

# WHO's supported interventions on salt intake reduction in the sub-Saharan Africa region

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**Abstract:** Reduction of salt intake is an important and cost-effective way for reducing hypertension and the risk of cardiovascular diseases (CVDs). Current global salt intakes are estimated at around 10 g/day, well above the World Health Organization (WHO) recommended level of <5 g/day. The sub-Saharan Africa (SSA) region has a prevalence of hypertension of 46% among adults aged 25 and over and therefore strategies to reduce salt intake are necessary. This requires an understanding of salt intake behaviors in the population along with government commitment to increase awareness and take actions that would create an enabling environment. It is also important to have the food industry and other key stakeholders on board. A review of the developed WHO's norms and guidelines, technical support provided to countries by WHO as well as country initiatives shows that countries in the African region are at different stages in the implementation of salt reduction interventions. For example, South Africa has enacted legislation to make the food industry reduce the salt content of a number of its products while Mauritius is requesting bakery owners to reduce salt in bread. A number of countries are currently undertaking studies to measure salt intake in the populations. Overall progress is slow as the region experiences a double burden of communicable and noncommunicable diseases, competing health priorities and limited resources for health.

**Keywords:** Africa; salt intake; sodium; non-communicable diseases (NCDs); cardiovascular diseases (CVDs)

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## Introduction

Globally, cardiovascular diseases (CVDs) are the number one cause of death. In 2012, an estimated 17.5 million people died from CVDs. This represents 31% of all global deaths and over two thirds of these deaths are happening in low and middle income countries (1). Hypertension is the leading cause of CVD. It is estimated that at least 1 billion adults have hypertension globally, and that hypertension is associated with more than 9 million deaths annually (2,3). In the past two decades, sub-Saharan Africa (SSA) is experiencing an epidemic of hypertension and consequential CVD, which is mainly a result of the region's epidemiologic transition driven by the breakdown of traditional ways of life, urbanization, physical inactivity, high salt and fat consumption, and population growth and

aging (4). According to the World Health Organization (WHO), in 2008 SSA had the highest prevalence of hypertension, with 46% of adults aged 25 and older affected in the region (3). Decreasing blood pressure at a population level is required to curb the predicted escalating increase in the rate of CVDs.

There is growing evidence that high salt diets are linked to raised blood pressure—a major risk factor for CVDs and a range of other illnesses. Reducing population salt intake has been identified as an important and cost effective measure for improving population health outcomes throughout the world (5-7). Therefore, salt reduction is a global priority. The WHO has been urging all countries to reduce average salt intake which is currently estimated at around 10 g/day to the recommended level of <5 g/day for adults (8). In order for this to happen, WHO advises

countries to develop and implement national salt reduction strategies to enable populations achieve the recommended salt intake level globally (6,7). All countries have agreed to reduce salt intake by 30% by 2025, as part of the global action plan to reduce the burden of non-communicable diseases (NCDs) (7). Salt reduction has the potential to lower the burden of NCDs and their complications and save millions of lives as well as cost to governments in the long run (9).

This article focuses on the role of WHO in supporting African countries reduce salt intake through (I) its normative functions of developing guidelines, policies, norms and standards; (II) convening of meetings/consultations with Member States and other stakeholders; as well as (III) in providing technical support to countries to implement, monitor and evaluate specific actions in reduction of salt intake.

## Methods

This is an overview of WHO supported interventions on salt intake reduction among Member States of the African region between 2005 and 2014 through a purposive sample based on library search using PubMed and Science Direct. The results are organized around three specific areas namely (I) normative functions—guidelines and tools development; (II) convening of regional and sub-regional meetings; and (III) monitoring progress and documentation.

## Developing norms, guidelines and tools on reduction of salt intake

The documents include *WHO Salt reduction Fact sheet* (10) which creates awareness on the health risks associated with high salt intake and advises on how to reduce salt intake to recommended levels. In 2012, WHO has published *Sodium intake for adults and children* which gives the daily salt intake recommended for adults and children that will reduce the risks of salt intake related health problems (8). A series of three reports of joint technical meetings have been produced, namely on (I) creating an enabling environment for population-based salt reduction strategies (11); (II) strategies to monitor and evaluate population sodium consumption and sources of sodium in the diet (12); and (III) salt reduction and iodine fortification strategies in public health (13). These reports have reviewed the evidence of interventions that are cost-effective, discussed initiatives,

policies and programmes that have worked and can be adopted in low and middle income countries.

## Convening regional and sub-regional meetings

The WHO has convened consultative meetings at global, regional and national levels on reducing salt intake. In the African Region, a technical workshop on '*Creating an enabling environment for population-based salt reduction strategies in the African Region*' was held in 2012 in Mauritius. It brought together participants representing the health sector, Ministries of Industry and Trade, and academia who examined actions to reduce population-wide dietary salt intake. The meeting sensitized Member States and other stakeholders on population-based prevention strategies for salt reduction to contribute to implementation of Objective three of the WHO NCD Action Plan 2008-2013, the WHO Global Strategy on Diet, Physical Activity and Health as well as the Political Declaration of the UN High Level Meeting on NCDs of 2011.

WHO convened a multi-stakeholder dialogue on risk factors for NCDs in Johannesburg, South Africa in 2013. Consumption of unhealthy diets was among the special topics discussed during the 3-day meeting. Participants from 43 countries of the African region were drawn from nine different government ministries, civil society groups and NGO's and partners (14). Discussions evolved around issues related to unhealthy diet including the increasing intake of foods that are high in salt, sugar, saturated fats, trans-fatty acids and calories. The proposed recommendations to reduce salt intake included (I) legislation and regulation; (II) banning the marketing of unhealthy foods, especially to children; (III) instituting compulsory labeling of salt, sugar, fat and calories of processed foods to enable consumers make informed choices; (IV) imposing/increasing taxes on unhealthy foods; and (V) supporting awareness campaign to reduce sugar, salt and fat consumption.

In 2013, a meeting on salt reduction brought together 15 countries from the West African Health Organization (WAHO). The meeting proceedings focused on the health benefits of reducing salt intake and issued a statement on salt reduction which was adopted by Member States. The statement urges countries of the region to (I) develop and implement policies and plans that help communities reduce salt consumption to levels recommended by the WHO; (II) raise awareness on health benefits of dietary salt reduction; (III) work with the food and beverage industry to reduce the salt content of their products; and (IV) to establish an

information system to facilitate the monitoring of dietary salt intake.

### **Implementation, monitoring progress and documentation**

South Africa documented its national salt reduction initiatives in 2013 and this is published as a case study (15). It documents the measures taken by the Government of South Africa to reduce salt content of commonly consumed processed foods such as bread, breakfast cereals, cured and raw processed meat, savory snacks, butter and margarine. More recently, South Africa passed a new mandatory regulation limiting the quantity of sodium in processed foods which comes into effect in 2016. Mandatory regulation is essential in South Africa, especially for bread, which is a staple food and contributes 25-40% of daily sodium intake (16).

Mauritius carried out a survey on population salt intake in 2012 to establish intake levels among adults. The study found that the daily salt intake among adults was 7.9 gm (17). The findings were used to initiate measures to reduce salt intake to WHO recommended levels. In the same year an analysis of sodium content of bread was conducted (18). It revealed average sodium content of 461.2 (range, 232.0-711.6) mg·100 g<sup>-1</sup>. Following this the Ministry of Health and Quality of Life undertook a dialogue with bakery owners to reduce salt content in bread.

In addition, and with WHO support, countries of the African region are collecting information on salt intake through STEPS surveys to monitor prevalence and trends of NCDs diseases and their risk factors. A dietary salt module has been included in STEPS surveys since 2013. Information gathered from participants include: amount of salt they add to food, details about food preparation at home, the amount of processed foods usually consumed and a self-rating about salt intake. Spot urine testing for salt is being proposed in future STEPs surveys to estimate population salt intake.

Over the years, across the region, health education messages emphasize salt intake reduction as one of the important measures in the prevention and control of hypertension and CVDs. Food for patients with high blood pressure and CVDs are salt free or salt reduced. Patients with NCDs are advised to reduce their salt intake to the WHO recommended level of <5 g/day. In addition, nongovernmental organizations (NGOs) carry out public awareness and education campaigns on the adverse health

effects of high salt intake and the need to choose food items that are low in salt content (19).

Most of the experiences on effective reduction in salt intake are from Europe and the Americas where over 75% of the salt consumed comes from processed foods (20). In Africa, studies show that up to 46% of salt is added when food is prepared or consumed and preliminary results have shown positive effects of community-based strategies in reducing salt intake and high blood pressure (21). However, additional work needs to be done to understand how salt reduction initiatives can best be adapted to SSA.

Many households in Africa consume high amounts of added salt found in seasonings and high salt foods like cereals, breads, margarine, salted fish and processed meats (22). Whilst there are limited data on population salt intake in Africa, it is estimated to be higher than the recommended target of 5 g/day. The growing use of processed foods, ready-made food purchased from food vendors and changing dietary patterns are therefore a major source of salt intake. WHO also promotes the adequate intake and use of iodized salt to prevent iodine deficiency disorders (IDD) as well as promoting use of fluoridated salt as a cost effective intervention to prevent dental caries at population level. Over 330 million people are at risk of IDD in Africa (23). Given this situation, all salt reduction strategies should ensure that they do not jeopardize iodine intake.

### **Conclusions**

The WHO at its three levels namely Country Office, Regional Office and Headquarters is actively supporting national and global salt reduction initiatives. The WHO support to countries is meant to enhance capacity to reduce salt intake among population. The guidance documents also provide direction in terms of implementation, monitoring and evaluation of salt intake initiatives to help countries achieve the 30% reduction target set for 2025. Countries are urged to reduce salt intake to the recommended <5 g/day as well as enacting regulations and legislations to promote low salt products. It would be prudent to engage food and beverage industry in order to support the reduction of salt intake.

Reducing salt intake remains a challenge for countries of the African region given that salt already exists in variety of foods ready for daily consumption by the population. Furthermore, the burden of disease associated with high salt intake is also on the rise in Africa and would overstretch

the public health systems that are not adequately prepared. The WHO supported interventions, while limited in scope, remain a major source of critical information and strategies for countries in the African region to respond positively to reducing salt intake. However, competing public health priorities versus limited resources threatens to retard the progress and the health gains to date.

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