Summary report on the

Regional workshop on salt and fat reduction and setting up protocol for measuring salt and fat intake and content in food

WHO-EM/NUT/262/E

Amman, Jordan
10–12 September 2013

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1. Introduction

One of the main regional challenges in building up salt and fat reduction intake strategies in the WHO Eastern Mediterranean Region is the lack of data to assess and monitor salt/sodium intake; most countries in the Region do not have reliable data on consumption pattern and sources. The WHO Regional Office for the Eastern Mediterranean is trying to help Member States to monitor and build up expertise in this important field of work. Setting up protocols for measuring salt and fat intake and content in food has been identified as a top priority during the last two regional consultations on salt and fat reduction intake strategies.

Reducing salt and fat intakes among populations are among the most cost-effective interventions for the prevention and control of noncommunicable diseases. In 2012, the WHO Regional Committee for the Eastern Mediterranean adopted resolution EM/RC59/R.2 in which it urges Member States to “implement the core set of interventions in the regional Framework for Action”, including salt and fat reduction intake.

WHO has been conducting a series of consultations and workshops aimed at developing plans to implement the core interventions. A consultation was held in November 2012 to review the regional evidence on salt and trans fat intake in the Region and to define the technical support needed to enable the Member States to implement WHO recommendations. The consultation concluded that available data, although limited, indicate high intakes of salt and trans and saturated fatty acids by the populations in the Region. It also concluded that the paucity of data should not impede the initiation of national salt and fat reduction programmes. A workshop in April 2013 aimed to assist Member States to develop national action plans on salt and fat reduction, with targeted interventions. The meeting concluded with a set of identified priority action areas for implementing salt and fat reduction strategies in the Region.

In follow-up to these consultations, a workshop on salt and fat reduction took place in Amman, Jordan from 10 to 12 September 2013. The workshop was organized and designed to provide guidance on implementing reductions in both fat and salt intakes and on monitoring of salt intake. The workshop included training groups on the technique of collecting 24-hour urine specimens, which has already been proved to work well in Ghana, Bangladesh and Turkey, i.e. lower income countries and including those with cultural traditions similar to those in the Region. The specific objectives of the workshop were to:

- develop broad guidance on trans-fat elimination and saturated fat reduction;
- prepare protocols for reducing salt in bread allowing for the different industrial processing and mineral addition schemes in the different countries of the Region;
- prepare a strategy for identifying which other specific food categories should be targeted e.g. cheese, such as pickles, processed meats, fast foods, i.e. those which are estimated to provide major sources of salt; and
- discuss with and train participants on salt measurements with a focus on the 24-hour urinary collection method, while taking into account country experiences.

Expected outcomes included development of an action-oriented guidance note to achieve trans-fat elimination through a combination of changes in national food processing and through import specifications. Two phases of action will be recommended for saturated fat reduction in the Region: 1) eliminating trans-fat and reduce saturated fat in milk and dairy products; and 2) developing measures to reduce levels of palm oil and other saturated fat importation by specifying criteria for developing lower saturated fat content in a range of common food products consumed by the relevant population. Detailed action-oriented guidance was also expected to be developed with targets for salt levels first in bread and

then in other food groups or products (the first phase would be to reduce salt content in bread by the end of 2013, and the second phase to reduce salt content in cheese or other major sources by the end of 2014). As well, a selective group of national experts are trained on the rationale for using urinary sodium excretion as an index of sodium intakes and the salt measurement techniques for monitoring and evaluation of population salt intakes.

The workshop was attended by 26 participants, representing nutrition and noncommunicable disease focal points at Ministry of Health, Ministry of Trade, academia and private sector from countries of the Region, namely Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Morocco, Saudi Arabia, Sudan and Tunisia, in addition to the international experts and WHO.

The gathering was inaugurated by Dr Ala Alwan, WHO Regional Director for the Eastern Mediterranean, and Dr Alouzi, First Undersecretary, Ministry of Health in Jordan. Dr Alwan briefed the participants on the current situation of noncommunicable diseases as the leading cause of death globally and regionally. Dr Alwan emphasized that the United Nations Political Declaration provided a roadmap of what countries should be doing; the challenge was in how to implement it. During the 59th session of the WHO Regional Committee for the Eastern Mediterranean, ministers of health had agreed on a regional set of actions to implement cost effective interventions, including salt and fat reduction measures. Dr Alouzi, in his opening remarks highlighted the commitment of the Ministry of Health to implement its commitments to address noncommunicable disease risk factors, including developing salt and fat reduction strategies, guided by WHO.

The programme focused on three areas: fat intake reduction strategies, salt intake reduction strategies, and technical training on salt measurements with emphasis on the 24-hour urinary collection method. Each session included a brief introductory presentation by the WHO

secretariat and temporary advisers, followed by group discussion. Representatives from several industries, nongovernmental organizations and academia were also invited to the meeting.

The consultants/experts were very helpful in developing a framework for draft protocols: 1) reducing salt intakes by progressive reformulation of foods; 2) assessing sodium intake using urine analysis, and 24-hour food consumption questionnaires; and 3) one for determining saturated fatty acid and trans-fat options for food reformulation and changes in the fat and oil supply to a country.

2. Summary of discussions

Encouraging progress has been made to date. Kuwait and Qatar developed and implemented actions with the bread industry and worked with the main bread bakery to initiate a 10% reduction of salt in staple bread by summer of 2013. Tunisia developed and implemented actions towards collecting data on salt, fat and food consumption patterns.

The nutrition committee at the Gulf Cooperation Council adopted WHO's recommendations for priority actions on salt and fat reduction and a draft strategy on trans fat was developed. WHO also co-sponsored a population-based study in Morocco to determine baseline intake of salt and sponsored studies in Egypt, Lebanon and Palestine in an attempt to generate data on salt and fat intake in the Region.

Iraq initiated planning to assess population salt and fat intake through the Nutrition and Food Research Centre based in Baghdad. Several Member States took action to establish national multisectoral committees for salt and fat reduction, including Jordan, Morocco and Lebanon.

WHO is sponsoring training in two weeks' time for nutrition focal points of respective ministries of the Region to integrate salt and fat reduction in

national health policy and operational planning for 2014–2015. WHO is actively working on partnering with international and regional research institutes, civil societies, and consumer protection organizations to engage them in the implementation of salt and fat reduction strategies.

3. Recommended policy goals and actions

3.1 Policy goal and recommended actions to lower national salt intakes and lower death rates from high blood pressure and strokes in the Eastern Mediterranean Region

Policy goal

- A progressive and sustainable reduction in national salt intake in the next 3–4 years by 25% to reduce stroke and heart disease rates within 5 years.

Rationale

Current salt intakes are very high, with an average intake of >12 g per person per day in most countries of the Region. There is no need for extra salt in hot climates and the taste for salt adapts rapidly to progressive but modest rather than rapid drastic reductions in salt intake. Even a small (1 g per person per day) reduction in salt intake will reduce deaths from strokes and heart attacks by more than 7% in each country that takes the appropriate measures to reduce salt intake by 1g per day[1].

[1] *Prevention of cardiovascular disease. Costing report. Implementing NICE guidance*. London, National Institute for Health and Care Excellence, 2010. Available from: http://www.nice.org.uk/nicemedia/live/13024/49325/49325.pdf (accessed 11 January 2014).

Salt is the major cause of high blood pressure, which is itself a major cause of strokes and heart disease resulting in excess deaths and severe disability among survivors. Salt reduction is a very cost-effective public health policy. For example, in the United Kingdom it was estimated that a for total campaign cost of £15 million to reduce daily salt intake, £1.5 billion per year would be saved in health care.[1] Currently in the Region bread, with an average salt content of 1%–2%, accounts for 30%–40% of all salt intake. Bread is thus the first point of focus, with several industrial groups already taking action, e.g. in Kuwait, Qatar and Bahrain.

Suggested actions

Phase 1: January 2014 major initiatives focused on bread production

1. Establish a national taskforce on salt reduction representing key stakeholders and partners[2].
2. Achieve a 10% reduction of salt/sodium in staple bread within 3–4 months. This will reduce salt intakes by about 0.5 g per day in the whole population.
3. Establish salt standards for compliance by all bakers. Several major bakers in the Region are now reducing salt but all bakers need to comply to ensure that bakers with a higher bread salt content do not hinder the population's taste adaptation and thereby gain commercial advantage.
4. Promote compliance with standard salt levels by linking government flour/bread subsidies and other incentives to bakers'

[2] Ministry of Health, academia involved in public health, trade, the food industry, retail and catering organizations, nongovernmental organizations.

compliance with the new standards. This approach is strongly supported by the main bakers' associations consulted.

5. Mandate use of iodized salt in local and imported food to ensure adequate maintenance of the population's iodine status and the avoidance of goitre and cretinism.
6. Identify the top five other food contributors to salt/sodium other than bread in the national diet, e.g. cheese, processed meat and others.
7. Review and progressively revise national food standards for bread to reflect the recommended minimum levels of salt/sodium content in bread, i.e. to achieve a 30% reduction in salt/sodium in bread from current levels over an 18 month period.
8. Establish national groups to obtain simple suitable population-based food intake data, a laboratory group for measuring the salt content of specified foods and a national group for monitoring salt intake using 24 h urine measurements.

Phase 2: June 2014

1. Confirm progressive salt changes in national bread production.
   a) Achieve a further 10% reduction, i.e. total 20% reduction, in salt/sodium in all bread sources
   b) Monitor bread industry/bakeries' compliance with salt standards
   c) Monitor use of iodized salt in local and imported foods
   d) Measure salt/sodium content of top five contributors to national dietary salt/sodium intake
   e) Adopt 24 hour urinary sodium excretion testing to measure national sodium intake as recommended by the draft

regional protocol (WHO Regional Office for the Eastern Mediterranean, unpublished)[3].

2. Government establishments to start reducing salt content in all food served on their premises by 10% every 6 months over a period of 2 years.
   a) Establish a requirement that all government establishments serving food, e.g. army, police, hospitals, schools, universities, local and national government, record for inspection their salt purchases each month.
   b) Require all these services to reduce their salt use by 10% each 6 months for 2 years.
   c) Establish a monitoring group to ensure a coordinated approach to the changes made by different food industry sectors, compliance with new catering changes in the use of salt and the monitoring of salt intake in the population. This group will benefit from the involvement of civil society, food safety/trade inspections and analytical laboratory groups involved in monitoring locally made items in menus.
   d) Establish a catering educational group linked to the national body responsible for educating caterers. This group will start by dealing with salt but also become involved in other policies e.g. ensuring minimum-level trans-fat and much lower saturated fat content in meals.

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[3] Governments could consider measuring urinary iodine excretion to monitor progress with iodine deficiency programmes. Moderate salt reduction within the recommended levels for the Region has minimal effect on the population's iodine status.

Phase 3: January 2015

1. Confirm government-based initiatives and compliance with further 10% reduction in salt levels.
2. Engage major national businesses and all caterers to help lower salt intakes.
3. Conduct a public educational campaign focused primarily on caterers and those providing food rather than simply targeting the public in general.
4. Engage with general businesses. Major businesses employing substantial numbers of workers have a major opportunity to contribute to the health of their workers by reducing salt in the food provided in their canteens. Chinese steel factory studies[4] show a fall of 75% in deaths from strokes within 5–7 years of changes in salt and fat content of factory canteen meals. Business leaders could ensure that catering staff comply by ensuring that purchase of salt is monitored and declared and made available for scrutiny by staff and concerned civil society organizations.
5. Educate caterers and those responsible for home cooking. Caterers in general are a more specific focus for educational initiatives than the general public as they are crucially involved in the detailed organization of menu planning and cooking. A national programme relating to home cooking can also be considered. There will, however, be a need to overcome common beliefs, such as the need for high salt intake in hot climates.

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[4] Chen J, Wu X, Gu D. Hypertension and cardiovascular diseases intervention in the capital steel and iron company and Beijing Fangshan community. *Obesity Reviews*. 2008, 9 Suppl 1:142–5.

3.2 Policy goal and recommended actions for reducing fat intake and lowering heart attack rates in the Eastern Mediterranean Region

Policy goals

- Eliminate all industrially produced trans-fats from the food supply.
- Reduce markedly the saturated fat content of the food supply.

Rationale

Trans-fat (TFA) from industrial refining is toxic to the heart and may increase the risk of diabetes: it needs to be eliminated. Saturated fat (SFA), together with smoking, is the major risk factor for heart disease and stroke. WHO recommends that populations should not exceed the consumption of 10% of energy from SFA, and 1% from naturally occurring TFA. In addition, WHO notes that intakes from total fat range between 10% and 35% of total energy intake. Evidence shows an association between fat intake and the increased likelihood of weight gain and obesity and therefore of diabetes. Traditional Middle East diets are very low in fat content. As fat content has risen so has the prevalence of obesity/diabetes, resulting in an epidemic which is more serious than in any other region in the world.

An overview of national policies has concluded that the most effective way of ensuring a significant fall in TFA intakes is by legally prohibiting the sale of food products containing industrially produced TFA. In practice, highly effective legislation (e.g. such as that in Denmark, Switzerland, Austria and Iceland) indicates a limit of 2 g/100 g

of oils or fats[5]. The voluntary reduction approach taken by some countries requires a solid and sustainable monitoring system and has not been proven to be as effective. 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 TFA, e.g. when producing local ghee or margarine. If a sales ban is implemented, import of products that do not comply with it may also be prohibited without infringing international trade agreements. This is important in a region where food imports often comprise a substantial proportion of the national food supply.

The reduction of the dietary intake of SFA has been remarkably successful in bringing down deaths from coronary heart disease and stroke, by as much as 85%, in Finland. Reducing SFA requires a good understanding of the food chain within a country. For example, in Finland 19 government initiatives involved all sectors of the food chain, from local production to government purchase of food and import policies. It did not rely on health education alone.

In countries of the Eastern Mediterranean Region, there is a substantial opportunity to reduce SFA intake by introducing policies that discourage the use of products containing palm oil and coconut oil and that encourage the sale and consumption of products containing other vegetable oils with less SFA and more unsaturated fats. Current international trade prices are lower for palm oil so financial adjustments would be needed. Subsidy of bread would be better than the current subsidy of oil/sugar in place in many countries of the Region.

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5 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.

If cow's milk and its products are widely used in a country, policies to establish the routine use of semi-skimmed or low fat milk (with fat content of 1–1.8%) are highly effective measures for reducing national SFA intakes. Animal producers should be encouraged to use feeds containing more unsaturated fat (e.g. canola oil), which is then reflected in the fat content of meats such as chicken. Actions to encourage such changes include pricing policies, the establishment of food quality standards to guide purchases in public institutions, and labelling (including front-of-the-pack labels, easily understandable traffic light systems, and healthy option symbols). Government procurement policies should move progressively to the purchase of only exclusively healthy, low fat, low SFA, low salt and low sugar products, together with training of all caterers and food producers.

Suggested actions to reduce trans-fats

Phase 1: January 2014

1. Introduce legislation to ban the sale, and therefore local production and importation, of products containing artificially produced TFA (in oils and fats alone or part of processed food products) in shops and catering outlets. Legislation would need to establish the maximum content of all TFA in products (max. 2 g/100 g of oils).
2. Identify processed foods rich in artificial TFA and determine the average population intake of these foods.
3. Recommend that replacement fats used do not increase the saturated and total fat content of the foods; mechanisms will need to be established to monitor compliance with the recommendations.

Phase 2: June 2014

1. Require food importers to have all imported foods certified as free of artificially produced TFA.

2. Monitor compliance with national food standards and establish measures for non-compliance; i.e. consider sanctions for non-compliers. Certification of compliance with the TFA legislation for procurement of foods in government establishments will have a major beneficial impact.

Phase 3: January 2015

1. Adequately inform consumers of the importance of elimination of TFA in diets and of the measures taken to support these goals, and engage civil society organizations in supporting the measures taken.
2. Provide incentives in the form of public support for product reformulation and information to the public about compliers and non-compliers.

Suggested actions to reduce saturated fats

Phase 1: January 2014

1. Develop national standards to limit the use of palm and coconut oil in the food industry.
2. Develop national standards to ensure lower SFA content of dairy products.
3. Require government establishments to provide only semi-skimmed (1.0–1.8% fat) milk and ensure such milk is sold to consumers at a lower price than full cream milk.
4. The Ministry of Agriculture/Food may help local dairy businesses to develop milk skimming facilities.

5. Negotiate and review standards for livestock to reduce SFA content of meats through changes in feed and husbandry systems[6].
6. Negotiate and review standards for vegetable oils and ghee such that total SFA content is less than 10%.

Phase 2: June 2014

1. Ensure that all foods purchased by government establishments comply with the new standards for SFA content of <10% of the total energy intake.
2. Study measures to favour import of fats, oils and processed foods containing less SFA over import of such items with higher SFA content.
3. Reconsider policies to assist the production of fats and oils so that varieties with lower SFA content are made more economically viable.
4. Reconsider social support policies (e.g. subsidies to food purchases) to favour oils and fats with low SFA.

Phase 3: January 2015

1. Consider establishing a differential taxation system so that the consumer price of products with a reduced SFA content is lower than the same products with a higher SFA content.
2. Establish mandatory labelling schemes for SFA content that are easily understandable for most consumers (e.g. traffic light system) and/or consider the establishment of a “low SFA” label.

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[6] Negotiations need to be with the livestock industry, private sector, Ministry of Trade and Ministry of Agriculture.

3. Adequately inform consumers of the importance of reduction of SFA in diets and of the measures taken to support these goals, and engage civil society organizations in supporting the measures taken.
4. Develop or enhance policies to encourage replacement of palm and coconut oils with a high SFA content with better oils, e.g. corn, soya, olive or sunflower oils, by:
    a) replacing palm/coconut oils with more suitable oils in all government subsidy schemes;
    b) markedly limiting imports of palm oil by changing import policies/duties on health grounds, based on national financial analyses of best options.

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