

# **Obesity and diabetes in New Zealand**

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# Parliamentary Library Research Paper

#### Obesity and diabetes in New Zealand

It is estimated that 1.1 million adults are obese in New Zealand (that is, they have a BMI or Body Mass Index of 30 or more).<sup>1</sup> Obesity in New Zealand places a considerable strain on the health care system: a study in 2006 estimated that health care costs attributable to overweight and obese persons was \$686 million or 4.5% of New Zealand's total health care expenditure.<sup>2</sup>

Obesity is a risk factor for diabetes, cardiovascular disease, musculoskeletal disorders, and some cancers.  $\!\!^3$ 

There are two main types of diabetes: type 1 (insulin-dependent diabetes mellitus) and type 2 (adult-onset diabetes mellitus). Type 2 is more common in the population than type 1 (approximately 90% of diabetes cases worldwide are type 2).<sup>4</sup> Individuals who are obese increase their risk of developing type 2 diabetes.<sup>5</sup> The Ministry of Health estimated (when looking at the mortality burden of nutrition-related risk factors in New Zealand) that, in 1997, 80% of deaths from type 2 diabetes were attributable to a high BMI.<sup>6</sup>

Complications from diabetes include an increased risk of cardiovascular disease, nerve damage, and kidney failure. There were 768 deaths from diabetes in New Zealand in 2010.<sup>7</sup>

# Prevalence of obesity

In 2012/13, a Ministry of Health-led survey estimated that three out of ten New Zealand adults were obese (31.3%), an increase of 2.7% from 2011/12<sup>8</sup> and an increase of 18.6% in the 25 years since 1989.<sup>9</sup> Obesity rates were highest amongst Pacific adults (68%) and Māori adults (48.3%).

The same survey found that after adjusting for age, sex, and ethnicity, adults living in the most socioeconomically deprived areas were 1.5 more times as likely to be obese as those living in the least deprived areas.<sup>10</sup>

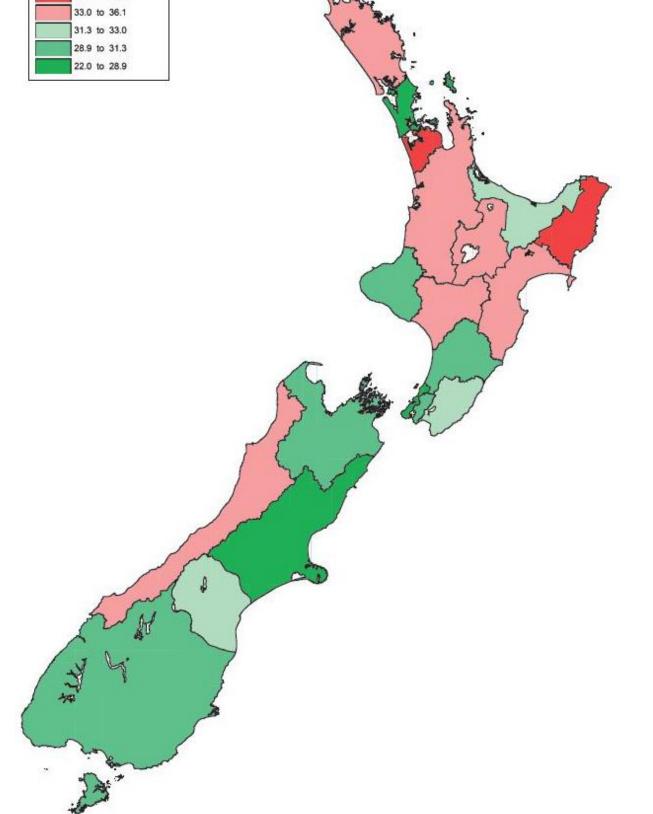
#### Prevalence of diabetes

At the end of December 2013, there were 243,125 individuals enrolled with a primary health organisation with either type 1 or 2 diabetes in New Zealand.<sup>11</sup> Using district health board population estimates as at 30 June 2013, this represents approximately 5.4% of the estimated resident population.<sup>12</sup>

The Ministry of Health has estimated that there are approximately 100,000 people who have diabetes in New Zealand but have not yet been diagnosed.<sup>13</sup>

Estimated percentage of population that is obese by district health board area from the results of the New Zealand Health Survey 2012/13

Obe	sity rates by DHB (%)
	36.1 to 40.0
	33.0 to 36.1
	31.3 to 33.0
	28.9 to 31.3
	22.0 to 28.9



Estimated percentage of population that has type 1 and 2 diabetes by district health board area using data from the New Zealand Society for the Study of Diabetes as at 31 December 2013

6.64 to 8.35	
5.49 to 6.64	
5.24 to 5.49 4.88 to 5.24	
4.17 to 4.88	
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# **Government initiatives**

The following are examples of government initiatives to tackle obesity and diabetes in New Zealand.

#### Health targets: more heart and diabetes checks

Health targets were first introduced in 2007 as a way to highlight priority areas where the government wished to see measurable progress in the health system.<sup>14</sup> In 2009, Health Minister Hon Tony Ryall announced a smaller set of six health targets in order to tightly focus district health boards' performance.<sup>15</sup> One of the targets was that 90% of the eligible population would have had their cardiovascular risk assessed within the last five years (this would include a diabetes test).<sup>16</sup> Primary health organisations are expected to meet this target by 30 June 2015 as part of their Integrated Performance and Incentive Framework agreement with district health boards.<sup>17</sup>

#### **Green prescriptions**

A Green Prescription (GRx) is when a general practitioner formally prescribes physical activity to a patient as a preventative measure or a cure for existing medical conditions.<sup>18</sup> Patients are able to access support, free phone advice, and subsidised physical activity classes. The GRx programme began in 1998 and was administered by regional sports trusts funded by the Hillary Commission (later Sport New Zealand).<sup>19</sup> The programme's funding was devolved to district health boards in 2012<sup>20</sup> and then expanded in Budget 2013 with an additional \$7.2 million of funding over four years to increase the number of adult referrals, in particular, patients with prediabetes.<sup>21</sup>

### Healthy Families NZ

As part of Budget 2014, the Hon Tony Ryall announced a new anti-obesity initiative Healthy Families New Zealand: a regional-based programme establishing ten Healthy Families New Zealand communities in areas that have high rates of non-communicable diseases (for example, diabetes and smoking) in their population.<sup>22</sup> In these communities, health promotion groups collaborate with local leaders to encourage healthy lifestyle choices around nutrition and physical activity in schools, workplaces, and sports clubs. The programme is to receive \$40 million in funding over the next four years.<sup>23</sup> The initiative was based on the Healthy Together Victoria programme from Victoria, Australia.

<sup>&</sup>lt;sup>1</sup> Ministry of Health New Zealand Health Survey: Annual update of key findings 2012/13—Adult data tables: Health status, health behaviours and risk factors (2013).

<sup>&</sup>lt;sup>2</sup> A Lal and others "Health care and lost productivity costs of overweight and obesity in New Zealand" Australia New Zealand Journal of Public Health (2012) 36(6) 550.

<sup>&</sup>lt;sup>3</sup> World Health Organisation "Obesity and Overweight: Factsheet No 311" (May 2014).

<sup>&</sup>lt;sup>4</sup> above.

<sup>&</sup>lt;sup>5</sup> New Zealand Medical Association *Policy briefing: Tackling obesity* (May 2014) at 11.

<sup>&</sup>lt;sup>6</sup> Ministry of Health *Nutrition and the Burden of Disease: New Zealand 1997-2011* (2003) at 129.

<sup>&</sup>lt;sup>7</sup> Ministry of Health *Mortality and Demographic Data 2010* (October 2014) at 47.

<sup>&</sup>lt;sup>8</sup> Ministry of Health New Zealand Health Survey: Annual update of key findings 2012/13 (2013) at vi.

<sup>&</sup>lt;sup>9</sup> OECD *StatExtracts* "Health: Non-medical determinants of health—Body Weight" (extracted on 7 August 2014).

<sup>&</sup>lt;sup>10</sup> Ministry of Health New Zealand Health Survey: Annual update of key findings 2012/13 (2013) at 13.

- <sup>11</sup> New Zealand Society for the Study of Diabetes *Virtual Diabetes Register 2013* (5 May 2014).
- <sup>12</sup> Statistics New Zealand *NZ*.*Stat*—*Estimated subnational population (DHB, DHB constituency), by age and sex* (extracted at 30 June 2013).
- <sup>13</sup> Ministry of Health "About diabetes" (12 May 2014) <http://www.health.govt.nz>.
- <sup>14</sup> Hon Pete Hodgson "An ambitious new direction for health" (press release, 8 August 2007).
- <sup>15</sup> Hon Tony Ryall "Fewer more focussed targets" (press release, 7 May 2009).
- <sup>16</sup> Ministry of Health "Health targets: More heart and diabetes checks" (28 May 2014) <http://www.health.govt.nz>.
- <sup>17</sup> Ministry of Health "PHO Performance Programme and transition to the Integrated Performance and Incentive Framework" (9 July 2014) <a href="http://www.health.govt.nz">http://www.health.govt.nz</a>.
- <sup>18</sup> Hon Wyatt Creech "Exercise the best medicine—new funding announced" (press release, 15 September 1999).
- <sup>19</sup> Ministry of Health "How the Green Prescription works" (13 February 2014) <http://www.health.govt.nz>.

<sup>20</sup> above.

- <sup>21</sup> Hon Tony Ryall "Health receives the largest Budget increase" (press release, 16 May 2013).
- <sup>22</sup> Ministry of Health "Healthy Families" NZ (8 July 2014) <http://www.health.govt.nz>.
- <sup>23</sup> Hon Tony Ryall "Budget 2014: \$40m for anti-obesity initiative" (press release, 24 May 2014).

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