

Inquiry into Obesity in Australia June 2008

Terms of Reference

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

Introduction

VicHealth considers the social, economic, environmental and cultural determinants of individual health and wellbeing in its approach to promoting health.

VicHealth's *Strategic Directions 2006-2009* recognises the role of healthy eating and physical activity in improving the health of Victorians.

VicHealth's investment in healthy eating and physical activity complements the activities of government and non - government organisations, by supporting research and innovations in health promotion that contribute to knowledge and evidence on addressing health inequalities and improving population health.

Extent of the problem

Levels of overweight and obesity in the Australian community have increased significantly over the last 25 years. In 2005, 3.24 million Australians (all age groups, including children 2-18 years) were estimated to be obese of which 1.52 million males (15.1% of all males) and 1.72 million females (16.8% of all females). Australian childhood obesity rates are amongst the highest in the world, with the prevalence of overweight almost doubling and the prevalence of obesity tripling over the last ten years[1]. The most recent data suggests approximately 20% (one in five) of Australian children are overweight or obese: approximately 15% are overweight and 5% are obese [2]. Childhood obesity significantly increases the risk of adult obesity with its associated health risks.

Some sections of the community are more at risk of being overweight or obese. Whilst these trends have occurred across the social gradient, evidence suggests the prevalence of overweight and obesity is higher in people of lower socio-economic status (particularly for women and children)[3]-[4]. Evidence also suggests that people aged between 45-64 years, those living outside major cities, Indigenous Australians and those born in Australia (rather than born overseas) are more likely to be obese [5]-[6].

Healthy weight needs to be understood within a life course perspective. As a general rule, weight tends to increase and weight maintenance becomes more difficult with age. As the health impacts of excess weight may also be cumulative and latent, the maintenance of healthy weight needs to be viewed as a life long challenge. There are critical life stages when people are vulnerable to weight gain including adolescence, pregnancy and menopause[4]. This increased vulnerability relates to both physiological factors (eg hormone changes) as well as social factors (eg increased autonomy of food choice in adolescence).

Societal costs of Obesity

The rising prevalence of overweight and obesity is a public health concern. Obesity is strongly associated with an increased risk of type 2 diabetes, cardiovascular risk factors, respiratory problems, hepatic and gastric complications, orthopaedic problems, advanced growth and early maturity and psychosocial problems [4].

The economic cost of obesity in Australia in 2005 was estimated to be \$3.767 billion. The net cost of lost wellbeing (the dollar value of the burden of disease) was valued at a further \$17.2 billion, bringing the total cost of obesity in 2005 to \$21.0 billion. Of these costs, 29.1% are carried by individuals, 16.4% by family and friends, 37.0% by Federal Government (\$1.4 billion per annum), 5.0% by State Governments, 0.1% by employers and 12.4% by the rest of society [7].

Obesity prevalence rates appear to be increasing for both adults and children, although it is unclear at exactly what rate. It is estimated that, by 2025, there could be as many as 7.2 million obese Australians (28.9% of the population) [7]. This will have significant ramifications for all public services, not only health care, such as the effect on public transport. At a time when public transport across the country is already at peak capacity, the next 15-20 years will put additional strains on the system. Fewer passengers will physically be able to fit onto public transport services; and greater capital expenses will be required for modifications to train, tram and bus services to ensure the changing passenger profile is accommodated.

Causes of Obesity

Obesity is ultimately the result of an energy imbalance (a higher energy intake than that expended by the body on metabolism, growth and physical activity). There is a dynamic relationship between energy stores, appetite mechanisms and energy metabolism, that adjust as energy balance fluctuates from meal to meal, day to day and week to week and helps to keep weight stable over time [8], [4]. These physiological adjustments to energy imbalance are incompletely understood but their net effect is to defend the body against weight loss. Obesity may result from minor energy imbalances and gradual weight gain over time, and when established physiological processes tend to maintain this new weight.

At a population level energy input has increased through a high energy diet, *without* a sufficient increase in physical activity levels: resulting in a large energy imbalance leading to obesity [8]. Data from the last National Physical Activity Survey (conducted in 1999) has indicated that there has been a steady decline in the number of Australian adults (over 18 years) who are doing *sufficient* physical activity (as defined by time and number of sessions) to achieve health benefits – from 51% in 1997 to 45% in 1999 [9]. It is more difficult to understand the precise changes to dietary patterns due to the paucity of available data. The last national nutrition survey was conducted in 1995. There are indications that energy intake has increased over recent years. In children, this energy increase has occurred without an overall increase in the *amount* of food consumed. [10]. One suggestion is that this increased energy intake is associated with an increase in soft drink consumption. Data from the Victorian Child's Health Study indicates that between 40-65% of children (aged 5-16) are consuming more than 250ml of soft drinks every day [3]. The average volume of soft drink consumed annually by adults and children has increased from 47 litres per person in the 1970's to current average of 113 litres consumed per day [10].

Physical activity and healthy eating behaviours are the intermediate causes of obesity. These behaviours are the result of a complex interaction of factors: including the social, cultural, economic and physical environments that promote sedentary lifestyles and an over consumption of energy dense food. Obesity trends have complex relationships with social and environmental trends – and the emergence of “obesogenic” environments. Put simply, obesogenic environments make it easy for people to put on weight and make it harder for them to maintain a healthy weight.

In this sense, obesity is a normal physiological response to an abnormal environment, rather than vice versa [8]. Elements of this obesogenic environment are described below.

1.1 The Built Environment

There is growing recognition that the built environment can affect individuals' weight and health. Evidence suggests that built environment/community design affects individuals' weight and health by influencing their access to healthy food, their opportunities for recreation, taking up active transport (walking and bicycling) or the quality of their environment (feeling safe and connected to people in the neighbourhood) [11]. Higher levels of residential density are associated with a reduced likelihood of obesity. Increased land use mix, access to train stations and increased population density correlate to lower rates of obesity.

Living in neighbourhoods without public transport or the ability to walk to grocery stores means reliance on cars for food purchasers. The escalating costs of foods and petrol also impact more on people with low income to eat nutritious food. Access to a car and food are related because the cheaper, healthier food outlets are in regional shopping centres. The lack of a car can reduce food access by 50% [12].

1.2 Car-dependency

Modern lifestyles are typified by high levels of car use, abundant desk jobs and low levels of physical activity [13]-[14]. There has been a dramatic increase in the number of cars driven to work each day in Australia's capital cities, with a total increase of 1,439,024 cars, or 70.1%, between 1976 and 2006 [15].

In 2003, the proportion of adults traveling by car to work or study was 75% [16]. Approximately 12% used public transport and 5% walked or cycled. These figures have remained steady over the past 3 years. Dramatic declines in children riding or walking to school have occurred since the mid 1980s with an 80% reduction in the proportion of children cycling to school (at least once a week) and a 50% reduction in the number of children walking to school 6-10 times a week [17].

1.3 Labour saving devices and sedentary pursuits

The underlying trend in Australia (like all developed countries) over recent decades has been to advance technology and reduce the need for labour. New technologies have continued to make life 'easier', and it has offered breakthroughs in specific areas. But these new technologies have not been without a cost; reduced opportunities for population level physical activity [18]. More recently, gaming, computing and video technology advances have further displaced active leisure pursuits and reduced levels of physical activity. The implications of the current generation of developments in information and communications technology (ICT, ie. internet, mobile telephony and computing) in terms of their impact on obesity are only gradually emerging [18].

1.4 Reduced physical activity opportunities at school

People who play sport during their adolescent years are more likely to be physically active adults [19, 20].

Evidence from several sources indicates that there is an Australia-wide decline in the number of schools teaching and delivering physical education and sport. This decline is most pronounced in less well resourced, disadvantaged communities who are at greatest risk of becoming overweight and obese [17].

Physical education and sport have been suggested by some groups as being of low educational priority as time devoted to these activities will lead to a decline in academic performance of children. There is evidence to suggest that involvement in sport improves academic performance and reduces the likelihood of risk taking behaviour [20].

1.5 Eating out and a decline in cooking skills

The average Australian eats out four times a week. Approximately 4.8 billion meals and snacks are eaten out of home each year, 2.7 million Australians eat meals at fast food restaurants EVERY DAY. Approximately one in every three food dollars is now spent eating away from home. Australia is in world top ten for eating out in fast food restaurants [21]-[22].

Correspondingly, there is widespread recognition of the decline in cooking skills that has occurred over the last two decades [23]. Historically, children were provided with fundamental cooking skills through the school curriculum (home economics, food technology etc) and through opportunities to cook at home. Research shows that opportunities to cook at school and in the home have significantly reduced due to reduced curriculum hours and time-poor parents[23].

1.6 “Unhealthy foods” (energy dense, nutrient poor foods) are intensely marketed; particularly to children.

In recent decades, expenditure on media advertising in Australia has dramatically increased. For example, in 2007, the top ten food advertisers in Australia spent \$174.5 million and 30% of food advertising is on biscuits, confectionary and snackfood [24]. Free-TV reaches 99% of Australian households and is considered by marketers to be the medium that is “able to target all demographics” and is considered the “best way to reach grocery buyers with children”[25]. Between 55% and 80% of food advertisements advertised during children’s viewing times are for unhealthy foods - mostly confectionary and fast foods[26].

In addition to the large *volume* of marketing, the *content* of marketing claims can be misleading. Currently, food products are able to promote single nutritional attributes without disclosure of the product’s “less healthy” characteristics. In 2003, a consumer study related to nutrition claims on food labels conducted by Food Standards Australia New Zealand (FSANZ) found that there was consumer confusion and frustration because of the lack of standardisation and agreed meaning of terms used on food products [27]. This confusion is likely to continue when health and nutrient claims are permitted on food products under the Food Standards Code (as per FSANZ’s Proposal P293). We believe that nutrient content and health claims should only be permitted for those foods consistent with healthy eating guidelines. However, the FSANZ proposal will permit any food (regardless of its overall health/nutrient value) to make a nutrition claim. For example, a breakfast cereal could claim it contains calcium for “strong bones” even though the product contains 37% sugar.

1.7 “Unhealthy foods” are affordable.

Price is a key factor influencing consumers in their shopping decisions [28]. It is often assumed that all consumers have total freedom and ability to make food choices. The reality is that consumers can only choose from the shops they can access, what they can afford and from the range of products being offered. There is evidence that being food insecure is linked to obesity due to “famine and feast” variation in food consumption as well as consumption of cheaper energy-dense foods with high fat and sugar content because of their relative affordability [29].

Studies have shown that the cost of the less healthy food items (sugar, cooking oil and margarine) are much lower than the ‘core’ food groups (breads and cereals, fruit, vegetables and legumes, meat and alternatives and dairy) by both weight and by unit of energy. This makes them a “safe choice” being an inexpensive option guaranteed to satisfy the appetite. One study showed that the average costs of less healthy foods were \$0.94 per kg compared with \$3.49 per kg for healthier

foods. It also showed that the less healthy foods cost an average of \$0.03 per mega joule (MJ) compared with \$0.89 per MJ for healthy alternatives [30] [31].

The recent increases in food prices are well above the CPI, and for healthy foods, the increase is more than 20% above the CPI [32]. Low income households currently allocate proportionately more of their total household expenditure to food spending up to 40% of their total income on food [33]. A NSW study conducted last year, demonstrated that a family on an average income now needs to spend 22% of their income on groceries to meet their nutrient requirements and those households in the lowest income bracket would need to spend 56% of their income to purchase a healthy food basket [34]. It is expected that this figure will escalate due to climate change, peak oil and housing stress.

1.8 “Unhealthy foods” are accessible.

Less healthy food options are more likely to be available in vending machines (eg soft drinks, crisps, confectionery) and catering outlets (eg pies, chips) due to their long shelf life, relative ease of preparation, low overheads and high profit margins. This makes them the convenient snack, available at train stations, schools, hospitals, workplaces, sporting facilities etc.

Many fast food restaurants are now open 24 hours and have drive-through facilities. VicHealth-funded research also indicates that there are a greater number of fast food outlets in low Socio-economic (SES) communities. Compared to higher SES communities, low SES areas have up to 2.5 times the exposure to fast food outlets [35].

Almost one-third of household food expenditure is on food prepared outside the home [36]. Growth in the takeaway food sector can be attributed to the expansion of fast food chains and diversification of menus to cater for increasing consumer health concerns [22].

1.9 Foods have upsized.

Recent research confirms that food packets and portion sizes have increased over the last two decades. In the 1970s, a standard packet of chips weighed 30grams, compared with 50grams today. The UK National Obesity Forum reported a 30% increase in the average portion of takeaway food over the last decade [37]. Similar trends have occurred in Australia and correspond with increasing energy (calorie) density in our food supply. For example, a fast food burger has about 24-42g of fat now, about twice the level in burgers from independent shops 20 years [38]. Meals at fast food outlets can be “upsized” for a fraction of the base cost, providing up to 50% of energy for only 15% of the original price [39].

Principles of Interventions

- 1. Behavioural (or lifestyle) interventions have limited effectiveness unless supported by broader societal strategies.** A 2005 systematic review of lifestyle interventions to prevent obesity revealed limited data (22 studies) the majority of which were short term [40]. The review concluded that combined physical activity and healthy eating initiatives were generally ineffective. Some stand alone physical activity and healthy eating initiatives interventions were of limited effectiveness in preventing obesity, although most were effective in improving physical activity and nutrition.
- 2. Strategies intervening early in the life-course are required,** in order to influence the establishment of eating and physical activity patterns, to prevent excess weight gain and prevent adverse short and long term health outcomes associated with childhood overweight and obesity.
- 3. Interventions aimed at preventing obesity should take a population level approach** as well as target “at-risk” communities, based on the best available evidence and knowledge.
- 4. Lesons from other public health challenges such as tobacco suggest that effective responses to population weight gain include the development of multilevel, multi-strategy, multi sector interventions in a broad program of action.** A ‘portfolio approach’ to investing in the promotion of healthy weight has been proposed as a response to the lack of evidence on effective intervention [41]. This approach combines the dimensions of estimated population impact with certainty of effectiveness and allows a mixed portfolio of approaches to be adopted, including promising but unproven approaches.
- 5. Promising interventions need to be cost-effective.** A 2006 Australian report *Assessing Cost Effectiveness of Obesity Interventions in Children* completed a full economic analysis of the cost effectiveness of 13 interventions designed to prevent obesity in children [42]. The study concluded that: school based programs to reduce TV viewing; multifaceted school based intervention with additional physical activity; school based nutrition education to reduce consumption of sweetened carbonated beverages; family based targeted programs for obese children; multifaceted school based interventions for overweight and obese children; and reductions in TV advertising of energy dense foods and beverages directed at children, were cost effective and cost saving obesity prevention programs.
- 6. Achieving sustainable obesity prevention changes will require strengthening existing and establishing new, partnerships and collaborations with sectors outside health.**

1. Recommendations for Government

Leadership and Governance

VicHealth considers affordable sustainable nutritious foods to be essential to population health and the nation's productivity. The complexity of food and the current impact of housing costs, oil prices and drought require governments (federal, state and local) to work together across departments (Climate Change and Water, Primary Industries, Health and Ageing, Foreign Affairs and Trades etc. to ensure a sustainable and affordable food supply system is co-ordinated.

Akin to tobacco control efforts, significant ongoing commitment and investment is required if we are to see any changes in the incidence of obesity in Australia.

1.1 Food Marketing aimed at Children

VicHealth is calling for the introduction of comprehensive legislation to prohibit all forms of marketing and advertising of foods or beverages, other than healthy foods or beverages, directed to children, including via print, internet, cinema, outdoor media, direct marketing (email, SMS or direct mail), product packaging, or point of sale promotions. This would include amending the Children's Television Standards (CTS) to enable *only* the promotion of healthy foods* during times when significant numbers of children are likely to be watching television. The CTS should also include provisions prohibiting the use of popular characters, personalities or premiums (such as collectables, toys and competitions) in advertising of foods, other than healthy foods. While the States can legislate on some of these actions, federal leadership is required to ensure a coordinated and consistent framework across Australia.

1.2 Food Labelling

VicHealth is calling for the introduction of a regulated traffic-light style front-of-pack labelling system such as that recently introduced in the United Kingdom [43]. The Nutrient Profiling framework already developed for the introduction of Health Claims would provide the basis for determining the cut-off points (red, amber and green) for specific nutrients [44]. Such a food labelling system provides a useful guide for public procurement and food service provision – as already demonstrated by the adoption by several States in public sector education, workplace and health facilities.

1.3 Nutrient Claims

VicHealth asks the federal government through adoption of the new Food Standards Code to apply the nutrient profile scoring criteria for all types of nutrition content claims, but particularly for those about vitamins and minerals. We believe such a risk management approach is necessary to protect public health. The Nutrient Profiling model being used for Health claims eligibility provides a ready model for foods wanting to make a nutrition content claim.

1.4 Distribution of Food Outlets

VicHealth believes that the location and type of food outlets should be guided by State Planning legislation. State-wide Planning Provisions must provide "decision guidelines" akin to those governing the locations of licensed premises (Clause 52.27 in the Victorian Planning Provisions). Such guidelines would empower local governments to provide access to a mix of food outlets; limit the density of fast food retailers; and apply restrictions to locations/hours of operation of fast food outlets (ie outside an agreed distance from primary and secondary schools).

1.5 Land-use planning – protecting rich agricultural land

The Australian land mass, climate and water resources need to be carefully protected to enable us to be able to be food self sufficient at a time of global concerns with food prices and production. 25% of the dollar value of Australia's food is grown in the peri-urban areas of major cities. Part of our metropolitan edges are generally our most intensely farm land. There is a finite amount of productive agricultural land in particular on the wedges of our cities. There is a need for nationally agreed principles on sustainable land-use planning for food with sufficient flexibility to include state and territory based differences. Food production integrated as part of metropolitan land and development strategies. To date, rural landscape and environmental values were often the motivation for limiting urban sprawl. Governments need to embed food production as one of the key reasons for limiting urban sprawl [45].

1.6 Improved infrastructure for walking and cycling

VicHealth would like to see policies that create more walkable and ride-able neighbourhoods. Features of such neighbourhoods include connected street networks, higher density and mixed use planning, access to high quality transit, reduced exposure to traffic and high quality public realm including parks, local shops and landscape. There are a variety of charters and tools available for assessing the impact of new housing developments and in-fill areas on health [46] combined with incentives to use public transport, combined with disincentives to use motor vehicles.

The provision of high quality and safe cycle paths and cycle parking, and supportive infrastructure to support active transport and commuting; including amendments to building regulations to ensure access to showers and secure cycle parking in all new and refurbished buildings; [47] Policies are required that prioritise walking and active transport over car, such as those employed by the City of Port Phillip, Victoria.

1.7 Pricing reforms

VicHealth asks the federal government to consider fiscal measures which will improve the accessibility of healthy food options. Recent modelling in the UK has shown that carefully targeted tax on a wide range of high-fat foods can positively influence food choices and bring about a reduction in cardiovascular disease[48]. Evidence also suggests that a tax on unhealthy foods in addition to a simultaneous subsidy on healthy foods is the most effective method for affecting dietary change [49]. Government monitoring of the cost of food prices and reviews of the index welfare and pension payments will be required if people of all incomes are able to eat well.

VicHealth acknowledges that the ACCC Inquiry into Grocery prices is currently underway and hopes that its recommendations will be consistent with this need for pricing reform.

1.8 Education/Curriculum reform

1.8.1 Physical Activity

VicHealth recognises the important role of physical education in schools and so would like the federal government to include physical education and sport as a compulsory part of the new national school curriculum as these subjects are the only curriculum areas that have the potential to impact on the physical health of children. For the majority of young people schools are the main providers of quality instruction in sport, recreation and physical activities. In order to do this effectively the federal government should:

- mandate that all primary and secondary school children during the compulsory years of schooling receive regular physical education and sport as part of their education experience

- adequately resources schools to deliver quality physical education and diversity of school sport to all children not only those who can afford it
- require schools to develop a physical activity action plan that can demonstrate how they are meeting the mandated requirement

Of course, the most effective interventions to achieve increases in physical activity are those with a whole school approach – policy support for school based physical education, curriculum strategies and comprehensive school and family programs.

1.8.2 Food and Cooking Skills

VicHealth urges the federal government to consider the mandatory inclusion of food technology to year 10 (with a focus on cooking skills) into the revised national curriculum. Resource intense models that require schools to fund cooking/growing programs and associated infrastructure are not congruent with an equitable approach to improving health.

VicHealth acknowledges that whilst schools are not solely responsible for equipping children with cooking schools, they do have a pivotal role.

1.9 Monitoring and Surveillance

Australia, despite its obesity incidence, has poor nutrition and physical activity intelligence.

Current food and nutrient data is not collected routinely in the biannual health survey of Australians. The last national nutrition survey was conducted in 1995. Similarly, the last comprehensive national physical activity survey was conducted in 1999. The collection of physical activity data is highly fragmented. For example, the National Health Survey data relates to reported physical activity for sport, recreation or fitness only. It excludes physical activity as part of a person's occupation, and activities such as gardening or active transport. In addition, the National Health Survey excludes children under 15 years and while the ABS survey of Children's Participation in Cultural and Leisure Activities captures some physical activity pursuits, it only includes activities out of school hours.

Continuous nutrition and physical activity monitoring and surveillance must form part of a comprehensive policy to combat obesity. This data is critical if we are to monitor eating and physical activity trends, evaluate multi-level interventions, review existing guidelines, or make decisions about specific regulations affecting eating behaviours and physical activity. [50].

Recommendations for the Food Industry

1. VicHealth is calling for the Food Industry to reduce portion sizes of pre-packaged foods, particularly fast foods, convenience and snack foods.
2. VicHealth believes that the Food Industry needs to move its level of Corporate Social Responsibility beyond that of consumer education (ie labelling) efforts. Akin to their efforts in reducing trans-fats, there are now real opportunities to commit to reductions in total (and saturated) fat and sugar content of their products.
3. There is a need for equal number of healthy food choices on the fast food menus

Recommendations for the Broader Community

For twenty years, VicHealth has been working with local government authorities and community organisations to promote local responses to obesity prevention. This experience has highlighted the need for communities to adapt a holistic systems approach involving community participation, local government leadership and supportive school / workplace environments.

VicHealth would guide the Committee to the principles for action outlined in the UK's National Institute of Clinical Excellence report: *Obesity Guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children: For local authorities, schools and early years providers, workplaces and the public.* This report provides practical, evidence-based suggestions that can be adopted at a local community level [51].

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