

Innovative Action Against Non-Communicable Diseases

An Unhealthy Relationship: NCDs and Salt The UK Initiative for Salt Reduction



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An Unhealthy Relationship: NCDs and Salt

The UK Initiative for Salt Reduction

Cardiovascular disease (CVD) is the number one cause of death worldwide (8). An unhealthy diet and high blood pressure are two of the greatest risk factors for CVD, and it has been repeatedly found that high salt intake increases blood pressure (4).

In 2004 alone, 17.1 million people died from cardiovascular disease, accounting for about 29% of the deaths that year (8).

However, the burden of this non-communicable disease (NCD) is distributed disproportionately, with 82% of cardiovascular disease deaths occurring in low-and middle-income countries (8). Additionally, about half of CVD deaths, 8 million, are attributed to high blood pressure each year (4). In fact, high blood pressure is one of the most serious health concerns in the world—it leads to about 62% of stroke and 50% of heart disease globally (5).

Currently, salt-intake levels around the world average about 10 grams per day (5), which far exceeds the necessary daily amount of 1.5-3 g/d. In the US and other developed countries, the majority of daily salt intake, about 80%, comes from salt in processed foods such as bread, cereals, canned soups, meats, and ready-made meals, with the remaining amount, 10-15% (<http://www.cdc.gov/bloodpressure/sodium.htm>), coming from cooking at home, sauces, and table use (5). In developing countries, the picture is different and the amount of salt added at the table is higher.

Fortunately, salt can be reduced, as has been demonstrated so brilliantly and effectively in the United Kingdom – and this provides us with an extraordinary lever to control the NCD crisis. In recent years, the UK has made significant strides to establish salt targets and in a movement spearheaded by civil society and some outraged medical experts, worked effectively with

the food industry to reduce salt levels in food. Together, the NGO Consensus Action on Salt and Health (CASH) and the Food Standards Agency (FSA), have achieved salt reductions in the UK. We at Arogya World have chosen to cover this remarkable example in salt reduction, because it works, is proven to prevent NCDs, especially CVD, is cost-effective, and is achievable.

There is some controversy and debate surrounding salt reduction, and we have highlighted the science behind the call to reduce salt intake.

This is Arogya World's second Case Study on NCD Prevention, Treatment, and Care Approaches that Work, and was prepared in collaboration with the Global Health Council. See this and other case studies at www.arogyaworld.org.

Salt Reduction in the UK

CASH began in 1996 in response to the Department of Health's refusal to endorse recommendations for salt reduction, and is supported by twenty-five of the UK's leading scientific and medical experts on salt and hypertension. Together, CASH and the Food Standards Agency

(FSA), the equivalent of the Food and Drug Administration (FDA) in the US, worked with the food industry and the public to achieve salt reduction in food products, and raised awareness of the effects of salt on health. Through aggressive media campaigns and intense lobbying, CASH began a

nationwide salt reduction initiative in 1996, and in 2003 the FSA then set salt reduction targets for the food industry in 85 categories of food (1).

These salt reduction targets were achieved by working with, rather than against, the food industry, through a voluntary carrot-and-stick approach. The "stick" was shame towards those companies that did not achieve reduction targets or even endeavor to reduce salt levels (5). This was primarily done through outspoken media campaigns and criticism from the medical community



Some high-salt snacks - have you looked at how much salt is in your favorite snack-food?

exposing high sodium levels in food industry products, and highlighting those companies that failed to reduce salt levels. Additionally, this was backed by the threat of legislation if the food industry did not take action voluntarily. The “carrot” was praise and positive reinforcement for those companies that met reduction targets, and was done through positive media coverage (5). The key to the UK approach was to allow the food industry to perform the salt reductions gradually, about 10-20% per year, preventing losses in sales and revenue, and ensuring continued public acceptance of products (5). If the reductions were made too fast, the taste difference would be noticeable, risking public rejection of the food product with reduced salt.

Successes of the UK Approach

By 2008, the average population salt intake levels had dropped from 9.5 g/d to 8.6 g/d, about 10%, which is predicted to have prevented approximately 6,000 deaths from stroke and heart attack due to high blood pressure. In 2009, further evidence was published in the British Medical Journal supporting the health benefits of salt reduction, showing that reducing salt intake by 5 g/d is associated with a 23% decrease in the rate of stroke and a 17% decrease in the rate of total cardiovascular disease (9). It is estimated that this reduction could prevent approximately 1.25 million deaths from stroke and almost 3 million deaths from CVD each year (1). Additionally, in April 2011 during the

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-Dr. MacGregor

WHO Ministerial meeting in Moscow on Healthy Lifestyles and NCDs, Dr. MacGregor Professor of Cardiovascular Medicine at the Wolfson Institute of Preventive Medicine in the UK and founder of CASH and WASH (World Action on Salt and Health) gave a talk on salt, presenting further successes of the salt reduction initiative. He stated that in 2010, salt levels in processed food products in the UK had decreased 20-40%, and table and cooking salt sales had decreased about 40-50% (6).

“Our approach in the UK is brilliant from a public health perspective because the public did not notice the small and gradual reduction in salt in the foods they bought and it did not require behavior change. Western countries can adopt our blueprint with some local adaptations and achieve success. Behavior change is one of the toughest challenges in the fight against NCDs. That is why what we have to do in developing countries to reduce salt intake is much more challenging—we have to teach people to change behavior and reduce the amount of salt they add to

food at the table. That is very hard work,” says Dr. MacGregor. Salt reduction in low-and middle-income countries has seen some success, however. It can lead to the prevention of approximately 8 million deaths due to CVD over 10 years (5).

How to Achieve Salt Reduction

Depending on a region’s demographics the NGO World Action on Salt and Health (WASH), which evolved from CASH to promote salt reduction worldwide, proposes two options to reduce salt levels. If more sodium appears in cooking, sauces, and table use, as is common in many Asian countries, then a public health campaign to reduce the use of salt in food preparation by 40% over the next 5 years would be the most appropriate reduction tool (5). However, in many cases, especially in developed countries, the issue is largely with food industry products and foods from “eating out”, which contain extraordinarily high levels of “hidden” salt. To address this, the best option is to set salt targets for each food group, and require the food industry to gradually reduce sodium levels in their products by 40% over a few years (5).

Developing a salt reduction program at a national level requires some concerted planning and commitment, with collaboration between the public, private, and non-profit sectors. First steps must include the following (3):

- Gather the support of top salt and blood pressure experts
- Establish a strong link with a highly regarded health organization
- Scan the environment to see what will benefit the program and what will be a barrier
- Estimate the impact of the program on the health of the country, and establish a solid scientific basis for the salt reduction program
- Develop and publish a policy statement that includes the scientific rationale for the national salt reduction program and lists the actions required by government, industry, and the health care sector.
- Interact with the food industry and government to gain participation and collaboration from these actors through the voluntary carrot-and-stick approach.
- Use media to engage the public and politicians in order to garner support for the salt reduction program and raise awareness of the health impacts if something is not done to decrease salt levels

After proper support and mobilization has been achieved and the national program for salt reduction is in place, action must be maintained in the long-term through international partnerships. The coalition must be used to develop supporting and broader health policy.

Salt Reduction is a “Best Buy”

The WHO calls salt reduction a “best buy” (9) in the fight against NCDs because it is highly cost-effective and highly impactful. It is listed second to tobacco control in importance in combating NCDs. A 2011 article in *The Lancet* on “Priority actions for the non-communicable disease crisis”, aptly points out the extraordinary benefits of salt reduction. “Reduction of population-wide salt consumption by only 15% - through mass-media campaigns and reformulation of food products by industry – would avert up to 8.5 million deaths in 23 high-burden countries over 10 years” (2). The minimal cost of salt reduction is perhaps one of its greatest features. The media campaign is the most expensive aspect, costing about £5 million per year in the UK; however, the healthcare savings from salt reduction in the same time period were approximately £1.5 billion per year, according to the National Institute of Clinical Excellence (NICE) (5). In other words, £1 spent on salt reduction creates a return of £300 saved in costs (5, 7). This approach to salt reduction is excellent for public health, because it is highly cost-effective, requires minimal government funding, is effective in decreasing salt levels and thus blood pressure, and perhaps most important it requires no change in diet.

Ultimately, the goal is to achieve daily salt levels of 3 g/d for the global population. This amount of salt is important for good health, because our bodies do need salt to maintain proper fluid balance, transmit nerve pulses, and contract and relax muscles. Additionally, this range is low enough to prevent high blood pressure and the subsequent cardio-vascular diseases. Already other countries have joined the UK in salt reduction efforts. Finland has seen success in their work and the US is also coming along with New York City mayor Michael Bloomberg and health officials pushing for a nationwide plan to reduce the amount of salt in packaged and restaurant foods by 25% over the next five years. Canada, Australia, Brazil, South Africa, and

other countries, have begun salt reduction initiatives as well, following the UK model.

Excess salt causes high blood pressure, high blood pressure causes cardiovascular disease, and cardiovascular disease kills the most people worldwide each year. Salt reduction is feasible and can be achieved at very low cost. This case study, which tells us how the United Kingdom achieved that, offers the world hope that it is possible to begin stemming the NCD epidemic in our lifetimes.

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