

Submission No. 53
(Inq into Obesity)

Ke 3/10/08

**SOUTH AUSTRALIAN GOVERNMENT'S SUBMISSION
TO THE HOUSE OF REPRESENTATIVES STANDING
COMMITTEE ON HEALTH AND AGEING'S INQUIRY
INTO OBESITY IN AUSTRALIA**

May 2008

Introduction

The South Australian Government (South Australia) welcomes the House of Representatives Standing Committee on Health and Ageing's Inquiry into Obesity in Australia with its terms of reference:

1. to inquire into and report on the increasing prevalence of obesity in the Australian population, focusing on future implications for Australia's health system; and
2. to recommend what governments, industry, individuals and the broader community can do to prevent and manage the obesity epidemic in children, youth and adults.

In recent years, the Parliament of South Australia's Social Development Committee has undertaken two inquiries into obesity, namely the

- Inquiry into Obesity – May 2004
- Fast Foods and Obesity Inquiry – March 2007

Both reports provide comprehensive and valuable information which may be of relevance to the current Inquiry. The Reports can be accessed via the Parliament of South Australia web site:

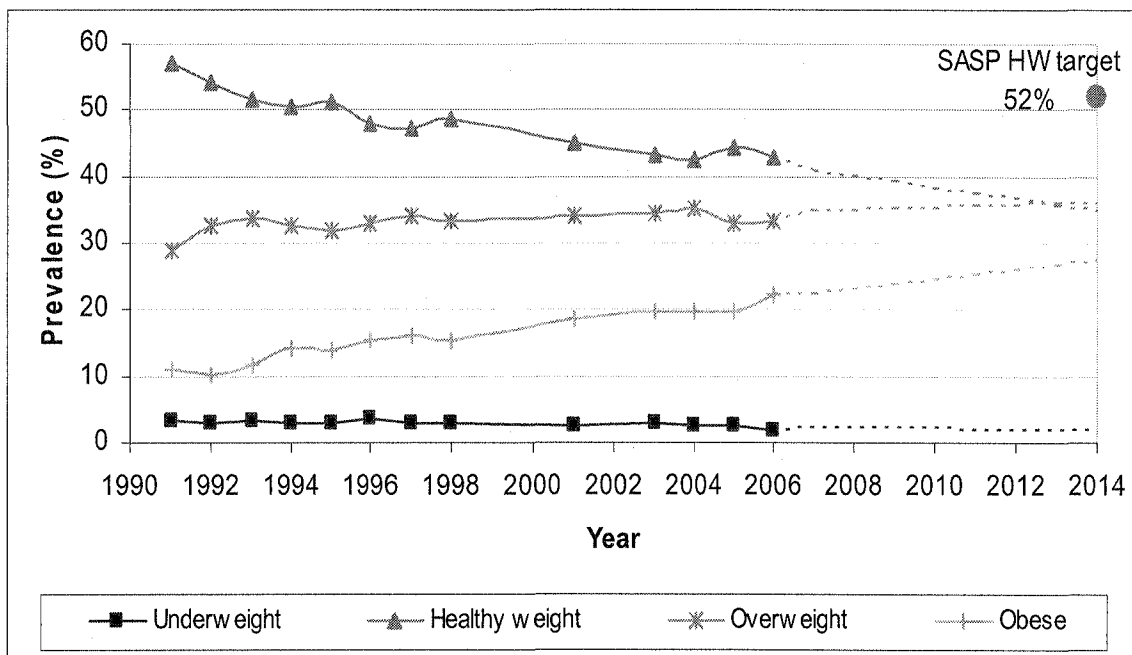
<http://www.parliament.sa.gov.au/Committees/Standing/LC/SocialDevelopmentCommittee/SocialDevelopmentCommittee.htm>

The South Australian submission provides a summary of the key initiatives and future directions in South Australia towards the promotion of healthy weight and the prevention and management of obesity. The submission suggests recommendations that the Australian Government could consider implementing in collaboration with State and Territory Governments.

Overweight and Obesity in South Australia

Worldwide, rates of overweight and obesity are rising with few, if any countries, experiencing success in reversing this trend. The following graph indicates trends in weight status for the South Australian population using self report data from the SA Health *Health Omnibus* survey. Information from the North West Adelaide Health Study indicates that self report data consistently under estimates rates of obesity. South Australia's Strategic Plan (SASP) target is also shown. The rising rates of obesity coupled with falling numbers in the healthy weight or normal range are of significant concern.

Weight status by Body Mass Index (BMI) age 18 + projected to 2014



South Australia also has Body Mass Index (BMI) data for four year old children collected through routine child health checks. Rates increased steadily and quite dramatically from 1995 but now appear to have stabilised. The data shows the percentage of 4 year old South Australians who are overweight or obese in 2007 was an average of 18.8 percent comprising 16.8 percent males and 20.7 percent females.

Overweight and obesity pose a health burden at all ages and is therefore a significant public health concern. An elevated BMI is associated with ill health. Recent research has shown that even a modest weight gain in adulthood is also associated with increased health risks.¹ Weight gain in adults consistently increases the risk of developing serious illnesses including type 2 diabetes, cardiovascular disease, high blood pressure and certain types of cancer (eg bowel cancer). Obese people are more likely to suffer from a number of serious chronic diseases, many of which are life limiting. A recent study showed that having a BMI greater than 30, which is considered to be in the obese category, led to an average of seven years of life lost as compared to a person with a healthy weight.²

Overweight in children and adolescents may have its most immediate consequences in emotional and social wellbeing. Teasing and bullying of children because of their weight, has long been recognised in western cultures.³ While a primary concern with childhood obesity is the affect on wellbeing, it also has significant physical health consequences. Overweight in childhood is associated with increased risk factors for heart disease such as raised blood pressure, blood cholesterol and blood sugar. Childhood obesity is likely to persist into adulthood, with overweight children having a 50 percent chance of being overweight adults. Obese adults who were overweight in adolescence have higher levels of weight related ill health. Of the many health consequences of childhood obesity, one of the most concerning is the increased prevalence of type 2 diabetes.⁴

Overweight and obesity also have serious economic consequences for the individual, the community and for governments. In 2003, the direct cost of obesity nationally was put at \$1.3 billion per annum, with SA costs estimated at \$100 million per annum.⁵ In 2006, national estimates of direct costs more than trebled to \$3.767 billion per annum, in financial costs such as health treatments, lost productivity and \$17.2 billion to lost wellbeing.⁶

Further research is currently being undertaken on the costs of obesity in South Australia which should provide better information about the future implications for the health system. Nonetheless, it is clear that rising rates of overweight and obesity will impact in the following ways:

- Loss of productivity and costs gained due to staff sickness and disability are likely to rise, as could injury rates. This will exacerbate serious workforce pressures
- By an increase in rates of chronic disease, there will be additional pressure on all parts of the health system including: increased demand, increased complexity of conditions, increased difficulties in diagnosis and therefore risk of problems
- Increased burden on facilities and need for adjustments to facilities due to dealing with obese patients (eg beds, mortuary facilities, equipment, adjustments to ambulances, increased need for disability related aids and building modifications)
- Increased psychological problems may increase the burden on mental health facilities
- Reduced numbers of people participating in community life and volunteering⁷
- Increased use of pharmaceuticals associated with the management of chronic disease
- Increased need for carers and therefore opportunity loss for carers to participate in the paid workforce

- Increased need for mobility aids and home modifications due to disability related to chronic disease (eg ramps, handrails, canes, crutches, walking sticks, walking frames, wheelchairs, scooters and the like⁸).

In addition, the major burden will be on the morbidity and premature mortality for the community, especially those who are most disadvantaged. The evidence shows, disproportionate numbers of those suffering obesity and overweight in lower socio-economic groups.

Summary of South Australia's commitment to obesity prevention and the promotion of healthy weight

Prevention of obesity is a high priority for the South Australian Government. South Australia's Strategic Plan (SASP) includes a target to increase the proportion of South Australians aged 18 years and over with a healthy weight by 10 percentage points by 2014. Obesity prevention is also a priority in the health reform agenda being undertaken in South Australia. The creation of this target acknowledges the significant impact of obesity upon population health outcomes, the implications of this for the health system and the broader social and economic impacts of high levels of obesity across the population.

South Australia's *Eat Well Be Active Healthy Weight Strategy 2006-2010* (the Healthy Weight Strategy) provides the overarching framework to combat obesity and promote healthy weight. The Healthy Weight Strategy's whole-of-government mandate enables action across multiple, targeted settings and sectors, including education, transport, urban planning, primary industries, local government and community services. An across-government Healthy Weight Taskforce ensures interagency collaboration on shared SASP target activities and Healthy Weight Strategy initiatives. It also provides advice on the development of significant new initiatives such as healthy weight within the disability sector, urban planning for health, policy change in school canteens and work with the sport and recreation sector.

A number of South Australian programs are also provided through the federally funded Australian Better Health Initiative. These programs enhance existing State efforts and add value to initiatives which benefit from national cooperation such as the proposed national social marketing campaign.

SA Health provides leadership, coordination and significant funding of programs with other Government departments also funding and supporting programs with nutrition and physical activity benefits. Examples include:

- The Office of Recreation and Sport's *Workplace Physical Activity Program* to build physical activity knowledge and skills in adults workplace settings

- The Department for Environment and Heritage (DEH) *Healthy Parks Healthy People Strategy* being implemented across South Australia. In 2008/09 DEH will target populations most at risk of poor health outcomes and develop new initiatives to target particular population groups
- The Department of Transport, Energy and Infrastructure: initiatives promote active transport in the community, such as cycling, walking and the use of public transport. Increased physical activity for primary school-aged children is encouraged through initiatives such as “Travel Smart” and the “Walking School Bus” Project”
- The Department of Education and Children’s Services: implementation of the *Right Bite* healthy food and drink strategy across state-funded schooling sites, which includes a ban on all junk food in the ‘red category’.

In 2007 South Australia hosted Professor Ilona Kickbusch as its Thinker in Residence. Professor Kickbusch is known throughout the world for her innovative approaches to improving public health, health promotion and global health. During her residency Professor Kickbusch proposed three key initiatives *Health in All Policies*, *Generation HISA* and *Health Literacy* as mechanisms to improve the health outcomes of South Australians.

- The *Health in All Policies* initiative (HiAP) recognises that many of the social determinants of health lie outside the remit of health services. Public policy is seen as a powerful lever in creating healthy societies. HiAP requires all government agencies to review policy directions with the health of the community in mind. To date, selected SASP targets have been reviewed and a conference held to determine policy principles and further actions. Further details of HiAP and the HiAP conference can be found at the following websites:
<http://www.health.sa.gov.au/pehs/health-in-all-policies.htm>
<http://www.health.sa.gov.au/pehs/publications/0803-PHB-HIAP-vol5-no1.pdf>
- The *Generation HISA* initiative (Generation Healthy South Australia) is focussed on achieving health sustainability for the next generation. It targets unhealthy environments, transforms them into healthy environments and develops child-specific policies which focus on wellbeing. *Generation HISA* is a long-term and intergenerational strategy based on an environmental approach. It requires partnership and citizen participation. *Generation HISA* identifies the need for new accountability mechanisms across-government, improving existing efforts by the health and education sectors, secure funding, dedicated research, modelling, surveillance and evaluation. It builds on and supports the directions of the *Eat Well Be Active Healthy Weight Strategy*

- The *Health Literacy* initiative aims to foster better rates of health literacy, develop health competencies for the 21st century and create literacy-friendly environments. It recognises that people need skills to make informed decisions regarding their health, including healthy choices in everyday life. It also recognises the strong links between levels of literacy and overall health and wellbeing. This initiative links with the *Generation HISA* initiative and brings together a range of partners from different sectors.

Further information about these initiatives can be found in Professor Kickbusch's interim report entitled *South Australia Takes the Lead in 21st Century Health*, written during her time as Adelaide's Thinker in Residence in 2007. The report can be found at the following website:

<http://www.thinkers.sa.gov.au/reports.html>

Key directions

Tackling obesity and improving nutrition and physical activity requires whole population approaches, as well as targeting particular at risk population groups. The *Eat Well Be Active Healthy Weight Strategy 2006 – 2010* encompasses four areas to improve health:

1. Assisting the community to know and act on healthy eating, physical activity and healthy weight guidelines through social marketing
2. Ensuring easier access to programs, services and environments for all South Australians to eat a healthy diet and be active
3. Making healthy living easier through regulatory and policy mechanisms
4. Building capacity to assist South Australians to maintain a healthy weight through workforce development, research and evaluation.

South Australia's four health regions have been funded to coordinate and implement a wide range of programs to promote breastfeeding, healthy eating and physical activity. These programs include "*community foodies*" a food project targeting women and men of low socio economic status; "*Start Right Eat Right*" a nutrition training and accreditation program for child care centres; and "*eat well be active*" community programs. These programs use multi-strategy and community development approaches to obesity prevention.

There are also dedicated programs for the Aboriginal and Torres Strait Islander community. These target neonatal and early childhood settings and address food supply, quality and sustainability for remote communities. South Australia also funds the non-government sector to run programs in the community, to develop supportive policy such as the "*Healthy By Design*" urban planning project based with the Heart Foundation and to build capacity within the health and community services sectors.

The proportion of adults living in areas of greatest disadvantage is almost double that of obese adults living in areas with the least disadvantage. Overweight and obesity and the associated burden of chronic disease represent significant health issues for people of low socio-economic status, exposing them to higher risks of cardiovascular disease and cancer, the two leading causes of death and reduced healthy life expectancy.

South Australia has identified obesity-related morbidity and death among people of low socio-economic status as part of its wider agenda for health equity. This includes the *Australian Better Health Initiative Schools and Community Program*, investigation into models of antenatal care for women under-served by current services and building capacity to meet the nutritional and physical activity needs of vulnerable populations.

In addition to preventing obesity, it is also vital to maximise our efforts at early detection and intervention for common risk factors of poor nutrition, physical inactivity, excess weight and waist circumference, as well as smoking and alcohol misuse. South Australia is employing up to 50 lifestyle coordinators over four years to work with individuals who have chronic disease risk factors such as poor diet, physical inactivity and excess weight to assist them to alter their behaviour to prevent the development of chronic conditions such as diabetes and cardiovascular conditions.

The PEACH (Parenting Eating and Activity for Child Health) Program will also be expanded to assist parents whose children are overweight or obese. The pilot program has shown long term outcomes and training will now be provided to health workers to expand the program beyond the pilot.

Policy Framework

South Australia's healthy weight agenda is supported by robust policies, projects and regulatory frameworks that support eating well and being active. These include:

- Healthy living guidelines into urban planning activities in South Australia. These guidelines are available at the following website:
[http://www.goforyourlife.vic.gov.au/hav/articles.nsf/pracpages/Healthy by Design?OpenDocument](http://www.goforyourlife.vic.gov.au/hav/articles.nsf/pracpages/Healthy%20by%20Design?OpenDocument)
- The development of a "*Healthy Food in SA Health Facilities*" policy to ensure that South Australian Government health facilities provide and promote healthy food and also breastfeeding. Draft policy recommendations and a discussion paper were released for consultation in early 2008. Comments are currently being collated. The discussion paper can be accessed at the following website:
<http://www.health.sa.gov.au/pehs/health-promotion.htm>

- Expansion of the *Baby Friendly Hospital Initiative*, to more broadly incorporate policy change and workforce training into its service accreditation scheme.

Banning Junk Food

South Australia has taken a strong position in advocating for national cooperation on the development of policies and legislation to reduce advertising and promotion of “junk” foods to children. If cooperation cannot be achieved nationally, South Australia will move to ban advertising should junk food and drink advertisers fail to implement stricter controls during children’s television viewing times. A discussion paper will be released shortly inviting industry to identify action they can take to assist in reducing childhood obesity.

Food Regulation

The national food regulatory system has an important role in making healthy food choices easier for the community. Internationally, there are examples of food regulatory agencies that contribute to a preventative health agenda. For example, in the United Kingdom the Food Standards Agency, an independent Government department, has been created to protect the public’s health and consumer interests in relation to food.

In Australia, the *Food Standards Australia New Zealand (FSANZ) Act 1991* objectives (in descending priority order) are:

- a. the protection of public health and safety
- b. the provision of adequate information relating to food to enable consumers to make informed choices
- c. the prevention of misleading or deceptive conduct.

Based on these objectives, Australian food standards set by FSANZ could contribute to the prevention and management of the obesity epidemic and make a contribution to a health policy focused on prevention. A significant standard currently under development by FSANZ is *Nutrition Health and Related Claims*. This is based on the principles of giving priority to protecting and improving the health of the population and to enabling the responsible use of scientifically valid nutrient, health and related claims.

The recent national ‘2020’ summit identified reforming food labelling with a simple “traffic light” indicator and regulating the allowable content of unhealthy ingredients, as two key areas of action in food regulation. These two issues are currently under consideration by the Australia New Zealand Food Regulation Ministerial Council (the Council). In 2006, the Council asked the Food Regulation Standing Committee to explore and report to them on the following issues related to food labelling:

- Whether a uniform front-of-pack food labelling system designed to guide consumer choice to healthier food options would be an effective health strategy; and if so
- The efficacy of a range of options, both regulatory and non-regulatory, for such a labelling system which may include the “traffic light” labelling system and/or the “behavioural labelling system”, which shows how much physical activity is needed to burn up calories in an average serving of food, and any other options.

To date, the work has identified that there is local and international research that indicates potential effectiveness of front-of-pack food labelling systems as a health strategy. This aids in increasing consumer understanding and intent to purchase, driving product reformulation to healthier products and increasing sales of healthier foods. The Council has also sought the advice of the Australian Population Health Development Principal Committee of the Australian Health Ministers Advisory Council about how a front-of-pack system could fit with other, current Australian and New Zealand health strategies.

The Council is also considering a policy guideline which will establish the policy framework for the Australian food regulatory system regarding the circumstances under which substances, other than vitamins and minerals, should be permitted to be added to food. This will complement the Policy Guideline on *Fortification of Food with Vitamins and Minerals* already agreed on by the Council, which determines how FSANZ should make regulatory decisions regarding the addition of vitamins and minerals to food. Other pertinent issues to be considered by the Council in the near future include a Policy Guideline for Infant Formula.

Health Workforce

Workforce issues also affect the potential of governments to prevent and manage obesity. Workforce shortages, especially in rural areas, along with the complexity of preventing obesity and the need to use a variety of approaches and working across sectors, means it has been difficult to attract personnel. South Australia believes that comprehensive workforce planning for health promotion generally, and for obesity prevention specifically, is required.

In South Australia, there are three linked professional development initiatives to improve workforce capacity:

- The “*Healthy Eating and Physical Activity in the Early Years*” project, developed through the Australian Better Health Initiative, which promotes healthy eating and being active in preschools, childcare centres and Family Day Care. The project has so far been implemented in over 30 sites across South Australia. It will also be implemented in 20 Children’s Centres across the State

- The Healthy Weight Introductory Course, targeting workers in the health sector, which is being expanded in 2008-09
- Training programs for the Aboriginal health workforce.

The first two initiatives are in their second and third years of implementation respectively. The Statewide Aboriginal Health Workforce Initiative is currently under development. Future priorities for workforce capacity include local government, disability and community service sectors.

Health Research

South Australia has identified obesity as a health research priority, with three current state-funded research projects. These projects are investigating:

- the links between psychological distress and weight
- the economic costs associated with overweight and obesity in South Australia
- links between food supply and access, socioeconomic status and overweight/obesity.

In addition, South Australia funds Body Mass Index monitoring of all four to five year old children. This data set is an important complement to the surveillance of the national four year old health check scheme. The lack of a long term monitoring and surveillance system covering adults and children, in relation to nutrition and physical activity, impedes work in this area.

Major new directions

South Australia has a number of significant new commitments to combat obesity and promote healthy weight across the population.

EPODE for South Australia: EPODE (“Together We Can Prevent Childhood Obesity”)

EPODE for South Australia is based on EPODE developed in France, which is a community-based and multi-strategy obesity prevention program. EPODE in France encompasses programs and activities to support healthy eating and physical activity through schools, local government, health services and community organisations. It features nationally coordinated social marketing, complemented by strong local leadership and collaborative action which is central to the success of the program. Obesity related results, measured through school-based weighing and measurement of children, show a levelling of the increase in childhood obesity in intervention sites.

South Australia plans to adapt this program with a major focus on primary prevention. An initial five sites are planned, increasing by five per annum to approximately 20 sites by 2011-12. Significant funds will be allocated for implementation and evaluation.

School-based healthy eating and physical activity program

The *School-based healthy eating and physical activity program* is an innovative and sustainable approach to promoting healthy eating and physical activity in school communities. The schools program focuses on building partnerships between school districts, school sites and service providers and will be rolled out in conjunction with the EPODE initiative. The schools program provides comprehensive, evidence based programs for targeted primary schools. The first phase of rollout includes:

- Curriculum based activities for students; professional learning activities; resources and supporting information for teachers to enhance existing knowledge confidence and skills about promoting healthy eating and physical activity
- Provision of information to support parents by raising awareness about the importance of healthy eating and physical activity in childhood; and the relationships between eating well, being active, learning and wellbeing outcomes for children
- Development of a consistent evaluation and monitoring framework
- Enlistment of up to 200 schools over the next four years. The South Australian Government is currently considering proposals from providers and organisations to implement a comprehensive healthy eating and physical activity program in SA schools.

Children's Centres for Early Childhood Development and Parenting

Children's Centres for Early Childhood Development and Parenting are a joint initiative between the Department of Education and Children's Services, SA Health and the Department for Family and Community Services to ensure high quality early education and care for children from birth through to the early years of school. Seven Children's Centres have been established so far, with an additional 13 to be established across the State. The Centres offer a mix of information, services, support and specialist referral when health or learning concerns are identified. They have multidisciplinary staff to work with the child's family to foster child development, health and wellbeing. The Centres support families, communities and services to provide the best start in life for children.

SA Healthy Weight Research and Evaluation Unit:

A *SA Healthy Weight Research and Evaluation Unit* is planned to:

- monitor healthy weight indicators at the population level
- provide timely strategic research and evaluation advice relating to the development, implementation and ongoing monitoring of South Australia's healthy weight strategies, programs and policies

- formulate and conduct applied healthy weight research and evaluation
- participate in collaborative applied research and evaluation projects at the regional, state, national and international level
- disseminate research and evaluation materials to state, national and international audiences
- generate professional development activities to support health professionals with an interest in healthy weight.

Consultations are currently being undertaken with key stakeholders to inform the operational model of the centre. It is likely to be aligned with a proposed National Centre for Intergenerational Health which will provide an interdisciplinary capability for research into factors that are crucial for sustaining good health across the life span, within and between generations, particularly later in life.

Wider effort and collaboration to prevent obesity

A number of issues require greater effort and collaboration across jurisdictions.

South Australia makes the following recommendations for the Inquiry's consideration:

1. Establish governance mechanisms to oversee and coordinate collaborative action to prevent obesity and promote healthy weight. Mechanisms should have the capacity to advise and provide direction across government portfolios. The National Preventative Health Taskforce could ensure progress in this area
2. Define obesity as a chronic condition under Medicare
3. Develop a national approach to reduce the advertising of junk food and drinks to children
4. Encourage an integrated approach to primary and secondary prevention programs and funding
5. Develop a national multidisciplinary obesity prevention research agenda with supportive infrastructure and strong links to jurisdictional research priorities and activities
6. Review healthy food access in relation to the cost, supply and the impact of taxation on the cost and availability of healthy food

7. Consider and recommend strengthening the role of Australia's food regulatory system in protecting public health, with a focus on:
 - the prevention and management of obesity
 - a national health policy on public health nutrition and chronic disease prevention
8. Identify good practice and development of guidelines that support healthy eating and adequate physical activity across society settings including schools and preschools, government departments, workplaces, food and advertising industries. This includes finalisation of the national physical activity guidelines for children under five years of age
9. Increase collaboration in the development, implementation and evaluation of nationally applicable social marketing campaigns
10. Ensure strong policy linkage across agriculture, food processing and distribution, town planning, environmental sustainability, taxation and social policy to ensure equitable access to good food for all Australians regardless of location and income. Strengthening a *Health in All Policies* approach at the national level would be ideal
11. Use funding and policy levers through the health system to maximise support for prevention including:
 - supporting General Practice screening programs and requirements for hospitals and health services to be breastfeeding friendly and health promoting more broadly
 - supporting Medicare billing for obesity prevention work of allied health workers including, dietitians, exercise physiologists and practice nurses
 - supporting better linkages between hospitals, General Practice and community care for early intervention and management of chronic conditions, including obesity
 - investigating and implementing innovative models of cost effective chronic disease prevention, delivered through non-GP settings.
12. Progress national workforce reform to ensure all relevant workgroups are trained and equipped with the knowledge and skills to support uptake of nutrition and physical activity guidelines (eg in health, education, care, hospitality, town planning, welfare, and public policy sectors)
13. Increase evidence-based early intervention programs that enhance healthy development through national standard and accreditation levers for child care facilities
14. Review fringe benefits taxation and other financial incentives to make workplace health promotion more affordable

15. Investigate incentives and recognise organisations that proactively promote and support policies, practices and infrastructure that promote healthy eating and physical activity
16. Subsidise membership and insurance costs of childhood sports for low income families.

Conclusion

South Australia's efforts demonstrate our commitment to the promotion of healthy weight and the prevention and management of obesity through evidence based approaches and practices.

South Australia's commitment recognises the impact of obesity on the quality of life of the population, the health care system and the State's economy.

Federal, State and Territory Governments can benefit from the establishment of national governance mechanisms that encourage collaboration across the areas of health promotion and prevention of obesity. This would allow national strategic planning and collaboration in areas such as research, monitoring and surveillance, population data collection, workforce reform and social marketing, just to name a few. The "Health in All Policies" approach would also be effective if adopted by all levels of Government.

In addition, there are areas where the Australian Government would be best placed to take the lead through national funding and policy levers for example through the development of appropriate items under Medicare and the development of appropriate tools for General Practice.

South Australia welcomes the formation of the National Preventative Health Taskforce and the anticipated development of a National Preventative Health Strategy which will ensure progress in the area of national collaboration and reform in preventative health, including obesity prevention.

¹ NSW Centre for Public Health Nutrition. *Best Options for promoting healthy weight and preventing weight gain in NSW*. NSW Department of Health. Sydney 2005.

² Peeters A, et al. Obesity in adulthood and its consequences for life expectancy: a life-table analysis. *Annals of Internal Medicine* 138, 2003.

³ NHMRC. *Clinical Practice Guidelines for the Management of Overweight and Obesity in Children and Adolescents*. Canberra 2003.

⁴ Koplan JP, Liverman CT, Kraak VI eds. *Preventing Childhood Obesity: Health in the Balance*. Committee on Prevention of Obesity in Children and Youth. National Academies Press. Washington DC 2005.

⁵ Australian Health Minister' Conference, *Healthy Weight 2008 – Australia's Future. The National Action Agenda for Children and Young People and their Families*. Canberra 2003.

⁶ The Economic Cost of Obesity Report by Access Economics Pty Limited to Diabetes Australia released on 13 October 2006

⁷ Social Development Committee. *Report into Obesity*. South Australian Parliament. Nineteenth Report of the Social Development Committee. Adelaide 2004.

⁸ The Economic Costs of Obesity – Report by Access Economics Pty Ltd to Diabetes Australia. October 2006.