LETTER

The potential of citizen engagement and empowerment for obesity prevention in New Zealand
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About one-third of children are now overweight or obese in New Zealand.\(^1\) A range of New Zealand health professionals recently brought the problem of childhood obesity under the attention of policymakers.

The New Zealand Medical Association’s report on Tackling Obesity\(^2\) set out the top 10 priorities and a policy brief launched by the New Zealand Beverage Guidance Panel\(^3\) identified the priorities for reducing fizzy drink consumption.

Additionally, a large New Zealand-based Expert Panel rated Government performance to create healthy food environments against international best practice and formulated 7 key priorities for immediate implementation\(^4\). However, the implementation of a comprehensive package of strong policies at the national level to reduce obesity typically takes time and is particularly difficult when the political climate for it is not optimal.

To date, the pressure for action on reducing obesity and diet-related non-communicable diseases (NCDs) has been predominantly elite (i.e. health professional driven), not grass-roots (i.e. public driven), and this is part of the reason that there has been little policy action. While most of the public are highly supportive of various policies to improve the healthiness of food environments, as shown in multiple studies in Australia,\(^5,6\) it is a quiet support, and strategies, tools and processes are needed to effectively convert that support into vocal demands for increased and stronger actions on food environments. Government action is more likely with strong, visible public pressure.

Therefore, initiatives should be taken to engage and empower citizens and consumers to generate local actions to improve the healthiness of their community food environments. Local action could potentially be stimulated through encouraging and inspiring citizens to collect data through smartphone applications on the healthiness of their local food environment (e.g. outdoor food advertising, advertising through local sport clubs and events, healthiness of foods in schools and supermarkets, density of fast food outlets around schools)and feeding it back to local stakeholders, such as Members of Parliament, Council representatives, local NGO branches, and school and retailer representatives. An additional feature could be the benchmarking of local communities, schools and retailers according to the healthiness of their food environment.

Local, direct feedback to decision-makers and fostering relationships with them is arguably a more powerful way to convert evidence into action for healthier food environments than a national approach only (e.g. local parents providing feedback to schools versus a national survey written up in journals and reported in the media). Citizen engagement and empowerment might also strengthen and create social movements for healthy foods. The proposed approach holds promise as well for stimulating improvements in local physical activity environments.

Data on food environments, generated for local benefit of New Zealand communities, schools and retailers, could also feed into national monitoring of the healthiness of food environments and reduce the costs associated with it.

The first national survey on food environments and policies in the world is currently being organized in New Zealand\(^7\) by the International Network for Food and Obesity/NCDs Research, Monitoring and Action Support (INFORMAS).\(^8\) While national surveys and statistics have an important role to generate policy action, local data may be even more powerful. Examples from other disciplines...
include smoking deaths by electorate, hospital data by District Health Board, and road deaths by locality.

To get such level of local data, novel data collection methods, such as crowdsourcing, will be needed, and their feasibility and validity tested. INFORMAS aims to test approaches to crowdsourcing data on the healthiness of community food environments and using the data to generate feedback for local stakeholders, in New Zealand in 2015–2016.

In general, the use of crowdsourcing has benefited many sectors of society, but it has yet to be fully realized as a method for improving public health.\textsuperscript{9} A crowdsourcing approach through the FoodSwitch smartphone application,\textsuperscript{10} has recently been successfully developed, tested and implemented in New Zealand to help consumers make healthier food choices. The app also allows consumers to contribute new products to the Nutritrack database of packaged food products.

The New Zealand Nutritrack database currently contains the nutritional content of more than 16000 packaged and fast foods (from major fast food outlets with ≥20 stores nationwide).\textsuperscript{11,12} The app has been downloaded more than 55,000 times and users crowd sourced about 8000 new products in New Zealand. Another crowdsourcing example is NatureWatch New Zealand,\textsuperscript{13} where nature-watchers record and share information online. In 18 months, 85,000 pictures have been uploaded with 50,000 observations from 785 observers.

Approaches to engaging and empowering citizens and consumers to improve the healthiness of their local food environments through crowdsourcing and local feedback loops will be tested in New Zealand, and might show potential for reducing childhood obesity rates, at times when implementation of strong policies at the national level proves to be challenging and slow. Ultimately, public pressure, in addition to the current pressure of health professionals, might accelerate the implementation of strong national policies to reduce childhood obesity in New Zealand.

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**References**


