

Medical Officer of Health Report

July 2014

Leading the Charge on Preventing Childhood Obesity

In New Zealand approximately one in 10 children are obese and another two in 10 are overweight, meaning that nearly a third of children are either overweight or obese. Approximately two thirds of adults are overweight or obese. The prevalence in the Bay of Plenty and Lakes areas is similar to this national picture. New Zealand ranks as having one of the highest levels of childhood obesity in OECD countries, but it is not alone in this challenge. Globally the prevalence of obesity has nearly doubled since 1980 and has become an increasing international public health concern. As this is a problem affecting many countries around the world at the same time and a very large number of people, it should rightly be called a pandemic – a pandemic that has substantial implications for the future health of those affected and costly implications for future healthcare provision.

This is very much the public health challenge of our time and as a pandemic that has emerged over two or three decades it is likely to take concerted, persistent and innovative action over many years to reverse. However, it is worth noting that the global experience and success in addressing obesity is relatively minimal and so the evidence base for interventions that work, especially at the population level, is relatively weak. As Margaret Chan, Director-General of the World Health Organisation (2013), states, “*not one single country has managed to turn around its obesity epidemic in all age groups*”.

In 2013, Toi Te Ora – Public Health Service identified childhood obesity prevention as one of its long term strategic objectives and has undertaken considerable work to review the evidence of what may work to achieve its goal of reducing childhood obesity by one third in ten years. While public health and the wider health sector has much experience developing and delivering nutrition and physical activity programmes, our recent review of the literature has highlighted some important themes and insights that have provided new perspectives on childhood obesity prevention.

It has long been thought that excess weight is simply the result of energy intake (as food and drink) in excess of energy expenditure (as physical activity), with interventions focussing more or less equally on both sides of this equation. However, recent evidence and expert commentary strongly suggests that the obesity pandemic is largely being driven by increased energy intake rather than any decreased physical activity. In turn this has largely been brought about by changes in the food industry and the types and changing composition of foods that comprise our diets. In particular, the increased availability of energy dense food, high in sugars and fats, that is relatively inexpensive and aggressively marketed, appears to be playing a key role in driving the obesity pandemic.

While there is arguably more awareness by both the public and the food industry of the need to reduce saturated fat intake, the amount of added sugar in our diets has increased and this has come under the spotlight. A casual perusal of package labels in the supermarket is quite revealing as to how ubiquitous sugar is in food products. As an example, even everyday foods such as breakfast cereals may contain 30% or more sugar by weight and a breakfast

cereal with less than 10% sugar is difficult to find. Many breakfast cereals with high sugar content are presented and promoted as healthy products and marketed to children. Another phenomenon noticeable in the supermarket is the sheer volume and variety of sugary drinks (or sugar sweetened beverages, also known as SSBs) that are available for sale. In a food environment such as this, where so much of our food is a manufactured product with sugar added and where SSBs have become, for many children, daily staples, it is exceedingly difficult to avoid excess sugar consumption.

Food with added sugars and SSBs are very palatable and therefore are easier to over consume. Furthermore, energy in liquid sugar form does not trigger our bodies' satiety mechanisms as readily. Consequently SSBs allow us to consume energy without a timely sense of fullness and so make it very easy to consume energy in excess of what we need. Indeed SSB consumption and per capita sugar consumption has increased and appears to be one of the important drivers of childhood obesity. A review by Te Morenga et al (2013) found that children who drank one or more SSBs per day were about 50% more likely to be overweight or obese compared to children who drank little or none.

As many SSBs typically provide no nutrients of any value other than their sugar or energy content, reducing the consumption of SSBs must be a primary focus for interventions to reduce childhood obesity – and this would have the added important benefit of improving dental health.

While increasing children's physical activity in active play and limiting 'screen time' may be important for a whole range of reasons and may also contribute to reducing childhood obesity, the key to preventing childhood obesity is likely to be in reducing the intake of added sugars in the diet. This will not simply be about education but about changing the 'food and drink environment' in, for example, homes, early childhood education centres, schools and the supermarket. While commitment and leadership from the health sector will be essential this will need the organised efforts of society and action from many others such as the education sector, the food and beverage industries, parents and consumers.

In investigating other potential interventions to prevent childhood obesity, another theme evident in the literature is the importance of maternal nutrition during pregnancy, smoke-free pregnancies and breastfeeding. While smoking in pregnancy may result in a baby that is smaller at birth, it is a significant risk factor for obesity later in childhood. With the high prevalence of smoking in pregnancy, this is an important point of intervention to reduce childhood obesity and has many other well-known health benefits for mothers and their children. Similarly, it is well known that breastfeeding of infants up to 6 months of age has multiple benefits but it is less well known that breastfeeding also reduces the risk of becoming overweight or obese in childhood.

In summary, there are at least two clear areas where the health sector has the opportunity to lead the charge on preventing childhood obesity. The first is with respect to the investment in pre-natal and ante-natal care helping ensure good maternal nutrition, working to reduce the prevalence of smoking in pregnancy, and supporting breastfeeding of infants. The second is in taking a leadership role in helping reduce the consumption of sugar and especially SSBs. There are many ways health organisations and individual professionals can help support these objectives and there are clear opportunities for DHBs and other health organisations to be a role model for the public and other sectors, such as, by developing healthy food policies and SSB-free policies for their premises and activities.

References

Chan, M. (2013). Opening address by the Director-General of the World Health Organization, 8th Global Conference on Health Promotion, Helsinki, Finland, 10 June 2013. http://www.who.int/dg/speeches/2013/health_promotion_20130610/en/

Te Morenga, L., Mallard, S. and Mann, J. (2013). Dietary sugars and body weight: systematic review and meta-analyses of randomised controlled trials and cohort studies. *BMJ: British Medical Journal*, 346. <http://www.bmj.com/content/bmj/346/bmj.e7492.full.pdf>

Notifiable Diseases Lakes District Health Board June 2014

Disease	Lakes (1)		Lakes (2)		DISEASE RATE (3)	
	2013	2014	2013	2014	LAKES	NZ
Campylobacter	5	7	153	166	161.17	159.0
Cryptosporidium	3	0	64	18	17.48	17.6
Giardia	7	6	61	66	64.08	39.7
Meningococcal Disease	0	0	6	2	1.94	1.4
Pertussis	2	2	69	19	18.45	46.1
Rheumatic Fever (4)	1	0	6	5	4.85	4.6
Salmonella	1	2	21	19	18.45	23.2
Tuberculosis (5)	0	0	6	3	2.91	6.5
VTEC E.Coli	0	0	3	2	1.94	3.8
Yersinia	1	0	18	22	21.36	11.0

- (1) Number of notifications per month, June 2013 and June 2014
- (2) Number of notifications for the twelve months to June for 2013 and 2014
- (3) Number of cases per 100,000 population for the twelve months to June 2014
- (4) Initial attack of Rheumatic Fever (does not include recurrent cases)
- (5) New cases of Tuberculosis only (does not include latent or reactivations)

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