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Nutrition Labelling is a Trade Policy Issue: Lessons From an Analysis of Specific Trade Concerns at the World Trade Organization

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Summary

Interpretive nutrition labels provide simplified nutrient-specific text and/or symbols on the front of pre-packaged foods, to encourage and enable consumers to make healthier choices. This type of labelling has been proposed as part of a comprehensive policy response to the global epidemic of non-communicable diseases. However, regulation of nutrition labelling falls under the remit of not just the health sector but also trade. Specific Trade Concerns have been raised at the World Trade Organization's Technical Barriers to Trade Committee regarding interpretive nutrition labelling initiatives in Thailand, Chile, Indonesia, Peru and Ecuador. This paper presents an analysis of the discussions of these concerns. Although nutrition labelling was identified as a legitimate policy objective, queries were raised regarding the justification of the specific labelling measures proposed, and the scientific evidence for effectiveness of such measures. Concerns were also raised regarding the consistency of the measures with international standards. Drawing on policy learning theory, we identified four lessons for public health policy makers, including: strategic framing of nutrition labelling policy objectives; pro-active policy engagement between trade and health to identify potential trade issues; identifying ways to minimise potential 'practical' trade concerns; and engagement with the Codex Alimentarius Commission to develop international

guidance on interpretative labelling. This analysis indicates that while there is potential for trade sector concerns to stifle innovation in nutrition labelling policy, care in how interpretive nutrition labelling measures are crafted in light of trade commitments can minimize such a risk and help ensure that trade policy is coherent with nutrition action.

Key words:

Nutrition labelling, trade policy, policy coherence

Introduction

The global epidemic of non-communicable diseases (NCDs) is associated with devastating personal, social, health care and economic costs. In the Political Declaration on the Prevention and Control of Non-communicable Diseases adopted at the landmark High-Level Meeting of the United Nations General Assembly in 2011, States acknowledged the global burden and threat of NCDs. In particular, that NCDs constitute ‘one of the major challenges for development in the twenty-first century, which undermines social and economic development throughout the world’ and are ‘a threat to the economies of many Member States’ (United Nations General Assembly 2011). The World Economic Forum estimates that the economic costs of NCDs due to lost productivity and direct medical costs in low- and middle-income countries over the next two decades could surpass US\$7trillion (Bloom et al. 2011). There is thus a pressing need to address the common risk factors for NCDs, which must include comprehensive policy action to improve diets and nutrition (WHO 2013).

The World Health Organization’s Global Action Plan for Prevention and Control of NCDs recommends a range of policy options for promoting healthy diets to Member States. These include: “Promote nutrition labelling, according to but not limited to, international standards... for all pre-packaged foods ...”, in conjunction with a range of other policy actions including taxes and subsidies, advertising restrictions and nutrition education (WHO 2013). In this context, nutrition labelling refers to information found on the labels of prepackaged foods.

What is interpretive nutrition labelling?

Interpretive front-of-pack labels provide simplified "interpretations" of information on key nutrients in relation to health, to encourage and enable consumers to make healthier choices (Wartella et al. 2012, p9). Such labels can include nutrient-specific text and/or symbols, a summary indicator of the healthfulness of a food, or situate a food within a food group (and associated recommendations for consumption). Examples include "traffic light" labels, healthy choice logos, and Daily Intake Guides. An interpretive approach to labeling contrasts with the common presentation of detailed nutrient content information in back-of-pack "Nutrition Information Panels". An increasing number of governments and food businesses are using these interpretive labels to communicate nutrition information to consumers (European Food Information Council 2014).

Evidence from systematic reviews and recent studies indicates that interpretive front-of-pack labelling approaches are more effective for communicating nutrition information, than listing nutrient content on the back of food packages. Interpretive front-of-pack labels can increase awareness of nutrition/health among consumers and their motivation to choose healthier products, with simple, 'low density' and coloured labels being most effective (Figure 1) (Campos et al. 2011, Graham et al. 2012, van Herpen et al. 2012, Bialkova et al. 2013, Hersey et al. 2013, Van Kleef and Dagevosb 2014, Siegrist et al. 2015, Volkova and Ni Mhurchu 2015). Such labelling also increases the likelihood that consumers make healthier food choices (Campos, Doxey et al. 2011, Hersey, Wohlgenant et al. 2013, Babio et al. 2014, Maubach et al. 2014, Van Kleef and Dagevosb 2014, Volkova and Ni Mhurchu 2015). There is some evidence that interpretive front-of-pack labels can also stimulate reformulation of less healthy food products (Vyth et al. 2010).

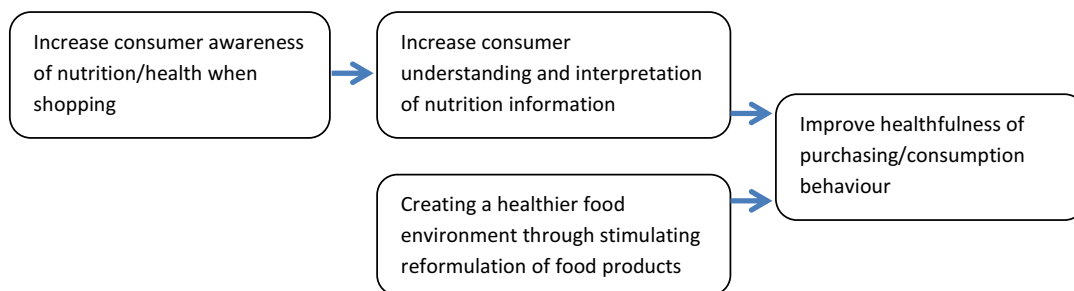


Figure 1: Logic model for the effect of interpretive front-of-pack labelling on health

Nutrition labelling as a trade policy issue

Regulation of nutrition labelling falls under the remit of not just the health sector but also trade. Because food is traded across borders, food labels also cross borders, yet labeling requirements may differ between countries. Nutrition labelling requirements may thus create ‘technical barriers’ to the free movement of packaged foods across borders. As such they fall under the remit of World Trade Organization (WTO) agreements, the most relevant being the WTO Agreement on Technical Barriers to Trade (the "TBT Agreement"). (Although the Agreement on Sanitary and Phytosanitary Measures is usually considered the agreement covering food, it is more focussed on ensuring that food safety regulations do not unnecessarily impede trade. Food labelling measures are more likely to fall under rules in the TBT Agreement because they set requirements on the characteristics of the goods themselves.)

“Technical regulations” refer to mandatory requirements regarding the characteristics of goods, including labels. The TBT Agreement addresses the preparation, adoption and application of technical regulations affecting trade in all goods (WTO 1994). An important aim of the TBT Agreement is to minimise the use of policy measures, and

particularly technical regulations, that are “disguised restrictions on international trade” (WTO 1994). Under the TBT Agreement, technical regulations that pursue a “legitimate policy objective” (including protection of human health) are permitted, but should: avoid discrimination between imported and domestically produced goods; not be unnecessarily trade-restrictive; and be based on relevant international standards when appropriate and effective (Box 1). The international standard most likely to be relevant is the “Codex Alimentarius”; harmonised international food standards to protect consumer health and promote fair practices in food trade (see Box 2).

The TBT Agreement recognises that each WTO Member has the basic right to protect human health and in doing so to choose its own level of protection from health risks. However, from a trade perspective it is important that the exercise of this right does not unnecessarily restrict trade. The TBT Committee provides a forum for WTO members to find out more about the scope and implementation of each other’s regulations in light of the obligations imposed by the TBT Agreement. WTO Members can use the Committee to raise “Specific Trade Concerns” regarding laws, regulations or procedures of other countries that may affect their trade. The vast majority of concerns do not escalate to formal disputes, rather, the work of the Committee helps to defuse potential trade frictions (WTO 2015b).

In this paper, we analyse the substance of Specific Trade Concerns regarding interpretive nutrition labelling that have been raised in the TBT Committee. The aim of our analysis is to identify opportunities for stronger policy making for interpretive nutrition labelling.

Box 1: Summary of key commitments within the Agreement on TBT, relevant to Specific Trade Concerns on interpretive nutrition labelling

Preamble: no country should be prevented from taking measures necessary for the protection of human health

Article 2.1: Technical regulations shall treat “like products” the same, both imported and domestically produced

Article 2.2: Technical regulations should not create unnecessary obstacles to trade (not be more trade restrictive than necessary to fulfil a legitimate objective), taking account of the risks non-fulfilment would create

Article 2.4: Members should use relevant international standards as the basis for technical regulations

Article 2.5: If a measure may have a significant effect on trade, members shall explain the justification for the measure at the request of another member. However, if a measure is designed to achieve a legitimate objective and is based on international standards, it shall be rebuttably presumed not to create an unnecessary barrier to trade.

Article 2.9: If a measure is not in accordance with international standards (or no relevant standard exists), members shall notify other members, provide information, and allow time for comment

Article 2.12: Members shall allow a reasonable time between publication and entry into force of the measure, to allow for implementation

Source: Agreement on Technical Barriers to Trade, WTO (WTO 1994)

Method

We identified Specific Trade Concerns regarding interpretive nutrition labelling through searching the WTO database Documents Online and the TBT database using the key words “nutrition”, “health” and “label” (for all years), and direct query to the WTO TBT Committee secretariat. We then searched the WTO database using the country name and the item number to extract all relevant meeting minutes related to each Specific Trade Concern. The searches were conducted between October 2014 and May 2015. We entered the full text of meeting minutes regarding each Specific Trade Concern into NVivo 10, and coded these by meeting date and country name.

We analysed the text of the discussion relating to these Specific Trade Concerns according to the articles of the TBT Agreement (see Box 1). Themes were identified based on pre-determined codes. The research team collaboratively developed a codebook that identified key phrases relating to policy design, process and implementation against each Article of the TBT agreement, informed by issues raised in previous legal disputes regarding TBT. For example, the codes related to Article 2.2 were: *unnecessary obstacles to trade; risk assessment; legitimate objective; alternatives; ineffective and not achieving the objective; and more trade restrictive than necessary*. Codes related to Article 2.9 were: *implementation timeframes; implementation logistics; and implementation query*.

Three authors independently coded all text, and the lead author made final decisions on coding. We compared the coded data across countries, and synthesized the findings based on the key issues discussed in the TBT Committee.

As one key aim of our analysis was to inform future policy making – including in other jurisdictions – we considered theories of policy learning in identifying lessons from our findings. In particular, we drew on Hall’s ‘social learning’ perspective, which emphasises the need to consider the framing of policy problems, and the relationships between policy goals and instruments, to enable learning by policy makers (Hall 1993). We thus focused our discussion on how interpretive nutrition labelling was – and could be – framed as a policy solution, in order to reduce tensions between trade commitments and nutrition goals, how the policy ‘problem’ addressed by labelling could be framed, how nutrition labelling as a policy instrument could be more specifically linked to policy goals and objectives, and broader issues of policy coherence between trade and nutrition.

Results

We identified five Specific Trade Concerns regarding interpretive nutrition labelling raised in the WTO’s TBT Committee. Concerns were first raised at the meeting of March 2007 regarding Thailand’s proposed front of pack labelling for snack foods. New Specific Trade Concerns were first raised in 2013 regarding Chile, Peru and Indonesia, and in 2014 regarding Ecuador. Five meeting minutes contained discussion relevant to Thailand (M42-46); seven relevant to Chile (M59-65); six relevant to Peru (M60-65); six relevant to Indonesia (M60-65); and four relevant to Ecuador (M62-65).

All the measures subject to Specific Trade Concerns included mandatory requirements for front-of-pack text and images, targeting nutrients relevant to the prevention of

NCDs. We present summaries of each measure below, based on information presented in the TBT meeting discussions.

Summary of labelling measures subject to Specific Trade Concerns

Thailand

In 2007, concerns were raised regarding the government of Thailand's 2006 proposal for a mandatory front-of-pack warning label ("Children Should Take Less") and traffic-light-like presentation of nutrition information for five categories of snack foods commonly consumed by children (WTO 2007c). This was part of a comprehensive policy approach to reducing malnutrition in children. Implementation was postponed in 2008, and in 2013 Thailand implemented an alternative measure including a warning label ("consume small amount and exercise for healthy condition") and mandatory Guideline Daily Amounts labelling for certain categories of processed foods, after which there have been no further concerns raised in the TBT Committee (WTO 2013a).

Chile

In 2013, concerns were raised in the TBT committee regarding the government of Chile's proposed mandatory nutrition information requirement to prevent obesity and NCDs through provision of improved nutrition information, as an addition to existing nutrition promotion strategies (WTO 2014b). This applied to certain categories of processed foods, in the form of an octagonal "STOP sign" covering 20% of the package, but was amended in 2014 to hexagonal labels for foods exceeding thresholds for saturated fats, sodium, sugar or calories (WTO 2014b). The regulation was developed in a consultative process, and was based on health data showing rising rates of child obesity and related NCDs.

Indonesia

In 2013, concerns were raised in the TBT committee regarding the government of Indonesia's proposed mandatory labelling (including warning labels) for sugar, fat and sodium content on processed and fast foods, to better inform consumers about nutrition and prevent NCDs (WTO 2013c). The labelling requirements were based on the Balance Nutrition Guidelines and related 2008 WHO recommendations, as well as data from a 2014 nutrition survey conducted by the Ministry of Health (WTO 2015a).

Peru

In 2013, concerns were raised in the TBT committee regarding the government of Peru's proposed mandatory interpretive label for processed foods (including a warning label), part of the "Act to Promote Healthy Eating Among Children and Adolescents". The objective of the measure was to reduce obesity and NCDs, although details of the measure were still being finalised at the time of the March 2015 meeting of the TBT Committee (WTO 2015a). The measure was part of a comprehensive policy approach to preventing NCDs.

Ecuador

In 2014, concerns were raised in the TBT Committee regarding the government of Ecuador's proposed mandatory graphic labelling ("traffic light labelling") for content of salt, sugar and fat (WTO 2014c). The regulations aim to combat Ecuador's rising rates of obesity, cardiovascular disease and diabetes, identified in a survey conducted by the Ministry of Health in 2012, by addressing the lack of information on food labels (WTO 2014c). The measure was part of a comprehensive policy package to improve nutrition

and prevent NCDs, and based on indicator 3.3.1 of the Pan American Health Organization's Plan of Action, as well as a systematic review of scientific evidence on interpretive labelling (WTO 2015a).

Analysis of discussions and concerns raised

Notably, in all Specific Trade Concerns regarding nutrition labelling, members raising concerns identified the objectives pursued by the countries proposing mandatory interpretive nutrition labelling as shared, legitimate objectives (Article 2.2, see Box 1). These legitimate objectives were articulated during meetings as: “providing consumers with sufficient information about the food which they consume and reducing non-communicable diseases”; “provide consumers with information so as to make appropriate dietary choices and reduce the risk of diet-related NCDs”; “empower consumers to make an informed choice in order to foster effective competition and consumer welfare” (WTO 2014d); and other similar wordings. There were also no allegations of national discrimination (Article 2.1) regarding these mandatory interpretive nutrition labelling initiatives.

However, members raised concerns about the interpretative labelling measures for the following reasons.

Need for justification of the measures

Under the commitments in the TBT Agreement, WTO members can request justification for another member's measure if it may have a significant effect on trade (Article 2.5). Justification should specifically address issues in Articles 2.2 and 2.3, including: the necessity of the measure, in relation to its effect on trade; its effectiveness in achieving

the objective pursued; its proportionality to the risk involved; and whether there are alternatives that could achieve the policy goal, with less impact on trade (see Box 1). However, this requirement for justification is lessened if the measure is based on a relevant international standard and is designed to achieve a legitimate objective (Article 2.5; see Box 1).

More trade restrictive than necessary

Members stated that all interpretive labelling measures are likely to have a significant effect on trade (Article 2.2, Article 2.6). The effect on trade is largely due to the mandatory nature of the labelling, and that each system was unique to the implementing country: exporters in other countries would need to comply with a novel system of food labelling for only one of their export markets (WTO 2013b, WTO 2014a). In some cases concerns were also raised about further barriers to trade resulting from the implementation requirements of the measures, such as the ‘multiplicity of documents’ required to prove conformity with the regulations (WTO 2013c, WTO 2015a).

All members raising concerns indicated that all the proposed measures were likely to be more trade restrictive than necessary; placing *unnecessary* burdens on producers, exporters or consumers (Article 2.2). The TBT Agreement gives members the right to determine the level of protection (e.g. of public health) they deem appropriate when pursuing legitimate objectives. However, this ‘necessity test’ indicates that there should be a degree of *proportionality* between a measure’s trade restrictiveness and the risk that the measure seeks to mitigate.

In the discussions relating to all interpretive labelling measures, members suggested that there was insufficient evidence for effectiveness that would ‘necessitate’ the significant impact on trade anticipated (see following section for further details on evidence). For example, comments such as “the Peruvian measure might be more trade restrictive than necessary to achieve the stated legitimate objective of reducing obesity in order to fight noncommunicable diseases. In this context, it [is] absolutely essential to know the scientific basis of the measure” (WTO 2013c).

In all Specific Trade Concerns, concerns regarding trade restrictiveness were also linked directly to lack of consistency of the measures with international standards. For example, comments such as “[Chile’s] regulatory proposals ...deviate from international standards, may not have a scientific basis and would likely be more trade-restrictive than necessary” (WTO 2013c). Trade restrictiveness was also linked to the potential availability of alternative measures; for example, “Indonesia could consider less trade restrictive alternative measures that could also achieve its consumer health objective”(WTO 2014c), “questions as to whether the [Thai] measure was necessary in light of potential alternatives”(WTO 2009), and “[Ecuador’s] system of colour coded charts may ... not constitute the least restrictive alternative necessary to fulfil the desired legitimate objective” (WTO 2014a).

Members raising concerns also indicated two practical issues that potentially made the measures more trade restrictive than necessary. The first related to specific policy settings, such as detailed and prescriptive requirements for the placement and size of the interpretive label (particularly in relation to small packages) (WTO 2013c, WTO 2015a). One issue raised repeatedly is whether stickers could be used for the labelling –

this was identified as a strategy that would make it simpler for industry to comply and make the measure less trade restrictive (WTO 2013c). A second issue was the requirement, in some cases, such as Chile, to label a large range of foods.

Scientific evidence for effectiveness of the measure in achieving the objective

Regarding the justification for all the measures, queries were raised regarding the evidence for their effectiveness in achieving the (legitimate) policy objective of improving diets and preventing NCDs (Article 2.2) (WTO 2013b, WTO 2015a). A repeated query was the need for information regarding the scientific basis for nutrient thresholds, on which the labelling was based. For example, queries such as “what scientific evidence was behind [Ecuador’s] categories for levels of concentration of nutritional components?” (WTO 2015a).

Information was also requested regarding the selection of target foods and food categories. For example, “[no] clear understanding of the criteria used to add or remove foods to or from Thailand's list of applicable foods, and the reasons why some categories had been included and others not” (WTO 2007b). This was linked to concerns that the measures selectively applied to packaged foods or only certain snack foods. For example, “...questioned the scientific merit of the proposed [Thai] regulation and argued that it discriminated against snack foods”(WTO 2008). Similarly, another member queried why Chile’s proposed regulation did not apply to meals sold in fast food chains, or products such as sausage, hamburger, cheese and chocolate (WTO 2014c).

Concerns about effectiveness were in many cases linked to whether the measures were proportional to the policy objective pursued. In particular, comments that the use of expressions such as “high in”, warning labels, and symbols such as “stop signs” may have the effect of creating consumer fear or mislead consumers through “demonising” foods required to have “negative” labels showing high amounts of nutrients associated with NCD risk (WTO 2014c).

The potential for less trade restrictive alternative measures to achieve the policy objectives

The necessity of a measure is linked to the availability of *less trade restrictive alternatives*. If a less trade restrictive alternative measure would equally fulfil the policy objective and is reasonably available, that measure would be preferable from the perspective of international trade law.

In the context of concerns regarding interpretive nutrition labelling, almost all members raising concerns queried the availability of alternative measures. For example, comments such as “had [Ecuador] considered alternative, less restrictive measures that would encourage the consumer to ... make the appropriate choice?” (WTO 2014b), or “had [Indonesia] considered less trade restrictive alternatives to pursue its objective?” (WTO 2014b).

Members raising concerns also identified potential alternative measures to achieve the policy objective. Specific alternatives to interpretive labelling identified in the text (particularly in 2014 and 2015 meetings) included voluntary approaches being undertaken by Australia, the EU and Switzerland (WTO 2014a, WTO 2015a). This

suggests that a key concern regarding trade restrictiveness is the mandatory nature of the measures.

Another alternative proposed was the use of current Codex Alimentarius Guidelines as the basis for labelling. For example, “using the Codex Nutrient Reference Values for labelling purposes for sodium and saturated fat, which provided another means for consumers to identify foods “low” and “high” in nutrients of concern and the Codex “low” claims, “no added sugars” claims, and other conditions for health claims” (WTO 2014b). In four instances, education campaigns were identified as potential alternative policy measures (WTO 2013c, WTO 2014c, WTO 2014d).

Consistency with international standards

Harmonization of technical regulations helps to facilitate international trade. For this reason, the TBT Agreement strongly encourages members to use “relevant” international standards, guides or recommendations “as a basis” for their regulations and standards (Article 2.4). This incentive is strengthened by Article 2.5’s conferral of a presumption that a measure does *not* create an unnecessary obstacle to international trade if it is prepared in accordance with relevant international standards. At the same time, the Agreement also recognizes that harmonization on the basis of international standards may not be desirable in all contexts due to divergent national preferences and circumstances.

All the interpretive nutrition labelling measures were subject to concerns regarding their deviation from the Codex Alimentarius Guidelines (see Box 2). One common concern was that interpretive labelling was inconsistent with the Codex Guideline

stating that the nutrient declaration "should not lead consumers to believe that there is exact quantitative knowledge of what individuals should eat in order to maintain health, but rather to convey an understanding of the quantity of nutrients contained in the product" (Codex Alimentarius Committee 2013).

In addition, members noted that the current Codex Guidelines do not identify criteria for labelling foods as "high in" calories, salt, fat or sugar (WTO 2013c, WTO 2014b). For example, comments such as "No nutrient thresholds have been established by the Codex for the nutrients targeted by the Peruvian legislation" (WTO 2013c).

Other potentially relevant standards identified by the members raising concerns included WHO's dietary guidelines (WTO 2013c, WTO 2014d), the WHO "Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013-2020" (WTO 2014a), and recommendations by the World Health Organization/Pan American Health Organization (WHO/PAHO) (WTO 2015a). Two members indicated none of the current international standards were relevant to interpretive nutrition labelling (WTO 2014d, WTO 2015a).

Box 2: What are the potentially relevant standards? Key points of Codex

Alimentarius Commission guidance relevant to nutrition labelling

The main standards setting body with respect to food safety is the Codex Alimentarius Commission ('Codex'), established by the World Health Organization and United Nations Food and Agriculture Organization. Codex has developed two standards specific

to nutrition labelling: the Guidelines on Nutrition Labelling and the General Standard for Labelling of Prepackaged Food

Guidelines on Nutrition Labelling(Codex Alimentarius Commission 2013):

Information should be supplied only for nutrients considered important, and ‘...should not lead consumers to believe that there is exact quantitative knowledge of what individuals should eat in order to maintain health, but rather to convey an understanding of the quantity of nutrients contained in the product.’

Supplementary nutrition information “...is intended to increase the consumer’s understanding of the nutritional value of their food and to assist in interpreting the nutrient declaration. There are a number of ways of presenting such information ...” And “...should be accompanied by consumer education programmes to increase consumer understanding and use of the information.”...

General Standard for the Labelling of Prepackaged Food(Codex Alimentarius Commission 2010):

Labels and labelling on prepackaged food should not present food in such a way that is “false, misleading or deceptive, or is likely to create an erroneous impression.”

Potentially relevant reference points for labelling regarding nutrients:

- Nutrient reference values (NRVs) for NCDs (sodium and saturated fat)
- The Guidelines for Use of Nutrition and Health Claims regarding: sodium and saturated fats (section 6.3.1), “light” (section 6.5) and sugars and sodium/salt (sections 7.1 and 7.2).

Lack of time for comment

The apparent lack of consistency between the measures and existing international standards means that they are subject to Article 2.9 of the TBT Agreement. This Article addresses processes for notification to the WTO, including allowing time for comment on draft regulations (see Box 1). These provisions relate to transparency as a fundamental pillar of the TBT Agreement, and are a key element of ‘good regulatory practice’.

Members repeatedly raised concerns regarding the measures proposed by Chile, Ecuador, Indonesia and Peru related to the lack of formal notification of proposed measures and/or amendments, the amount of time allowed for comment by other members, and relatively short timeframes for implementation (WTO 2013b, WTO 2013c, WTO 2014c, WTO 2014d, WTO 2014a, WTO 2014b, WTO 2015a). Even where timelines for implementation exceeded that prescribed by Article 2.9 of the TBT Agreement (for example, Chile allowed one year), this was argued to be insufficient in comparison to that allowed for other labelling interventions, such as the voluntary scheme implemented by the EU (3 year implementation timeframe).

Discussion

This analysis of Specific Trade Concerns raised in the TBT Committee over the past decade – and particularly since 2013 – underscores the need to consider public health nutrition labeling interventions also as trade policy interventions. Nutrition labelling for public health purposes has been consistently identified in discussions in the WTO TBT Committee as a legitimate policy objective. However, queries have been raised regarding the justification of the specific labelling measures proposed, and the scientific evidence for effectiveness of such measures. Concerns have also been raised regarding the consistency of the measures with international standards.

Our analysis should also be considered in the light of the political economy of trade. WTO disputes regarding trade and tobacco have indicated that concerns regarding compliance with WTO Agreements are also influenced by economic and political interests. For example, in the case of plain packaging of tobacco, formal disputes were raised regarding WTO compliance, even though legal analyses indicated that the legislation was formally compliant with global trade law (Mitchell 2010, Jarman 2013). Other observers have noted the use of trade and investment disputes to undermine and/or stall tobacco control legislation (Lencucha and Drope 2015). This has significant relevance to nutrition, where the processed food industry is a significant political actor and has been seen to lobby effectively against mandatory labelling (Mandle et al. 2015). In addition – and unlike tobacco – there is no international convention or specific standard regarding nutrition labelling for NCD prevention. In this context, there is thus an imbalance between the strong global policy norms regarding trade (economic interests) and weak global policy norms regarding nutrition policy.

Theories of policy learning can help to reframe policy challenges as opportunities, by highlighting considerations relevant to other jurisdictions or other times (Rose 1993). Hall's theory of social learning highlights key issues influencing learning as framing, the context in which policy makers work, and the importance of policy design (Hall 1993). We identified four lessons for public health policy makers that arise from this analysis of discussions in the TBT Committee: to frame the policy objectives strategically, in relation to the necessity of the measure; to strengthen policy processes in ways that pro-actively identify potential trade issues; and to minimise (where possible) potential trade restrictiveness, or what was referred to in the TBT Committee discussions as 'practical' concerns; and to engage with the Codex Alimentarius Commission processes to develop international guidance on interpretative labelling.

First, strategic framing of the policy objectives to align clearly with the policy settings can assist in demonstrating the necessity of the measure. Although the 'legitimate objective' of protecting human health should be invoked, it is essential that the objective of the measure is defined in relation to how the measure will address the specific problem, because the policy objective defines the evidence required to establish necessity. For example, if a mandatory nutrition labelling measure is stated to pursue an objective of providing consumers with nutrition information in a more understandable format, then a challenging member would need to show there are less trade restrictive alternatives that would equally fulfil this aim. Previous disputes highlight the high threshold applied to this test. Where an alternative means of achieving the objective entails greater 'risks' that the objective will not be fulfilled, this will not be considered a valid alternative, even if it were less trade restrictive (WTO 2011). In contrast, where a measure is framed as pursuing a broader objective of reducing the burden of obesity or

NCDs, this opens potential scope for a complainant to propose a wider variety of measures that may achieve this aim.

This suggests that objectives need to be framed in relation to the first point of impact of the measure, which is usually provision of understandable information (Figure 1).

Evidence to justify the measure would then focus on: best available current advice on healthy consumption levels (either a country's own daily recommended levels, or some internationally accepted advice), clarity and accuracy of messaging (regarding the need for 'interpretive' labelling), and understanding by consumers with limited literacy (again the need for 'interpretive' labelling). It will also be important to explicitly cite the precautionary principle in response to queries regarding 'science' and 'scientific justification' for these novel and innovative policy measures that have little 'in situ' evidence for their effect. It would also be ideal to include plans for evaluation to contribute to the state of knowledge regarding effectiveness of interpretive labelling.

In relation to this, it is also important that interpretive labelling measures be framed as part of a comprehensive policy response to nutrition-related chronic disease alongside components such as education programs, minimizing the opportunity to suggest these are available as 'less trade restrictive alternatives.' It is notable that in previous disputes, an alternative measure has not been considered 'reasonably available' where it is more properly considered part of a suite of complementary measures intended to act in concert with the mandatory interpretive nutrition labelling requirements at stake (WTO 2007a).

Second, the findings suggested benefits of pro-active engagement with trade policy makers at early stages of policy design. In particular, this would help to identify appropriate points and avenues for notification and practical issues of WTO compliance, such as allowing sufficient time for notification and implementation. It may also help to identify any easily resolvable trade concerns before a draft is notified.

Third, the findings highlighted opportunities to reduce trade restrictiveness without compromising on core public health elements of label design. For example, it may be possible to make implementation less burdensome through the use of stickers and graduated implementation timeframes. Early consideration of the practicalities of implementation, such as the issue related to package size identified in the discussion, may also reduce trade-restrictiveness. Although the voluntary nature of the measures cited as alternatives from Australia, Switzerland and the EU means that they may not be directly comparable to these mandatory measures, there is potential to draw on other features of their design. For example, in Australia, the high level policy statement which guided development of a front-of-pack labelling system establish at the outset that such a system is not a stand-alone strategy, but fits within the context of broader health strategies, including explicit recognition of its role in supporting the Australian Dietary Guidelines and its consistency with existing Nutrient Reference Values. Eight aims of the scheme are outlined, drawing on evidence of its potential impact on both consumer understanding and improving the food environment through driving reformulation (Australia New Zealand Food Regulation Ministerial Council).

Fourth, one of the key issues raised by the discussions in the TBT Committee is whether ‘relevant’ international standards currently exist. As described, Codex Alimentarius

leaves room for interpretive labelling but doesn't provide guidance regarding details. Codex establishes 'minimum standards' for food safety – providing a 'floor' for governments to draw on in ensuring food safety, while allowing for differing levels of protection and innovation to meet emerging challenges (Cosbey 2000). In contrast, the emphasis on harmonisation and minimising trade restrictiveness in the TBT Agreement suggests the need for specific guidance for measures. Previous disputes have arisen in situations such as this, where scientific evidence suggests that a measure stronger than existing international standards is advisable to protect human health based on the precautionary principle (Turvey and Mojdzuska 2005). This tension is reflected in the apparent confusion evident in the TBT discussions about whether a relevant standard exists. This suggests a need for development of international guidance regarding evidence and use of interpretive nutrition labelling. Ideally, this would be explicitly framed as a baseline (rather than a ceiling), which would enable it to serve as a reference point for national action, while enabling innovation.

The requests for justification regarding interpretive nutrition labelling measures in the TBT Committee raise the question of whether trade sector concerns might stifle innovation in nutrition labelling policy. Regulatory chill in public health stemming from trade concerns, a situation in which governments hesitate to implement new policies or legislation, has been well documented (Tienhaara 2011). Voluntary approaches to labelling were repeatedly identified as an 'alternative' to these mandatory interpretive labelling measures discussed in the TBT Committee. This suggests that a specific area where regulatory chill may be likely to result is in the adoption of voluntary rather than mandatory approaches to interpretive nutrition labelling. This potential for regulatory chill would only be enhanced by the preference of the food industry for voluntary

approaches (Mandle, Tugendhaft et al. 2015). However, strong rationales for mandatory approaches remain. For example, voluntary approaches may have limited long term effectiveness, due to disincentives to participate resulting from costs accruing to only compliant companies (in the form of implementation costs and perhaps market share) (Roe et al. 2014).

Overall, however, this analysis of discussions in the TBT Committee indicates that there is significant policy space at the international level for innovation in interpretive nutrition labelling policy, and has highlighted opportunities to strengthen nutrition labelling measures at both the international and national level. This policy space may not preclude a dispute or a 'chill', since the behaviours of corporations and governments are not fully predictable; but care in how interpretive nutrition labelling measures are crafted in light of trade concerns can minimize such a risk and help ensure that trade policy is coherent with nutrition action (Hawkes 2015).

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