquired Immune Deficiency Syndrome
AIHW	Australian Institute of Health and Welfare
AMC	Alexander Maconochie Centre
ANU	Australian National University
APC	Admitted Patient Care
ASR	Age-standardised rate
ASVS	Australian Standard Vaccination Schedule
ASSAD	Australian Secondary Students Alcohol and Drug Survey
BBV	Blood-borne viruses
BMI	Body mass index
BOD	Burden of disease
CATI	Computer-assisted telephone interview
CHD	Coronary (ischaemic) heart disease
COPD	Chronic obstructive pulmonary disease
CVD	Cardiovascular disease
DALY	Disability-adjusted life year
DoH	Department of Health (Commonwealth)
DRG	Diagnostic related group
EDIS	Emergency Department Information System
ERASS	Exercise, Recreation and Sport Survey
ERP	Estimated resident population
ETS	Environmental tobacco smoke
FTE	Full-time equivalents
FWE	Full-time workforce equivalents
GP	General practitioner
GRIM books	General Record of Incidence and Mortality Books (AIHW)
GSAHS	Greater Southern Area Health Service
HIV	Human Immunodeficiency Virus
HPS	Health Protection Service
HPV	Human papillomavirus
ICD-9-CM	International Statistical Classification of Diseases and Related Health Problems, 9th Revision, Clinical Modification
ICD-10	International Statistical Classification of Diseases and Related Health Problems, 10th Revision
ICD-10-AM	International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification
K10	Kessler Psychological Distress Scale -10
MBS	Medicare Benefits Schedule

MMR	Measles, mumps and rubella (used in reference to vaccines)
na	not available
NATSISS	National Aboriginal and Torres Strait Islander Social Survey
NATSIHS	National Aboriginal and Torres Strait Islander Health Survey
NCHECR	National Centre in HIV Epidemiology and Clinical Research (now Kirby Institute for Infection & Immunity in Society)
NCSP	National Cervical Screening Program
NDARC	National Drug and Alcohol Research Centre
NDSHS	National Drug Strategy Household Survey
NGO	Non-government Organisation
NHMRC	National Health and Medical Research Council
NHS	National Health Survey
NMDS	National Minimum Data Set
NPAPH	National Partnership Agreement on Preventive Health
NPSU	National Perinatal Statistics Unit
NSP	Needle Syringe Program
NSW	New South Wales
$PM_{2.5}$	Particulate matter of less than 2.5 microns in diameter
PM_{10}	Particulate matter of less than 10 microns in diameter
PPH	Potentially preventable hospitalisation
PSA	Prostate specific antigen
RPA	Radiation Protection Act 2006 (ACT)
RPR	Radiation Protection Regulation 2007 (ACT)
RSE	Relative Standard Error
RSI	Relative Stay Index
SAAP	Supported Accommodation Assistance Program
SCRGSP	Steering Committee for the Review of Government Service Provision
SNAPS	ACT Smoking, Nutrition, Alcohol and Physical Activity Survey
Spf30	Sun Protection factor 30 (skin will not burn until it has been exposed to 30 times the amount of solar energy that would normally cause it to burn).
STI	Sexually transmitted infection
TAMS	Territory and Municipal Services
TCH	The Canberra Hospital
TFR	Total fertility rate
VPD	Vaccine preventable disease
WHO	World Health Organization
Winnunga	Winnunga Nimmityjah Aboriginal Health Service
YLL	Years of life lost
95%CI	95% Confidence interval

13. Glossary and statistical methodology

ACT RATES

Rates that are specific to the ACT are calculated by dividing the number of ACT resident cases by the ACT population at risk. In some cases, this results in an over-estimate. This occurs with service delivery statistics, where the denominator shows the ACT population, but a high percentage of services are given to non-ACT residents. Consequently (for instance), there may be X number of doctors in the ACT who are servicing the ACT resident population, but they are also servicing non-ACT residents who are not included in the denominator.

AGE GROUPS

Infants: babies aged 0<1 years.

Children: persons aged 1-14 years unless otherwise stated.

Young persons: persons aged 12-24 years unless otherwise stated.

Adults: persons aged 18 years or over unless otherwise stated.

Early adulthood: persons aged 25-44 years.

Middle age: persons aged 45-64 years.

Older people: persons aged 65 years and over.

AGE-SPECIFIC RATES

Age-specific rates are calculated by dividing the number of cases occurring in each specified five-year age group (and sex) by the corresponding population in the same age group (and sex) and are expressed as an annual rate per 100,000 population.

AGE-STANDARDISED RATES

The standardised rates presented in this report are based on the direct method of standardisation. This method adjusts for effects of differences in the age composition of different populations. The direct age-standardised rates are based on the weighted sum of age-specific (five-year age group) rates in the population. The weights used in the calculation of these rates (the 'standard' population) are population ratios for five-year age groups derived from the mid-year 2001 Australian population.

CO-MORBIDITIES

A person with co-morbidities has more than one disease or condition at the same time (e.g. diabetes and coronary heart disease) that may or may not be causally connected to each other.

CONFIDENCE INTERVALS

A confidence interval (CI) is a computed interval with a given probability (calculated at 95% probability in this report) that a true value of a variable, such as a rate, mean or proportion, is contained within the interval. The confidence interval is the likely range of the true value.

CRUDE RATES

A crude rate is an estimate of a proportion of a population that experiences a specific event over a specified period. It is calculated by dividing the number of events recorded for a given period by the number at risk of the event in the population.

CUMULATIVE RATES

A cumulative rate is a directly standardised rate with equal weights in each age group of interest and zero weight otherwise and is calculated from the age-specific rates. In this report, ages 0-74 years are used as an approximation to an average lifetime. Cumulative rates are often expressed as percentages (rates per 100).

DISABILITY ADJUSTED LIFE YEARS (DALYs)

A measure of the burden of disease on a defined population. A DALY is equivalent to the loss of one year of 'healthy' life. As such, it is an indication of the 'unfinished' health agenda and identifies areas where health gains can be made.

The DALY extends the concept of potential years of life lost due to premature death (PYLL) by including equivalent years of 'healthy' life lost by virtue of being in states of poor health or disability. A DALY for a disease or health condition is calculated as the sum of the years of life lost due to premature mortality (YLL) in the population and the equivalent 'healthy' years lost due to disability (YLD) for incident cases of the health condition:

DALY = YLL + YLD where;

- YLL = number of deaths at a particular age x standard life expectancy at that age
- YLD = incidence x duration x severity weight. (Severity weights for each disease were calculated as part of the Global Burden of Disease Study and adapted to account for Australian conditions).

HARM MINIMISATION

Harm minimisation is a philosophy which underlies many health promotion programs, particularly those focusing on alcohol and other drug use. These programs aim to reduce the harmful effects of some behaviours.

INCIDENCE

Incidence is defined as the number of new cases in a population during a specific period.

INFANT MORTALITY RATE

The infant mortality rates that appear in this report are based on the number of infant deaths registered in a calendar year, divided by the number of registered births to ACT residents in a given calendar year, multiplied by 1,000.

LIFE EXPECTANCY AT BIRTH

Life expectancy at birth is an estimate of the average length of time a person can expect to live, assuming that current rates of death for each age group in the population will remain the same for the lifetime of that person.

Life expectancy data provided have been obtained from ABS reports and referenced accordingly.

MEDIAN AGE

Median age at diagnosis is the middle value, i.e. 50% of cancer cases are diagnosed at an older age and 50% at a younger age compared to the median age.

The interquartile range represents the age at which 25% of the cases are above and 25% below the median age. This range spans 50% of the data set and, in effect, eliminates the highest and lowest of outliers because the highest and lowest quartiles are removed.

MORTALITY

Mortality refers to deaths in a given population occurring in a specified period.

Data are collected by the ABS and the AIHW. Until 2007 the AIHW collected data by year of occurrence and reported results in the GRIM Books. From 2007 they converted to the ABS reporting frame of year of registration. Release of data from these sources has been historically slow. Data presented for 2008 and 2009 are therefore preliminary data and should be treated with caution.

PAP SMEAR

The Pap smear test is used to check changes in a woman's cervix (the neck of the womb) at the top of the vagina. It is a screening tool to find early warning signs that cancer might develop in the future.

POTENTIALLY PREVENTABLE HOSPITALISATIONS

Potentially preventable hospitalisations are those conditions where hospitalisation is thought to be avoidable if timely and adequate non-hospital care had been provided.

PREVALENCE

Prevalence is a useful measure that provides health care planners and support personnel with the number of people who remain alive following the diagnosis of a chronic disease or who currently have the disease or condition in the case of other diagnoses.

Point prevalence is the proportion of existing cases (old and new) in a population at a single point in time. This is different from incidence which is the number of new cases in a given period of time, usually a calendar year.

PROHIBITION ORDERS (related to food safety)

Prohibition orders are commonly served on ACT food businesses to address food safety conditions that represent a serious risk to the public. Conditions that can result in a Prohibition Order include unclean and unhygienic food preparation areas, inadequate storage practices and facilities, inadequate premises maintenance, inadequate hand-washing facilities and infestations of pests such as rats, mice, cockroaches and flies. A Prohibition Order represents a legal direction to a food business to, for example, immediately cease trading.

RELATIVE STANDARD ERRORS (RSE)

Relative standard errors (RSE) provide an indication of the reliability of an estimate. Estimates with RSEs less than 25% are generally regarded as 'reliable'. All estimates presented in tables in this report have RSEs less than 25%, unless otherwise stated. Estimates presented in tables with an RSE between 25% and 50% have been marked with an '*' (asterisk) and should be interpreted with caution. For the purposes of this report, estimates for the ACT with RSEs over 50% were not considered reliable and have not been presented.

SEPARATION

A separation (from a hospital) is the process by which an episode of care for an admitted patient ceases.

STATISTICAL SIGNIFICANCE

In statistics, a result is significant if it is considered unlikely to have occurred by chance. For the purpose of this report 'significant' implies that a test of significance has been applied. A result was deemed statistically significant (i.e. there is an effect that is considered unlikely to be due to chance alone) if the p-value obtained was less than 0.05, or if comparing confidence intervals, there was no overlap between intervals.

Statistical significance has been assessed in this report by comparing confidence intervals (95% CI) or calculating p-values, depending on the type of data available for hypothesis testing.

Note that statistical significance is different to clinical significance.

THREE-YEAR LEADING AVERAGE

Three-year leading averages are used to smooth ACT age-standardised mortality rates to better discern trends, by removing fluctuations due to relatively small numbers (e.g. The three-year leading average for 2012 was calculated from the average rates for 2012, 2011 and 2010).

TRANQUILLISERS

Tranquillisers include sleeping tablets, sedatives and benzodiazepines for the purpose of this report.

YEARS OF LIFE LOST

The person years of life lost (YLL) provide an indication of the impact of ageing on mortality in a population. In this report, the following formula has been used: YLL80 = (80 – age at death) x the number of deaths at each age. (All deaths before 80 years are deemed premature).

14. Data sources

ACT population health information

Quality information is vital for monitoring the health status of the population to inform planning and policy activities. ACT Health invests resources in developing surveillance for health conditions and associated risk factors. With the emerging health issues associated with the alarming increase in chronic diseases largely attributable to poor health choices and an ageing population, the need for information that can monitor and inform public health planning and policy is critical.

ACT Health has established a survey program to collect information on the health of the ACT population and associated risk factors. These include:

- ACT General Health Survey which has been ongoing since 2007
- ACT Year 6 Physical Activity and Nutrition Survey (2006 and 2009)
- ACT Health Kindergarten Screening Survey (ongoing), and
- ACT Secondary School Alcohol and Drug Survey (three-yearly).

Information from these surveys is published and available on the ACT Health website. They are critical for performance reporting and informing planning and policy activities.

In the ACT, comprehensive and reliable information on the health status of Aboriginal and Torres Strait Islander people has been difficult to obtain, due to the small population size, a high degree of population mobility and issues concerning the recording of Aboriginal and Torres Strait Islander status in existing health data collections. The ACT has low numbers of these people compared to other jurisdictions and they represent only about one per cent of the total Australian and Torres Strait Islander population.

ACT government has invested resources to improve information on the ACT Aboriginal and Torres Strait Islander population across all ACT data sets and to ensure quality and reliable information is available for health policy and planning.

The Epidemiology Section utilises data from ACT and national surveys and administrative datasets to monitor and report on the health of the ACT community. Major data sources are summarised below.

ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS)

The NATSIHS collects information about the health circumstances of Aboriginal and Torres Strait Islander Australians from both remote and non-remote areas across Australia. The 2004–05 NATSIHS collected information from 10,439 Aboriginal and Torres Strait Islander Australians (including 368 ACT residents). The NATSIHS sample covered usual residents at private dwellings only. Results from that survey are able to be compared with results for non-Aboriginal and Torres Strait Islander Australians from the 2004–05 National Health Survey.

The ABS Australian Aboriginal and Torres Strait Islander Health Survey 2012-13 canvassed around 13,000 Aboriginal and Torres Strait Islander Australians (about 300 ACT residents). Preliminary results are included in this report.

National Aboriginal and Torres Strait Islander Social Survey, 2008

The National Aboriginal and Torres Strait Islander Social Survey (NATSISS) was conducted from August 2008 to April 2009 and included people who identified or are identified as being of Aboriginal, Torres Strait Islander or both Aboriginal and Torres Strait Islander origin. Further information relating to this survey is available in the National Aboriginal and Torres Strait Islander Social Survey publication. The ACT sample comprised 435 individuals who responded to the survey; therefore there are limits on the level of detail at which the data can be analysed.

ABS National Crime and Safety Survey

The National Crime and Safety Survey collected information from residents of private dwellings about selected household and personal crime and safety issues, including the perception of crime problems in the neighbourhood, fear of crime, the incidence of selected categories of crime, and reporting behaviour. The 2005 survey included an ACT sample of 1,485 households and the last survey conducted in 2008 as part of the Monthly Population Survey had an ACT sample of 1,179 households. More recent national crime statistics recorded by police are available from the ABS *Recorded Crime - Victims Australia, 2010* (cat. no. 4510.0).

ABS National Health Surveys (NHS)

The NHS (three-yearly) collects data to produce national benchmark information on a range of health issues, and enable trends to be monitored over time. This includes information about the health status of the population, health-related behaviours, and use of health services. Information is collected from individuals who were residents of private dwellings. The 2007-08 survey included 1,831 fully responding ACT households. Refer ABS Australian Health Survey for latest health survey.

ABS Australian Health Survey (AHS) 2011-12

This new comprehensive survey combined the existing ABS National Health Survey, the National Aboriginal and Torres Strait Islander Health Survey and the National Nutrition and Physical Activity Survey with an innovative National Health Measures Survey (voluntary blood and urine testing to determine nutritional status and chronic disease markers). It is a face-to-face survey and measurements (e.g. height and weight) are taken rather than estimated. It included 1,725 ACT resident respondents, including 400 Aboriginal and Torres Strait Islander residents. Results will be available in 2013-14.

ABS National Mortality Database

This database contains information on the cause of death supplied by the medical practitioner certifying the death or by a coroner. Registration of deaths is the responsibility of the state and territory registrars of births, deaths and marriages. Registrars provide the information to the ABS for coding of cause of death. The ABS releases results of analysis using year of registration of death as the reference frame.

ABS National Survey of Mental Health and Wellbeing (SMHWB)

The SMHWB was conducted in 1997 and collected information on a range of mental disorders and disability associated with mental disorders and health service use. The second survey was administered in late 2007. With a national sample size of approximately 11,000, little analysis for the ACT is possible.

ACT Admitted Patient Care Collection (ACT APC)

The data sets in this collection contain details of all ACT hospital inpatient records. It details patient records from each of the public and private hospitals in the ACT, for ACT and non-ACT residents. The information reported includes patient demographics, diagnoses, procedures, source of referral etc. The data do not include details of ACT residents admitted to hospitals outside the ACT.

ACT Cancer Registry data

The ACT Cancer Registry was established in 1994, when cancer reporting became mandatory in the ACT. Its purpose is to monitor the incidence and trends of cancer in the ACT. Data are collected from hospital records, pathology laboratories, day surgeries, hospices and nursing homes. About 1,000 to 2,000 new cases are reported each year. Currently, there are approximately 33,000 records in the registry. The registry does not cover non-melanocytic skin cancer.

ACT Emergency Department Information System (EDIS)

The ACT Emergency Department Information System contains records of patient presentations to The Canberra Hospital and Calvary Hospital Emergency Departments. The EDIS data contain details of patient demographics and diagnoses, triage categories and sources of referral.

ACT General Health Survey (ACTGHS)

The ACT commissioned NSW Health to undertake a computer-assisted telephone interview (CATI) continuous general health survey in the ACT commencing in 2007. There is an average of 1,300 respondents each year. Topics canvassed are similar to those of the 2005 ACT General Health Survey and are mainly able to be compared with 2005 results. Sample pooling over the years (where appropriate) will allow more specific analysis than has previously been possible.

ACT Maternal Perinatal Collection (ACT MPDC)

The ACT Maternal Perinatal Data Collection is a population-based collection covering all births in ACT hospitals (public and private) and home births in the ACT. It does not include interstate births where the mother is usually resident in the ACT. Each data set includes all live births and still births of at least 20 weeks gestation or at least 400 grams birthweight and covers such topics as mother's demographics, type of induction, method of birth, malformations, and apgar scores at birth. The data

are managed and maintained by the Epidemiology Section within ACT Health. The ACT MPDC is linked to the ACT APC data to provide maternal condition and complications, and birth defects information.

ACT Year 6 Physical Activity and Nutrition Survey (ACTPANS)

As a first stage in the development of a Child Healthy Weight Surveillance System for the ACT, an ACT year 6 school children's physical activity and nutrition survey (PANS) was administered in 2006. It was a schools-based study involving the collection of height and weight information on approximately 1,200 ACT children in year 6. In addition, a questionnaire on physical activity, nutrition, attitudes and psycho-social outcomes was administered to these children. A similar survey was administered in 2009 (1,374 students) and 2012 (1,335 students). Results from the surveys are comparable.

The Australian Early Development Index (AEDI)

The AEDI is a measure of young children's development in five domains: physical health and wellbeing, social competence, emotional maturity, language and cognitive skills, and communications and general knowledge. Domains are scored according to three categories: developmentally vunerable (scores in the lowest percentage range), developmentally at risk (between the 10th and 25th percentiles), and on track (above the 25th percentile).

Children are canvassed in their first year of full-time school. In 2012, 5,106 children were tested, 4,632 of whom completed all domains.

AIHW Australian Cancer Incidence and Mortality (ACIM) Books

The AIHW ACIM Books are a series of interactive Excel workbooks of tables and graphs by age and sex for 'all cancers' and the major cancers, for incidence from 1982 to 2005 and mortality from 1968 to 2006. Refer also NCSCH.

AIHW National Hospital Morbidity Database

This database contains demographic, diagnostic, procedural and duration-of-stay information on episodes of care for patients admitted to hospital. The data collection is maintained by the AIHW using data supplied by state and territory health authorities. It is episode-based, and it is not possible to count patients individually.

AIHW National Mortality Database

This database contains information on the cause of death supplied by the medical practitioner certifying the death or by a coroner. Registration of deaths is the responsibility of the state and territory registrars of births, deaths and marriages. Registrars provide the information to the ABS for coding of cause of death and the data is then provided to the AIHW, which releases data in the state and territory GRIM (General Record of Incidence of Mortality) Books. Until 2007 data was analysed using year of occurrence of death. Since then, year of registration has been used.

AIHW National Perinatal Statistics Unit (NPSU)

The NPSU is a collaborating unit of the AIHW that is involved in perinatal data development activities and epidemiological research. The NPSU maintains national data collections on perinatal health, maternal deaths, congenital anomalies and assisted reproduction technology.

Australian National Infant Feeding Survey (ANIFS)

The 2010 ANIFS was conducted by the AIHW to provide baseline data on estimates of the prevalence and duration of breastfeeding and other feeding practices adopted by mothers/carers, and related attitudes. The survey used a sample of 52,008 children aged 0-2 years that were randomly selected from the Medicare enrolment database. Of these, 898 were from the ACT. The ACT had a total of 548 respondents and had the highest response rate among the sampled infants aged 6 months or less (65%). The survey was conducted as a paper-based questionnaire that was mailed out to participants. The survey was also available in an online version.

Australian Diabetes, Obesity and Lifestyle Study (AusDiab)

The AusDiab study was conducted in 1999–2000 by the International Diabetes Institute. Results from this study are based on data collected from 11,200 Australians aged 25 years and over and residing in six states of Australia and the Northern Territory. The study was designed to provide estimates of

the prevalence of diagnosed and undiagnosed diabetes and self-reported chronic conditions such as heart disease and high blood pressure. A follow-up study was undertaken in 2005 with people diagnosed with diabetes through blood testing.

Australian Secondary School Alcohol and Drug (ASSAD) survey

The ASSAD explores behaviours and attitudes surrounding smoking, alcohol consumption, drug use, sun protection, recreational activities and nutrition in the ACT (and other states and the NT) secondary school students. The target population is students in Years 7 to 12, between 12 and 17 years of age, enrolled in government, Catholic and independent schools in the ACT.

The ACT survey has been conducted by ACT Health every three years from 1996, in partnership with the Victorian Cancer Council. The last survey was conducted in 2011. ACT students completed a total of 1,677 questionnaires.

National Cancer Statistics Clearing House (NCSCH)

The AIHW maintains the NCSCH. Information on the incidence of cancer from 1982 in the Australian population is provided to the NCSCH by the state and territory cancer registries. Data items provided enable record linkage to be performed and the analysis of cancer by site and histology. The NCSCH produces reports of national incidence and mortality data. Refer also AIHW ACIM Books above.

National Drug Strategy Household Survey (NDSHS)

The (now) three-yearly NDSHS collects information from Australians aged 14 years and over (the 2004 survey collected from those 12 years and over). Respondents are asked about their knowledge of drugs, their attitudes towards drugs, their drug consumption histories and related behaviours. The collection includes information about alcohol, tobacco and illicit and non-illicit drugs. The national sample included an ACT sample of 1,053 questionnaires completed by people aged 12 years or more in 2007 and 1,057 in 2010.

15. References

1. ABS. *Census of Population and Housing 2011*, Basic Community profile. Canberra, 2012.
2. ABS. *Australian Demographic Statistics*, cat. no. 3101.0, 2013.
3. ABS. *Births Australia 2011*, cat. no. 3301.0, 2012.
4. ACT Government. *ACT Population Projections 2009 to 2059*. Canberra, 2011.
5. AHMAC. *Aboriginal & Torres Strait Islander Health Performance Framework Report 2008 Summary*. Canberra, 2008.
6. ABS. *Census of Population & Housing, 2011*. Canberra, cat. no. 2001.0, 2011.
7. ACT Government. *Detecting Disadvantage in the ACT*: Report on the comparative analysis of the SEIFI and SEIFA indexes of relative socio-economic disadvantage in the Australian Capital Territory. Canberra, 2012.
8. ABS. *Deaths Australia 2012*. cat. no. 3302.0. Canberra, 2013.
9. ABS. *Causes of Death, Australia 2012*. cat. no. 3303.0, 2014.
10. Idler EL, Benyamini Y. Self-rated health and mortality: a review of twenty-seven community studies. *J Health Soc Behav* 1997;38(1):21-37.
11. AIHW. *Australian Hospital Statistics 2011-12*, 2013.
12. Department of Health and Ageing. National physical activity guidelines for adults. Canberra: DoHA, 1999.
13. NHMRC. Australia's Physical Activity Recommendations for 12-18 year olds. Canberra: National Health and Medical Research Council, 2004.
14. ACT Health. *Health status of children in the Australian Capital Territory: Results from the 2007-10 ACT General Health Survey*. *Health Series no. 59*. Canberra, 2013.
15. NHMRC. Dietary guidelines for Australian adults, Ausinfo. Canberra, 2003.
16. NHMRC. Australian Dietary Guidelines. Canberra: National Health and Medical Research Council, 2013.
17. ABS. *Australian Health Survey: First Results, 2011-12.* Canberra: Australian Bureau of Statistics, 2012.
18. Espinel, Paola T, King L. *A framework for monitoring overweight and obesity in NSW*: NSW Department of Health & Physical Activity, Nutrition, Obesity Research Group, 2009.
19. NHMRC. Australian Alcohol Guidelines. Canberra, 2001.
20. NHMRC. Australian guidelines to reduce health risks from drinking alcohol. Canberra: Australian Government, 2009.
21. AIHW. National Drug Strategy and Household Survey. Canberra: Australian Institute of Health and Welfare, 2007.
22. Holt M. Canberra Gay Community Periodic Survey: overview of findings & future developments. SHAHRD Community Consulting Meeting presentation, 2013.
23. Hull P, Mao L, Rossteuscher K, Prestage G, Zablotska I, de Wit J, et al. *Gay Community Periodic Survey: Canberra 2011*: National Centre in HIV Social Research, University of NSW, 2012.
24. Down I, Prestage G. The future of HIV prevention in the ACT: Data from the HIV Seroconversion Study presentation. Canberra SHAHRD Community Consultation Meeting 2013.
25. ACT Health. *ACT Government Health Directorate Annual Report 2011-12*. Canberra: ACT Health, 2012.
26. AIHW. *The burden of disease and injury in Australia 2003.* AIHW cat. no. PHE 82. Canberra: Australian Institute of Health and Welfare, 2007.
27. AIHW. *Australia's Health 2010*. Canberra: AIHW, 2010.
28. AIHW. *Cardiovascular Disease: Australian facts 2011*. Cardiovascular disease series, cat. no. CVD 53, 2011.
29. Heart Foundation. Heart Foundation HeartWatch Survey Jan - Dec 2012, 2013.
30. ABS. *Causes of Death, Australia 2011*. ABS cat. no. 3303.0, 2012.
31. ACT Health. ACT Cancer Registry, 2013.
32. AIHW. *Cancer in Australia: an overview 2012.*
33. AIHW. *Cancer in Australia: an overview, 2010*. Cancer series no. 60. cat. no. CAN 56. Canberra: Australian Institute of Health and Welfare, 2010.
34. AIHW. *Cervical screening in Australia 2010-2011*. Cancer series 76. cat. no. CAN 72. Canberra, 2013.
35. Australian Mesothelioma Registry. Australian Mesothelioma Registry 2nd Annual Report: *Mesothelioma in Australia 2012*, 2012.
36. DoH. *Cancer screening, 2013*.

37. AIHW. *BreastScreen Australia monitoring report 2010-2011*. Cancer series no. 77, 2013.
38. ACT Health. Cervical Cytology Register. Canberra, 2013.
39. AIHW. *National Bowel Cancer Screening Program monitoring report: July 2011 - June 2012*. Canberra, 2013.
40. WHO. *Mental Health*. In: WHO, editor: World Health Organization, 2008.
41. Begg S, Vos T, Barker B, Stevenson C, Stanley L, Lopez AD. *The burden of disease and injury in Australia 2003.* Canberra: Australian Institute of Health and Welfare, 2007.
42. Kessler RC BP, Colpe LJ, Epstein JF, Gfroener JC, Hiripi E, et al. Screening for serious mental illness in the general population. . *Arch Gen Psychiatry* 2003;Feb:6D(2):184-9.
43. ACT Health. Admitted Patient Care Data Collection, confidentialised unit record file, 2011-12. Canberra: ACT Health, 2012.
44. Begg S, Vos T, Barker B, Stevenson C, Stanley L, Lopez AD. *The burden of disease and injury in Australia 2003*. Canberra: Australian Institute of Health and Welfare, 2007.
45. ACT Health. ACT General Health Survey data collection, 2012.
46. ACT Government. *2010 road traffic crashes in the ACT*: Traffic Management and Safety: Roads ACT Office of Transport, 2011.
47. ACT Government. *2012 road traffic crashes in the ACT*: Traffic Management and Safety: Roads ACT Office of Transport, 2013.
48. Henley G HJ. *Serious injury due to land transport accidents, Australia 2006-07*. Injury research & statistics series no. 53. Canberra: AIHW, 2009.
49. De Rome L, Boufous S, Senserrick T, D R, Ivers R. The Pedal Study: *Factors associated with bicycle crashes and injury severity in the ACT Final Report July 2011*: The George Institute for Global Health, University of Sydney Medical School, 2011.
50. ABS. *Participation in Sport and recreation, Australia, 2011-12,* cat. no. 4177.0. Canberra, 2013.
51. TAMS. ACT Road Safety Strategy 2007-2010: Territory and Municipal Services, 2007
52. ACT Health. *ACT Health Annual Report 2011-12*. Canberra: ACT Health, 2012.
53. Cameron A, Dunstan D, David W, Owen N. Health and mortality consequences of abdominal obesity: evidence from the AusDiab study. *Med J Aust* 2009;191:202-08.
54. ACT Health. *ACT Health Annual Report 2008-09.* Canberra: ACT Health, 2009.
55. ACT Health. *ACT Health Annual Report 2009-10*. Canberra: ACT Health, 2010.
56. The Kirby Institute UoN. *National Blood-borne Virus and Sexually transmissible Infections Surveillance and Monitoring Report, 2011.* Sydney, 2012.
57. ACT Health. Maternal and perinatal data collection Canberra: Epidemiology Branch, 2011.
58. AIHW. Headline indicators for children's health, development and wellbeing, 2013, 2013.
59. Ansari Z, Laditka JN, Laditka SB. Access to Health Care and Hospitalisation for ambulatory care sensitive conditions. *Med Care Res Rev* 2006;63 (719).
60. SCRGSP. *Report on Government Services (RoGS) 2013*. Canberra, 2013.
61. ABS. Patient Experience Survey 2009, 2010-11, 2011-12, (unpublished), cat. no. 4839.0. Canberra, 2013.
62. ABS. *Census Indigenous Profile, Australian Capital Territory*, cat. no. 2002.0. Canberra, 2012.
63. ABS. *Experimental Estimates and Projections, Aboriginal and Torres Strait Islander Australians, Series B,* cat. no. 3238.0, 2011.
64. ABS. *Life tables for Aboriginal and Torres Strait Islander Australians, 2010-2012*, 2013.
65. ABS. *Australian Aboriginal and Torres Strait Islander Health Survey 2012-13: First results, Australia 2012-13*, 2013.
66. ABS. *National Aboriginal and Torres Strait Islander Health Survey, 2004-2005 Canberra:* ABS, 2006.
67. ABS. *National Aboriginal and Torres Strait Islander Health Survey - ACT Results, 2004-05*. Canberra: ABS, 2006.
68. ABS. *National Aboriginal and Torres Strait Islander Social Survey, 2008,* cat. no. 4714.0. Canberra: ABS, 2009.
69. Steering Committee for the Review of Government Service Provision. *Report on Government Services.* Canberra: Productivity Commission, 2012.
70. ACT Health. *Substance use and other health-related behaviours among ACT secondary students: Results of the 2011 ACT Secondary Students' Alcohol and Drug Survey. Canberra, 2013*.
71. ACT Health. ASSAD confidentialised unit record file. Canberra, 2011.
72. Vos T, Barker B, Stanley L, Lopez AD. *The burden of disease and injury in Aboriginal and Torres Strait Islander peoples 2003*. Brisbane: School of Population Health, University of Queensland, 2007.

73. AIHW. *Aboriginal & Torres Strait Islander Health Performance framework: 2012 report*, cat. no. IHW 96. Canberra: AIHW, 2013.
74. ACT Health. ACT Health Admitted Patient Care Collection. Canberra, 2012.
75. ABS. *Disability, Ageing and Carers, Australia, 2012*, cat. no. 4430.0. Canberra: ABS, 2013.
76. PHIAC. Industry statistics - annual survey, 2013.
77. AIHW. *Aged care packages in the community 2010 -11*, cat. no. AGE 69 2012.
78. AIHW. *Residential aged care in Australia 2008-10*. Canberra: AIHW, 2010.

16. Index