

## EDITORIAL

## Tackling obesity: a call to action

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The prevalence of obesity continues to increase in New Zealand. The most recent New Zealand Health Survey indicates that 31% of all adults (48% of Māori and 68% of Pacific adults) and 11% of all children aged 2–14 years (19% of Māori and 27% of Pacific children) are obese.<sup>1</sup>

Two major reports outlining evidence based recommendations for interventions have been released in the past few months. In May 2014, the New Zealand Medical Association (NZMA) issued its policy briefing *Tackling Obesity*: an evidence based and highly readable summary of recommended measures to improve health and decrease obesity through environmental change and improvements in health literacy.<sup>2</sup>

In July 2014, Swinburn and colleagues from the University of Auckland published a report which contained recommendations for reducing obesity by improving food environments. The recommendations were based on ratings by an Expert Panel of independent public health experts and representatives from medical associations and non-governmental organisations (NGOs) who identified and prioritised interventions needed to improve food environments for health.<sup>3</sup> Their report suggests that New Zealand performs well in some areas (e.g. food labelling and monitoring of health status) but also identifies 34 further actions that should be undertaken.

Both these reports add to the growing stable of reports internationally which consistently call on governments to do more. It is generally accepted that governments around the world have not been sufficiently diligent with regard to the adoption of anti-obesity programmes. In particular, they have been reluctant to introduce measures which might be expected to influence the obesogenic environment, considered to be essential components in attempts to stem the tide of the obesity epidemic.<sup>4</sup> This failure has been associated with increasing obesity rates in most countries, and warnings of subsequent increases in non-communicable disease rates into the future.

Chronic non-communicable diseases are responsible for a major burden of morbidity around the world. The Global Burden of Disease Study indicates that non-communicable disease caused 34.5 million or 65.5% of deaths in 2010, with ischaemic heart disease and stroke ranked first and second, and diabetes 9th, (up from 15th in 1990).<sup>5</sup>

The four major groups of chronic disease (heart disease, cancer, diabetes and chronic lung disease) have common risk factors, notably tobacco use, unhealthy diets, physical inactivity and harmful use of alcohol.<sup>6</sup> The risks of coronary heart disease, diabetes, and some cancers (including postmenopausal breast and colorectal cancer) associated with obesity, inappropriate nutrition and physical inactivity appear to be mediated via common mechanistic pathways: growth factors (mainly insulin and IGF1) inflammation, and hormones (mainly oestrogen).

Despite these strong common aetiological relationships these chronic diseases do not show similar trends over time in all countries, nor do they follow dietary changes particularly closely. The involvement of different polygenic and environmental determinants involved in the complex aetiology of chronic diseases probably explains the different time lag between exposure to these risk factors and the emergence of clinical manifestations of these diseases.

The relatively short time frame between the emergence of the epidemic of obesity and the escalating rates of diabetes which followed, as well as the speed at which diabetes risk reduction occurs with weight loss and associated lifestyle changes, confirm the pivotal role of obesity and its associated abnormalities as a cause of type 2 diabetes. This has been clearly demonstrated in intervention studies such as the Diabetes Prevention Study (DPS) and the Diabetes Prevention Program (DPP) which found that within 2 years, modest weight loss associated with regular physical activity and dietary

changes aimed at reducing total and saturated fat and increasing dietary fibre, can appreciably reduce the risk of progression from impaired glucose tolerance to diabetes.<sup>7,8</sup> The relatively rapid remission of type 2 diabetes and weight loss observed following bariatric surgery provides further confirmation.<sup>9</sup>

Coronary heart disease on the other hand appears to be associated with a more complex interaction of risk factors and measures aimed at reducing atherogenesis (e.g. cholesterol reduction and obesity related risk factors) may require an appreciably longer time frame before benefit is apparent.<sup>10</sup> Evidence from intervention trials of dietary and lifestyle improvement suggests that it takes at least 2 years of intervention and follow up to demonstrate improvements in cardiovascular outcomes.<sup>10</sup>

It is generally assumed that many years elapse between the initiation of the carcinogenic process following exposure of susceptible cells to carcinogens and the development of truly neoplastic cells and clinical manifestations of cancer.<sup>11</sup> Thus any benefit of weight reduction in terms of reducing the risk of obesity related cancers is unlikely to accrue without a prolonged period of weight loss maintenance. Support for this proposal comes from an intervention trial of morbidly obese patients who underwent bariatric surgery. After a median follow up period of more than ten years a significant reduction in risk of developing cancer emerged in women who had undergone surgery compared with controls.<sup>12</sup>

There is widespread recognition among health professionals of the need for individual and public health measures to halt and reverse the escalating rates of obesity. Increasingly developing countries which have neither the capacity nor the budget to manage epidemics of diabetes, coronary heart disease and cancer will also need to pay attention to developing public health programmes to combat a growing prevalence of obesity and obesity related disorders. However, monitoring obesity rates appears to have had relatively little impact in terms of influencing governments of the need for urgent action, and continues to be challenged in both the popular and peer reviewed literature.<sup>13,14</sup> This may be due to the notion that obesity is a 'risk factor' rather than a disease state.

Rather alarmingly the recent economic recession and election of more conservative governments have led to the withdrawal of some promising public health initiatives aimed at reducing rates of obesity.<sup>15</sup> Furthermore, obesity, inappropriate nutrition and physical inactivity are often painted as lifestyle choices and subject to individual responsibility rather than major chronic disease risk factors requiring a substantial public health response.

In New Zealand several public health interventions to decrease and prevent obesity have been labelled "nanny state", and withdrawn on these grounds,<sup>16</sup> and in the United Kingdom many nutrition and physical activity related public health initiatives have been discontinued, while representatives from the food industry have been appointed to key advisory roles to develop a new approach to public health.<sup>17</sup>

The imminent launch of the Healthy Families New Zealand initiative in 10 communities around the country<sup>18</sup> will go some way to promote healthy lifestyles at a community level, but a more comprehensive nation-wide strategy is required if substantial change is to be achieved.

An impressive evidence base supports the case for the environmental and societal changes, which need to underpin policy aimed at reducing obesity and its associated co-morbidities. These require implementation, which transcends political ideology and is sustainable beyond electoral cycles.

The NZMA report recommends a range of measures: from individual interactions between health professionals and their patients through to government interventions targeted at improving nutrition environments in schools and communities, as well as changes to the way food is taxed and marketed.

Swinburn et al emphasise the importance of strong political leadership and a comprehensive plan underpinning specific initiatives. While the introduction of a broad range of interventions is justified, a number of specific interventions are highlighted in both reports, and should form the basis of immediate policy response to obesity in New Zealand. These include:

- Restricting the marketing and promotion of unhealthy food to children and adolescents
- Introducing (or re-introducing<sup>15</sup>) food and nutrition guidelines for provision of healthy foods to children in schools and early childhood education settings
- Improvements in food labelling so individuals are better able to improve their own nutrition.
- Fiscal measures to improve nutrition such as a tax on sugar sweetened beverages.

The first two of these measures aimed at children and adolescents should be implemented as a matter of priority. The introduction of the Health Star rating system has the potential to improve food labelling and enhance consumer understanding of the healthfulness of food products, but needs formal evaluation once implemented. Fiscal measures such as changes in taxation are controversial, but worthy of investigation into how effective they would be in a New Zealand context.

Health professionals have a unique and potentially powerful influence on public opinion and government policy. These reports are a call to action to all health professionals to consider the implications of the increasing prevalence of obesity into the medium to long-term future for the health of New Zealanders. We should all take up this challenge, and communicate more emphatically and effectively with government about the importance of implementing change at the environmental level to improve health.

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