

Original Research



Attitudes of manufacturers, law enforcing officers and consumers on the Sri Lankan labelling regulations: a qualitative study

Charith Amidha Hettiarachchi^{1*}, Sumal Nandasena², Mahendra Arnold³

¹ Department of Public Health, Faculty of Health, University of Technology Sydney, NSW, Australia; ² Regional Director of Health Service Office, Kalutara, Sri Lanka; ³ Ministry of Health, Sri Lanka

Correspondence: dr.charith@gmail.com

 <https://orcid.org/0000-0002-7329-6581>

DOI: <https://doi.org/10.4038/jccpsl.v27i1.8378>

Received on 24 July 2021

Accepted on 20 December 2021

Abstract

Introduction: Food label is the main medium of communication between manufacturer, distributor and consumer. It is regulated via law enforcing officers.

Objectives: To identify the attitudes of manufacturers /distributors, law enforcing officers and consumers towards the Sri Lankan labelling regulation, its implementation and practical difficulties

Methods: A qualitative study conducted through focus group discussions (FGD); two FGDs for 14 manufacturers/distributors, three for 23 law enforcing officers and another two for 19 consumers. Participants were selected by convenience sampling. A semi-structured guide was used to collect data. Ideas generated were thematically analysed.

Results: Manufacturers/distributors perceived labelling regulations as useful. The colour code for sugar level and the expiry date were the main interests of consumers. Consumers believed that the labels do not always provide correct information. Consumers were not satisfied on the implementation of labelling regulations, location of the label and the expiry date. Law enforcing officers admitted that they give minimum priority to labelling regulations due to inadequate knowledge, competence and legal support. They further expressed uncertainty on authority over Ayurveda foods.

Conclusions & Recommendations: Consumers and law enforcing officers were of the opinion that labelling regulations are poorly implemented. The legal definition of 'food' has failed to exclude or include Ayurveda food precisely, therefore explicit exclusion is necessary. Both manufacturers / distributors and law enforcing officers need to be provided with training on regulations as they admitted that their existing knowledge and competency are poor.

Key words: *food labels, focus group discussions, food labelling regulations*

Introduction

Food label is the primary means of communication between the producer and a seller on one hand; and on the other a purchaser or consumer (1). Majority of the consumers read labels on purchasing (2-4). Adequate and correct information in the label helps to guide the consumer in making an informed decision when purchasing food items. A label may be words, digits, pictures and symbols attached to the container or printed on the container (5). On food labels, certain information is expected by the consumer, while certain information is provided by the manufacturer/distributor and required by the law. Hence, label is a critical item containing a variety of information on brand name, common name, net content, ingredients, manufacturer, distributor, storage and usage as required by the law (6). Information provided in labels has a direct impact on health, thus regulated by law. There are law enforcing officers, namely medical officers of health (MOH), food and drug inspectors (FDI) and public health inspectors (PHI) to ensure that labelling regulations are well-implemented under the *Sri Lankan Food Act of 1980* (5).

Attitudes and perceptions of manufacturers/distributors; consumers and law enforcing officers on food labels are important to identify the existing reality and improve the health aspect of food laws, which in turn will improve the purchasing behaviour of people. However, such data gathered from a qualitative research are lacking. This study aimed to identify attitudes related to the Sri Lankan Labelling Regulations of Beverages, including the practical difficulties encountered by and suggestions of manufacturers/distributors, law enforcing officers and consumers.

Methods

Focus group discussions (FGD) were conducted for each category of manufacturers/distributors, law enforcing officers and consumers until no new ideas were generated. For this purpose, 10 participants were invited for each FGD. Large-scale manufacturers/distributors who do island-wide business were invited for one FGD and small manufacturers/

distributors whose business is mainly based in Kalutara District for another FGD. Law enforcing officers were invited from Kalutara, Panadura and Matugama MOH Areas and comprised a mix of MOHs, FDIs and PHIs who are the authorized officers under the *Sri Lankan Food Act of 1980*. Different educational levels, employment status and sex were represented among consumers.

All the participants were selected by convenience sampling. The invitation cards were sent in advance and verbal consent in addition to implied consent was taken prior to the commencement of each FGD. The principal investigator was the moderator while a trained medical officer assisted in note taking and tape recording. Each discussion was conducted over 1 ½ hours.

The FGDs for manufacturers/distributors were conducted at the National Institute of Health Sciences, Kalutara, while those of law enforcing officers were held at Kalutara, Panadura and Matugama MOH Offices. It was a domestic setting for the consumers. All locations were selected based on travelling convenience and favourable physical environments.

Data analysis

The FGDs were conducted according to a semi-structured guide. Open-ended questions were used to gather information on attitudes. Questions were unambiguously worded, short, clear, non-threatening and targeted to a single fact. Ideas generated were categorized under themes and subthemes.

Results

Two FGDs were held for manufacturers/distributors, three for law enforcing officers and another two for consumers. The sample comprised 14 manufacturers/distributors, 23 law enforcing officers and 19 consumers.

Majority of the manufacturers/distributors were males (n=10; 71.4%) in contrast to the majority of females among the consumers (n=13; 68.4%), while

all law enforcing officers were males. Among the consumers, 57.9% (n=11) were unemployed; and the majority were Sinhalese (n=12; 63.1%) while the rest were Muslims. Majority of the manufacturers /distributors were Sinhalese (n=11; 78.7%) and the rest were Muslims; and had 5-10 years working experience (n=7; 50%). One (4.3%) FDI, 19 (82.6%) PHIs and three (13%) MOHs were among the law enforcing officers and all of them were Sinhalese.

Theme 1: Attitudes related to labelling regulations

Presence of the label is mandatory under the *Food (Labelling and Advertising) Regulations of Sri Lanka, 2005* (6). Participants of all three groups were of the opinion that the label should be a compulsory component of a packeted food and contains useful information.

For manufacturers/distributors, the label is important to attract consumers, as one participant stated,

“Label is important for us to attract consumers. We use the label for that purpose and there is nothing wrong in it.”

However, none of the manufacturers/distributors indicated that the label is important to provide necessary and accurate information about the product to consumers. The manufacturers/distributors knew that consumers read labels.

“We know that nowadays consumers read labels.”

Reading of the label by consumers is not consistent as one claimed,

“When I was in a hurry, I have bought without reading the label. But sometimes I read the label at home before consumption.”

The consumers also stated that children often do not read the label before buying and their facial expressions showed that they worry about it. One consumer stated,

“Children often do not read labels before drinking. It is very bad for their health. They don't think about the healthiness of the drink but only about the taste.”

Another stated,

“Manufacturers use pictures of beautiful boys and girls and attractive colours in labels to promote products. I don't accept it.”

The label should be presented in a manner that it does not mislead consumers and should not have false information (6). Generally, consumers believe that the label is misleading and does not always provide correct information. Two consumers stated that children are being misled by pictures that are displayed in the labels,

“Children are attracted to the pictures of the label.”

Two participants shared their own experiences to prove that information in the label is not reliable, *“Once I bought a strawberry jam. But actually, it was a wood apple jam. In the label, it was mentioned as 'strawberry'. Our entire family was surprised.”*

The labelling regulations cover a large amount of information, however some content like expiry date, ingredients and colour code for sugar level were highlighted by the participants. A majority of consumers stated that they are interested on knowing the expiry date. One consumer stated,

“I never buy a beverage without checking the expiry date.”

Only a few consumers stated that they look for ingredients of beverages while the majority admitted that they do not look into it. A majority of consumers agreed that they look at the colour code for sugar level and admitted that it is very useful while others kept silent; but no one disagreed. One consumer stated,

“Display of sugar level is very useful, and I always try to avoid high sugar beverages.”

It was noted that all had a favourable attitude towards the colour code of sugar levels.

Even though consumers mentioned various types of information available in the label, most of them were not aware that those are legal requirements. Most consumers were not even aware about the existence of a law to regulate labels. One consumer stated,

“We don't think that labels are being regulated.”

However, one consumer knew about the existence of a law to display the sugar level. He stated, *“Display of sugar level is a very good and useful law.”*

When consumers got to know that there are some kinds of regulations, they refused to accept that it is implemented properly. Two consumers stated,

“There may be a law to regulate labels but not implemented properly.”

All the law enforcing officers agreed that they have minimally implemented the labelling regulations when compared to other regulations of the *Sri Lankan Food Act of 1980*. One PHI admitted,

“I rarely inspect labels under the labelling regulations.”

The expiry date was the commonest provision that they have inspected, while a majority of other provisions were not checked. Some have inspected the colour code for sugar level and the registration number given by the ministry in water bottles,

“We commonly prosecute for the expiry date. If the date is expired, we definitely prosecute. However, we rarely prosecute for other labelling provisions.”

Theme 2: Practical difficulties related to labelling regulations

The labelling regulations do not provide a specific location for the label to be displayed in a package. Consumers and law enforcing officers agreed that manufactures use all possible spaces of the container for labelling irrespective of the suitability. One consumer stated,

“The location of the label should be regulated. Now label information is everywhere in the container. Sometimes we turn all around but still can't find what we want.”

Other than for the whole label, the absence of a specific location to indicate the expiry date raised major concerns. Unavailability of an exact location for the expiry date is also a reason for that it cannot be found quickly. Some of the consumers had to ask the retail seller to show the expiry date. It also wastes the time of the consumer and the seller. All consumers admitted that they had faced the problem of finding the expiry date on many occasions. One consumer stated,

“We have to turn the container in every direction to find the expiry date. It is not in an exact place.”

The consumers also worried about the clarity of the expiry date. One consumer stated,

“Some manufacturers write the expiry date with a pen, and then it is less reliable. When it is printed, I feel it is more reliable.”

Majority of the consumers have experienced this when the container is a glass or plastic bottle and when the expiry date is directly printed on it. The printed digits become unclear due to the glistening nature of the container material. This issue is further worsened when the expiry date being printed in perforated type over transparent glass or plastic bottles. According to the participants, the expiry date is almost unseen when perforated font is used to print on such containers.

Font size of the letters of labels was a key issue to the manufacturers/distributors. They were of the opinion that existing font size is a barrier to include all necessary information. Another argument was that the font size is also a barrier to include information in more than one language. This was mentioned as,

“To print in more than one language is practically difficult due to the large font size.”

Another reason that they do not like the existing font size is the increased cost of printing larger size labels. The manufacturers/distributors expressed,

“To print in more than one language is practically difficult due to the large font size. The space of the label would not be adequate.”

They did not disagree on using more than one language but expressed that it is practically difficult due to inadequate space with the existing font size. The law enforcing officers highlighted the fact that there are practical difficulties in measuring the height of letters. One PHI stated,

“It is difficult to measure the height of letters. When we use two rulers, their measurements are different.”

It is not only the font size but also the font type had given practical difficulties. One consumer was of the opinion that the perforated type is unclear,

“Perforated type is not clear, '60' is like '80'. Therefore, letters should be in the continuous type.” A few agreed non-verbally but most kept silent. Some of the law enforcing officers and consumers have experienced the unavailability of local languages in some imported beverages.

All consumers were of the view that they cannot rely on the information provided in the label as there is no way for verification. They specifically expressed their concerns on the expiry date and sugar level. One consumer stated,

“Very often, I look at the expiry date in milk packets. Even if it is not expired, I am not sure. Therefore, I always drink and see before giving to children.”

Two consumers mentioned that the label of reputed or big companies can be trusted; but others did not agree.

“In my opinion, the labels of some big companies are reliable” was a statement made by a consumer, while others promptly expressed their disagreement either verbally or non-verbally. Most participants believed that old or expired products can be re-labelled and re-

introduced to the market. Unavailability of a facility to check the reliability of this information was a major concern to consumers, as one said,

“We want to know whether the information in the label is really true, but there is no way.”

The manufacturers/distributors expressed their views on specific provisions related to sugar level. Sugar level provisions are available on *Food (Colour Codes for Sugar Level) Regulations, 2016* of Sri Lanka (7). One of the key issues was that the expected sugar measurement cannot be done with the existing equipment. The Brix value – sugar level per 100g, which is used to measure sugar level does not match with the legal provisions, which requires the sugar level per 100ml. Six participants commented,

“We measure the Brix value for sugar level. But the gazette mentions the value in grams per 100ml and there is a mismatch.”

All manufacturers/distributors agreed that insufficient knowledge on labelling laws is a main barrier to comply with the labelling regulations. Participants stated,

“We very much like to adhere to regulations. But we do not know exactly how to do it.”

The manufacturers/distributors highlighted that the number of labels printed at a time and the frequency of printing have an effect on complying with labelling regulations. They were of the opinion that quality printing is expensive. In addition, such quality printers do not print labels in small quantities. Invariably small-scale manufacturers have to depend on low quality printers. Following quotes represent the issue,

“We do not print labels. We print the label from outside. Quality of the label depends on the printer. Letters are blotted by some small-scale printers.”

“We need smaller quantities of labels as small-scale manufactures. High quality large printers do not print smaller quantities. Therefore, we have to go to low quality printers.”

The manufacturers/distributors were of the opinion that law enforcing officers unduly influence them. Few admitted that they had offered payoffs and also of the view that PHI does not enforce the law fairly. All complaints were related to improper practice of the PHI,

“Once a PHI asked to include the sugar colour code to the chocolate drink. But later I got to know that it is not required by the Law.”

“PHI told me to remove all products from the market. I paid him off and settled it.”

In contrast, one manufacturer/distributor appreciated the PHIs by saying,

“Our PHI is very helpful. I take advice from him. He comes and inspects whenever necessary. He always approaches in a lawful manner.”

The manufacturers/distributors also highlighted that they should have an opportunity to correct the label before being prosecuted. Two stated,

“It is unfair to prosecute at the first occasion. We should be given a chance to correct the label.”

The law enforcing officers expressed their views on prosecutions of Ayurveda herbal food products. All agreed that they were not clear on the authority for such prosecutions, while none were confident about whether the herbal beverages can be considered as a food or not under the food law. All were of the opinion that herbal beverages violate the labelling regulations,

“Herbal products commonly violate regulations. However, manufactures are of the opinion that it is an Ayurveda medicine and therefore not covered by the Food Act.”

“We are uncertain regarding the legal authority of inspecting Ayurveda beverages.”

Lack of sufficient officers for conducting trials, absence of a person/body to get legal advice were the other major practical difficulties of law enforcing

officers. Some admitted that they are not competent in court procedures,

“We don't know the exact legal procedure.”

“It is difficult to deal and argue with lawyers. We don't have such capacity.”

Further, getting state councillors from the Attorney General Department or lawyers through local government had been difficult,

“There are no proper persons in the health department to receive legal advice.”

“I tried to have state counsellors from Attorney General Department but could not.”

Theme 3: Suggestions related to labelling regulations

The participants came up with suggestions to improve the clarity of information. One PHI stated, *“Information printed in glass bottles is not clear due to the glistering effect of the bottle. That should be avoided.”*

They also suggested to avoid pasting stickers and displaying manual writing for the expiry date. One consumer suggested to underline the expiry date. All the law enforcing officers and consumers suggested to increase the font size of letters and to avoid perforated type font. On the contrary, manufacturers/distributors suggested to reduce the font size of letters claiming that it is not possible to include all required information with the current font size. This font size had direct links to manufacturers' resistance on nutrient information,

“Nutrient content should not be included in the regulation in future as space of the label is not enough due to current font size.”

The law enforcing officers and the consumers made suggestions relevant to the location of the label on containers. They all wanted to restrict the space of the container for labelling, but no one suggested a specific location. Instead, they suggested locations to avoid

labelling such as the neck and lid of bottles and the bottom. One PHI stated,

“Label is everywhere in some beverages. It should be regulated.”

“The consumer cannot see the inside due to the label even when the container is transparent. Therefore, the label should not cover the entire container at least for the beverages.”

An MOH further added,

“Letters printed in glass bottles can be easily removed and changed. Direct printing on the glass should be prevented.”

The participants had specific suggestions for 'ice packets' (a type of popsicle) in order to prevent the ingestion of printed ink into the mouth. One PHI stated,

“Since ice packets are eaten by sucking directly, carbon in the label goes into the mouth, therefore there should be a label free gap on either side of ice packets.”

There were suggestions to improve the awareness on labelling laws. The law enforcing officers agreed with the suggestion to have regular refresher training programmes on legislation. Some requested a guidebook for quick and easy referral. Participants also suggested improving the communication method between national level and the local level through a website. A PHI suggested,

“All registrations and approvals given by the Food Control Unit should be published on the website.”

All the manufacturers/distributors agreed that the Ministry of Health should have a method to regularly update and refresh the knowledge of manufactures as well as have a simple guidebook to understand the complex labelling law. One manufacturer/distributor

expressed that PHIs should be educated about the labelling laws and all others agreed to this suggestion,

“PHI also should be educated about labelling regulations. They also don't know the law properly.”

The consumers also suggested a few methods to increase the awareness on labelling among consumers. Educating children was a key method suggested by two participants,

“Children should be taught about the labels in schools.”

Two suggested that consumer societies should be established to address the concerns of consumers. They stated,

“It is important to make a society of consumers.”

Suggestions related to legal proceedings were expressed by both the law enforcing officers and manufacturers/distributors. Some of the manufacturers /distributors suggested a grace period,

“Should give at least three months to adopt to a new or amended regulation, otherwise it is very unfair.”

Three of them said,

“PHI should not be given the discretion of prosecution. He should be controlled. Otherwise, he misuses powers.”

A majority of the law enforcing officers were of the opinion that they need legal aid for court proceedings and that there is a need for trial conducting officers as well as legal guidance. The most demanding suggestion was the training of trial conducting officers. Legal guidance from district level by a panel of experts was also suggested,

“There should be a panel of experts at district level to provide legal advice on court cases.”

Table 1: Themes and subthemes for manufactures/distributors

Themes	Sub-themes
Attitudes related to labelling regulations	Presence of the label
Practical difficulties related to labelling regulations	Labelling laws
Suggestions related to labelling regulations	Font size of letters
	Sugar level, nutrient content and the language
	Law enforcement by Public Health Inspector
	Knowledge on labelling regulations
	Issues related to printing of labels
Suggestions related to labelling regulations	Font size of letters
	Empowering manufacturers/distributors on labelling regulations
	Enforcement of the regulations

Table 2: Themes and subthemes for manufactures/distributors

Themes	Sub-themes
Attitudes related to labelling regulations	-
Practical difficulties related to labelling regulations	Practical difficulties related to court proceedings
	Practical difficulties on referring the labelling regulations
	Practical difficulties related to specific provisions of labelling Regulations
	Practical difficulties related to prosecutions of Ayurveda products
Suggestions related to labelling regulations	Suggestions related to the location and colour of the labels
	Suggestions related to the expiry date and type
	Suggestions relevant to enforcement of the law
	Suggestions to increase the awareness on labelling regulations
	Suggestions relevant to ice-packets

Table 3: Themes and subthemes for consumers

Themes	Sub-themes
Attitudes related to the labelling regulations	Presence of the label Misleading or false descriptions
	Content of the label
	Enforcement of labelling regulations
Practical difficulties related to the labelling regulations	Location
	Expiry date
	Font and language of information
	Reliability of information
Suggestions related to the labelling regulations	Suggestions related to the clearness of information
	Suggestions related to the location of the label
	Suggestions related to the reliability of the information
	Suggestions related to the language and ingredients
	Suggestions related to the enforcement of the law
	Suggestions related to the awareness on labelling regulations

Discussion

Manufacturers/distributors, law enforcing officers and consumers have direct interest on food labelling regulations. This is the first qualitative study assessing attitudes on food labelling regulations of all three groups, giving almost a complete overview of the practical aspects of labelling regulations.

Location of the label

The location of label on the container/package was causing inconvenience specifically to consumers. Even though the regulations do not regulate the location of the label in the container it regulates the location of the information within the label. The common name, brand name and the net content should be in the main panel while other information could be in any panel including the main panel. Since there is no specific location to the label, information in 'any panel' can be displayed on any surface of the container/package including the bottom, lid and bottle necks which are less convenient for the reader to identify the information that they are looking for. In contrast, the Indian regulations require all legally

required information to be displayed in a specific location of the container which is called the 'principal display panel'. However, neither the location of the label itself nor the location of information in the label is guided by the Codex labelling standards (8).

Font size

Font size was a factor interesting to all three groups. There is no single font size for all labelling information which reflects the complexity of the regulations. For example, the size of the common name depends on the size of the brand name while size of the net content and date markings depend on the area extent of the main panel. Information in a lid has a different minimum font size (1mm), while other information has a different minimum font size (1.5mm). Therefore, there is no uniform font size in Si Lankan labelling law. Measuring the font size had been a practical difficulty to the law enforcing officers.

The main reason given for the non-compliance to the font size by manufacturers/distributors was that space of the label would not be adequate to provide all

necessary information especially when the label is relatively small. Their justification is acceptable to a certain extent as the font size of letters is not related to the surface area of the label or container. Therefore, small labels in small containers may not have information in the required font size. Then, there should be no excuses for non-compliance with font size when the label is large enough. The manufacturers / distributors argued that it is not practical to comply with the font size as information had to be displayed in all three languages, however the argument was incorrect as it is only the common name that has to be displayed in two languages and all other information can be displayed in any one of the three languages – Sinhala, Tamil and English. Even though manufacturers/distributors were worried about the bigger font size, no one raised about the difficulties encountered by the consumers when the font size is too small. For example, they had no objections for displaying 1mm height of the letters in the lid of the bottles. This indicates the poor attitudes of manufacturers/distributors towards making health information clearer to the consumer.

The ordinary rulers cannot be used to measure the letter size since the accuracy of measurements can be challenged at the court. Alternative solution was a steel calibrated ruler. The Department of Standards and Services, Sri Lanka provides a calibration certificate for the steel ruler. Such a ruler can be used to measure the height of letters. However, this department has facilities only to calibrate 5mm and above. Therefore, the legal height of 1mm for the information in the lid of a bottle, the legal height of 1.5 mm for usage/storage instructions, ingredients, addresses and sugar level and the legal height of 3 mm for the common name cannot be accurately measured. Therefore, provisions on the font size for the information in the lid of a bottle, usage/storage instructions, ingredients, addresses and sugar level cannot be legally enforceable; this factor is proven as none of the law enforcing officers had ever initiated prosecution on violation of the font size letters.

Language

Most of the information should be given at least in one of the three languages. Such information

includes the brand name, storage/usage instruction, name/addresses of the manufacturer/distributor and country of origin. There are exceptions where common name should be at least in any two of the three languages. However, surprisingly - except for the date marking - the exact language that should be used is not stated in the regulations. The language policy of Sri Lanka stipulates that Sinhala and Tamil languages are the national languages while English is the link language (9). According to Article 19 of the Constitution, Sinhala and Tamil languages are national languages; while Article 22(1) also states (as amended by 16th amendment) that the administrative languages in Sri Lanka are Sinhala and Tamil (10), so that the languages stipulated in the regulation could be referred to as these three languages. In contrast, foreign jurisdictions had made sure to clarify the language in their regulations. The United States Labelling Regulations specifically state that English is the only language used as it is the official language (11). In Indian labelling regulations, the language is mentioned as English or Hindi in Devnagri script and in addition other local languages are also allowed to be used (12).

Colour code for sugar level

There is a disparity of the adopted practice and the requirement by the law in relevance to colour codes for sugar level. The worldwide accepted method in food trade is measuring the sugar concentration by an equipment called “Brix” meter. It measures the percentage of sugar content as Brix degrees. One degree of brix is equal to 1g of sugar (Sucrose) in 100g of solution. However, it is the sugar content in 100g and not in 100ml, whereas regulations are required for 100ml and not for 100g (7). In physics, 100g is equal to 100ml in case of pure water as density of pure water is equal in 1g and 1ml, but not in beverages like carbonated beverages, ready to serve beverages, fruit juices and fruit nectars. Not only this issue was highlighted by manufacturers/distributors as a practical difficulty, but also makes all colour code labelling information to be illegal.

Enforcement of regulations

The Director General of the World Health Organization has stressed the importance of health legislations by stating “*There is nothing less than the sovereign right of a nation to enact legislation that protects citizens from harm*” (13). The National Nutritional Policy of Sri Lanka has identified making and implementing laws and regulations as a policy to ensure food safety of all Sri Lankans (14). The Manual of Public Health Inspectors states that “PHI shall carry out responsibilities of an authorized officers under the *Food Act of 1980*” (15). Therefore, the PHI should enforce the labelling regulations as part of their routine duty, however they enforce several Acts/Ordinances and the commonest two among them are the *Food Act of 1980* and the *Quarantine and Prevention of Diseases Ordinance of 1897*. Sampling regulations and hygiene regulations are the commonly enforced regulations under the *Food Act of 1980*. Therefore, they have limited place in their routine duties of law enforcement for the regulations. Food and Drug Inspectors currently do not have a duty list. In practice, they mainly implement the *National Medicines Regulatory Authority Act of 2015* and implementation of the *Food Act of 1980* is not done to that extent. Medical officers of health mainly engage in conducting maternal and child health clinics and administration activities.

One of the main reasons expressed for lack of law enforcement is inadequate knowledge on the regulations. Developed countries had identified its importance and already developed programmes to improve knowledge through both state and non-state organizations. Online e-learning courses of food labelling legislation have been developed by the Food Standard Agency of the United Kingdom which include training on labelling. It provides general understanding about labelling laws for law enforcing officers as well as for any other professional (16). A paid labelling training programme is available in the United Kingdom called 'Food labelling Training Course' designed by experts in the food industry which also includes labelling regulations. At the end of the course, the knowledge is tested, and a certificate is given to those who obtained more than

80%. Failed participants are allowed to repeat unlimited attempts without an extra fee (17). Most of programmes in the Sri Lankan Health Department which are related to public health midwives – who are involved in maternal and child health services - have standard training programmes with user manuals. Training programmes of 'infant and young child feeding', 'lactation management', 'maternal care' and 'early childhood development' are such examples. However, there is no such standard training for PHIs especially relevant to legislation.

Ayurveda herbal food

Uncertainty of powers to prosecute for violation of herbal (Ayurveda) food was a major issue raised at the FGDs held with law enforcing officers. *Section 33 of the Food Act of 1980* defines the term 'food' as any article manufactured, sold or represented for use as food or drink by human beings and includes any article which ordinary enters in to or is used in the composition or preparation of food (5). The definition does not exclude Ayurveda food. In contrast, the *Food and Drugs Act of 1949* (18) which was repealed by the present Act had excluded drugs from the purview of food by the definition in Section 63. The Codex also excludes substances used only as drugs from the definition of 'food' by *Section 2 of the General Standard for Labelling of Pre-packed Food* (8). World Health Organization also had excluded substances used as drugs or medicines from the definition of 'food' (19). In addition, the *National Medicines Regulatory Authority Act of 2015* (20) and the *Ayurveda Act of 1961* (21) are in place to regulate medicines. Therefore, the authors are of the view that *Food Act of 1980* is not applicable to drugs / medicines. The *Ayurveda Act of 1961* does not define 'Ayurveda drugs/medicines' (21), however all Ayurveda herbal food should be registered by the Ayurveda Department which provides a registration number. Therefore, such herbal food can be reasonably considered as Ayurveda medicines and not come under the purview of the *Food Act of 1980*. Consequently, it can be assumed that law enforcing officers under the *Food Act of 1980* do not have authority over Ayurveda herbal beverages.

The manufacturers/distributors were dissatisfied with the prosecutions by PHIs at the very first instance of an offence without providing guidance and giving adequate time to rectify. According to *Section 12(3) of the Nuisance Ordinance of 1939* (22), the authorized officer should deliver a notice to stop the nuisance and institute legal actions only if they fail to comply with the notice. The procedure would be the same according to the *Quarantine and Prevention of Diseases Ordinance* (23) as well. However, such notification process prior to initiate legal actions is not included in the *Food Act of 1980*.

Conclusions & Recommendations

In view of causing inconvenience to consumers, a location in the container/package should be specified at least for legally required information. Neck of the bottle, lid and bottom of the container/package should be prohibited in displaying such information. Date markings – specifically the expiry date – should be given an exact location in the label. The legal definition of 'food' is not precise, hence there is an uncertainty whether Ayurveda herbal foods are being covered under the *Food Act of 1980*. Legal interpretation for the term 'food' needs to be revised by an amendment to exclude Ayurveda herbal foods. Knowledge on labelling regulations is poor among the manufacturers/distributors and the law enforcing officers. It is necessary to establish a standard regular legal training programme to both the manufacturers/distributors and the law enforcing officers. An online self-space training shorts courses are suitable for the manufacturers/distributors while training of trainer's programs can be established for country-wide training of the law enforcing officers. A handbook would be very useful for all groups including consumers. Basics information in food labels can be incorporated into the school curriculum.

The labelling law is poorly enforced by the law enforcing officers. Lack of confidence on legal proceedings and inadequate legal support for court cases are major reasons in addition to poor knowledge. A district level resource team need to be developed in each district for legal advices and to conduct trails in courts. In addition, food authorities

(MOHs) and the chief food authority (Director General of Health Services) should monitor and supervise the activities of law enforcing officers.

A central level rapid response focal point for consumer complaints and information is unavailable in Sri Lanka. A strictly monitored official hotline phone number/mail may be beneficial for all citizens not only to monitor labelling issues but also to monitor all food safety issues which eventually help to improve food safety in Sri Lanka.

Public Health Implications

Sri Lankan food labelling law and its administration have long standing drawbacks which had not addressed for a long time. These pitfalls had led manufacturers/distributors, authorized officers and consumers to disadvantage. Perceptions on the law and its practical difficulties found in this study through a qualitative approach would help relevant authorities to consider those matters in future revisions, and thereby have a legally and practically sound food labelling law in Sri Lanka in future

Author Declarations

Competing interests: None

Ethics approval and consent to participate: Ethical Approval was taken from the Ethics Review Committee of National Institute of Health Sciences, Kalutara. The written consent was taken from each participant.

Funding: Ministry of Health, Sri Lanka covered the expenses of refreshments of focus group discussions.

Acknowledgements: The authors like to acknowledge the Post Graduate Institute of Medicine of University of Colombo for the guidance provided as this article is from a part of the theses submitted for MD (Community Medicine). The authors also wish to acknowledge the National Institute of Health Sciences and the Office of Regional Director of Health Services (Kalutara), Offices of Medical Officers of Health (Kalutara, Matugama and Panadura) for their administrative support provided. All

participants of focus group discussions are greatly appreciated by authors.

Author contributions: CAH collected the data and wrote the manuscript; and AMA and SN were supervised and assessed in scientific writing of the manuscript.

References

1. Nagaiah S., Kandasamy T, Mallawarachie T. Food control administration faces acute problem! *Food Safety News* 2004; 5(1): 6. Available from: <https://www.FOODWEB.com>
2. Prathiraja PHK & Ariyawardana A. Impact of nutritional labelling on consumer buying behaviour. *Sri Lankan J Agric Econ* 2003; 5: 35-46.
3. Senarath SN & Karunagoda RP. Consumer attitude towards labelling of genetically modified foods in Sri Lanka. *Trop Agric Res* 2010; 23(3): 283-288.
4. Talagala IA. *The use of food labels in making choices on package snacks and its associated factors among grade 12 students in the district of Colombo*. MSc Dissertation (Community Medicine). Colombo: Post Graduate Institute of Medicine, 2011.
5. Government Publication Bureau. *Food Act of 1980*. Sri Lanka: Government Press, 1980.
6. Government Publication Bureau. *Food (Labelling and Advertising) Regulation, 2005*. No 1376/9. Colombo: Government Press, 2005.
7. Government Publication Bureau. *Food (Colour Coding for Sugar levels) Regulations 2016*. Colombo: Government Press, 2016.
8. Codex Alimentarius Commission. *General Standard for the Labelling of Pre-packed Foods*. Codex Alimentarius Commission, 2015. Available from: www.codexalimentarius.net.
9. Department of Official Languages. *Official languages policy*. Department of Official Languages, 2015. Available at: <https://.com>.
10. Government Publication Bureau. *Constitution of Sri Lanka, 1978*. Colombo: Government Press, 2010.
11. Federal Trade Commission, 2017. *Fair Packaging and Labelling Act*. Available at: <https://www.ftp.gov.com>.
12. Food Safety Helpline. *Food Safety and Standards (Packaging and Labelling) Regulations*. Food safety helpline, 2016. Available at: <https://www.foodsafetyhelpline.com>.
13. Chan, M. *Director General of the World Health Organization*. Lecture delivered at Georgetown Universities Global Futures Initiative, Washington, USA, 2015.
14. Ministry of Health. *National Nutritional Policy*. Colombo: Ministry of Health, 2010.
15. Ministry of Health. *Manual for the Sri Lanka Public Health Inspector*. Colombo: Ministry of Health, 2010.
16. Food Standard Agency. *Food Labelling e-learning Course*. Food Standard Agency, 2015. Available at: <https://www.labellingtraining.gov.uk.com>.
17. High Speed Training. *Food Labelling Training Course*. High Speed Training, 2017. Available at: <https://www.highspeedtraining.co.uk.com>.
18. Department of Government Printing. *Food and Drug Act of 1949*. Colombo: Department of Government Printing, 1949.
19. WHO. *First adapt then act*. Geneva: World Health Organization, 2004. Available at: <https://www.who.int.com>.
20. Government Publication Bureau. *National Medicines Regulatory Authority Act of 2015*. Colombo: Government Press, 2015.
21. Government Publication Bureau. *Ayurvedic Act of 1961*. Colombo: Government Publication Press, 1961.
22. Government Publication Bureau. *Nuisance Ordinance of 1893*. Colombo: Government Press, 2010.
23. Government Publication Bureau. *Quarantine and Prevention of Diseases Ordinance of 1897*. Colombo: Government Press, 2010.