ACT Government Health

ACT Population Health Bulletin

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Upcoming Events

January 2014:

- 19–26 January 2014 - Australia's Healthy Weight Week http://www.healthyweightweek.com.au

February 2014:

- Healthy Canberra Grants will open for applications. Further information at www.health.act.gov.au/hpgrants
- 21 February 2014 - Assessment of applications to the Health Promotion Innovation Fund - www.health.act.gov.au/hpgrants
- 1–28 February - FebFast - http://febfast.org.au

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Introduction

A message from the Chief Health Officer, Dr Paul Kelly

In this Issue of the Bulletin, the "wicked problem" of obesity in the ACT is examined. High body mass is now the leading risk factor for disease burden in Australia. Obesity is associated with a range of chronic diseases which are, in turn, major contributors to rising health costs. The ACT, despite its reputation as a healthy, wealthy and wise jurisdiction, shares the growing burden of overweight and obesity with the rest of Australia and many other countries worldwide. The scale of the problem is enormous with over 170,000 adult Canberrans in the overweight or obese range.

The problem is underpinned by a complex combination of the environment in which we live and the choices we make as a society and as individuals. Many changes in the physical environment, our workplaces, our transport modes and in particular the quantity and the constituents of the food we eat have changed radically in the last 30 years. The solution to the problem is similarly complex and contested.

A series of articles in this Issue state the case for a population health approach which goes beyond the health sector to involve such diverse sectors as urban planning, transport, building design, school and work-based policies and the promotion and availability of energy-dense, nutrient-poor foods and drinks. We commissioned a review to specifically gather the best evidence to support a whole of government approach to promoting healthy weight. Promising ideas appropriate to the ACT context have been taken forward in the Towards Zero Growth, Healthy Weight Action Plan, launched by the Chief Minister and Minister for Health, the Hon. Katy Gallagher MLA, on 14 October 2013. Six implementation groups led by the appropriate government directorate and with representation across government are now working to execute the plan.

Whilst the Action Plan is a broad and integrated approach, it is not the only ACT Government initiative tackling obesity. The Health Promotion Grants Program has over $2 million in annual funding and has been refocussed to assist community partners to play their part in obesity prevention, particularly for children. The National Partnership Agreement on Preventive Health, highlighted in a previous Issue of the Bulletin (Volume 2, Issue 2) is funding a range of interventions, including programs promoting active travel and healthy nutrition in schools. A key component of both of these programs is the consultative nature of the work, in particular seeking the opinions of the school children themselves. Both programs also have elements of community partnership and in the case of Ride or Walk to School and HealthyFood@School, with the non-government and business sectors. This partnership model will be crucial as health promoting programs are expanded in the ACT in the coming years.

Whilst focussing on prevention to minimise the impact of obesity in the future, there is also a need for enhanced clinical services for obese patients in the present. The new public Obesity Management Service, commencing in 2014, will provide interdisciplinary approaches to improve the health and well being of adult patients with level 3 obesity. The establishment of this Service clearly demonstrates that the obesity epidemic is not an abstract concept, and reinforces the need to redouble our preventive effort to minimise the impact on clinical services in the future.

Thanks to the contributors and to Joanne Greenfield, Andrew Pengilley and Lindy Fritsche for editorial assistance for this Issue.

Breaking News

Towards Zero Growth Target: Healthy Weight Action Plan wins award

The ACT Health Towards Zero Growth Healthy Weight Action Plan (HWAP) was developed by the Office of the Chief Health Officer (OCHO) in collaboration with other areas of Government and key academic and NGO groups. The HWAP focuses on harnessing Government action across a range of sectors, including those outside the Health sector, to achieve a co-ordinated approach to reducing rates of overweight and obesity in the population. This is based on identifying 'win-win' situations in which action which reduces rates of obesity can also be of benefit to other priorities, such as education and public transport. OCHO has an ongoing role in co-ordinating the regular reporting of groups working on implementing the Healthy Weight Action Plan. This innovative plan was recently recognised by the Australian and New Zealand Obesity Society (ANZOS) with a Gold Medal for obesity prevention.

Acronyms and Resources

Acronyms

ACTGHS	ACT General Health Survey
ACTHPGP	ACT Health Promotion Grants Program
ANZOS	Australia and New Zealand Obesity Society
ASSAD	Australian Secondary Students Alcohol and Drug Survey
BCHC	Belconnen Community Health Centre
BMI	Body Mass Index
BMX	Bicycle MotoCross
CHHS	Canberra Hospital and Health Services
DALYs	Disability Adjusted Life Years
ETD	Education and Training Directorate (ACT Government)
HWAP	Healthy Weight Action Plan
NHS	National Health Survey
NPAPH	National Partnership Agreement on Preventive Health
OCHO	Office of the Chief Health Officer
OECD	Organisation for Economic Co-operation and Development
OMS	Obesity Management Service
PHD	Population Health Division
RWTS	Ride or Walk to School

Resources

- **Healthy Weight Action Plan - http://www.health.act.gov.au**
- **ACT Health Promotion Grants Program - http://www.health.act.gov.au/hpgrants**
- **HealthyFood@School - http://health.act.gov.au/health-services/population-health/health-promotion-branch/healthy-children-and-young-people/healthy-food-at-school**
- **Ride or Walk to School - http://health.act.gov.au/health-services/population-health/health-promotion-branch/ride-or-walk-to-school**
- **Healthy Food and Drink Choices - http://health.act.gov.au/health-services/population-health/health-promotion-branch**
- **Obesity Management Service - http://health.act.gov.au/health-services/chronic-disease-management**
- **Epidemiological Reports - http://health.act.gov.au/health-services/population-health/epidemiology-branch/epidemiology-publications-health-series**
- **The SAX institute - http://www.saxinstitute.org.au**
- **Australian and New Zealand Obesity Society - http://www.anzos.com/index.php?option=com_content&view=featured&Itemid=14**

Obesity: a "wicked" population health problem for the ACT

Dr Paul Kelly, Chief Health Officer, Population Health Division

- The ACT is not immune to the global phenomenon of increasing rates of overweight and obesity.
- This is a population-wide problem – people at all ages and from all socio-economic strata are affected by this phenomenon.
- Over the past three decades, changes to the nature of work, travel and leisure as well as fundamental changes to food availability and composition have contributed to an obesogenic environment.
- High body mass index is now the leading risk factor for disease burden as measured by Disability Adjusted Life Years (DALYs) in Australia.
- Governments, civil society and industry have responsibility in this area, partly because we all have a stake in the long-term health as well as social and economic consequences of this imbalance.
- We therefore need to commit to a comprehensive and multi-layered approach to tackling the obesity problem.

The ACT is not immune to the global phenomenon of increasing rates of obesity. Over the past 20 years, the magnitude of this problem has continued its inexorable rise, initially in developed economies and more recently in poorer nations. In this article, the scale of the problem will be outlined, the postulated causes for this rapid change in body habitus will be explored and the personal, societal and economic effects will be summarised.

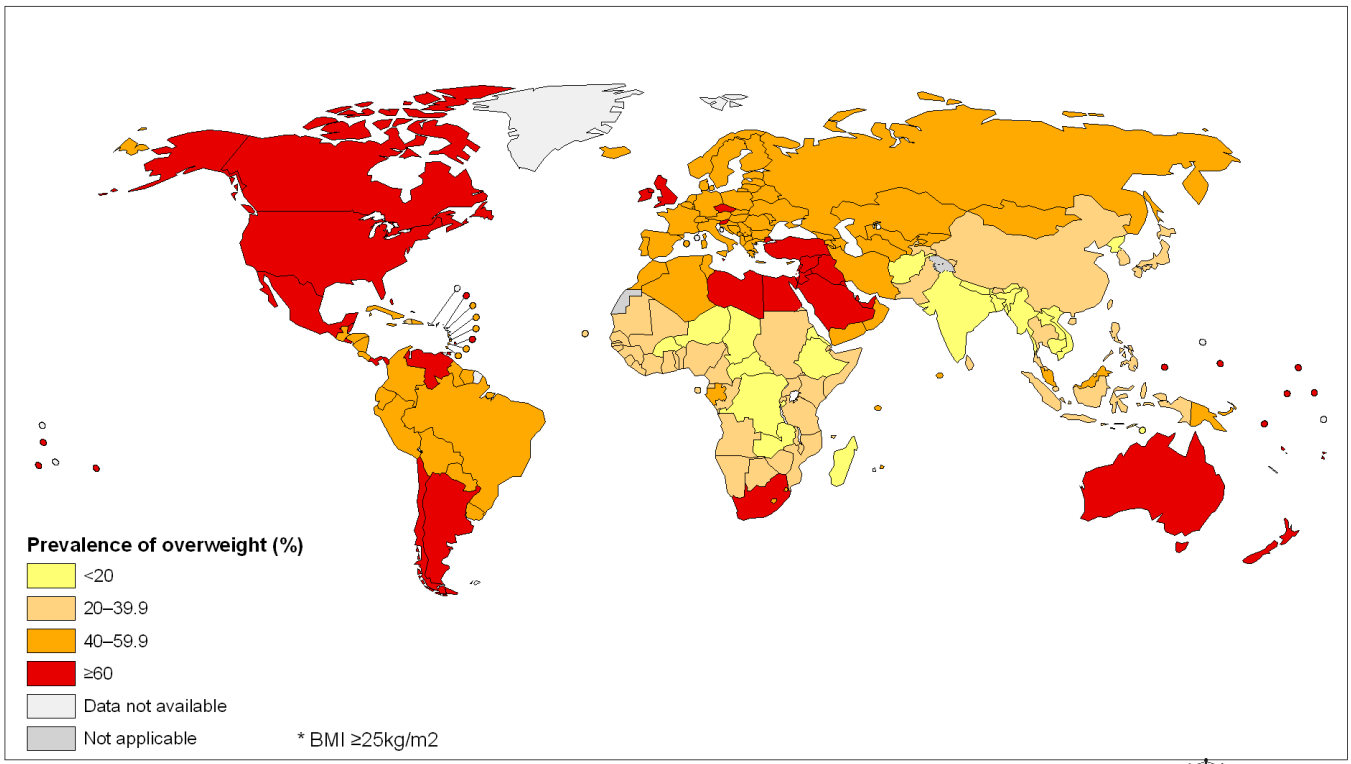
The scale of obesity globally, in Australia and in the ACT

The whole world is getting fatter. The world map (Figure 1) demonstrates that in 2008, all but one World Health Organization region had at least one country with an over 60% adult prevalence of overweight (that is body mass index [BMI] ≥25kg/m^2).[1] Data from the Organisation for Economic Co-operation and Development (OECD) shows that almost all member states have a rising rate of obesity, with some notable exceptions in Scandinavia and Japan (Figure 2 on page 4).[2]

In Australia, now one of the fattest countries on earth, there has been a major shift in body mass since the 1990s, with many more people in the overweight and obese range as well as the upper range of body mass also expanding – we are getting fatter and more of us are in the unhealthy weight range (Figure 3 on page 4).[2] Here in the ACT, despite our reputation for healthy lifestyles and despite a more highly educated, employed and rich population (compared with other jurisdictions), the scale of the problem is the same as elsewhere in Australia.[3]

Whilst it is well recognised there is a higher prevalence of obesity in socio-economically disadvantaged groups,[4] the key point is that in the ACT in 2013, this is a population-wide problem. People at all ages and from all socio-economic strata are affected by this phenomenon.

Figure 1: World Health Organization Map: Prevalence of overweight, ages 20+, age standardised, both sexes, 2008



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: World Health Organization
Map Production: Public Health Information and Geographic Information Systems (GIS)
World Health Organization

World Health Organization

Obesity: a "wicked" population health problem for the ACT *(continued)*

Figure 2: Trends in obesity prevalence for selected countries, 1978 to latest year
Source: OECD data in: Australian National Preventive Health Agency (ANPHA). State of Preventive Health 2013.

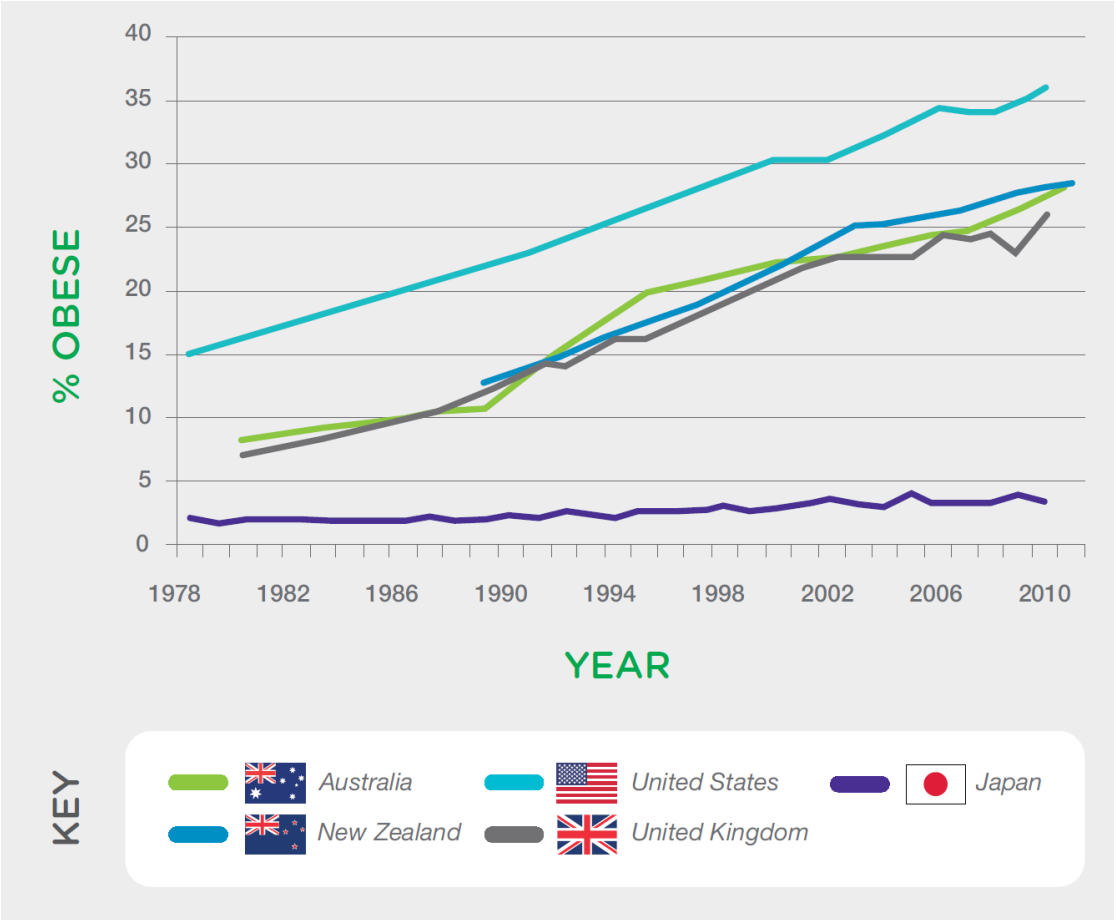
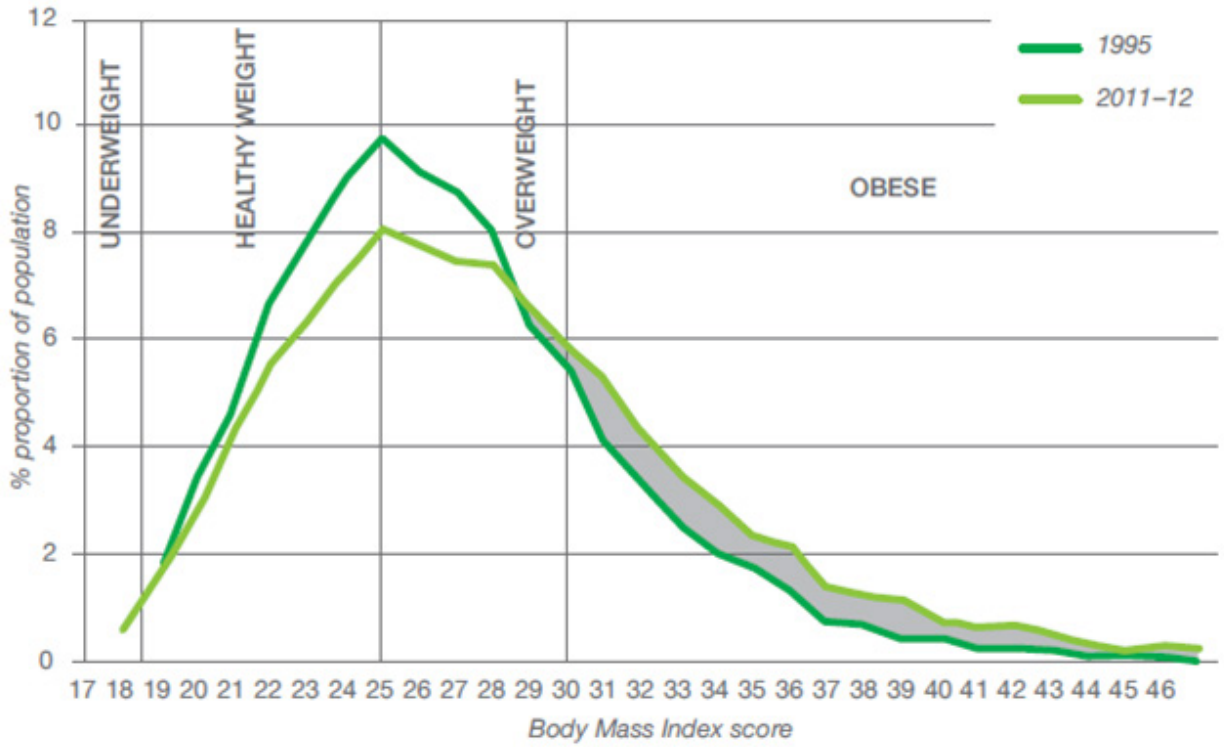


Figure 3: Body Mass Index Distribution, persons 18 years and over, 1995 and 2011-12
Source: ABS data in: Australian National Preventive Health Agency (ANPHA). State of Preventive Health 2013.



Obesity: a "wicked" population health problem for the ACT *(continued)*

Resetting the scales: how we got here

The root causes of the obesity epidemic are widely contested, but are likely to be a complex web of biological, social and psychological factors. As a society, we have created a "perfect storm" to encourage weight gain at the population level. Just as overweight has become the accepted body image for much of society, this obesogenic environment has become the new normal living pattern.[5] Societal changes have led to changes in the nature of work, travel and leisure as well as fundamental changes to food availability and composition. In the ACT, most adults have sedentary occupations, travel to work by car and spend a substantial part of their leisure time sitting.[3] Very few of us, regardless of the age at which this is measured, reach the even modest nationally recommended targets for physical activity.[3] Energy-dense, nutrient-poor foods are cheap and available everywhere and at any time making healthier choices definitely not the easier choice, as evidenced by how few of us reach the nationally agreed targets for fruit and vegetable consumption.[3]

Photograph: Kitchen scales D Van de Zandt

Whilst obesity is not as simple as energy imbalance, that is more energy consumed than expended, essentially that is the issue. Individuals have choices and their actions are ultimately the cause of their weight gain. The key point here is that governments, civil society and industry all have roles in both the problem and the solution. Regardless of our body mass, we all have a stake in the long-term health as well as the social and economic consequences of obesity.

Photograph: Fruit burger and apple chips. D Van de Zandt

Imbalanced scales: the consequences of an obese society

Whilst obesity was recently declared to be a disease by the American Medical Association, it is more generally agreed that obesity is a risk factor for a range of other diseases.[6] High body mass index is now the leading risk factor for disease burden as measured by Disability Adjusted Life Years (DALYs) in Australia, and ranks highly in several other regions of the world.[7] Type two diabetes mellitus, cardiovascular disease, osteoarthritis and some types of cancer are all associated with obesity.[8] Obesity also influences the severity of some infectious diseases, including influenza.[9] All cause rates of hospital admission increase with increasing BMI and are statistically significantly higher in the overweight (BMI $\geq$25 and <30 kg/m^2) as well as the obese ($\geq$30 kg/m^2) ranges.[10] A key finding from this Australian research is that even a small decrease in BMI among those who are overweight would result in a significant decrease in the risk of hospitalisation and therefore health-related costs.

Photograph: Imbalanced Scales. D Van de Zandt

There are also economic impacts. For publicly funded health services there are costs associated with increased volume and length of hospital admissions for diseases for which obesity is a risk factor, increased complication rates from elective surgery, demand for obesity treatments (bariatric surgery) and the equipment and changes to work practices related to the care of obese patients.

The cumulative effect of increasing health expenditure related to chronic disease on total government expenditure means that there is projected to be less funds to spend on other essential services in the future.[11]

Obesity: a "wicked" population health problem for the ACT *(continued)*

Conclusion - we need a commitment to deal with the "wicked" problem

A "wicked problem" is defined as a social or cultural problem which is difficult to solve because of the scale of the problem, the economic burden associated with it and with its potential solutions, its interconnected nature with other societal issues and the contradictory views on how it could be solved.[12] The obesity epidemic fits this definition.

We can't afford to ignore it. It has been suggested that babies born today will be part of the first generation to have a shorter life expectancy than their parents.[13] This is in a large part due to obesity and associated diseases. We therefore need to commit to a comprehensive and multi-layered approach to tackling the obesity problem. This is the subject of the article, *Obesity: the case for prevention* on page 8 in this Issue of the bulletin.

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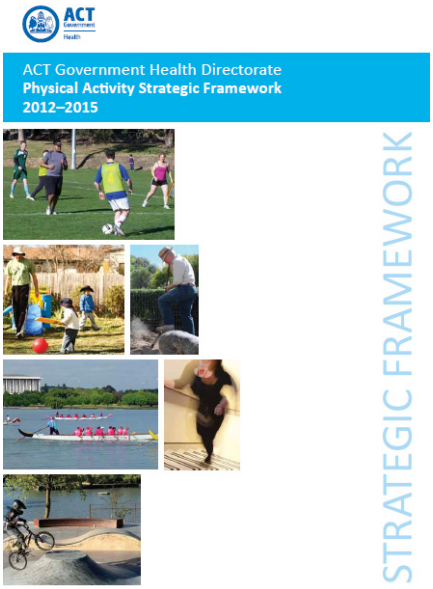

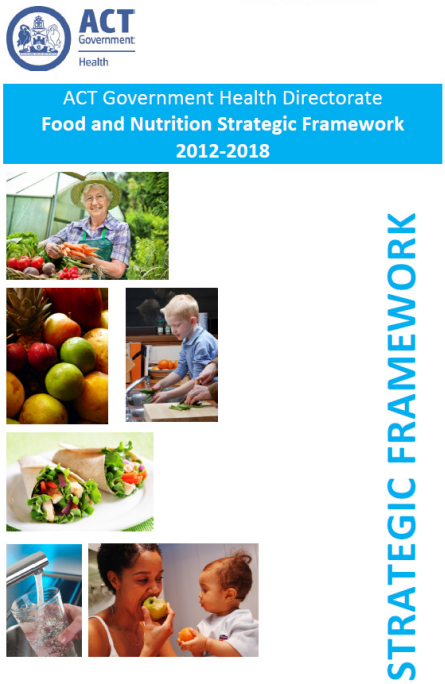

Snap Shot

The Canberra Situation

Louise Freebairn and Carol Kee, Epidemiology Section, Population Health Division

Monitoring weight status is important in analysing risks to good health and in developing and monitoring well-targeted population health initiatives.

It is well documented that self-reported height and weight is less accurate but more cost and time effective, so is a generally accepted measure.[1-3] The 2011-12 National Health Survey (NHS) measured heights and weights for a sample of participants. Measured heights and weights give a more reliable indication of healthy weight status. The proportion of adults who were overweight or obese in the ACT (63.0%) was similar to the national proportion (63.4%) (Table 1). The proportion of males with obesity was similar to that of females, but the proportion of males who are overweight is higher than females.

	ACT			Australia		
ADULTS	**Males %**	**Females %**	**Total %**	**Males %**	**Females %**	**Total %**
Overweight	44.8	29.6	37.4	41.9	28.0	35.0
Obese	25.9	25.1	25.5	28.4	28.2	28.3
Overweight or obese	70.8	54.7	63.0	70.3	56.2	63.4
CHILDREN (2-17 years)						
Overweight	na	na	18.9	na	na	17.6
Obese	na	na	7.4	na	na	7.0
Overweight or obese	na	na	26.3	na	na	24.6

Categories based on body mass index (weight (kg)/ height(m)^2). Overweight 25-29.9 kg/m^2, obese ≥ 30kg/m^2
Na Not available

Table 1: Weight status, percentage of overweight and obese persons, ACT and Australia, 2011-12
Source: ABS. National Health Survey: First Results 2011-12[4]

The rate of overweight and obesity in children varies between different age groups. This variation can be due to developmental changes or different data collection methods. For example, data from the ACT Kindergarten Screening Program (an ongoing program of monitoring children's health through kindergarten screening by ACT Community Health Maternal and Child Health nurses) and the NHS are based on measured heights and weights. By contrast, data collected from the Australian Secondary Students Alcohol and Drug (ASSAD) Survey and ACT General Health Survey (ACTGHS) are based on self-reported height and weight which, as mentioned above, can lead to an under-estimation of overweight and obesity.

ACT survey results include both measured and self-reported estimates of height and weight.

Self-reported results show:

- 15.7% of ACT secondary school students aged 12-17 years were estimated to be overweight or obese in 2011 compared to 19.5% in 2008. The decrease was due to a significant reduction in the proportion of students being overweight. The level of obesity remained steady.
- The ACTGHS results for 2007-10 showed that there were 22.8% of children aged 2-15 years who were obese (6.6%) or overweight (16.2%). There was no difference between male and female proportions.

Measured results show:

- 14.9% of ACT kindergarten children in 2012 were measured as overweight or obese, similar to the percentage in 2009 (14.6%).
- The NHS 2011-12 results estimated that 25.4% of ACT children aged 12-15 years and 30.5% of 16-17 year olds were in the overweight or obese categories, much higher than ASSAD results. Results also showed that 26.3% of ACT children aged 2-17 years were overweight or obese (Australia: 24.6%).

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Obesity: the case for prevention

Dr Andrew Pengilley, Deputy Chief Health Officer, Population Health Division

- Overweight and obesity is a population health issue because rates are so high that its effects are no longer confined to individuals.
- Individual action is not adequate to prevent or reverse overweight and obesity in the community.
- There is a clear need for preventive action that recognises the importance of overweight and obesity as a population health issue.

Population health has its roots in the recognition that the health and behaviour of individuals can affect the wellbeing of others. Early examples of this arose from the need to control epidemic disease through quarantine laws, limits on the dumping of sewerage and food storage regulations. Limits on exposure to environmental pollutants, passive smoking, product safety regulations and Random Breath Testing have continued to limit the health risks posed by individual actions to the community. There is, however, still a distinction between health issues perceived as a population health concern, and those viewed as personal matters for an individual. If someone on the bus has smallpox you all have a problem; if someone on the bus has diabetes it's generally only a problem for that individual.

Obesity, like many 'lifestyle' related diseases, poses difficult questions for this view of population health. How many individuals can have a problem before the weight of numbers means the community also has a problem? How much do we value the individual's freedom to make 'bad' health choices even if only they are affected? Is a person to blame for their ill health if it could have been avoided? Medicine offers technical solutions to some consequences of obesity. Shouldn't it be an individual choice to have one's proverbial cake and literally eat it? The growing worldwide focus on the prevention of obesity as a population health issue requires the community to start a conversation about these questions.

The limits of individual choice

Obesity mostly stems from the kind and quantity of food a person eats, and the amount of exercise they take, over time. A person can, in an absolute sense, control these actions and so it has been argued that obesity is a choice for which the individual must take responsibility. A society in which individuals are free to make 'bad' health choices is often contrasted with the undesirability of a 'nanny state',[1] which limits these actions, on the basis that this freedom is inherently valuable. This view restricts the scope for preventative action to individual education and advice but rules out regulation, Government investment or controls on the availability of unhealthy products. The view that obese people are 'to blame' for their weight or health issues because they have made poor choices is widespread.[2] However, although this view might serve a popular sense of justice it does not lead to overweight people making better health choices.[1,3] Stigmatising a condition, as formerly occurred with HIV and smoking, can lead to a failure to devote adequate resources to encourage people at risk to engage with efforts to improve their health, or to a failure to consider the impact of Government and commercial actions on the stigmatised group. Personal responsibility for obesity is ultimately a moral or philosophical issue, not a rationale for health action, because it does not answer the question of whether we are willing to accept the consequences of individual choice on the community.

It is not novel or radical in these situations for the community to restrict an individual's choice to address health issues through collective action. Examples include childhood vaccination to protect the community from epidemic disease, control of smoking driven by concerns about passive smoking, and random breath testing of drivers. These measures were initially opposed as excesses of the 'nanny state', as were some which are not now recognised as 'preventive health'. When England's 1848 Public Health Act sought to control overcrowding, water quality, and disposal of sewerage the Times newspaper in London responded:[1]

"We prefer to take our chance with cholera and the rest than be bullied into health. There is nothing a man hates so much as being cleansed against his will, or having his floors swept, his walls whitewashed, his pet dung heaps cleared away."

Photograph: From Towards Zero Growth Healthy Weight Action Plan. ACT Health

Obesity: the case for prevention *(continued)*

The limits of individual action

The control individuals can exert over their health is influenced by features of their environment beyond their direct control. The rapid rise of an obesity epidemic over about 20 years is partly proof of this. There is no evidence that, at some point since 1990, two-thirds of the adult population made a conscious individual choice to become overweight or obese. Neither is there evidence that people's intrinsic willpower, genetic makeup or valuation of their health changed over this short period. What has changed is the food that is cheap and available, and which is promoted through advertising, and our level of physical activity.[4,5] Most people are (demonstrably) no more able to control their weight in the current 'obesogenic' environment than people exposed to a pervasive industrial pollutant are able to avoid becoming unwell. Prevention in this context means improving the quality of food to which people have access and reducing the impact of environmental factors which undermine their ability to make healthy choices.

Perhaps the most unavoidable reason to take population level action to prevent or reverse rates of obesity is that there is no good medical therapy for the majority of people at risk of adverse health effects. Bariatric surgery can help people with more severe obesity, but a small proportion of overweight or obese people have a Body Mass Index over 35 where surgery is indicated.[6] Over 170,000 ACT adults are overweight or obese, but in 2007-08 only about 17,000 bariatric operations were conducted in the entire country.[7] These operations cost over $100 million. This cannot be feasibly scaled to address the number of people who are at risk of adverse health effects from being overweight. Drug therapies have also been disappointing in treating obesity itself, although more successful in managing consequences like diabetes.

Population level environmental measures like controlling advertising of energy-dense, nutrient-poor food to children, improved food labelling, and fiscal measures can be applied to large populations relatively cheaply. They do not necessarily 'cure' an individual, but there are significant health benefits for individuals to losing as little as 5-10% of bodyweight.[8] These small reductions in each individual's risk of developing complications of obesity multiplied over the thousands of people who are at risk from excess weight can produce reductions in the burden of disease in the community. This is considered 'prevention' or 'health promotion' in contrast to a 'cure' partly because it is not an externally applied biomedical solution. However, good diet and exercise are both a prevention for obesity and a relatively simple and effective intervention for most overweight people that surgery and pharmacology are unlikely to match for cost, safety or effectiveness in the near future.

No choice but prevention

Conventional wisdom has it that 'an ounce of prevention is worth a pound of cure', as it is often better to avoid a problem than try to fix it. This leaves open the question of whether an individual is responsible for prevention, or whether the community should also act. Population health has a long history of promoting and enacting preventive measures where the problems of the individual become the problems of the community and/or where individuals are unable to directly control the causes of disease. For the majority of people, obesity is a biologically inevitable consequence of the food and physical environment we have constructed over the past few decades. Even if individuals make bad choices the scale of the obesity epidemic poses economic and health impacts which the community must address. If we do not improve this issue, we risk a generation having worse health than those which preceded it, and unable to afford high quality health services.

Photograph: From Towards Zero Growth Healthy Weight Action Plan. ACT Health

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Preventing overweight and obesity at a population level: what works?

Paula Sutton, Office of the Chief Health Officer, Population Health Division

- There is increasing interest in 'what works' to prevent overweight and obesity.
- The article below describes the findings from an evidence review commissioned by the Office of the Chief Health Officer. The purpose of the evidence review was to investigate feasible, whole of government interventions to prevent overweight and obesity at the population level in the ACT.
- A particular emphasis was placed on so called best-buys for prevention based on health effects, cost-effectiveness, and political and financial feasibility.
- Despite promising findings from an array of intervention studies, little is still known about approaches that are most effective at preventing obesity at the population level. This highlights the importance of generating more evidence of actual best-buy interventions.

Introduction

Rising levels of overweight and obesity among the ACT population represent a major public health challenge. While rates in the ACT are slightly below the national average, almost two-thirds (63.0 %) of ACT adults are overweight, while one in four is obese.[1] One in four year six children in the ACT are overweight or obese.[2]

It is well established that obesity is associated with early death and we know that carrying excess weight places individuals at risk of cardiovascular disease, type 2 diabetes, hypertension, musculoskeletal conditions such as osteoarthritis and some cancers.[3] Research estimating the impact of obesity on life expectancy found a loss of between two and ten years associated with obesity, similar to the life expectancy loss from smoking.[4]

Given the resulting burden on the health system, governments across Australia and the world are searching for answers as to 'what works' when it comes to solving the obesity crisis.

The context

As part of the Whole of Government Healthy Weight Initiative, the Office of the Chief Health Officer commissioned a review of the evidence through the Sax Institute. The Sax Institute is an organisation which aims to be the bridge between researchers and health decision makers.

In addition to other activities, the Sax Institute conducts evidence reviews, which involves engaging researchers to develop a concise summary of evidence to answer specific policy questions.

The purpose of the evidence review was to investigate feasible, whole of government interventions to prevent overweight and obesity at the population level in the ACT. Specific questions were asked about 'do-able', cost-effective, wide-reaching strategies to increase levels of physical activity, decrease consumption of energy-dense, nutrient-poor foods and drinks, and increase consumption of fruit and vegetables.

Questions were also asked about how to improve the implementation of active travel and workplace interventions. A particular emphasis was placed on so called 'best-buys' for prevention based on health effects, cost-effectiveness, and political and financial feasibility. The main findings, grouped by topic area, are listed below.

What works?

Healthy eating

The most promising and consistently reported strategies that have been shown to improve healthy eating at the population level include:

- improving the quality of foods in retail and quick service food outlets;[5,6]
- improving the availability of, and access to, tap water;[7]
- improving point-of-purchase nutrition labelling;[8]
- reducing point-of-purchase marketing of energy-dense, nutrient-poor foods;[9] and
- mandating strong nutrition standards for food and drinks in government-run facilities.[10]

Photograph: Vegetables. PHD file photograph

Preventing overweight and obesity at a population level: what works? *(Continued)*

What works? *(continued)*

Active travel and physical activity

Active travel refers to physical activity undertaken as a means of transport, which can include walking, cycling or public transport, as most public transport trips require a walk or cycle trip at either end. Recent research in New South Wales found that people who drove to work were 13% more likely to be overweight or obese than those who walked, cycled or used public transport, regardless of their income level. Additionally, the further people had to drive each day, the greater their weight increase.[11]

Some of the strategies that have proven to be effective in increasing the proportion of people walking, cycling, and using public transport include:

- comprehensive behavioural programs to reduce car use;[12]
- developing a network of bicycle pathways segregated from car traffic;[13-16]
- improving public transport infrastructure;[17]
- establishing workplace travel plans;[18]
- organising active travel and safe routes to school programs;[19] and
- providing subsidised public transport passes.[20]

In terms of increasing physical activity across the population, some of the interventions which have been shown to be successful include:

- building new trails, paths, playgrounds and parks, and bike lanes;[21,22]
- installing on-site facilities in workplaces such as secure bicycle storage, showers, lockers, changes rooms, and gyms;[23] and
- improving the access to and aesthetics of stairwells and prompting usage with signage.[24,25]

Photograph: Bicycling
Source: freedigitalphotos.net

Photograph: Active Travel
PHD file photograph

Workplaces

While the evidence base for interventions encouraging healthy eating or physical activity at the population level is relatively scant, there has been more research around effective strategies in the workplace setting. The most successful workplace programs usually include individual health risk assessment followed by individualised counselling and access to a range of education and behaviour change classes or programs.[26] These are more effective when reinforced by environmental change within the workplace such as:

- providing change and storage facilities to support active travel to work;
- allowing flexible working hours;
- regulating point of purchase marketing of healthy foods;
- changes to the content and pricing of canteen menus; and
- improving access to exercise facilities.[27]

Rewards and incentives for participation and achievements within the program have also been shown to help sustain involvement.[28]

Preventing overweight and obesity at a population level: what works? *(Continued)*

Discussion and conclusion

As the emphasis on preventing obesity has grown, so have calls for interventions that go beyond individual behaviours and tackle changes in environments and policies.[29] Despite the array of promising findings reported above, most of these are reported from the evaluation of small scale projects in specific locations. Overall, the review found a paucity of high quality evidence around population level interventions to prevent overweight and obesity. In other words, little is known about approaches that are most effective at sustained prevention of obesity on a large scale, across different settings and at a population level.

Three reasons emerge as to why this is the case. First, few interventions are capable of reducing energy intake or increasing energy expenditure sufficiently, or for long enough, to achieve a return to energy balance within evaluation timeframes. Put simply, measuring changes to levels of overweight and obesity takes a long time. Second, many interventions that have resulted in behaviour change are multi-faceted and utilise a range of strategies. It is difficult to disaggregate a comprehensive program of actions to identify the impact of any one single strategy. Finally, many population level efforts to prevent obesity – especially interventions that change the physical or regulatory environment – exist only in theory and have not yet been tried.

To conclude, local and national prevention programs need more examples of actual best-buy interventions and lessons learned from interventions.[30] Evidence needs to be used when it is there, and generated when it is not.

Acknowledgements

The author would like to acknowledge the Sax Institute for brokering this evidence review and the following authors from the University of Sydney: Associate Professor Tim Gill, Dr Debra Hector, Professor Chris Rissel, Ms Kathy Trieu, Ms Amy Zhong, Ms Blythe O'Hara, and Professor Adrian Bauman.

Photograph: Shutterstock

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Preventing overweight and obesity at a population level: what works? *(Continued)*

References *(continued)*

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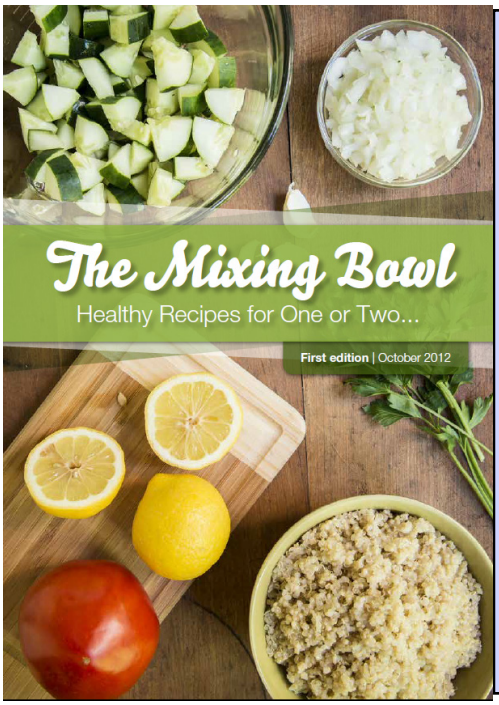
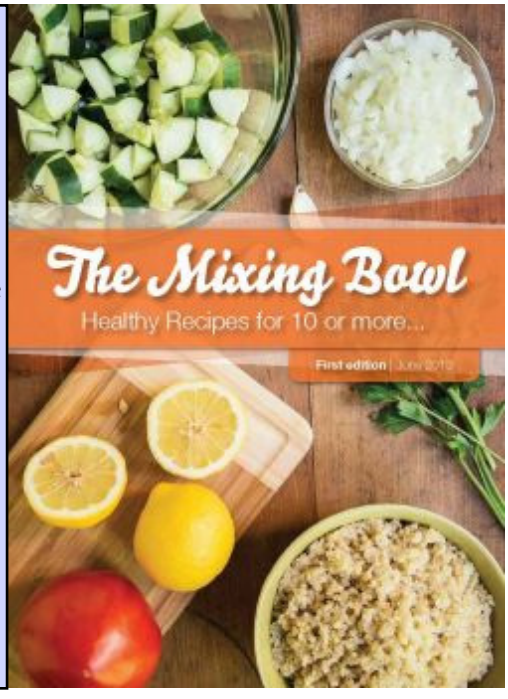


"The Mixing Bowl: Healthy Recipes..." cookbooks have been developed by ACT Health's Healthy Communities Initiative, funded by the National Partnership Agreement on Preventive Health, in partnership with Australian Red Cross.

Cookbooks are available at http://health.act.gov.au/health-services/population-health/health-promotion-branch/healthy-communities



Articles

Healthy Weight Action Plan

Emily Harper, Office of the Chief Health Officer, Population Health Division

- On 14 October 2013, the ACT Chief Minister launched the Towards Zero Growth Healthy Weight Action Plan.
- Obesity trends in the ACT have worsened over 20 years from approximately 6% in 1995 to over 25% in 2011-12.
- Many of the factors contributing to the rising levels of overweight and obesity lie beyond the traditional reach of the health sector.
- There is a need for a coordinated whole-of-government approach to combat rising levels of overweight and obesity in the ACT.

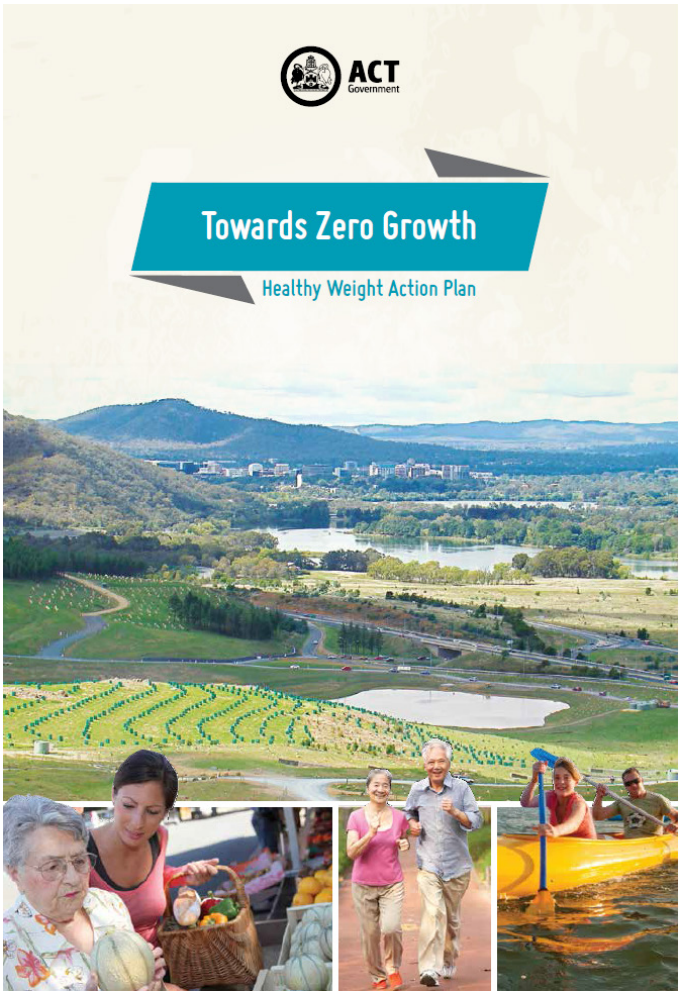
Introduction

In 2011, the ACT Chief Minister and Minister for Health, the Hon. Katy Gallagher MLA, tasked the Chief Health Officer with developing a whole-of-government model to tackle the rising rates of overweight and obesity in the community. On 14 October 2013, the Towards Zero Growth Healthy Weight Action Plan (HWAP) was launched by the Chief Minister. A brief overview of the rationale and areas of focus of the Action Plan is provided below.

Understanding the Environment

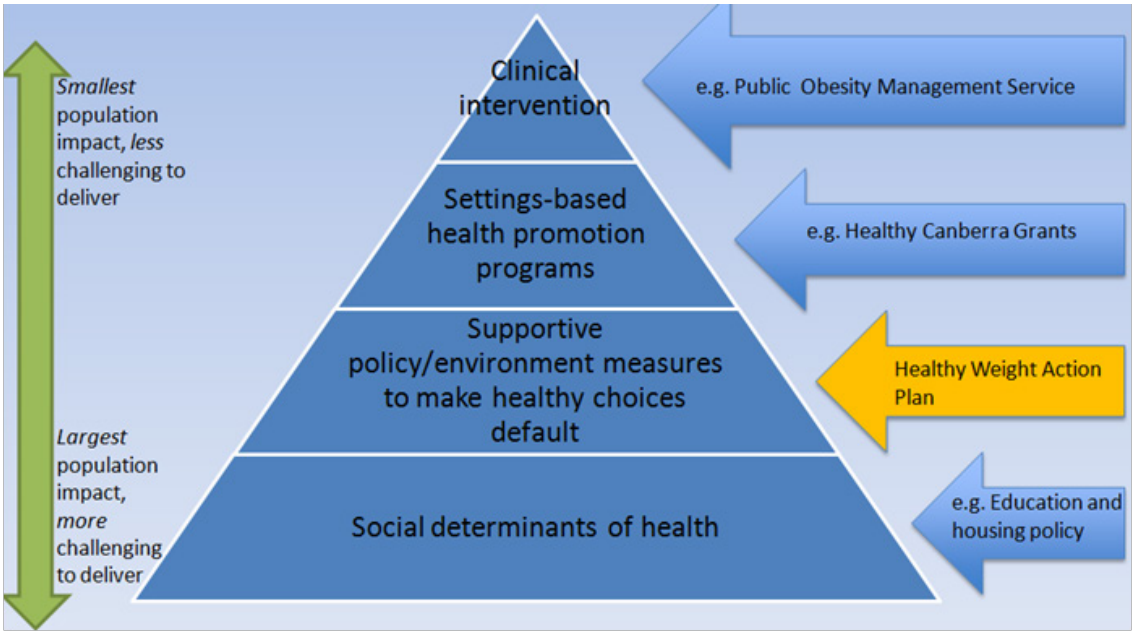
Obesity is identified as a major preventive health target in the National Partnership Agreement on Preventive Health (NPAPH), and many programs have been put in place to address this issue in recent years. However, it is clear that a more joined-up, holistic approach is required to halt the rising rates of obesity.

Our health is shaped by the way we live and the environment we live in, as these factors have a significant impact on the choices we make as individuals. However, many of the factors that influence what we eat and how active we are lie beyond the traditional reach of the health sector (e.g. accessibility of footpaths and cycle paths; the availability of healthy food).



The ACT Government recognises that while individuals must make and take responsibility for choices made in relation to their health and wellbeing, governments can assist in supporting healthy decision making through reforms and initiatives designed to make the healthy choice easier, if not the easy choice (see Figure 4).

Figure 4: Obesity Prevention Spectrum



Healthy Weight Action Plan *(continued)*

Healthy Weight Action Plan Focus Areas

The HWAP is comprised of a total of 19 actions grouped into six thematic focus areas:

- Food environment;
- Schools;
- Workplaces;
- Urban Planning;
- Social Inclusion; and
- Evaluation.

A brief summary of the rationale behind taking action in these focus areas is outlined below.

Food Environment

Food Choices are shaped by the environment around us – our shops, workplaces, schools and through the media. Often this environment makes it difficult to choose healthy foods and can crowd out healthy food messages.

Schools

Action in schools is a high priority because good nutrition and exercise habits, if learned early, can make a lasting contribution to good health throughout life. Research also shows that physically active children perform better in the classroom,[1] which is an important co-benefit to encouraging more activity within our schools.

Workplaces

Workplaces play an important role in shaping the lifestyle of adults, most of whom spend about half of their waking hours at work. The food which is available in the workplace, the availability of facilities that support physical activity, and workplace culture all have a strong influence on people's individual food and exercise choices. Healthier workplaces enjoy the benefits of higher productivity, lower absenteeism and better staff morale.[2]

Photograph: From Healthier Work campaign. PHD file photograph.

Urban Planning

There is growing recognition that the built environment influences levels of physical activity – whether for transport or recreation. Good urban planning can shape our neighbourhoods to encourage active recreation and the active travel options of walking, cycling and public transport. As Canberra undergoes future development and urban renewal, it is important to embed active living principles in transport and urban planning.

Photograph: Community Garden. PHD file photograph

Social Inclusion

Although overweight and obesity affects 63.0%[3] of the ACT population, obesity rates are highest in areas of socioeconomic disadvantage.[4] There is a need for education and incentive-based initiatives to improve skills in buying and preparing healthy foods.

Evaluation

Accurate and timely information about the health of the ACT population, health risks and health services is essential to enable the continued planning and evaluation of actions aimed and preventing overweight and obesity. Policy makers, planners, health practitioners and the wider public can all benefit from information and evaluation tools which support better decision-making at all levels. As information sources develop and improve, so too will the knowledge of public health stakeholders.

Healthy Weight Initiative *(continued)*

Key actions outlined in the Action Plan

The actions were developed by a whole-of-government taskforce, and are based upon the best evidence available. The taskforce included representation from each ACT Government directorate and key non-government and academic institutions with expertise in obesity as a public health issue.

Some key actions include:

- restricting the advertising of unhealthy foods within the government's regulatory control;
- regulating the sale of sugar-sweetened beverages; and
- improving the measurement, capacity to deliver, and curriculum support for physical education in ACT schools.

The complete Action Plan is available via the ACT Health website - www.health.act.gov.au

Where are we now?

Work areas across the ACT Government are implementing the actions outlined in the Action Plan. Some actions will take a significant period of time to implement, while others will be relatively straight forward.

The HWAP represents a significant amount of work undertaken by many stakeholders, both within ACT Government and in the wider ACT community. Following the release of the Action Plan, it is important that the momentum that has been built is maintained into 2014 and beyond. The Office of the Chief Health Officer (OCHO) has an important role in ensuring ongoing engagement across all areas of ACT Government.

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Photograph: From Towards Zero Growth Healthy Weight Action Plan. ACT Health

Case Study

Ride or Walk to School

Kym Wojcik, Health Promotion Section, Population Health Division

Ride or Walk to School (RWTS) is a joint Australian, State and Territory Government initiative under the National Partnership Agreement on Preventive Health (NPAPH). It was launched in September 2012 with 11 schools participating in the pilot program, representing 18% of school age children in the ACT. The objective is to increase the number of primary school aged students engaging in active transport to and from school such as bike riding and walking, with a longer term objective to encourage a life-long commitment to active transport. The program contributes to the NPAPH benchmark of increasing the proportion of children participating in at least 60 minutes of moderate physical activity every day, and the ACT Government's Towards Zero Growth Healthy Weight Action Plan.

While student health and fitness is at the forefront of RWTS, safety is paramount. In order to achieve this, a holistic approach has been taken with an emphasis on teaching road, cycling, pedestrian and personal safety through curriculum and supporting activities. This has been assisted with help from partners like the Constable Kenny Program run by ACT Policing, and Lee's Taekwondo. Teachers were provided with curriculum support materials, which have been received favourably. On the Safe Cycle teaching resource received as part of Ride or Walk to School one teacher commented: "*After the first lesson, many students reported that it was much more fun than they thought it would be and there has been a very high level of participation. It has been an excellent opportunity for some students who were not confident riders to gain confidence.*"

Photograph: Children walking to school.
PHD file photograph

The program design was heavily influenced by the views of children. Students from the participating schools were consulted to inform the program development and the schools continue to engage students in leading and developing activities throughout the implementation of the program. Students were asked what would encourage them to ride or walk to school and what they wanted to see in the program. BMX (Bicycle MotoCross) bikes were identified as a popular choice for students. As a result, they feature in the program with schools receiving BMX as well as mountain bikes for use in safety demonstration workshops, run by partners such as Freestyle ACT BMX Club to develop student cycling skills, road safety and bike maintenance.

Children remain involved in key leadership roles in the implementation and expansion of the program. As well as ensuring student input, ACT Health has worked collaboratively with key government and community organisations. The partnership with ACT Education and Training Directorate (ETD) has been central involving curriculum support and capital works areas. Bike companies have had a significant impact on the quality of the program with local businesses providing generous discounts, in kind support, and cycling knowledge. Key partners have also been successful in grant applications through the ACT Health Promotion Grants Program. This has allowed Physical Activity Foundation and Pedal Power, which received funding in 2013, to roll the program out in another ten schools, trialling a partnership approach with ACT Health and ETD.

Case Study

HealthyFood@School

Michelle Fisher, Health Promotion Section, Population Health Division

Healthy Food@School is one of several evidence-based programs under the ACT Healthy Children's Initiative, funded jointly by ACT Health and the Australian Government's National Partnership Agreement on Preventive Health (NPAPH).

Healthy Food@School has been developed by the Health Improvement Branch, Population Health Division in partnership with the ACT Education and Training Directorate (ETD). Key government, community and business stakeholders with backgrounds in nutrition, education, health promotion, behaviour change, and food services have also contributed to the development of the program. The program aims to improve access to healthy foods and drinks in ACT schools.

Healthy Food@School is an expansion of the program that supported all ACT school canteens to implement the National Healthy School Canteen Guidelines. Evaluation outcomes for this program indicated that working to improve healthier food options in school canteens alone was limited and that a more comprehensive approach was needed.

Schools will be recruited progressively over the next four years. Schools participating in Healthy Food@School will work collaboratively with the ACT Government and service delivery partners for three years to deliver activities from the following action areas:

1. Healthy Food and Drink Guidelines;
2. Food for Sale;
3. Classroom Learning;
4. Cooking Food;
5. Growing Food;
6. Food from home.

Participating schools will have access to services, resources and incentives to give them the best chance of achieving success in the action areas. Examples of such support in participating schools include:

- water refill stations, as well as a reusable bottles for every student;
- discounts for families to purchase fruit and vegetables from partnering businesses;
- training for the school community on a traffic light food system to assess the nutritional value of foods and drinks;
- tailored gardening advice to establish or expand school kitchen gardens; and
- professional development for teachers to deliver nutrition education and cooking activities in the classroom and subsidised cooking equipment for participating schools.

Healthy Food@School will be piloted in nine ACT schools from early 2014, and will roll out in more schools from late 2014. It is expected that a minimum of 75 of ACT early childhood, preschool and primary schools will take part in the program over the next five years.

Healthy Food@School links with existing ETD funded initiatives such as the installation of Water Refill Stations in schools, which will also contribute to an increasing culture in ACT schools of healthier food and drink choices.

ACT Health is coordinating a process and impact evaluation of the program.[1] Evaluation findings will be used to continuously improve HealthyFood@School and assess the effectiveness of individual action areas and the program as a whole.

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Photograph: From Towards Zero Growth Healthy Weight Action Plan. ACT Health

Articles

ACT Health Public Obesity Management Service

Jennie Yaxley, Dr Geetha Isaac-Toua, and Associate Professor Paul Dugdale, Chronic Disease Management Unit, Canberra Hospital and Health Services.

- Canberra Hospital and Health Services (CHHS) is establishing an Obesity Management Service (OMS) to commence in early 2014.
- The OMS will use an interdisciplinary approach to improve the health and well being of adult patients with level 3 obesity (BMI $\geq$ 40kg/m^2).
- The service's primary focus will not be on weight loss. Instead the focus is to improve health status and outcomes for morbidly obese people and in doing this improve their risk profile.
- The OMS will collaborate with community organisations to provide suitable community based care, further develop the ACT Obesity Interest Network and support other health services interested in improving the care of morbidly obese patients.

Canberra Hospital and Health Services (CHHS) is establishing an Obesity Management Service (OMS) to commence in early 2014. The service will target people with level 3 obesity which is defined as a Body Mass Index (BMI) equal to or greater than 40kg/m^2. This level of obesity is associated with a severe risk of co-morbidity.[1] Preparations for the new service commenced in July 2011 with an Obesity Service Redesign Project to review available evidence and data, and hold discussions with health professionals and patients in order to redesign the care of obese patients.[2] The project continued in 2012-13, establishing an ACT Obesity Interest Network of stakeholders with a shared interest in improving the health outcomes for people with obesity, improving clinical data collection about obesity by clinicians, improving existing services and developing the funding proposal for an adult OMS.[3,4]

The OMS will use an interdisciplinary approach to improve the health and wellbeing of adult patients with level 3 obesity. Level 3 obesity has been chosen because these patients have a much higher risk of co–morbidities and need for complex care. The service is based on chronic disease management principles of patient centred care, goal orientated care planning, supported self management including peer support, interdisciplinary team work and close collaboration with other services in order to provide an integrated continuum of care. The OMS will be governed and delivered by the Division of Medicine CHHS as one of the Chronic Disease Management group of services. Service management will be provided by a Public Health Physician supported by a clinical manager. A working group of relevant stakeholders will provide advice to support service implementation and the linkages to other services.

The OMS will be staffed by a multidisciplinary team and initially will operate out of the new Belconnen Community Health Centre (BCHC). BCHC is one of two new extended care community centres in the ACT that incorporate some tertiary health care services. The OMS will provide individual clinical care focusing on lifestyle modifications, group education and activities and collaborative community development. The service will also champion the improvement of health outcomes for this often disadvantaged patient group by providing support for policy development, research and professional education.

Photograph: Belconnen Community Heath Centre. ACT Health file photograph

The main criteria to be eligible to enter into the service are:

- be aged 18yrs and over;
- BMI greater than or equal to 40kg/m^2;
- a degree of co-morbidity;
- be psycho-socially ready to participate in the program.

The OMS will work with patients to achieve a healthier lifestyle and reduced risk factor profile. This will be achieved through:

- medical assessment and case management;
- nutrition advice;
- physical activity programs;
- addressing barriers to social and emotional wellbeing; and
- supporting long term self-management.

and where appropriate:

- Care Coordination for patients with complex co-morbidity;
- referrals to other specialities; and
- arrangements for bariatric surgery.

ACT Health Public Obesity Management Service *(continued)*

Patients will receive an initial assessment by a nurse and a medical practitioner, followed by allied health assessments as appropriate. A case manager will be assigned and will work with the patient to develop a personalised obesity management plan including diet, physical activity and wellbeing related actions. The case manager will be responsible for reviewing the obesity management plan regularly with the patient and their other service providers including the patient's general practitioner and other specialists. The OMS will also provide education and physical activity groups for patients and where appropriate, their carers and family. In general, the service will provide a minimum of six months support for patients prior to discharge. The service will not focus on weight loss, instead, the focus is to improve health status and outcomes for morbidly obese people and in doing this, improve their risk profile. The service will not take over the primary care of patients from general practice, or provide specialist care for specific conditions other than obesity.

The OMS will collaborate with community organisations to provide suitable community based activities that welcome larger adults, for example gym and sports programs. The OMS will also coordinate and further develop the ACT Obesity Interest Network and support other health services interested in improving the care of morbidly obese patients. This will involve policy development, quality improvement, and collaborative research to enhance services and outcomes for people with level 3 obesity. Continuing evaluation of the OMS has been integral to its planning and development, and will intensify once the service is initiated. It includes:

- Reviewing the context of the obesity epidemic and obesity services around the world;
- Reviewing inputs to the OMS including referrals, staffing and other resources;
- Evaluation of processes of care including standard operating procedure, intake, case management, discharge, communication and team function;
- Monitoring impact including measures of clinical effectiveness, patient life style changes, and the impact of education and community development activities.

The OMS will open in January 2014. There will be a staggered approach to services implemented. A communications strategy starting with the Obesity Interest Network and the CHHS Division of Medicine, broadening to other divisions, general practices and Calvary Hospital will be instigated to generate referrals to the service. A formal public launch will be arranged once patient care is well underway.

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Area Highlight

Office of the Chief Health Officer

The Office of the Chief Health Officer (OCHO) is an office within the Population Health Division of ACT Health.

The OCHO supports the Chief Health Officer in the carriage of statutory responsibilities, and is responsible for the development and implementation of policy and legislative frameworks across a range of public health issues. The OCHO also undertakes select policy and project work at the direction of the CHO.

Key areas of responsibility include:

- **Coordination and development of the Whole of Government Healthy Weight Initiative;**
- **gene technology policy;**
- **organ and tissue donation policy;**
- **provision of public health physician support to the Health Protection Service; and**
- **provision of public health surge capacity to the Population Health Division.**

Staff: (L to R) Emily Harper, Dr Andrew Pengilley, Dr Ranil Appuhamy, Paula Sutton
Absent: Dr Charles Guest

If you wish to contact the Office of the Chief Health Officer you can email us at phd@act.gov.au.

Notifiable Disease Report

Number of notifications of selected notifiable conditions received in the ACT between 1 January and 30 September 2013

Notes on notifications

The following highlights cases of interest and diseases with higher case numbers than expected between 1 July and 30 September 2013 (3rd quarter), compared to previous years (Table 1). There were no reported cases of measles, mumps, rubella, hepatitis E, listeriosis, leptospirosis, Q fever or legionellosis in the 3rd quarter.

Vaccine preventable diseases

There was one case of invasive meningococcal disease (IMD), caused by N. meningitidis serotype B, notified between July and September 2013. This case was treated at hospital and recovered. In the last 5 years, there were 9 cases of IMD, with serotype B causing infection in 8 cases. On average, there were 1.8 cases of IMD notified each year between 2008 and 2012 in the ACT. Routine vaccination is available for children and high risk individuals against meningococcal disease caused by serotype C only.

Influenza notifications

Between 1 January and 30 September 2013, there were 289 influenza A notifications compared with the 5 year average for this period of 421 notifications. In the same period, there were 199 influenza B notifications compared with a 5 year average of 61. In the 3rd quarter, there were 212 and 176 cases of influenza A and influenza B respectively. Seasonal influenza vaccination is recommended for anyone aged 6 months and over, and is funded for certain at risk groups. Influenza notifications are summarised in more detail in the ACT Influenza Reports during the influenza season, available at: http://www.health.act.gov.au/alerts/.

Salmonella infection

Salmonella causes gastrointestinal symptoms such as diarrhoea, abdominal cramps, vomiting, fever and lethargy. In 2013, there were 234 notifications of salmonellosis in the ACT between 1 January and 30 September, compared with an average of 132 cases during the same period in the previous 5 years. There were 47 notifications in the 3rd quarter.

Gonococcal infection

Gonorrhoea is a sexually transmitted infection. In 2013, there were 85 cases of gonorrhoea notified in the ACT between 1 January and 30 September, compared with an average of 55 notifications during this same period in the previous 5 years. There were 24 notifications in the 3rd quarter. In 2013, 89% of notifications (n=76) have been in men, the majority of which were among men who have sex with men. There has been an upward trend in the number of gonococcal notifications in the ACT in recent years. A 129% increase in notifications occurred in 2011 (n=128) compared with 2010 (n=56). This increase was largely sustained in 2012 (n=92).

Notifiable Disease Report

Number of notifications of selected notifiable conditions received in the ACT between 1 January and 30 September 2013

Table 1. Number of notifications of selected notifiable conditions received in the Australian Capital Territory, 1 January to 30 September 2013.

	Year to Date 2013	1st qtr 2013	2nd qtr 2013	3rd qtr 2013	2012	5 year average, to 30 Sep
VACCINE PREVENTABLE CONDITIONS						
INFLUENZA A	289	39	38	212	532	420.6
INFLUENZA B	199	5	19	176	134	60.6
MENINGOCOCCAL DISEASE (INVASIVE) *	3	1	1	1	1	1.8
GASTROINTESTINAL DISEASES						
CAMPYLOBACTERIOSIS	265	105	70	90	477	350.6
CRYPTOSPORIDIOSIS	32	19	12	1	19	29.2
GIARDIA	97	41	31	25	105	79.4
SALMONELLOSIS	234	72	114	47	241	132.0
SHIGELLOSIS	7	4	2	1	6	3.6
SEXUALLY TRANSMITTED INFECTIONS						
GONOCOCCAL INFECTION	85	39	22	24	92	55.0
VECTORBORNE & ARBOVIRUS						
BARMAH FOREST VIRUS INFECTION	6	3	1	2	2	3.0
DENGUE FEVER	9	3	1	5	22	11.4
MALARIA	11	8	2	1	11	9.0
RESPIRATORY CONDITIONS						
TUBERCULOSIS #	13	5	3	5	18	11.0

All Diseases except Tuberculosis are reported by onset date or closest known test date. Tuberculosis is reported by notification date.

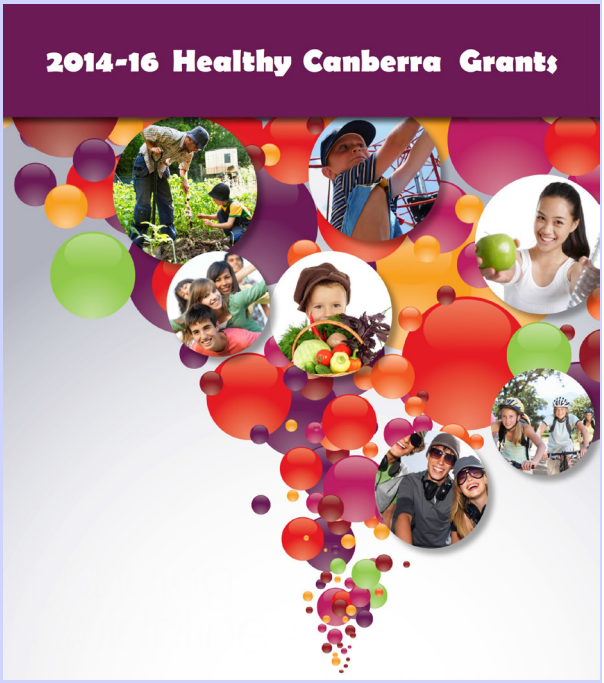
* This condition includes cases that meet the probable and confirmed case definitions. Both probable and confirmed cases are nationally notifiable.

For the relevant year quarters, 1st qtr refers to 1 January to 31 March, 2nd qtr refers to 1 April to 30 June, 3rd qtr refers to 1 July to 30 September, 4th qtr refers to 1 October to 31 December.

Hot topics

Health Promotion Grants Program focuses on obesity prevention

Tony Blattman, Health Promotion Grants Program, Population Health Division



Following a community consultation process early in 2013, and in support of the ACT Government's commitment to 'Zero Growth' in overweight and obesity, the ACT Health Promotion Grants Program (ACTHPGP) was refocused to support programs to reduce overweight and obesity in the ACT. A ten point plan detailing changes to the ACTHPGP was announced in July 2013.

Key elements of the plan include two new funding opportunities which opened in August 2013:

- 'Healthy Canberra Grants', to tackle overweight and obesity, with a particular focus on children. Healthy Canberra Grants will favour multi-year programs and will provide nearly $2 million per annum in total.
- Health Promotion Innovation Fund for smaller grant opportunities. It will consider innovative approaches to deal with overweight and obesity. The Health Promotion Innovation Fund will provide around $200 000 per annum, in total.

The changes to the ACTHPGP will ensure a focus on tackling overweight and obesity, which is one of the biggest health problems that our community is currently facing, and recognises the role of community organisations in helping to address this problem. The new Healthy Canberra Grants has moved to more multiyear funding of programs and a clearer statement of strategic intent offering the opportunity for sustained results across the population. The Health Promotion Innovation Fund offers community organisations the opportunity to try new strategies and new ways of working priority health challenges in the ACT.

For more information about the ACT Health Promotion Grants Program please visit: www.health.act.gov.au/hpgrants or contact hpgrants@act.gov.au or by phone 6205 1325.

Photograph: Dragonboat. PHD file photograph