

ORIGINAL ARTICLE

## Challenges and Advances towards Reformulating Processed Foods to Contain Low Salt in Sri Lanka

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### ABSTRACT

**Background:** In Sri Lanka, consumption of foods high in salt. Efforts are underway to tackle this issue, including the reformulation of fast foods to contain less salt. To succeed, understanding the practices in using salt among restaurant owners, cooks, and chefs are important. The objective of this study was to explore the challenges that may prevent the reformulation of foods to contain less salt in selected food premises in Sri Lanka.

**Methods:** In a qualitative study design using semi-structured interviews and focus groups as data gathering tools, food premises from ten districts in Sri Lanka were selected; while owners of food premises, chefs and cooks were the study population.

**Results:** The study recognised several key themes related to the study objective including awareness and practices on salt use, 'eating outside' behaviour, dominance of experience when using salt, commercial vs. domestic use of salt and catering to the demand. Findings included both supportive and resistive perceptions and attitudes.

**Conclusion:** Fears of competition and consumer demands may prevent restaurant owners, chefs and cooks from taking decisive steps towards lowering salt use. Training them on ways of lowering salt, while maintaining the appeal for foods and building trust on equitable implementation of salt lowering policies may win industry support. However, such efforts must parallel approaches to changing consumer behavior towards salt containing foods.

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## Introduction

High salt content in foods has been recognized as one of the main contributors to the manifestations of non-communicable diseases such as hypertension, coronary heart disease and stroke (1). The World Health Organization's (WHO) maximum daily dietary recommendation for salt is 5 g, while the average consumption of dietary salt in Sri Lanka is around 10.5 g per day; double the recommended amount (2). A key contributor to the high salt intake has been recognized as the use of excessive salt in foods that are eaten outside of home, mainly through fast foods (3).

In Sri Lanka, people consume significant amounts of out of home foods (4). These foods generally contain higher amounts of salt when compared with home-made foods (5). Based on the research conducted in other countries, the practices among restaurant owners, cooks, and chefs may be partly to blame for the higher salt content in restaurant foods (6, 7). Consumer demand may be one reason for makers of processed restaurant foods to use more salt (8). This, however, is not well understood in the Sri Lankan context, dragging back efforts towards lowering the salt intake among the population.

The National Strategic Plan for Salt Reduction for Sri Lanka, 2018-2022 (9) aims to reduce the salt consumption within the population through multiple means. These include behavior change communication, mass media campaigns, food industry collaboration, and implementing front labelling as a means of educating the consumers about harmful levels of salt in various foods. It also focuses on creating a supportive environment within the community, facilitating consumers to make healthier choices when selecting and preparing foods. The strategic plan recognizes 'reformulation', defined as the "reduction of the amount of negative nutrients in (processed) foods such as energy, salt, saturated (and trans) fat and sugar" (10), as one of the strategies for lowering salt content in processed foods.

Owners of food premises, cooks and chefs are at the forefront of decision-making regarding reformulation and therefore, unless the practices adopted by them and the reasons for doing so are understood and negotiated, their support towards a salt lowering effort may not be forthcoming (11). These insights may also pave the way towards developing appropriate and more impactful policies and regulations in line with the national strategy. Therefore, the aim of this study was to explore the challenges that may prevent reformulation of foods to contain less salt in selected food premises in Sri Lanka from the perspectives of the owners of food

premises, chefs and cooks.

## Materials and Methods

In achieving the research aim, we have adopted a qualitative study design. Given that the study focused on everyday experiences, perceptions, and practices of the owners of food premises, chefs, and cooks in using salt in the preparation of foods, a qualitative study design was considered the most appropriate (12). In identifying the study setting, food premises in this case, we used the official classification of food premises in Sri Lanka (Schedule II categories of food premises) (13).

Accordingly, the study focused on hotels/resorts, catering establishments, restaurants/eating houses, bakeries, canteens, and supermarkets serving ready to eat/prepared foods – as we believed these settings to be most frequented by the consumers in Sri Lanka in purchasing ready to eat salt containing foods. From the selected food premises, bakeries and restaurants were included in all districts covered in the study, while one other type among food premises mentioned was also studied in each district. The selection of the food premises was done with the consultation of the area Medical Officer of Health (MoH) who led the public health initiatives including monitoring of food premises in the area. The districts covered and the food premises selected from each district were illustrated in Table 1.

The study population included owners of food premises, cooks and/or chefs. Three qualitative inquiries were conducted in each district (30 in all) with one qualitative inquiry per selected food establishment. In identifying the persons to be interviewed we considered the authority and the established practices in the selected food premises in terms of determining salt use following a brief inquiry from a representative of each food premise. We used in-depth interviews and focus group discussions as data gathering tools (12). In-depth interviews were used to obtain data from the food establishment owners and when a single or few cooks were employed; while focus group discussions were used when teams of cooks/chefs were employed in selected food premises. The data collection was done by a group of undergraduates with a background in public health and experience in conducting qualitative studies. The data gathering team was trained by the principal investigator using an interview guide. Two interview/focus group guides were developed for cooks/chefs (Annexure 1) and owners of food premises (Annexure 2).

The interview guides were developed using insights gathered from literature and from expert inputs (14). Knowledge and experience within

**Table 1:** Types of food premises studied.

District	Type of food premises studied
Kandy (Ka)	Restaurant/Eating House, Bakery, Hotel/Resort
Trincomalee (T)	Restaurant/Eating House, Bakery, Canteen
Anuradhapura (A)	Restaurant/Eating House, Bakery, Canteen
Kurunegala (Ku)	Restaurant/Eating House, Bakery, Catering Establishments
Jaffna (J)	Restaurant/Eating House, Bakery, Canteen
Kegalle (Ke)	Restaurant/Eating House, Bakery, Restaurant/Eating House
Matara (M)	Restaurant/Eating House, Bakery, Hotel/Resort
Badulla (B)	Restaurant/Eating House, Bakery, Catering Establishments
Colombo (C)	Restaurant/Eating House, Bakery, Supermarket serving ready to eat/Prepared food
Kalutara (Kl)	Restaurant/Eating House, Bakery, Hotel/Resort

the research team in public health and nutritional interventions were useful in generating the interview questions. In achieving the study aim, we focused on several key areas including individual perspectives on salt, demand and supply of salt containing foods through their establishment, food preparation and salt use, and policies and compliance. The questions developed were open-ended and as suggested by Morris (14), the interview guides were piloted among a group of restaurant owners and cooks, who were not part of the research proper, before finalizing and training the interviewers. Interviews were digitally recorded after obtaining consent from the study participants and the recordings were transcribed verbatim. Focus group discussions were conducted by the trained researchers and the discussions were guided using the interview/focus group guides described earlier. Notes were taken during the focus group by a senior member of the research team.

The transcribed text from interviews and focus group discussion notes were then subjected to a thematic analysis (15). As described before (16), researchers read and re-read the texts in order to make sense and identify phrases, ideas and expressions that were consistent and common among the study population. These pieces of information were then coded and grouped in view of enumerating the emerging themes. As suggested previously (15), a third author validated the identified categories and themes, and the finalized set of themes were arrived at through consensus.

## Results

The findings from the in-depth interviews and focus group discussions were classified into several themes. These include awareness and practices on salt use, 'eating outside' behavior, dominance of experience when using salt, commercial vs. domestic use of salt and catering to the demand. The study revealed that majority of the participants were aware about the high salt consumption and the negative impact that it may have on the health

of the people. Although the restaurant owners and cooks were aware about the health consequences of salt, they generously used salt given the taste and texture that it added to the foods.

A statement by one of the cooks (cook, B1), "I know that salt is unhealthy, but it is essential, when we prepare food" reflected on the general sentiment among many of the cooks/chefs and restaurant owners. They were also conscious of the potential impact of salt on both health and on their business as one of the restaurant owners explained, "we need to lower salt, but the food may not taste well" (Owner, C2). The key food sources recognized by the study participants as having high salt content belonged to the 'fast food' category including popular foods such as kottu (a dish consisting of diced roti stir-fried with scrambled egg, onions, chillies, spices, and optional vegetables or meat), fried rice, short eats and other fried snacks. One restaurant owner (Owner, B2) stated that "fast foods bring us the most income and many people buy it, but it is also one of the foods that has most salt in it". This understanding was echoed by several other cooks who stated, "we add more salt to fast foods as it makes it taste good" (Cook, C3) and "salt is like our secret weapon, fast foods would not be fast foods without it" (Cook, Ka1).

However, there were restaurant owners and cooks who resisted adding 'more' salt in their practices. One restaurant owner stated, "I ask my cooks to use less salt and oils as the clients that I get are health conscious" (Owner, Kl1). One of the chefs also stated that "we [the team of chefs] have decided to use only minimum amounts of salt when cooking and used alternative methods to compensate for the salt" (Chef, M1). These phrases however were not dominant as many of the cooks, chefs and restaurant owners were of the view that salt is an essential component in their foods despite its unhealthy effects.

The restaurant owners and cooks/chefs were also aware of the factors that contributed to 'eating outside' behavior among their clients. Some of the reasons that were highlighted by the participants

included; busy schedules of people living in urban areas, wide availability of fast food outlets in areas creating easy access, and relatively low cost of restaurant foods particularly the fast foods as against more healthier options. Participants realized that people wanted variety, grab a quick bite and at a reasonable price. Thus, the restaurant owners would focus on catering to these needs. This was highlighted when one of the restaurant owners mentioned, “most of my customers want to grab a quick lunch during working hours and we provided them with what they wanted, short eats and other foods move fast as a result” (Owner, Ka2). Another restaurant owner expressed “fried rice, kottu, and hoppers were on high demand in the evenings as many working couples regularly visited my place to grab something for their dinner, I think they do not have time or strength to prepare meals at home after a long day’s work” (Owner, C2).

Knowing the needs of the clients, the restaurants tended to take steps in promoting ‘eating outside’ behavior further. Some of the cooks expressed that one way of doing this was to add salt and oil, which gave the desirable flavors to the foods. Restaurant owners also created an environment within their restaurants to lure the customers to order fast foods of different variety by adopting various methods such as custom portion sizes, competitive pricing, attractive displaying of items, and through on-site advertising. One restaurant owner explained, “We want our customers to come back and having variety, competitive prices and having good tastes always matter.” (Owner, A1).

Many of the study participants were of the opinion that salt use in preparing food was based on the experience of the people who prepared the food. This may be creating a significant variation in the use of salt. Monosodium glutamate type of salty food additives were also used by some in expectation of better taste. Several cooks expressed their views as “I never look at a recipe when adding salt as it is in my head, for some foods, I just know the amount and in some instances, I check myself if the salt is adequate during cooking” (Cook, A2), “I know that the amount of salt in foods vary from time to time as we do not measure the salt, but rely on our hands-on experience” (Cook, Ke1), and “I just use the same spoon used to stir when adding salt and other spices. Generally, it comes out the same and I do not have to taste” (Cook, Ku1). However, some restaurant owners indicated that they did have control over the amount of salt and other ingredients added to certain foods as they expressed views such as “I have made recipes for each food item as cooks may change, but I want the taste of foods to remain the same” (Owner,

Ku2) and “we do have a general understanding on how much of salt to be used; but it is hard to control the cooks when they actually do it, they may use more salt as they prefer” (Owner, J1).

It was noted that participants of the study indicated different practices when using salt at the restaurant and at home. Several participants mentioned that they may use less amount of salt at home as against at the restaurant when they said, “I add more salt when I cook at the restaurant than when I cook at home” (Cook, T1) and “I do not cook much at home, but my wife use very much less salt at home when cooking than me, but I do not find it less in taste” (Cook, C2). Restaurant owners also agreed that there may be more salt use at the restaurant than at home as one of the owners indicated, “at home we tend to use small amounts of salt, but when preparing foods for lot of people, the use may be high” (Owner, K12). However, one restaurant owner also mentioned that “we do not prepare fast foods in the same way at home because we can afford to be health conscious, but in the restaurant, we have to cater to the demand of many people, who would find lack of salt tasteless” (Owner, C3).

Many restaurant owners and cooks believed if the government establishes laws, it is a must that everyone comply. The restaurant owners feared that reducing the salt content would lessen the demand for their foods if others did not adhere to the law. This perception was illustrated in the statement, “I do not mind lowering salt, but everyone should do it as otherwise, we will lose our customers” (Owner, C3). Cooks and chefs on the other hand were concerned that if they lower salt content, it would reflect badly on their reputation given that customers and restaurant owners expect otherwise. Statements such as “I could lessen the amount of salt and use an alternative, but that may not be what the customers want” (Cook, J2) and “if I change the recipe and customer demand goes down, my boss will not be happy” (Cook, T3).

## Discussion

In most countries, salt intake remains well above the WHO recommended dietary intake of 5 grams per day (17). Sri Lanka is not different and salt plays a major role in preparing fast food items, which may have increased in consumption in the recent past (18). Determinants of high salt rich out-of-home foods consumption may include people having less time to cook meals at home, easy access to cheaper fast-food alternatives, and craving for salty taste (19). We have recognized that the food industry is aware about these determinants and have taken measures to lure more and more customers by providing them

with what they desire. We have also recognized that owners of food premises and cooks alike may be in a dilemma in several fronts if salt reduction laws or guidelines are implemented. On one hand, the cooks and chefs may not be knowledgeable and skilled enough to adopt alternative methods that would enhance salty flavour or compensate for the reduction in salt. On the other hand, a fear psychosis may arise around potential rejection of their foods by the consumers and non-adherence by other vendors creating unequal competition. Such fears also exist even in developed contexts where chefs and cooks have shown apprehension towards lowering salt on the basis of lack of demand from the consumers (20).

Studies elsewhere suggested that food manufacturers may be able to use methods such as modification of food matrix and texture, manipulate odour-taste interaction, and use of herbs and spices in lowering salt content while fulfilling the desires of the consumers (21-23). However, evidence supporting such practices as alternative methods to using salt and thereby fulfilling the desires of the consumers remain minimal. This also means that such practices may not be widespread among those who are in the food industry creating a need for training and developing alternative practices to using salt matching the local context. We also recognized several facilitators of a salt reduction master plan. One key facilitator is the general acceptance among the owners of food premises, cooks and chefs regarding the unhealthy effects of salt. Another facilitator is the practices among many in using less amount of salt at home in comparison to the salt use at the restaurant or hotel. This indicates the willingness to act among the study participants by limiting the salt use for health purposes. Furthermore, the general agreement among the owners of food premises, cooks and chefs regarding adhering to rule of law if salt use is regulated may also be considered a facilitator.

However, several barriers to implementing salt lowering campaigns were also recognized. We recognized a general lack of knowledge and skills, or lack of confidence in their skills, to compensate for the taste loss among the study population. This may adversely affect a push towards lowering salt use in food preparation (6). Lack of understanding about consumer desires related to healthy foods may also be a barrier as we recognized that it leads to many assumptions. There also exists a heterogeneity regarding their food habits among consumers and salt use practices within the food industry. Such varied perceptions about consumer habits and industry practices generate doubts among restaurant owners and cooks, a concern recognized in other contexts

as well (24). Apart from these, socio-cultural beliefs may also impact the restaurant owners and the cooks, when it comes to lowering salt use (25). This was evident to us as study participants were more controlled in using salt at home for family than when preparing meals for the consumers.

Consumer liking fast foods and eating outside drive the food industry, while the same have been used as a means of attracting more consumers. A vicious cycle may be formed that may resist attempts at lowering the salt use. Thus, we emphasize the importance of consumer behavior towards salt lowering strategies undertaken by the restaurant owners and the cooks. Recognizing this link, researchers have suggested a more participatory approach to dealing with high salt use where the consumers and other stakeholders work in collaboration to identify the most fitting approach (8). Notably, it has been suggested that consumer behavior change actions must be implemented in parallel to reformulation policies if such actions and policy expectations are to be realized (11). Evidence suggests that comprehensive strategies which focus on multiple components such as reformulation, taxes, mandatory limits, food labelling, behaviour change actions and health education will collectively achieve better results as against any one action alone (26). Importantly, what transpired through this study was the need to build trust and capacity within the food industry including among restaurant owners and the cooks on salt reduction interventions through approaches that are gradual, transparent, holistic and context sensitive.

## Conclusion

The study suggested that knowledge, practices and attitudes related to dietary salt among owners of food premises, cooks and chefs may be heterogeneous and may both facilitate and resist reformulating efforts towards lessening the salt content. While owners and cooks/chefs both are aware of the negative health impact of high salt consumption, they may not be keen on taking action by themselves. Lack of concerted effort from all stakeholders towards lowering salt, lack of capacity on reformulating without significantly hindering the taste quality, high consumer demand for foods that may also have high salt content as well as competition to survive in the industry may hinder processes towards lessening high salt use. Therefore, the study recommends developing capacity to lessen the salt content in food without losing much of its quality among restaurant owners and cooks/chefs, building trust in policies and regulations that may be implemented to curb

the high use of salt in food including equitable implementation of such regulations in order to gain the industry's support. These actions should be guided by policies that may also focus on changing consumer behavior.

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### Conflicts of Interest

The authors alone are responsible for the views expressed in this article and they do not necessarily represent the views, decisions or policies of the institutions with which they are affiliated.

### References

- Cappuccio FP. Cardiovascular and other effects of salt consumption. *Kidney Int Suppl.* 2013;3:312-5. DOI: 10.1038/kisup.2013.65. PMID: 25019010.
- Epidemiology Unit. Weekly Epidemiological Report. Colombo, Sri Lanka: Epidemiology Unit of the Ministry of Health; 2015. [http://www.epid.gov.lk/web/images/pdf/wer/2015/vol\\_42\\_no\\_42-english.pdf](http://www.epid.gov.lk/web/images/pdf/wer/2015/vol_42_no_42-english.pdf). Accessed January 4, 2021.
- Dunford E, Webster J, Woodward M, et al. The variability of reported salt levels in fast foods across six countries: opportunities for salt reduction. *CMAJ.* 2012;184:1023-8. DOI: 10.1503/cmaj.111895. PMID: 22508978.
- Weerasekara PC, Withanachchi CR, Ginigaddara GAS, et al. Nutrition transition and traditional food cultural changes in Sri Lanka during colonization and post-colonization. *Foods.* 2018;7:111. DOI: 10.3390/foods7070111. PMID: 30011854.
- Webster JL, Dunford EK, Neal BC. A systematic survey of the sodium contents of processed foods. *Am J Clin Nutr.* 2010;91:413-20. DOI: 10.3945/ajcn.2009.28688. PMID: 19955402.
- Ma GX, Shive S, Zhang Y, et al. Knowledge, perceptions, and behaviors related to salt use among Philadelphia Chinese take-out restaurant owners and chefs. *Health Promot Pract.* 2014;15:638-45. DOI: 10.1177/1524839914538816. PMID: 24942751.
- Lassen AD, Trolle E, Bysted A, et al. The salt content of lunch meals eaten at Danish worksites. *Nutrients.* 2018;10:1367. DOI: 10.3390/nu10101367. PMID: 30249979.
- Regan Á, Kent MP, Raats MM, et al. Applying a consumer behavior lens to salt reduction initiatives. *Nutrients.* 2017;9:901. DOI: 10.3390/nu9080901. PMID: 28820449.
- Ministry of Health Sri Lanka and WHO. National Salt Reduction Strategy 2018-2022. Ministry of Health Sri Lanka; 2017.
- National Heart Foundation of Australia. Rapid Review of the Evidence. Effectiveness of Food Reformulation as a Strategy to Improve Population Health; 2012. [https://heartfoundation.org.au/images/uploads/publications/RapidReview\\_FoodReformulation.pdf](https://heartfoundation.org.au/images/uploads/publications/RapidReview_FoodReformulation.pdf). Accessed May 10, 2022.
- Zandstra EH, Lion R, Newson RS. Salt reduction: Moving from consumer awareness to action. *Food Qual Prefer.* 2016;48:376-81. DOI:10.1016/j.foodqual.2015.03.005.
- Creswell JW, Poth CN. Qualitative inquiry and research design: Choosing among five approaches. Sage publications; 2016.
- Food Act and Regulations Sri Lanka Food Act 1980 (No. 26) 1980. Available at: <http://fcs.lanka.com> > food-act-sri-lanka.
- Morris A. Developing the interview guide. *Pract Introd -Depth Interviewing.* 2015;39-52. DOI: 10.4135/9781473921344.n3.
- Creswell JW, Hanson WE, Clark Plano VL, et al. Qualitative research designs: Selection and implementation. *Couns Psychol.* 2007;35:236-64. DOI: 10.1177/0011000006287390.
- Kvale S, Brinkmann S. Introduction to interview research. *Doing Interviews.* 2007;2-11.
- Powles J, Fahimi S, Micha R, et al. Global, regional and national sodium intakes in 1990 and 2010: a systematic analysis of 24 h urinary sodium excretion and dietary surveys worldwide. *BMJ Open.* 2013;3:e003733. DOI: 10.1136/bmjopen-2013-003733. PMID: 24366578.
- Bandara S, Kumara T, Dharmadasa S, et al. R. Changes in Food Consumption Patterns in Sri Lanka: Food Security and Sustainability: A Review of Literature. *Open J Soc Sci.* 2021;9:213-37. DOI: 10.4236/jss.2021.910016.
- Janssen HG, Davies IG, Richardson LD, et al. Determinants of takeaway and fast food consumption: a narrative review. *Nutr Res Rev.* 2018;31:16-34. DOI: 10.1017/S0954422417000178. PMID: 29037273.
- Murray DW, Hartwell H, Feldman CH, et al. Salt, chefs, and public health: an exploratory investigation of hospitality professionals'. *Br Food J.* 2015;117:1610-8. DOI:10.1108/bfj-07-2014-0237.
- Hoppu U, Hopia A, Pohjanheimo T, et al. Effect of salt reduction on consumer acceptance and

- sensory quality of food. *Foods*. 2017;6:103. DOI: 10.3390/foods6120103. PMID: 29186893.
- 22 Mehrabani D, Vahedi M, Eftekhari MH, et al. Food Avoidance in Patients with Ulcerative Colitis: A Review. *Int J Nutr Sci*. 2017;2:189-195.
- 23 Asiwe JN, Asiwe N, Onuh JE. The Effect of High Dietary Salt Consumption on Renal Function in Streptozotocin-Induced Diabetic Male Wistar Rats. *Int J Nutr Sci*. 2021;6:201-207. DOI:10.30476/IJNS.2021.92685.1153.
- 24 Park S, Lee J. ‘When operating a cafeteria, sales come before nutrition’—finding barriers and facilitators to serving reduced-sodium meals in worksite cafeterias. *Public Health Nutr*. 2016;19:1506-16. DOI: 10.1017/S1368980015002827. PMID: 26419495.
- 25 Gupta P, Mohan S, Johnson C, et al. Stakeholders’ perceptions regarding a salt reduction strategy for India: Findings from qualitative research. *PLoS One*. 2018;13:e0201707. DOI: 10.1371/journal.pone.0201707. PMID: 30080888.
- 26 Hyseni L, Elliot-Green A, Lloyd-Williams F, et al. Systematic review of dietary salt reduction policies: Evidence for an effectiveness hierarchy? *PLoS One*. 2017;12:e0177535. DOI: 10.1371/journal.pone.0177535. PMID: 28542317.