



The Feasibility of Front-of-pack Nutrition Labelling and Research to Measure its Effectiveness in New Zealand: the views of key stakeholders

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Executive Summary

This paper presents research on the feasibility of front-of-pack (FOP) nutrition labelling in New Zealand and the feasibility of a large supermarket intervention trial to measure its effectiveness. It does so by exploring the views of key stakeholders from the food industry, government and non-governmental organisations using a semi-structured interview schedule. The schedule included questions on:

- participant's views of the likelihood of FOP labelling in New Zealand
- its advantages and disadvantages
- the value of potential labelling systems
- the feasibility of research, and
- the potential nutrient profiling system to be used.

A strategic sample of key informants was identified which included those interviewed identifying other potential participants. The 17 participants included five industry representatives with knowledge of FOP labelling and/or knowledge of the food industry, six policy makers involved in food, nutrition and public health policy making, and six representatives of non-governmental organisations (NGO) with knowledge, expertise and interest in nutrition food labelling. One NGO provided a written response to the questions in the interview schedule as well as having three staff participate in a group interview. This material was regarded as one response. One policy participant responded only by email.

This research found that FOP labelling already exists in New Zealand in the form of the National Heart Foundation's Tick programme and Percentage Daily Intake (%DI) labelling currently being introduced by the food industry. Participants in this research see many advantages to FOP labelling. These advantages include the provision of simple, easily understood information available at-a-glance to consumers that will result in better informed consumers, possible changes in consumer behaviour and a concomitant reduction in chronic

disease and co-morbidities. It was also noted that FOP labels would encourage food manufactures to reformulate products.

Research participants also identified a number of barriers to the further introduction of FOP nutrition labelling in New Zealand. These included lack of agreement on a consistent system to use and limited evidence upon which to make this decision.

Participants identified the need for a robust consultative process to develop FOP labelling in New Zealand. The experience of changing labels for the NIP requirements of 2002 shows that this can be done. It could be useful to understand the process of introducing NIPs in order to inform any introduction of FOP labels.

Given the current lack of agreement on a way forward; the limited evidence that is publicly available; and the difference in values between industry, with their fundamental requirement to make a profit, and public health, with its goal of better nutrition and health; agreement may not be easy to achieve. This suggests the need for democratically elected government leadership in resolving how to progress FOP labelling and open discussions between key stakeholders. It also suggests that publicly available, independently conducted research will assist evidence-based policy change. The need to include public education to support use of FOP labels was also identified, especially for those communities most at risk from nutrition related health issues.

Policy and NGO participants did not indicate a preference for any particular labelling system in part because they could identify strengths and weaknesses with each system. A number of these participants discussed the principles that should be used to make such a decision which include being evidence-based and having the greatest impact on public health. In contrast, a majority of food industry participants support the %DI labelling system because it gives more information than other labels including information on positive nutrients, “it is not a judgement system on the food”, and they have research that shows that consumers prefer this scheme over others, although this research does not appear to be in the public domain.

The current research suggests that the views of consumers are a key consideration in deciding which FOP labelling system to use but it is also important to adopt a scheme which best drives a change in consumer behaviour towards a healthier diet.

There were differing views amongst participants about the introduction of voluntary or mandatory FOP labelling, in part the views of policy makers and NGOs were tempered by the perceived challenges of introducing FOP labelling (whether voluntarily or mandatory) discussed earlier. There was support by industry participants for a voluntary scheme because it is easier and quicker to change.

There was agreement amongst nearly all participants that a large supermarket intervention trial on FOP labelling would provide valuable information about the impact of FOP labelling on consumer behaviour at point of purchase. While participants were able to identify a number of obstacles to running such a trial they also provided many solutions.

There was no consensus amongst participants about the best nutrient profiling system to use for FOP labelling, although a number of industry participants noted that %DI does not need a classification system.

In New Zealand we already have detailed nutrition information on food in the form of Nutrition Information Panels (NIPs). It may be possible in New Zealand to introduce a very simple FOP label to complement this more detailed information.

The introduction of consistent FOP nutrition labelling has the potential to assist in the effort to promote healthy eating in New Zealand, and while there are challenges to doing this there are feasible ways to address many, if not all, of these challenges. It appears that research to measure the effectiveness of FOP labelling would also be very valuable in assisting to develop evidence-based policy in this arena. While there are challenges to conducting such research, there are also solutions to these challenges that deserve to be explored.

Introduction

This paper reports on research to explore the feasibility of front-of-pack (FOP) nutrition labelling in New Zealand and research to measure its effectiveness. There is growing interest in, and support for, the use of FOP nutrition labelling to encourage healthier food choices. The recent Health Select Committee on Obesity and Type II Diabetes recommended government consider traffic light labelling as the preferred FOP system (Health Select Committee 2007).

A review of the literature indicates that previous research has been largely based on consumer interviews asking people their opinion about life-sized photographed images. There appears to be no research on whether FOP labelling schemes actually change behaviour in a real world setting (Gorton 2007). Furthermore, and importantly for equity considerations, if FOP labelling schemes do change behaviour, what sections of the community are influenced most?

Methods

The research presented here provides information on the feasibility of front-of-pack nutrition labelling in New Zealand and the feasibility of a large supermarket intervention trial to measure its effectiveness. It does so by exploring the views of key stakeholders from the food industry, government and non-governmental organisations. It is part of a larger study that includes a literature review (Gorton 2007), consumer research (Lanumata, Heta et al. 2008) and a potential pilot research trial that explores the practicality and costs of temporarily labelling food in a real life setting.

A semi-structured interview schedule was developed for the interviews (see Appendix A). The schedule included questions on the participant's views of the likelihood of FOP labelling in New Zealand, its advantages and disadvantages, the value of potential labelling systems, the feasibility of research, and the potential nutrient profiling system to be used.

A strategic sample of key informants was identified by the researchers and their co-investigators on the larger research project. This was developed from their own networks and with the advice of the Ministry of Health and the Food Safety Authority who are co-funding the wider research project. It was augmented by asking those interviewed which key stakeholders they thought should be included in the research. This technique is referred to as a snowball sample. The 17 participants included five industry representatives with knowledge of FOP labelling and/or knowledge of the food industry, six policy makers involved in food, nutrition and public health policy making, and six representatives of non-governmental organisations (NGO) with knowledge, expertise and interest in nutrition food labelling.

Initial contact was made with potential key informants by phone or email. An information sheet, consent form and proposed questions were provided by email at that point. Interviews were in person or by phone. If the interviews were by phone, participants were asked to fax their signed consent forms prior to the interview taking place. One NGO provided a written response to the questions in the interview schedule as well as having three staff participate in a group interview. This material was regarded as one response. One policy participant responded only by email. Interviews were either taped and transcribed or typed by the interviewer as the interview proceeded. The data was analysed according to the research questions as well as by the themes that emerged. Points of agreement and disagreement were both focused on in order to understand where consensus and conflicting views arose. No participant's comments have been attributed to them as individuals however an indication of the sector they come from has been included as appropriate. Ethics approval was received from the University of Otago Human Ethics Committee.

Results

The presence of FOP nutrition labels in New Zealand

Front-of-pack labels (FOP) already exist in New Zealand. For example, they exist in the form of the National Heart Foundation's Tick Programme and Percentage Daily Intake (%DI) labelling on the products of some food companies, e.g. Kelloggs who have had %DI FOP labelling in New Zealand for nearly two years. Food industry participants indicated that industry has undertaken quite a lot of work in the last two years to develop a joint FOP label. One food industry informant noted that "there is commitment from the major food companies that they will, on a voluntary basis, support front of pack %DI labelling".

It appears that there was leadership on this issue from the Food and Grocery Council in New Zealand, and its Australian counterpart. This work resulted in voluntary agreement between the participants in the process to adopt %DI labelling (see Figure 1) and the development of a template for use by the sector in order to ensure consistency. Information about the Daily Intake Guide can be found on the Food and Grocery Council website (http://www.fgc.org.nz/daily_intake.asp). The Food and Grocery Council explain the system as follows:

The Daily Intake Guide is a positive move by the food and beverage industries to promote healthy dietary choices by consumers. The labelling, to be included on packs in addition to the nutrition information panel, helps consumers to understand information about the energy and nutrient levels a product contains. The scheme is a simple graphic representation of energy and product nutrients and how much it contributes to a person's daily intake. The thumbnail design provides at-a-glance information on the content for a serving of a product, and the relevance of this amount to the daily diet (Food and Grocery Council 2008).

Figure 1: Example of a Percentage Daily Intake FOP Nutrition Label



Percentage daily intakes are based on an average adult diet of 8700J. It is noted that people's requirements may be higher or lower depending on their energy needs, especially in the case of children. Examples used suggest that manufacturers may choose just to provide the percentage daily energy contained per serve, rather than the more detailed version above.

Foodstuffs have decided to adopt this label for their Pams brand, which includes approximately 1000 products. Foodstuffs are in the process of introducing %DI over a four year period. It was suggested that this was to give them a "first mover advantage" in positioning their Pams products.

Currently, there is no one consistent national FOP labelling system. Given international momentum, particularly in the European Union, it seems likely that a consistent national system could be introduced to New Zealand. It is an issue that is currently being explored by Food Standards Australia New Zealand (FSANZ). Key variables that need to be considered are what FOP labelling system to use, the timeframe for its introduction and whether the system is voluntary or mandatory.

Advantages of FOP nutrition labelling

Participants were able to identify a number of advantages of FOP labelling. A key advantage mentioned by food industry, NGO and policy participants was **providing simple, easily understood information for consumers**. One participant from the food industry noted that "consumers do like simple messages rather than having to rely on the Nutrition Information Panels". Another food industry participant noted that there is "widespread agreement" that Nutrition Information Panels "aren't terribly user friendly".

Ease of access to information was also raised e.g. that the information is “at-a-glance”, that it is information that can be read without turning the product over, and consistent information that is easier to find. One NGO participant noted that this would result in “**better informed consumers**”. Another NGO participant noted that FOP labelling would result in “**changing consumer behaviour**. Consumers may purchase healthier food products which in turn may **reduce the incidence of chronic disease and co-morbidities**”. This NGO participant also noted that FOP labelling would “**encourage manufacturers to formulate/reformulate products** in a direction consistent with food and nutrition guidelines and improve the food supply”. This was confirmed by an industry participant. One policy maker described FOP labelling as “another tool in the tool box”. This point was also made by an NGO participant who saw FOP labelling as “part of the jigsaw”.

According to one food industry participant, FOP labelling is also seen as a **way for the food industry “to do our bit** and the need to be seen to be doing our bit” [to promote health]. It was also seen as a **response to consumers concerned about their health**.

Barriers to the further introduction of FOP nutrition labelling

Participants were able to identify a number of barriers to the further introduction of FOP nutrition labelling as outlined below.

Lack of agreement on a consistent system to use was a key issue identified by participants from the policy, NGO and industry communities. One person noted the challenge of reaching consensus. An industry participant spoke of the challenge of deciding how to proceed saying, “nothing is perfect when it comes to nutrition as it is such a complex area”. An NGO participant noted the challenge of balancing ease of understanding with the complexity of the food. They said that anything easily understood will be overly simplistic, that it was a balance of “too little versus too much”.

Limited available evidence to show the impact of labelling systems on overall eating patterns was noted by two NGO participants. One noted that

evidence from the northern hemisphere would need to be adapted for New Zealand, particularly given the “ethnic mix” of New Zealand.

How to categorise food was mentioned by food industry and NGO participants. It was noted that it is hard to determine cut off points for food categories, that the bands can be very wide within categories and it is therefore hard to jump between them [when considering reformulation], and that FOP labelling “tries to simplify something that is quite complex”.

Different values that collide in this area were mentioned by one policy maker. They noted:

The clash of cultures. The profit motive which is absolutely fair enough. People in the food industry have to make a living. That is at odds with the public health goal of improving nutrition. The industry wanting to be socially responsible but having to make a profit. The foods that don't contribute to a healthy diet appear to be the most profitable and are the most advertised. It appears to be the growth in those products that has mirrored the growth in obesity.

Industry compliance costs were noted by two industry and two NGO participants. One industry participant spoke of the cost of having existing labels redesigned as “the main barrier”. According to this informant, food producers have a cycle of label redesign. If producers were required to introduce FOP labelling by a certain date this could be very costly to them if it did not coincide with their usual cycle. This informant also noted that it might be practically challenging for label suppliers to produce the labels in a period of high demand.

It was suggested by one industry participant that because New Zealand had much **less private brand labelling** than in the United Kingdom, the extent of FOP labelling adoption may be considerably less in New Zealand (if FOP labelling is voluntary). The participant suggested that the widespread adoption of FOP labelling in the United Kingdom was a bid by the food industry to differentiate their products.

Depending on the system proposed, **food industry opposition** was noted by policy and NGO participants. Clearly, there is willingness amongst some food

industry players to adopt %DI labelling voluntarily, and there are currently some players who have introduced %DI or are in the process of doing so.

Consumer understanding & acceptance was discussed by two NGOs and by two food industry participants. Two NGOs questioned the value of FOP labelling to Māori, Pacific and low income groups. One NGO participant noted that there was still a question in their mind about “whether this labelling will ever reach the most at risk section of the population”. The participant discussed issues of literacy, education, understanding, and whether people shop for food. They argued that FOP labelling should not be seen as the answer but that there was a need to make “environmental change”. An industry participant also noted the concern that “the people who need them the most don’t read nutrition labels”. Two industry participants spoke of the need to avoid confusing consumers with multiple FOP systems. One food industry participant argued that to avoid consumer confusion “it is better to have one system”.

The global food market was also noted as a potential barrier by one NGO participant because of the likelihood that different systems were adopted by different companies.

Trans Tasman food regulations mean that New Zealand would find it difficult to make changes to regulation without a similar change in Australia. However, country of origin labelling has only been introduced in Australia which suggests that differences across the Tasman are possible.

Political ideology was noted as a potential barrier to the introduction of an FOP labelling system by one NGO. “Political party and the political environment is a potential barrier to the introduction of an FOP labelling system. It is important to note this is not just from a NZ context, but from an Australian perspective too”.

The timeframe was also identified by both NGO and industry participants. The formal process of standard setting of FSANZ can take considerable time. People spoke of the 10 year time period taken to introduce health claims. Industry participants noted the need for lead time in any policy change so that

they have time to change their labelling. These participants noted that lead time was given with the introduction of Nutrition Information Panels in 2002.

How to address barriers to FOP labelling

When asked how to address these barriers to introducing FOP labelling participants had a number of suggestions about the need for the **implementation of a robust process to develop and implement FOP labelling**. An NGO participant noted that New Zealand needed FOP labelling now but they were also mindful that not just any system would suffice. A number of aspects to this process were discussed by key informants. They were:

Consulting with and getting the buy in from a variety of stakeholders particularly food industry stakeholders was identified by two NGO representatives and one policy person. It was noted that there was a three to four year lead in period in the UK prior to the implementation of their traffic light system which included considerable consultation.

Identifying and agreeing on achievable goals and objectives for the labelling system was noted by an NGO representative. They also mentioned that any criteria would have to be agreed on between the food industry and public health experts. An industry participant added that stakeholders should work together to identify the best system, one that is technically possible to implement.

Two of the NGOs and one industry participant suggested that any proposed system should be **based on research evidence** i.e. piloted and evaluated before implementation. One NGO participant noted that this could take time but it is “better to take time and do it properly”. An industry participant pointed out that there are a few schemes currently in place that are being evaluated. Individual companies have undertaken research but often this is confidential to the company. Tesco is an exception to this according to this industry participant. One NGO and one industry participant pointed out that it would be useful for New Zealand to learn from the UK experience but that the evidence would need to be considered in the New Zealand context.

Consider the costs to industry: One industry participant stated that compliance costs would be high and any proposed system must show that “it is going to add value”. An NGO participant suggested marketing or financial incentives should be given to food industries to help them “carry out formulation and reformulation and hence make foods healthier”. One policy participant suggested that the food industry would be happy to cooperate if FOP labelling does not impose unnecessary costs on them.

Educate the public about the system: An industry participant identified the need to educate consumers about any proposed system. Both NGO and policy participants stressed the importance of having a system that is “useful and easily understood” by at risk communities. An NGO participant in particular suggested education and social marketing programmes in at risk communities. This participant also stressed the need to have GST removed from food so that healthy food is accessible to at risk communities.

A positive development mentioned by NGO, policy and food industry participants was the “movement of consumers wanting to know more about what they are eating”. One policy participant commented that the food industry is aware of this and they want to be part of the solution.

FOP labelling systems

When asked what FOP labelling systems would be best no policy or NGO participants indicated a preference, except one policy person who expressed a personal opinion that they had no difficulty with traffic light labelling. The lack of an expressed preference by most of these participants was in part because they could identify strengths and weaknesses with each system, and in part due to their lack of detailed knowledge of each system. A number of participants chose to discuss the principles that were important to consider. As one NGO participant explained, they “will support the system that has been demonstrated to have the greatest positive public health impact and is based on robust research”. This participant also provided a more detailed list of proposed criteria upon which to make this decision. It is presented in Appendix B. Another NGO participant spoke

of the need for a system that “assists high risk and disadvantaged groups”, that “is not a stand alone approach [but] tied in with various other interventions and approaches”, and that gets the “balance between simplicity and complexity so truly assists” [people]. Yet another NGO participant argued for a system that is not only simple but easy for consumers to understand and one that “would change their buying behaviour”. One policy person suggested a label that is simple and adopted throughout the whole country rather than multiple systems used by different supermarkets.

Amongst the food industry, according to one industry key informant, “there is commitment from the major food companies that they will, on a voluntary basis, support front of pack %DI labelling”, as discussed earlier in this paper. This commitment is borne out by the adoption of this label by a number of key players such as Kelloggs and Foodstuffs, with their Pams brand. Three of the five participants from the food industry preferred the %DI label. One participant did not comment citing their lack of specific knowledge in this area and another spoke generally about the principles that should be considered such as preferring a label that gives “people a sense of how it [the product] is going to impact on how much they should or shouldn’t be eating”.

When asked, participants identified the following FOP labelling systems and discussed their perceived advantages and disadvantages.

e mark: The e mark system was mentioned by a policy, NGO and industry participant. The e Mark is designed to help people choose foods that suit their individual energy needs. It is owned by the New Zealand Nutrition Foundation. The e Mark (see Figure 2) tells you the energy density and glycaemic load of a food. More information about e mark can be found on <http://www.biotechlearn.org.nz>. The NGO participant indicated that this is a robust system as did the industry participant who said “e mark from a scientific point of view is quite a robust one”. The Nutrition Foundation works with Crop and Food to provide the scientific analysis for the scheme.

The policy participant said, “I think the e mark looks very promising. At first glance it looks very simple but you have to understand the system. Consumers would need to be educated about it”.

Figure 2: The New Zealand Nutrition Foundation e mark FOP Nutrition Label



Source: Biotechnology Learning Hub, 2008.

http://www.biotechlearn.org.nz/focus_stories/future_foods/the_e_mark_e_numbers_and_e_colours, cited 28 June 2008.

The National Heart Foundation Tick (see Figure 3) was noted by a policy, NGO and industry participant as being a good system because it is simple, well recognised and been proven to work. A food industry participant described the Tick as “well recognised” and noted that, “it has proven over a period of time that it is a good guide for people”.

Some of the disadvantages mentioned by one policy participant were that not all companies participate in the Tick programme and therefore “you could have a more healthy product sitting next to a Tick product”, and that it is a system that distinguishes the healthiest products within a category rather than between categories. One NGO participant noted that the Tick is not on all products, “not a

healthy choice but a healthier choice” and “not on low cost foods”. Another NGO participant noted that a disadvantage of the Tick “is that people misinterpret the message and have as much as they like”, although some research does not support this view (Signal, Lanumata et al. 2008).

Figure 3: The National Heart Foundation's Tick FOP Nutrition Label



Traffic light system: An NGO participant argued that a traffic light label (see Figures 4 & 5),

gives the message, intentionally or not, that there are bad foods. I think negative messages are unhelpful. There is a place for all foods in the diet. What about those who do need it e.g. under nourished people who need these foods could take the wrong message.

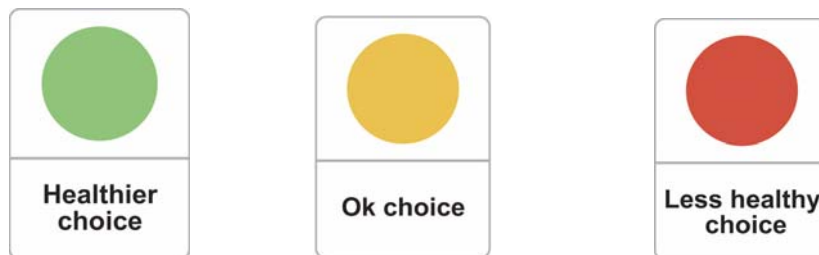
A food industry participant made a similar argument and advocated providing consumers with information so they can make decisions about their own diets. This participant also argued that traffic light labels would be less likely than %DI labels to encourage manufacturers to reformulate their products because of the wide range within the categories.

An NGO participant argued that simple traffic lights are “too simple and multiple too complicated”. One policy maker supported traffic light FOP labelling as their preferred option.

Figure 4: Multiple Traffic Light FOP Nutrition Label



Figure 5: Simple Traffic Light FOP Nutrition Label



Percentage Daily Intake (%DI): There is strong support amongst many in the food industry for the %DI system as discussed earlier in this paper (see Figure 1). Reasons given by food industry participants for this support included that it gives more information than other labels and the context for that information ie “how much a serving of that food represents in terms of total daily intake”. It also provides information on all nutrients including “some positive nutrients” and “it is not a judgement system on the food”. As one industry participant commented:

The point of view of the food industry is everything has a place in the diet, it is the way you use it in your diet that is important. Everyone’s needs are different. If you do know what your calorie needs are you it is up to you. Percent DI gives consumers much more choice.

A further reason given by one food industry participant was that consumers prefer this scheme over others.

From consumer research that the industry has undertaken we know that consumers prefer the %DI scheme. We know that consumers understand %DI with some explanation. It has to be accompanied with good educational material..... Consumers do like simple messages. Rather than having to rely on the NIPs.

Finally, one food industry participant noted the recent support of the European Parliament for %DI approach. As they explained, “it is now on products in every EU country. Thousands of products have %DI”.

There is an issue around consumer education for %DI labelling according to one industry participant. They stated that,

this is an issue the industry and the government has to address. I am not sure where the industry is at with this. There are on-going discussions between the Ministry of Health and industry that consumer education is needed. It is too expensive for one brand owner to do.

Percentage DI was described by one policy participant as “too complex”, although they did acknowledge that it gives consumers an indication of their daily requirements and some indication of quantity. An NGO participant argued that %DI provides good information about energy but that “for a lot of nutrients it is too hard to decide; too complicated to be of much value”.

The views of consumers

Participants were asked what were the implications if consumers prefer a labelling system that is not currently being considered by policy makers? There was a clear view amongst participants from all groups that the views of consumers were an important consideration for policy makers and that there could be consumer resistance if their preferences are not taken into account. However, two NGO participants noted that consumers’ preferences were not the only consideration. As one NGO participant stated, “what consumers prefer shouldn’t be the only matter for consideration. Which scheme best drives consumers to eat a healthier diet should be the priority”. As another NGO participant noted, “it took a long time for the Heart Tick to be accepted”.

Voluntary versus mandatory

Policy and NGO participants had mixed views on whether the introduction of FOP labelling should be voluntary or mandatory. In large part, their views were tempered by the perceived challenges of introducing mandatory FOP labelling. Three of the six policy makers expressed a view on this issue. One argued that introducing a mandatory system would be difficult because the food industry is opposed to regulation, preferring to determine what they do themselves. Also this participant argued that “public opposition of government intervention in our lives” means that,

we would have to be sure that the public prefer a mandatory system; that they perceive it as guidance.... There is a possibility that the food industry could use that argument [government interference] to undermine a mandatory system.

Another policy participant said they were “ambivalent. “So long as it was a system that works for the consumer and therefore achieves what it has got to achieve.... At the moment anything might be better than nothing”. The third policy participant commented it may be necessary to start with a voluntary system as a mandatory system may be too difficult. They suggested moving to a mandatory system at a later stage “if there is sufficient support”.

One NGO participant identified a number of pros and cons associated with voluntary and mandatory options. They noted that,

Under a mandatory system there is a consistent approach to FOP by food industry which could reduce consumer confusion. However under a mandatory system if a product was marked with a red traffic light and the product had no way of moving from a red dot through reformulation, industry may retract from self regulation/voluntary reformulation initiatives.

On the other hand voluntary systems have been embraced by the food industry and have a high degree of consumer relevance. Examples of these systems include the UK FSA traffic light system and the Heart Foundation Tick Programme. However with a voluntary approach in the UK some companies use it, some don't and some change one scheme to take on bits of the other, some colour code it, but not in Traffic light colours - all leading to consumer confusion.

At the end of the day, [we] will support the system that has been demonstrated to have the greatest positive public health impact and is based on robust research.

Another NGO participant argued for a mandatory approach noting that the “food industry always talk about wanting a level playing field” which a mandatory system would achieve. This participant did suggest that [FOP labelling “may be able to be achieved through voluntary codes” but they noted that “any possible benefit could be reduced...unless it is on a majority of products and the major lines”.

Yet another NGO participant argued for a voluntary approach one that was “government recommended, financially supported by government”, where “incentives were given”, and government worked with industry “on education programmes”.

Four industry participants discussed this issue. Three clearly stated a preference for a voluntary system. Reasons for this included that industry should be given a chance to take this approach, that a voluntary scheme is easier and quicker to change than a mandatory scheme, and that a voluntary system provides choice. One participant stated they did not have a view but noted that a mandatory system would mean “everyone has to do it”. Another suggested that if a mandatory system was adopted there would have to be proper consultation with industry and that the challenge of arrangements across the Tasman would have to be addressed. Yet another argued for a voluntary system that, “if we can agree I do think all food manufacturers should provide it otherwise the system is not going to work”.

Advantages of a large supermarket intervention trial

Policy makers, NGOs and industry participants discussed the advantages of a large supermarket intervention trial on FOP labelling. The main advantage noted was that it could provide good information about the impact of FOP labelling on consumer behaviour at point of purchase. An industry participant and three policy makers noted that this would assist policy makers. Two policy makers noted that

such research would assist them to work with the industry. It was also noted by one policy maker that “it’s pretty clear that the supermarket is an important intervention point”. One industry participant argued that such research was not necessary and that it would be too difficult and too costly.

Difficulties of a large supermarket intervention trial

A number of difficulties were also identified. How to ensure a **rigorous research process** that simulated a real world situation was a key concern. This included how to get a representative sample, how to ensure high needs populations were included, how to measure change over time, how to include the range of supermarkets, a range of brands of product, and a range of supermarket operators. It was noted that confounders such as discounts or promotions needed to be considered. Consideration of the differences between Australia and New Zealand was also noted, given the trans Tasman regulatory situation.

Agreeing on the labelling system to use was also raised as a key difficulty.

Getting research participants to use the labels was also identified as a potential problem. As one industry person noted, “a lot of people have made up their mind before they go into the store” and another said “we know through marketing getting people to try a product is one thing, but making change is another thing”. One NGO noted that the research would need to include education for the consumers about the labelling system.

How to determine that the FOP label is driving the purchase was also noted as a difficulty. While research such as this might give information on food purchasing how could you **assess the impact of FOP labelling on total diet and consumption patterns**.

Gaining support from industry and supermarkets was seen as a potential key difficulty. One industry participant noted that it is “illegal to put stickers on food without getting permission from the food companies”. It was also noted by one NGO that “the food industry won’t have time to make changes for the trial”. If they could make changes this participant was concerned that it might

cause small food producers considerable expense compared to the costs to the large global companies.

Other difficulties identified included **the logistics** of putting the preferred option on the product, deciding on the **nutrient profiling model**, concern with labelling **imported products** and the likely **expense** of the research.

Solutions to difficulties of a large intervention trial

A number of solutions to these difficulties were proposed. They included the need for **good planning and consultation**, being **clear about the research aims and objectives**, a **careful sampling frame**, **conducting the research over 6-12 months**, **working with the supermarkets**, **engaging social scientists** or experts in societal change when designing the trial to ensure the results are as representative as possible of “a real life shopping situation”, including someone on the research team who understands the **retail sector** and **assessing similar research** to determine how these difficulties were addressed.

One policy informant suggested using **simple traffic lights** on a few staple products and on products that are easy to categorise.

Waiting for results from the UK: If testing a system similar to the multiple traffic light model used in the United Kingdom waiting for at least 12 months until they have had enough time in the market to provide data that reflects real world consumer shopping and eating behaviour.

Companies will be tracking the introduction of %DI to see whether it makes a difference to sales. It may be feasible to work with a supermarket company to study changes in behaviour as a result. The introduction of %DI on Pams products potentially provides an opportunity to work with Foodstuffs. However, Foodstuffs does not have demographic data on their consumers unlike Progressive who have the information captured on their loyalty card, Onecard .

Alternative approaches suggested by two industry participants were **more focus group research and consumer education** first to understand the issues. One industry key informant noted that “industry would be very happy to help” with consumer education. Another said “I would rather see money going to educate

people about what is already on labels”. It was suggested by one industry informant that consideration should be given to whether research could be conducted on use of FOP labels by those who shop **on-line**. Further investigation of the Hannaford Supermarkets’ shelf labelling intervention in the United States was proposed by one policy maker.

Nutrient profiling system to use

There was no consensus about what nutrient profiling system was best to use for FOP labelling. A number of industry participants spoke of the value of %DI as it does not need a classification scheme. However, one industry participant noted that the downside of %DI is that it has to be based on standard adult dietary needs.

One NGO participant spoke of the value of the e mark system and using its classification system. This system classifies the foods on energy density and relative glycaemic impact, is based on Food and Nutrition Guidelines and would not need to be modified. There was mention of the FSANZ classification system for health claims. Two participants thought it should be considered and three mentioned it but made no judgement. There was not a lot of support for using the School Food and Beverage Classification System (SFBCS) recently released by the Ministry of Health. It was mentioned by four participants but two of them made no judgement on its value and two policy participants were clear that the SFBCS was not developed for FOP and includes a limited range of products. One industry informant suggested that this system could be adapted to different settings.

The value of consistency in profiling systems was raised by one participant but a number of other participants made it clear that it is important to have a system that works for FOP labelling. It was noted by one industry participant that “nutrient profiling is thwart with difficulties”.

One NGO participant outlined what they perceived to be the underlying principles of a nutrient profiling model as follows:

- Focus on promoting general health and disease prevention not disease management.
- Have criteria consistent with evidence based healthy eating advice/guidelines/principles from the government such as Dietary Guidelines. Be part of a broadly based government public health programme.
- Be based on nutrition criteria developed by experts from nutrition, public health fields and food technology.
- Have criteria relative to the food supply and food consumption patterns at a given point in time to encourage incremental change. Criteria should be reviewed in accordance with a systematic process on a regular basis and subject to evaluation.
- Be based on the nutrients and nutrition attributes that are of most public health significance to reduce and increase as determined by national nutrition surveys, government guideline, etc. In Australia and New Zealand, this should consider reducing total fat, saturated fat, trans fat, sodium/salt, and energy density/portion size and increasing fruit and vegetable and fibre/wholegrain consumption.
- Have underlying criteria endorsed by an appropriate independent authority and/or government agency.
- Interpret the nutrition profile of a product and provide an overall rating of the product for the general population (not just its single nutrients).

Other relevant findings

Participants in this research also raised a number of other relevant issues. The first is that NZ already has the mandatory requirement for Nutrition Information Panels (NIPs) on all packaged food products. This means that for those who require detailed nutrition information this is already available, provided that they are able to interpret the information contained on the NIP. It appears that some people are able to do this, especially those with particular health problems who have been trained to read labels by health professionals. This is not the case in the UK where multiple traffic light labelling has been introduced voluntarily. This gives some support to an argument for a very simple FOP label in New Zealand to complement this more detailed information. Possibly a scheme such as simple traffic light FOP labelling.

The participants also raised the issue that NIPs do not necessarily reflect the actual ingredients in a product. Manufacturers are able to use standard food composition tables to derive NIP values rather than actually analysing the nutrient content of their particular product. It was also noted by one policy participant that the averages can be significantly inaccurate. This is also likely to be an issue for any FOP label.

Discussion

This paper has reported on research to explore the feasibility of front-of-pack (FOP) nutrition labelling in New Zealand and the feasibility of a research trial to measure its effectiveness. FOP nutrition labels already exist in New Zealand e.g. the National Heart Foundation Tick programme and the %DI labelling that a number of food industry players are adopting (e.g. Kelloggs and Foodstuffs' Pams brand). Food industry adoption of %DI in New Zealand is being led by the Food and Grocery Council of New Zealand who negotiated a voluntary agreement amongst many of its members and have developed a %DI template to ensure consistency. Although there is no consistent national FOP labelling system in New Zealand this issue is currently being explored by FSANZ, in line with developments internationally.

Further introduction of FOP labelling in New Zealand

Participants in this research were in no doubt that FOP nutrition labelling had many advantages. These included the provision of simple, easily understood information available at-a-glance to consumers. It was suggested by participants that this would result in better informed consumers, possible changes in consumer behaviour and a concomitant reduction in chronic disease and co-morbidities. It was also noted that FOP labels would encourage food manufactures to reformulate products. One food industry participant stated that FOP labelling was one way for the food industry "to do our bit and the need to be seen to be doing our bit" [to promote health] and as a response to consumer demand for healthier products. A policy maker and an NGO participant described FOP labelling as "another tool in the tool box" and as "part of the jigsaw".

Research participants were also able to identify a number of barriers to the further introduction of FOP nutrition labelling in New Zealand. These included lack of agreement on a consistent system to use, limited evidence upon which to make this decision and lack of agreement about how to categorise food. Food industry compliance costs and lack of private brand labels making FOP labelling less attractive to industry on a voluntary basis than in the UK were also noted.

Food industry opposition, depending on the system proposed, was suggested by policy and NGO participants, although some in the food industry have adopted %DI labelling and some others appear willing to do so and are currently implementing it.

The clash of cultures between industry with their profit motive and public health with their improved nutrition motive was identified by one policy maker as a barrier. Consumer understanding and acceptance of FOP labels, the global nature of the food market, the possible constraints of Trans Tasman food regulations, conflicting political ideology both here and in Australia, and the need for a lead-in time to any new system were also identified as key barriers.

Participants identified the need for a robust process, including five key factors (listed below), to develop FOP labelling in New Zealand. They are a process that:

- Involves consulting with and getting buy in from a variety of stakeholders
- Involves identifying and agreeing on achievable goals and objectives for the labelling system
- Is based on research evidence
- Considers the costs to industry, and
- Includes education of the public about the system.

The experience of changing labels for the NIP requirements of 2002 shows that this can be done. It could be useful to understand the lessons from the change to NIPs in order to inform any introduction of FOP labels.

Given the current lack of agreement on a way forward; the limited evidence that is publicly available; and the difference in values between industry, with their fundamental requirement to make a profit, and public health, with its goal of better nutrition and health; agreement may not be easy to achieve. This suggests the need for democratically elected government leadership in resolving the way forward. It also suggests that publicly available, independently conducted research will be essential in assisting a resolution to this issue.

The implementation process identified by participants also included considering the costs to industry of the introduction of FOP labels. While this is important, once again it was resolved in 2002 with the introduction of NIPs so

ought to be able to be addressed in this process. The need to include public education as part of the process was also identified, especially for those communities most at risk from nutrition related health issues. A motivator for community education may be the increase in consumer interest in understanding what they are eating.

Policy and NGO participants did not indicate a preference for any particular labelling system (except one policy person who preferred traffic light labeling) in part because they could identify strengths and weaknesses with each system. A number of these participants discussed the principles that should be used to make such a decision and a list of possible criteria proposed by one NGO is included in Appendix B. Criteria include being evidence-based and having the greatest impact on public health. This list may provide a good place to start discussion about how to move forward on this issue.

In contrast, a majority of food industry participants support the %DI labelling system, because it gives more information than other labels including information on positive nutrients, “it is not a judgement system on the food”, and they have research that shows that consumers prefer this scheme over others, although this research does not appear to be in the public domain.

Participants identified the strengths and weaknesses of a number of labelling systems. These included the e mark, a system owned by the New Zealand Nutrition Foundation, based on the Food and Nutrition Guidelines, that provides information on energy density and glycaemic load of food. It was suggested by one policy maker that “at first glance it looks very simple but you have to understand the system”.

The National Heart Foundation Tick programme was identified by a number of participants as simple, well recognised and proven to work. Although it was criticised because not all companies participate in the programme and that it is a within-category system; in a recent survey conducted for the National Heart Foundation 76% of main grocery shoppers use the Tick and 82% place some importance on the Tick when making purchasing decisions (National Heart Foundation & Phoenix Research 2008). This research suggests that a simple,

colourful, FOP label can be effective in assisting consumers with their food purchases.

Only one policy maker supported traffic light labelling. One NGO and one industry participant criticised them for giving negative messages about food and not placing this information in the context of consumers' diets. One NGO participant argued that simple traffic light labels are too simple and multiple too complicated. However, a simple traffic light label has some similarity to the simplicity of the Tick, a label not seen as "too simple" for many consumers as discussed above. Lack of support for traffic light labelling may be the result of the often expressed view that food manufacturers do not want their products labelled as "bad foods"; that FOP labels should not, in the words of one NGO participant, be "demonising food".

Percentage DI has support from the food industry for a number of reasons outlined above including that industry commissioned consumer research shows that consumers prefer the %DI scheme. This research does not appear to be in the public domain so it is difficult to judge this claim. While it may be true that %DI information is preferred by consumers whether consumers can actually understand this information and use it accurately is another matter. Recent focus group research, part of this current wider research project, suggests that at least for Māori, Pacific and low-income New Zealanders %DI labels may be difficult to understand as indicated by the following

%DI had too much written information. But whilst they [participants] did not like having too much written information, they liked to know the 'evidence' behind the health rating of a product. Most did not understand terms such as sodium and the difference between fat and unsaturated fat (Lanumata, Heta et al. 2008).

Given that %DI is in the public domain, albeit on a small percentage of products to date, the issue of consumer education about %DI is a matter that should be resolved.

The current research suggests that the views of consumers are a key consideration in deciding which FOP labelling system to use. However, as one

NGO participant argued, it is also important to adopt a scheme which “best drives consumers to eat a healthier diet”. The recent focus group research suggests that simple traffic light FOP labels may best drive consumer behaviour (Lanumata, Heta et al. 2008).

There were mixed views from policy and NGO participants about the introduction of voluntary or mandatory FOP labelling, in part their views were tempered by the perceived challenges of introducing consistent FOP labelling discussed earlier. Mandatory labelling would bring consistency. However, industry opposition was noted as a challenge, as was perceived public opposition. There was a suggestion from one policy maker that it may be necessary to start with a voluntary system and move to a mandatory one “if there is sufficient support”.

There was support by industry participants for a voluntary scheme because it is easier and quicker to change. One industry participant suggested that a voluntary scheme should be adopted by all food manufacturers “otherwise the system is not going to work”. An NGO participant suggested that a voluntary approach could mean the introduction of different systems, as has happened in the UK, which could lead to consumer confusion. Certainly, in New Zealand, there are a number of systems currently in the marketplace.

Large supermarket intervention trial

There was agreement amongst nearly all participants that a large supermarket intervention trial on FOP labelling would provide valuable information about the impact of FOP labelling on consumer behaviour at point of purchase. It was suggested by policy and industry participants that this would assist policy makers. However, one industry participant argued that such research was not necessary and that it would be too difficult and costly.

Certainly, participants were able to identify a number of difficulties with running such a trial. These included how to ensure a rigorous research process, agreeing on a labelling system to trial, getting research participants to use the labels, how to determine that FOP labels are driving the purchase, and assessing

the impact of FOP labelling on total diet and consumption. Other issues identified were how to gain support from industry and supermarkets, how to put the preferred option on the product and the likely expense of the research.

Solutions were also presented by participants including good planning and consultation, being clear about the research aims and objectives, a careful sampling frame, conducting the research over 6-12 months, working with the supermarkets, and engaging social scientists or experts in societal change. Other suggestions included testing simple traffic light labels on a few staple products that are easy to categorise, waiting for results from the UK and studying the impact of the introduction of %DI labelling in New Zealand. Alternative approaches suggested by industry participants included further focus group research, spending money on consumer education rather than research and studying the impact of FOP labels on on-line shoppers.

Nutrient profiling system

There was no consensus amongst participants about the nutrient profiling system that was best to use for FOP labelling, although a number of industry participant noted the %DI does not need a classification system.

Other relevant findings

In New Zealand we already have detailed nutrition information on food in the form of NIPs. It may be possible in New Zealand to introduce a very simple FOP label to complement this more detailed information. However, this research also noted that NIPs do not necessarily reflect the actual ingredients in a product because of the frequent use of food composition table data to derive NIPs. This is also likely to be a concern with FOP labeling.

Conclusion

This research has found that FOP labelling already exists in New Zealand on a limited number of products in the form of the National Heart Foundation's Tick programme and %DI labelling being introduced by the food industry. Participants

in this research see many advantages to FOP labelling. These advantages include the provision of simple, easily understood information available at-a-glance to consumers that will result in better informed consumers, possible changes in consumer behaviour and a concomitant reduction in chronic disease and co-morbidities. It was also noted that FOP labels could encourage food manufactures to reformulate products.

Research participants also identified a number of barriers to the further introduction of consistent FOP nutrition labelling in New Zealand. These included lack of agreement on the best system to use and limited evidence upon which to make this decision.

Participants identified the need for a robust consultative process to develop FOP labelling in New Zealand. The experience of changing labels for the NIP requirements of 2002 shows that this can be done. It could be useful to understand the lessons from the change to NIPs in order to inform any introduction of FOP labels.

Given the current lack of agreement on a way forward; the limited evidence that is publicly available; and the difference in values between industry, with their fundamental requirement to make a profit, and public health, with its goal of nutrition and health; agreement may not be easy to achieve. This suggests the need for democratically elected government leadership in resolving how to progress FOP labelling and open discussions between key stakeholders. It also suggests that publicly available, independently conducted research is critical to effecting evidence-based policy change. The need to include public education was also identified, especially for those communities most at risk from nutrition related health issues.

Policy and NGO participants did not indicate a preference for any particular labelling system in part because they could identify strengths and weaknesses with each system. A number of these participants discussed the principles that should be used to make such a decision which include being evidence-based and having the greatest impact on public health. In contrast, a majority of food industry participants support the %DI labelling system, because it

gives more information than other labels including information on positive nutrients, “it is not a judgement system on the food”, and they have research that shows that consumers prefer this scheme over others, although this research does not appear to be in the public domain.

The current research suggests that the views of consumers are a key consideration in deciding which FOP labelling system to use but it is also important to adopt a scheme which best drives consumers to eat a healthier diet.

There were differing views amongst participants about the introduction of voluntary or mandatory FOP labelling, in part the views of policy makers and NGOs were tempered by the perceived challenges of introducing consistent FOP labelling discussed earlier. There was support by industry participants for a voluntary scheme because it is easier and quicker to change.

There was agreement amongst nearly all participants that a large supermarket intervention trial on FOP labelling would provide valuable information about the impact of FOP labelling on consumer behaviour at point of purchase. While participants were able to identify a number of obstacles to running such a trial they also provided many solutions as well.

There was no consensus amongst participants about the nutrient profiling system that was best to use for FOP labelling, although a number of industry participant noted the %DI does not need a classification system.

In New Zealand we already have detailed nutrition information on food in the form of NIPs. It may be possible in New Zealand to introduce a very simple FOP label to complement this more detailed information. However, this research also noted that NIPs do not necessarily reflect the actual ingredients in a product because of the use of food composition tables.

The introduction of further FOP nutrition labelling has the potential to assist in the effort to promote healthy eating in New Zealand and while there are challenges to doing this there are feasible ways to address many if not all of these challenges. It appears that independent, robust and publicly available research to measure the effectiveness of FOP labelling would also be very valuable in producing evidence-based policy change. While there are challenges

to implementing such research there are also solutions to these challenges that deserve to be explored.

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Appendix A

Stakeholder Interview Schedule

Front-of-pack labelling

1. What is your view about the likelihood of front-of-pack nutrition labels being introduced into New Zealand?
2. What, if any, advantages do you see from the introduction of front-of-pack nutrition labelling?

Prompt: easy to understand, quick to decide, improvements in population health

3. What barriers do you see to the introduction of front-of-pack nutrition labelling.
4. How could these barriers be addressed?
5. What labelling system options do you prefer?
6. What are the advantages and disadvantages of each labelling system?
7. What are the implications if consumers prefer a labelling system that is not currently being considered by policy makers?
8. If front-of-pack nutrition labelling was introduced would you favour a mandatory system and why, why not?

Research

9. We are exploring the feasibility of conducting a large supermarket intervention trial of front-of-pack nutrition labels in New Zealand. What would be the advantages of such a trial?
10. What difficulties do you foresee in setting up such a research trial?
11. How could these be avoided?

Nutrient profiling

12. We need to choose an appropriate nutrient/food profiling system to guide the classification of foods as healthy or less healthy. Can you comment on what might be the best system to use as a basis to classify foods and why?

Prompt: Food Standards Australia New Zealand (FSANZ) health claims system (based on UK FSA system), the School Food and Beverage Classification system and Pick the Tick.

13. What difficulties can you perceive in modifying the system you prefer for front-of-pack labelling?

If FSANZ health claims system not mentioned: could the FSANZ health claims system be modified if the preferred labelling system was simple or multiple traffic lights?

14. Are there any other systems that would be more easily adapted? If so, what are they?
15. What are your thoughts about the possibility of several different nutrient profiling systems operating in the NZ market place?

Final questions

16. Do you have any documents/research/data that could assist us with this research?
17. Are there other key stakeholders you would suggest we speak with?
18. Do you have any final comments or questions?

Thank you for your time today.

Appendix B

Proposed criteria for an effective FOP labelling system

- The system should be in line with evidence-based healthy eating guidelines sourced from the government
- The impact on public health should be the priority when considering the nutrients to be part of any labelling system and should take a 'disease prevention' approach. For example, reducing total fat, saturated fat, sodium, energy density and increasing dietary fibre etc to encourage healthier eating habits
- Criteria should be developed by experts specifically trained in the nutrition/public health fields and address the nutritional needs of the general healthy population, not consumers that may have a specific dietary or health conditions
- The system should take a 'holistic approach' to the nutrition profile of a product rather than looking at each individual nutrient
- The system (the label itself or the social marketing campaign that sits around it) should help consumers put individual foods in the context of a healthy balanced diet
- The system should have an effective and regular evaluation and review process
- Should be appropriate for all products – packaged and unpackaged
- The system should be complemented with a comprehensive and planned communications/educational campaign including the public reporting of evaluation and research
- Should be an effective guide for the 'general healthy population' to easily identify the "healthfulness" of products at a glance
- Should be acceptable to low literacy, lower socio-economic and ethnic groups
- Should be consistent with FSANZ and any other appropriate regulatory body. It should also be appropriate for use in both Australia and New Zealand
- Ideally the system should have majority 'buy-in' from the food industry, manufacturers and retailers
- The system should demonstrate its ability to have a positive impact on the food supply and the nutritional profile of foods in New Zealand/Australia and thus improve the health of New Zealanders and Australians
- The system should be able to co-exist with positive voluntary food industry activities and should be complementary to existing signposting systems that have high consumer awareness and relevance.