



Submission No. 132
(Inq into Obesity)

9 Sept '08

Committee Secretary
Standing Committee on Health and Ageing
House of Representatives
PO Box 6021
Parliament House
CANBERRA ACT 2600
AUSTRALIA

Dear Sir/Madam,

**Re: Inquiry into Obesity in Australia
Need to evaluate new policies and programmes to develop an evidence base**

We are writing to comment on the submissions that have been made to the Inquiry and published on your web site. We have undertaken several large scale population studies of child health and development over the last fifteen years. Over the last two years we have been developing our next large-scale epidemiological survey of children and families in Western Australia. As part of this project, we have been undertaking an extensive review of the research literature in the fields of diet, nutrition, exercise and obesity, as these are key issues for Western Australian families.

There are several issues that have become clear to us in reviewing the research in the field, as well as the submissions that you have received that emphasize the challenges that the committee faces. We would like to offer our suggestions for developing a way forward.

1. While it is clear that the prevalence of obesity is continuing to rise, and obesity is associated with a range of serious health problems, there is inconsistent data, and a range of diverging opinions on what are the root causes of the obesity epidemic.
2. While the public message on obesity is simple: eat less fat, eat fruit and vegetables, exercise more and reduce weight, the underlying science is much more complex and ambiguous.
3. In reviewing the evidence from biochemistry and biology it is clear that the relationship between diet, exercise and body weight is quite complex, as the body has mechanisms for regulating metabolism and basal energy expenditure in response to

dietary intake and physical activity. These complexities have not been incorporated into information provided to the general public.

4. Many of the suggestions being put forward to the committee on ways to address the obesity issue, while seemingly logical to outsiders reviewing the submissions, have never been properly tested and are based on some measure of faith or belief.

In 1976-7, when the McGovern Senate Select Committee on Nutrition and Human Needs in the US was examining the issue of diet and heart disease, there was strong debate and conflicting evidence as to what attributes of diet constituted the bigger risk. That committee produced a set of simple and clear guidelines on reducing fat consumption in the diet which have formed the basis of the now familiar food pyramid and standard diet advice given by Western countries throughout the world since that time. While the simple message was an effective tool for changing public attitudes and behaviours, it effectively hid from the public eye the fact that the recommendations embodied in the Committee's work remained controversial in the scientific community at that time. These guidelines have been broadly adopted in the official nutrition guidelines of many countries, including Australia. However, they have not been effective in reducing the prevalence of obesity. In fact, the problem is becoming more prevalent, and is a greater public health concern now than it was in the 1970s. It seems to us that while simple guidelines are easier to translate into programmes and health promotion activities, over-simplifying the science can lead to programmes that are ineffective.

In our understanding of the research literature, there is strong evidence that obesity is linked to a range of serious health outcomes, and is a common problem. However, there is less clarity in the evidence surrounding the causes of obesity. The root causes of obesity may well be more complex than we would like to believe. Where evidence is weakest, however, is regarding the question of what works to reduce obesity. For instance the recent ABS report on obesity in Australia found very little association between amount of physical activity and BMI. Some trials of increased exercise and/or various diets show limited benefits if any.

Methodology for trials and evaluation

Many of the submissions made to the inquiry come from experts who express a great deal of confidence in their recommendations. Nevertheless there is a notable absence of evidence presented in the submissions to show that the recommended actions have been tested in any setting or that they are known to be effective. In many cases partial evidence is being extrapolated into recommendations, but it does not immediately follow that evidence of an association between a factor and an outcome automatically means that a programme designed to change that factor will successfully change it and then change the outcome.

An example of this point is the Multiple Risk Factor Intervention Trial (MRFIT) conducted in the United States in the 1970s and 1980s. After evidence from the Framingham Heart Study showed that high levels of serum cholesterol were associated with coronary heart

disease (CHD), the MRFIT trial was designed to test an intervention aimed at reducing heart disease risk factors. It involved 13,000 middle-aged men at high risk of CHD split into an intervention and a control group. Men in the intervention group were treated with anti-hypertensive drugs, encouraged to quit smoking and encouraged to eat a diet low in cholesterol and saturated fat. After 7 years of follow-up there was no difference in CHD mortality or mortality from other causes between the intervention and control groups. Ostensibly the trial was designed based on very solid evidence, and the investigators were very confident going into the trial that the intervention would substantially reduce CHD risk. However it does not always follow that if an association is observed between some factor and a disease, that modifying the factor will necessarily reduce the incidence of disease. Similarly, observed associations between particular dietary regimes, or exercise programmes, don't automatically imply that programmes designed to alter these factors will necessarily be successful in reducing obesity.

We recommend that new policies, programmes and initiatives first be implemented in a trial setting, and the effectiveness of the trial be evaluated to:

- a. develop the evidence base required to implement programmes across jurisdictions
- b. provide information that can be used to improve the delivery and effectiveness of programmes
- c. provide a framework for estimating both costs and benefits of the programmes or initiatives
- d. identify any risks to success of the programme or any population sub-groups that might have special needs or require alternative approaches.

There have been a number of examples where public health programmes have failed to engage high risk groups. For example, the folate campaign has failed to engage disadvantaged, young, Aboriginal or smoking mothers; the SIDS campaign has failed to engage Aboriginal parents, and the safe sex campaign has failed to connect with Aboriginal young people.

Where experts request that trials be bypassed in favour of wide-scale rollout of new programmes, we recommend this only be considered if there is sufficient evidence that the new programme will be effective. This needs to be more than evidence that the programme has been designed to target issues of known concern, but specific evidence that the programme itself can be effective.

We believe that a well run trial offers the following benefits:

- a. it provides objective evidence to justify expenditures on large national or cross-jurisdictional programmes
- b. it enables the setting of effective indicators to monitor progress at the population level

- c. it can lead to better, more effective programmes by fine tuning details during the evaluation phase
- d. it minimises the risk of any unexpected or unforeseeable harm that could arise.

We note that the main reason that has been offered in the past for not using a trial and evaluation methodology is the cost of implementing trials. We believe this is a short-sighted argument, as the cost of implementing a trial is almost always significantly less than implementing a programme across an entire jurisdiction, and the additional cost of including an evaluation component in a trial is very often small compared to the cost of programme delivery. However the returns can be substantial - evidence of effectiveness of programmes that can be used to garner the necessary community support to make significant changes.

Minimising risk of harm

A number of the recommendations put forward in submissions to the inquiry take the form of increasing the “dose” of strategies that have already been tried - such as increasing the daily exercise requirements or even mandating exercise through schools or workplaces, reducing further the fat content in fast foods, or regulating the fat content in commercially available foods. It needs to be recognised that other submissions to the inquiry show that these ideas have been implemented to varying degrees in jurisdictions around the country. States are promoting exercise and healthy eating, schools are increasing the amount of regular physical activity, companies have brought to market foods that meet the recommended dietary requirements, and at least one fast food company has reduced the fat, cholesterol and sugar content of their foods in response to dietary recommendations. As these strategies have not yet shown any impact on the rate of obesity in Australia, or in other countries where they have been tried, a range of experts are now calling for “toughening up” these strategies.

While it is possible that the failure of strategies tried to date to impact on the rate of obesity could be due to not being tough enough, an alternative explanation is that there may be some element missing or some flaw in the strategies or the ideas underlining them that prevent them being successful or lead them to be ineffective. We fear that there is a risk, if exercise and diet strategies are taken to extremes, that they could cause harm to some people. If exercise requirements are increased further there is the possibility that some children or adults may be encouraged to over-exercise causing injury. Extreme diets may also have unwanted side effects. For instance, while high levels of LDL cholesterol have been linked with heart disease, low levels have been linked with depression and attempted self-harm.

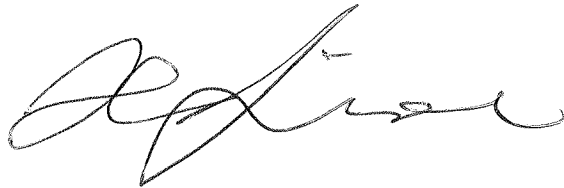
With some quite tough recommendations being submitted to the inquiry, we believe this is

a further reason why proper trialling and evaluation of policies and strategies is a prudent strategy to ensure that harm will not be caused inadvertently.

We hope these suggestions will be of some benefit to the committee.



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