

Key role-players' perceptions of the current salt legislation in South Africa: opportunities and challenges

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Objective: A study was undertaken to determine the perceptions of key role-players regarding challenges and opportunities to move the South African salt-reduction strategy forward.

Design: The study had a qualitative, exploratory design using in-depth, semi-structured interviews.

Setting: South Africa.

Subjects: A total of 12 participants from various fields within the salt-reduction strategy environment, including academia, government and policy-related institutions, research sector and non-governmental organisations, took part.

Outcome measures: Consumer knowledge, consumer education programmes, multi-sectoral collaboration, research efforts and strategy recommendations were noted.

Results: Overall perceptions of the current salt-reduction strategy in South Africa were positive. Most of the participants agreed that the current strategy is the best approach to reduce the salt intake of the South African population. Participants strongly believed, however, that the strategy is not currently reinforced and that the initial momentum is lost. Concerns were raised regarding the absence of consumer-awareness campaigns, the population's lack of knowledge regarding salt intake and its relation to health, and the challenges around the monitoring of salt/sodium in processed foods. Participants also highlighted the lack of current studies in this field as well as existing data to be used for baseline studies.

Conclusions: South Africa's current salt-reduction strategy is the correct approach to decrease the population's salt intake. The initial phase of implementing the strategy has been successful, but the current perception is that government is not following through with this strategy. Several key areas that are needed for this strategy to succeed are being neglected.

Keywords: salt, sodium, hypertension, salt-reduction strategy, legislation, South Africa

Introduction

Non-communicable diseases (NCDs) are the leading cause of death in the world and account for 51% of all deaths in South Africa.¹ NCDs are a group of diseases that include cardiovascular diseases (CVD), diabetes, cancer, chronic respiratory diseases and mental health conditions.¹ Cardiovascular-related deaths are the biggest contributor to NCD mortality rates and are closely associated with unhealthy diets, especially a diet too high in sodium (salt).¹ The prevalence of overweight and obesity in South Africa only serves to accelerate the incidence in diet-related NCDs, namely CVD and diabetes.² NCDs share four underlying modifiable risk factors, namely an unhealthy diet, tobacco use, harmful use of alcohol and physical inactivity.³ The majority of premature deaths related to NCDs are thus preventable by adapting to a healthier lifestyle, especially decreasing dietary salt intake.⁴

South Africans' salt intake is much higher than the daily recommended intake of 5 g of salt.⁵ Too much dietary salt intake is linked to hypertension, eventually leading to CVD, and is the main dietary risk factor for mortality and illness worldwide.^{2,6,7} South Africans' salt intake is predominantly from processed foods, but also from adding salt to food during and after preparation.⁸

The World Health Organization (WHO) has brought forward an action plan with the vision 'of a world free of the avoidable burden of NCDs', where two of the nine global targets are focusing on a reduction in salt intake and the prevalence of

hypertension.⁹ According to the Global Nutrition Report of 2020, 'all diet-related NCD targets are globally off course and at alarming levels'.² South Africa has been one of the pioneering countries to implement an innovative mandatory salt-reduction strategy in conjunction with a public awareness and education campaign to reduce the population's dietary salt intake.³ The mandatory implementation to reduce salt in certain processed foods was undertaken in a stepwise approach. The first mandatory sodium restriction targets came into effect in June 2016 and the last of the implementation targets came into effect in April 2019.¹⁰

Ongoing surveillance and input from all key role-players to inform and support policy implementation are essential to ensure the national success of this strategy. A successful salt-reduction strategy will contribute to saving South African lives, decrease the burden on the healthcare system and place South Africa at the forefront of ground-breaking and visionary salt-reduction strategies in the world. This study engaged key role-players within the South African salt-reduction strategy. The objectives were to explore the challenges and opportunities with regard to salt monitoring, implementation of consumer education programmes, current and potential research, collaboration efforts and to provide recommendations within the salt-reduction environment in South Africa.

Ethical considerations

Approval for the study was obtained from the Health Research Ethics Committee of Stellenbosch University

(Ref. no. S19/10/255). Written, informed consent was obtained from each participant before commencing with the study. Each participant was coded by a numbering system to ensure anonymity.

Methodology

Study design

The study followed a qualitative design using an exploratory phenomenological approach. Semi-structured interviews were conducted to obtain an in-depth knowledge of the participants' perceptions of this phenomenon.

Study population, sample selection and size

The study frame consisted of key role-players in the South African salt-reduction strategy environment. Invitees and attendees of the High-Level Salt Reduction Consultation Meetings held in Cape Town in 2016 and 2018 were purposively selected to take part in the study. These individuals are highly skilled in their various fields within the salt-reduction strategy, and have been involved in various ways, with the development, implementation and/or evaluation of the strategy.

A total of 12 interviews were conducted with participants from academia ($n=7$), government and policy-related institutions ($n=2$), the research sector ($n=1$) and NGOs ($n=2$). Three potential participants from the food-industry sector were also contacted via email for participation, but interviews could not be secured with any of them. Due to a lack of participation from the food industry, position statements from two of these companies are included as part of the article's results and discussion section.

Data collection

Semi-structured in-depth telephone interviews were conducted with each participant. The primary researcher, a registered dietitian, conducted all the interviews. The discussion guide was sent to two experts in the field of salt reduction to test the sequence as well as the appropriateness of each question before the interviews commenced. All interviews were conducted in English and the interviews lasted between 35 and 75 minutes each. The discussion guide's themes and questions were based on the six recommendations that stemmed from the 2018 High Level Salt Reduction Consultation Meeting as a way forward in the South African salt-reduction strategy. The pre-identified themes that were covered in the discussion guide included consumers' knowledge and awareness regarding salt intake, consumer awareness programmes, monitoring of the salt content of foods, inter-collaboration participation and evidence-based research.¹¹ After conducting 12 interviews, no new data emerged and the researcher concluded that data saturation has been reached for the areas in the salt-reduction strategy where key role-players have been interviewed. Data collection was done from March 2020 to June 2020.

Data analysis

Trustworthiness in qualitative research depends on the availability of relevant, rich and well-saturated data and measures can be put in place to ensure trustworthiness of qualitative studies.^{12,13} Measures taken to ensure trustworthiness of this research included the inclusion of quotes from various key role-players to ensure confirmability, and to ensure dependability by describing the methodology in-depth. The interviews were audiotaped with the permission of each participant. The

interviews were then transcribed by the researcher, using the *intelligent verbatim* transcription format to ensure that the researcher focused on the content of the interviews.¹⁴ The researcher was assisted by an experienced data coder who performed quality control to ensure the data were accurately coded. A combination of deductive and inductive coding was done as codes were assigned using pre-set themes to group relevant data together in combination with emergent themes from the transcripts. The transcriptions were entered in the ATLAS.ti 9 computer software program (<https://atlasti.com/>) to assist in managing the data material.

Results and discussion

The key findings identified from the data are discussed below.

Population knowledge with regard to salt intake and its relation to health

Most of the participants were convinced that the South African population are to an extent aware that they need to reduce their salt intake, but that being aware is not enough. Concerns were raised that South Africans are not aware of the amount of salt they consume, which is associated with the population not being aware of the hidden salt in food or the amount of discretionary salt they use.

'A lot of the people do not know which foods are high in salt. If you ask them if they use salt, they will say NO – but if you ask them if they use Aromat, they will say YES.'
(Academic sector)

Participants also raised the concern that if an individual does not have hypertension, they are probably not aware of the link between salt intake, hypertension and health.

Thomas *et al.* found that the prevalence and unawareness of hypertension in South Africa is a health concern across all income groups, and an even greater concern is that 59% of all hypertensive adults are unaware of the condition. This study also concluded that the poorer and less educated individuals in South Africa are at higher risk of cardiovascular diseases.¹⁵

It was mentioned by the participants as a fact that South Africa is described as a country with great variances in the socioeconomic and health status of its individuals, with the 'quadruple burden of disease' where NCDs are prevalent along with infectious diseases, maternal and child mortality and trauma.³ South Africa's nutrition environment is rapidly changing due to urbanisation, which contributes hugely to the so-called 'nutrition transition' in the country. People have moved to a more Western-style diet with an increase in animal products, saturated fat, salt, sugar and refined grains. These habits increase the prevalence of hypertension, obesity, diabetes and metabolic syndrome in combination with a lack or decrease in physical activity.¹⁶

Consumer-awareness programmes

Mass-media campaigns done by Salt Watch, coordinated by the Heart and Stroke Foundation South Africa (HSFSA) and primary health care education and awareness activities facilitated by the NDoH were rolled out from August 2014 to May 2015 when the first part of the legislation came into effect. From there, the awareness campaigns have fizzled out and Salt Watch has been dissolved. There was strong consensus that no consumer-awareness campaigns are currently initiated from National Department of Health (NDoH) and that this is a huge challenge.

'There are no campaigns running at the moment. That is bad – government is not part of educating the consumers anymore.' (Academic sector)

Participants strongly felt that any education and awareness campaign needs to be continuous and ongoing for the population to benefit from it. Participants acknowledged and mentioned that the South African public nutrition space is crowded with other important nutritional issues and that salt intake is struggling to remain a priority for the government. Participants mentioned that government is not utilising and exploring opportunities like making use of national and local radio stations and television broadcasting via the government-owned South African Broadcasting Corporation (SABC) for consumer education and awareness programmes and advertisements.¹⁷

Concerns were also raised regarding the diversity in the country and that consumer-awareness programmes may be generic in their approach and are not reaching the target they set out to reach in the first place. Participants mentioned that different income groups will have different priorities when purchasing food and that, for the lower income groups, choices are often not about health, but about affordability. Participants highlighted that promotion and education cannot be a 'one size fits all' in the South African milieu as the impact of the campaigning will be diluted.

Participants mentioned too that the South African consumer is not always willing to change eating habits, even if they have been made aware of the negative impact that salt has on their health. It was mentioned that the use of discretionary salt is not always about the taste of the food, but rather an ingrained habit and difficult to get rid of. The participants mentioned that discretionary salt intake is a huge challenge in the fight to lower salt intake in the population.

'Some people will just add salt regardless of the taste of the food in front of them – that is learned behaviour.' (Academic sector)

Participants also mentioned that this is not just at household level: the restaurant, takeaway and food service industry do not fall under legislation and discretionary salt use is a huge challenge, and not just when preparing food, as salt is still on tables and packets of salt are still given with takeaway foods.

However, participants also mentioned that taste is an important factor when consumers prepare and choose foods. Taste is an important factor for consumers when buying and preparing food and there is a concern that food will taste bland when lowering the salt content.¹⁸ Sudden, large changes in the salt content of food are less acceptable to consumers in terms of taste compared with smaller or moderate changes in salt content.¹⁸ South Africa has opted for a stepwise approach with gradual reduction of salt in processed foods.¹⁹ The reason behind this strategy is to ensure that consumers do not detect the change in the saltiness of the product, to prevent a possible barrier to detecting a change in taste.¹⁹

Childhood hypertension is increasing in developing and developed countries.¹⁶ Participants mentioned that the government's school curriculum makes space for nutrition education, but not for salt awareness education per se. Korff *et al.* showed that bread, chips, viennas, soft-tub margarines and

processed meats were the five most frequently consumed foods by children aged 2–5 years in a study done in the North West province of South Africa.²⁰ All five of these foods are included in the current sodium legislation regulation and the study's findings showed that South African children are consuming processed foods high in salt.

The role of healthcare practitioners in awareness and education must also be highlighted and participants mentioned that our healthcare personnel have an essential role to play in managing hypertension by engaging with their patients and educating them regarding salt intake.

Participants mentioned that front-of-pack labelling (FoPL) may be a third addition to strengthen the strategy, as these labels can be in the form of logos or symbols and not just words.

Collaboration

There was strong consensus that without collaboration there is no way forward for this strategy to succeed. It strongly emerged that participants perceived that government is not playing its part in keeping communication ongoing between them and key role-players.

Participants mentioned that the food industry, referring to the bigger food manufacturing companies, has done well to reformulate its food products to adhere to the legislative amounts of salt in foodstuffs. In a position statement from a South African based international food manufacturer on salt reduction, it was stated that they are in support of the strategy and the statement mentions other key role-players such as government, NGOs and academia as collaborative partners in their effort in the salt-reduction environment.²¹ Another South African food manufacturing company also brought out a position statement, which mentions its active involvement in complying with the legislative reformulation of its foodstuffs and the fact that it is a willing partner in assisting with the health of South Africans.²²

The challenge according to participants is also to include and involve the small and medium-sized food manufacturers, the informal environment of food vendors on street corners and spaza shops to become aware and to reformulate the salt content in their foodstuffs. The restaurant industry and other food service institutions were also mentioned as not being part of the mandatory legislation in South Africa, leaving 'gaps' in the strategy to succeed.

Salt monitoring of processed foods against mandatory values

There was strong consensus that salt monitoring is currently a huge challenge. Several factors were mentioned as contributors, such as not enough laboratories for testing, not enough qualified personnel to do the testing, the cost of testing, laboratories not being standardised and no clear protocol from the government side as to how the monitoring should take place.

Participants stressed that the food industry is currently self-monitoring, and that this scenario is setting the scene for bias and challenges regarding results from this type of monitoring.

'At the moment, as far as I am aware, there is no monitoring plan – it is up to industry to self-regulate to stay compliant. Nobody is asking industry partners to produce new sodium levels, although we do see it on the food

labels, but we do not really know if those are correct or not, because nobody is checking up on them.' (Non-governmental organisation sector)

The South African food industry is perceived to be diverse and uncoordinated and smaller companies are expected to be less likely to make changes to the salt levels of their foods.³ It was also mentioned that monitoring of the small and medium-sized businesses poses a huge challenge and that government, at this moment, does not have the capacity to enforce any monitoring of these food producers.

Research

Research, and the current lack thereof, emerged as a strong theme throughout the discussions with the participants. It was noted that new research on the salt environment was limited and that the biggest reasons are the cost of these studies and the use of 24-hour urine collection when consumers' salt intake was to be determined.

It was also mentioned that nutrition is ever evolving and that new topics like the sugar tax as well as the Listeriosis outbreak took the focus away from the salt reduction scene and thus from research in this environment.

'The flavour of the month has gone – that is a fact.' (Non-governmental organisation sector)

Recommendations to move the strategy forward

There was strong consensus that the strategy South Africa has adopted to reduce the population's salt intake is the correct approach. Participants agreed that an 'upstream' approach, where a population-wide approach is used compared with targeting high-risk individuals, will ensure greater health gain for the population.

The main recommendations that emerged from the interviews as the most important key areas that need attention for this strategy to move forward are summarized in [box 1](#).

Box 1: Summary of recommendations that emerged from the interviews

- ✓ The need for consumer awareness and education campaigns to be implemented again and made specific for the intended target group.
- ✓ Government needs to utilise free media such as radio and television in order to get messages across to the population.
- ✓ Evidence-based research is essential to allow this strategy to be monitored in a scientific manner to ensure its efficacy.
- ✓ Salt and sodium monitoring needs to be standardised and reinforced.
- ✓ Target the younger population of South Africans by implementing salt reduction and hypertension awareness in the school curriculum.
- ✓ Stronger collaboration between government and the various key role-players is needed.
- ✓ Include areas initially missed, like takeaway outlets, sit-down restaurants and other food service units, to target discretionary salt intake.
- ✓ Include front-of-pack labelling as an additional third route to strengthen the message.
- ✓ Train and educate healthcare professionals to reinforce the salt-reduction strategy.
- ✓ Funds are necessary for key areas to be implemented – government involvement is necessary to allocate funds to the strategy.

Study limitations

The study was restricted to a small sample population and purposeful sampling was chosen as the most appropriate sampling technique for this study, as possible participants needed to be

familiar and involved with the salt-reduction strategy in South Africa.

Another major limitation of the research was the lack of participation from the food-industry sector. Not including any participants from industry limits the data richness of the study, as industry was part of the implementation of the salt-reduction strategy and has an ongoing role to play for the strategy to be successful.

Conclusion and recommendations

Overall, perceptions regarding the strategy South Africa has adopted to reduce the population's salt intake were positive. Participants agreed that the population-wide approach to implement mandatory salt legislation in combination with consumer education is the correct strategy in trying to decrease salt intake, thereby ensuring a decrease in NCDs in the South African population.

There was strong consensus that the initial phases of planning and implementing the strategy were a collaborative success and that all key role-players including industry, government and non-governmental organisations worked in collaboration to ensure the timely launch and roll-out of legislation on processed food items and consumer-awareness and education campaigns.

However, from implementation to the present, the strategy has lost momentum and key aspects of the food legislation and consumer education and awareness have been neglected for various possible reasons, as mentioned in the discussion section.

Participants have commented on the apparent lack of involvement of government, as the initial driver of this strategy, in efforts to keep the strategy a priority, topical and visible in the public nutrition space in South Africa. It was noted that funding, consumer-awareness and education initiatives, monitoring of the salt content of food items and research, all key aspects of the strategy, will benefit from increased involvement from government's side.

Government, as well as all key role-players, needs to reinvest in this strategy as its success lies with a multisectoral approach. The 2016 and 2018 High Level Salt Meetings were well attended, and significant progress was made with the strategy as a direct result of these two meetings. Additional meetings and consultations engaging all key role-players may be constructive ways to move this strategy forward.

More evidence-based research is needed in various fields pertaining to the strategy, most notably research regarding consumer behaviour and the current salt intake from processed foods and discretionary intake of the South African population. Challenges regarding the monitoring of the salt content of food need to be addressed as well as implementation of the consumer awareness and education campaigns. Updated health and nutritional surveys will assist in profiling the South African population to gain a better understanding of the contributing factors, especially dietary factors, pertaining to NCDs in the country – the biggest killer in South Africa and globally.

With this strategy successfully implemented, South Africa has the chance to save millions of lives, decrease the burden of

patients in our hospitals and place South Africa at the forefront of salt reduction strategies in the world.

Funding – The study received funding from the Harry Crossley Foundation.

Disclosure statement – No potential conflict of interest was reported by the authors.

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References

- World Health Organization. Noncommunicable country profiles full Report 2018. Geneva; 2018.
- Development Initiatives. 2020 Global Nutrition Report: action on equity to end malnutrition. Bristol, UK; 2020.
- Kaldor JC, Thow AM, Schönfeldt H. Using regulation to limit salt intake and prevent non-communicable diseases: lessons from South Africa 's experience. *Public Health Nutr.* 2018;22(7):1316–25.
- Eksteen G, Singh V. Salt intake in South Africa : a current perspective. *JEMDSA.* 2015;20(1):9–13.
- Swanepoel B, Schutte AE, Cockeran M, et al. Sodium and potassium intake in South Africa : an evaluation of 24-hour urine collections in a white, black and Indian population. *J Am Soc Hypertens* [Internet]. 2016;10(11):829–37. <http://doi.org/10.1016/j.jash.2016.08.007>.
- He FJ, Macgregor GA. Salt and sugar: their effects on blood pressure. *Eur J Physiol.* 2015;467:577–86.
- Frisoli TM, Schmieder RE, Grodzicki T, et al. Salt and hypertension: is salt dietary reduction worth the effort? *Am J Med.* [Internet]. 2012;125(5):433–9. <http://doi.org/10.1016/j.amjmed.2011.10.023>.
- Charlton KE, Steyn K DM, Levitt NS, et al. Diet and blood pressure in South Africa: intake of foods containing sodium, potassium, calcium and magnesium in three ethnic groups. *Nutr J.* 2005;21:39–50.
- World Health Organization. Global action plan for the prevention and control of noncommunicable diseases. 2013 - 2020. Geneva: WHO; 2013.
- Republic of South Africa. Department of Health. Regulation No. R.214 under Foodstuffs, Cosmetics and Disinfectants Act 1972 (Act 54 of 1972) Regulations relating to the reduction of sodium in certain foodstuffs and related matters: amendment. *Government Gazette* [Internet]. 2019 May;26–7. Available from: https://goe.za/sites/default/files/gcis_document/201905/42496gon812.pdf
- A Report on the second high level salt reduction consultation meeting 5 October 2018. Cape Town, South Africa.
- Shenton AK. Strategies for ensuring trustworthiness in qualitative research projects. *Educ. Inf.* 2004;22(2):63–75.
- Elo S, Kääriäinen M, Kanste O, et al. Qualitative content analysis: A focus on trustworthiness. *Sage One.* 2014;4(1):1–10.
- Transcription City [Internet]. [cited 2021 March 22]. Available from: <https://transcriptioncity.co.uk/verbatim-transcription/>.
- Thomas R, Burger R, Hauck K. Richer, wiser and in better health? The socioeconomic gradient in hypertension prevalence, unawareness and control in South Africa. *Soc Sci Med* [Internet]. 2018;217 (October 2017):18–30. <https://doi.org/10.1016/j.socscimed.2018.09.038>.
- Ibrahim MM. Hypertension in developing countries: a major challenge for the future. *Curr Hypertens Rep.* 2018;20:38–47.
- South African Broadcasting Corporation [Internet]. [cited 2020 Nov 15]. Available from: <https://www.sabc.co.za/sabc/>.
- Wentzel-Viljoen E. 'Use salt and foods high in salt sparingly': a food-based dietary guideline 12. *S Afr J Clin Nutr.* 2013;26 (3):105–13.
- Inguglia ES, Zhang Z, Tiwari BK, et al. Salt reduction strategies in processed meat products: a review. *Trends Food Sci Technol* [Internet]. 2017;59:70–8. <http://doi.org/10.1016/j.tifs.2016.10.016>.
- Korff M, Wicks M, Van Zyl T, et al. The South African Sodium Regulation (R214): does it make provision for processed foods frequently consumed by young children? *S Afr J Clin Nutr.* 2020;14 (1):45–9.
- Unilever [Internet]. [cited 2021 July 2]. Available from https://www.hul.co.in/Images/salt-reduction-position-statemnt_tcm1255-414411_1_en.pdf.
- Tiger Brands [Internet]. [cited 2021 July 4]. Available from <https://www.tigerbrands.com/Global/Articles/Unpacking-Salt-and-Sugar-Regulations>.

Received: 27-10-2021 Accepted: 7-03-2022