

Summary report on the

Technical workshop on salt and fat intake reduction

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Cairo, Egypt
10–11 April 2013



**World Health
Organization**

Regional Office for the Eastern Mediterranean

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1. Introduction

The Political Declaration of the United Nations General Assembly on the Prevention and Control of Non-communicable Diseases tasked WHO and Member States with developing an action plan to reduce exposure to risk factors, including high salt and trans fat intake. In 2012 the 59th session of the WHO Regional Committee for the Eastern Mediterranean adopted a resolution (EM/RC59/R.2) in which it urged Member States to implement the core set of interventions in the regional framework for action to implement the United Nations Political Declaration on Noncommunicable Diseases. These interventions include reducing salt intake and replacing trans fat with polyunsaturated fat at a population level. High salt consumption is an important determinant of high blood pressure and cardiovascular risk. High consumption of saturated and trans fatty acids causes heart disease. Available data suggest that total fat intakes, including saturated and trans fatty acid intakes, have been increasing rapidly in low- to middle-income countries since the 1970s. Unhealthy diets are becoming more prevalent in lower resource settings.

In November 2012 WHO conducted a consultation to review the regional evidence on salt and trans fat intake in the Eastern Mediterranean Region, identify priority measures to lower salt consumption and replace trans fat and saturated fat with polyunsaturated fat across the Region with preferably a reduction in total fat intake, and define the technical support needed to enable countries to implement these measures.

In follow-up to the consultation, the WHO Regional Office for the Eastern Mediterranean held a technical consultation on salt and fat intake reduction on 10–11 April 2013 in Cairo, Egypt. The overall objective of the workshop was to support countries in developing

national action plans on salt and fat intake reduction. The expected outcome of the workshop was the identification of action areas for the implementation of salt and fat intake reduction strategies for countries of the Region.

The workshop was attended by 26 participants, representing nutrition and noncommunicable disease focal points from ministries of health and trade, academia and the private sector from Bahrain, Egypt, Islamic Republic of Iran, Jordan, Kuwait, Lebanon, Morocco, Palestine, Saudi Arabia, Sudan, Tunisia and Yemen, in addition to a representative of the World Food Programme and WHO staff from headquarters and the Regional Office.

The workshop was inaugurated by Dr Ala Alwan, WHO Regional Director for the Eastern Mediterranean, who briefed the participants on the current situation of noncommunicable diseases as leading cause of death globally and regionally. The Regional Director emphasized that the United Nations Political Declaration provided a roadmap of what countries should be doing and the challenge remained in how to implement it. During the 59th Regional Committee meeting, ministers of health had agreed on a regional set of actions to implement cost effective interventions, including salt and fat reduction measures. The aim of the workshop was to develop practical guidance with action-oriented steps on way forward for national authorities.

The two-day meeting programme focused on two areas: salt intake reduction strategies and fat intake reduction strategies. Each session included a brief introductory presentation by the WHO secretariat and temporary advisers, followed by group discussion. Representatives of several industries were also invited for a limited session to present

their perspective; these included the salt, dairy and oil industries in Egypt.

2. Summary of discussions

Salt intake reduction strategies

Current estimates of salt/sodium intake indicate that the amount of salt/sodium in the diet of most countries in the Region is higher than the recommended level of <5 g salt/person/day and range from 7.2 grams/person/day in Lebanon to 19 grams/person/day in Jordan. In all countries, bread alone is estimated to contribute around 20% of the dietary salt intake.

Discussions following a briefing by the salt industry are summarized below.

- In Egypt, salt is produced by government (about 12 government-owned companies), the private sector and individuals.
- 40% of local salt production in Egypt goes to food while 60% is split for industrial purposes and export. Salt produced for food purposes is more expensive than salt produced for industrial purposes since it requires further refinement.
- The salt industry is big in many countries. In Egypt, lots of salt is produced by small merchants that sell independently, with illegal production by some individuals/companies. There is a need to examine who buys salt and who are the intermediate merchants; i.e. how much of the table salt in Egypt is going into different sectors:
 - Home use: need to ask people.

- Salt use in bread: need to check with baking industry, bakery/milling owners and food subsidies (subsidized bread).
- Salt use in cheese production: Different concentrations of salt in cheese exist within Egypt. This may be the case in other countries too.
- Pickled foods are widely eaten. Need to know how many grams of pickles are consumed a day and how many grams of salt are in pickles.
- Salt in catering venues, i.e. military establishments.
- The salt produced is iodized for table salt and for some food industries, such as cheese, but not all food industries. This means that not all salt produced and used in industry is iodized.
- In Lebanon, 26% of salt intake comes from bread, 12% from processed meat and 10% from cheese. Advocacy with the baking industry is needed with regard to how salt reduction will impact shelf life, texture and consumer taste.
- In Bahrain, salt is added at the bakery level and not at the milling level. Countries will need to look into this as well.
- In Australia, it is a law to add iodine to bread instead of salt. Can other countries apply such a law, especially if there are no big companies?
- In United Kingdom, 59% of added salt is in food processing while table salt comprises 7% and salt used for cooking is at 8%.
- Gulf Cooperation Council countries are different from other countries in the Region as the majority of their food is imported.
- In conclusion, a standard protocol and methodology are needed for rapid investigation and study of dietary sources.

With regard to the impact of salt intake reduction, in the United Kingdom, work is in two main areas: re-formulation through working

with all sectors of the food industry and an ongoing public awareness campaign. The United Kingdom now claims to have the lowest salt intake of any developed country in the world. In 2012, salt intake had fallen in adults from 9.5 gram to 8.1 gram per day since 2005, i.e. approximately 1.5 gram per person per day, saving approximately 8500 lives every year. The success of the British salt reduction programme involved the rigorous setting of voluntary salt targets to be achieved by the food industry and a sustained campaign by the nongovernmental organization Consensus Action on Salt and Health (CASH) to highlight food brands which were not complying with the need to reduce salt content. Strong evidence indicates that reductions in salt intake will reduce blood pressure and these reductions in blood pressure will reduce cardiovascular disease, i.e. a 5mmHg lower systolic blood pressure level will decrease stroke rates by 20%–25%, decrease chronic heart disease by 15%–20% and also benefit heart failure and renal disease.

Fat intake reduction strategies

Limited evidence exists on saturated fatty acids and trans fatty acids in terms of food consumption and trends. Food composition tables do not include trans fatty acids and will need a closer look on examining industrial processes since they are completely different from what was done in the past. As well there is need to involve the agricultural sector, examine industrial processes in relation to food composition tables, consider legislative action on fat content standards (including saturated and trans fat), and understand the politics of how decisions are made and where policies are made, i.e. Ministry of Trade, Ministry of Industry, Ministry of Health, etc. The main sources of saturated fatty acids and trans fat are milk fat, other animal fats and vegetable fats and oils to be found in meat and meat products, fat spreads, milk

and dairy products and baked products. WHO recommends limiting the energy intake from total fats to between 15% and 30% of the total energy intake and now proposes that levels above 15% fat should not increase because of the total fat effects in inducing excess weight gain. It can be surmised that most countries of the Region were on very low fat intakes, e.g. 10%–15% of energy, 60–70 years ago so the increase within the range of 15%–30% is now being linked with the pandemic weight gain incurred in the Region. The increases in total fat intake have, of course, led to greater intakes of saturated and trans fats. Therefore there is need to reduce total and saturated fats substantially as well as eliminate trans-fatty acids. The dairy industry in Egypt has replaced animal fat in dairy product with palm oil and coconut oil, especially in cheese products which are very high in saturated fatty content.

Trans fats have already been banned in Denmark, Austria and Switzerland. In Denmark since 2003 the content of trans fatty acids cannot legally exceed 2 grams per 100 grams of oil or fat and food products must contain less than 1 gram per 100 grams of fat. In the United Kingdom, there has been considerable action from food manufacturers to voluntarily remove trans fatty acids from their products. Fat and oil suppliers have reduced trans fatty acids to an average of about 1% of energy intake, but this average includes the higher impact of trans fats in those eating poorly, particularly in the lower socioeconomic classes. The Food Standards Agency (United Kingdom) claimed that voluntary measures to reduce trans fatty acids in food had resulted in “safe” levels of intake.

The regional challenges in salt and fat reduction intake are: the current limited or absent policies on salt reduction measures; the pervasive presence of high salt contents in traditional food items and culinary

preparations; the increased market supply and availability of salt-containing (often imported) processed foods; the lack of data to assess and monitor salt/sodium intake; a gap in the awareness and knowledge among policy-makers and consumers on the impact of salt on health; and the prevailing sources of salt in the Region's staple foods. As well, the high media exposure of foods which are heavily promoted adversely influence healthy eating habits and convey messages in conflict with health.

3. Action areas for the implementation of salt and fat intake reduction strategies in the Region

3.1 Reducing salt intake

Rationale: Salt is the major cause of high blood pressure which is itself a major cause of death and disability. Salt reduction has been shown to be the most cost effective public health policy, as the cost is small and the health care savings are very large. (In the United Kingdom, the cost was £5million per year, of which generated £1.5 billion in health care saving costs).

Aim: To lower salt intake as soon as practical to reduce death and disability from strokes and heart attacks. Even a small reduction in salt intake, e.g. 1 gram per day, will reduce death from strokes and heart attacks by more than 7%.

Actions

1. Reduce salt in bread. (Phase 1)

- Reduce salt added to bread by setting a target to achieve a 10% reduction in the amount of salt in bread starting from December 2013 if possible, and to commit to making a further 10% reduction to be initiated by December 2014 once the initial 10% reduction has been established for at least 3 months.
 - This will have the effect of reducing salt intake by approximately 0.5 gram per day in the whole population.
2. Reduce salt in other major sources of dietary salt. (Phase 2)
- By January 2014, find out the other major contributors to salt intake in your country e.g. cheese, meat products, pickles and other processed foods, and then set targets in a similar way to bread to commence from mid-2014.
 - Recognize that there is a precedent for regulating these reductions using the example of South Africa, where the government has set maximum levels for the ten biggest contributors to salt intake by government decree. The food industry must therefore comply.
3. Monitor salt intake.
- *Method 1: use of 24-hour urine collection.* Within one year, measure the salt intake in the adult population preferably by the use of 24-hour urinary sodium excretion. Start with a medical school-based national leader using relatively healthy patients, e.g. those being monitored where there is no suggestion of major clinical problems, so that the procedures for collecting 24-hour urine can be established as a routinely performed test. Then move to monitoring families of hospital staff to establish the basis for conducting studies in the home before establishing a national monitoring system based on sentinel surveys or representative

sampled subjects. If there is intense resistance to 24 hour urine collections use at least a 3-hour timed urine collection and multiply the excreted value by 8 or the appropriate time if the collection is longer. Recognize that this approach is not as accurate as using 24-hour urine collection and a separate validation with 24-hour urine collection needs to be conducted before a timed urine collection system is applied nationally. Once a national monitoring system has been established, recognize the value of re-measuring the 24-hour urinary sodium excretion in the same type of population within the 3–5 year time period when it should be possible to find an appreciable reduction in the incidence of strokes and coronary heart disease if a genuine reduction in dietary salt intake has occurred.

- *Method 2: dietary assessment.* A valid dietary questionnaire should be used ideally universally throughout countries of the Region with the aim of determining major sources of salt in the diet (food frequency questionnaire needs to be agreed by December 2014, e.g. The Kuwait PURE dietary questionnaire with suitable special adjustments for specific national foods could be used, but needs to be validated). A coherent leadership group for the countries of the Region needs to be established. Once a dietary system has been developed then there is a need to establish a national database of salt content of food, either by the use of known data, e.g. food labels, or by finding out the amount of salt being added to common foods produced locally that are not labelled, e.g. bread, cheese etc.
4. Establish a national food analysis laboratory. During 2014 a national food analysis laboratory, whether governmental academic or private, needs to be established of measure a variety of

nutrients of relevance to the noncommunicable disease epidemic including the salt concentration of common foods. Subsequently this laboratory should be used to validate the reduction in salt content of the foods chosen for reformulation.

3.2 Reducing fat intake

Rationale: WHO recommends limiting the energy intake from total fats to between 15% and 30% of the total energy intake with no increase if the national intake is between these values: increasing fat intake promotes weight gain. Saturated fatty acids should be less than 10% of total energy intake to reduce atherosclerosis and cardiovascular diseases. Trans fat is hazardous to cardiovascular health and may also be linked to diabetes so its intake should be less than 1% of the total energy intake. Recently an overview of the effectiveness of national policies has concluded that the most appropriate approach is to not just reduce but to eliminate trans fatty acids from the global food supply.¹

Trans fatty acids. Evidence indicates that banning trans fats is feasible and achievable by adopting national policies that virtually eliminate partially hydrogenated vegetable oils in the food supply and where necessary replace them with polyunsaturated fatty acids.¹ The

¹ Downs SM, Thow AM, Leeder SR .The effectiveness of policies for reducing dietary trans fat: a systematic review of the evidence. *Bulletin of the World Health Organization*, 2013, 91:262–9H.

policy options were implemented in different countries by five main mechanisms: voluntary self-regulation; labelling alone; labelling and voluntary limits; and local and national bans. Countries included in the assessment were Brazil, Canada, Costa Rica, Denmark, the Netherlands, the Republic of Korea and the United States of America. National and local bans were the most effective. The systematic review concluded that the most effective way of minimizing trans fat intake requires legislation. It is evident that in countries of the Region there are local oil refining companies which could rapidly be required to eliminate the production of trans fats, e.g. in producing local ghee. In addition it needs to be specified that trans fat in all fat and oil supplies within the country has to be less than 2%. This then allows an import ban without infringing World Trade Organization rules on free trade as there is no discriminatory policy relating to foreign goods that are not applied also to local products.

Saturated fatty acids. This is a well-established policy of WHO which has met with remarkable success in reducing death rates from coronary heart disease and strokes by as much as 85% as in Finland. Reducing saturated fatty acid requires a good understanding of the food chain within a country. In countries of the Region there is a substantial opportunity to reduce drastically saturated fat intake by introducing import policies which stop the importation of palm oil and coconut oil containing products in favour of unsaturated fats. If cow's milk is used in a country then policies to require a 1% semi-skimmed low fat milk as a routine product need to be introduced and a marked reduction in total fat intake will also contribute to reducing the saturated fat intake. Pricing policies relating to the saturated content of fats and oils is also an effective way of changing intakes as has now been established in Denmark.

Total fat intake. This requires promotion of lower fat containing products and can involve changing the pricing policies and certainly the government procurement policies of a country together with new training of all caterers and food producers.

Aim: lower total fat intake and saturated and trans fatty acids intakes.

Actions

1. Establish a national multisectoral team to guide policy interventions on fat reduction strategies by January 2014. Convene an initial group in Amman to identify first steps to be taken from a multiplicity of possible actions including oil producers, bakeries, dairy industry especially cheese, manufacturers of food products, catering, local food producers, and street vendors in the food chain and agriculture industry, the trade sector dealing with imports and exports and food subsidy systems. Eventually one may need to involve nationally experts in statistics, planning, consumer protection, academia including food economists and technologists, policy analysts, in coordination with line ministries, i.e. health, trade, industry, standards and specifications, and the media. First, however, one should select specific measures suitable for national implementation within each country. Selected experts will be asked to produce a strategic plan for their countries in Amman based on the local opportunities so a set of policies can be developed as options for other countries of the Region.
2. Develop a national protocol to determine food consumption patterns including:

- measurement of sources and dietary intake of saturated and trans fatty acids;
 - measurement of saturated and trans-fat content in imported and locally produced foods.
3. Establish a national food chemistry laboratory that may be public, private or academic, and creating centres of excellence that can serve countries of the Region.
 4. Develop and introduce legislation in relation to trans fat and saturated fat. Evidence is strong in support of national and local bans, but there may be need to consider voluntary self-regulation, labelling alone, or labelling and voluntary limits according to country-specific contexts. Start with targeting milk, butter, ghee and vegetable oils.
 5. Implement a set of recommendations on the marketing of foods and non-alcoholic beverages to children (resolution WHA63.14) and to other age groups.
 6. Develop national monitoring targets and dietary guidance on saturated and trans fat in foods by January 2015, in consultation with industry and while examining pricing and taxation strategy implications.
 7. Set up a policy evaluation system to understand whether the actual intake is changing, how to monitor the action implementation of the policy and what information is available on policy coherence.



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