non-communicable diseases (NCDs), principally cardiovascular diseases, cancer, diabetes and chronic respiratory diseases, are the leading causes of death in men and women in New Zealand: 89% of all deaths each year are caused by NCDs. In 2012, an estimated 7,000 New Zealanders between the ages of 30 and 70 died prematurely from these conditions. NCDs are also the leading causes of preventable ethnic and socioeconomic health inequalities in New Zealand. However, a large proportion of the burden of death and disability caused by NCDs is potentially avoidable though cost-effective, evidence-based preventive and treatment interventions. Some of these interventions, such as tobacco control, are also cost saving.

In this paper, we propose a practical set of priority national targets in keeping with the globally agreed set of targets. We argue for a national commitment to inclusive, collaborative and pragmatic action to capitalise on opportunities for further progress.

Global commitments

At the United Nations (UN) High-Level meeting on NCDs in September 2011, New Zealand committed to a full range of NCD prevention and treatment policies. In 2013, all World Health Organization (WHO) Member States agreed to a NCD Global Action Plan and a Monitoring Framework that includes a NCD premature mortality reduction target (25% by 2025) and a set of voluntary targets—six for risk factors and two treatment targets—to be reached by 2025 (Table 1).

In July 2014, a UN NCD Review Meeting noted that while considerable progress has occurred, it had been uneven and much more needed to be done. Member States agreed to report on actions to be completed by 2015 or 2016—to consider the development of a multi-sectoral NCD strategy, and a set of national targets, including an overall premature NCD mortality reduction goal for 2025. The outcome document of this meeting also reaffirmed that governments have a primary role and responsibility to respond to the challenge of NCDs, including through engaging non-governmental organisations, the private sector and other sectors of society, to generate effective responses for the prevention and control of NCDs at
Table 1: Global NCD global mortality reduction target and agreed voluntary risk factor and health system targets for 2025 (with a baseline of 2010).

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Target</th>
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</thead>
<tbody>
<tr>
<td>Premature mortality reduction from NCDs</td>
<td>25% relative reduction</td>
</tr>
<tr>
<td>Harmful use of alcohol</td>
<td>10% relative reduction</td>
</tr>
<tr>
<td>Physical inactivity</td>
<td>10% relative reduction</td>
</tr>
<tr>
<td>Salt/sodium intake</td>
<td>30% relative reduction</td>
</tr>
<tr>
<td>Tobacco use</td>
<td>30% relative reduction</td>
</tr>
<tr>
<td>Raised blood pressure</td>
<td>25% reduction reduction</td>
</tr>
<tr>
<td>Diabetes and obesity</td>
<td>0% increase</td>
</tr>
<tr>
<td>Drug therapy and counseling</td>
<td>50% coverage</td>
</tr>
<tr>
<td>Essential medicines and technologies</td>
<td>80% coverage</td>
</tr>
</tbody>
</table>


Box 1: Proposed criteria for selecting NCD targets for New Zealand.

- Importance of risk factor—prevalence and associated NCD burden
- Likely contribution to the overall NCD mortality target
- Impact of achieving the target on ethnic inequalities in NCD mortality
- Availability of cost-effective and affordable interventions
- Successful national and international experiences
- Ability to measure progress in a timely manner
- Political feasibility of the target
- Programmatic feasibility of the target

the global, national and local levels.

**NCDs in New Zealand: successes, challenges and threats**

NCD death rates have declined in Māori and Pākehā men and women from their peak in the late 1960s. Cardiovascular (CVD) death rates have fallen by approximately 75%. Lung cancer death rates in men have also declined, but not in women. Preventive and treatment strategies have contributed to the dramatic decline in NCD death rates, especially heart disease and stroke. This decline has been responsible for much of the recent increase in life expectancy in New Zealand.

One of the great recent NCD successes hitherto has been the Government’s tobacco control leadership. The Smokefree 2025 goal of reducing smoking prevalence to 5% or lower was established in 2011. Although there has been steady progress, modeling suggests much more action will be needed, including a comprehensive government plan of action, if the target is to be met. In contrast, death rates from diabetes have not declined over the past decade, but have been sustained by the increase in obesity levels (31% of New Zealand adults are now obese).

**New Zealand NCD targets**

New Zealand should be developing its own NCD targets in line with its international obligations. National health system targets have already been established for smoking cessation advice in hospital and primary care settings, checks for diabetes, cardiovascular risk assessments and several aspects of cancer services. Two WHO health system targets (Essential NCD medicines: 80% coverage; Drug therapy and counseling: 50% coverage) are no longer so relevant to New Zealand and most other high-income countries. This is because, although inequalities in access still exist, for the most part high levels of access have already been achieved. Nevertheless, it is still appropriate to include a target for health systems in relation to risk management for CVD and diabetes.

The Government has yet to set a target for NCD mortality. The New Zealand mortality target should include two elements: an overall premature mortality reduction...
component, for example a reduction to an agreed level by 2025, and an inequality component, such as an ambitious, yet feasible, reduction in the Māori/European premature mortality ratio. Such a target would address the continuing burden of NCDs and their risk factors (smoking, high blood pressure and cholesterol levels, unhealthy diets, physical inactivity and harmful alcohol use), the marked ethnic inequalities in the burden of NCDs and their risk factors, and the impact of high rates of obesity and diabetes, including on the health system.

The global mortality target of a 25% relative reduction in premature mortality from NCDs was based on the achievement of the best performing countries since the 1990s, including New Zealand. Indeed, New Zealand’s record in tobacco control and treatment for people at high risk of cardiovascular disease is good so is likely to meet the WHO target. Targets for the other risk factors will be much more challenging to meet.

The establishment of a national, multi-sectoral action plan and strategy will provide the context for the achievement of New Zealand NCD targets. Box 1 shows criteria we consider relevant for selecting targets.

Political feasibility is challenging because while this can change quite rapidly—and the presence of targets may aid this shift—the most important actions for childhood obesity, alcohol and fat intake—such as taxation and regulating marketing—are currently not politically palatable. Programmatic feasibility hinges on high-level political support, sufficient to make available the required financial resources, but also people and organisational capacity and capability to implement interventions, wider societal support, effective partnerships with a range of sectors, ongoing monitoring of performance indicators, together with strategic oversight and technical guidance.

Table 2 shows proposed NCD targets and actions for New Zealand. Alongside each is the WHO Global target, where relevant, justification for the New Zealand target’s inclusion, and proposed actions. We did not include the WHO target of no increase in adult obesity and diabetes by 2025 because we considered it unrealistic that it will be met, given the absence of a clear strategy with good evidence of effectiveness, and lack of international exemplars from countries where this has yet been achieved. However, a childhood overweight and obesity target is included.

To attain these targets, it will be vital to have collaboration among all interested parties: iwi; Government, government ministries and agencies; local authorities; civil society; academia; and in some cases the private sector (excluding the tobacco and alcohol industries and those associated with them, and other ‘unhealthy commodity’ industries, who, evidence suggests, should have no role in formulating national or international NCD policy).

A wide range of groups is ready and willing to be actively engaged: already, NGOs that focus on NCDs are in discussion about establishing a New Zealand NCD Alliance to speak with one voice on issues of common concern, and affiliate with the Global NCD Alliance.

Agencies involved in working towards the targets must keep focused on a limited set of priorities and gradually expand their ambitions as experience accumulates and progress is made. It is important to keep in mind the political realities, but also be in a position to build on opportunities that might arise.

Accountability will also be of critical importance. Accountability includes monitoring and reviewing progress and acting to ensure that New Zealand is on track to achieve the agreed targets. Monitoring should include key indicators for each target and incorporate both interim and the 2025 targets. The indicators should be easily and reliably measured and reported on publicly and regularly, such as every five years. For example, for salt intake, urinary spot sodium measurements should be added to current health and nutrition surveys and salt content of packaged and processed foods monitored. Finally, a multi-sectoral NCD planning committee, including independent members, should be established with responsibility for setting up and maintaining accountability mechanisms.

Discussion

We have outlined a sector-initiated set of national targets and actions that align
with global targets and actions, but are specific to New Zealand. The NCD mortality target should include an overall premature mortality reduction component and an inequality component. The involvement of many groups in health and other sectors provides a solid platform for future action. However, there are formidable barriers to progress, including the approaches of large and well-funded commercial interests, industry groups and those directly and indirectly associated with them. Government leadership and collaboration between government and all other sectors, together with clear monitoring and accountability arrangements, will be vital to success. The Government has an opportunity through the National Health Strategy to incorporate population targets for NCDs and support actions such as we have proposed. Urgent action is now needed.

Table 2: Proposed NCD targets and actions for New Zealand.

<table>
<thead>
<tr>
<th>Factor</th>
<th>NZ Target</th>
<th>WHO Target</th>
<th>Justification</th>
<th>Action</th>
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<tbody>
<tr>
<td>Smoking</td>
<td>Reduction of daily smoking prevalence from current daily smoking prevalence overall (14%), Māori (37%), Pacific (23%), Asian (7%) to &lt;5% by 2025.</td>
<td>A 30% relative reduction in prevalence of current tobacco use in persons aged 15+ years.</td>
<td>This target meets all the criteria and is a reinforcement of the Government’s commitment to this goal. ‘Business as usual’ will not achieve the Smokefree 2025 goal. Achieving an overall adult prevalence of smoking of &lt;5% (for all ethnic groups, and in men and women) will require halving the uptake of smoking and doubling the current quit rate.</td>
<td>Develop a strategic plan for reaching the 2025 Goal that could include: 1. Continued and increased tobacco taxation 2. Passage of the standardised tobacco packaging (‘plain packaging’) legislation 3. Increasing funding for sustained, research-based mass media campaigns 4. A register of retailers with strong enforcement and penalties for those selling to minors 5. Research informing new approaches to support smokers to quit 6. Smokefree cars where children are passengers.</td>
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<tr>
<td>Childhood overweight and obesity</td>
<td>Reduction of childhood overweight and obesity prevalence from 33% to 25% by 2025, and reductions in the ethnic and socioeconomic gradients in prevalence.</td>
<td>0% increase in children and adolescents.</td>
<td>Childhood obesity has increased by almost 30% in 6 years, from 8% in 2006/07 to 11% in 2012/13. One-third of New Zealand children are obese or overweight and significant ethnic and socioeconomic differences exist: 41% of Māori children and 62% of Pacific children are overweight or obese; children living in the most deprived areas are 10 times as likely to be obese as those in the least deprived areas. The target of 25% is the current level of childhood obesity in Australia. These reductions in prevalence and inequalities are ambitious targets. Improved physical activity levels in children are important for a range of reasons but will make only a small contribution to achieving the obesity target. The focus must be primarily on food and nutrition.</td>
<td>Focus on the following areas for action 1. ‘Bottom up’ community-based interventions that prioritise at-risk populations 2. ‘Top down’ regulatory approaches that include: Restricting exposure of children to marketing and promotion of unhealthy food and beverages; developing a comprehensive food and nutrition plan for children including food standards for early childhood services and schools; improving nutrition labeling to enable individuals to make healthier choices about food purchases for their families; taxing or introducing other regulatory measures for sugar-sweetened drinks.</td>
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<tr>
<td>Salt intake</td>
<td>A 30% relative reduction in mean daily salt intake from current 9g to 6g per day by 2025.</td>
<td>A 30% relative reduction in mean population intake of salt/sodium.</td>
<td>New Zealand’s salt intake has not declined over the last four decades. New Zealanders are currently estimated to consume at least twice the recommended intake of salt. A 30% reduction will mean that the salt consumed per person per day in NZ would fall from 9 grams to 6 grams, still higher than WHO recommendations (5 grams per day per person) but realistic given the challenges and timeframes. Achieving this target will have a major impact on population blood pressure levels, heart disease and stroke rates, and possibly also stomach cancer. This target meets all the criteria although accurate monitoring of population salt intakes is a challenge.</td>
<td>Develop a national salt reduction strategic plan for reaching the 2025 goal that could include: 1. Setting up an action group with strong Government leadership and scientific credibility 2. Setting progressively lower salt targets for a comprehensive range of food categories, with a clear time frame for achievement 3. Initiating a consumer awareness campaign 4. Undertaking independent monitoring of progress at 3-5 year intervals.</td>
</tr>
<tr>
<td>Factor</td>
<td>NZ Target</td>
<td>WHO Target</td>
<td>Justification</td>
<td>Action</td>
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<tr>
<td>Saturated fat intake</td>
<td>Reduction of total energy intake from saturated fat for adults from current 13%\textsuperscript{12} to 11% by 2025.</td>
<td>Not included as a WHO target</td>
<td>Saturated fat intake is the key underlying cause much of the coronary heart disease burden in New Zealand and contributes to the cancer burden. Despite declines since the 1960s, saturated fat intake is still excessive, and is one of the highest globally. In the most recent National Nutrition Survey (2008/09)\textsuperscript{13} self-reported saturated fat intake was 13% of total energy for adult New Zealanders (14% for Māori), far higher than the Australasian nutrient reference value of 8 to 10% of total energy intake, including trans fats. Trans fat intakes in NZ are on average below the 1% of total energy intake recommended by WHO but they should be monitored at regular intervals to ensure they remain so.</td>
<td>Develop a strategic approach to saturated fat reduction that should include: 1. Reducing the saturated fat content of processed foods and commercially deep fried foods such as many takeaways. 2. A public education campaign that informs and reduces confusion about the difference between low fat diets, and diets where saturated fat is replaced with healthy fats (the latter being the best approach for reducing risk of coronary heart disease).</td>
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<tr>
<td>Harmful use of alcohol</td>
<td>A 10% relative reduction in the harmful use of alcohol from the current 16% to 14.5% by 2025.</td>
<td>At least 10% relative reduction in the harmful use of alcohol by 2025.</td>
<td>Alcohol is a major and preventable cause of NCD burden in New Zealand and contributes to a wide range of social disorders. A full range of cost-effective interventions is available. This issue has limited political feasibility at present, but public acceptance of the recently reduced drink driving limits appears high.</td>
<td>Commit to a comprehensive, evidence-based approach (as recommended in the Law Commission's 2010 report &quot;Alcohol in our lives: curbing the harm&quot;) that should include: 1. Restricting access via price and other levers 2. Restricting advertising and promotion 3. Educating the public about the harms of alcohol misuse 4. Enacting appropriate legislation with effective enforcement.</td>
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<tr>
<td>Physical activity</td>
<td>A 10% relative reduction in physical inactivity from 49% to 44% in adults, and from 33% to 30% of children by 2025.</td>
<td>A 10% relative reduction in prevalence of insufficient physical activity by 2025.</td>
<td>Physical inactivity is a major and preventable cause of NCD burden in New Zealand. Only 54% of New Zealand adults currently meet the guidelines for achieving at least 30 minutes moderate-to-vigorous physical activity on most days of the week. Only two-thirds of New Zealand children currently meet the guidelines for achieving at least 60 minutes of daily moderate-to-vigorous physical activity on most days of the week.</td>
<td>Develop a set of priority actions consistent with WHO recommendations that should include: 1. Promoting physical activity through public awareness campaigns and policies that improve access, acceptability and safety of walking and cycling (such as those that encourage active transport, recreation, leisure and sport and better urban planning) 2. Provide well-resourced high quality Health and Physical Education in pre-schools, schools and tertiary institutions, including opportunities for physical activity before, during and after the school day.</td>
</tr>
<tr>
<td>Health systems</td>
<td>Increased uptake of evidence-based medications and behavioural interventions following an NCD event or diagnosis.</td>
<td>At least 50% of eligible people receive drug therapy and counselling (including glycaemic control) to prevent heart attacks and strokes.</td>
<td>Only 60% of people having had a heart attack take the recommended medications that can halve the risk of another heart attack. Adherence to prescribed medication and lifestyle interventions (such as quitting smoking) is important for effective management of diabetes, CVD, respiratory conditions and some cancers. Targets for CVD risk assessment are in place but there are currently no targets for CVD risk management.</td>
<td>Develop a strategic approach that could include: 1. Agreement on national targets for the management of CVD and Diabetes 2. Equipping health professionals with relevant skills (e.g. risk communication, motivational interviewing, shared decision making, goal setting, and health literacy) to support people to take their prescribed medications and make lifestyle changes. 3. Making available fixed-dose combination CVD medication (polypills) for people with high CVD risk and low adherence to prescribed CVD medications.</td>
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Competing interests:
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