

## ABSTRACT

### Introduction

Food is generally referred as an 'article' consumed by humans. Food can be solid, semi-solid or liquid. A beverage is a liquid intended for human consumption. Food label is the main medium of communication between the manufacturer, distributor and the consumer. The label is regulated by laws and guided by standards.

In Sri Lanka under the Food Act there are regulations in relation to labelling of beverages. In addition, Codex standards on food labelling made by Codex Alimentarius Commission are considered as benchmark in international standards of food labelling.

Implementation of labelling regulations is vital to ensure the safety of food. Therefore it is important to study on labelling regulations; strengths and implementation status.

### Objectives

The study was carried out with the objectives of describing the strengths and deficiencies of Sri Lankan labeling regulations for beverages in comparison to international labeling standards of Codex Alimentarius. assessing the compliance of labels of beverages to the Sri Lankan labeling regulations and Codex standards, and determining the effectiveness of an training programme to manufactures / distributors and authorized officers in improving the compliance of beverages to the labeling regulations.

### Methods

The first phase was a descriptive study. Description of strengths and deficiencies of the Sri Lankan food labeling regulations for beverages was carried out by comparing with the relevant labelling standards of Codex Alimentarius by using a check list. Attitudes and practical difficulties of local manufacturers / distributors and authorized officers related to

labelling regulations in the Kalutara district and consumers were assessed through Focus Group Discussions.

The second phase was a pre-post study. The pre intervention assessment was done in 835 beverage labels, 134 manufactures / distributors and 46 authorized officers in Kalutara district. The compliance of beverage to labelling regulations and Codex standards were assessed by a check list. Knowledge, attitudes and practices assessed by a self-administered questionnaire. The training package consisted of a training programme and an information booklet. The knowledge, attitudes and practices were assessed in three months and compliance of labels to Sri Lankan labelling regulations in six months.

## **Results**

The strengths of the Sri Lankan labelling regulation compared to Codex labelling standards includes location of information, language, font size and font type being regulated and displaying of sugar levels in carbonated and fruit-based beverages. On the other hand, non-availability and disparity in definitions of technical terms, absent of provisions on nutrient information and hypersensitivity warnings are weaknesses.

Of the 835 beverage labels surveyed, not a single label was fully complied with the labelling law. The compliance to Codex standards which are not included in to Sri Lankan regulations was poor. The knowledge on labelling regulations was poor among manufacturers / distributors (n=138) and authorized officers (n=46). However, attitudes were favourable towards implantation of labelling regulations. Of all authorized officers (n=46) not a single authorized officer had implemented legal proceedings for labelling regulations during the period of three months preceding the pre interventional assessment.

There was statistical significant improvement ( $p<0.05$ ) of the knowledge and attitudes of manufacturers / distributors and authorized officers in immediate post intervention and number of legal proceedings in three months period after the intervention. In addition there were statistically significant improvement ( $p<0.05$ ) in correction of font type and font size though, many other violations remained uncorrected six months after the intervention.

## **Conclusions and Recommendations**

Sri Lankan food labelling law is relatively complex and less user-friendly document. None of the food industries fully adhered to the labelling regulations. The knowledge and practices were also poor while attitudes were favourable. Drawbacks in the legislation as well as the public health system in relevant to food safety had contributed to poor implementation of labelling regulations. The intervention of the training package was effective to improve the knowledge, attitudes and practices. However the intervention was not effective to sustain the knowledge. It was effective in correcting few violations by the food industry and most of violations remained uncorrected.

Therefore it is recommended to formulate/amend the food labelling regulations and conduct regular training programs / awareness programs. The public health system needs to be more strengthening by establishing resource teams for legal proceedings at national and local level, improving monitoring and evaluation of implementing legislation, and training of trial conducting officers.

## **Key words**

Food, food legislation, food labelling, labelling regulations, beverage, Food Act, training package