ACT Government
Health

Healthy Canberra

Australian Capital Territory
Chief Health Officer's Report 2016




Acknowledgements

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Preface

From the Chief Health Officer

This year marks the 20th anniversary of the Australian Capital Territory Chief Health Officer's Report, which is published every two years to provide information about the health of the ACT population. This report has been prepared as required under Section 10 of the *Public Health Act 1997,* through a rigorous process of reviewing health-related data from a variety of sources.

In this report, titled *Healthy Canberra,* ACT population health data is provided in a way which departs from the format used in previous reports. In recognition of the ACT Government's Proactive Release of Data (Open Data) Policy 2015, *Healthy Canberra* is complemented by the new *HealthStats ACT* website where Canberra's health statistics on a broad range of population health topics are regularly updated and can be accessed at any time by anyone who is interested in accessing health information.

This *Healthy Canberra* report focuses on priority health issues that cause the greatest burden of disease, are preventable and are fundamental to good health. Topics are presented under four themed chapters – Healthy City, Healthy Weight, Healthy Lifestyle, Healthy People – representing the influence of our environment and lifestyle on our health.

Comparing the data presented in *Healthy Canberra* with data from 20 years ago presents a mixed picture. For example, while the rate of Canberrans who smoke has decreased from 21% (in 1995) to 10% (in 2014), the rate of adults who are overweight or obese has increased from 40% (in 1995) to 63% (in 2014).

The complex and mixed picture presented in *Healthy Canberra* is a platform for looking forward, based on a review of the past, and identifies opportunities and challenges posed for the health status of the ACT population.

I trust *Healthy Canberra* will be of interest to you.

Dr Paul Kelly

ACT Chief Health Officer
Deputy Director-General
Population Health Division
ACT Health

Comparing Then and Now

	Then	Now
Smoking	**21%** ‘smoker’	**10%** daily ‘smoker’
Immunisation	**85%** of children aged **12-14 months** fully vaccinated	**93%** of children aged **12-14 months** fully vaccinated
Weight Status	**40% of adults** were overweight or obese	**63% of adults** are overweight or obese
Mental Health	**3% of adults** reported suffering from ‘nerves’, tensions, nervousness or emotional problems	**17% of adults** reported being diagnosed with a mental health disorder in the preceding 12 months
Top Causes of Death	**Cancer** (around 25% in both sexes) **Cardiovascular disease** (24% of males and 15% of females)	**Cancer** (29%) **Cardiovascular disease** (28%)

For more information, go to:

health.act.gov.au/healthstats

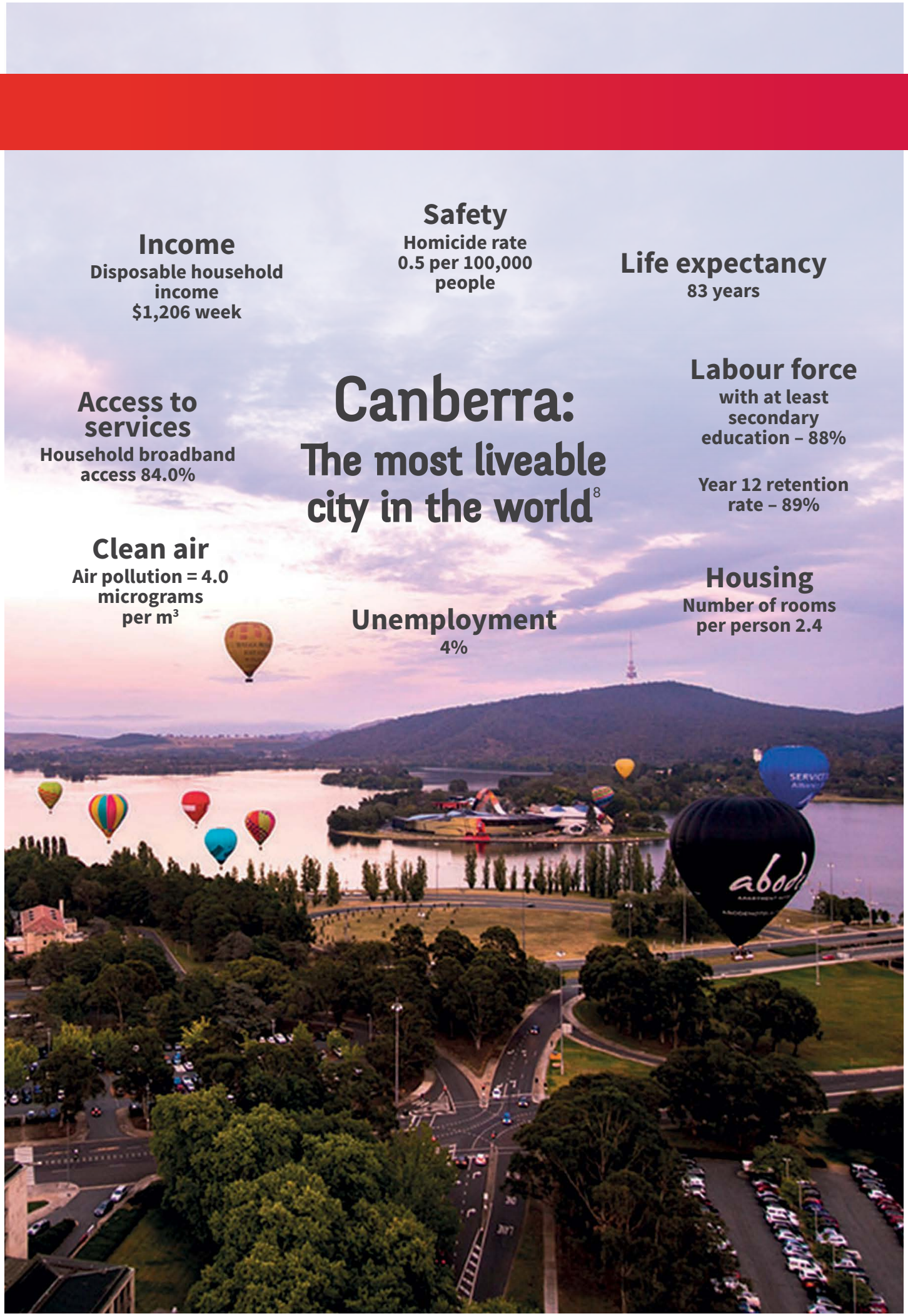
Introduction

The Australian Capital Territory had an estimated population of 385,996 residents in 2014[1], situating Canberra as the 8th largest city in Australia and the ACT as the second smallest jurisdiction.[2] Our population is growing and is projected to reach 400,000 by the end of 2016 and 500,000 by 2033 due in part to high levels of net migration. With increasing percentages of our population born overseas, the ACT is becoming more culturally diverse. For example, in 2001 more than a quarter of the ACT's population were born in the United Kingdom, however, by 2011 the size of this proportion had shrunk to 18%. The next most common countries of birth for ACT residents in 2011 were China (8%), India (7%), New Zealand (5%) and Vietnam (3%).[3] The ACT is also welcoming new residents from countries previously unrepresented here, such as South Sudan and Albania. The population of Aboriginal and Torres Strait Islanders in the ACT was 6,160 in 2014, accounting for 2% of the total ACT population.[1]

In 2014, the Organisation for Economic Cooperation and Development (OECD) ranked Canberra as the "most liveable" city in the world as measured by nine well-being topics: income, jobs, housing, education, health, environment, safety, civic engagement, and accessibility of services. Canberra has lived up to this accolade. With a slightly younger population profile than that of Australia overall, Canberrans live in a safe, clean city with easy access to an environment that invites an active lifestyle. We live longer than other Australians and, on average, we are better educated and more likely to be employed. We had some of the highest childhood immunisation rates in Australia (in 2014–2015, with 93% of 1 year olds, 91%, of two year olds, and 93% of three year olds fully immunised) and we had the highest immunisation rate in Australia for one year old Aboriginal and Torres Strait Islander children in 2014–2015 (93%).[4]

While these attributes are worth celebrating, not everyone in Canberra has a strong social and economic foundation upon which to build good health. Using individual socio-economic index calculations, more than 40,000 residents of the ACT fell into the most disadvantaged 20% of all Australians in 2011.[5] Canberra is a unique Australian city, in that residents experiencing disadvantage tend not to be clustered in particular suburbs, but can be found across all parts of Canberra due to the "salt and pepper" distribution of public housing assets. This reduces the concentration of disadvantage but may also mask the prevalence of disadvantage.[6] Our estimated rate of homelessness (5.0 per 1,000 population), one of the most potent markers of disadvantage, was higher than the national average (4.9 per 1,000 population) and had risen by 20% from the previous census.[7]

With this context in mind, *Healthy Canberra* reports the health of the ACT population in four themed chapters – Healthy City, Healthy Weight, Healthy Lifestyle, Healthy People. This report is complemented by the new *HealthStats ACT* website which provides the most up-to-date population health statistics on a broad range of population health topics.


Income
Disposable household income $1,206 week
Safety
Homicide rate 0.5 per 100,000 people
Life expectancy
83 years
Canberra:
The most liveable city in the world[8]
Access to services
Household broadband access 84.0%
Labour force
with at least secondary education – 88%
Year 12 retention rate – 89%
Clean air
Air pollution = 4.0 micrograms per m³
Unemployment
4%
Housing
Number of rooms per person 2.4

Healthy City

Snapshot of our healthy city

Safe Food

72% of food businesses were compliant with regulations at initial inspection.

2012 — **13 outbreaks** — 2014

Total outbreaks of likely foodborne illness which affected **394 people** and left **23 people hospitalised**.

The bacteria *Salmonella* Typhimurium was the most common single causative agent in foodborne disease outbreaks.

Raw egg products are often implicated in *Salmonella* outbreaks.

The largest outbreak of *Salmonella* ever reported in the ACT occurred in 2013, affecting **161 people**.

Clean Air

Air quality was very good.

12 days There were **12 days** when **wood smoke particulate exceeded** the National Environment Protection Measure advisory standard (particulate matter <2.5 micrometres).

Smoke from fires is a potential health hazard.

Clean Water

High quality drinking water was provided to ACT residents.

Most Canberrans (66%) preferred drinking tap water they carried with them or obtained when they were away from their home.

Water refill stations were **installed in all public schools** and at selected sporting fields and public spaces.

Recreational waterways were regularly monitored and occasionally closed to protect public health.

Safe Food

Consumers have an expectation that all purchased food is safe to eat. The safety of food depends on safe practices at all steps of the journey from paddock to plate, including appropriate production, storage, transport, preparation and sale of food.

If food is not handled in accordance with safe food practices, ingesting it can lead to serious foodborne illness that can cause hospitalisation, loss of productivity and even death. Foodborne illness is commonly caused by food containing unsafe levels of bacteria or toxins produced by bacteria and viruses.

ACT Health routinely investigates and responds to reported incidents of foodborne illness and undertakes preventive activities such as safe food handling education and promotion. These activities aim to minimise the incidence of foodborne illness in the ACT and its associated impact on the community.

The ACT has a particular public health concern due to the intermittent presence of the highly toxic *Amanita phalloides* (death cap mushroom). The public health safety message of 'do not touch, pick or eat wild mushrooms' must be continually reinforced as eating just one death cap mushroom can be fatal.

13 outbreaks

of foodborne or suspected foodborne illness between 1 July 2012 and 30 June 2014 affected 394 people and left 23 people hospitalised. There were no deaths.

Death cap mushrooms

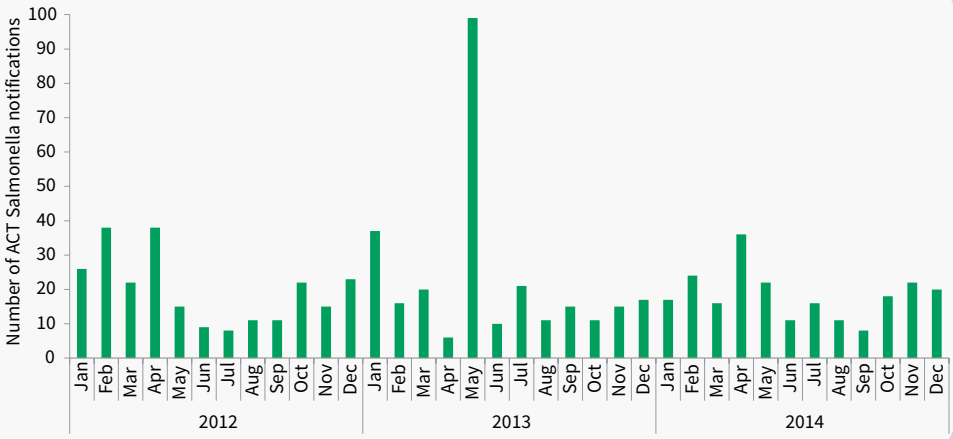
Caused 3 cases of poisoning in April 2013 from a meal prepared in a private residence.

The ACT is a part of the national

OzFoodNet network

which coordinates national foodborne disease surveillance and outbreak investigations.

Salmonella in the ACT



Source: ACT Notifiable Diseases Database 2012-2014

Salmonella Typhimurium was the most common single causative agent in foodborne outbreaks, and caused the largest outbreak of *Salmonella* ever reported in the ACT. The outbreak involved 161 people who ate potato salad containing raw egg mayonnaise from the same restaurant in May 2013.

Progress so far

Are raw eggs a health hazard?

They can be. Between 2010 and 2015, most *Salmonella* outbreaks in the ACT were associated with eating raw egg products such as mayonnaise. ACT Health's response included a trace back investigation into the source of the eggs, and people affected were interviewed to quickly identify the source of the outbreak to prevent more people becoming ill.

Compliance

There are almost 3,000 registered food businesses in the ACT of which about 72% were compliant at initial inspection during 2012–2014. The Health Protection Service performed follow up inspections and provided specific instruction or direction to the remaining 28% of businesses. The ACT is linked into the national OzFoodNet network which coordinates national foodborne disease surveillance and outbreak investigations.

Steps towards safer food

A Register of Food Offences detailing food businesses convicted of an offence against the *Food Act 2001* was established in 2012. This register helps the community make informed choices about the food businesses they may visit.

ACT Health translated food safety information and posters into the 11 most common languages used by hospitality workers to help food businesses, managers and staff better understand food safety practices. These resources are provided to food businesses on registration, and posted on ACT Health's website.

The ACT Legislative Assembly passed amendments to the *Food Act 2001* in 2012 requiring all registered food businesses to appoint a food safety supervisor from 1 September 2013. Non-profit community organisations selling food for fundraising purposes were exempted from having to appoint a food safety supervisor in response to their concerns about the impost of training and related costs. This exemption doesn't apply for large public events such as the Multicultural Festival.

Community education and information on death cap mushrooms was increased, including fact sheets written in multiple languages.

Did you realise?

The trend of eating outside of the home has implications apart from food safety hazards. Eating out and takeaway food generally means consuming larger portion sizes, and more energy dense and nutrient poor foods that are high in fat, salt and sugar. This may be contributing to our increasing rates of obesity and chronic disease.

How do we strike the balance between food safety and healthy food?

There is a potential conflict between food safety and healthy food goals because on the one hand we have a range of programs to encourage choosing fresh, nutritious food, particularly in child-focussed settings, to prevent obesity. On the other hand, pre-packaged highly processed and often nutrient-poor foods are seen as 'low risk' in relation to protection from foodborne illness. ACT Health is working with the community to increase the availability of food which is both safe and nutritious.

Clean Water

Clean, safe drinking and recreational water is important for our health and for the liveability of our city.

Waterborne disease can become a major threat to health if drinking water source, quality or distribution is compromised. Access to high quality drinking water is also important in terms of providing a healthy alternative to sugar-sweetened drinks.

Canberra's lakes and rivers are important recreational resources, particularly in the hotter months. Water quality in the lakes can be a problem because high temperatures and nutrients from urban run-off produce ideal conditions for algal and bacterial blooms. It is difficult to keep relatively small, urban man-made lakes of 'swimming' quality to avoid gastroenteritis, respiratory illness and other toxic manifestations of blooms.

Clean drinking water

High quality **drinking water was provided to ACT residents.**

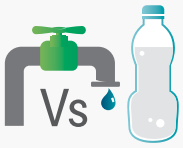
The Public Health (Drinking Water) Code of Practice (2007), outlines which incidents or events must be notified to ACT Health following routine monitoring and sampling.

14 notifications were made between 1 July 2012 and 30 June 2014.

Each notification was investigated and action taken where appropriate. No illnesses were associated with these notified incidents.

Contaminated water supply **following large bushfire events continues to be a potential risk to public health. The ACT is fortunate to have several different drinking water catchment sources which is an insurance against this issue.**

Tap water or bought bottled water?



The February 2014 Canberra Omnibus Survey found 66% of respondents preferred drinking tap water that they carry with them or source while they are out. In fact, almost two thirds of the respondents reported carrying a refillable water bottle with them at least most days in the month prior to the survey.

Why do Canberrans choose tap water over purchased bottled water?

- Cost
- Environmental impact
- Convenience

Why do Canberrans choose to drink water instead of sugar-sweetened drinks?

- Good health
- Convenience
- Lower kilojoules

Clean recreational water

Large spikes in the volume of microbial pathogens were observed following large-scale rain events.

The most common adverse health effect from being exposed to contaminated recreational water is gastrointestinal illness. Ear, eye and skin infections can also occur.

Testing and closure of recreational water sites is conducted according to the *ACT Guidelines for Recreational Water Quality* (2014).

Recreational waterways were occasionally closed to protect public health.

Why is blue-green algae a health hazard?

It can produce three types of toxins – hepatoxins, neurotoxins and endotoxins - and each one has a different mode of action. Reactions are unpredictable and vary depending on length and type of contact. Signs of exposure include irritated skin/mucosa, flu-like symptoms and gastrointestinal illness.

How will climate change affect our water supply?

Climate change is projected to increase temperatures, evaporation rates and water demand.[9] Total rainfall is expected to decrease, but rainfall events are expected to become more intense.[10]

What are we doing?

Water on Tap

Improving the availability of drinking water is important for providing an alternative to sugar-sweetened drinks. Water on Tap was launched in 2014 to improve the availability of free drinking water in public places and food outlets. Guided by community consultation, 30 fixed water units were installed at various sporting fields and public spaces across the ACT. **ACT Health has eight portable Water on Tap water units for free public hire.** In 2014–2015, 19 events used 10,908 litres of water through these water units.

The Education and Training Directorate installed a minimum of 2 water refill stations (almost 200 in total) in all ACT public schools ahead of the proposed completion date of 2017. Each student was given a re-usable water bottle to encourage tap water as their drink of choice and to reduce plastic waste.

For more information, go to:

health.act.gov.au/healthstats

Clear Air

Clean air is an important part of keeping a city – and its residents – healthy. The ACT enjoys very high air quality most of the time because of our geography and isolation from major centres of population and industry. However, smoke from fires, both within our borders and beyond, can pose a threat to health.

Air quality

ACT Health operates the Territory's air quality monitoring network. It comprises two National Environment Protection Measure (NEPM) Performance Monitoring Stations (PMS) in Monash and Florey, and a smaller station in Civic.

What is monitored?

Carbon monoxide (CO); nitrogen dioxide (NO_2); photochemical oxidants as ozone (O_3); particulate matter less than 10 micrometres (PM_{10}); particulate matter less than 2.5 micrometres ($PM_{2.5}$).

What are the pollutants of most concern?

PM_{10} and $PM_{2.5}$. For example, elevated levels can occur in colder months due to wood smoke from the use of wood heaters, and from bushfire and burn-off events in and around the ACT at other times.

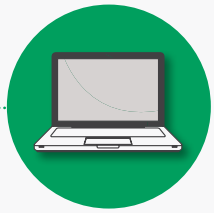
The concentrations of the pollutants monitored, except $PM_{2.5}$, were compliant with the standard set out in the NEPM during 2012–2014.

There were 12 days when the $PM_{2.5}$ concentration exceeded the NEPM advisory standard of 25µg/m^3 – all at the Monash station – in 2012–2014.

The NEPM $PM_{2.5}$ advisory goal of no more than 5 days above the advisory standard was met between 2012 and 2014. The maximum concentration was 38.4µg/m^3 and was recorded on 20 October 2013, a weekend when the ACT was impacted by bushfire smoke from NSW.

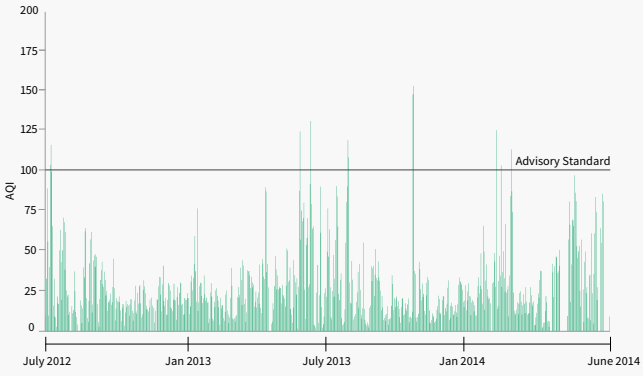
While there were some health concerns regarding wood smoke pollution in the Tuggeranong Valley during winter, the monitoring data across Canberra indicates that the overall ambient air quality was good.

What are we doing?



ACT Health launched an Air Quality Index (AQI) website in December 2014 which reports Canberra's air quality in real time. The AQI is updated with information calculated on data readings averaged over one hour for ozone and nitrogen dioxide, over eight hours for carbon monoxide and over 24 hours for particulates. For more information on the AQI site go to http://www.health.act.gov.au/public-information/public-health/act-air-quality-monitoring/air-quality-index-aqi.

$PM_{2.5}$ Air Quality Index Monash July 2012 to June 2014



Source: ACT Health Air Quality Index

Healthy Weight

Snapshot of our healthy weight

Healthy weight

63% Almost 2/3 of adults were **overweight or obese**.

One in 4 adults were obese.

The number of **healthy weight adults has remained similar** since 2007–2008, but those already affected by obesity were becoming more obese.

The rates of **overweight and obesity among children and young people** remains stable.

Adults were more aware of the **Australian Dietary Guidelines** for fruit than for vegetables.

Healthy eating

The majority of adults and children were **eating enough fruit**.

Only **10% of adults and 5% of children** ate enough vegetables.

The number of **children who consume sugar-sweetened drinks** has decreased over the last 5 years to 30%.

Our **adults and children** were drinking **less soft drink** than their national counterparts.

Boys and men were consuming **too much salt**.

Most marketing messages for food and drink across a range of locations in Canberra were for unhealthy choices.

Active living

35-40% Of **school children** actively travelled to school.

17% Of **adults** actively travelled to work.

19% of primary school children and **12% of high school students** were meeting Australia's physical activity guidelines.

56% of adults were meeting Australia's physical activity guidelines.

30% of primary school students and **74% of high school students** were **exceeding screen time guidelines** for children during the week.

Adults were sedentary for an average of **6 hours each day**.

Healthy Weight

Obesity is a worldwide issue and the ACT is no exception. While our rates of overweight and obesity were slightly below the national average, they are still a major concern. The consequences of obesity include increasing our risk of developing chronic diseases such as cardiovascular/heart disease, diabetes, and some cancers resulting in more complex health care needs and a poorer quality of life. Generally speaking, the more body fat a person carries, the greater the health risks.

Obesity is also associated with early death. Research estimating the impact of obesity on life expectancy has found a loss of between two and 10 years, which is similar to the impact on life expectancy from smoking.[11]

What does the community think about overweight and obesity?

The February 2014 Canberra Omnibus Survey found the community viewed overweight and obesity as a significant problem in the ACT, but only a minority believed it was a major or critical problem for themselves or for their immediate families.

Do we have the community's support to tackle obesity?

Yes we do. More than 90% of people surveyed in the February 2014 Canberra Omnibus Survey strongly supported the ACT Government taking active steps to reduce levels of overweight and obesity in the community. This support encompassed investigating possible regulations, restrictions and incentives to address this issue.

The strongest support was for measures targeting schools and children including physical activity and diet, junk food advertising, and reducing the intake of sugar-sweetened drinks.

There was also strong support for measures targeting workplaces to improve adult health through providing more healthy food and drink options, promoting exercise and reducing the intake of sugar-sweetened drinks.

Adult weight

Body mass index (BMI) categories of adults

Source: National Health Surveys 2007-2008, 2011-2012, 2014-2015

Men were more likely to be overweight or obese compared to women.

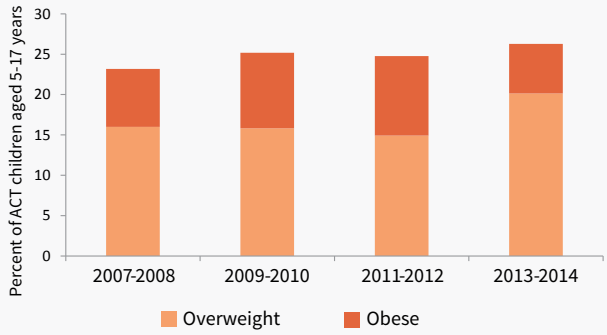
Men aged 45 years and older were at greatest risk of being overweight or obese.

Women of childbearing age who were above a healthy weight were more likely to be in the obese category than the overweight category. This is associated with gestational diabetes and poorer outcomes for mothers and babies.

Local data using self-reported height and weight, reveals those adults who were overweight are now carrying more excess weight than before (Source: ACT General Health Survey data collection 2007-2014).

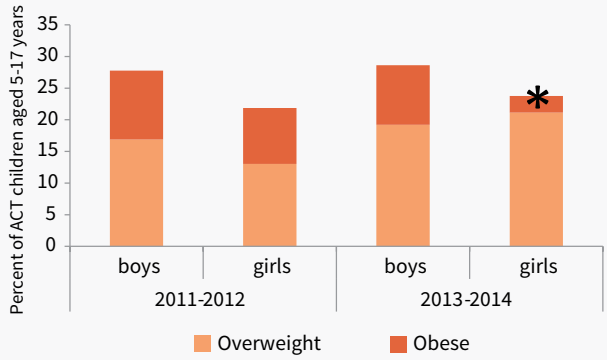
Children's weight

Children who are overweight and obese



Source: ACT General Health Survey, 2007–2014.

Boys and girls who are overweight and obese



Source: ACT General Health Survey, 2011–2014.
*Value has a relative standard error of 25–50% and should be used with caution.

Boys were more likely to be overweight (including obese) than girls.

The proportion of overweight and obese children aged 5-17 years was 26% in 2013–2014, similar to the 23% proportion in 2007–2008.

A smaller proportion (15-16%) of younger children (aged 5-6 years) were overweight or obese and this trend has remained stable over the last 5 years.

Similar proportions of children were overweight and obese in the ACT and Australia.

Body Mass Index as a measure of overweight and obesity

Body Mass Index (BMI) is the most accurate way to measure population prevalence of overweight and obesity because (for most people), it matches well with their level of body fat. BMI is a person's weight in kilograms divided by the square of their height in metres and is one of the most commonly used ways of estimating whether a person is overweight. Whilst factors such as muscle mass, ethnic origin, and puberty can affect the degree of accuracy of BMI when assessing weight status at an individual level, they are less important at a population level because these issues average out when used across large numbers of people.[12]

What are we doing?

Towards Zero Growth
Healthy Weight Action Plan

***Towards Zero Growth*: The Healthy Weight Action Plan** is a whole-of-government approach to tackling overweight and obesity in the ACT. Launched in October 2013, it involves every ACT Government Directorate creating environments that make healthier choices easier across Canberra and is based on the premise that many of the factors contributing to the rising levels of overweight and obesity lie beyond the traditional reach of the health sector.

The Plan takes a population health approach and involves sectors as diverse as urban planning, transport, building design, school and work-based policies and challenges the promotion and availability of energy-dense, nutrient-poor foods and drinks. Some initiatives so far include healthier food and drink options at schools and workplaces, and improving the delivery of quality physical education programs in all schools for children. There have also been improvements to cycling paths, footpaths, parks and active living principles were being embedded into the planning laws such as the Territory Plan.

Healthy Eating

The link between nutrition and health is well established, and an excessive intake of kilojoules, particularly in the form of junk food and sugar-sweetened drinks, is contributing to the obesity pandemic.

Our environment, including shops, sporting venues, workplaces and schools, and media and advertising messages, influences our food and drink choices. It is therefore important to consider how governments can influence the environment to promote healthier choices. This can be challenging, especially when particular places and events make it too easy to choose unhealthy foods, while healthy eating messages are crowded out by marketing and advertising for junk foods and drinks. Reducing advertising of unhealthy foods is one of a number of interventions to address obesity.[13,14]

What do we mean by "junk food"?

"Junk food" refers to discretionary foods as defined by the Australian Dietary Guidelines.[15]
This includes food that is:

- not necessary to provide the nutrients the body needs
- high in saturated fats, added sugars, salt and/or alcohol
- high in energy (kilojoules) and should be consumed only sometimes and in small amounts.

Do we have the community's support to tackle junk food advertising?

Yes we do. A newspoll survey conducted in February 2014 found more than 80% of respondents supported the ACT Government taking steps to reduce junk food advertising to children.

Why are healthy eating messages being crowded out?

A report of 940 instances of food and drink marketing across 61 sites in Canberra during July and August 2013 revealed the extent of junk food and drink marketing in the ACT.[16] It found:

78% **of food and drink marketing in 61 locations across Canberra was for unhealthy foods or drinks.**

80% **of food and drink marketing in 5 major shopping centres was for unhealthy foods or drinks.**

77% **of food and drink marketing in 13 supermarkets was for unhealthy foods or drinks.**

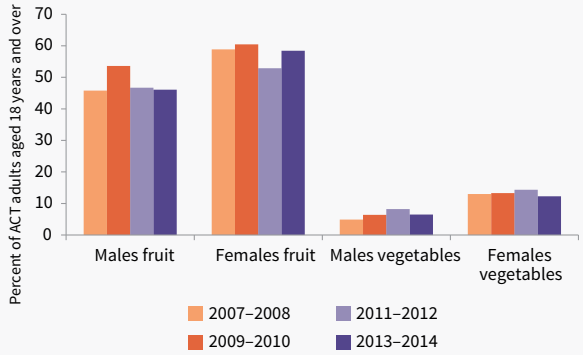
4/13 **Only 4 of the 13 supermarkets audited provided one or more confectionery-free checkouts.**

86% **of marketing at 6 sports venues was for unhealthy food and drinks.**

4/9 **4 out of 9 sporting organisations reported that their major sponsors were associated with unhealthy food and drinks.**

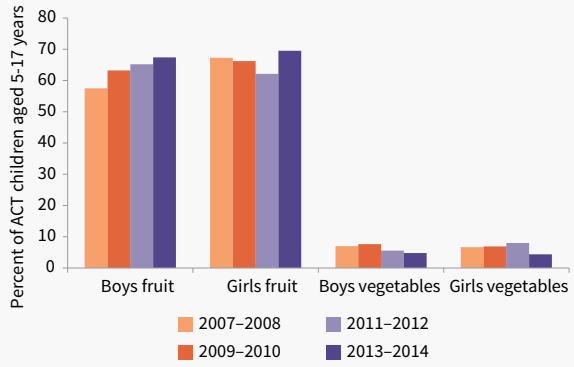
Fruit and vegetables

Adults who eat two serves of fruit and five serves of vegetables daily



Source: ACT General Health Survey, 2007–2014.

Children who eat two serves of fruit and five serves of vegetables daily



Source: ACT General Health Survey, 2007–2014.

Adults were more aware of the dietary guidelines for fruit (79%) than for vegetables (34%).

68% of children and 53% of adults ate two serves of fruit per day.

What are the recommended number of serves of fruit and vegetables?

The 2013 Australian Dietary Guidelines[15] recommends adults eat:

- at least two serves of fruit, and
- five serves of vegetables (women) or five to six serves of vegetables (for men depending on their age) every day.

Amounts recommended for children and adolescents depend on their age and sex.

Vegetables and fruit are good sources of vitamins, minerals, dietary fibre and other nutrients necessary for good health. They also play an important role in reducing the risk of chronic diseases including heart disease and some cancers. Due to their low energy density, eating sufficient vegetables and fruit is important in helping to maintain a healthy weight.[15]

Only 5% of children and 10% of adults ate five serves of vegetables per day.

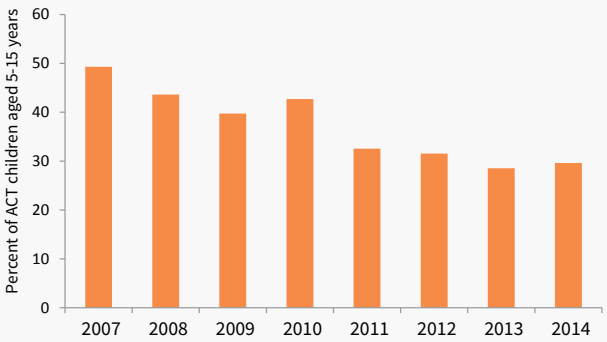
Younger children ate more fruit than older children.

Older adults ate more fruit than younger adults.

Adult females were more likely to eat the recommended serves of fruit and vegetables than adult males.

Sugar-sweetened drinks

Children who drink two or more cups of sugar-sweetened drinks per week



Source: ACT General Health Survey, 2007–2014.

The percentage of children (aged 5-15 years) consuming sugar-sweetened drinks is decreasing over time.

The Australian Health Survey shows a lower proportion of adults and children (aged two years and over) in the ACT drank soft drinks compared to the rest of Australia.[17]

What is a sugar-sweetened drink?

It's a drink sweetened with any form of added sugar such as sucrose, fructose, glucose and fruit sugar syrup. Examples of sugar-sweetened drinks include soft drinks (including diet), energy drinks, fruit drinks, flavoured mineral waters, sports drinks, cordials and iced teas, sweetened waters, sports waters and flavoured crushed ice drinks.

Was salt intake a problem?

Mostly for males. Boys and men had similar average daily intakes of salt (sodium). Both groups exceeded the recommended upper level per day – a trend also seen in Australian data.[17] However everyone should reduce their salt intake to lower their risk of chronic disease, in particular the risk of developing high blood pressure.[17]

What's working?

Helping our children establish healthier food and drink habits.

Children who are overweight or obese are at risk of future health issues. Over the past ten years the data about healthy eating habits for children has described a concerning picture. Establishing healthy eating habits is a complex task which must be tackled in many ways.

A range of initiatives have sought to influence positive changes in the eating and activity habits of our children. These include the "*Go for 2&5*" campaign which commenced in 2005, the ACT Health Promotion Grants Program which focuses on obesity prevention, particularly in children, and the current ACT Government *Towards Zero Growth*: The Healthy Weight Action Plan.

In 2014–2015, 48 primary schools (44% of all primary schools in the ACT) accessed the *Fresh Tastes* service which offers practical support to primary schools to make healthy food and drinks a bigger part of everyday life for students in fun, hands-on and practical ways. This combination of a decade of initiatives, including recent phasing out of the sale of sugar-sweetened drinks in ACT public schools, complemented by the installation of new water refill stations and distribution of reusable bottles is aiming towards achieving the Healthy Weight Initiative goal to reduce the amount of sugar-sweetened drinks that children consume by 25%.

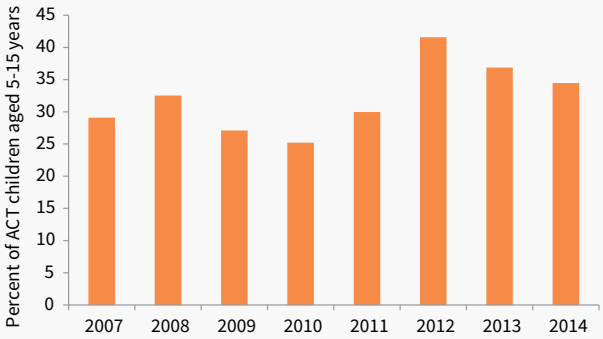
There is emerging evidence indicating better eating and drinking habits for children. There is now a decline in the amount of sugar-sweetened drinks that children are drinking. The rate of fruit consumption has increased steadily since 2007–2008, and we are observing early indications of a plateau in rates of overweight and obesity in children.

Active Living

Moving more and sitting less helps improve our physical and mental health, and reduces our risk of developing chronic diseases such as cardiovascular disease and type 2 diabetes.[18]

Active travel – children

Children who usually walk or cycle to school



Source: ACT General Health Survey, 2007–2014.

The number of **children aged 5-15 years** who reported they usually rode or walked to school ***fluctuated over time.***

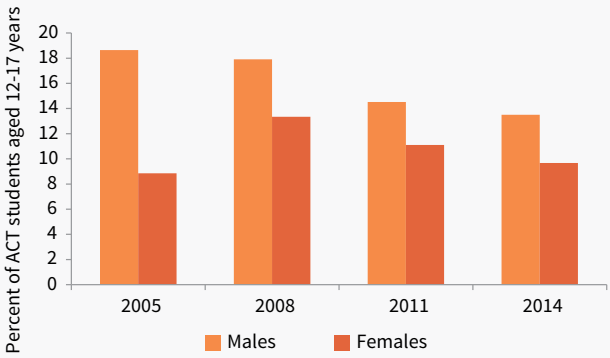
One in four **Year 6 children use active travel** to get to school everyday.

Active travel – adults

Compared to 2010–2011, more adults were using active travel in 2013–2014 (17% compared to 11%) as their usual mode of travel to work. The increase is mostly through walking either the whole way or part of the way to work.

Physical activity

High school students who exercise for at least one hour every day



Source: ACT Secondary Students' Alcohol and Drug Survey (ASSAD).

19% of primary school children (2012)

12% of high school children (2014)

were meeting **Australia's physical activity guidelines.**[18]

Boys were **consistently more likely** to meet the guidelines than girls.

The proportion of all children (2-17 years) **meeting the guidelines** ***was similar for the ACT and Australia.***

56% of adults were meeting the guidelines in 2013–2014 which is similar to previous years.

What are Australia's physical activity guidelines?[18]

- Adults should accumulate 2½ to 5 hours of moderate intensity physical activity, or 1¼ to 2½ hours of vigorous intensity physical activity, or an equivalent combination of both, each week.
- Children and young people (5-17 year olds) should accumulate at least 1 hour of moderate to vigorous intensity physical activity every day.

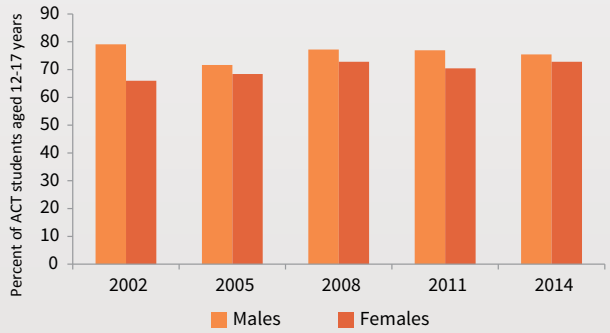
How can we increase active living behaviour?

Respondents to the March 2015 Canberra Omnibus survey said they would prioritise improving safety (especially for walking) and better connected networks of pathways and on-road/off-road cycle lanes and paths to encourage increased walking and cycling behaviour.

The benefits of active travel go beyond health improvements and include reducing travel congestion, promoting a safer and more liveable community, improving air quality, and reducing greenhouse gas emissions which contribute to climate change.

Sedentary behaviour

High school students' overuse of screen-based entertainment



Source: ACT Secondary Students' Alcohol and Drug Survey (ASSAD).

Most high school children (74% in 2014) ***exceeded*** **Australia's screen time guidelines** during the week.

30% **of year 6 children exceeded the guidelines during the week,** increasing to 54% on weekends.

Approximately
35% ***of 5-15 year olds***
spent **more than 2 hours** on screen time for entertainment each day.

Boys were more likely than girls to exceed the guidelines.

Adults average more than 6 hours of sedentary behaviour every day, and **men** **were more sedentary than women.**

What are Australia's screen time guidelines for children?[18]

The guidelines recommend 2 hours or less of electronic media for entertainment purposes each day for 5-17 year olds, less than one hour for 2-5 year olds, and no screen time for those under 2 years of age.

What are some benefits for active children?

A physically active childhood is important for healthy growth and development and sets up healthy behaviour patterns that continue into adulthood. It also improves the child's social and emotional development and wellbeing, increases focus and mental awareness and boosts confidence and self-esteem. A study in ACT schools also found that children who were more physically active, as a result of improving the way that physical education was taught in schools, demonstrated improvements in their literacy and numeracy test scores.[19]

Progress so far

Ride or Walk to School
Throughout 2011, ACT Health carried out extensive consultation with organisations and worked closely with the ACT Children and Young People's Commissioner to engage over 550 students from Kindergarten to Year 12 from nine schools across Canberra to inform the Ride or Walk to School initiative.

ACT Health's *Ride or Walk to School (RWTS), a game plan to encourage active travel in ACT*, was launched in September 2012 with 11 pilot schools commencing the program in 2013. In 2014, ACT Health provided funding, including a grant from the ACT Health Promotion Grants Program, to the Physical Activity Foundation to implement the program.

Since 2015, a total of 52 schools have been implementing the program in the ACT with a potential reach of over 21,000 children.

RWTS builds the capacity of participating schools to teach and encourage students to use active travel, in order to increase and sustain higher numbers of children riding and walking to and from school. To date, the program has included assistance to develop active travel plans and guidelines; teacher professional development; provision of bikes, helmets and maintenance kits; assistance to find bike storage solutions; self-defence to enhance student safety; and BMX workshops to increase confidence and skills.

A key component of *RWTS* is *Safe Cycle* a cycling education which is a resource to teach students how to cycle safely. It is aligned to *The Australian Curriculum: Health and Physical Education* developed by ACT school teachers and will be available as an online resource in the future.

Where to next?

Ride or Walk to School supports the ACT Government's Healthy Weight Initiative, *Towards Zero Growth,* which was established to address the rising rates of overweight and obesity in the ACT. *RWTS* and *Active Streets* utilises a whole of government approach; with ACT Health working in partnership with the ACT Education Directorate, Territory and Municipal Services (TAMS) (lead for *Active Streets*) and Justice and Community Safety Directorate.

In 2016 *Active Streets*, an extension of *RWTS*, is being trialled in four of the 52 schools that participate in the *RWTS* initiative – Macquarie, Macgregor, Latham and Mount Rogers primary schools. *Active Streets* is designed to create an environment around schools that is safer and more conducive to active travel, including 30 km/h school zones, parking and path improvements. The pilot also includes a campaign that seeks to change parental habits and get more kids out of the car and riding or walking to and from school.

For more information, go to:
health.act.gov.au/healthstats

Healthy Lifestyle

Snapshot of our healthy lifestyle

Tobacco-free living

The ACT (10%) had the **lowest proportion of daily smokers** in Australia (13%).

The proportion of **secondary school students who had never smoked almost doubled** between 1996 (44%) and 2014 (81%).

x6

Teenage girls were **6 times more likely to smoke** during pregnancy than women over the age of 35 years.

Aboriginal and Torres Strait Islander women were **6 times more likely to smoke** during pregnancy (48%) than their non-Aboriginal and Torres Strait Islander counterparts (8%).

Fewer Aboriginal and Torres Strait Islander peoples in the ACT smoked daily (29%) compared to the total indigenous population of Australia (41%).

E-cigarettes are an **emerging health issue** and have the potential to re-normalise smoking, especially amongst our youth.

Reducing alcohol-related harm and substance abuse

25% of adults reported being **'non drinkers'**.

49% of adults drank alcohol at levels considered safe according to the Australian guidelines.

22% of male drinkers aged 18-54 years were drinking at single occasion risky levels while **51% of them were drinking at lifetime risky levels**.

More female drinkers aged 45-54 years were drinking at single occasion risky levels in 2013–2014 compared to 2011–2012.

66%
14%

66% of Aboriginal and Torres Strait Islander peoples were drinking at single occasion risky levels, and 14% were drinking at lifetime risky levels.

More than half (56%) of **secondary school students** drank alcohol at risky levels at least once.

37%
33%

More people presented to ACT Emergency Departments for alcohol-related reasons in 2014–2015 than in 2010–2011.

Cannabis/marijuana was the **most commonly used illicit drug**.

30–39 years

The **30 to 39 year age group** accounted for the largest proportion of both **prescription and illicit opioid-related hospitalisations** (34%).

Safer practices

Notifications of **human immunodeficiency virus (HIV) increased by 41%** between 2012 and 2013.

Notifications for *newly acquired* **hepatitis C infection in Aboriginal and Torres Strait Islander peoples were lower than the national rate**, but higher than non-Aboriginal and Torres Strait Islander ACT population.

Chlamydia was the **most commonly notified infectious disease**.

Most notifications of bloodborne viruses in the ACT **occurred in males**.

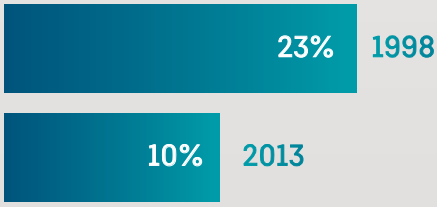
The notification rate for gonorrhoea was about **50% less than the national average**.

Tobacco-free living

The ACT has had consistent and impressive declines in smoking rates, and while this is good news, we can't be complacent. There are still sections of the ACT community with high smoking rates, and a new product has entered the market in the form of electronic cigarettes (e-cigarettes or personal vaporisers). E-cigarettes are an emerging public health challenge because they are being marketed as a method to assist smokers to quit, or a safer alternative to conventional cigarettes. However there is currently insufficient evidence to support these claims and growing concern about the potential toxic effects and long-term health impacts.[20]

Are we making progress with tobacco-free living?

Yes. Our smoking rates (daily smoking status) declined from 23% in 1998 to 10% in 2013 making them the lowest in Australia.



Smoking rates have continued to decline both in the ACT and across Australia over the past decade.

The number of people who smoke daily has decreased from 12% in 2007–2008 to 10% in 2013–2014, due to a decrease in female smoking behaviour while male smoking behaviour has remained constant.

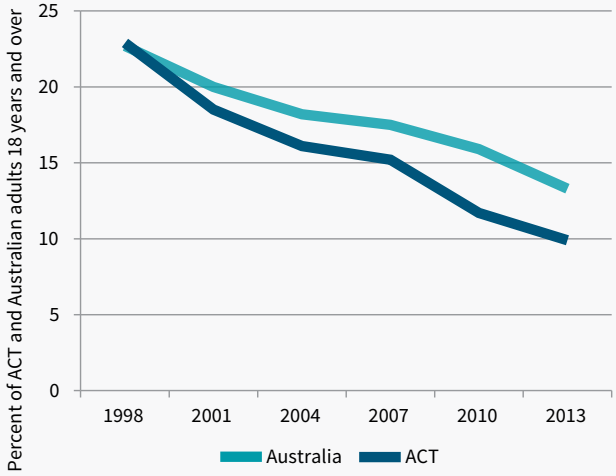
Occasional smokers' behaviour has remained constant since 2007–2008.

BUT

Males are more likely to smoke than females, this has not changed since 2007–2008.

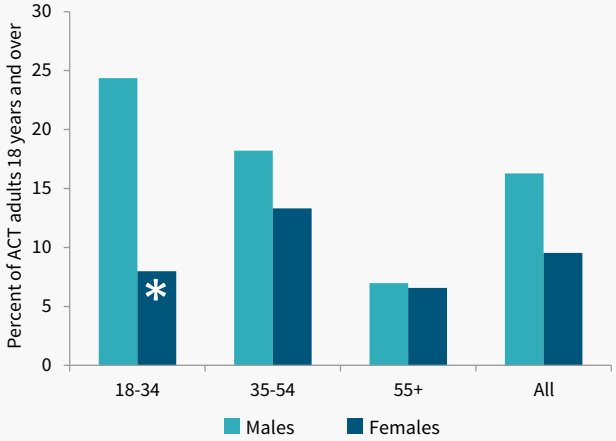
Adults and young people and smoking

Adults who smoke daily



Source: National Drug Strategy Household Survey 2013 (%), 1996 to 2014.

Adults who smoke daily and less often

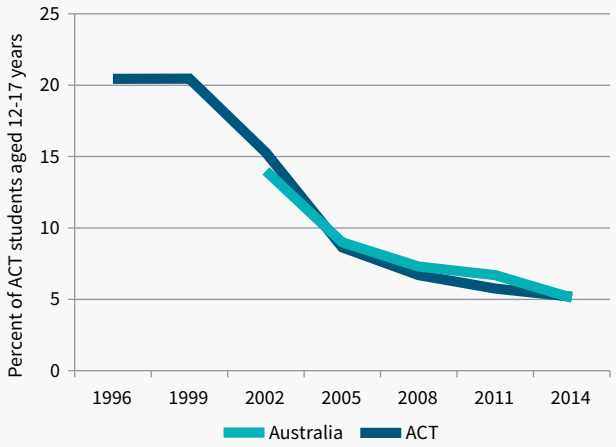


Source: ACT General Health Survey 2013–2014.
* value has a relative standard error of 25% to 50% and should be used with caution.

Secondary students and smoking

The ACT Secondary Students' Alcohol and Drug Survey found that the proportion of secondary school students who smoked in the last seven days has continued to decrease.

Secondary students who have smoked in the last seven days



Source: ACT Secondary Students' Alcohol and Drug Survey (ASSAD).

The proportion of secondary students who have never smoked almost doubled between 1996 (44%) and 2014 (81%).

This trend was similar for boys and girls.

Secondary school students and e-cigarettes

12% **of secondary school students reported ever having used an e-cigarette.**

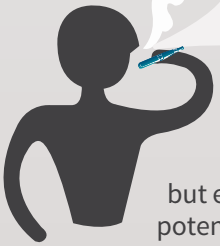
15% **of boys used an e-cigarette compared to 8% of girls.**

Of the secondary school students who had used an e-cigarette, 23% had used one in the previous 4 weeks.

Aboriginal and Torres Strait Islander peoples and smoking

- The Australian Aboriginal and Torres Strait Islander Health Survey 2012–2013 reports that fewer Aboriginal and Torres Strait Islander peoples (aged 15 years or older) in the ACT smoked daily (29%) compared to the national rate (41%).

Why are e-cigarettes an emerging concern?



E-cigarettes simulate the act of smoking and are often marketed as a method to help smokers to quit. There is considerable uncertainty, but emerging evidence, about the potential toxic effects of e-cigarettes and debate about their effectiveness as a tool for quitting smoking.[20] E-cigarettes are increasingly being seen as a gateway to cigarette use and there is growing concern about the potential of e-cigarettes to re-normalise smoking, especially for our youth.[21] The uncertainty around the risks and benefits of e-cigarettes has led the National Health and Medical Research Council to recommend that health authorities act to minimise harm until evidence of safety, quality and efficacy can be produced.

Pregnant women and smoking

- From 2009 to 2014, self-reported data showed a decrease in women who smoked during pregnancy from 11% to 7%, but teenage mothers still smoke more than older women.

- Smoking in pregnancy has a negative impact on both the mother's and baby's health.
- The birth weight for babies of women who smoked during pregnancy was significantly lower than for the babies of women who did not smoke.
- The number of cigarettes smoked per day contributed to lower birth weight.

Pregnant women and smoking

Women's age group	Percent who reported smoking at first antenatal visit 2009–2014
Under the age of 20	42%
20-34 years	9%
Over 35 years	5%

- Aboriginal and Torres Strait Islander women were 6 times more likely to smoke during pregnancy (48%) than their non-Aboriginal and Torres Strait Islander counterparts (8%).

Progress so far

Regulation of smoking

There is no safe level of tobacco smoke exposure, which is why the ACT government is committed to protecting the public from the harms associated with smoking and exposure to second-hand tobacco smoke. The ACT has made impressive progress in tobacco control and smoke-free environments over the last decade which is reflected in the consistent decline in smoking rates seen across the population.

It has been 18 years since the ACT's first smoke-free legislation was introduced. Smoking in all enclosed public places, outdoor eating and drinking areas, underage music functions, and in cars when children are passengers is prohibited.

ACT Health updated its Smoke Free Environment Policy from 1 September 2014 so that all ACT Health facilities and grounds are completely smoke free. Calvary Hospital, Calvary John James Hospital and National Capital Private Hospital also adopted smoke free policies. Smoke-free policies also apply at various outdoor places such as the grounds of ACT Health facilities, the Australian National University, Manuka Oval and GIO Stadium.

The ACT Government passed legislation in April 2016 to ban the use of electronic cigarettes in existing smoke-free areas. The measure is aimed at protecting bystanders from exposure to electronic cigarette emissions and reducing the risk of smoking being re-normalised. The measures will not constrain access to non-nicotine e-cigarettes by smokers wanting to quit.

Reducing alcohol and substance abuse

Alcohol and drug use account for 7% of the burden of disease in Australia.[22] The detrimental impact of alcohol and other drugs on society, families and individuals is significant. For example, risky drinking is associated with injuries that range from traffic accidents to assault, drowning, overdose and intentional self-harm.

Illicit drug use includes more than just the use of illegal drugs. It also covers the misuse of pharmaceuticals, and other psychoactive substances. One of the challenges in describing illicit drug use in the population is the limited data available given the illicit nature of the behaviour.[23]

What are the Australian guidelines to reduce health risks from drinking alcohol?[24]

For healthy men and women:

- Drinking no more than 4 standard drinks on a single occasion reduces the risk of alcohol-related injury from that occasion.
- Drinking no more than 2 standard drinks on any day reduces the lifetime risk of harm from alcohol-related disease or injury.

For children and young people under 18 years of age:

- Not drinking alcohol is the safest option, especially for children under 15 years of age.

For pregnant and breastfeeding women:

- Not drinking alcohol is the safest option.

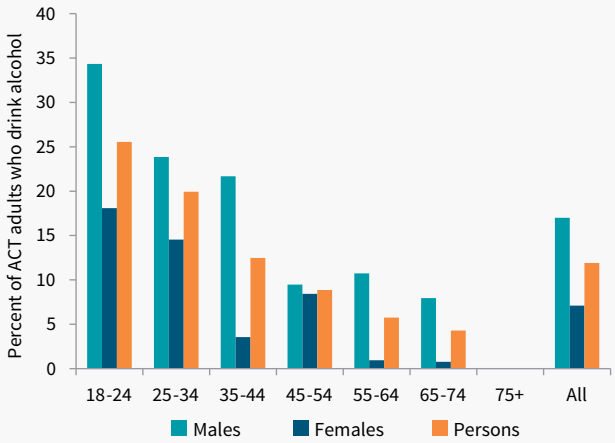
Adults and alcohol consumption

- 25% of adults report being 'non drinkers', and this has remained stable since 2011–2012.
- 49% drank alcohol at the safe level of no more than 2 alcoholic drinks on any day.
- Rates of drinking that risk lifetime harm have decreased over time for males (50% in 2007–2008 down to 44% in 2013–2014) whereas females have remained constant (around 26%).

BUT

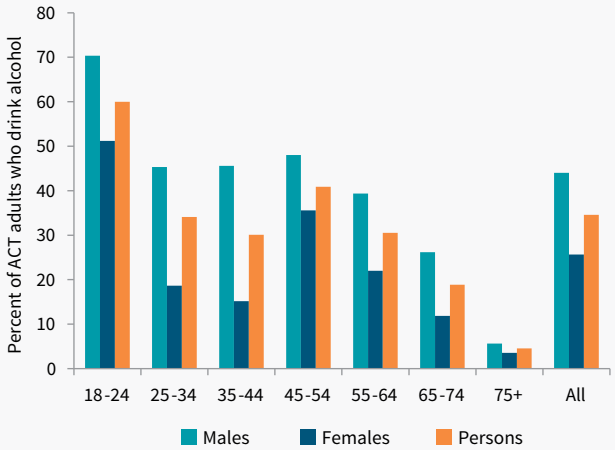
- Men were more likely to drink at risky levels than women.

Adults who drink alcohol at single occasion risky levels (2013–2014)*



Source: ACT General Health Survey 2013–2014.
*'Non drinkers' are excluded.

Adults who drink alcohol at lifetime risky levels (2013–2014)*



Source: ACT General Health Survey 2013–2014.
* 'Non drinkers' are excluded.

Which groups who drink alcohol are we most concerned about?

Men aged 18-34 because:

28% **continued to drink more than 4 standard alcoholic drinks on a drinking day.**

56% **continued to drink more than 2 standard alcoholic drinks on a drinking day.**

Men aged 35-54 because:

47% **continued to drink more than 2 standard alcoholic drinks on a drinking day.**

Women aged 45-54 because:

↑ **There was a change in their drinking behaviour with more women in this age group drinking at risky levels.**

Alcohol drinkers

ACT females aged 45-54 years	Percent of single occasion risk (more than 4 drinks)	Percent of lifetime risk (more than 2 drinks)
2011–12	3%*	17%
2013–14	8 %*	36%

Source: ACT General Health Survey 2011–2014.
* value has a relative standard error of 25% to 50% and should be used with caution.

Secondary students and alcohol consumption

- More than half (56%) of our secondary school students have consumed alcohol at a level that put them at risk of injury on a single occasion of drinking.
- Almost 1 in 5 consumed alcohol at a level that put them at risk of injury on a single occasion in the last 2 weeks, with boys (21%) more likely to do this than girls (15%).
- 42% consumed alcohol with the intention of getting drunk. This percentage has remained constant since 2011.
- 16% consumed alcohol with the intention of getting drunk on most or every occasion, with boys (18%) more likely to do this than girls (13%). This percentage has remained constant since 2011.

Risky drinking in young people

	Percent of 12-17 year olds in ACT, 2014		
	Males	Females	Total
In last two weeks	21*	15	18
In last four weeks	25	22	23
In last year	46	51	49
Ever	55	57	56

Source: ACT Secondary Students' Alcohol and Drug Survey (ASSAD).
*males significantly higher proportion than females.

What happened when our secondary school students drank alcohol?

21% **got into an argument or physical disagreement.**

27% **were sick or vomited.**

14% **had a cigarette or tried smoking.**

8% **tried drugs.**

4% **had to be seen by a doctor or visit a hospital emergency department.**

Young people and alcohol consumption

- Alcohol was responsible for the majority of hospitalisations and deaths related to drugs for people aged 15 to 34 years.[24]
- Alcohol-related harm during or immediately after drinking was experienced disproportionately by younger people, while cumulative alcohol-related harm was more evident among older people.[24]

Aboriginal and Torres Strait Islander peoples and alcohol consumption

- 14% aged 15 years and over drank more than 2 standard drinks on any day they consumed alcohol.
- 66% aged 15 years and over drank more than 4 standards drinks on a single occasion.[25]

Does alcohol use impact on our hospital services?

Yes. Presentations to ACT Emergency Departments due to the 'toxic effects of alcohol' and for alcohol-attributable injuries have increased. For example:

- There was a 33% increase in the rate of presentations to ACT Emergency Departments due to the toxic effects of alcohol between 2010–2011 and 2014–2015.
- The rate of injuries attributable to alcohol increased by 37% between 2010–2011 and 2014–2015.

Presentations to ACT Emergency Departments

Financial Year	ED presentations for toxic effects of alcohol		ED presentations for alcohol attributable injuries (15+ years)	
	Number	Incidence Rate (per 1,000)	Estimated Number	Incidence Rate (per 1,000)
2010–2011	525	1.5	5093	17.2
2011–2012	491	1.3	5574	18.5
2012–2013	721	1.9	6724	21.9
2013–2014	710	1.9	7057	22.7
2014–2015	762	2.0	7411	23.6

Source: ACT Health, Emergency Department Information System 2010/11 to 2014/15.
Australian Bureau of Statistics. Australian Demographic Statistics June 2015 – 3101.0. Canberra.

Note: The estimated number of alcohol–attributed injuries uses abstainers as the reference group and the 2007 drinking prevalence. [26]

Illicit drugs

The impacts of illicit drug use and addiction vary from drug to drug, but they include poisoning, mental illness, self-harm, suicide, and the transmission of bloodborne viruses. The potential family and community impacts of illicit drug use include domestic violence, child abuse, assaults, crime and family breakdown.[27] Monitoring the use of illicit drugs poses a particular public health challenge because their illegal nature results in an incomplete picture about patterns of supply, usage and harm.

What are the most commonly used illicit drugs in the ACT?

The National Drug Strategy Household Survey 2013 found that in the last 12 months, for ACT adults and young people over 14 years:[27]

- 10% reported using marijuana/cannabis.
- 4% reported using pharmaceuticals for non-medical purposes.
- 3% reported using ecstasy.
- 3% reported using cocaine.

These percentages were similar to the proportion of all Australians using these drugs.

What do we know about methamphetamine use?

- In 2014, 3% of young people aged 12 to 17 years reported that they had used or taken amphetamines other than for medical reasons in their lifetime, compared to 6% in 2005.
- In 2013, 2% of people aged 14 years and older reported using amphetamines in the last 12 months. This is similar to the proportion in all Australians.
- There has been a shift from powdered methamphetamine (typically known as 'speed') to crystalline methamphetamine (typically known as 'ice'). Crystal methamphetamine is associated with increasing levels of harm among users, including dependence.

What do we know about opioid use?

Non-medical use of pharmaceuticals or pharmaceutical misuse has increased in Australia since 2007 and was at the highest level since 1998 (increasing from 4% in 2007 to 5% in 2013). The ACT had the lowest proportion of pharmaceutical misuse (4%) whereas Western Australia had the highest proportion (6%).[27]

The National Drug Strategy Household Survey 2013 found that opioids (heroin, opium, and methadone as well as morphine, oxycodone, and codeine) were one of the groups of drugs associated with misuse.

Hospitalisations due to opioid use varied between 2010–2011 and 2014–2015. In 2014–2015 the 30 to 39 year age group accounted for the largest proportion of both prescription and illicit opioid-related separations (34%) and this was similar to the national figure (35% in 2010–2011).[28]

What's working?

Preventing fatal heroin and opioid overdoses – The Naloxone trial

An independent evaluation of Australia's first overdose management program providing take-home naloxone on prescription to people at risk of an opioid overdose in the ACT was completed in 2015.

Over 200 potential overdose witnesses were trained, and program-issued naloxone was used 57 times to resuscitate people.

The evaluation demonstrated that the use of take-home Naloxone by lay people is an effective intervention in overdose situations, and as a result, the ACT Government has provided funding for the program to be rolled out more widely. New ACT laws have been passed which provide legal protection for people who administer the life-saving overdose reversal medicine in an emergency situation, who may themselves be using drugs.

The findings of the evaluation have led for calls for the program to be adopted as part of a national response to preventing drug-related harm.

Safer practices

Bloodborne viruses are viruses that are carried in the blood and spread from one person to another through infected blood or sexual contact. The most prevalent types in the ACT are hepatitis B, hepatitis C and human immunodeficiency virus (HIV). Sexually transmissible infections (STIs) are passed on through unprotected sexual contact or through the exchange of body fluids. Safer behaviours and practices, particularly condom use and safe syringe use, can prevent the spread of bloodborne virus and STIs.

Despite dramatic advances in the effectiveness and availability of treatments, bloodborne viruses and STIs remain an important target for population health policy and programs. Effective testing and surveillance are critical to inform responses, as people may be unaware of their risk and not take appropriate measures to prevent transmission.

Human immunodeficiency virus (HIV)

45 cases were notified between 1 July 2012 and 30 June 2014.

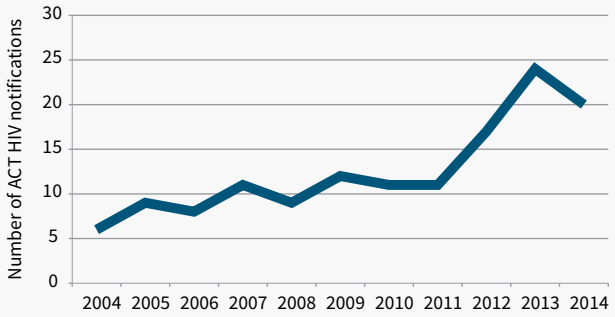
37 **The median age was 37 years.**

89% **of cases were males.**

62% **were born in Australia but no cases were reported for Aboriginal or Torres Strait Islander peoples.**

76% **reported their exposure as sexual contact with a person of the same sex.**

HIV in the ACT



Source: ACT Notifiable Diseases database 2004–2014.

There were 24 notifications in 2013 compared to 17 in 2012 representing a 41% increase. It is unclear if this increase was due to an increase in the incidence of HIV infection in the community, or from increased testing of at-risk populations. This increase was consistent with national trends.

Chlamydia

Chlamydia is a sexually transmissible infection that predominantly affects young people and can be associated with infertility in women. It was the most commonly notified infectious disease.

2,486 cases were **notified between** 1 July 2012 and 30 June 2014.

The **median age** was **22** years.

53% of cases were in **females**.

Gonorrhoea

Gonorrhea is a sexually transmissible infection that has increased in incidence Australia-wide since 2008.

- The ACT's notification rate was 33 per 100,000 population which was about half the national rate, although notifications by Canberra Sexual Health Centre (CSHC) almost doubled from 2009–2010 to 2011–2013.
- 248 cases were notified between 1 July 2012 and 30 June 2014.
  - » The median age was 24 years for females and 27 years for males.
  - » 92% of cases were in males, and two thirds of this group reported having sex with men.

Hepatitis B

Hepatitis B is a bloodborne virus that is preventable through vaccination.

Seven cases of newly acquired infections were reported between 1 July 2012 and 30 June 2014.

The **median age** was **48** years.

All cases were **males**.

4 reported **injecting drug use 2 years prior** to diagnosis.

Between 2010 and 2014:

2-4 cases
of newly acquired infection were reported annually.

There were:
199 notifications
of infection of over 2 years or of an unknown duration. Of these, 53% of cases were in males, and the median age was 33 years.

Is there an effective vaccine for hepatitis B?

Yes. But none of the newly acquired cases notified between 2012 and 2014 reported being fully vaccinated for this virus representing a missed opportunity for disease prevention.

Hepatitis C

Acute hepatitis C is a short-term illness, but 55–85% of people with this infection will develop chronic hepatitis C in the longer-term. Of these, 15–30% develop cirrhosis of the liver which can lead to liver failure and liver cancer.[29] Infection rates are high in vulnerable populations, such as in the prison population.[30]

In Australia, hepatitis C has had a high diagnosis rate but a low treatment rate.[30] However, this is changing, with the availability, from 1 March 2016, of six curative treatments for hepatitis C on the Pharmaceutical Benefits Scheme (PBS). These treatments are less toxic, faster, more effective and have simpler regimes so they can be offered at general practices, outreach services and in the prison health setting. This change in access has the potential to be a real 'game changer' for both the treatment and prevention of this disease.

Hepatitis C cases are classified as newly acquired (infection acquired within 24 months before diagnosis) or unspecified (infection acquired more than 24 months before diagnosis or of unknown duration).

Unspecified hepatitis C infection

- 321 cases were notified between 1 July 2012 and 30 June 2014.

Most cases were aged between 30-39 years (31%) followed by the 40-49 year age group (26%).

65% of cases were males.

- The ACT's notification rate of 42.1 per 100,000 population was similar to the national rate.

Newly acquired hepatitis C infection

- 29 cases were notified between 1 July 2012 and 30 June 2014.

27 **The median age was 27 years.**

52% **of cases were males.**

86% **were in Australian-born people.**

17% **identified as Aboriginal but not Torres Strait Islander origin.**

- In 2013, the notification rate in the ACT was much higher for Aboriginal and Torres Strait Islander peoples at 38 per 100,000 population, compared to non-Aboriginal and Torres Strait Islander peoples at 3 per 100,000 population, but lower than their national rate of 142 per 100,000.

Was there a significant risk factor for acquiring a new hepatitis C infection?

Yes. 93% of people with a new hepatitis C infection had a history of injecting drug use in the previous two years.

Where did we detect most cases?

Most hepatitis C diagnoses were made when screening high-risk populations. Almost a third (31%) of the cases were detected among the prison population, and one fifth (21%) were detected through drug and alcohol screening tests. This suggests that the data may be an underestimate of the true community wide prevalence of this disease.

What's working?

ACT Testing Month has been held in November since 2014 through collaborative engagement with key community stakeholders and ACT Health. This initiative builds on previous community-based sexual health testing projects delivered by Canberra Sexual Health Centre, Sexual Health and Family Planning ACT, AIDS Action Council, Sex Worker Outreach Project and Capital Health Network.

ACT Testing Month raised awareness about the importance of testing for bloodborne viruses and sexually transmissible infections.

ACT Testing Month's success was evident through almost 300% more people being tested in 2015 compared to 2014. This increase mostly was due to the support of Hepatitis ACT and the Canberra Alliance for Harm Minimisation and Advocacy, which enabled the inclusion of hepatitis B and C testing for priority populations such as people who inject drugs and culturally and linguistically diverse (CALD) populations.

Importantly, in 2015, partnerships forged at the Canberra Institute of Technology and their *Navitas Adult Migrant English Program* opened a new avenue to reach CALD populations at risk of hepatitis B. More than 130 CALD people were tested in 2015.

Hepatitis B and C testing was particularly successful for the people who inject drugs, with at least 40 people tested. Rapid HIV testing was also available for gay men and other men who have sex with men.

As part of *ACT Testing Month*, outreach testing was offered from a mobile van at a variety of locations around the ACT. This included testing for sex workers in brothels. The van-based outreach provided insights into a new model for the current sex worker screening by moving from brothel to brothel. Increased testing leads to earlier treatment, therefore reducing the risk of disease transmission as well as more rapid resolution of the infection for the individual who has been tested.

For more information, go to:

health.act.gov.au/healthstats

Healthy People

Snapshot of our healthy people

Healthy minds

1 in 5 people reported receiving a ***mental health disorder diagnosis*** in the preceding 12 months.

78% reported seeking treatment.

ACT 16%
AUS 14%

ACT residents (16%) were ***more likely to report being diagnosed with a mental and behavioural disorder*** than their national counterparts (14%).

Depressive disorders were **frequently associated with chronic diseases**.

Anxiety was the **most frequently reported** mental health diagnosis.

People who reported receiving a ***mental health diagnosis*** were **more likely to indicate several lifestyle risk factors**.

The ***suicide rate*** for males in the ACT was **lower than the national rate**.

70-75% Men accounted for 70-75% of all deaths by suicide.

4,100 About **4,100 ACT residents** are living with dementia.

The number of **dementia-related hospitalisations** ***more than doubled*** between 2004–2005 (637) and 2013–2014 (1404).

Healthy bodies

Cancer (29%) was the leading underlying cause of death, although the rates have steadily declined since 1985.

More males than females were diagnosed with cancer.

82% of adults with cardiovascular disease reported having ***3 or more risk factors*** for this condition at the same time, including ***19%*** with 5 or 6 risk factors.

We had the lowest incidence of diabetes in Australia, but the highest rate of type 1 diabetes within the group who have diabetes.

The percentage of ACT women diagnosed with gestational diabetes increased from 5% in 2006 to 8% in 2013. This translated to an increase of 199 women.

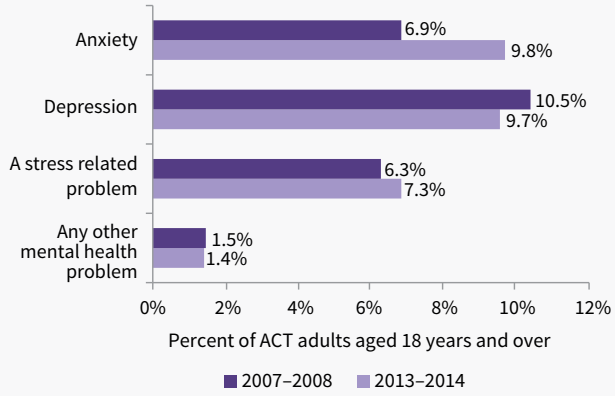
Healthy Minds

Mental illness is a widespread and significant public health issue in the ACT, and throughout Australia. It is a chronic disease in itself, and people who reported receiving a mental health diagnosis were more likely to report several risky behaviours that could contribute to other chronic diseases as well.[31]

Mental illness

- 17% of adults surveyed for the ACT General Health Survey reported having been diagnosed with a mental health disorder in the preceding 12 months.
- The rate of adults reporting a mental health diagnosis has remained relatively stable since 2007–2008.
- More females (22%) reported receiving a mental health diagnosis compared with males (13%), and this trend was comparable to 2007–2008.
- Of those reporting a mental health diagnosis with ongoing symptoms, 78% reported seeking treatment for the condition.
- ACT residents (16%) were more likely to report being diagnosed with a *Mental and Behavioural Disorder* than their national counterparts (14%).

Recent mental health diagnoses

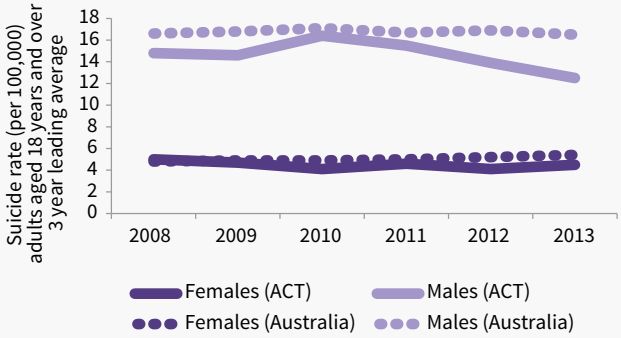


Source: ACT General Health Surveys, 2007–2008, 2013–2014.

Suicide/self harm

- About 30 deaths are registered as suicides in the ACT each year.
- The average suicide rate for males was 12.5 per 100,000, which was nearly 3 times higher than the female rate of 4.5 per 100,000. This was consistent with the national trend.
- The suicide rate for males in the ACT was lower than the national rate. There is an apparent decrease since 2010 for ACT males but because of the small numbers involved, more time is needed to determine a real trend.
- Men accounted for about 70-75% of all deaths by suicide.
- Nationally, Aboriginal and Torres Strait Islander peoples were:
  - » around twice as likely to die by suicide.
  - » more than twice as likely to be treated in hospital for self-harm.

Suicide rates



Source: National Cause of Death Unit Record Files 2013 (COD URF).

Dementia

In 2014, an estimated

4,100 PEOPLE

(1,600 men and 2,500 women) were living with dementia.

The number of people living with dementia is

↑ likely to rise

to about 5,200 by 2020 – an increase of 43% over 10 years (from 2011).

More than half (54%)

of the residents living in our aged care facilities have been diagnosed with dementia.

The number of dementia-related hospitalisations more than doubled between 2004–2005 (637) and 2013–2014 (1404).

The average length of stay in hospital for people with dementia has *decreased over time*, but they still *stayed much longer* (12 days) compared to those without a dementia diagnosis (4 days).

Why is dementia a significant health issue?

People who suffer from this chronic disease have high rates of severe disability, and most of the people with moderate to severe dementia in Australia live in residential care.[32] Dementia is also:

- **a major age-related chronic disease**
- **a leading cause of death**
- **the leading cause of disability in older Australians**
- **more common among women than men.**

The number of Australians living with dementia is expected to triple to around 900,000 people by 2050.

Depression and anxiety

- The proportion of respondents reporting a diagnosis of anxiety in the ACT increased from 7% in 2007–2008 to 10% in 2013–2014, making it the most frequently reported mental health diagnosis.
- Reported rates of depression (10%) and stress-related problems (7%) remained relatively stable between 2007–2008 and 2013–2014.
- The relative risk of developing heart disease is about 1.6 times greater for people with depression or depressive symptoms.[33,34]
- Depressive disorders are associated with risk factors for other chronic diseases such as smoking and physical inactivity.[31]
- Depressive disorders are associated with increased prevalence of chronic diseases. This is probably due to depressive disorders precipitating chronic disease, and to chronic disease exacerbating symptoms of depression.[35]

Does physical activity help?

Yes. It can play an important role in helping to manage mild-to-moderate mental health disorders, especially depression and anxiety. This is because physical activity:

- has a protective effect against the onset of symptoms.
- helps improve existing symptoms.
- improves our sense of wellbeing.
- reduces the risk of chronic disease.

Psychological distress

- 11% of adults reported having high or very high psychological distress, with the females (12%) higher than males (10%). This is similar to the most recent national rate.
- Nationally, Aboriginal and Torres Strait Islander peoples experienced high or very high levels of psychological distress at around 2.5 times the rate of the general population.

Mental health and risk factors

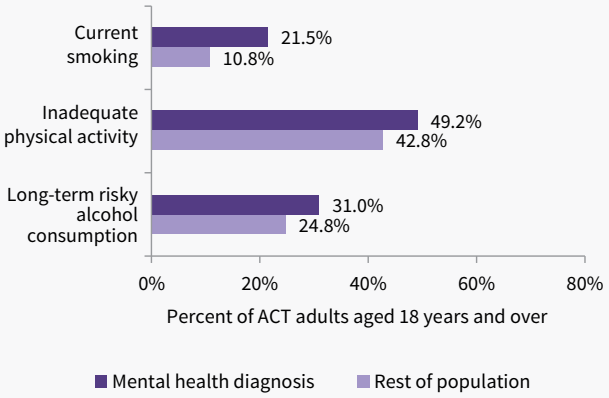
People who reported receiving a mental health diagnosis were more likely to report having risk factors such as:[35,36]

- **being overweight or obese**
- **having inadequate physical activity**
- **being smokers**
- **engaging in risky alcohol use.**

Rates of smoking, overweight and obesity, physical activity and alcohol consumption have remained relatively stable since 2007–2008 for people who reported receiving a mental health diagnosis.

People with a chronic mental illness may not have access to preventive and primary health care, and are at risk of developing conditions such as obesity.

Risk factors and mental health diagnosis



Source: ACT General Health Surveys, 2013 and 2014.

The relationship between mental health disorders and chronic disease

The first National Report Card on Mental Health and Suicide Prevention reported that people living with severe mental illness have been estimated to have up to 32 years less life expectancy than the general population.[37,38,39,40] In particular, people living with a severe and enduring mental illness like schizophrenia or bipolar disorder who have cardiovascular disease, diabetes mellitus, and obesity have much higher rates of morbidity and mortality than the rest of the community.[40] One Australian study showed that people living with a mental illness had an overall death rate that was two and a half times greater than the rate for the general population.[41]

There is a complex relationship between mental health disorders and chronic disease, not only with respect to their causes and consequences, but also in terms of their prevention and management.[42] Mental health disorders and chronic diseases have common risk factors, such as physical inactivity, and both result in significant levels of illness, disability and premature death. They frequently co-occur leading to complex health care management needs.[45] Both mental health disorders and chronic disease lead to social and economic consequences for individuals, families and the community.

Successful public health approaches to mental health management and prevention programs involve comprehensive and integrated treatment of existing illness and encouraging healthy lifestyle choices to reduce risk behaviours such as smoking, physical inactivity and poor diet.[44]

Psychotic illness and other health conditions

- People with psychotic illness often experience poor physical health outcomes and co-morbidities.
- The treatments for some chronic mental illnesses, such as some antipsychotic, antidepressant and mood stabilising drugs, often result in weight gain.

Psychotic illness and co-morbidities

	People living with a Psychotic Illness	People living without a Psychotic Illness
Heart or circulatory conditions	27%	16%
Diabetes	21%	6%
Epilepsy	7%	1%
Severe headaches/ migraines	25%	9%

Source: People Living with Psychotic Illness 2010: Report on the Second Australian National Survey.

Progress to date

A new Mental Health Act

On 1 March 2016, the ACT's new *Mental Health Act 2015* came into effect, giving those in the ACT living with a mental illness greater opportunity to contribute to decisions about their treatment, care, and support. The new Act creates a legal environment geared towards recovery in accordance with the principle of the least restrictive care alternative. It supports a closer working relationship between people who have a mental illness or disorder, their families and carers, and the clinicians and those who deliver their care and treatment.

For many who have an ongoing mental illness or disorder which involves repeated episodes of illness, there is likely to be a desire for their illness to be kept in confidence. This right must be respected, although the Act also emphasises the important roles of carers, which must also be respected.

The *Mental Health Act 2015* Act is the result of years of consultation with people who have lived experience of mental illness, as well as their carers and clinicians.

Healthy Bodies

Chronic diseases account for a huge burden of disease in Australia, and were responsible for 90% of deaths in 2011.[43] A large proportion of the health budget is spent on chronic diseases. In 2008–2009, the most expensive disease groups were chronic–cardiovascular diseases, oral health issues, mental disorders and musculoskeletal conditions which accounted for over a third (36%) of health expenditure at $27 billion.[43] Recognising their risk factors, and taking a proactive approach to reducing or eliminating them, is an important preventive health measure for maintaining healthy bodies, healthy minds, and reducing demand on the health system.

Chronic disease

Chronic disease can affect anyone, although in general incidence increases with age. In 2014–2015:

- 49% of people hospitalised for asthma were children under 14 years of age.
- 62% of people hospitalised for oral disease were less than 24 years of age.
- People aged 25-44 years made up half of hospitalisations for depression (50%).
- People older than 65 years made up the majority of hospitalisations for osteoporosis (82%), cerebrovascular disease (75%), chronic obstructive pulmonary disease (75%), lung cancer (70%), colorectal cancer (66%), coronary heart disease (65%), chronic kidney disease (62%), and osteoarthritis (52%).

Co-morbidities become more common as people age:

- In 2011–2012, 49% had at least one chronic disease or condition (arthritis, asthma, back problems, cancer, chronic obstructive pulmonary disease, cardiovascular disease, diabetes, mental health conditions), and this percentage was similar to the rest of Australia (46%).
- 20% had at least two of these chronic diseases and this was the same as the Australian percentage. 42% of adults aged 45 years and over had at least two of these chronic diseases.
- In 2011–2012, 22% of adults had either cancer, chronic obstructive pulmonary disease, cardiovascular disease or diabetes, and 4% had at least two of these. Of those aged 45 years and over, 10% had at least two of these conditions.

What is co-morbidity?

It is the term used to refer to two or more diseases that happen in a person at the same time. This might be due to chance, but it's usually because there is an association between these diseases. They might share risk factors, or one disease can be a risk factor for another.

Did you realise?

Chronic diseases such as cardiovascular disease, diabetes and chronic kidney disease:

- often have similar underlying causes.
- often share a number of management and treatment strategies.
- are potentially preventable.

What about risk factors for chronic disease in adults?

- 61% had dyslipidaemia (high cholesterol).
- 65% of females and 60% of males had a waist circumference that put them at increased risk of developing a chronic disease.
- Almost two thirds are overweight or obese.
- 44% are not meeting Australia's physical activity guidelines.
- Only 10% eat the recommended serves of vegetables each day.
- 50% of men are drinking at lifetime risky levels.
- 10% smoke daily.

What is the difference between biomedical and behavioural risk factors?

Biomedical risk factors are present in the body. Examples include obesity, high blood pressure and dyslipidaemia. Behavioural risk factors are health-related behaviours that a person has a degree of control over. They include smoking tobacco, drinking too much alcohol, insufficient exercise and a poor diet. Biomedical risk factors are often influenced by behavioural risk factors.

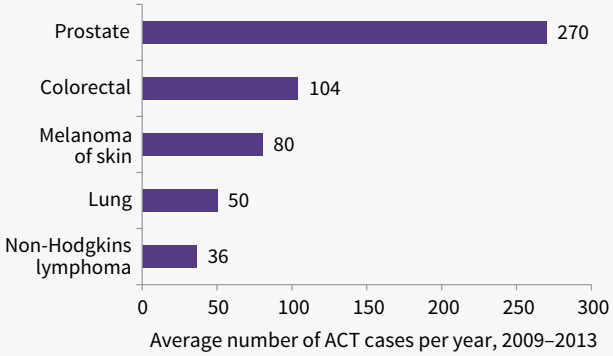
Did we have potentially preventable hospitalisations?

Yes. A potentially preventable hospitalisation is when being admitted to hospital might have been avoided if appropriate preventive actions such as immunisation or early disease management had taken place. In 2013–2014, 41% of all potentially preventable hospitalisations were for chronic disease. ACT Aboriginal and Torres Strait Islander peoples had higher rates of potentially preventable hospitalisations for chronic disease (2,780 per 100,000) compared with other ACT residents (790 per 100,000) in 2013–2014.[46]

Cancer

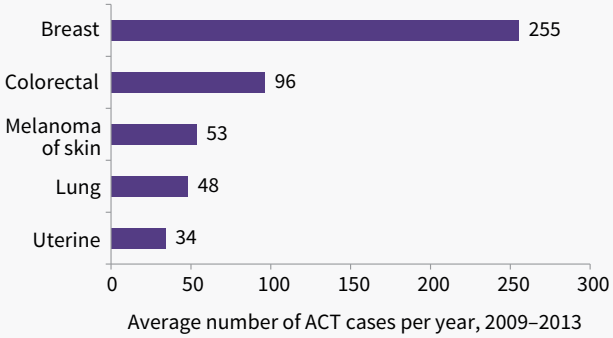
- In 2014, cancer (29%) was the leading underlying cause of death.
- 422 people died from cancer in 2012.
- 1,547 new cases (excluding non-melanoma skin cancers) were diagnosed in 2013 (53% males and 47% females), which was similar to the annual average of 1,536.
- Median age at diagnosis was 66 years for males and 63 years for females.
- The risk of developing any cancer by age 75 was 1 in 3 for males and 1 in 4 for females, and by age 85 was 1 in 2 for males and 1 in 3 for females.

Common cancers diagnosed in males



Source: ACT Cancer Registry.

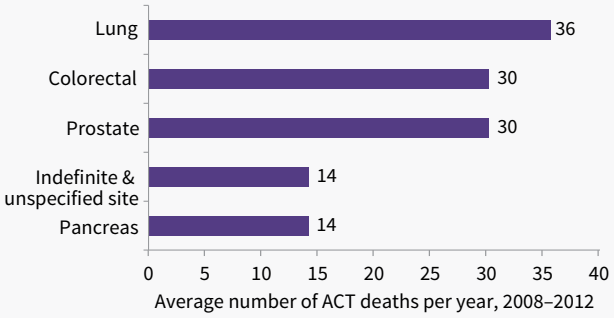
Common cancers diagnosed in females



Source: ACT Cancer Registry.

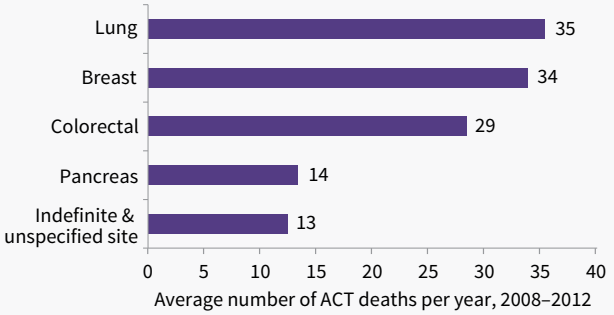
- The common cancers outlined above accounted for 67% of all newly diagnosed cancers for both males and females.
- Mesothelioma continues to be rare with an average of 10 cases per year for the period 2009–2013. The age-standardised incidence rate over this period was 3 cases per 100,000 people.

Common causes of cancer mortality in males



Source: ACT Cancer Registry.

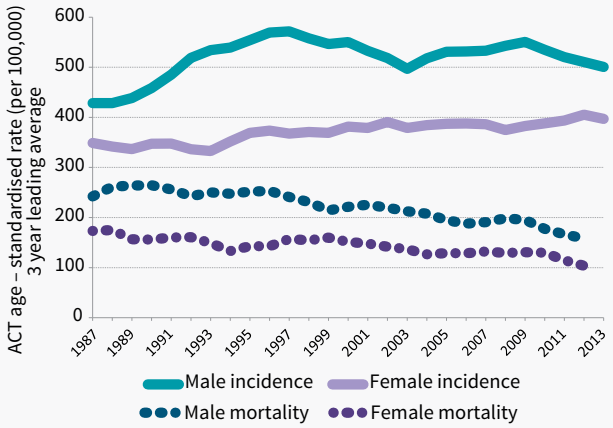
Common causes of cancer mortality in females



Source: ACT Cancer Registry.

- The 5 most common causes of death from cancer accounted for 53% of all cancer deaths in males and 61% in females.

Incidence and mortality for all cancers



Source: ACT Cancer Registry.
Notes: 1. Rates were age-standardised to the 2001 Australian population.
2. Rates are 3-year leading averages, ie the average of the year listed and the two previous years.

- The trend in incidence of all cancers combined was different for males and females.
- For males, the trend was strongly influenced by changes in the incidence rate of prostate cancer, mostly from Prostate Specific Antigen (PSA) testing.
- For females, the trend was influenced by breast cancer incidence following BreastScreen Australia's launch in 1991, and by new screening technologies.
- Mortality rates have steadily declined for both males and females since 1985.

What's working?

Preventing cervical cancer through screening and vaccination.
Nearly all cases of cervical cancer can be attributed to infection with the human papillomavirus (HPV), which is a common sexually transmissible infection that can persist and progress to cancer if undetected.[47,48] Australia was the first country to implement a fully funded National HPV Vaccination Program, targeting teenagers before they become sexually active.

The program commenced with girls in 2007, and boys were included from 2013. In the ACT, 78% of year 7 students received the full three doses of the vaccine in 2014.[49]

The vaccine offers almost 100% protection from HPV types 6 and 11 (which cause around 95% of genital warts), and types 16 and 18 (which cause up to 80% of cervical cancer cases in females and 90% of HPV-related cancers in males).[50,51]

An evaluation of the National HPV Vaccination Program was undertaken in 2014 and showed that the vaccine has substantially reduced the burden of high-grade cervical abnormalities (a precursor to cervical cancer) and genital warts. However, because of the long lead time between HPV infection and the development of cervical cancer, the full impact of the HPV vaccine on cervical cancer rates will not be observed for years to come.

The National Cervical Screening Program (NCSP) has been very successful in reducing deaths from cervical cancer.

Since the introduction of the program in 1995, cervical cancer has fallen from the 8th to the 18th most common cause of cancer death in Australian women.[52] The ACT ranks first overall in Australia for the five-year participation rate in cervical cancer screening. It is still important for women to have regular Pap smears to screen for some types of cervical cancer which are not prevented by the HPV vaccine. The introduction of the HPV vaccine will mean a decline in the number of abnormal Pap smear results and the consequent stress and treatment. It will also mean changes to the screening program. The renewal of the NCSP, due to start on 1 May 2017, will ensure that Australian women have access to a cervical screening program that is safe, effective, efficient and based on current evidence.[53]

Cardiovascular disease

The prevalence of cardiovascular disease in **ACT residents** was 18.5% in 2011–2012.[54]

In **2014**, cardiovascular disease was the **second most common** underlying cause of death (28%) behind cancer.[55]

Did you realise?

When compared to adults without cardiovascular disease, those with this condition were:[54]

2.7 times more likely to have dyslipidaemia

2.2 times more likely to have uncontrolled high blood pressure

1.4 times more likely to be overweight or obese

1.3 times more likely to be a current smoker

1.2 times more likely to not do enough physical activity

AND

- In 2011–2012, 82% of adults with cardiovascular disease reported having three or more risk factors for their disease, including 19% with at least five risk factors (for example daily smoking, insufficiently active, inadequate fruit and vegetable consumption, overweight/obese, high blood pressure, dyslipidaemia, and/or impaired fasting glucose).

Diabetes

In 2011–2012, **78% of people** with diabetes had at least **three risk factors** for their disease, and 39% had at least five.[54]

We had the lowest prevalence of diabetes in Australia (4% ACT, 5% nationally).[56]

BUT

- We had the highest prevalence of type 1 diabetes in Australia (11% ACT, 10% nationally) within the group of people who have diabetes.
- The percentage of women diagnosed with gestational diabetes has increased over time from around 5% in 2006 to 8% in 2013. In 2013 the number of women diagnosed with gestational diabetes was 422, compared with 223 in 2006.
- The rise in gestational diabetes diagnoses is associated with an increase in its known risk factors such as maternal age and Body Mass Index (BMI). For example:
  - » 25% of women who gave birth in 2013 were 35 years of age or over compared with 13% in 1991.
  - » 40% of women who gave birth in 2013 were either overweight or obese, within this group of overweight women 6% were in the Obese Class III category (having a BMI over 40).
- Some groups have an increased risk of developing gestational diabetes including Aboriginal and Torres Strait Islander peoples and those born in high-diabetes-risk regions such as Asia.[57]

For more information, go to:

health.act.gov.au/healthstats

Looking to the future

What does the data tell us?

Why report on the health of the ACT population?

This *Healthy Canberra* report presents information about the health of the ACT population, providing a vital platform for looking forward and anticipating future health challenges and opportunities. Access to population health data and the interpretation of population health trends can inform our policy and service planning decisions to improve our whole community's health and wellbeing. This final chapter of *Healthy Canberra* summarises our population health strengths and challenges and highlights the major implications to guide our path to an even healthier Canberra in the future.

What does the data tell us?

Healthy City

With one of the cleanest, safest environments in the world, it can be easy to take the positive impact of our environment on our health for granted. Efforts to maintain or improve our environment need constant vigilance as well as integrated, multisectoral capacity to respond to issues as they emerge.

We have excellent water and air quality in the ACT. Whilst we generally also have access to safe food, there is some room for improvement. In 2012–2014 almost one-third (28%) of our approximately 3,000 food businesses were not compliant with regulations at initial inspection, and 13 outbreaks of likely foodborne illness affected 394 people. The best food safety system can fail and the increasingly complex nature of the origins of our food, food supply and processing, food preparation and storage requires continued efforts to protect us from foodborne illness. Regulation and enforcement of breaches are important tools in these endeavours, but so are increased efforts in education and engagement with private sector providers and the public.

Air quality in Canberra is generally excellent and there were only 12 days when wood smoke particulate meant that the ACT exceeded the National Environment Protection Measure advisory standard. Even on these occasions, air quality was very good when compared to many other cities in the world.

Into the future, routine air quality monitoring will play an important role in keeping people informed about any potential health hazards relating to air pollution (e.g. wood smoke) and informing public health responses to air related issues to ensure we continue to meet the air quality standard. Exposure to bushfire smoke poses a health threat, especially to people with asthma or other chronic respiratory diseases.

Access to clean, safe water is fundamental to good health. We are fortunate to enjoy high quality drinking water and health protection systems such as regular recreational water monitoring to prevent waterborne disease. In the future, as demand for clean water (for both recreational and household use) increases with population growth, we will need to be smarter about how we use our water resources. Approaches such as water sensitive urban design (for example, urban wetlands) offer the potential to deliver multiple benefits such as improving recreational water quality, reducing potable water consumption and increasing urban amenity.

Healthy Weight

Maintaining healthy weight, healthy eating and active living are three essential areas requiring improvement for residents of the ACT. They are also the most likely to reduce our risk of chronic disease and early death and reduce the increasing costs to our health system.

There is good news reflecting our prevention efforts in recent years: the growth in obesity and overweight in our children is beginning to slow; children are drinking far less sugar-sweetened drinks; the levels of underweight are not increasing; children are eating more fruit; and adults have increased their participation in active travel. These gains represent good progress being made towards the Healthy Weight Initiative target of 25% fewer children drinking sugar-sweetened drinks by 2018 compared to 2014 levels, and maintaining levels of daily fruit consumption.

Despite this good news, challenges remain. Those adults who were overweight are now carrying more excess weight than before; the majority of our children and adults are not eating enough vegetables to reap the protective effect against chronic diseases and some cancers; worryingly the rates of obesity and diabetes in pregnancy have increased; and our high school aged children are less physically active than before.

Across our city there is a large amount of junk food advertising that is reaching our children and potentially influencing their food preferences. Indicating commitment to achieving these goals, the ACT Government is working towards zero growth in levels of overweight and obesity, doubling the number of vegetables that adults and children in Canberra eat everyday, and increasing the proportion of adults and children meeting the recommended amount of physical activity levels by 15% by 2018.

These challenges point towards the need to continue and intensify our efforts under the ACT Government Healthy Weight Initiative, to look at the intersection between primary and secondary prevention to ensure we halt the growth in our waistlines. The data is pointing towards a need to pay particular attention to our youth and high school children and to examine our efforts in the prenatal and antenatal periods and between pregnancies. We are improving in some physical activity indicators but we need an increased emphasis on improving our food environment.

The ACT Government *Healthy Weight Initiative* Targets

Adult health	Target description	Baseline 2010–2012	Target 2018	Unit of measure
Healthy weight	Zero increase in proportion of overweight and obese adults	63	≤63	% of adults
Healthy eating	Increase daily serves of fruit consumed by adults	1.8	2	average daily serves of fruit
	Increase daily serves of vegetables consumed by adults	2.5	5	average daily serves of vegetables
Active living	Increase adults meeting physical activity guidelines	59	67	% of adults
	Increase adults using walking and cycling to get to work	7.7	12.5	% of adults
	Increase adults using public transport to get to work	7.8	10.5	% of adults
Child health	**Target description**	**Baseline 2010–2012**	**Target 2018**	**Unit of measure**
Healthy weight	Zero increase in proportion of overweight and obese children	26	≤26	% of children
	Zero increase in proportion of overweight and obese Kindergarten children	16	≤16	% of children in Kindergarten
Healthy eating	Maintain daily serves of fruit consumed by children	2	2	average daily serves of fruit
	Increase daily serves of vegetables consumed by children	2.3	4.5	average daily serves of vegetables
	Reduce regular consumption of sugar-sweetened drinks by children	36	27	% of children
Active living	Increase primary school children meeting physical activity guidelines	19	21	% of children in Year 6
	Increase children using walking and cycling to get to school	34	39	% of children
	Zero increase in children exceeding screen time guidelines	44	≤44	% of children

Healthy Lifestyle

We have made excellent gains on smoking rates overall, yet smoking remains a leading, preventable cause of death in particular groups in our community. Young pregnant women and members of the Aboriginal and Torres Strait Islander community are smoking at relatively high rates. E-cigarettes have emerged during this reporting period and bring with them the risk of re-normalising smoking, particularly in our young people.

Alcohol-related harm is an increasing health burden, for both longer term health and as a cause of injuries, assault and presentations to Emergency Departments. Alcohol was responsible for the majority of all drug-related deaths and hospital episodes among people aged 15 to 34 years and women aged 45 to 54 years are drinking more. The use of alcohol across all age groups and its related increasing burden on the health system warrants intervention across the population. The (Draft) *ACT Alcohol Tobacco and Other Drug Strategy 2016–2020* identifies regulating the price and availability of alcohol, regulating the marketing of alcoholic beverages, licensing regulation and controls, and complementary education campaigns as the most effective in measures to reduce risky alcohol consumption.

The risk of becoming infected with a bloodborne disease for particular groups remains. Hepatitis C continues to disproportionately affect vulnerable populations, such as people who have a history of injecting drug use and prison populations. As most cases of viral hepatitis are detected through targeted screening programs, it is likely there are many people living with hepatitis C in the community who are unaware that they are carrying the infection. This points towards a consideration of testing in the wider community, especially now that high quality and affordable treatment for hepatitis C is available. With improved access to treatment for hepatitis C now under the Pharmaceutical Benefits Scheme, there is an opportunity to also increase our coverage of hepatitis B vaccination and there is the potential of both a cure for individuals and a reduction in transmission rates.

The recent rise in new cases of human immunodeficiency virus (HIV), mainly in men, calls for innovative and novel approaches to reduce the spread of infection to others and minimise harm. Promising approaches include expanded community based and point of care testing at the time of consultation and biomedical prevention strategies such as pre- and post-exposure prophylaxis.

Healthy People

While we are living longer, our residents are more likely to be diagnosed with a mental disorder than their national counterparts. Poor mental health can lead to poor outcomes in terms of income, employment, isolation, discrimination and overall wellbeing. The new *Mental Health Act 2015* brings a new paradigm and opportunity to further examine the root causes and potential prevention strategies to tackle this increasing burden of disease.

We have a growing number of adults in the ACT with chronic diseases. Cancer and cardiovascular disease are the leading causes of death and about 4,100 people in the ACT had dementia. Multiple risk factors are often playing a role. For example, 82% of adults with cardiovascular disease reported having three or more risk factors for this condition. This data suggests opportunities for primary and secondary prevention – seeking to prevent the onset of these conditions and to minimise the progress once the conditions are already present.

In terms of primary prevention, the risk factors for many chronic conditions, including mental health disorders, are overlapping and include low levels of physical activity, unhealthy diet, smoking and alcohol consumption.

Reducing these common and overlapping risk factors will be an effective means to improve our health outcomes and reduce the burden of chronic diseases on our health system.

There is also a role for secondary prevention, which aims to minimise the progress of a condition that is already present. By 2053, older persons are expected to comprise 21% of the ACT population. Although older persons in the ACT are generally healthy there is an increasing burden of chronic disease, dementia and cancers in the older age group. Consequently there are also benefits to adopting a more coordinated and holistic approach to effectively manage chronic disease from prevention and early intervention and through symptom control to end of life care. Examples of such an approach include ACT Health's Chronic Care Program. This provides case coordination for people with multiple chronic conditions, to allow for information sharing and seamless care planning between specialist services, with the individual centrally involved in decision making. The future challenge is to extend care coordination to people at an earlier stage of diagnosis to incorporate a greater early intervention focus and potentially reduce the use of acute care services.

What does this mean?

We need to protect our health gains, not be complacent and ensure our initiatives and interventions reach the people who need them.

- We need to be careful that our successes in reducing smoking and infectious diseases do not create a false sense of security leading to complacency and the risk of losing the gains we've made. For example, even though the proportion of our secondary students who had never smoked almost doubled between 1996 (44%) and 2014 (81%), we need to ensure that the emergence of electronic cigarettes (e-cigarettes) does not re-normalise smoking for this group.
- We must not forget about the underlying threat of infectious disease and ensure that we maintain our infrastructure and surveillance systems to respond when, not if, infectious disease outbreaks occur. In addition, we need to ensure that immunisation and treatment reach the most vulnerable members of our community such as children, Aboriginal and Torres Strait Islander peoples, pregnant teenagers, intravenous drug users and those with chronic physical and mental illness.

We need information systems to measure our gains, and uncover nuances in our population statistics and better inform our decision making.

- Not only does *Healthy Canberra* reveal the issues that are relevant to our whole population, it also uncovers some of the nuance in our population statistics, which can guide us in fine tuning our future directions. Take, for example, the finding about Canberrans' tendency to eat enough fruit but not enough vegetables. While our previous ACT Health focus has been to "go for two and five" (to aim to consume two serves of fruit and five of vegetables every day), the data provided in *Healthy Canberra* shows a need to refine this health promotion message to further promote consumption of vegetables.
- We need to identify timely, accurate and cost-effective ways of gathering data, for example, by innovative uses of routinely collected electronic data from a wide range of systems. Secondly, we need to ensure that we rigorously interpret and analyse this data to appropriately and meaningfully support evidence based services and policy. This data can also demonstrate successes and gaps.
- One way to do this is through data linkage. Data linkage occurs when existing data from multiple sources is de-identified and linked to support measurement of clinical performance and health outcomes. Data linkage provides an opportunity to be smarter about using data that we have already captured and using it to solve problems in a new way. Linking de-identified data about an individual's health and service use opens up new possibilities for this data to support quality improvements and improved health outcomes.
- We are also expanding our involvement with chronic disease registries, which can be used to track clinical patient data across a range of condition to support the implementation of evidence based practice. For example, ACT Health, as part of a national project, is developing a prostate cancer registry for the purpose of monitoring patterns and quality of care provided to men with prostate cancer.

We need to get smart about keeping people out of hospital.

- We are witnessing unprecedented pressure on our tertiary health system and it is predicted that pressure on the health system will continue to grow due to the burden of chronic disease and an ageing population.
- ACT Health already has a range of services aiming to prevent hospital admissions, such as the Falls and Falls Injury Prevention Program. This is a free service providing clinic-based multidisciplinary assessments and interventions as well as access to the free "Stepping On..." falls prevention seven-week education group that runs regularly throughout the year.

- The information in this report helps to inform us of the types of potentially preventable hospitalisations we need to address. For example, we have already observed a steady increase in the number of people going to hospital as a result of alcohol related injuries.
- Being smart about keeping people out of hospital involves collecting and using our data well. Identifying the problematic role of alcohol in hospital admissions also indicates the need for a more accurate picture of patterns of risky drinking. This information is critical in informing any intervention and making sure it hits the mark. A recently announced national research study, in which Calvary Hospital Emergency Department is participating, will record information about the drug and alcohol intake of all presenting patients.

We need to scale up and connect our efforts to prevent overweight and obesity to prevent a tsunami of lifestyle related chronic disease.

- The most concerning challenge for the ACT population as a whole is cemented in this report: preventing overweight and obesity across the population. By addressing the risk factors for overweight and obesity we will address the main risk factors for a range of chronic disease, some cancers, diabetes and dementia.
- Integrating primary and secondary prevention, such as addressing the increasing rates of gestational diabetes and Body Mass Index (BMI) and relatively high levels of smoking amongst pregnant women suggests we could better support our health sector to deliver appropriate prenatal and antenatal care that enables women to maintain a healthy lifestyle in this critical period.
- The ACT Government has established a model for collaborative and preventative cross-government work and lessons learned can strengthen and inform approaches as we go forward. For example, the *Ride or Walk to School* and *Active Streets* initiatives utilise a whole of government approach with ACT Health working in partnership with the ACT Education Directorate, Territory and Municipal Services (TAMS) and Justice and Community Services Directorate.

Positive change takes sustained, coordinated effort, and we are starting to witness some of the positive results from decades of work.

- We know that small and consistent changes make significant differences when multiplied by a large number of people over a long period of time. We also know that these changes can take time to have an impact, but that when they do make an impact it is significant. For example it has been 18 years since the ACT's first smoke-free legislation was introduced, and we have seen consistent and impressive declines in smoking rates in the ACT since this time. We are now seeing the beginning of subsequent decreases in the rates of diseases associated with smoking such as lung cancer.
- More recently, rates of children who are overweight and obese remain high but seem to be stabilising. We are also observing a decline in sugar-sweetened drink consumption amongst children.
- The preventative path to a healthier Canberra is not a solitary road. It must be shared by the health sector, industry, communities and individual Canberrans as well as the ACT Government. *Healthy Canberra* tells us the status of our health now, creating momentum for change and pointing out a direction for the future.
- Information and data plays a vital role as we continue to share this road into the future. To support this, ACT Health is launching a series of publications in the form of "Focus On..." topic summaries, and a new HealthStats ACT website, where ACT population health data will be regularly updated and available to the public. ACT Health is also developing methods to use our data in more sophisticated and smarter ways in accordance with the ACT Government's Open Data Policy.

References

1. Australian Bureau of Statistics. Australian demographic statistics, September 2014. Canberra: ABS; 2014. ABS publication 3101.0.
2. Australian Capital Territory. Chief Minister's Department. ACT population projections: 2009 to 2059. Canberra: ACT Government; 2011.
3. Australian Bureau of Statistics. ABS.Stat (Beta) [data on the Internet]. 2011 [cited 2015 July 20]. Available from: *http://www.abs.gov.au/websitedbs/D3310114.nsf/home/absstat*
4. National Health Performance Authority. Healthy communities: immunisation rates for children in 2014-15 (in focus). Sydney: National Health Performance Authority; 2016.
5. Goldie X, Kakuk I, Wood G. Two tales of a city: detecting socio-economic disadvantage in an 'advantaged' Australian urban centre. Australian Geographer. 2014;45(4):521-40.
6. Tanton R, Vidyattama Y, Mohanty I. Disadvantage in the Australian Capital Territory. Policy Studies. 2015;36(1):92-113.
7. Australian Bureau of Statistics. Census of population and housing: estimating homelessness, 2011. Canberra: ABS; 2011. ABS publication 2049.0.
8. Air pollution, access to services, clean air, safety, life expectancy, unemployment, housing: Organisation for Economic Co-operation and Development. OECD regional well-being: Australian Capital Territory [data on the Internet]. 2014 [cited 2016 January 11]. Available from: *http://www.oecdregionalwellbeing.org/*

   Labour force: Australian Bureau of Statistics. Australian social trends, data cubes. Canberra: ABS; 2012. ABS publication 4102.0.

   Income: Australian Bureau of Statistics. Australian national accounts: national income, expenditure and products, September 2015. Canberra: ABS; 2015. ABS publication 5206.0.
9. Australian Government Bureau of Meteorology, CSIRO. State of the climate 2014. Canberra: Commonwealth of Australia; 2014.
10. CSIRO. Climate variability and change in south-eastern Australia: A synthesis of findings from phase 1 of the South Eastern Australian Climate Initiative. Canberra: CSIRO; 2010.
11. Victorian Government Department of Human Services. Future prevalence of overweight and obesity in Australian children and adolescents, 2005-2025. Melbourne: Victorian Government Department of Human Services; 2008.
12. United States. Centers for Disease Control and Prevention. Body mass index: considerations for practitioners [document on the Internet]. 2011 [cited 2016 Jan 14]. Available from: *http://www.cdc.gov/obesity/downloads/BMIforPactitioners.pdf*
13. Victorian Government Department of Human Services. ACE-obesity assessing cost-effectiveness of obesity interventions in children and adolescents, summary of results [document on the Internet]. 2006 [cited 2016 March 16]. Available from: *https://www2.health.vic.gov.au/public-health/population-health-systems/evidence-and-evaluation/summaries-of-evidence*
14. Magnus A, Haby MM, Carter R, Swinburn B. The cost-effectiveness of removing television advertising of high-fat and/or high-sugar food and beverages to Australian children. International Journal of Obesity. 2009;33(10):1094-102.
15. Australian Government National Health and Medical Research Council. Eat for health: Australian dietary guidelines. Canberra: NHMRC; 2013.
16. Heart Foundation. Food and beverage marketing to children in the ACT: persistent, pervasive, persuasive. Canberra: Heart Foundation; 2015.
17. Australian Bureau of Statistics. Australian health survey: nutrition first results – foods and nutrients, 2011-12. Canberra: ABS; 2012. ABS publication 4364.0.55.007.
18. Australian Government Department of Health. Australia's physical activity and sedentary behaviour guidelines [homepage on the Internet]. 2014 [cited 2016 February 11]. Available from: *http://www.health.gov.au/paguidelines*
19. Telford RD, Cunningham RB, Telford RM, Abhayaratna WP. Schools with fitter children achieve better literacy and numeracy results: evidence of a school cultural effect. Pediatric Exercise Science. 2013;24:45-57.
20. World Health Organisation Framework Convention On Tobacco Control. Electronic nicotine delivery systems. Paper presented at: Conference of the parties to the WHO Framework Convention on Tobacco Control; 2014 October 13-18; Moscow, Russian Federation.
21. Park J, Seo D, Lin H. E-cigarette use and intention to initiate or quit smoking among US youths. American Journal of Public Health. 2016;106:672-78.
22. Australian Institute of Health and Welfare. Australian burden of disease study: impact and causes of illness and death in Australia 2011. Canberra: AIHW; 2016. Australian burden of disease study series no.3.
23. Ridolfo B, Stevenson C. The quantification of drug-caused mortality and morbidity in Australia, 1998. Canberra: AIHW; 2001. AIHW Drug Statistics Series no. 7.
24. Australian Government National Health and Medical Research Council. Australian guidelines to reduce health risks from drinking alcohol. Canberra: NHMRC; 2009.
25. Australian Bureau of Statistics. Australian Aboriginal and Torres Strait Islander health survey: first results, 2012-13. Canberra: ABS; 2013. ABS publication 4727.0.55.001.
26. Chikritzhs T, Evans M, Gardner C, Liang W, Pascal R, Stockwell T, et al. Australian alcohol aetiologic fractions for injuries treated in emergency departments. Perth: National Drug Research Institute, Curtin University; February 2011.
27. Australian Institute of Health and Welfare. National drug strategy household survey detailed report 2013. Canberra: AIHW; 2014.
28. Roxburgh A, Burns L. Drug-related hospital stays in Australia, 1993-2011. Sydney: National Drug and Alcohol Research Centre, University of New South Wales; 2013.
29. World Health Organization. Hepatitis C, fact sheet number 164 [document on the Internet]. 2015 [cited 2016 March 1]. Available from: *http://www.who.int/mediacentre/factsheets/fs164/en/*
30. Australian Government Department of Health. Fourth national hepatitis C strategy 2014-2017. Canberra: Commonwealth of Australia; 2014.
31. Davidson S, Judd F, Jolley D, Hocking B, Thompson S, Hyland B. Cardiovascular risk factors for people with mental illness. Australian & New Zealand Journal of Psychiatry. 2001;35(2):196-202.
32. Australian Institute of Health and Welfare. Dementia in Australia. Canberra: AIHW; 2012.
33. Rugulies R. Depression as a predictor for coronary heart disease: a review and meta-analysis. American Journal of Preventive Medicine. 2002;23(1):51-61.
34. Wulsin LR, Singal BM. Do depressive symptoms increase the risk for the onset of coronary disease? A systematic quantitative review. Psychosomatic Medicine. 2003;65(2):201-10.
35. Chapman DP, Perry GS, Strine TW. The vital link between chronic disease and depressive disorders. Preventing Chronic Disease. 2005;2(1):A14.
36. Taylor VH, McIntyre RS, Remington G, Levitan RD, Stonehocker B, Sharma AM. Beyond pharmacotherapy: understanding the links between obesity and chronic mental illness. Canadian Journal of Psychiatry. 2012;57(1):5-12.
37. Australian Government National Mental Health Commission. A contributing life, the 2012 national report card on mental health and suicide prevention. Sydney: NMHC; 2012.
38. Chang CK, Hayes RD, Perera G, Broadbent MTM, Fernandes AC, Lee WE, et al. Life expectancy at birth for people with serious mental illness and other major disorders from a secondary mental health care case register in London. PloS ONE. 2011;6(5):e19590.
39. Miller BJ, Paschall CB, Svendsen DP. Mortality and medical comorbidity among patients with serious mental illness. Psychiatric Services. 2006;57(10):1482-7.

40. Newcomer JW. Antipsychotic medications: metabolic and cardiovascular risk. Journal of Clinical Psychiatry. 2007;68(Suppl4):8-13.

41. Coghlan R, Lawrence D, Holman CDJ, Jablensky AV. Duty to care: physical illness in people with mental illness. Perth: The University of Western Australia; 2001.

42. World Health Organization, Calouste Gulbenkian Foundation. Integrating the response to mental disorders and other chronic diseases in health care systems. Geneva: World Health Organization; 2014.

43. Australian Institute of Health and Welfare. Australia's health, 2014. Canberra: AIHW; 2014.

44. Australian Government National Mental Health Commission. A contributing life, the 2013 national report card on mental health and suicide prevention. Sydney: NMHC; 2013.

45. Australian Institute of Health and Welfare. Key indicators of progress for chronic disease and associated determinants: data report. Canberra: AIHW; 2011.

46. Australian Government Productivity Commission. Report on government services, 2016, Chapter 10, Volume E, primary and community health. Canberra: AGPC; 2016.

47. Bosch FX, Lorincz A, Muñoz N, Meijer CJ, Shah KV. The causal relation between human papillomavirus and cervical cancer. Journal of Clinical Pathology. 2002;55(4):244–65.

48. Walboomers JM, Jacobs MV, Manos MM, Bosch FX, Kummer JA, Shah KV, et al. Human papillomavirus is a necessary cause of invasive cervical cancer worldwide. Journal of Pathology. 1999;189(1):12–9.

49. Cancer Council of Australia. How effective is the vaccine? [document on the Internet]. No date [cited 2016 January 16]. Available from: *http://www.hpvvaccine.org.au/the-hpv-vaccine/how-effective-is-the-vaccine.aspx*

50. Australian Government Department of Health. Immunise Australia program, Human Papillomavirus (HPV) [document on the Internet]. 2015 [cited 2016 January 14]. Available from: *http://www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/immunise-hpv*

51. Brotherton JML, Fridman M, May CL, Chappell G, Saville AM, Gertig DM. Early effect of the HPV vaccination programme on cervical abnormalities in Victoria, Australia: an ecological study. Lancet. 2011;377(9783):2085-92.

52. Australian Government Department of Health. National cervical screening program, early detection [document on the Internet]. 2015 [cited 2016 Jan 14]. Available from: *http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/early-detection-l~early-detection-section-1*

53. Australian Government Department of Health. National cervical screening program, overview of the renewal [document on the Internet].2015 [cited 2016 Jan 14]. Available from: *http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/overview-of-the-renewal*

54. Australian Bureau of Statistics. National health survey, 2011-12 and Australian health survey, 2011-12, risk factors and chronic disease, customised report, 2015. Canberra: ABS; 2015.

55. Australian Bureau of Statistics. Causes of death, Australia, 2014. Canberra: ABS; 2014. ABS publication 3303.0.

56. National Diabetes Services Scheme. Australian diabetes map. No date [cited 2015 Aug 14]. Available from: *http://www.diabetesmap.com.au/#/*

57. Australian Institute of Health and Welfare. National maternity data development project: diabetes mellitus during pregnancy. Canberra: AIHW; 2016.