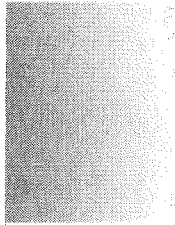


Submission No. 90
(Inq into Obesity)
KE 18/06/08



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12th June 2008

Submission to the inquiry into obesity in Australia

Diabetes Australia-NSW welcomes the inquiry into obesity in Australia as undertaken by the Committee of Health and Ageing. We also appreciate the opportunity to provide recommendations to the inquiry.

If you have any questions regarding our submission, please do not hesitate to contact Natalie Fairchild via phone 02 9552 9911 or email natalief@diabetesnsw.com.au.

Yours Sincerely

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Caring for all people with diabetes all of their lives

Charity Number: CFN12458





Executive Summary

Obesity is increasing in epidemic proportions worldwide and in Australia. Obesity is one of the major risk factors for developing type 2 diabetes and therefore is an area of great concern to Diabetes Australia-NSW.

The development of type 2 diabetes is a serious complication of excess body fat. The AusDiab study estimated that in the year 2000, 52% of Australia women and 67% of Australian men were overweight (BMI > 25 kg/m²) or obese (BMI > 30 kg/m²) (source: 1). Overweight or obese individuals have up to three times the risk of developing the condition compared to people with a healthy body weight (2,3).

However, a sustained reduction in weight (5-10% of initial body mass) can result in clinically relevant health benefits. These include a reduction in blood pressure (4) improvements in blood lipid profiles and reductions in insulin resistance (5,6). A more substantial weight loss of 15-20% in the first year post diagnosis of type 2 diabetes can substantially reverse the risk of mortality associated with the condition (7).

Obesity is a multifaceted problem with a plethora of implications including; health, social, and economic. Therefore, in order to address the issue of obesity, all key stakeholders need to be engaged. Obesity is not an issue that can be combated exclusively by the individual as it is influenced by an individual's financial, social and physical environment.

Diabetes Australia-NSW believes there are four main areas that will benefit from being addressed by federal government policy initiatives. In order to reduce the burden of obesity in Australia we wish to make submissions in the following areas:

- Commonwealth subsidies to reduce the cost of fruit and vegetables
- Nutrition education for parents and children
- National mandatory physical education guidelines in schools
- Support for workplace health initiatives

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Subsidised Fruit and Vegetables

Proposal

The health benefits of fruit and vegetable consumption are well documented, however Australians continue to fail to meet the recommended dietary intake. Cost is cited as a major barrier to adequate fruit and vegetable consumption therefore Diabetes Australia-NSW proposes a commonwealth subsidy for fresh fruit and vegetables or alternatively, a taxpayer rebate to offset the high cost of fruit and vegetables to consumers.

Evidence

Suboptimal intakes of fruit and vegetables have been associated with an increased risk of chronic disease (1). The World Health Organisation estimates that low intakes of fruit and vegetables alone account for 31% of heart disease cases and 11% of stroke (2).

Despite the health benefits of fruit and vegetable consumption, national nutrition surveys have consistently demonstrated insufficient intakes across all age groups in the Australian population. The 1995 National Nutrition Survey found that only 17% and 32% of Australian adults respectively consumed the recommended serves of fruit and vegetables. As many as 30% of children ate no fruit or vegetables on the day prior to the survey (3). Likewise, the more recent national health survey reported similar findings (4).

While there are currently national campaigns to promote fruit and vegetable consumption to the Australian population (e.g. Go for 2 & 5, Crunch & Sip), cost remains an important barrier to increasing intake. The NSW Healthy Food Basket Survey (2007) demonstrated that fruit and vegetables contributed the largest component of a healthy food basket cost (44%) (5). In this survey, to feed a family for two weeks, the mean cost of fruit and vegetables equated to \$195. Similarly, an Adelaide market basket survey showed that the proportion of average weekly earnings required to purchase a healthy food basket was 35% (6).

Evidence for the effectiveness of subsidised fruit and vegetables on dietary intake has been demonstrated in a number of studies. In the US, participants in the Women, Infants and Children (WIC) public health program provided with an economic supplement for fruit and vegetable purchases, significantly increased their intake of fruit and vegetables (7). Likewise, school fruit programs that provide free fruit to students have been shown to result in increased intakes in participating school students (8).



The consumption of fruit and vegetables has been shown to be directly related to socioeconomic status, with low income groups consuming less than their higher income counterparts (9). Low socioeconomic status has also been linked to higher rates of obesity and chronic disease (10). In order to improve the lifestyle patterns of lower income earners, issues of accessibility to nutritious food choices must be addressed along with public health messages promoting dietary change.

While the implementation of fruit and vegetable subsidies would result in increased costs to the commonwealth, it has been estimated that increasing consumption by as little as one serve each day would result in a \$157 million annual saving to the Australian health system (11).

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Nutrition Education for Parents and Children

Proposal 1

Given obese children are more likely to have health and weight problems as adults, it is valuable to support prevention and management strategies for this group. Diabetes Australia-NSW recommends that active steps be taken to improve the nutrition education extended to parents (and other primary caregivers).

Any clustering of children provides an avenue of access to parents and therefore parental education opportunities. School is one of the prominent examples, however smaller groups such as other forms of early childcare or parental interaction such as mother's groups and kindergarten groups could also be considered.

Evidence

A key recommendation from a 2006 review of prevention programs for overweight and obesity was:

"Future interventions need to address the psychological and environmental influences of the home environment through education and active involvement of parents, even in a school-based intervention. Treatment studies show that family-based intervention with behaviour modification is most successful" (1).

It is apparent that general awareness of childhood obesity is not being translated to practical changes on an individual level. An accurate perception of healthy body weight and healthy lifestyle seems to be diminishing among the increasing prevalence of overweight/obesity. A Victorian cross-sectional study of 324 four-year-old children and their mothers established that only 17% of mothers with overweight or obese children were concerned about their child's weight. Eight percent of mothers were concerned that their child was underweight, yet 37% of them had children at or above the 50th percentile for age-adjusted body mass index (BMI). Most mothers of overweight children (71%) felt their child was a similar weight to their peers. Despite this lack of concern about current weight, many parents were concerned their child would become overweight in the future. Regardless of weight, most mothers felt their child's diet and physical activity level was equally healthy when compared to their peers (2).

Parents should be encouraged to be the primary locus of change with respect to healthful dietary behaviours for children. Parents are influential role models over a child's early and sustained behaviours including those relating to food consumption (3). These behaviours are reinforced well before a child enters the



education system. Parents exert great control over behaviours that affect the nutritional quality of the family's diet such as the purchasing of groceries, meal planning and preparation and placing boundaries on food consumption. A review assessing the relationship between feeding-specific parenting styles and weight found various feeding styles, parenting practices, control strategies and support techniques used by parents are influential on childhood body weight (4). It has also been noted that members of a family have similar nutritional intake (3) therefore any healthful dietary modification made as a result of parental education will benefit the entire family.

An Australian review concluded that innate food preferences are easily modified by exposure to varied food and eating experiences (3). That is, food preferences (particularly in young children) are largely determined by environmental factors, many of which are found in the home and are primarily determined by parents (3). Parental modelling of food consumption and behaviours, availability and accessibility of foods, exposure to media in the home and familial interaction around food are all thought to be powerful influences over dietary quality (4). A child's rejection of a food on one or more occasions may deter a parent from offering the food again. However, the more persistence shown in offering a child a food, the more likely the child is to accept and enjoy the food in the future (3). Foods that the parent prefers will be offered more frequently resulting in the child reflecting similar preferences to their parent, not only due to frequency of exposure but over parental role modelling of that food's consumption (3,4). Therefore, targeting parents for education will influence the intake of the entire family. For that reason, educating parents is an efficient use of resources as their education will impact on the nutritional quality of many others.

The significance of targeting parents for healthy lifestyle change has been reinforced by the results of a small study of 91 overweight or obese women. The women, who were from low socioeconomic backgrounds and had children aged 1-3 years, were offered the opportunity to participate in an 8-week weight loss program. The program covered dietary, physical activity and behavioural modification education. Although the women experienced modest weight loss (average 2.7kg), significant improvements were seen in the quality of their children's diets despite that not being the objective. The favourable changes seen in the dietary intakes of the children included more appropriate total energy intake, reduced total and saturated fat, reduced sweetened beverage and fast food consumption and greater consumption of homemade meals (5).

Another Australian study hypothesised that parenting-skills training and lifestyle education to parents will positively affect childhood weight, without any child involvement. The parents of 111 six-to-nine year old overweight children were enrolled. The parents were randomised to one of three groups: a control group that were wait-listed for one year, a group that received parenting skills training



only or a group that received parenting-skills training and lifestyle education. All children experienced a significant reduction in age-related BMI regardless of group; however, the greatest reduction (although not significant) was seen in the group where parents received both intervention strategies. Waist circumference decreased significantly in both groups that received intervention yet remained unchanged for the wait-listed group. Although the study authors found it difficult to determine which intervention strategy (i.e. healthy lifestyle education or parenting-skills training) was most influential, the study did emphasize the importance of using parents as a mode for change (6).

The positive impact of emphasising parental involvement in healthy lifestyle modification was reiterated in a review of intervention programmes for childhood and adolescent obesity. Two comparable studies that involved the children, family and teachers within a school were identified. The study that physically involved the parents via discussion meetings (in addition to print and audiovisual materials) resulted in a significant reduction in childhood overweight/obesity. The second study used print resources only and produced no change in overweight/obesity levels. The results stress the worth of hands-on involvement with respect to parents (1).

Given parents have many concerns about their children's weight (2), empowering parents with the knowledge of good nutrition and appropriate parenting strategies at an early and preventative stage is not only crucial but also effective.

Proposal 2

As children spend a large proportion of their day at school, much of their daily food intake occurs in the school environment. Therefore, Diabetes Australia-NSW recommends the implementation of educational opportunities be pursued in schools to help improve the nutritional quality of children's diets. An example of a suitable program that would be ideal to be rolled out on a national level is the Crunch & Sip program currently running in Western Australia and New South Wales.

Evidence

Schooling provides an opportunity to normalise behaviours that children may otherwise resist. An Australian review reported on a study where preschoolers were found to try, and consume, previously disliked foods (primarily healthy choices) because of observing peers eating these foods (3).

Programs such as Crunch & Sip (a scheduled fruit/vegetable and water break) encourage children to be involved in a behaviour that may not otherwise occur in the playground. All children are encouraged to be involved and a clear set of



guidelines are provided. The success of this activity comes from both the educational component of the program and the positive influence of peers to participate in the behaviour. Such programs not only enhance knowledge but also promote the practical application of this knowledge.

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National mandatory physical education guidelines in schools

Proposal

To implement national mandatory physical activity guidelines in school curriculums.

A policy clearly stipulating the total amount of time that students should be involved in structured physical activity whilst at school should be introduced nationwide. Any suggested policy should also stipulate the amount of time each day that children should spend being physically active.

Diabetes Australia-NSW suggests schools must be required to provide at least 20 minutes of structured physical activity for students each day. This would be additional to current curriculum recommendations regarding time spent in 'sporting pursuits' perse.

Furthermore, implementation of a multifaceted program targeting physical activity participation, student, parental and staff education, professional development and whole school approaches to physical activity is necessary.

Evidence

Obesity is strongly correlated with levels of physical activity amongst all age groups. Increasing levels of childhood obesity is alarming as childhood obesity predicts levels of adult obesity, morbidity and mortality (1, 2). Interventions targeted towards increasing levels of physical activity are necessary in order to reduce the prevalence of overweight and obesity in our society. As such, the long term prevention of obesity should begin with our children.

Given that physical activity patterns are established during childhood, it is imperative that children are encouraged to be active at an early age (3). However, we know that there are many variables that influence physical activity behaviours in children such as environment, learnt behaviours, parental influences, opportunity and access to facilities (2, 3, 4).

The schooling system is one potential avenue for addressing these issues. It is by far the easiest method of gaining access to our young people, as well as their parents/guardians.

Whilst personal development, health and physical education currently form part of the core curriculum for each state, there are no national mandated standards regarding actual participation in physical activity amongst school aged children.



Each state is responsible for setting policy guidelines with respect to participation in physical activity within the schooling environment, however these guidelines vary widely across the nation.

The Australian physical activity recommendations for children and adolescents currently state, that for optimal health, children should be involved in a minimum of 60 minutes of moderate to vigorous play every day (5). Diabetes Australia-NSW recognises that teachers and the schooling system should not be solely responsible for ensuring our children meet physical activity recommendations. However, given children spend a good majority of their day at school, there is a large social responsibility on schools to contribute.

Our recommendation to include at least 20 minutes of physical activity a day within the schooling curriculum meets one third of this requirement. This is a small and achievable investment that our education system can make towards the prevention of obesity and ensure our nation's ongoing health.

Further to mandated physical activity participation requirements, a multifaceted, school based program targeting physical activity participation, student, parental and staff education, professional development and whole school approaches to physical activity is necessary.

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Support for workplace health initiatives

Proposal

Diabetes Australia-NSW proposes that the federal government supports workplace health initiatives targeting obesity. Measures that could be employed to address these issues include introducing changes to current occupational health and safety policies and standards. Currently most occupational health and safety acts centre on employee safety concerns. However, making provisions for ensuring the health of Australian workers should be considered an integral component of these legislations. Suggested changes to OH&S legislation include the mandatory requirements of employers to support employee efforts to be active. Secondly; the responsibility of employers in ensuring and contributing to the health of employees should be clearly defined. Finally, incentives, such as financial subsidies for companies to employ workplace health initiatives targeted at obesity and chronic disease prevention should be considered by the federal government.

Evidence

There has been a significant increase in Australian working hours compared to past decades. In the 1970s most employees worked a standard week of between 35 and 40 hours. By 2002 only 24 percent of employees worked a 40-hour week. In 1982, only 20 percent of workers worked more than 50 hours a week. By 2002 the number of employees exceeding 50 hours a week rose to 30 percent (1).

Australian's are spending more time at work than ever before. Add to this several competing demands and a long commute and it isn't hard to fathom the increasing obesity rates. The increasingly hectic schedules of Australian adults have seen a reduction in physical activity and a surge in popularity of convenience foods. Considering so much time is spent at work it makes sense that the workplace features at the centre of the fight against obesity.

62% of Australian workers do not meet the minimum recommended level of physical activity (30 minutes per day) - 10% of these are completely inactive, and 40% engage in only minimal physical activity (2).

Bringing health promotion to the workplace overcomes the number one cited barrier to health behaviour change; lack of time. By making physical activity and other healthy behaviours an integral part of the working day, Australia could be well on the way to a healthier future.



Workplace health initiatives present a win-win situation. Governments and taxpayers win through reduced health budgets; families benefit from reduced expenditure on medications, doctors and hospital visits; and workplaces win, through improved productivity and reduced absenteeism.

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